# Exhibit DD. Calhoun Technology Park - South Site Phase I Environmental Site Assessment





## Calhoun Technology Park - South Site Phase I Environmental Site Assessment

## PHASE I ENVIRONMENTAL SITE ASSESSMENT REPORT

LAZENBY AND ASSOCIATES SOUTH TRACT 321 US HIGHWAY 80 EAST CALHOUN, LOUISIANA

PPM PROJECT NO. 11452003.ESA1

MARCH 7, 2017

## PHASE I ENVIRONMENTAL SITE ASSESSMENT REPORT

AT

SOUTH TRACT 321 US HIGHWAY 80 EAST CALHOUN, LOUISIANA

PREPARED FOR:

LAZENBY AND ASSOCIATES 2000 NORTH 7<sup>TH</sup> STREET WEST MONROE, LOUISIANA 71291

PPM PROJECT NO. 11452002.ESA1

MARCH 7, 2017

PREPARED BY:

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## EXECUTIVE SUMMARY

PPM Consultants, Inc. (PPM) was retained by Lazenby and Associates to conduct a Phase I Environmental Site Assessment (ESA) of the South Tract at 321 US Highway 80 East in Calhoun, 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 ASTM International Standard Practice E 1527-13.

PPM conducted the site reconnaissance on February 13, 2017. The subject property is currently a portion of a larger vacant LSU agricultural research facility. The property is irregular in shape and 87.5 acres, bordered to the north by Highway 80 East and to the south by Kansas City Southern railroad in a residential and undeveloped area of Calhoun, Louisiana. Adjoining properties include the former LSU Agricultural Research Center to the north, undeveloped land to the east and southeast, residences to the southwest and west. Improvements to the site include a total of three free standing structures on the subject property, along with a former pump house, and metal water tank. Available historical resources indicate that the property was developed as a LSU AgCenter Research Station in 1888 for research in agricultural sciences, including animal husbandry, pesticide testing, crop yield, runoff abatement, and wood recycling. The subject property has been unoccupied since LSU vacated the facility in November 2014.

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

Hazardous Chemicals- During interviews it was revealed that pesticides, herbicides, and other chemicals were stored and used on the site during the facility's operational history. Although the chemicals were reportedly stored and disposed of properly, spills and leaks may have occurred on the property impacting the soil and groundwater on the subject or adjoining properties. These interviews provided only limited information about chemical use practices during the recent past when environmental regulations were in place. There is no information available for the facility before regulations were enacted (approximately the mid-1970s back to 1888). It is reasonable to assume that a university affiliated agricultural experimental station would have been testing pesticides, herbicides, and other farm related chemicals that were considered cutting edge for their times; therefore, it is likely that pesticides like



Aldrin, chlordane, Dieldrin, and DDT that were considered wonder chemicals in the 1940s were used at the site before they were banned by the USEPA starting in the 1970s. These chemicals were banned because they were hazardous to human health and the environment and were very persistent in the environment. Likewise, proper use and disposal practices of today would be different from what would have been considered acceptable before regulations. For example, sink drains, which in this case could lead to the onsite septic tanks, are known to have been popular and convenient locations for chemical disposal in pre-regulation laboratories and other interior usage areas. At least three floor drains were observed in the laboratory area of Building 1 on the subject property. The drains were located in a slight depression that funneled liquids from the immediate area to the drains. Due to the proximity of the drains to the areas where hazardous chemical handling occurred and because these chemicals may have been released unimpeded into the drains, the drains could have carried hazardous materials offsite or impacted the subsurface or stormwater. The groundskeeper informed PPM during the site reconnaissance that the drains in the laboratory of Building 1 led to a septic tank on the subject property. Together, it is very possible that high concentrations of these highly persistent hazardous substances may still be found in former storage, mixing, and application areas, in septic tank leach fields, and in the ponds and pits that may have received runoff from these areas. It is possible that the storage and mixing areas remained consistent through time, but it is also likely that such areas moved all over the site in its 100-plus year history. The likely use and release of hazardous agricultural chemicals on the subject property by its operations from 1888 to recent times represents a recognized environmental condition.

#### The following significant data gaps were also encountered by the assessment:

 Southern extremity- PPM was unable to access the southeastern portion of the subject property during site reconnaissance due to the dense vegetation. Due to the long environmental history of the facility, this is considered a significant data gap; therefore, PPM is unable to form an opinion about conditions in this area at this time.



## **1.0 INTRODUCTION**

## **1.1 PROPERTY IDENTIFICATION**

Property Name:	South Tract	South Tract		
Current Property Owner:	Ouachita Parish P	Ouachita Parish Police Jury		
Current Site Use:	Former agriculture research facility			
Land Area in Acres:	87.5 acres			
Street Address:	321 US Highway 80 East			
County/Parish:	Ouachita Parish	Ouachita Parish		
City, State, Zip Code:	Calhoun, Louisian	na 71225		
UTM Coordinates:	32° 30' 40''N	Latitude	92° 20' 40''W	Longitude
Tax Parcel ID(s):	130605 and 123751			
Date of Site Visit:	February 13, 2017			
	Site location is shown on Figure 1, Site Location Map, Appendix A.			
Attachments:	Site map is shown on Figure 2, Site/Area Map, Appendix A.			
	Legal description	(if obtained) is p	rovided in Appendix I	<i>.</i>

## **1.2 PURPOSE**

PPM Consultants, Inc. (PPM) was retained by Lazenby and Associates to conduct a Phase I Environmental Site Assessment (ESA) of the above-referenced property in accordance with ASTM Standard Practice E 1527-13. The purpose of the ASTM Standard Practice E 1527-13 is:

"to define good commercial and customary practice in the United States of America for conducting an environmental site assessment of a parcel of commercial real estate with respect to the range of contaminants within the scope of the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA) (42 U.S.C. §9601) and petroleum products. As such, this practice is intended to permit a user to satisfy one of the requirements to qualify for the innocent landowner, contiguous property owner, or bona fide prospective purchaser limitations on CERCLA liability (hereinafter, the "landowner liability protections," or "LLPs"): that is, the practice that constitutes all appropriate inquiries into the previous ownership and uses of the property consistent with good commercial and customary practice as defined at 42 U.S.C. §9601(35)(B).

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The goal of the process established by this practice is to identify recognized environmental conditions associated with the property. The term recognized environmental condition is defined by Practice E 1527-13 as:

"the presence or likely presence of any hazardous substances or petroleum products in, on, or at a property: (1) due to any release to the environment; (2) under conditions indicative of a release to the environment; or (3) under conditions that pose a material threat of a future release to the environment. De minimis conditions are not recognized environmental conditions." Release to the environment entails the migration or movement of hazardous substances or petroleum products in any form, including solids and liquids at the surface or subsurface, and vapor in the subsurface to, within, or from the property. If such conditions exist on the property, and are not de minimis, the condition is a recognized environmental condition.

Key terms used in this report that are specifically defined by Practice E1527-13 are provided in Section 9.0, Glossary of Key Terms.

## **1.3 CONTINUED VIABILITY AND USER RELIANCE**

ASTM defines the "user" as the party seeking to use Practice E1527-13 to complete an ESA of the property. A user may include, without limitation, a potential purchaser of property, a potential tenant of property, an owner of property, a lender, or a property manager. The findings and conclusions contained within this report may not be used or relied upon by any other parties without the written consent of the client that contracted PPM to conduct this assessment and PPM. The client may designate other users who may rely on this report. All users currently identified by the client are named in Section 2.1 of this report.

In accordance with the ASTM practice, this report may be relied upon by the user(s) for a period of up to 180 days prior to the date of acquisition or transaction. If the transaction occurs after 180 days, but prior to one year, this report may be used provided that the following components of the report are updated:

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



- Visual inspections of the property and of adjoining properties; and
- And declaration by the environmental professional for the assessment or update.

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

- Obtain written authorization to rely on this report from the original client and PPM;
- · Fulfill the User's Responsibilities outlined in Section 2.0; and
- 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.

## 2.0 USER PROVIDED INFORMATION

#### 2.1 USERS OF REPORT

Lazenby and Associates contracted PPM to perform this Phase I ESA and is considered the client and a user of this report.

## 2.2 USER QUESTIONNAIRE

The "All Appropriate Inquiries" Final Rule (40 CFR Part 312) requires that certain tasks be performed by or on behalf of a party seeking to qualify for landowner liability protections (LLP) to CERCLA liability (i.e. the user). While such information is not required to be provided to the environmental professional (i.e. PPM), the environmental professional must request information from the user to assist in identifying recognized environmental conditions. The User Questionnaire found in Appendix X3 of Practice E1527-13 was provided to each of the users identified in **Section 2.1**. Responses to the User Questionnaire are provided in **Appendix B**. PPM did not receive an additional user questionnaire during the time frame for the report.



## 2.3 TITLE SEARCH

The client/user did not provide a title search for environmental liens or activity and use limitations (AUL) filed or recorded against the property. The client/user also did not contract PPM to provide this service.

## 2.4 OTHER INFORMATION PROVIDED BY USER

Other information provided by the user includes the following:

- The user identified the property as an unoccupied agricultural research facility;
- The user identified Mr. Brad Cammack, at (318) 327-1340 as the site owner and contact;
- The user provided a copy of a previous Phase I ESA conducted for the property in 2015. This report is discussed in Section 3.2; and
- The user provided a Boundary Survey Plat for the subject property.

Information provided by the user is attached in Appendix B.

## 2.5 USER SPECIFIED TERMS, CONDITIONS, AND LIMITATIONS

The client did not request or specify any special terms, conditions, limitations, or considerations that would limit, deviate from, reduce, or add to the scope of this assessment with respect to Practice E1527-13.

## 3.0 RECORDS REVIEW

PPM conducted a review of reasonably ascertainable and usable records to help identify recognized environmental conditions in connection with the property. Information sources fall into the following categories: (1) Standard Environmental Record Sources that are specific lists of facilities typically involving hazardous substances or petroleum products and are regulated or recorded by federal, state, or tribal regulatory agencies; (2) Regulatory Agency File and Record Sources that are typically used to further research facilities identified by the Standard Environmental Record Sources; (3) Other Environmental Record Sources that may include previous assessments of the property; (4) Physical



Setting Sources that provide information about the geologic, hydrogeologic, hydrologic, or topographic characteristics primarily used to evaluate the potential for contaminant migration from facilities identified by the Standard Environmental Record Sources; and (5) Standard Historical Sources, which have the primary objective to identify property land use from the present, back to the property's first developed use, or back to 1940, whichever is earlier. Information on available records is provided in the following sections.

## 3.1 ENVIRONMENTAL RECORD SOURCES

PPM retained the services of Environmental Data Resources, Inc. (EDR) to provide information available from state, tribal, and federal databases regarding reported environmental activities and releases in the site vicinity. PPM also reviewed federal and state electronic databases, where available, for files relevant to this ESA. A review of previous reports and other environmental documents that may have been provided by the user or other sources was also completed.

#### 3.1.1 Standard Environmental Record Sources

Third-party providers of database searches such as EDR typically yield a large number of sites and a significant volume of environmental information. ASTM requires the Environmental Professional to evaluate the data and use their judgment regarding the level of detail to discuss and present regarding each of the listed sites. While numerous sites may be within the ASTM minimum search distance, many are located at significant distances from the subject property and based on this distance and other site-specific characteristics (site geology/hydrogeology, gradient, drainage, etc.) are unlikely to impact the subject property and therefore may be reasonably dismissed from further discussion in this section at the discretion of the Environmental Professional. The information presented below represents a summary of database searches and corresponding minimum search distances required by ASTM 1527-13. Also included is available relevant information from regulatory agency files researched.

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Type of Site		ASTM Minimum	Number Identified	
Туре	or she	Search Distance	Potential	Actual
Federal NPL		1 mile	0	0
Federal SEMS/CERCLIS		0.5 mile	0	0
Federal SEMS Archive	CERCLIS-NFRAP	0.5 mile	0	0
Federal RCRA CORRA	ACTS	1 mile	0	0
Federal RCRA TSD		0.5 mile	0	0
Federal RCRA Generat	tor	On or Adjoining	0	0
Federal 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/SV	WD	0.5 mile	0	0
State/Tribal LUST		0.5 mile	0	0
State/Tribal RUST		On or Adjoining	1	0
State/Tribal Institution	al/Engineering Control	On site	0	0
State/Tribal Voluntary	Cleanup Sites	0.5 mile	0	0
State/Tribal Brownfield	ls Sites	0.5 mile	0	0
Database Provider:	Environmental Databa	se Resources, Inc.		-
Attachments:	Standard and Regulato	ry Record documents are pr	ovided in Appe	ndix D.

## 3.1.2 Additional Environmental Record Sources

EDR also provides additional information from other EDR-proprietary and non-proprietary sources not specifically required by ASTM 1527-13, but may be relevant in determining the presence of recognized environmental conditions. Examples include typical higher risk sites such as historical drycleaners, automobile service stations, manufactured gas plants, landfills, emergency releases, and many others. ASTM does not specify search distances for these databases; therefore, the inclusion of listed sites below is at the discretion of the Environmental Professional. No such properties were identified in these databases.

## 3.1.3 Other Environmental Records Sources

Title:	Phase I ESA Calhoun Technology Park	Source:	PPM Consultants	Date:	April 6, 2015
researc (South includi identifi recogni determ extrem	reviously conducted a Phase I h facility including 241 acress Tract). The previous report no ng three structures, pond, and ed the historical use of chem ized environmental condition ining the historical use of the ity of the site during reconnais significant data gaps limited 1	s north of Highworted similar condi- pump house own hicals, including h. The 2014 rep subject property ssance, and the in	vay 80 East (North Tract itions to those observed in hed by the Ouachita Parish pesticides and herbicides port also noted significan prior to 1942, the inabil hability to properly access	) and 87.5 ac the 2017 site n Police Jury. on the subject the data gaps ity to access to the condition	res to the south reconnaissance The 2015 report ct property as a encountered in the southeastern of septic tanks



conditions. The 2015 Phase I included an interview with Dr. Colyer, a regional director with LSU AgCenter. Dr. Colyer informed PPM that he supervised the operation of the LSU AgCenter Calhoun research facility starting in 2011 and coordinated LSU's departure from the station. Dr. Colyer explained that he was fairly familiar with the operation of the facility under his tenure, but could not attest to the facility's use before 2011. The research facility was operated by two scientists who spent their time in the laboratory. Dr. Colyer stated that he did not know the state of the septic system, the use of the pesticide storage building, the condition of the former UST, or the operation of the southern laboratory. Under his supervision the site used branded herbicides to control weed growth on site and removed the former chicken houses at the center of the property. He claimed no knowledge of hazardous chemical or petroleum spills at the site

## 3.2 PHYSICAL SETTING SOURCES

Title:	7.5" Calhoun Quadrangle Topographic Map		Source:	USGS	Date:	1994
Title:	Geocheck Physical Setting Source Addendum		Source: EDR	EDR	Date:	2017
Attachments:		Physical S	etting Docume	entation is provided i	in Appendix F.	

The subject property is located in a residentially developed area of Calhoun, Louisiana. EDR Geocheck Physical Setting summary suggests that the site is located at an elevation from 146 feet above mean sea level (MSL) and slopes generally to the south-southeast with a high point of approximately 175 feet MSL near the northwest corner and 115 feet MSL near the southeast corner. The subject property is reportedly underlain by soil composed of Savannah fine sandy loam that has slow infiltration rates and drains moderately well. Groundwater flow is assumed to be to the southeast toward North Cheniere creek.

## 3.3 HISTORICAL USE INFORMATION

	AERIAL PHOTOGRAPHS					
Year (Source)		Comments				
	Property	The subject property appears to consist of cleared agricultural land. Several structures are visible on the western portion of the property. Due to the small scale of the photo, it is difficult to ascertain potential development and number of structures within the region.				
1942 (ASCS)	Surrounding	Surrounding properties to the north, east, and south appear to be developed for agriculture. Residential development is apparent on the western adjoining property. Properties to the southeast appear to be wooded and undeveloped. Kansas City Southern Railroad borders the subject property to the south.				
1947	Property	The subject property appears similar to the 1942 aerial photograph.				
(USGS)	Surrounding	All adjoining properties appear similar to the 1942 aerial photograph.				
1951	Property	The subject property appears similar to the 1947 aerial photograph.				

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(ASCS)	Surrounding	All adjoining properties appear similar to the 1947 aerial photograph.
1961	Property	The subject property appears similar to the 1951 aerial photograph.
(ASCS)	Surrounding	All adjoining properties appear similar to the 1951 aerial photograph.
1967 (ASCS)	Property	Approximately five structures are visible near the northwest corner of the subject property along a roadway branching to the south of highway 80. The subject property appears to be predominantly cleared for agricultural development. A second pond is visible along the southern boundary.
	Surrounding	All adjoining properties appear similar to the 1961 aerial photograph, with the exception of increased forestation on undeveloped land to the south. A pond is visible on the adjoining property to the east.
1976 (USGS)	Property	A new structure is visible to the south of the existing grouping on the western portion of the site.
(0363)	Surrounding	All adjoining properties appear similar to the 1967 aerial photograph.
1985	Property	Subject property appears similar to the 1976 aerial photograph. Due to low photograph quality and small scale, it is difficult to ascertain potential development within the region.
(USGS)	Surrounding	Due to low photograph quality and small scale, it is difficult to ascertair potential development within the region.
1999	Property	Three additional structures are visible to the west of the existing structures near the western boundary. Additional forest growth is visible on the eastern portion of the subject property.
(USGS)	Surrounding	All adjoining properties appear similar to the 1976 aerial photograph, with the exception of residential development on the adjoining property to the southwest.
	Property	The subject property appears similar to the previous historical aeria photograph.
2004 (USDA)	Surrounding	Adjoining properties appear similar to aerial photograph from 1998 Further to the west Calhoun Middle school is visible north of US Highway 80.
2015	Property	Four structures remain visible on the western portion of the subject property. A small shed is visible along the western shore of the pond.
(USDA)	Surrounding	Residential development is visible on the adjoining property to the south.

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Year		2 - Internet
(Source)		Comments
1998	Property	Address: 321 US Highway 80 E- Calhoun Research Station of Louisiana State
(Polk's City Directory)	Surrounding	US Highway 80 Listings of interest: (298-539) Residences
1999 (Polk's City Directory)	Property	Address: 321 US Highway 80 E- Calhoun Research Station of Louisiana State (361)- Residence (365)- Residence
	Surrounding	US Highway 80 (296-539)- Residences
2004 (Polk's City Directory)	Property	Address: 321 US Highway 80 E- Calhoun Research Station (361)- Residence (505)- Louisiana State University Extension
	Surrounding	US Highway 80 (296-539)- Residences Sawmill Road Listings of interest: (114-156)- Residences
2009	Property	Address: 321 US Highway 80 E- Calhoun Research Station (365)-Residence
(Polk's City Directory)	Surrounding	<u>US Highway 80 E</u> (296-539)- Residences <u>Sawmill Road</u> (156)- Residence
	Property	Address: Not Listed
2014 (Polk's City Directory)	Surrounding	<u>US Highway 80 E</u> Listings of interest: (296-298)- Residence Sawmill Road

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2016 (Polk's City	Property	Address: Not Listed
	Surrounding	US Highway 80 E
		Listings of interest:
Directory)		(210-298)- Residences
	1.0.0	Sawmill Road
		(142)- Residence

#### FIRE INSURANCE MAPS

Fire insurance maps were not available for the subject area.

	USGS TOPOGRAPHIC MAPS					
Year (Source)		Comments				
1994	Property	The subject property is listed as the North Louisiana Experimental Station. The property is shown to be cleared with six structures south of US Highway 80. A pond is depicted near the south central portion of the subject property with two approximately 6,000-square foot ponds to the southeast of the structures.				
	Surrounding	The surrounding properties to the south appear to be undeveloped. The adjoining properties to the west and southwest appear to be cleared for residential development and the properties to the east and north appear to be cleared for agriculture.				

#### **OTHER HISTORICAL SOURCES**

Other historical sources were not identified for the subject area.

Attachments:

Copies of Historical Records Documentation is provided in Appendix E.

## 4.0 SITE RECONNAISSANCE

During the site reconnaissance, PPM visually inspected the grounds and structures (if any) on the property to the extent not obstructed by bodies of water, adjacent buildings, or other obstacles. The objective of the site reconnaissance is to visually and physically observe the property and the adjoining properties for any uses or conditions that may indicate the likelihood of recognized environmental conditions in connection with the property. Interior and exterior inspections focused on practices that involve the use, treatment, storage, disposal, generation, or release of hazardous substances or petroleum products. Exterior observations for this list are applied to the property and adjoining properties. Interior observations are limited to the property.



## 4.1 METHODOLOGY AND LIMITING CONDITIONS

Site reconnaissance does not include invasive or physical inspections of observed releases, such as ground disturbance to determine the thickness of a spill, or opening and inspecting the contents of vaults, manholes, storage tanks, drums, and other containers suspected to contain hazardous substances or petroleum products. Limiting conditions such as potentially unsafe conditions or inaccessible area were evaluated at the discretion of the site inspector as obstacles to the inspection. There were no special methodologies used to inspect the site; however, limiting conditions were encountered due to the size (~88 acres) of the property. PPM was able to observe all cleared portions of the property and was granted access to all buildings located on the site; however, not all wooded portions were observed. PPM attempted a general sweep of the wooded areas and assumed these to be representative of the remaining wooded portions of the property. Findings and opinions outlined further within this report will be subject to these limitations and assumptions.

## **4.2 SITE USE AND IMPROVEMENTS**

	CURRENT USE OF PROPERTY	
The subject property is currently v	vacant including multiple unused buildings, pond, pump house, and pond.	
Property Size and Shape:	erty Size and Shape: 87.5 acres in an irregular shape, bound to the north by Highway East and to the south by Kansas City Southern railroad line.	
	Describe buildings on site:	
All three buildings were vacant a vacant laboratory with lab benche	nding structures on the subject property along with a former pump houses. Ind located near the northeastern corner of the subject property, including a seand storage on the northern portion, a storage barn with metal siding and stimal barn with cement flooring. Several foundations were noted near the	
De	scribe vegetation and landscaping on site:	
southwestern sections of the prop	cleared and wooded land. The majority of the northern, central, and erty area cleared with manicured vegetation as groundcover. The majority d southeastern sections of the property are thickly wooded. The area ation pond is sparsely wooded.	
D	escribe roads, paths, paved areas on site:	
	ved entering the property from Highway 80 East. Paved foundations were d to the west of the laboratory on the western portion of the subject party. arn and warehouse.	
Ob	served Topography and Drainages on site:	
The subject property slopes gene	rally to the southeast with a peak of approximately 175 feet MSL near the	
northwest corner and a low of app	proximately 115 feet MSL near the southeast corner along the railroad. The o the irrigation pond and North Cheniere Creek.	



Source of Drinking Water: Type of Heating & Cooling system:		Municipal
		a: Electric
		Adjoining Roads
North:	Highway 80 East	
East:	None	
South:	Kansas City Southern Railroad	
West:	None	
References:		operty features are shown on Figure 2, Site/Area Map, Appendix A.
		otographs of property are provided in Appendix C.

## 4.3 USES OF ADJOINING PROPERTIES

General Area Land Use:

Residential and Undeveloped

ADJOINING PROPERTIES (Clockwise from Due North)		
Name:	North Tract Calhoun Technology Park	
Address:	321 Highway 80 East	
Current & Past Uses:	LSU agriculture research facility	
Direction:	North	
Intervening Street:	Highway 80 East	

Name:	Undeveloped forested land
Address:	Highway 80 East
Current & Past Uses:	Undeveloped
Direction:	East
Intervening Street:	None

Name:	Undeveloped forested land
Address:	None
Current & Past Uses:	Undeveloped
Direction:	Southeast
Intervening Street:	None

Name:	Residences	
Address:	Calhoun Barn Road	
Current & Past Uses:	Residential	

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Direction:	South
Intervening Street:	Kansas City Southern Railroad

Name:	Residences
Address:	Sawmill Road
Current & Past Uses:	Residential
Direction:	West
Intervening Street:	None
References:	Adjoining properties are shown on Figure 2, Site/Area Map, Appendix A.

## 4.4 EXTERIOR OBSERVATIONS

Were any of the following past or present conditions observed or	Property	Adjoining
suspected?	Yes or No	Yes or No
Pits, Ponds, and Lagoons	Yes	Yes
PPM observed an irrigation pond approximately 130,000 square feet in size subject property, the vegetation surrounding the pond appeared to be healthy were noted. An irrigation pond was observed on the adjoining property to t from the subject property boundary and downgradient from the site.	and no sheen or o	chemical odor
Stressed Vegetation	No	No
Stained Soil or Pavement	No	No
Solid Waste Disposal to Property	No	No
Fill of Unknown Origin	No	No
Waste Water	No	No
Wells	No	Yes
south of the well along an access road. Septic Systems One septic tank is known to exist on the subject property associated wi registration documents are known to exist for septic tanks on the subject prop size, and location for septic tanks are unknown.		No / building. N
Septic Systems One septic tank is known to exist on the subject property associated wi	th the laboratory	building. N
Septic Systems One septic tank is known to exist on the subject property associated wi registration documents are known to exist for septic tanks on the subject prop size, and location for septic tanks are unknown. Above and Underground Storage Tanks Two Aboveground Storage Tanks belonging to Linn Operating, Inc. are I subject property. The tanks are operated in association with a compressor on underneath the subject property. The ASTs were surrounded by an earthen b former 500-1000-gallon gasoline UST was removed from the north adjoining	No No No No No No No No No No No No No N	No building. N tage, number Yes ortheast of th a gas pipelin formed of on or 2009.
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PPM
CONSULTANTS

Pools of Liquid (excluding water)	No	No
Potential PCB Equipment	Yes	No
	and the standard standard standard standards	
PPM overserved one pole-mounted electrical transformer on the northe mounted electrical transformer near the western boundary of the irrigat to be in good condition and no staining was noted on the soil below the	tion pond. The transform	

## **4.5 INTERIOR OBSERVATIONS**

Were the following past or present conditions observed or suspected on the property?	Yes No
Stains or Corrosion	
Drains and Sumps	
PPM noted drains near the laboratory benches in the former laboratory building. It is not know drains lead, methods of disposal, or chemicals used in these buildings.	m where these
Oil Water Separators	No
Above and Underground Storage Tanks	
Drums (Standard US 55-gallon)	
Other Hazardous Substance/Petroleum Containers	
Other Unidentified Substance Containers	
Hydraulic Lifts/Elevators	
Chemical or Petroleum Odors	
Pools of Liquid (excluding water)	
Potential PCB Equipment	

## 4.6 OTHER OBSERVATIONS

No other observations were noted during the site reconnaissance.

## 5.0 INTERVIEWS

PPM conducted interviews when possible with individuals who may have knowledge of the site. The objective of interviews is to obtain information from persons likely to have actual knowledge of current and past uses or conditions of the property, adjoining properties, and surrounding area that may indicate the likelihood of recognized environmental conditions in connection with the property. The focus and quality of information is highly variable with each type of contact and individual. The persons interviewed were asked to be as specific as reasonably feasible in answering questions. Interview information is provided below:

South Tract Phase I Environmental Site Assessment February 23, 2017



INTERVIEW WITH CURRENT OWNER OR REPRESENTATIVE	
Interviewer:	Jordan Harper
Date(s) Attempted:	February 2017
Name of Contact:	Brad Cammack
Title/Affiliation:	Ouachita Police Jury
<b>Contact Information:</b>	(318) 327-1340

**Comments:** Mr. Cammack informed PPM that the subject property has been in the control of the Ouachita Parish Police Jury since November 2014 when LSU left the site. He stated that he is not aware of any new use of the property since the previous Phase 1. He stated that he was not aware of any ASTs or USTs on the property that contain hazardous substances or petroleum products. He stated that the property had a new groundskeeper, Mark Johnson, because Mr. Chris Thompson, who was previously interviewed by PPM had retired.

#### INTERVIEW WITH PAST OWNER

Comments: See current owner interview.

INTERVIEW WITH KEY SITE MANAGER		
Interviewer:	Jordan Harper	
Date(s) Attempted:	February 15, 2017	
Name of Contact:	Mark Johnson	
Title/Affiliation:	Groundskeeper	
Contact Information:	(318) 381-0133	

**Comments:** Mr. Johnson met with PPM on site and escorted PPM during site reconnaissance. He stated that he has been working as groundskeeper on the subject property for approximately one year, including mowing and maintenance. According to Mr. Johnson, he had noticed construction debris near the center of the subject property in the general location of the historical pits. He also informed PPM that the pond on the northern portion of the subject property had been drained following the collapse of the northern bank due to rat tunneling. He stated that the pond has remained empty. He informed PPM that he was not aware of any current storage of hazardous materials or petroleum products in volumes greater than five gallons, but could not attest to the previous state of the site. He was not aware of any areas of petroleum staining and was not aware of the current number, condition, or location of septic tanks on the property. He stated that paint was stored in several buildings for general repairs and that small containers of gasoline were stored to fuel the lawnmower. He stated that LSU classes have met on the subject property, but that the buildings are not actively used.

#### INTERVIEW WITH OCCUPANTS (MAJOR AND USING HAZ/PET)

Comments: See current owner interview

South Tract Phase I Environmental Site Assessment February 23, 2017



INTERVIEW WITH LOCAL FIRE MARSHALL		
Interviewer:	Jordan Harper	
Date(s) Attempted:	March 1, 2017	
Name of Contact:	Bill	
Title/Affiliation:	Ouachita Parish Fire Prevention Dispatch Agent	
Contact Information:	(318) 322-4174	

**Comments:** Bill informed PPM that he could only search by address on the subject property, but was able to provide information for all known historical addresses on the subject property. He stated that one response was reported to 321 Highway 80 for a car accident in 2014 and that a fire response was required at 505 Highway 80 East in 2015 after sparks from a vehicle had ignited grass. He stated that no hazardous containment response, spill responses, or fires associated with regulated substances had been reported.

INTERVIEW WITH LOCAL HEALTH DEPARTMENT		
Interviewer:	Jordan Harper	
Date(s) Attempted:	March 1, 2017	
Name of Contact:	Greg Hill	
Title/Affiliation:	Louisiana Department of Health and Hospitals-Environmental Health Specialist	
<b>Contact Information:</b>	(318) 361-7213	

**Comments:** Mr. Hill stated that he was not aware of any records indicating the age, number, size, or condition of septic tanks on the subject property, but that it is likely that each building is associated with a tank. He was not aware of any problems associated with the subject property or surrounding properties and that the computer system was only reliable for systems installed or registered after 2001.

INTERVIEW WITH STATE REGULATORY AGENCY		
Interviewer:	Jordan Harper	
Date(s) Attempted:	March 2, 2017	
Name of Contact:	Nat Barnett	
Title/Affiliation:	LDEQ UST and Remediation Division	
Contact Information:	(318) 362-3048	

**Comments:** Mr. Barnett stated that he was not aware of any active remediation site on the surrounding properties and that the only nearest remediation site is approximately 3,700-feet northeast of the subject property. Mr. Barnett stated that if the historical UST was likely registered as a farm tank under 1,100-gallons and did not require LDEQ notification for registration or clean removal. No historical registration information was available for this tank.

#### INTERVIEW WITH NEIGHBOR FOR ABANDONED PROPERTIES

Comments: See current owner interview.

#### INTERVIEWS WITH OTHERS

Comments: No other interviews were required during the course of this assessment.



## 6.0 EVALUATION

## 6.1 FINDINGS AND OPINIONS

Relevant information gathered from user provided information, records reviews, observations, and interviews was evaluated together to provide a professional opinion as to whether any of the suspect activities identified represent recognized environmental conditions, controlled recognized environmental conditions, historical recognized environmental conditions, or de minimis conditions associated with the property. The findings and opinions of this assessment are as follows:

- Historical and current use of the property. According to the LSU AgCenter Website, "the Calhoun Research Station, established in 1888, is the oldest facility of its kind in the state. Research has focused on dairy, peaches, and watermelons. Today, the focus is on wood products and helping the forestry industry. A goal of the station's research is to waste no wood. Scientists are working to extract chemicals from treated wood and recycling both for beneficial use. Other research includes uses for low-quality wood products while improving the environment." Historical aerial photographs indicate the existence of at least eleven structures on the subject property since 1942. Site reconnaissance shows four structures, including a laboratory, an open air barn, storage barn, and pump house. The facility has been unoccupied since November 2014. Potential concerns with the historical use of the subject property including the following:
  - Hazardous Chemicals- During interviews it was revealed that pesticides, herbicides, and other chemicals were stored and used on the site during the facility's operational history. Although the chemicals were reportedly stored and disposed of properly, spills and leaks may have occurred on the property impacting the soil and groundwater on the subject or adjoining properties. These interviews provided only limited information about chemical use practices during the recent past when environmental regulations were in place. There is no information available for the facility before regulations were enacted (approximately the mid-1970s back to 1888). It is reasonable to assume that a university affiliated agricultural experimental station would have been testing pesticides, herbicides, and other farm related chemicals that were considered cutting edge for their times; therefore, it is likely that pesticides like Aldrin, chlordane, Dieldrin, and DDT that were considered wonder chemicals in the 1940s were used at the site before they were banned by the USEPA



starting in the 1970s. These chemicals were banned because they were hazardous to human health and the environment and were very persistent in the environment. Likewise, proper use and disposal practices of today would be different from what would have been considered acceptable before regulations. For example, sink drains, which in this case could lead to the onsite septic tanks, are known to have been popular and convenient locations for chemical disposal in pre-regulation laboratories and other interior usage areas. At least three floor drains were observed in the laboratory area of Building 1 on the subject property. The drains were located in a slight depression that funneled liquids from the immediate area to the drains. Due to the proximity of the drains to the areas where hazardous chemical handling occurred and because these chemicals may have been released unimpeded into the drains, the drains could have carried hazardous materials offsite or impacted the subsurface or stormwater. The groundskeeper informed PPM during the site reconnaissance that the drains in the laboratory of Building 1 led to a septic tank on the subject property. Together, it is very possible that high concentrations of these highly persistent hazardous substances may still be found in former storage, mixing, and application areas, in septic tank leach fields, and in the ponds and pits that may have received runoff from these areas. It is possible that the storage and mixing areas remained consistent through time, but it is also likely that such areas moved all over the site in its 100-plus year history. The likely use and release of hazardous agricultural chemicals on the subject property by its operations from 1888 to recent times represents a recognized environmental condition.

- <u>Electrical transformers</u>- PPM observed two pole-mounted electrical transformers on the subject property. The transformers appeared to be in good condition and no signs of staining were noted on the soil beneath the transformer. The electrical transformers on the subject property do not appear to represent a recognized environmental condition.
- Historical and current surrounding land uses. According to the historical sources reviewed, the properties adjoining the site appeared to consist of residential and undeveloped wooded property since at least 1942. During site reconnaissance the adjoining properties were observed to consist of the following: residential properties to the west, southwest, and south southwest and undeveloped land to the north, east, and southeast. The historical, undeveloped and residential nature of the surrounding properties is not considered to represent a recognized environmental condition.



## 6.2 DATA GAPS

A data gap is a lack of information or inability to obtain information despite good faith efforts to gather such information. A data gap is only significant if it affects PPM's ability to identify recognized environmental conditions.

 <u>Southern extremity</u>- PPM was unable to access the southeastern portion of the subject property during site reconnaissance due to the dense vegetation. Due to the long environmental history of the facility, this is considered a significant data gap; therefore, PPM is unable to form an opinion about conditions in this area at this time.

Data failure is a type of data gap that involves the inability to identify the property use at five-year intervals back to first use or 1940 whichever is earlier. Data failure occurred during this assessment because site use could not be established before 1888 when the LSU Ag Center was first developed. This data gap is not considered significant because it is very likely the site was undeveloped wooded land prior to similar to the surrounding land use from 1942 to the present. Data failure also occurred after 1888 for the following reasons:

- Historical sources were not available at the five-year interval defined by the ASTM standard;
- The oldest aerial photograph available was dated 1942;
- The scale of some aerial photographs created difficulty in discerning site features, specifically structural development on the subject property and adjoining properties;
- There were no fire insurance maps available for the surrounding area;
- City directories did not list the property prior to 1998;
- The previous owner representative (i.e. the Regional Director LSU AgCenter) did not have knowledge of the site prior to 2011;
- The key site manager was a groundskeeper with limited technical knowledge of the past operation and did not have any knowledge of the site prior to 2015;
- The current property owner did not have knowledge of the property before 2014; and
- There were no other standard historical sources likely to provide useful information.



Consequently, PPM was unable to obtain any detailed operational information prior to 2011 for a facility that had operated since 1888. Since the facility made use of hazardous substances and petroleum product after 2011, it is considered very likely that the LSU AgCenter operation also involved hazardous substances and petroleum products from 1888 to 2011. It is also considered likely that as an agricultural research and development facility it would have been using pesticides and herbicides that were considered cutting edge for their times and would have followed the use and disposal practices acceptable for those times. Since PPM has general knowledge of these types of practices, despite these data gaps PPM was able to make a reasonable conclusion regarding recognized environmental conditions.

## 6.3 ADDITIONAL INVESTIGATION OPINION

In accordance with Practice E1527-13, PPM has provided an opinion regarding additional appropriate investigation, if any, in the circumstance when greater certainty is required regarding the identification of recognized environmental conditions. This opinion does not render the assessment incomplete and is not intended to constitute a recommendation for a Phase II ESA or other assessment activities. Recommendations are not required by this practice and will only be provided at the request of the user.

It is PPM's professional opinion that additional investigation is warranted.

## 6.4 CONCLUSIONS

PPM has performed a Phase I ESA in conformance with the scope and limitations of ASTM Practice E1527 of South Tract, the property. Any exceptions to, or deletions from, this practice are described in Sections 4.1 and 6.3 of this report. This assessment has revealed no evidence of recognized environmental conditions in connection with the property except for the following:

Hazardous Chemicals- During interviews it was revealed that pesticides, herbicides, and other chemicals were stored and used on the site during the facility's operational history. Although the chemicals were reportedly stored and disposed of properly, spills and leaks may have occurred on the property impacting the soil and groundwater on the subject or adjoining properties. These interviews provided only limited information about chemical use practices during the recent past when environmental regulations were in place. There is no information available for the facility before regulations were enacted (approximately the mid-1970s back to 1888). It is reasonable to



assume that a university affiliated agricultural experimental station would have been testing pesticides, herbicides, and other farm related chemicals that were considered cutting edge for their times; therefore, it is likely that pesticides like Aldrin, chlordane, Dieldrin, and DDT that were considered wonder chemicals in the 1940s were used at the site before they were banned by the USEPA starting in the 1970s. These chemicals were banned because they were hazardous to human health and the environment and were very persistent in the environment. Likewise, proper use and disposal practices of today would be different from what would have been considered acceptable before regulations. For example, sink drains, which in this case could lead to the onsite septic tanks, are known to have been popular and convenient locations for chemical disposal in pre-regulation laboratories and other interior usage areas. At least three floor drains were observed in the laboratory area of Building 1 on the subject property. The drains were located in a slight depression that funneled liquids from the immediate area to the drains. Due to the proximity of the drains to the areas where hazardous chemical handling occurred and because these chemicals may have been released unimpeded into the drains, the drains could have carried hazardous materials offsite or impacted the subsurface or stormwater. The groundskeeper informed PPM during the site reconnaissance that the drains in the laboratory of Building 1 led to a septic tank on the subject property. Together, it is very possible that high concentrations of these highly persistent hazardous substances may still be found in former storage, mixing, and application areas, in septic tank leach fields, and in the ponds and pits that may have received runoff from these areas. It is possible that the storage and mixing areas remained consistent through time, but it is also likely that such areas moved all over the site in its 100-plus year history. The likely use and release of hazardous agricultural chemicals on the subject property by its operations from 1888 to recent times represents a recognized environmental condition.

#### The following significant data gaps were also encountered by the assessment:

 <u>Southern extremity</u>- PPM was unable to access the southeastern portion of the subject property during site reconnaissance due to the dense vegetation. Due to the long environmental history of the facility, this is considered a significant data gap; therefore, PPM is unable to form an opinion about conditions in this area at this time.



## 6.5 ENVIRONMENTAL PROFESSIONAL STATEMENT

I, Gregory P. Stover, declare that, to the best of my professional knowledge and belief, I meet the definition of Environmental Professional as defined in §312.10 of 40 CFR § 312. I have the specific qualifications based on education, training, and experience to assess a property of the nature, history, and setting of the subject property. I have developed and performed the all appropriate inquiries in conformance with the standards and practices set forth in 40 CFR Part 312. My signature is provided on the cover of this report. My environmental professional qualifications are provided in **Appendix G** of this report.

## 7.0 NON-SCOPE SERVICES

PPM did not provide any additional services outside the scope of Practice E1527-13.



#### **COMMONLY USED ABBREVIATIONS** 8.0

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

AAI	all appropriate inquiries
AST	aboveground storage tank
ASTM	American Society for Testing and Materials
ATG	Automatic Tank Gauge
AUL	activity and use limitations
BTEX	benzene, toluene, ethylbenzene, and xylenes (gasoline components)
BDL	below detection limits
BGS	below ground surface
CAP	Corrective Action Plan
CERCLA	Comprehensive Environmental Response, Compensation and Liability Act
CERCLIS	Comprehensive Environmental Response Compensation and Liability
00000	Information System
CESQG	Conditionally Exempt Small Quantity Generator (<100 kg per month)
CFR	Code of Federal Regulations
C.H.M.M.	Certified Hazardous Materials Manager
C.I.H	Certified Industrial Hygienist
CREC	controlled recognized environmental condition
CSLD	Continuous Statistical Leak Detection
COC	Constituents (or Chemicals) of Concern
CORRACTS	facilities subject to Corrective Action under RCRA
DNAPL	dense non-aqueous phase liquid
ECHO	Enforcement & Compliance History Online (from USEPA)
EDR	Environmental Data Resources
EPA	Environmental Protection Agency
ERNS	Emergency Response Notification System
ESA	Environmental Site Assessment
FOIA	Freedom of Information Act
FRP	Fiberglass Reinforced Plastic
HREC	historical recognized environmental condition
LDEQ	Louisiana Department of Environmental Quality
LLP	landowner liability protections
LQG	Large Quantity Generator of hazardous waste (>1,000 kg per month)
LNAPL	light non-aqueous phase liquid
LUST	leaking underground storage tank
NFA	no further action
NFA ATT	no further action at this time (Louisiana)
NFRAP	no further remedial action is planned under CERCLA
NPDES	National Pollutant Discharge Elimination System
NPL	National Priority List
MCL	Maximum Contaminant Level
are served	Material Safety Data Sheet

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MTBE	methyl tertiary butyl ether (common gasoline additive)
PAH	polycyclic aromatic hydrocarbons (common diesel components)
PCB	polychlorinated biphenyls
P.G.	Professional Geologist
P.E.	Professional Engineer
ppm	parts per million
PPM	PPM Consultants, Inc.
RECAP	Risk Evaluation/Corrective Action Program (Louisiana)
RCRA	Resource Conservation and Recovery Act
RUST	registered underground storage tank
SARA	Superfund Amendments and Reauthorization Act of 1986
SEMS	Superfund Enterprise Management System
SS	Screening Standard (Louisiana)
SWD	Solid Waste Disposal
SQG	Small Quantity Generator of hazardous waste (100 to 1,000 kg per month)
STIP3	Steel Tank Institute Protection 3
TPH	total petroleum hydrocarbons
TSD	Treatment, Storage, and Disposal
U.S.C.	United States Code
USEPA	United States Environmental Protection Agency
USGS	United States Geological Survey
UST	underground storage tank

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## 9.0 GLOSSARY OF KEY TERMS

The following is a list of key terms used in this report with definitions per Practice E1527-13:

activity and use limitations (AUL): legal or physical restrictions or limitations on the use of, or access to, a site or facility: (1) to reduce or eliminate potential exposure to hazardous substances or petroleum products in the soil, soil vapor, groundwater, and/or surface water on the property, or (2) to prevent activities that could interfere with the effectiveness of a response action, in order to ensure maintenance of a condition of no significant risk to public health or the environment. These legal or physical restrictions, which may include institutional and/or engineering controls, are intended to prevent adverse impacts to individuals or populations that may be exposed to hazardous substances and petroleum products in the soil, soil vapor, groundwater, and/or surface water on the property.

*adjoining properties:* any real property or properties the border of which is contiguous or partially contiguous with that of the property, or that would be contiguous or partially contiguous with that of the property but for a street, road, or other public thorough fare separating them.

bona fide prospective purchaser: One of the three Landowner Liability Protections (LLPs). A person may qualify as a bona fide prospective purchaser if, among other requirements, such person made "all appropriate inquiries into the previous ownership and uses of the facility in accordance with generally accepted good commercial and customary standards and practices." Knowledge of contamination resulting from all appropriate inquiries would not generally preclude this liability protection. A person must make all appropriate inquiries on or before the date of purchase.

**business environmental risk:** a risk which can have a material environmental or environmentally-driven impact on the business associated with the current or planned use of a parcel of commercial real estate, not necessarily limited to those environmental issues required to be investigated in this practice. Consideration of business environmental risk issues may involve addressing one or more non-scope considerations.

contiguous property owner: One of the three Landowner Liability Protections (LLPs). A person may qualify for the contiguous property owner liability protection if, among other requirements, such person owns real property that is contiguous to, and that is or may be contaminated by hazardous substances from other real property that is not owned by that person. Furthermore, such person conducted all appropriate inquiries at the time of acquisition of the property and did not know or have reason to know that the property was or could be contaminated by a release or threatened release from the contiguous property. The all appropriate inquiries must not result in knowledge of contamination. If it does, then such person did "know" or "had reason to know" of contamination and would not be eligible for the contiguous property owner liability protection.

controlled recognized environmental condition (CREC): a recognized environmental condition resulting from a past release of hazardous substances or petroleum products that has been addressed to the satisfaction of the applicable regulatory authority (for example, as evidenced by the issuance of a no further action letter or equivalent, or meeting risk-based criteria established by regulatory authority), with hazardous substances or petroleum products allowed to remain in place subject to the implementation of required controls (for example, property use restrictions, activity and use limitations, institutional controls, or engineering controls). A condition considered by the environmental professional to be a controlled recognized environmental condition shall be listed in the findings section of the Phase I Environmental Site Assessment report, and as a recognized environmental condition in the conclusions section of the Phase I Environmental Site Assessment report.

*data failure:* a failure to achieve the historical research objectives set by Practice E1527-13 even after reviewing the standard historical sources listed by Practice E1527-13 that are reasonably ascertainable and likely to be useful. Data failure is one type of data gap.



*data gap:* a lack of or inability to obtain information required by this practice despite good faith efforts by the environmental professional to gather such information. Data gaps may result from incompleteness in any of the activities required by Practice E1527-13, including, but not limited to site reconnaissance, interviews, and document reviews. Data gaps that affect the environmental professional's ability to identify recognized environmental conditions are significant data gaps. For example, if a building on the property is inaccessible during the site visit, and the environmental professional's experience indicates that such a building often involves activity that leads to a recognized environmental condition, the inability to inspect the building would be a significant data gap warranting comment in the report.

*de minimis condition:* a condition that generally does not present a threat to human health or the environment and that generally would not be the subject of an enforcement action if brought to the attention of appropriate governmental agencies. Conditions determined to be de minimis conditions are not recognized environmental conditions nor controlled recognized environmental conditions.

environment: CERCLA 42 U.S.C. § 9601(8) defines "environment" to mean (A) the navigable waters, the waters of the contiguous zone, and the ocean waters of which the natural resources are under the exclusive management authority of the United States under the Magnuson-Stevens Fishery Conservation and Management Act [16 U.S.C. 1801 et seq.], and (B) any other surface water, ground water, drinking water supply, land surface or subsurface strata, or ambient air within the United States or under the jurisdiction of the United States.

environmental lien: a charge, security, or encumbrance upon title to a property to secure the payment of a cost, damage, debt, obligation, or duty arising out of response actions, cleanup, or other remediation of hazardous substances or petroleum products upon a property.

environmental professional: a person meeting the education, training, and experience requirements as set forth in 40 CFR §312.10(b).

*hazardous substance:* a substance defined as a hazardous substance pursuant to CERCLA 42 U.S.C.§9601(14), as interpreted by EPA regulations and the courts. The term does not include petroleum, including crude oil or any fraction thereof which is not otherwise specifically listed or designated as a *hazardous substance*, and the term does not include natural gas, natural gas liquids, liquefied natural gas, or synthetic gas usable for fuel (or mixtures of natural gas and such synthetic gas).

*historical recognized environmental condition (HREC)*: a past release of any hazardous substances or petroleum products that has occurred in connection with the property and has been addressed to the satisfaction of the applicable regulatory authority or meeting unrestricted use criteria established by a regulatory authority, without subjecting the property to any required controls (for example, property use restrictions, activity and use limitations, institutional controls, or engineering controls). Before calling the past release a historical recognized environmental condition, the environmental professional must determine whether the past release is a recognized environmental condition at the time the Phase I Environmental Site Assessment is conducted (for example, if there has been a change in the regulatory criteria). If the EP considers the past release to be a recognized environmental condition at the time the Phase I ESA is conducted, the condition shall be included in the conclusions section of the report as a recognized environmental condition.

*innocent landowner:* One of the three Landowner Liability Protections (LLPs). A person may qualify as one of three types of innocent landowners: (i) a person who "did not know and had no reason to know" that contamination existed on the property at the time the purchaser acquired the property; (ii) a government entity which acquired the property by escheat, or through any other involuntary transfer or acquisition, or through the exercise of eminent domain authority by purchase or condemnation; and (iii) a person who "acquired the facility by inheritance or bequest." To qualify for the innocent landowner defense, such person must have made all appropriate inquiries on or before the date of purchase. Furthermore, the all appropriate inquiries must not have resulted in knowledge of the contamination. If it does, then such person did "know" or "had reason to know" of contamination and would not be eligible for the innocent landowner defense.



key site manager: the person identified by the owner or operator of a property as having good knowledge of the uses and physical characteristics of the property.

Landowner Liability Protections (LLPs): landowner liability protections under CERCLA; these protections include the bona fide prospective purchaser liability protection, contiguous property owner liability protection, and innocent landowner defense from CERCLA liability. See 42 U.S.C. §§9601(35)(A), 9601(40), 9607(b), 9607(q), 9607(r).

*material threat:* a physically observable or obvious threat which is reasonably likely to lead to a release that, in the opinion of the environmental professional, is threatening and might result in impact to public health or the environment. An example might include an aboveground storage tank system that contains a hazardous substance and which shows evidence of damage. The damage would represent a material threat if it is deemed serious enough that it may cause or contribute to tank integrity failure with a release of contents to the environment.

*migrate/migration:* for the purposes of this practice, "migrate" and "migration" refers to the movement of hazardous substances or petroleum products in any form, including, for example, solid and liquid at the surface or subsurface, and vapor in the subsurface.

*obvious:* that which is plain or evident; a condition or fact that could not be ignored or overlooked by a reasonable observer while visually or physically observing the property.

petroleum products: those substances included within the meaning of the petroleum exclusion to CERCLA, 42 U.S.C. §9601(14), as interpreted by the courts and EPA, that is: petroleum, including crude oil or any fraction thereof which is not otherwise specifically listed or designated as a hazardous substance under Subparagraphs (A) through (F) of 42 U.S.C. § 9601(14), natural gas, natural gas liquids, liquefied natural gas, and synthetic gas usable for fuel (or mixtures of natural gas and such synthetic gas). (The word fraction refers to certain distillates of crude oil, including gasoline, kerosine, diesel oil, jet fuels, and fuel oil, pursuant to Standard Definitions of Petroleum Statistics.)

practically reviewable: information that is practically reviewable means that the information is provided by the source in a manner and in a form that, upon examination, yields information relevant to the property without the need for extraordinary analysis of irrelevant data. The form of the information shall be such that the user can review the records for a limited geographic area. Records that cannot be feasibly retrieved by reference to the location of the property or a geographic area in which the property is located are not generally practically reviewable. Most databases of public records are practically reviewable if they can be obtained from the source agency by the county, city, zip code, or other geographic area of the facilities listed in the record system. Records that are sorted, filed, organized, or maintained by the source agency only chronologically are not generally practically reviewable. Listings in publicly available records which do not have adequate address information to be located geographically are not generally considered practically reviewable. For large databases with numerous records (such as RCRA hazardous waste generators and registered underground storage tanks), the records are not practically reviewable unless they can be obtained from the source agency in the smaller geographic area of zip codes. Even when information is provided by zip code for some large databases, it is common for an unmanageable number of sites to be identified within a given zip code. In these cases, it is not necessary to review the impact of all of the sites that are likely to be listed in any given zip code because that information would not be practically reviewable. In other words, when so much data is generated that it cannot be feasibly reviewed for its impact on the property, it is not practically reviewable.

*property:* the real property that is the subject of the environmental site assessment described in this report. Real property includes buildings and other fixtures and improvements located on the property and affixed to the land.

recognized environmental condition: the presence or likely presence of any hazardous substances or petroleum products in, on, or at a property: (1) due to any release to the environment; (2) under conditions

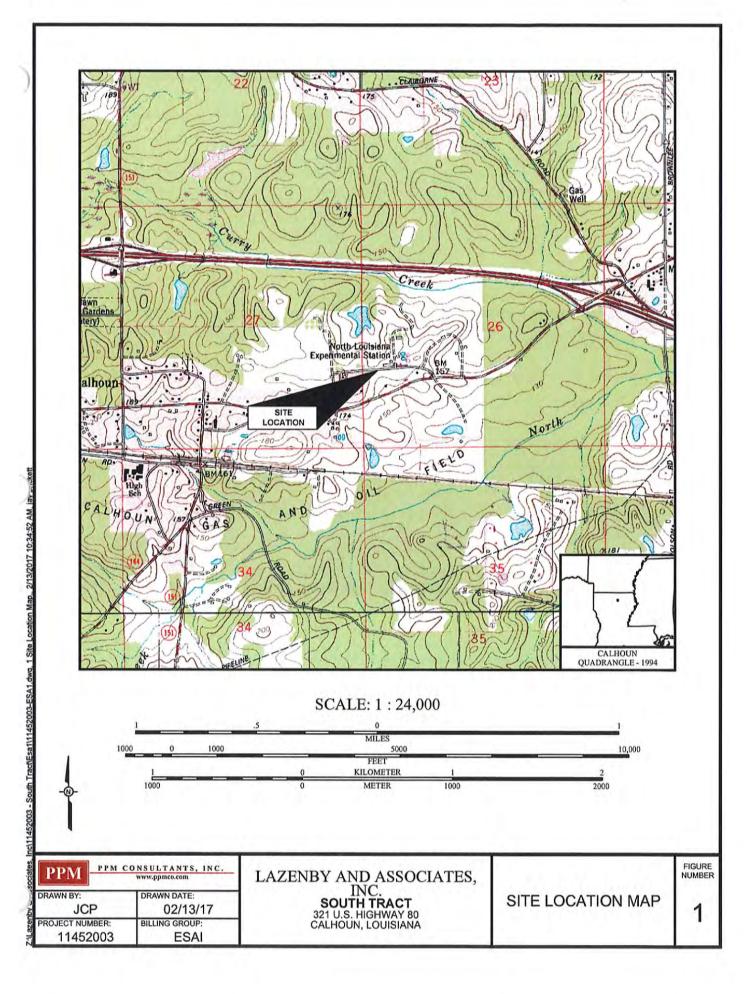


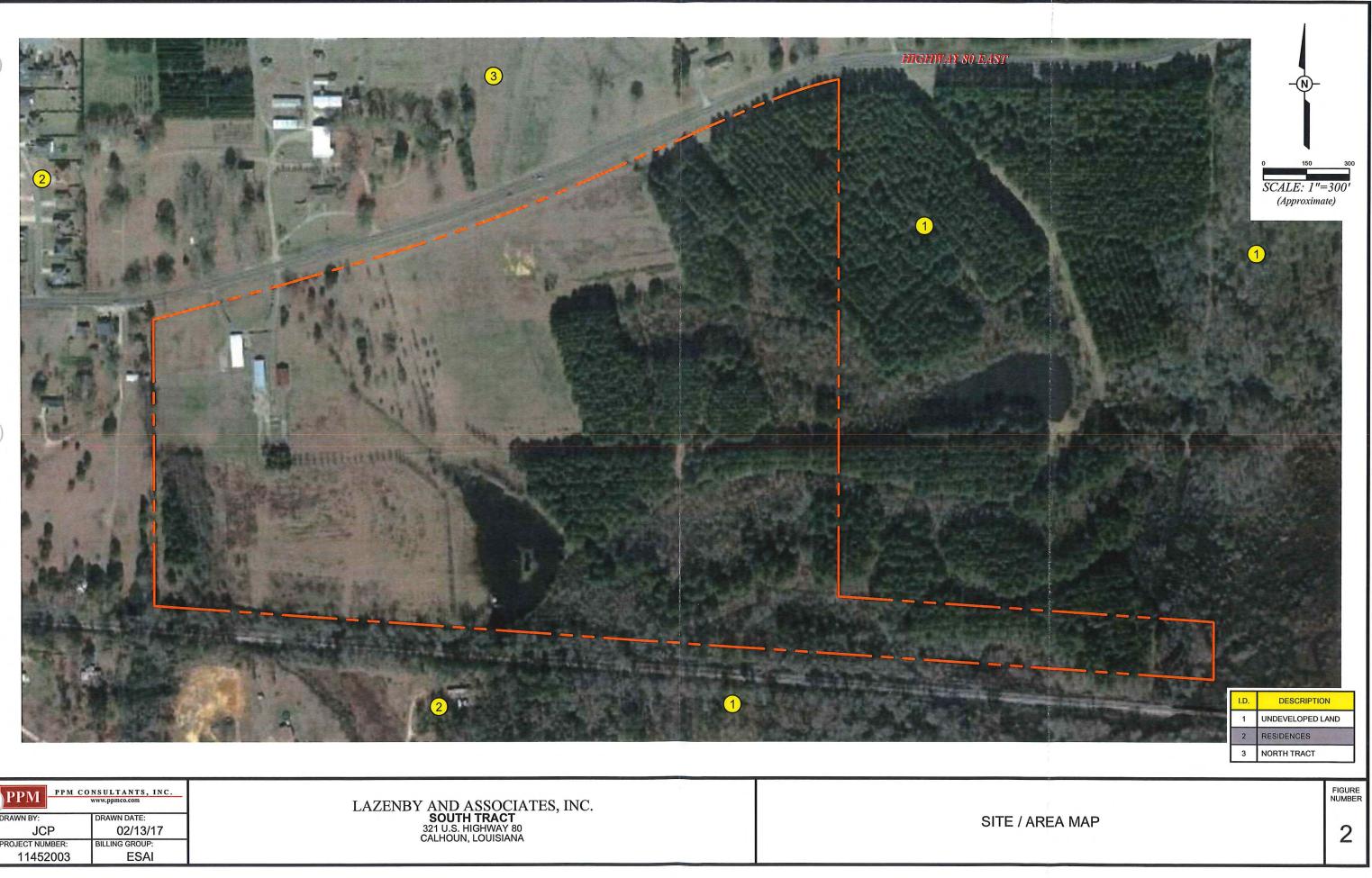
indicative of a release to the environment; or (3) under conditions that pose a material threat of a future release to the environment.

*release:* a release of any hazardous substance or petroleum product shall have the same meaning as the definition of "release" in CERCLA 42 U.S.C. § 9601(22)). The first element for establishing CERCLA liability is that there must be a release or threatened release of hazardous substances from a facility or a vessel. A release or threatened release of a hazardous substance includes any "spilling, leaking, pumping, pouring, emitting, emptying, discharging, injecting, escaping, leaching, dumping or disposing into the environment (including the abandonment or discarding of barrels, containers and other closed receptacles containing any hazardous substance, or pollutant or contaminant."

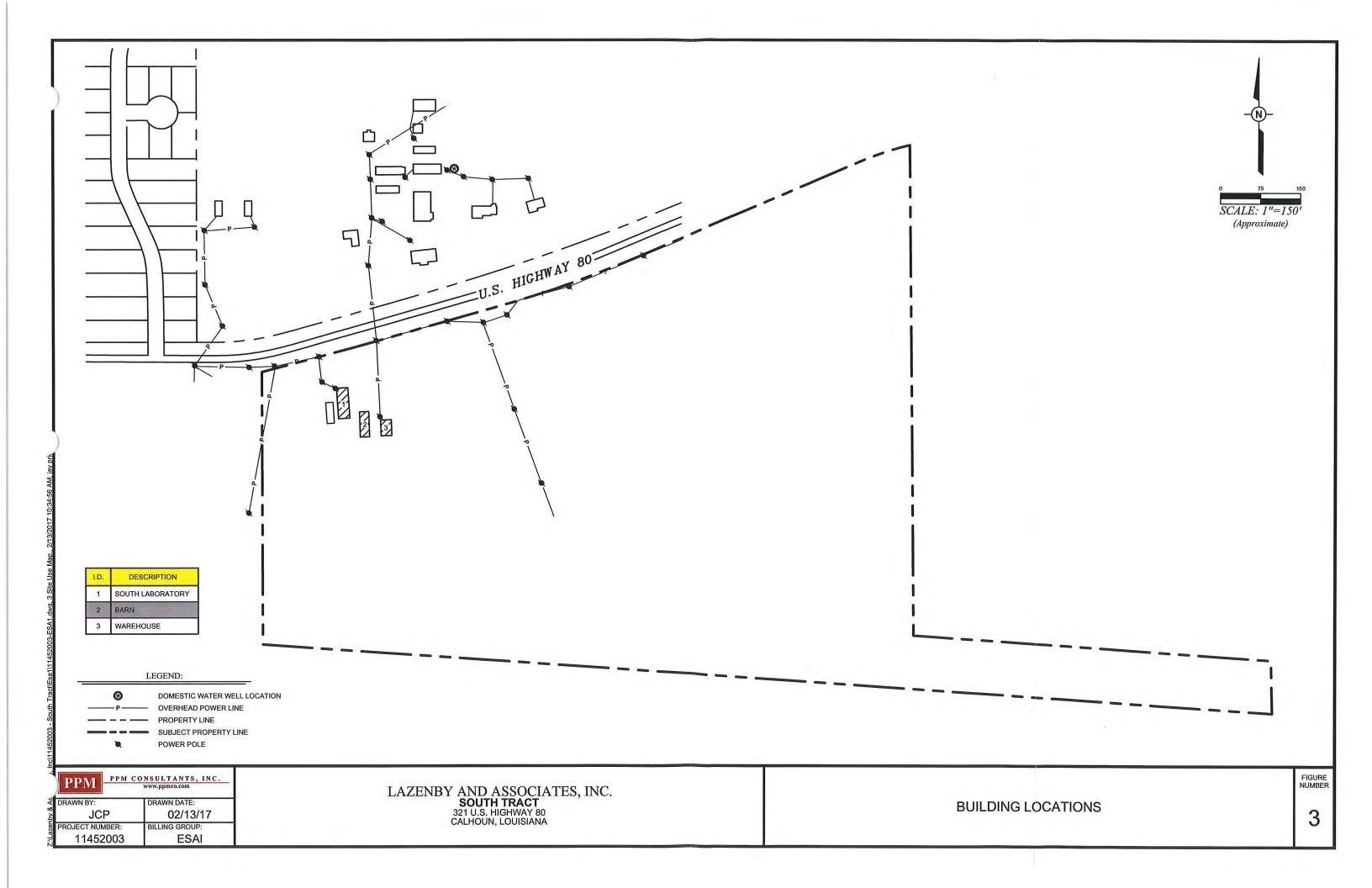
APPENDICES

# **APPENDIX A – FIGURES**





	PPM	PPM		NSULTANTS, INC. www.ppmco.com	-
V&A	DRAWN BY:	P		DRAWN DATE: 02/13/17	
azenby	PROJECT NUMBER:			BILLING GROUP:	-
Z:/La	11452	2003		ESAI	



**APPENDIX B – USER PROVIDED INFORMATION** 

Tract 2 (South Tract) 87.532 Acre Tract Sections 26, 27, 34, & 35, T18N, R1E Land District North of Red River Ouachita Parish, Louisiana L & A, Inc. Project No. 13E028.01

#### PROPERTY DESCRIPTION

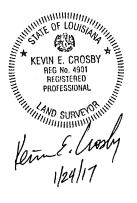
A certain tract or parcel of land situated in Sections 26, 27, 34 & 35, Township 18 North, Range 1 East, Land District North of Red River, Ouachita Parish, Louisiana, and being more particularly described as follows:

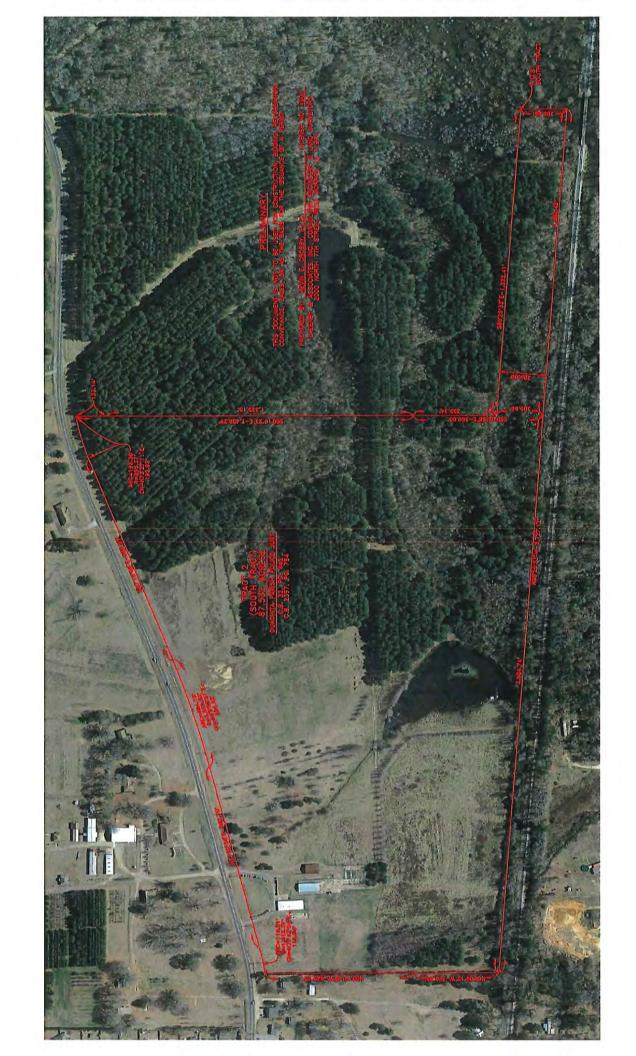
Commence at a found 1/2" iron pipe at the corner common to Sections 25, 26, 35 & 36, Township 18 North, Range 1 East, Land District North of Red River, Ouachita Parish, Louisiana; proceed South 89°53'50" West along the south line of said Section 26, a distance of 2,637.58 feet to a found 1/2" iron pipe at the South 1/4 corner of said Section 26; thence proceed South 00°05'24" East along the east line of the Northeast ¼ of the Northwest ¼ of Section 35, a distance of 468.29 feet to the POINT OF BEGINNING; thence continue South 00°05'24" East along the east line of said Northeast ¼ of the Northwest ¼, a distance of 200.66 feet to the intersection of said east line of the Northeast 1/4 of the Northwest 1/4 with the north right-of-way line of the Kansas City Southern Railroad; thence proceed North 85°25'33" West along said north right-ofway line, a distance of 3,727.17 feet to a set 5/8" rebar; thence proceed North 00°06'12" West parallel to the west line of the Northeast ¼ of the Northeast ¼ of Section 34, a distance of 370.03 feet to a set 5/8" rebar on the south line of Section 27; thence proceed North 00°14'48" West parallel to the west line of the Southeast ¼ of the Southeast ¼ of said Section 27, a distance of 640.25 feet to a set 5/8" rebar on the south right-of-way line of U.S. Hwy 80; thence proceed in a Northeasterly direction along said south right-of-way line and along the arc of a non-tangent curve to the left, an arc distance of 119.01 feet (Radius - 1,015.37 feet, Chord= North 77°47'04" East - 118.94 feet) to a set 5/8" rebar; thence proceed North 74°25'36" East along said south right-of-way line, a distance of 802.70 feet to a set 5/8" rebar; thence proceed in a Northeasterly direction along said south right-of-way line and along the arc of a curve to the left, an arc distance of 484.73 feet (Radius - 3.879.83 feet, Chord= North 70°50'51" East - 484.42 feet) to a set 5/8" rebar; thence proceed North 67°16'06" East along said south right-of-way line, a distance of 935.97 feet to a set 5/8" rebar; thence proceed in a Northeasterly direction along said south right-of-way line and along the arc of a curve to the right, an arc distance of 193.30 feet (Radius - 895.37 feet, Chord= North 73°27'11" East - 192.92 feet) to a set 5/8" rebar at the intersection of said south right-of-way line with the east line of the Northwest 1/4 of the Southwest ¼ of Section 26; thence proceed South 00°10'23" East along the east line of the West 1/2 of the Southwest 1/4 of said Section 26, a distance of 1,458.29 feet to a set 5/8" rebar at the northwest corner of the Northeast 1/4 of the Northwest 1/4 of Section 35; thence proceed South 00°04'58" East along the west line of said Northeast ¼ of the Northwest ¼, a distance of 359.34 feet to a set 5/8" rebar; thence proceed South 85°25'33" East parallel to the north right-of-way line of the Kansas City Southern Railroad, a distance of 1,322.41 feet to the POINT OF BEGINNING, containing 87,532 acres, more or less, and being subject to all easements, servitudes, and rights-of-way of record and/or of use.

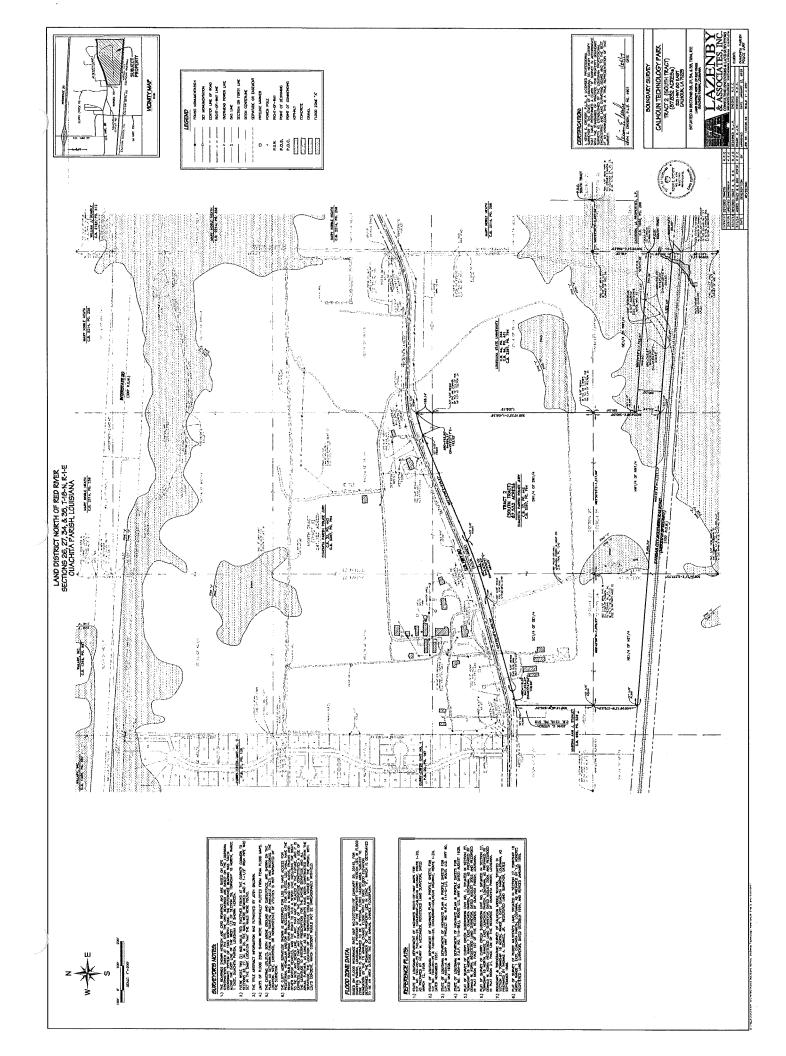
AND BEING SUBJECT TO A 100' WIDE SERVITUDE for pedestrian, vehicular and/or rail access and for utilities located in the Northeast ¼ of the Northwest ¼ of Section 35, Township 18 North, Range 1 East, Land District North of Red River, Ouachita Parish, Louisiana and being more particularly described as follows:

Commence at a found  $\frac{1}{2}$ " iron pipe at the corner common to Sections 25, 26, 35 & 36, Township 18 North, Range 1 East, Land District North of Red River, Ouachita Parish, Louisiana; proceed South 89°53'50" West along the south line of said Section 26, a distance of 2,637.58 feet to a found  $\frac{1}{2}$ " iron pipe at the South  $\frac{1}{4}$  corner of said Section 26; thence proceed South 00°05'24" East along the east line of the Northeast  $\frac{1}{4}$  of the Northwest  $\frac{1}{4}$  of Section 35, a distance of 468.29 feet; thence proceed North 85°25'33" West parallel to the north right-of-way line of Kansas City Southern Railroad, a distance of 395.36 feet to the **POINT OF BEGINNING**; thence proceed in a southwesterly direction along the arc of a non-tangent curve to the right, an arc distance of 266.65 feet (Radius – 625.00 feet, Chord = South 45°28'55" West – 264.63 feet) to the north right-of-way line of the Kansas City Southern Railroad; thence proceed North  $85^{\circ}25'33''$  West along said north right-of-way line, a distance of 214.92 feet; thence proceed in a northeasterly direction along the arc of a non-tangent curve to the left, an arc distance of 342.67 feet (Radius – 525.00 feet, Chord = North 58°07'22'' East – 336.62 feet); thence proceed South 85°25'33'' East, a distance of 117.45 feet to the **POINT OF BEGINNING**, containing 0.677 acres, more or less, and being subject to all easements, servitudes and right-of-way of record and/or of use. The location of this Servitude can be moved with consent from both parties.

This description is based on the Boundary Survey and Plat prepared by Kevin E. Crosby, Registered Professional Land Surveyor, dated January 24, 2017.







# PHASE I ENVIRONMENTAL SITE ASSESSMENT REPORT

# LAZENBY AND ASSOCIATES, INC. CALHOUN TECHNOLOGY PARK 321 US HIGHWAY 80 EAST CALHOUN, LOUISIANA

PPM PROJECT NO. 11452001.ESA1

APRIL 6, 2015

## PHASE I ENVIRONMENTAL SITE ASSESSMENT REPORT

AT

CALHOUN TECHNOLOGY PARK 321 US HIGHWAY 80 CALHOUN, LOUISIANA

PREPARED FOR:

LAZENBY AND ASSOCIATES, INC. 2000 NORTH 7<sup>TH</sup> STREET WEST MONROE, LOUISIANA 71291

PPM PROJECT NO. 11452001.ESA1

APRIL 6, 2015

PREPARED BY:

JORDAN HARPER ENVIRONMENTAL SPECIALIST GREGORY P. STOVER, P.G.

GREGORY P. STOVER, P.G. SENIOR GEOLOGIST

PPM CONSULTANTS, INC. SHAWN P. IVEY, P.G. 1600 LAMY LANE MONROE, LOUISIANA 71201 (318) 323-7270

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Figure 2 – Site/Area Map

Figure 3 – Building Location

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Appendix A – Figures

Appendix B – User Provided Information

Appendix C – Site Photographs Appendix D – Regulatory Research Documentation Appendix E – Historical Records Documentation

Appendix F – Other Documentation

Appendix G – Qualifications of Environmental Professionals

## EXECUTIVE SUMMARY

PPM Consultants, Inc. (PPM) was retained by the Lazenby and Associates, Inc. to conduct a Phase I Environmental Site Assessment (ESA) of the Calhoun Technology Park at 321 US Highway 80 East in Calhoun, 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 ASTM International Standard Practice E 1527-13.

PPM conducted the site reconnaissance on March 16, 2015. The facility is currently an unoccupied research facility. The property is generally irregular in shape, bordered to the north by Interstate 20 and to the south by the Kansas City Southern Railroad, occupying 328.684 acres in size. Improvements to the site include a total of 20 free standing structures on the subject property, along with three former pump houses, one water well shed, one weather station shed, and three metal water tanks. Due to the number of structures on the subject property each building has been assigned reference numbers, laid out in in **Figure 2** and **Figure 3**. The property is located in a rural, residential area of Calhoun, Louisiana. Available historical resources indicate that the property was developed as a LSU AgCenter Research Station in 1888 and has been unoccupied since LSU vacated the facility in November 2014.

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 subject property. According to the LSU AgCenter website, "the Calhoun Research Station, established in 1888, is the oldest facility of its kind in the state. Research has focused on dairy, peaches and watermelons. Today, the focus is on wood products and helping the forestry industry. A goal of the station's research is to waste no wood. Scientists are working to extract chemicals from treated wood and recycle both for beneficial use. Other research includes uses for low-quality wood products while improving the environment." Historical aerial photographs indicate the existence of at least 50 structures on the subject property since 1942. Site reconnaissance shows 20 current structures on the subject property. The facility has been unoccupied since LSU vacated the research facility in November 2014, after a funding cut. Potential concerns with the current uses of the property include the following:
  - <u>Pits east of Former Bauxite Storage Building</u>- Four pits were constructed east of the Former Bauxite Storage Building to hold chick litter associated with an

agricultural runoff mitigation experiment. The pits were filled with bio solids including chick litter in an attempt to simulate hazards associated with production farms. In a 2006 letter to the Louisiana Department of Environmental Quality (LDEQ) these pits were described as a non-point source pollution problem containing high phosphorous levels very susceptible to surface runoff that leads to eutrophication of nearby watersheds. Four cubic yards of bauxite residue were requested to reduce mobility of "heavy metals" from the site. Mr. Thomas informed PPM that these pits were later filled in using demolition debris and trash from the site. In a 2007 inspection asbestos was found in the buildings on the site.

- Aerial photographs show the pits were buried between 1998 and 2014. Approximately 30 historical buildings are no longer present on the site. If these building were the source of the demolition debris used in filling the pits, then hazardous waste materials in the form of asbestos have been buried on site. The suspected disposal of asbestos containing demolition debris on the site is considered to be a recognized environmental condition.
- Hazardous Chemicals- During interviews it was revealed that pesticides, herbicides, and other chemicals were stored and used on the site during the facility's operational history. Although the chemicals were reportedly stored and disposed of properly, spills and leaks may have occurred on the property impacting the soil and groundwater on the subject or adjoining properties. These interviews provided only limited information about chemical use practices during the recent past when environmental regulations were in place. There is no information available for the facility before regulations were enacted (approximately the mid-1970s back to 1888). It is reasonable to assume that a university affiliated agricultural experimental station would have been testing pesticides, herbicides, and other farm related chemicals that were considered cutting edge for their times; therefore, it is likely that pesticides like Aldrin, Chlordane, Dieldrin, and DDT that were considered wonder chemicals in the 1940s were used at the site before they were banned by the USEPA starting in the 1970s. These chemicals were banned because they were hazardous to human health and the environment and were very persistent in the environment. Likewise, proper use and disposal practices of today would be different from what would have been considered acceptable before regulations. For example, sink drains, which in this case could lead to the onsite septic tanks, are known to have been popular and convenient locations for chemical disposal in pre-regulation laboratories and other interior usage areas. At least

three floor drains were observed in the laboratory area of Building 15 on the southern portion of the subject property. The drains were located in a slight depression that funneled liquids from the immediate area to the drains. Due to the proximity of the drains to the areas where hazardous chemical handling occurred and because these chemicals may have been released unimpeded into the drains, the drains could have carried hazardous materials offsite or impacted the subsurface or stormwater. The groundskeeper informed PPM during the site reconnaissance that the drains in the laboratory of Building 15 led to a septic tank on the subject property. One storm drain located west of Building 4 received storm water and runoff from the surrounding area including the pesticide storage building where hazardous chemicals may have been released unimpeded into the storm drain. The storm drain conveys water into the northern irrigation pond. Although there was no evidence of staining or odors from the drain indicative of a chemical impact, the potential for historical or current contamination of stormwater exists. Together, it is very possible that high concentrations of these highly persistent hazardous substances may still be found in former storage, mixing, and application areas, in septic tank leach fields, and in the ponds and pits that may have received runoff from these areas. It is possible that the storage and mixing areas remained consistent through time, but it is also likely that such areas moved all over the site in its 100-plus year history. The likely use and release of hazardous agricultural chemicals on the subject property by its operations from 1888 to recent times represents a recognized environmental condition.

Former gasoline UST. One 500-1000 gallon gasoline Underground Storage Tank (UST) was located adjacent to Building 10 to fuel the farm equipment on the subject property. According to Mr. Thomas, the tank was removed in 2008 or 2009 without incident. Mr. Juneau, with the LDEQ UST Division, informed PPM that, USTs below 1,100 gallons on farms were exempt from LDEQ registration and may be removed without testing or LDEQ inspection; and without incident, would not require reporting to the LDEQ. Based on PPM's experience, the only "incident" that inexperienced people are likely to notice is free product in the excavation, but without laboratory analysis of soil and groundwater samples the implied "without incident" does not eliminate the possibility of a release that exceeds regulatory action levels. Although the UST may have been closed in accordance with LDEQ regulations for an exempt farm tank, the lack of closure information does not preclude the possibility that a release of petroleum products to the subsurface has occurred; therefore, the former gasoline UST represents a recognized environmental condition.

Gas well and gas pipeline. The Department of Natural Resources (DNR) provides a publically accessible database, SONRIS, which includes information on well registration and use. SONRIS identified four gas wells located in the eastern portion of the site. The database indicates one triple completion well along a service road and one single completion well to the northeast of the active site. The northeastern well is 9,746 feet deep and produced natural gas between 1960 and 1966, but has been plugged and abandoned since September 20, 1966. The triple completion well was first spudded March 31, 1959, with a measured depth of 9,904 feet, the dual and triple completions were added in 1968, operating until they were plugged and abandoned in 1983. The active well is currently operated by Linn Operating, Inc in the Cotton Valley D sands and pumping natural gas. No oil extraction from the well has been reported since June 2011. Mr. York explained that the responsibility for an active or abandoned well rests on the company registered as the well operator. If a problem were to arise in association with the wells on the subject property the land owner would not be held responsible. Based on the long term historical operation of the wells and the risk associated with transporting natural gas through the property, the gas wells and the gas pipeline on the subject property represent a recognized environmental condition.

#### The following significant data gap was also encountered by this assessment:

- The earliest available records for the subject property date back to 1942. At that time the land was operating as a LSU AgCenter research facility. PPM was unable to determine site use or research procedures prior to 1942. It is possible that this land use may have involved hazardous substances or petroleum products. Since this land use cannot be determined from the available historical resources, our inability to make reasonable conclusions is considered a significant data gap.
- <u>Southern extremity</u>- PPM was unable to access the southeastern portion of the subject property during site reconnaissance due to the dense vegetation. Due to the long environmental history of the facility, this is considered a significant data gap; therefore, PPM is unable to form an opinion about conditions in this area at this time.
- Septic system. PPM was informed by Mr. Thomas that the site operates on a system of septic tanks in addition to the pools of wastewater on the northwestern portion of the subject property. The Ouachita Parish Department for Health and Hospitals', Environmental Health Specialist, Greg Hill, was unable to locate any documentation as to the nature or presence of these septic tanks. Mr. Hill informed PPM, it is likely that the LSU facility never registered the septic system and would

not have reported any issues pertaining to their use or upkeep. Based on the unknown state of the onsite septic system and possibility of hazardous substances draining into the septic tanks, this is considered a significant data gap; therefore, PPM is unable to form an opinion at this time.

" Channell

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# 1.0 INTRODUCTION

Property Name:	Calhoun Technology Park					
Current Property Owner:	Ouachita Police Ju	ıry				
Current Site Use:	Unoccupied – formerly LSU AgCenter Research Station					
Land Area in Acres:	328.684 Acres	328.684 Acres				
Street Address:	321 US Highway	321 US Highway 80				
County/Parish:	Ouachita					
City, State, Zip Code:	Calhoun, Louisiar	a 71225				
UTM Coordinates:	32° 30' 52.1''N	Latitude	92° 20' 44.4''W	Longitude		
Tax Parcel ID(s):	123751, 123752, 1327					
Date of Site Visit:	March 16, 2015					
	Site location is shown on Figure 1, Site Location Map, Appendix A.					
Attachments:	Site map is shown on Figure 2, Site/Area Map, Appendix A.					
	Legal description	(if obtained) is p	provided in Appendix F	·		

# **1.1 PROPERTY IDENTIFICATION**

#### **1.2 PURPOSE**

PPM Consultants, Inc. (PPM) was retained by Lazenby and Associates, Inc. to conduct a Phase I Environmental Site Assessment (ESA) of the above-referenced property in accordance with ASTM Standard Practice E 1527-13. The purpose of the ASTM Standard Practice E 1527-13 is:

"to define good commercial and customary practice in the United States of America for conducting an environmental site assessment of a parcel of commercial real estate with respect to the range of contaminants within the scope of the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA) (42 U.S.C. §9601) and petroleum products. As such, this practice is intended to permit a user to satisfy one of the requirements to qualify for the innocent landowner, contiguous property owner, or bona fide prospective purchaser limitations on CERCLA liability (hereinafter, the "landowner liability protections," or "LLPs"): that is, the practice that constitutes all appropriate inquiries into the previous ownership and uses of the property consistent with good commercial and customary practice as defined at 42 U.S.C. §9601(35)(B). The goal of the process established by this practice is to identify recognized environmental conditions associated with the property. The term recognized environmental condition is defined by Practice E 1527-13 as:

"the presence or likely presence of any hazardous substances or petroleum products in, on, or at a property: (1) due to any release to the environment; (2) under conditions indicative of a release to the environment; or (3) under conditions that pose a material threat of a future release to the environment. De minimis conditions are not recognized environmental conditions." Release to the environment entails the migration or movement of hazardous substances or petroleum products in any form, including solids and liquids at the surface or subsurface, and vapor in the subsurface to, within, or from the property. If such conditions exist on the property, and are not de minimis, the condition is a recognized environmental condition.

Key terms used in this report that are specifically defined by Practice E1527-13 are provided in Section 9.0, Glossary of Key Terms.

## **1.3 CONTINUED VIABILITY AND USER RELIANCE**

ASTM defines the "user" as the party seeking to use Practice E1527-13 to complete an ESA of the property. A user may include, without limitation, a potential purchaser of property, a potential tenant of property, an owner of property, a lender, or a property manager. The findings and conclusions contained within this report may not be used or relied upon by any other parties without the written consent of the client that contracted PPM to conduct this assessment and PPM. The client may designate other users who may rely on this report. All users currently identified by the client are named in **Section 2.1** of this report.

In accordance with the ASTM practice, this report may be relied upon by the user(s) for a period of up to 180 days prior to the date of acquisition or transaction. If the transaction occurs after 180 days, but prior to one year, this report may be used provided that the following components of the report are updated:

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

• And declaration by the environmental professional for the assessment or update.

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

- Obtain written authorization to rely on this report from the original client and PPM;
- Fulfill the User's Responsibilities outlined in Section 2.0; and
- 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.

# 2.0 USER PROVIDED INFORMATION

#### 2.1 USERS OF REPORT

Lazenby and Associates, Inc. contracted PPM to perform this Phase I ESA and are considered the client and a user of this report.

#### 2.2 USER QUESTIONNAIRE

The "All Appropriate Inquiries" Final Rule (40 CFR Part 312) requires that certain tasks be performed by or on behalf of a party seeking to qualify for landowner liability protections (LLP) to CERCLA liability (i.e. the user). While such information is not required to be provided to the environmental professional (i.e. PPM), the environmental professional must request information from the user to assist in identifying recognized environmental conditions. The User Questionnaire found in Appendix X3 of Practice E1527-13 was provided to each of the users identified in **Section 2.1**. Responses to the User Questionnaire are provided in **Appendix B**. Additional information provided to questions answered in the affirmative by the user on the questionnaire, are summarized as follows:

• Ms. Crosby stated that Lazenby and Associates, Inc. could produce a legal description of the property. The legal description was provided to PPM in the form of a Land Title Survey drawing, which is included in **Appendix B**.

#### 2.3 TITLE SEARCH

The client/user did not provide a title search for environmental liens or activity and use limitations (AUL) filed or recorded against the property. The client/user also did not contract PPM to provide this service.

#### 2.4 OTHER INFORMATION PROVIDED BY USER

Other information provided by the user includes the following:

- The user identified the property as an unoccupied agricultural research facility;
- The user stated the reason for the Phase I was to satisfy the requirements for an LED Site Certification;
- The user stated that the type of property transaction was a donation reverting back to the Ouachita Parish Police Jury as the original owner;
- The user identified Ouachita Parish Police Jury as the site owner;
- The user identified Mr. Brad Cammack, at (318) 327-1340 as the site owner and contact; and
- The user provided a Boundary Survey Plat for the subject property.

Information provided by the user is attached in **Appendix B**.

#### 2.5 USER SPECIFIED TERMS, CONDITIONS, AND LIMITATIONS

The client did not request or specify any special terms, conditions, limitations, or considerations that would limit, deviate from, reduce, or add to the scope of this assessment with respect to Practice E1527-13.

## 3.0 **RECORDS REVIEW**

PPM conducted a review of reasonably ascertainable and usable records to help identify recognized environmental conditions in connection with the property. Information sources fall into the following categories: (1) Standard Environmental Record Sources that are specific lists of facilities typically involving hazardous substances or petroleum products and are regulated or recorded by federal, state, or tribal regulatory agencies; (2) Regulatory Agency File and Record Sources that are typically used to further research facilities

identified by the Standard Environmental Record Sources; (3) Other Environmental Record Sources that may include previous assessments of the property; (4) Physical Setting Sources that provide information about the geologic, hydrogeologic, hydrologic, or topographic characteristics primarily used to evaluate the potential for contaminant migration from facilities identified by the Standard Environmental Record Sources; and (5) Standard Historical Sources, which have the primary objective to identify property land use from the present, back to the property's first developed use, or back to 1940, whichever is earlier. Information on available records is provided in the following sections.

#### 3.1 ENVIRONMENTAL RECORD SOURCES

PPM retained the services of Environmental Data Resources, Inc. (EDR) to provide information available from state, tribal, and federal databases regarding reported environmental activities and releases in the site vicinity. PPM also reviewed federal and state electronic databases, where available, for files relevant to this ESA. A review of previous reports and other environmental documents that may have been provided by the user or other sources was also completed.

#### 3.1.1 Standard Environmental Record Sources

Third-party providers of database searches such as EDR typically yield a large number of sites and a significant volume of environmental information. ASTM requires the Environmental Professional to evaluate the data and use their judgment regarding the level of detail to discuss and present regarding each of the listed sites. While numerous sites may be within the ASTM minimum search distance, many are located at significant distances from the subject property and based on this distance and other site-specific characteristics (site geology/hydrogeology, gradient, drainage, etc.) are unlikely to impact the subject property and therefore may be reasonably dismissed from further discussion in this section at the discretion of the Environmental Professional. The information presented below represents a summary of database searches and corresponding minimum search distances required by ASTM 1527-13. Also included is available relevant information from regulatory agency files researched.

SUMMARY OF DATABASE REVIEW				
True of Site	ASTM Minimum	Number I	dentified	
Type of Site	Search Distance	Potential	Actual	
Federal NPL	1 mile	0	0	
Federal CERCLIS	0.5 mile	0	0	
Federal CERCLIS-NFRAP	0.5 mile	0	0	
Federal RCRA CORRACTS	1 mile	0	0	

Federal RCRA TSD		0.5 mile	0	0
Federal RCRA Generat	tor	On or Adjoining	0	0
Federal 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/SV	WD	0.5 mile	0	0
State/Tribal LUST		0.5 mile	· 0	0
State/Tribal RUST		On or Adjoining	0	0
State/Tribal Institutional/Engineering Control		On site	0	0
State/Tribal Voluntary	Cleanup Sites	0.5 mile	0	0
State/Tribal Brownfields Sites		0.5 mile	0	0
Database Provider:	Environmental Database Resources, Inc.			
Attachments:	Standard and Regulatory Record documents are provided in Appendix D.			

EDR did not list any environmental concerns within the ASTM minimum search distance for the subject property.

## 3.1.2 Additional Environmental Record Sources

EDR also provides additional information from other EDR-proprietary and non-proprietary sources not specifically required by ASTM 1527-13, but may be relevant in determining the presence of recognized environmental conditions. Examples include typical higher risk sites such as historical drycleaners, automobile service stations, manufactured gas plants, landfills, emergency releases, and many others. ASTM does not specify search distances for these databases; therefore, the inclusion of listed sites below is at the discretion of the Environmental Professional. No such properties were identified in these databases.

## 3.1.3 Other Environmental Records Sources

Title:	Standard Air Perm #1-26	it for LSU	Source:	LDEQ EDMS	Date:	4/05/2004	
for air	According to the EDR report the site received an unspecified State Permit (permit number 2160-00081-00) for air emissions on February 7, 1997. The facility is listed as a Minor Source/Small Source Moderator, receiving a standard permit effective April 5, 2004.						
LDEQ register	Electronic Document and to Devon Energy Energy Production	nt Managemen	nt System (I Company, LI	e database report. P EDMS). The databa P. A Standard Oil a ion to the operatio	ase indicated that and Gas Air Permi	the gas well is t was issued to	
Attachi	nents:	Other Enviro	nmental Rec	ord Documentation	is provided in App	endix F.	

## 3.2 PHYSICAL SETTING SOURCES

Title:	Calhoun Quadrangle	Source:	USGS	Date:	1994
Title:	GeoCheck® Physical Setting Source Addendum	Source:	EDR	Date:	2015
Attach	ments: Physical Se	tting Documer	ntation is provided	in Appendix F.	A

The USGS map provides that the subject property is located in a rural area of Calhoun, Louisiana in an area that slopes generally toward the east. This map lists the property as North Louisiana Experimental Station. GeoCheck ® indicates that the subject property is located at an elevation of 174 feet above sea level (MSL). The site is reportedly underlain by Savannah fine sandy loam, which has slow infiltration rates and drains moderately well. The site is anticipated to have a high water table; GeoCheck ® estimates the depth to groundwater to be 3 to 6 feet below ground surface (BGS).

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 vicinity of the property mimics the topographical gradient indicated by USGS topographic maps. Based on this map as confirmed by GeoCheck ®, the groundwater flow direction from the property is interpreted to be toward the east.

		AERIAL PHOTOGRAPHS
Year (Source)		Comments
1942 (ASCS)	Property	The subject property appears to be a mixture of cleared and wooded developed agricultural land. Structures are visible along the northern edge of US Highway 80. Roadways are visible branching from US Highway 80 along the western portion on the subject property. Several structures are visible on the south central portion of the property. A small pond is visible on the northwestern portion of the property. Due to the small scale of the photo, it is difficult to ascertain potential development and number of structures within the region.
	Surrounding	Surrounding properties to the west and south appear to be developed for agriculture. Residential development is apparent on the southwestern adjoining property. Properties to the north and east appear to be wooded and undeveloped. Kansas City Southern Railroad borders the subject property to the south.
1951 (ASCS)	Property	The subject property appears similar to the 1942 aerial photograph, with the exception of two additional structures south of US Highway 80 along the western roadway.
	Surrounding	All adjoining properties appear similar to the 1942 aerial photograph.

## **3.3 HISTORICAL USE INFORMATION**

1967 (ASCS)	Property	The subject property appears to be predominantly cleared for agricultural development. Five structures are visible along the western edge of the subject property, north of US Highway 80. Additional structures and development is apparent along the center of the property. Vegetation surrounding the northern pond has been cleared and the shoreline has expanded to the south. A second pond is visible along the southern boundary.
	Surrounding	Interstate 20 is visible along the northern boundary of the subject property. All adjoining properties appear similar to the 1951 aerial photograph, with the exception of increased forestation on undeveloped land to the north, east, and south.
1976 (USGS)	Property	Additional development is apparent south of US Highway 80 along the western border. Two small pools are visible at the northwestern corner of the subject property Two additional small pools are visible at the center of the property, north of US Highway 80.
	Surrounding	All adjoining properties appear similar to the 1967 aerial photograph.
1983 (USGS)	Property	Subject property appears similar to the 1976 aerial photograph. Due to low photograph quality and small scale, it is difficult to ascertain potential development within the region.
	Surrounding	Due to low photograph quality and small scale, it is difficult to ascertain potential development within the region.
1998 (LOSCO)	Property	Development along the eastern portion of the subject property, north of US Highway 80, appears to be a gas well and storage tank along a roadway running north from the highway. Pools at the northwestern corner of the subject property are no longer visible. Several structures appear to have been demolished, leaving foundations. Additional forest growth is visible on the eastern portion of the subject property.
	Surrounding	All adjoining properties appear similar to the 1976 aerial photograph, with the exception of residential development on the adjoining property to the southwest.
2004 (USDA)	Property	Six structures and the four small ponds at the center of the property, north of US Highway 80, have been removed. Three structures along the western border have been removed. Four structures on the western portion of the property, adjoin the northern edge of US Highway 80 have been removed.
	Surrounding	Residential development is apparent on northwestern adjoining property. Further to the west Calhoun Middle school is visible north of US Highway 80. Adjoining properties appear similar to aerial photograph from 1998.
2013	Property	One structure on the northeastern portion of the property has been removed. One structure from the southwestern border of the property. Property appears as it does currently.
(USDA)	Surrounding	Residential development is visible on the adjoining property to the south. Continued residential development at Curry Creek Subdivision is visible to the west.

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and the second	1	CITY DIRECTORIES					
Year (Source)		Comments					
	Property	Address:					
1998		321 US Highway 80 E- Calhoun Research Station of Louisiana State					
(Polk's City	Surrounding	US Highway 80					
Directory)		Listings of interest:					
		(298)- Residence (301)- Residence (539)- Residence :					
	Property	Address:					
		321 US Highway 80 E- Calhoun Research Station of Louisiana State					
1999		(361)- Residence					
(Polk's City		(365)- Residence					
Directory)	Surrounding	US Highway 80					
		Listings of interest:					
		(296)- Residence (298)- Residence (539)- Residence					
	Property	Address:					
		321 US Highway 80 E- Calhoun Research Station					
		(361)- Residence					
		(505)- Louisiana State University Extension					
2004 (Polk's City	Surrounding	US Highway 80					
Directory)		Listings of interest:					
		(296)- Residence (298)- Residence (539)- Residence					
		Sawmill Road					
		Listings of interest:					
		(114)- Residence (156)- Residence					
	Property	Address:					
		321 US Highway 80 E- Calhoun Research Station					
		(365)-Residence					
2009 (Polk's City	Surrounding	US Highway 80 E					
Directory)		Listings of interest:					
		(296)- Residence (539)- Residence					
		Sawmill Road					
		Listings of interest: (156)- Residence					

(Polk's City Directory)	Surrounding	<u>US Highway 80 E</u>	
		Listings of interest:	
		(296)- Residence	(298)- Residence
		Sawmill Road	
		Listings of interest:	
		(114)- Residence	(156)- Residence

#### FIRE INSURANCE MAPS

Fire insurance maps were not available for the subject area.

USGS TOPOGRAPHIC MAPS		
Year (Source)		Comments
1994	Property	The subject property is listed as the North Louisiana Experimental Station. One gas well is depicted on the eastern portion of the subject property. The property is shown to be cleared with several structures north and south of US Highway 80.
	Surrounding	The surrounding properties to the north, east and south appears to be undeveloped. The adjoining property to the west appears to be cleared for residential development.

OTHER HISTORICAL SOURCES
Other historical sources were not identified for the subject area.

Attachments: Copies of Historical Records Documentation is provided in Appendix E.

# 4.0 SITE RECONNAISSANCE

During the site reconnaissance, PPM visually inspected the grounds and structures (if any) on the property to the extent not obstructed by bodies of water, adjacent buildings, or other obstacles. The objective of the site reconnaissance is to visually and physically observe the property and the adjoining properties for any uses or conditions that may indicate the likelihood of recognized environmental conditions in connection with the property. Due to the size of this property, number of buildings, dense vegetation, etc., the special methodologies were used as discussed in **Section 4.1**. Interior and exterior inspections focused on practices that involve the use, treatment, storage, disposal, generation, or release of hazardous substances or petroleum products. Exterior observations for this list are applied to the property and adjoining properties. Interior observations are limited to the property.

#### 4.1 METHODOLOGY AND LIMITING CONDITIONS

Site reconnaissance does not include invasive or physical inspections of observed releases, such as ground disturbance to determine the thickness of a spill, or opening and inspecting the contents of vaults, manholes, storage tanks, drums, and other containers suspected to contain hazardous substances or petroleum products. Limiting conditions such as potentially unsafe conditions or inaccessible area were evaluated at the discretion of the site inspector as obstacles to the inspection. There were no special methodologies used to inspect the site; however, limiting conditions were encountered due to the size (~330 acres) of the property. PPM was able to observe all cleared portions of the property and was granted access to all buildings located on the site; however, not all wooded portions were observed. PPM attempted a general sweep of the wooded areas and assumed these to be representative of the remaining wooded portions of the property. Findings and opinions outlined further within this report will be subject to these limitations and assumptions.

#### **4.2 SITE USE AND IMPROVEMENTS**

CU	RRENT USE OF PROPERTY
Two structures are currently used to hou	tially cleared and wooded, unoccupied agricultural research facility. use maintenance and lawn care equipment pertaining to the upkeep of ctures on the property are currently unused.
Property Size and Shape:	328.684 acres in an irregular shape.
	Describe buildings on site:
one water well shed, one weather station	ictures on the subject property, along with three former pump houses, n shed, and three metal water tanks. Due to the number of structures has been assigned a reference number, presented in <b>Figure 2 and</b>
north side of US Highway 80 East. Buil contain storage, work truck, tractor, and the former extension office) functioned rooms. Buildings 4, 8, and 15 are cinde pesticides, refrigeration units, and labor trucks and tractors during the sites opera slab with metal siding and sliding doors with metal siding along the east side a storage area on the western portion of th majority of the remaining space consist bauxite storage building consist almost metal frame buildings located atop conc room on the western half and a cinderble	sidences (Buildings 1, 2, 3, 13, 14, the eastern residence) along the ldings 10 and 11 are the only active structures on site and, currently maintenance supplies. Two of the brick structures (Building 12 and d as offices, containing bathrooms, book shelves, and empty office erblock structures formerly used as research laboratories, containing ratory equipment respectively. Buildings 5 and 6 were used to house ation. Building 6 is a wooden frame building located atop a concrete along the south side. Building 5 is a wooden frame open air structure and a small enclosed wooden sided room containing a restroom and the structure. Building 7 includes a walk-in refrigeration unit with the ing entirely of warehouse storage space. Building 17 and the former t entirely of warehouse storage space. The former warehouses are crete slab. Building 9 functioned as a greenhouse with a glass paneled ock laboratory on the eastern half. Building 16 was constructed as an ame and concrete floor. Three former wooden pump houses were

located adjoining the two irrigation ponds. Three metal water tanks were observed on the property.

#### Describe vegetation and landscaping on site:

The property is a mixed cleared/wooded land. The majority on the western, central, and southwestern sections of the property are cleared with manicured vegetation as groundcover. The majority of northern, eastern, and southeastern sections of the property are thickly wooded. The western extremity of the property, north of US Highway 80 is wooded, showing signs that the trees were planted in rows to facility access for forestry research. Switchgrass was grown to the west of the northern irrigation pond for research purposes. The area immediately surrounding the northern irrigation pond is sparsely wooded. Scattered trees were observed near structures.

#### Describe roads, paths, paved areas on site:

There are seven entrances to the property from US Highway 80 on the northern portion of the property and two entrances from the highway to the southern portion of the property. Five of the northern entrances are concrete. An additional gravel road entrance is noted to the east. Three main gravel paths extend into the northern portion of the property, branching off the main entrance. One gravel path was observed on the southern portion of the land. Paved parking areas were observed north and west of the former extension office, southwest of Building 12, and east of Building 15. The floor of Building 16 and vicinity immediately south of the structure were paved. Six concrete foundations were noted along the pathways.

#### Observed Topography and Drainages on site:

The site is relatively flat, but has a slight downward gradient approaching the northern irrigation pond and Curry Creek to the north.

Type of Sewage Disposal:Source of Drinking Water:Type of Heating & Cooling system:		Septic System
		Municipal
		tem: HVAC
		Adjoining Roads
North:	Interstate 20	
East:	None	
South:	US Highway 80 bisects the property.	
West:	None	
References:		Property features are shown on Figure 2, Site Map, Appendix A.
		Photographs of property are provided in <b>Appendix C</b> .

#### 4.3 USES OF ADJOINING PROPERTIES

General Area Land Use: Mi

Mixed Residential and undeveloped land.

ADJOINING PROPERTIES (Clockwise from Due North)	
Name:	Wooded Property
Address:	None
Current & Past Uses:	Undeveloped land
Direction:	North
Intervening Street:	Interstate 20

Name:	Wooded Property
Address:	None
Current & Past Uses:	Undeveloped land
Direction:	East
Intervening Street:	None

Name:	LSU owned land
Address:	None
Current & Past Uses:	Undeveloped wooded land
Direction:	East
Intervening Street:	None

Name:	Wooded Property
Address:	None
Current & Past Uses:	Undeveloped land
Direction:	Southeast
Intervening Street:	None

Name:	Residences
Address:	Various
Current & Past Uses:	Residence, undeveloped wooded land
Direction:	South southwest
Intervening Street:	None

Name:	Residences
Address:	Various
Current & Past Uses:	Residence, undeveloped wooded land
Direction:	Southwest
Intervening Street:	None

Name:	Curry Creek Units Number 1 and 2	
Address:	Various	
Current & Past Uses:	Residence, undeveloped wooded land	
Direction:	West	
Intervening Street:	None	
References:	Adjoining properties are shown on Figure 3, Area Map, Appendix A.	

# 4.4 EXTERIOR OBSERVATIONS

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Were any of the following past or present conditions observed or	Property	Adjoining
suspected?	Yes or No	Yes or No
Pits, Ponds, and Lagoons	YES	No
The large northern irrigation pond encompasses approximately five acres of property. The large southern irrigation pond covers approximately two acres southern boundary. One small drained wastewater treatment pond and one sm pond were noted along the western boundary of the northwest portion of the observe stressed vegetation or odors surrounding the ponds. Four former pits and demolition debris were located at the center of the subject property.	along the central nall active wastew subject property	portion of the vater treatment . PPM did not
Stressed Vegetation	YES	No
PPM noted stressed vegetation in an approximately three feet wide by two fee	t long patch east o	of Building 4.
Stained Soil or Pavement	YES	No
PPM noted stained soil in an approximately three feet wide by two feet long p	atch east of Build	ling 4.
Solid Waste Disposal to Property	YES	No
Concrete, wood, and PVC piping was noted south of the northern irrigation p in the former pits at the center of the subject property.	oond. Solid waste	was observed
Fill of Unknown Origin	No	No
Waste Water	Yes	No
	ater treatment po	na were notea
One drained, small wastewater treatment pond and one small active wastew along the western boundary of the northwest portion of the subject property vegetation or stained soil surrounding the ponds.		
along the western boundary of the northwest portion of the subject property vegetation or stained soil surrounding the ponds. Wells	PPM did not ob YES	No
along the western boundary of the northwest portion of the subject property vegetation or stained soil surrounding the ponds.	YES rrigation, pumpin wells, pumping fr well, drilled in 19 operty. Gas pipin ern irrigation por	No g from a depth om 558 feet in 959, belonging g leading from
along the western boundary of the northwest portion of the subject property vegetation or stained soil surrounding the ponds. Wells PPM observed one active four-inch water well north of Building 13 used for it of 567 feet in the Sparta aquifer. DNR lists 2 plugged and abandoned water withe Sparta aquifer, on the subject property. One 9,904 foot active natural gas to Linn Operating, Inc. was observed on the eastern portion of the subject protect well travels to the west across the subject property and under the north associated with the well were observed south of the well along the eastern acc Septic Systems	YES rrigation, pumpin wells, pumping fr well, drilled in 19 operty. Gas pipin ern irrigation por ess road. YES	No g from a depth om 558 feet in 959, belonging g leading from nd. Two ASTs No
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Potential PCB Equipment	YES	YES
Eleven pole-mounted transformers were noted on the northern portion of the subject property. Two pole mounted transformers were noted on the southern portion of the subject property, and several transformer were noted on the western adjoining properties. All transformers appeared to be in good condition, and the was no evidence of leaks associated with any of the transformers.		l transformers
Other Environmental Conditions	No	No

## 4.5 INTERIOR OBSERVATIONS

Were the following past or present conditions observed or suspected on the property?	Yes No
Stains or Corrosion	YES
Minor petroleum staining was noted on the concrete flooring in Buildings 6, 7, 10, 11, and staining from pesticides was noted on the floors and shelving in Building 4 and on the floor in The staining appeared to be limited to concrete flooring and shelving.	
Drains and Sumps	YES
Three drains were observed in the flooring of the laboratory in Building 15, PPM did not no staining.	te any signs of
Oil Water Separators	No
Above and Underground Storage Tanks	No
Drums (Standard US 55-gallon)	YES
Three empty 55 gallon drums were noted in Building 11 and the former bauxite storage wareho	ouse.
Other Hazardous Substance/Petroleum Containers	YES
Herbicide containers were noted in Building 11. Building 4 was used for the storage Automotive fluid containers and used motor oil containers were noted in Building 11. Paint can paint buckets were observed on shelving and floor in Building 6.	
Other Unidentified Substance Containers	No
Hydraulic Lifts/Elevators	No
Chemical or Petroleum Odors	No
Pools of Liquid (excluding water)	No
Potential PCB Equipment	No

### **4.6 OTHER OBSERVATIONS**

Recent land leveling was noted at the center of the subject property. Formerly four pits were located in this area filled with chicken waste and used to test potential control methods to reduce phosphorus leachability from agricultural fields. In a letter to LDEQ, the LSU AgCenter noted the serious non-point source pollution that agricultural leachability poses. LSU stated that bio solids, such as chick litter, contain substantially high phosphorous levels that are very susceptible to surface runoff from fields, leading to eutrophication of nearby watersheds. In an attempt to reduce leaching the AgCenter obtained four cubic yards of bauxite residue that was added to the high phosphorus soil to reduce "heavy metal" mobility in the chick litter. PPM was informed that the pits were filled using the rubble from former structures along with site trash.

## 5.0 INTERVIEWS

PPM conducted interviews when possible with individuals who may have knowledge of the site. The objective of interviews is to obtain information from persons likely to have actual knowledge of current and past uses or conditions of the property, adjoining properties, and surrounding area that may indicate the likelihood of recognized environmental conditions in connection with the property. The focus and quality of information is highly variable with each type of contact and individual. The persons interviewed were asked to be as specific as reasonably feasible in answering questions. Interview information is provided below:

INTERVIEW WITH CURRENT OWNER OR REPRESENTATIVE		
Interviewer:	Jordan Harper	
Date(s) Attempted:	March 26, 2015	
Name of Contact:	Brad Cammack	
Title/Affiliation:	Ouachita Parish Police Jury	
<b>Contact Information:</b>	318-327-1340	
the Police Jury acquired	ack informed PPM that he only recently became aware of the subject property when I the subject property from LSU in November 2014. He was not aware of any commental dangers on the subject property. Mr. Command, explained that the Police	

the Police Jury acquired the subject property from LSU in November 2014. He was not aware of any hazardous spills or environmental dangers on the subject property. Mr. Cammack explained that the Police Jury first acquired the subject property in 1888, donating the land to LSU with stipulation that it return to the parish should LSU abandon the site.

INTERVIEW WITH PAST OWNER	
Interviewer:	Jordan Harper
Date(s) Attempted:	March 23, 2014
Name of Contact:	Dr. Pat Colyer
Title/Affiliation:	Regional Director LSU AgCenter
<b>Contact Information:</b>	318-741-7430

**Comments:** Dr. Colyer informed PPM that he supervised the operation of the LSU AgCenter Calhoun research facility starting in 2011 and coordinated LSU's departure from the station. Dr. Colyer explained that he was fairly familiar with the operation of the facility under his tenure, but could not attest to the facilities use before 2011. The research facility was operated by two scientists who spent their time in the laboratory. Dr. Colyer stated that he did not know the state of the septic system, the use of the pesticide storage building, the condition of the former UST, or the operation of the southern laboratory. Under his supervision the site used branded herbicides to control weed growth on site and removed the former chicken houses at the center of the property. He explained that the radiation sign on Building 8 was for a spectrographer, a standard piece of laboratory equipment, and not related to an x-ray device. Dr. Colyer stated that there is no permanent risks associate with this device, stating that the radiation was both low and unable to penetrate the walls. LSU moved the spectographer off site in September 2014. He claimed no knowledge of hazardous chemical or petroleum spills at the site.

INTERVIEW WITH KEY SITE MANAGER	
Interviewer:	Jordan Harper
Date(s) Attempted:	March 16, 2015 / March 23, 2015
Name of Contact:	Chris Thomas
Title/Affiliation:	Groundskeeper
<b>Contact Information:</b>	318-557-5558

**Comments:** Mr. Thomas informed PPM that he has worked at the LSU Agricultural Research Station for 29 years as a groundskeeper and maintenance man. Mr. Thomas accompanied PPM on the site reconnaissance, describing site use and recent history. He notified PPM of a former gasoline UST adjacent to Building 10 that had been removed in 2009 without incident. Mr. Thomas provided contact information for Dr. Pat Colyer, the Regional Director for the LSU AgCenter. He identified a leaking, parked forklift as the cause of the petroleum staining and stressed vegetation east of Building 4. When asked about the former pits at the center of the property he explained that they had been filled in over time with the demolished remains of several structures from the subject property, describing the fill as trash.

#### INTERVIEW WITH OCCUPANTS (MAJOR AND USING HAZ/PET)

**Comments:** The site is not occupied.

INTERVIEW WITH LOCAL FIRE MARSHALL	
Interviewer:	Jordan Harper
Date(s) Attempted:	March 23, 2015
Name of Contact:	Tina Carlyle
Title/Affiliation:	Ouachita Parish Fire Prevention
Contact Information:	318-322-4174

**Comments:** Ms. Carlyle informed PPM that she works for the Ouachita Fire Prevention station. She was unable to find any references to environmental hazards or relevant emergency responses to the former LSU Research facility.

INTERVIEW WITH LOCAL HEALTH DEPARTMENT	
Interviewer:	Jordan Harper
Date(s) Attempted:	March 23, 2015
Name of Contact:	Greg Hill
Title/Affiliation:	Louisiana Department of Health and Hospitals- Environmental Health Specialist
<b>Contact Information:</b>	318-361-7213

**Comments:** Mr. Hill informed PPM that the LSU facility did not have any registered septic tanks on the property. Mr. Hill explained that the AgCenter did not report any septic system use during its operation. According to Mr. Hill the sewage effluent for Curry Creek Subdivision, adjacent to the west, does flow into Curry Creek to the north of the subject property. He is not aware of any reports associated with this facility.

#### INTERVIEW WITH STATE REGULATORY AGENCY

Interviewer:	Jordan Harper	
Date(s) Attempted:	March 18, 2015/ March 23, 2015	
Name of Contact:	Mark Juneau	
Title/Affiliation:	LDEQ- UST Division	
<b>Contact Information:</b>	318-362-5445	31.31.91.91.91.92.92.92.92.94.94.94.92.92.92.92.92.92.92.92.92.92.92.92.92.

**Comments:** Mr. Juneau was unable to locate any references to a UST on the subject property. He informed PPM that as a farm, a tank below 1,100 gallons is exempt from registration and removal of such a tank without incident would not be reported to the LDEQ office.

INTERVIEW WITH STATE REGULATORY AGENCY	
Interviewer:	Jordan Harper
Date(s) Attempted:	March 31, 2015
Name of Contact:	Steve Archibald
Title/Affiliation:	LDEQ- Remediation Division
<b>Contact Information:</b>	318-362-3048

**Comments:** Mr. Archibald was unfamiliar with the subject property and the bauxite experiment. He informed PPM that he did not advise testing the pits for heavy metals or phosphorous. Mr. Archibald suggested that heavy metal concentrations would not be high enough to detect in chick litter. He also stated that phosphorous concentrations in soils are not regulated and that bauxite residue does not pose a risk to the surrounding environment in low concentrations.

INTERVIEW WITH STATE REGULATORY AGENCY	
Interviewer:	Jordan Harper
Date(s) Attempted:	March 23, 2015
Name of Contact:	Jim York
Title/Affiliation:	DNR Office of Conservation District Manager
Contact Information:	318-362-3111

**Comments:** Mr. York informed PPM that the gas well on the subject property was purchased in 2014 from Devon Energy Production Company, is active, and is currently operated by Linn Operating, Inc. Mr. York explained that the responsibility for an active or abandoned well rests on the company registered as the well operator. If a problem were to arise in association with the wells on the subject property the land owner would not be held responsible.

#### INTERVIEW WITH NEIGHBOR FOR ABANDONED PROPERTIES

Comments: There were no abandoned properties in relation to this assessment.

#### INTERVIEWS WITH OTHERS

No other interviews were made during the course of this site assessment.

## 6.0 EVALUATION

## 6.1 FINDINGS AND OPINIONS

Relevant information gathered from user provided information, records reviews, observations, and interviews was evaluated together to provide a professional opinion as to whether any of the suspect activities identified represent recognized environmental conditions, controlled recognized environmental conditions, historical recognized environmental conditions, or de minimis conditions associated with the property. The findings and opinions of this assessment are as follows:

- Historical and current use of the subject property. According to the LSU AgCenter website, "the Calhoun Research Station, established in 1888, is the oldest facility of its kind in the state. Research has focused on dairy, peaches and watermelons. Today, the focus is on wood products and helping the forestry industry. A goal of the station's research is to waste no wood. Scientists are working to extract chemicals from treated wood and recycle both for beneficial use. Other research includes uses for low-quality wood products while improving the environment." Historical aerial photographs indicate the existence of at least 50 structures on the subject property since 1942. Site reconnaissance shows 20 current structures on the subject property. The facility has been unoccupied since LSU vacated the research facility in November 2014, after a funding cut. Potential concerns with the current uses of the property include the following:
  - Pits east of Former Bauxite Storage Building- Four pits were constructed east of the Former Bauxite Storage Building to hold chick litter associated with an agricultural runoff mitigation experiment. The pits were filled with bio solids including chick litter in an attempt to simulate hazards associated with production farms. In a 2006 letter to the LDEQ these pits were described as a non-point source pollution problem containing high phosphorous levels very susceptible to surface runoff that leads to eutrophication of nearby watersheds. Four cubic yards of bauxite residue were requested to reduce mobility of "heavy metals" from the site. Mr. Thomas informed PPM that these pits were later filled in using demolition debris and trash from the site. In a 2007 inspection asbestos was found in the buildings on the site.
    - Aerial photographs show the pits were buried between 1998 and 2014. Approximately 30 historical buildings are no longer present on the site. If these building were the source of the demolition debris used in filling the pits, then hazardous waste materials in the form of asbestos have

been buried on site. The suspected disposal of asbestos containing demolition debris on the site is considered to be a recognized environmental condition.

- Steve Archibald with LDEQ told PPM that he believes testing associated with heavy metal and phosphorous risks would be unnecessary. Mr. Archibald informed PPM that he can foresee no environmental hazards associated with the phosphorus levels, heavy metal concentrations (which is a reference that was not defined by LSU in their correspondence and may be a euphemism for phosphorus), or bauxite use in the pits. Based on the lack of interest from the state regulatory agency, the phosphorus and bauxite that may still be present in the pits is not regarded as a recognized environmental condition.
- Former Bauxite Storage Building. Historical documents indicate that the northeastern warehouse was used to house bauxite residue. A letter from the LDEQ granted the LSU AgCenter limited use of four cubic yards of bauxite residue. PPM observed red staining on the floor of the structure along with two empty 55-gallons drums inside the structure. The building itself has a concrete base at the foot of the walls and a metal frame with a metal roof. Two empty 55-gallon drums were located on the concrete floor in the former bauxite storage building at the center of the subject property. According to Mr. Thomas the drums previously held bauxite residue. Due to the solid construction of the building and the fact that the bauxite residue was stored only in the building during its use as a research facility and is not listed as a regulated hazardous substance, the Former Bauxite Storage Building does not appear to represent a recognized environmental condition
- <u>Hazardous Chemicals-</u> During interviews it was revealed that pesticides, herbicides, and other chemicals were stored and used on the site during the facility's operational history. Although the chemicals were reportedly stored and disposed of properly, spills and leaks may have occurred on the property impacting the soil and groundwater on the subject or adjoining properties. These interviews provided only limited information about chemical use practices during the recent past when environmental regulations were in place. There is no information available for the facility before regulations were enacted (approximately the mid-1970s back to 1888). It is reasonable to assume that a university affiliated agricultural experimental station would have been testing pesticides, herbicides, and other farm related chemicals that were considered cutting edge for their times; therefore, it is likely that pesticides like Aldrin, chlordane, Dieldrin, and DDT that were considered wonder chemicals

in the 1940s were used at the site before they were banned by the USEPA starting in the 1970s. These chemicals were banned because they were hazardous to human health and the environment and were very persistent in the environment. Likewise, proper use and disposal practices of today would be different from what would have been considered acceptable before regulations. For example, sink drains, which in this case could lead to the onsite septic tanks, are known to have been popular and convenient locations for chemical disposal in pre-regulation laboratories and other interior usage areas. At least three floor drains were observed in the laboratory area of Building 15 on the southern portion of the subject property. The drains were located in a slight depression that funneled liquids from the immediate area to the drains. Due to the proximity of the drains to the areas where hazardous chemical handling occurred and because these chemicals may have been released unimpeded into the drains, the drains could have carried hazardous materials offsite or impacted the subsurface or stormwater. The groundskeeper informed PPM during the site reconnaissance that the drains in the laboratory of Building 15 led to a septic tank on the subject property. One storm drain located west of Building 4 received storm water and runoff from the surrounding area including the pesticide storage building where hazardous chemicals may have been released unimpeded into the storm drain. The storm drain conveys water into the northern irrigation pond. Although there was no evidence of staining or odors from the drain indicative of a chemical impact, the potential for historical or current contamination of stormwater exists. Together, it is very possible that high concentrations of these highly persistent hazardous substances may still be found in former storage, mixing, and application areas, in septic tank leach fields, and in the ponds and pits that may have received runoff from these areas. It is possible that the storage and mixing areas remained consistent through time, but it is also likely that such areas moved all over the site in its 100-plus year history. The likely use and release of hazardous agricultural chemicals on the subject property by its operations from 1888 to recent times represents a recognized environmental condition.

Buckets of used oil, paint buckets, paint cans, automotive fluid containers, empty drum, and minor staining. PPM observed four, 5-gallon buckets of used oil and several smaller containers of automotive fluids in Building 10. Three 5gallon buckets and five paint cans were observed on the floor and shelving in Building 6. These containers were all located atop a concrete slab in good condition. Minimal petroleum staining was noted on the concrete flooring in Buildings 6, 7, 10, 11, and 15. Mr. Thomas informed PPM that the staining beneath the herbicide containers on the floor in Building 11, originated with a former leaking battery. The battery acid staining in building 11 appeared to be limited to concrete flooring. The area under the shelving and surrounding flooring beneath the paint canisters appeared to be in good condition with no evidence of leaking or staining. One empty 55-gallon water drum was observed in Building 11. Potential future releases from canisters of this capacity would be considered *de minimis*. PPM considered the staining to be *de minimis*.

- <u>Stained soil/stressed vegetation</u>- An area of stained soil and stressed vegetation measuring approximately three feet wide by two feet long is located east of Building 4. It appears the staining is a result of leakage from a farm vehicle that remained on the site. Mr. Thomas informed PPM in an interview that a forklift was parked at that location for several years that had a habit of leaking fluid. Due to the size and limited source of the area impacted, the stressed vegetation east of Building 4 appears to represent a *de minimis* condition.
- Former gasoline UST. One 500-1000 gallon gasoline UST was located adjacent to Building 10 to fuel the farm equipment on the subject property. According to Mr. Thomas, the tank was removed in 2008 or 2009 without incident. Mr. Juneau with the LDEQ UST Division, informed PPM that USTs below 1,100 gallons on farms were exempt from LDEQ registration, and may be removed without testing or LDEQ inspection; and without incident, would not require reporting to the LDEQ. Based on PPM's experience, the only "incident" that inexperienced people are likely to notice is free product in the excavation, but without laboratory analysis of soil and groundwater samples the implied "without incident" does not eliminate the possibility of a release that exceeds regulatory action levels. Although the UST may have been closed in accordance with LDEQ regulations for an exempt farm tank, the lack of closure information does not preclude the possibility that a release of petroleum products to the subsurface has occurred; therefore, the former gasoline UST represents a recognized environmental condition.
- <u>Gas well and gas pipeline</u>. The Department of Natural Resources (DNR) provides a publically accessible database, SONRIS that includes information on well registration and use. SONRIS identified four gas wells located in the eastern portion of the site. The database indicates one triple completion well along a service road and one single completion well to the northeast of the active site. The northeastern well is 9,746 feet deep and produced natural gas between 1960 and 1966, but has been plugged and abandoned since September 20, 1966. The triple completion well was first spudded March 31, 1959, with a measured depth of 9,904 feet, the dual and triple completions were added in

1968, operating until they were plugged and abandoned in 1983. The active well is currently operated by Linn Operating, Inc in the Cotton Valley D sands and pumping natural gas. No oil extraction from the well has been reported since June 2011. Mr. York explained that the responsibility for an active or abandoned well rests on the company registered as the well operator. If a problem were to arise in association with the wells on the subject property the land owner would not be held responsible. Based on the long term historical operation of the wells and the risk associated with transporting natural gas through the property, the gas wells and the gas pipeline on the subject property represent a recognized environmental condition.

- Solid waste. PPM observed demolition debris adjacent to the northern irrigation pond on the subject property. The solid waste consisted of bricks, broken cement, wood, and plastic pieces. The surrounding vegetation appeared to be thriving and solid waste did not appear to consist of petroleum products or hazardous waste materials. The solid waste at the site does not appear to represent a recognized environmental condition.
- <u>Electrical Transformers</u>. Dialectic fluid in some electric transformers contains PCBs. The content of dielectric fluid for the transformers on site is unknown. All onsite transformers appeared to be in good condition, and there was no evidence of leaks associated with any of the transformers. Based on this information, the pole-mounted transformers located on the subject property do not appear to represent a recognized environmental condition.
- **Historical and current surrounding land uses.** According to the historical sources reviewed, the properties adjoining the site appeared to consist of residential and undeveloped wooded property since at least 1942. During site reconnaissance the adjoining properties were observed to consist of the following: residential properties to the west, southwest, and south southwest and undeveloped land to the north, east, and southeast. The historical, undeveloped and residential nature of the surrounding properties is not considered to represent a recognized environmental condition.

## 6.2 DATA GAPS

A data gap is a lack of information or inability to obtain information despite good faith efforts to gather such information. A data gap is only significant if it affects PPM's ability to identify recognized environmental conditions.

- <u>Southern extremity</u>- PPM was unable to access the southeastern portion of the subject property during site reconnaissance due to the dense vegetation. Due to the long environmental history of the facility, this is considered a significant data gap; therefore, PPM is unable to form an opinion about conditions in this area at this time.
- <u>Septic system</u>. PPM was informed by Mr. Thomas that the site operates on a system of septic tanks in addition to the pools of wastewater on the northwestern portion of the subject property. The Ouachita Parish Department for Health and Hospitals', Environmental Health Specialist, Greg Hill, was unable to locate any documentation as to the nature or presence of these septic tanks. Mr. Hill informed PPM, it is likely that the LSU facility never registered the septic system and would not have reported any issues pertaining to their use or upkeep. Based on the unknown state of the onsite septic system and possibility of hazardous substances draining into the septic tanks, this is considered a significant data gap; therefore, PPM is unable to form an opinion at this time.

Data failure is a type of data gap that involves the inability to identify the property use at five-year intervals back to first use or 1940 whichever is earlier. Data failure occurred during this assessment because site use could not be established before 1888 when the LSU Ag Center was first developed. This data gap is not considered significant because it is very likely the site was undeveloped wooded land prior to similar to the surrounding land use from 1942 to the present. Data failure also occurred after 1888 for the following reasons:

- Historical sources were not available at the five-year interval defined by the ASTM standard;
- The oldest aerial photograph available was dated 1942;
- The scale of some aerial photographs created difficulty in discerning site features, specifically structural development on the subject property and adjoining properties;
- There were no fire insurance maps available for the surrounding area;
- City directories did not list the property prior to 1998;
- The previous owner representative (i.e. the Regional Director LSU AgCenter) did not have knowledge of the site prior to 2011;

- The key site manager was a groundskeeper with limited technical knowledge of the past operation and did not have any knowledge of the site prior to 1985;
- The current property owner did not have knowledge of the property before 2014; and
- There were no other standard historical sources likely to provide useful information.

Consequently, PPM was unable to obtain any detailed operational information prior to 2011 for a facility that had operated since 1888. Since the facility made use of hazardous substances and petroleum product after 2011, it is considered very likely probable that the LSU AgCenter operation also involved hazardous substances and petroleum products from 1888 to 2011. It is also considered likely that as an agricultural research and development facility it would have been using pesticides and herbicides that were considered cutting edge for their times and would have followed the use and disposal practices acceptable for those times. Since PPM has general knowledge of these types of practices, despite these data gaps PPM was able to make a reasonable conclusion regarding recognized environmental conditions.

## 6.3 ADDITIONAL INVESTIGATION OPINION

In accordance with Practice E1527-13, PPM has provided an opinion regarding additional appropriate investigation, if any, in the circumstance when greater certainty is required regarding the identification of recognized environmental conditions. This opinion does not render the assessment incomplete and is not intended to constitute a recommendation for a Phase II ESA or other assessment activities. Recommendations are not required by this practice and will only be provided at the request of the user.

It is PPM's professional opinion that additional investigation is warranted.

Based on the findings PPM recommends a Phase II ESA be conducted to address the recognized environmental conditions identified in this report.

### 6.4 CONCLUSIONS

PPM has performed a Phase I ESA in conformance with the scope and limitations of ASTM Practice E1527 of Calhoun Technology Park, the property. Any exceptions to, or deletions from, this practice are described in **Sections 4.1** and **6.3** of this report. 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 subject property. According to the LSU AgCenter website, "the Calhoun Research Station, established in 1888, is the oldest facility of its kind in the state. Research has focused on dairy, peaches and watermelons. Today, the focus is on wood products and helping the forestry industry. A goal of the station's research is to waste no wood. Scientists are working to extract chemicals from treated wood and recycle both for beneficial use. Other research includes uses for low-quality wood products while improving the environment." Historical aerial photographs indicate the existence of at least 50 structures on the subject property since 1942. Site reconnaissance shows 20 current structures on the subject property. The facility has been unoccupied since LSU vacated the research facility in November 2014, after a funding cut. Potential concerns with the current uses of the property include the following:
  - Pits east of Former Bauxite Storage Building- Four pits were constructed east of the Former Bauxite Storage Building to hold chick litter associated with an agricultural runoff mitigation experiment. The pits were filled with bio solids including chick litter in an attempt to simulate hazards associated with production farms. In a 2006 letter to the LDEQ these pits were described as a non-point source pollution problem containing high phosphorous levels very susceptible to surface runoff that leads to eutrophication of nearby watersheds. Four cubic yards of bauxite residue were requested to reduce mobility of "heavy metals" from the site. Mr. Thomas informed PPM that these pits were later filled in using demolition debris and trash from the site. In a 2007 inspection asbestos was found in the buildings on the site.
    - Aerial photographs show the pits were buried between 1998 and 2014. Approximately 30 historical buildings are no longer present on the site. If these building were the source of the demolition debris used in filling the pits, then hazardous waste materials in the form of asbestos have been buried on site. The suspected disposal of asbestos containing demolition debris on the site is considered to be a recognized environmental condition.
  - <u>Hazardous Chemicals</u> During interviews it was revealed that pesticides, herbicides, and other chemicals were stored and used on the site during the facility's operational history. Although the chemicals were reportedly stored and disposed of properly, spills and leaks may have occurred on the property impacting the soil and groundwater on the subject or adjoining properties. These interviews provided only limited information about chemical use practices during the recent past when environmental regulations were in place. There is no information available for the facility before regulations were

enacted (approximately the mid-1970s back to 1888). It is reasonable to assume that a university affiliated agricultural experimental station would have been testing pesticides, herbicides, and other farm related chemicals that were considered cutting edge for their times; therefore, it is likely that pesticides like Aldrin, chlordane, Dieldrin, and DDT that were considered wonder chemicals in the 1940s were used at the site before they were banned by the USEPA starting in the 1970s. These chemicals were banned because they were hazardous to human health and the environment and were very persistent in the environment. Likewise, proper use and disposal practices of today would be different from what would have been considered acceptable before regulations. For example, sink drains, which in this case could lead to the onsite septic tanks, are known to have been popular and convenient locations for chemical disposal in pre-regulation laboratories and other interior usage areas. At least three floor drains were observed in the laboratory area of Building 15 on the southern portion of the subject property. The drains were located in a slight depression that funneled liquids from the immediate area to the drains. Due to the proximity of the drains to the areas where hazardous chemical handling occurred and because these chemicals may have been released unimpeded into the drains, the drains could have carried hazardous materials offsite or impacted the subsurface or stormwater. The groundskeeper informed PPM during the site reconnaissance that the drains in the laboratory of Building 15 led to a septic tank on the subject property. One storm drain located west of Building 4 received storm water and runoff from the surrounding area including the pesticide storage building where hazardous chemicals may have been released unimpeded into the storm drain. The storm drain conveys water into the northern irrigation pond. Although there was no evidence of staining or odors from the drain indicative of a chemical impact, the potential for historical or current contamination of stormwater exists. Together, it is very possible that high concentrations of these highly persistent hazardous substances may still be found in former storage, mixing, and application areas, in septic tank leach fields, and in the ponds and pits that may have received runoff from these areas. It is possible that the storage and mixing areas remained consistent through time, but it is also likely that such areas moved all over the site in its 100-plus year history. The likely use and release of hazardous agricultural chemicals on the subject property by its operations from 1888 to recent times represents a recognized environmental condition.

- <u>Former gasoline UST</u>. One 500-1000 gallon gasoline UST was located adjacent to Building 10 to fuel the farm equipment on the subject property. According to

Mr. Thomas, the tank was removed in 2008 or 2009 without incident. Mr. Juneau, with the LDEQ UST Division, informed PPM that USTs below 1,100 gallons on farms were exempt from LDEQ registration, and may be removed without testing or LDEQ inspection; and without incident, would not require reporting to the LDEQ. Based on PPM's experience, the only "incident" that inexperienced people are likely to notice is free product in the excavation, but without laboratory analysis of soil and groundwater samples the implied "without incident" does not eliminate the possibility of a release that exceeds regulatory action levels. Although the UST may have been closed in accordance with LDEQ regulations for an exempt farm tank, the lack of closure information does not preclude the possibility that a release of petroleum products to the subsurface has occurred; therefore, the former gasoline UST represents a recognized environmental condition.

Gas well and gas pipeline. The Department of Natural Resources (DNR) provides a publically accessible database, SONRIS, which includes information on well registration and use. SONRIS identified four gas wells located in the eastern portion of the site. The database indicates one triple completion well along a service road and one single completion well to the northeast of the active site. The northeastern well is 9,746 feet deep and produced natural gas between 1960 and 1966, but has been plugged and abandoned since September 20, 1966. The triple completion well was first spudded March 31, 1959, with a measured depth of 9,904 feet, the dual and triple completions were added in 1968, operating until they were plugged and abandoned in 1983. The active well is currently operated by Linn Operating, Inc in the Cotton Valley D sands and pumping natural gas. No oil extraction from the well has been reported since June 2011. Mr. York explained that the responsibility for an active or abandoned well rests on the company registered as the well operator. If a problem were to arise in association with the wells on the subject property the land owner would not be held responsible. Based on the long term historical operation of the wells and the risk associated with transporting natural gas through the property, the gas wells and the gas pipeline on the subject property represent a recognized environmental condition.

## The following significant data gap was also encountered by this assessment:

- The earliest available records for the subject property date back to 1942. At that time the land was operating as a LSU AgCenter research facility. PPM was unable to determine site use or research procedures prior to 1942. It is possible that this land use may have involved hazardous substances or petroleum products. Since this land use cannot be determined from the available historical

resources, our inability to make reasonable conclusions is considered a significant data gap.

- <u>Southern extremity</u>- PPM was unable to access the southeastern portion of the subject property during site reconnaissance due to the dense vegetation. Due to the long environmental history of the facility, this is considered a significant data gap; therefore, PPM is unable to form an opinion about conditions in this area at this time.
- Septic system. PPM was informed by Mr. Thomas that the site operates on a system of septic tanks in addition to the pools of waste water on the northwestern portion of the subject property. The Ouachita Parish Depart for Health and Hospitals' Environmental Health Specialist Greg Hill was unable to locate any documentation as to the nature or presence of these septic tanks. Mr. Hill informed PPM, it is likely that the LSU facility never registered the septic system and would not have reported any issues pertaining to their use or upkeep. Based on the unknown state of the onsite septic system and possibility of hazardous substances draining into the septic tanks, this is considered a significant data gap; therefore, PPM is unable to form an opinion at this time.

## 6.5 ENVIRONMENTAL PROFESSIONAL STATEMENT

I, Gregory P. Stover, declare that, to the best of my professional knowledge and belief, I meet the definition of Environmental Professional as defined in \$312.10 of 40 CFR \$312. I have the specific qualifications based on education, training, and experience to assess a property of the nature, history, and setting of the subject property. I have developed and performed the all appropriate inquiries in conformance with the standards and practices set forth in 40 CFR Part 312. My signature is provided on the cover of this report. My environmental professional qualifications are provided in **Appendix G** of this report.

## 7.0 NON-SCOPE SERVICES

PPM did not provide any additional services outside the scope of Practice E1527-13.

**APPENDIX C – SITE PHOTOGRAPHS** 



PHOTO 1 Lab area in Building 1.

PHOTO 2 Lab area in Building 1.





PHOTO 3 Lab Area in building 1 with floor drains visible.



PHOTO 4 Lab area in Building 1 with floor drains visible.

PHOTO 5 Foundations for former buildings near northwest corner of the subject property.





PHOTO 6 Buildings on subject property near the northwest corner of the subject property.



PHOTO 4 Stalls in Building on subject property.

PHOTO 5 Storage in Building 3 on the subject property.





PHOTO 6 Subject property facing east.



PHOTO 4 Subject property facing north with North Tract visible on adjoining property across Highway 80 East.



PHOTO 5 Pond on southern portion of the subject property with pole mounted electrical transformer and pump house visible.



PHOTO 6 Mature trees on eastern portion of the subject property.



PHOTO 4 Mature trees on southeastern portion of the subject property.

PHOTO 5 Mature trees near eastern boundary of the subject property.





PHOTO 6 Pump house near pond on southern portion of the subject property.



PHOTO 4 Southwestern portion of the subject property.

PHOTO 5 Brush along southern boundary of the subject property with railroad right-of-way visible on the adjoining property.





PHOTO 6 Residences visible on adjoining property to the west.

**APPENDIX D – REGULATORY RESEARCH DOCUMENTATION** 

- Andrew

South Tract 321 US Highway 80 East Calhoun, LA 71225

Inquiry Number: 4854246.2s February 14, 2017

# The EDR Radius Map<sup>™</sup> Report with GeoCheck®

# Prepared using the EDR FieldCheck® System



6 Armstrong Road, 4th floor Shelton, CT 06484 Toll Free: 800.352.0050 www.edrnet.com

FORM-LBE-GXH

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## **GEOCHECK ADDENDUM**

Physical Setting Source Addendum	A-1
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*Thank you for your business.* Please contact EDR at 1-800-352-0050 with any questions or comments.

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A search of the environmental records was conducted by Environmental Data Resources, Inc. (EDR). PPM CONSULTANTS INC. used the EDR FieldCheck System to review and/or revise the results of this search, based on independent data verification by PPM CONSULTANTS INC.. The report was designed to assist parties seeking to meet the search requirements of EPA's Standards and Practices for All Appropriate Inquiries (40 CFR Part 312), the ASTM Standard Practice for Environmental Site Assessments (E 1527-13) or custom requirements developed for the evaluation of environmental risk associated with a parcel of real estate.

## TARGET PROPERTY INFORMATION

#### ADDRESS

321 US HIGHWAY 80 EAST CALHOUN, LA 71225

#### COORDINATES

Latitude (North):	32.5111110 - 32° 30' 39.99"
Longitude (West):	92.3444440 - 92° 20' 39.99"
Universal Tranverse Mercator:	Zone 15
UTM X (Meters):	561576.7
UTM Y (Meters):	3597090.8
Elevation:	146 ft. above sea level

#### USGS TOPOGRAPHIC MAP ASSOCIATED WITH TARGET PROPERTY

Target Property Map: Version Date: 5630395 CALHOUN, LA 2012

South Map: Version Date: 5630393 CADEVILLE, LA 2012

#### **AERIAL PHOTOGRAPHY IN THIS REPORT**

Portions of Photo from:	20150501
Source:	USDA

# Target Property Address: 321 US HIGHWAY 80 EAST CALHOUN, LA 71225

#### Click on Map ID to see full detail.

MAF	,			RELATIVE	DIST (ft. & mi.)
ID	SITE NAME	ADDRESS	DATABASE ACRONYMS	ELEVATION	DIRECTION
1	QUICK STOP GROCERY	HWY 80	UST	Higher	1 ft.

#### TARGET PROPERTY SEARCH RESULTS

The target property was not listed in any of the databases searched by EDR.

#### DATABASES WITH NO MAPPED SITES

No sites were identified in following databases.

#### STANDARD ENVIRONMENTAL RECORDS

#### Federal NPL site list

NPL	National Priority List
Proposed NPL	Proposed National Priority List Sites
NPL LIENS	

#### Federal Delisted NPL site list

Delisted NPL..... National Priority List Deletions

#### Federal CERCLIS list

#### Federal CERCLIS NFRAP site list

SEMS-ARCHIVE...... Superfund Enterprise Management System Archive

#### Federal RCRA CORRACTS facilities list

CORRACTS\_\_\_\_\_ Corrective Action Report

#### Federal RCRA non-CORRACTS TSD facilities list

RCRA-TSDF..... RCRA - Treatment, Storage and Disposal

#### Federal RCRA generators list

 RCRA-LQG
 RCRA - Large Quantity Generators

 RCRA-SQG
 RCRA - Small Quantity Generators

 RCRA-CESQG
 RCRA - Conditionally Exempt Small Quantity Generator

#### Federal institutional controls / engineering controls registries

LUCIS...... Land Use Control Information System US ENG CONTROLS...... Engineering Controls Sites List US INST CONTROL...... Sites with Institutional Controls

#### Federal ERNS list

ERNS..... Emergency Response Notification System

#### State- and tribal - equivalent CERCLIS

SHWS..... Potential and Confirmed Sites List

## State and tribal landfill and/or solid waste disposal site lists

SWF/LF..... Landfill List DEBRIS..... LDEQ Approved Debris Sites HIST DEBRIS..... LDEQ Approved Debris Sites

#### State and tribal leaking storage tank lists

LUST......Leaking Underground Storage Tanks INDIAN LUST.....Leaking Underground Storage Tanks on Indian Land HIST LUST.....Underground Storage Tank Case History Incidents

#### State and tribal registered storage tank lists

FEMA UST...... Underground Storage Tank Listing INDIAN UST...... Underground Storage Tanks on Indian Land

#### State and tribal institutional control / engineering control registries

AUL..... Conveyance Notice Listing

#### State and tribal voluntary cleanup sites

#### State and tribal Brownfields sites

BROWNFIELDS..... Brownfields Inventory

#### ADDITIONAL ENVIRONMENTAL RECORDS

#### Local Brownfield lists

US BROWNFIELDS..... A Listing of Brownfields Sites

#### Local Lists of Landfill / Solid Waste Disposal Sites

 SWRCY
 Recycling Directory

 INDIAN ODI
 Report on the Status of Open Dumps on Indian Lands

 DEBRIS REGION 9
 Torres Martinez Reservation Illegal Dump Site Locations

 ODI
 Open Dump Inventory

 IHS OPEN DUMPS
 Open Dumps on Indian Land

#### Local Lists of Hazardous waste / Contaminated Sites

US HIST CDL..... Delisted National Clandestine Laboratory Register CDL.....Clandestine Drug Lab DEL SHWS...... Deleted Potential & Confirmed Sites

US CDL..... National Clandestine Laboratory Register

#### Local Land Records

LIENS..... Environmental Liens LIENS 2..... CERCLA Lien Information

## **Records of Emergency Release Reports**

HMIRS	Hazardous Materials Information Reporting System
	Emergency Response Section Incidents
	SPILLS 90 data from FirstSearch

#### Other Ascertainable Records

RCRA NonGen / NLR	RCRA - Non Generators / No Longer Regulated
FUDS	Formerly Used Defense Sites
	Department of Defense Sites
SCRD DRYCLEANERS	State Coalition for Remediation of Drycleaners Listing
US FIN ASSUR	Financial Assurance Information
EPA WATCH LIST	EPA WATCH LIST
2020 COR ACTION	2020 Corrective Action Program List
TSCA	Toxic Substances Control Act
TRIS	- Toxic Chemical Release Inventory System
SSTS.	Section 7 Tracking Systems
ROD	Records Of Decision
RMP	
RAATS	RCRA Administrative Action Tracking System
PRP	Potentially Responsible Parties
	PCB Activity Database System
	Integrated Compliance Information System
FTTS	FIFRA/ TSCA Tracking System - FIFRA (Federal Insecticide, Fungicide, & Rodenticide
1110	Add/TSCA (Toxic Substances Control Add)
MITS	Act)/TSCA (Toxic Substances Control Act) Material Licensing Tracking System
	Steam-Electric Plant Operation Data
	Coal Combustion Residues Surface Impoundments List
	PCB Transformer Registration Database
	Radiation Information Database
	FIFRA/TSCA Tracking System Administrative Case Listing
DOT OPS.	Incident and Accident Data
CONSENT	Superfund (CERCLA) Consent Decrees
INDIAN RESERV	
	Formerly Utilized Sites Remedial Action Program
	Uranium Mill Tailings Sites
LEAD SMELTERS	
US AIRS	Aerometric Information Retrieval System Facility Subsystem
US MINES	Mines Master Index File
FINDS	Facility Index System/Facility Registry System
UXO	Unexploded Ordnance Sites
DOCKET HWC	Hazardous Waste Compliance Docket Listing
AIRS	
ASBESTOS	Asbestos Projects List
COAL ASH	Coal Ash Disposal Sites
DRYCLEANERS	Drycleaner Facility Listing
	Financial Assurance Information

NPDES	. LPDES Permits Database
REM	Division of Remediation Services Database
UIC	. Underground Injection Wells Listing
	- Enforcement & Compliance History Information
ABANDONED MINES	
FUELS PROGRAM	_ EPA Fuels Program Registered Listing

#### EDR HIGH RISK HISTORICAL RECORDS

#### EDR Exclusive Records

EDR MGP	EDR Proprietary Manufactured Gas Plants
	. EDR Exclusive Historic Gas Stations
	EDR Exclusive Historic Dry Cleaners

#### EDR RECOVERED GOVERNMENT ARCHIVES

#### **Exclusive Recovered Govt. Archives**

RGA HWS	Recovered Government Archive State Hazardous Waste Facilities List
RGA LF	Recovered Government Archive Solid Waste Facilities List
	Recovered Government Archive Leaking Underground Storage Tank

#### SURROUNDING SITES: SEARCH RESULTS

Surrounding sites were identified in the following databases.

Elevations have been determined from the USGS Digital Elevation Model and should be evaluated on a relative (not an absolute) basis. Relative elevation information between sites of close proximity should be field verified. Sites with an elevation equal to or higher than the target property have been differentiated below from sites with an elevation lower than the target property. Page numbers and map identification numbers refer to the EDR Radius Map report where detailed data on individual sites can be reviewed.

Sites listed in **bold italics** are in multiple databases.

Unmappable (orphan) sites are not considered in the foregoing analysis.

#### STANDARD ENVIRONMENTAL RECORDS

#### State and tribal registered storage tank lists

UST: The Underground Storage Tank database contains registered USTs. USTs are regulated under Subtitle I of the Resource Conservation and Recovery Act (RCRA). The data come from the Department of Environmental Quality's Louisiana Underground Storage Tank Database.

An online review and analysis by PPM CONSULTANTS INC. of the UST list, as provided by EDR, and dated 10/18/2016 has revealed that there is 1 UST site within approximately 0.25 miles of the target property.

## Equal/Higher Elevation

QUICK STOP GROCERY Tank Status: Removed Master Agency Id: 69572

HWY 80

Direction / Distance	Map ID	Page	
0 - 1/8 (0.000 mi.)	1	8	

Due to poor or inadequate address information, the following sites were not mapped. Count: 1 records.

Site Name

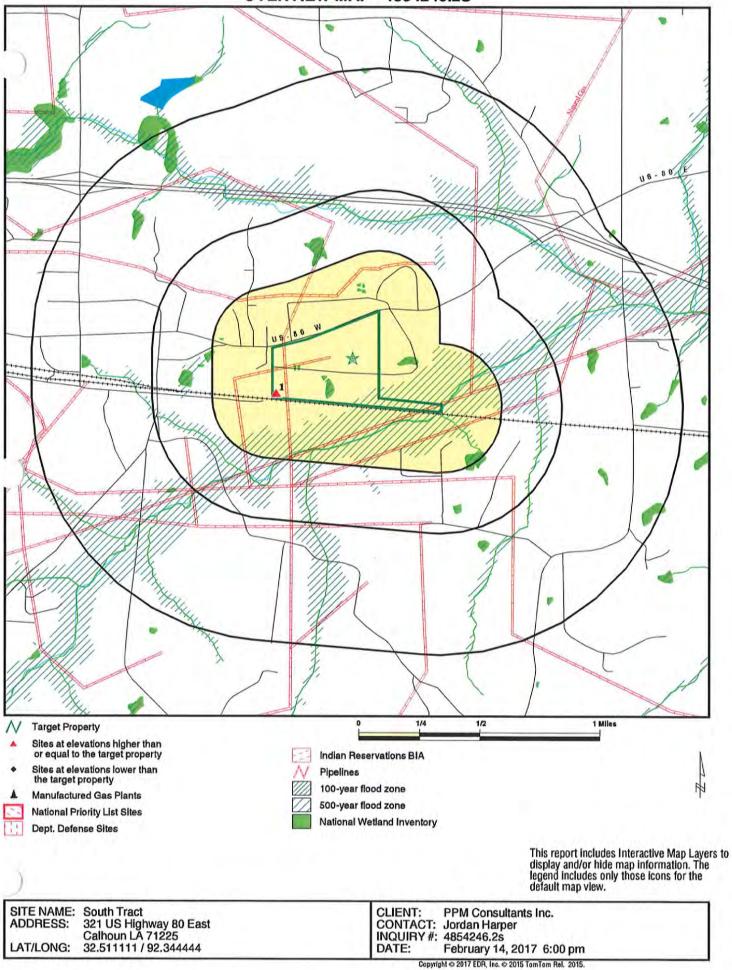
Charleson P

STOCKMAN'S FEED

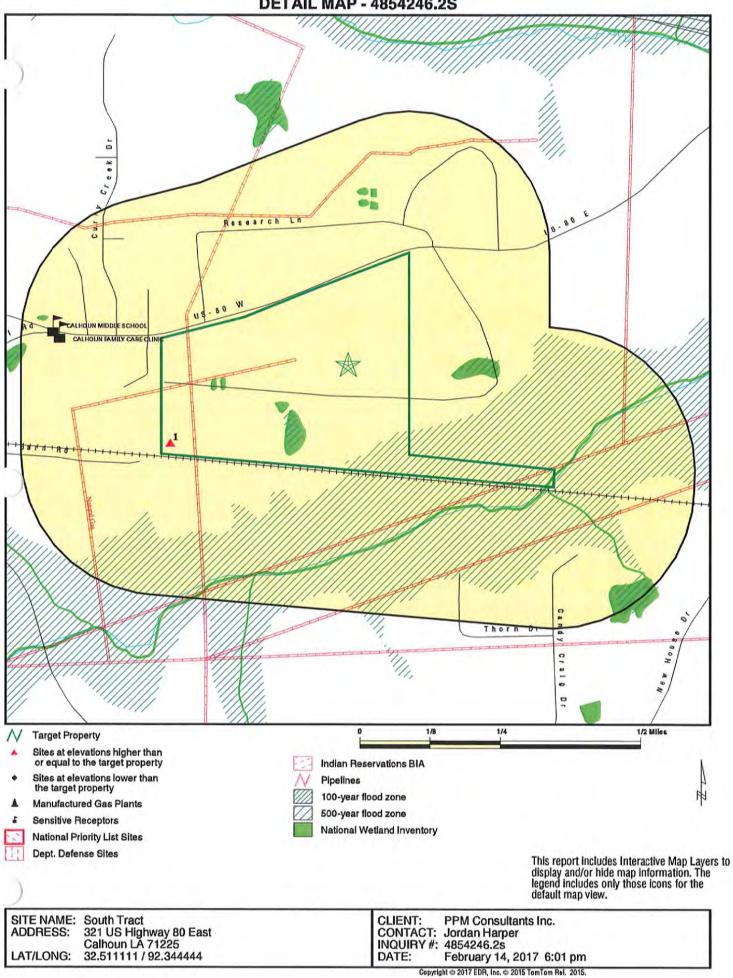
Database(s)

UST

## **OVERVIEW MAP - 4854246.2S**



**DETAIL MAP - 4854246.2S** 



Database	Search Distance (Miles)	Target Property	< 1/8	<u>1/8 - 1/4</u>	<u>1/4 - 1/2</u>	<u>1/2 - 1</u>	>1	Total Plotted
STANDARD ENVIRONMEN	TAL RECORDS							
Federal NPL site list								
NPL Proposed NPL NPL LIENS	1.000 1.000 TP		0 0 NR	0 0 NR	0 0 NR	0 0 NR	NR NR NR	0 0 0
Federal Delisted NPL si	te list							
Delisted NPL	1.000		0	0	0	0	NR	0
Federal CERCLIS list								
FEDERAL FACILITY SEMS	0.500 0.500		0 0	0 0	0 0	NR NR	NR NR	0 0
Federal CERCLIS NFRA	P site list							
SEMS-ARCHIVE	0.500		0	0	0	NR	NR	0
Federal RCRA CORRAC	CTS facilities l	ist						
CORRACTS	1.000		0	0	0	0	NR	0
Federal RCRA non-COF	RRACTS TSD I	acilities list						
RCRA-TSDF	0.500		0	0	0	NR	NR	0
Federal RCRA generato	ors list							
RCRA-LQG RCRA-SQG RCRA-CESQG	0.250 0.250 0.250		0 0 0	0 0 0	NR NR NR	NR NR NR	NR NR NR	0 0 0
Federal institutional con engineering controls re								
LUCIS US ENG CONTROLS US INST CONTROL	0.500 0.500 0.500		0 0 0	0 0 0	0 0 0	NR NR NR	NR NR NR	0 0 0
Federal ERNS list								
ERNS	TP		NR	NR	NR	NR	NR	0
State- and tribal - equiv	alent CERCLI	S						
SHWS	1.000		0	0	0	0	NR	0
State and tribal landfill solid waste disposal sit								
SWF/LF DEBRIS HIST DEBRIS	0.500 0.500 0.500		0 0 0	0 0 0	0 0 0	NR NR NR	NR NR NR	0 0 0
State and tribal leaking	storage tank i	lists						
LUST INDIAN LUST	0.500 0.500		0 0	0 0	0 0	NR NR	NR NR	0 0

Database	Search Distance (Miles)	Target Property	< 1/8	1/8 - 1/4	1/4 - 1/2	<u>1/2 - 1</u>	<u>&gt; 1</u>	Total Plotted
HIST LUST	0.500		0	0	0	NR	NR	0
State and tribal register	ed storage tai	nk lists						
FEMA UST UST INDIAN UST	0.250 0.250 0.250		0 1 0	0 0 0	NR NR NR	NR NR NR	NR NR NR	0 1 0
State and tribal instituti control / engineering co		25						
AUL	0.500		0	0	0	NR	NR	0
State and tribal volunta	ry cleanup sit	es						
INDIAN VCP VCP	0.500 0.500		0 0	0 0	0 0	NR NR	NR NR	0 0
State and tribal Brownfi	ields sites							
BROWNFIELDS	0.500		0	0	0	NR	NR	0
ADDITIONAL ENVIRONME	NTAL RECORD	<u>s</u>						
Local Brownfield lists								
US BROWNFIELDS	0.500		0	0	0	NR	NR	0
Local Lists of Landfill / Waste Disposal Sites	Solid							
SWRCY	0.500		0	0	0	NR	NR	0
INDIAN ODI DEBRIS REGION 9	0.500 0.500		0 0	0 0	0 0	NR NR	NR NR	0 0
ODI	0.500		ŏ	Ő	0	NR	NR	Ŭ.
IHS OPEN DUMPS	0.500		0	0	0	NR	NR	0
Local Lists of Hazardou Contaminated Sites	is waste /							
US HIST CDL	TP		NR	NR	NR	NR	NR	0
CDL DEL SHWS	TP 1 000		NR	NR 0	NR	NR 0		0 0
US CDL	1.000 TP		0 NR	NR	0 NR	NR	NR NR	0
Local Land Records								
LIENS LIENS 2	TP TP		NR NR	NR NR	NR NR	NR NR	NR NR	0 0
Records of Emergency	Release Repo	orts						
HMIRS	TP		NR	NR	NR	NR	NR	0
SPILLS	TP		NR	NR	NR	NR	NR	0
SPILLS 90	TP		NR	NR	NR	NR	NR	0
Other Ascertainable Re			-	-	•	•	•	-
RCRA NonGen / NLR FUDS	0.250 1.000		0 0	0 0	NR 0	NR 0	NR NR	, 0 , 0

- AND -

Database	Search Distance (Miles)	Target Property	< 1/8	<u> 1/8 - 1/4</u>	<u>1/4 - 1/2</u>	<u>1/2 - 1</u>	<u>&gt; 1</u>	Total Plotted
DOD	1.000		0	0	0	0	NR	0
SCRD DRYCLEANERS	0.500		0	0	0	NR	NR	0
US FIN ASSUR	0.000 TP		NR	NR	NR	NR	NR	0
EPA WATCH LIST	TP		NR	NR	NR	NR	NR	0
2020 COR ACTION	0.250		0	0	NR	NR	NR	0
TSCA	0.250 TP		NR	NR	NR	NR	NR	0
TRIS	TP		NR	NR	NR	NR	NR	0
SSTS	TP		NR	NR	NR	NR	NR	0
ROD	1.000		0	0	0	0	NR	0
RMP	TP		NR	NR	NR	NR	NR	0
RAATS	TP		NR	NR	NR	NR	NR	
PRP	TP		NR	NR	NR	NR	NR	0 0
PADS	TP		NR	NR	NR	NR	NR	0
ICIS	TP		NR	NR	NR	NR	NR	0
FTTS	TP		NR	NR	NR	NR	NR	0
MLTS	TP		NR	NR	NR	NR	NR	0
COAL ASH DOE	TP		NR	NR	NR	NR	NR	0
COAL ASH EPA	0.500		0	0	0	NR	NR	0
PCB TRANSFORMER	TP		NR	NR	NR	NR	NR	0
RADINFO	TP		NR	NR	NR	NR	NR	0
HIST FTTS	TP		NR	NR	NR	NR	NR	
DOT OPS	TP		NR	NR	NR	NR	NR	0 0
CONSENT	1.000		0	0	0	0	NR	0
INDIAN RESERV	1.000		0	0	0	0	NR	0
FUSRAP	1.000		0	0	0	0	NR	0
UMTRA	0.500		0	0	0	NR	NR	0
LEAD SMELTERS	TP		NR	NR	NR	NR	NR	0
US AIRS	TP		NR	NR	NR	NR	NR	0
US MINES	0.250		0	0	NR	NR	NR	0
FINDS	TP		NR	NR	NR	NR	NR	0
UXO	1.000		0	0	0	0	NR	0
DOCKET HWC	TP		NR	NR	NR	NR	NR	0
AIRS	TP		NR	NR	NR	NR	NR	0
ASBESTOS	TP		NR	NR	NR	NR	NR	0
COAL ASH	0.500		0	0	0	NR	NR	0
DRYCLEANERS	0.250		ŏ	ŏ	NR	NR	NR	0
Financial Assurance	TP		NŘ	NR	NR	NR	NR	Ő
NPDES	TP		NR	NR	NR	NR	NR	ŏ
REM	0.500		0	0	0	NR	NR	ŏ
UIC	TP		NŘ	NR	NR	NR	NR	Ö
ECHO	TP		NR	NR	NR	NR	NR	ŏ
ABANDONED MINES	0.500		0	0	0	NR	NR	ŏ
FUELS PROGRAM	0.250		ŏ	ŏ	NR	NR	NR	ŏ
	0.200		v	Ū į				Ū
EDR HIGH RISK HISTORICA	AL RECORDS							
EDR Exclusive Records								
	1.000		~	~	<u>^</u>	^		<u>^</u>
EDR MGP	1.000		0	0	0	0	NR	0
EDR Hist Auto	0.125		0	NR	NR	NR	NR	0
EDR Hist Cleaner	0.125		0	NR	NR	NR	NR	0

Database	Search Distance (Miles)	Target Property	<u>&lt; 1/8</u>	<u> 1/8 - 1/4</u>	1/4 - 1/2	<u>1/2 - 1</u>	<u>&gt; 1</u>	Total Plotted
EDR RECOVERED GOVER		/ES						
Exclusive Recovered G	ovt. Archives							
RGA HWS RGA LF RGA LUST	TP TP TP		NR NR NR	NR NR NR	NR NR NR	NR NR NR	NR NR NR	0 0 0
- Totals		0	1	0	0	0	0	1

#### NOTES:

TP = Target Property

NR = Not Requested at this Search Distance

Sites may be listed in more than one database

Map ID Direction Distance Elevation

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Site

MAP FINDINGS

EDR ID Number Database(s) EPA ID Number

1	QUICK STOP GROCERY HWY 80		UST	U000879201 N/A
< 1/8	CALHOUN, LA 71225			
1 ft.				
	UST:			
Relative:	Master Agency Id:	69572		
Higher	Subject Item ID:	1		
-				
Actual:	UST Tank Num:	1138		
149 ft.	Tank Status:	Removed		
	Install Date:	01/01/1980		
	Total Capacity:	1000		
	Number Of Compartments:	1 Not reported		
	Gasoline: Diesel:	Not reported		
	Gasohol:	Not reported Not reported		
	Kerosene:	Not reported		
	Heating Oil:	Not reported		
	New Used Oil:	Not reported		
	MS Aviation Fuel:	Not reported		
	MS Additive:	Not reported		
	MS Antifreeze:	Not reported		
	MS Naptha:	Not reported		
	MS Varsol:	Not reported		
	Unknown:	Not reported		
	Other Sub:	Not reported		
	Steel Tank Covered With Asphalt:	Not reported		
	Cathodically Protected:	Not reported		
	Epoxy Coated Tank:	Not reported		
	A Composite Of Different Materials:	Not reported		
	Fiberglass Or Plastic:	Not reported		
	Interior Line With Some Material: Double Wall As Opposed To Single Wall:	Not reported		
	Outside Lined w/ Polyethylen Jacket:	Not reported Not reported		
	Made Of Concrete:	Not reported		
	Liner Covering Excavation Hole:	Not reported		
	Other Material:	Not reported		
	Pipe Method Description:	Not reported		
	UST Tank Num:	4130		
	Tank Status:	1139 Removed		
	Install Date:	01/01/1980		
	Total Capacity:	1000		
	Number Of Compartments:	1		
	Gasoline:	Not reported		
	Diesel:	Not reported		
	Gasohol:	Not reported		
	Kerosene:	Not reported		
	Heating Oil:	Not reported		
	New Used Oil:	Not reported		
	MS Aviation Fuel:	Not reported		
	MS Additive:	Not reported		
	MS Antifreeze:	Not reported		
	MS Naptha:	Not reported		
	MS Varsol: Unknown:	Not reported		
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Map ID Direction Distance Elevation Site MAP FINDINGS

Database(s)

EDR ID Number EPA ID Number

#### U000879201

## QUICK STOP GROCERY (Continued)

Steel Tank Covered With Asphalt:NCathodically Protected:NEpoxy Coated Tank:NA Composite Of Different Materials:NFiberglass Or Plastic:NInterior Line With Some Material:NDouble Wall As Opposed To Single Wall:NOutside Lined w/ Polyethylen Jacket:NMade Of Concrete:NLiner Covering Excavation Hole:NOther Material:NPipe Method Description:N

Not reported Not reported

	Zip Database(s) 71225 UST	
ORPHAN SUMMARY	Site Address ARK RD W	
	EDR ID Site Name U004245659 STOCKMAN'S FEED	
Count: 1 records.	City CALHOUN	

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Name	** - Indicates location may or may not be in requested radius. Site has not been assig	LSU CALHOUN RESEARCH STATION LSU CALHOUN RESEARCH STATION LSU CALHOUN RESEARCH STATION LSU CALHOUN RESEARCH STATION LSU CALHOUN RESEARCH STATION D & L OF OUACHTAINC - STAGG RESIDE		IES S AGE				PINE HILLS DELI & MARKET RED DIRT PROPERTIES LLC - SOUTHERN RED DIRT PROPERTIES LLC - SOUTHERN	LESSIE MARIE CLARK BULLOCK OUACHITA PARISH SCHOOL BOARD - CAI PINE HILL MOBILE HOME PARK FIRST RAPTIST CHURCH OF CAI HOUN L	FIRST BAPTIST CHURCH OF CALHOUN MILSTEAD'S MOBILE HOME PARK MILSTEAD'S MHP		LIL' JOE'S TIRE & OIL CHANGE INC KUNTRY KORNER INC STARBRITE TRUCK & CAR WASH	USA TRUCKSTOP INC USA TRUCKSTOP INC USA TRUCKSTOP, INC.	SPILLERS MINI MART OF CALHOUN RED DIRT PROPERTIES LLC - SOUTHERN I AUNEEW RODBERSON - ALAN'S VIEW QUICK STOP GROCERY E Z SERVE #0004 JAMBE GARLAND & DAVID MANUEL 1-20 CONOCO	SPILLERS INTERSTATE 20 CONOCO STAT SPILLERS INTERSTATE 20 CONOCO STAT USA TRUCKSTOP INC.	SI UCISIANAL SI FEEJ CUCISIANAL SI FEEJ GREATER OUACHITA WATER CO - SLOCI SPRAY FOAM EQUIPMENT & MANUFACTI	LOUISIANA LAND AND WATEK COMPANY CALHOUN RESEARCH STA WATER SYS PINE HILL GOLE & COUNTRY CLUB 1 8 D HTHI THES NIOT FUE HEDRES SHEDN	LAR VILLIES INC - LIE REUGES SOULS BRYAN'S RV PARK INC RAWLS RV PARK
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To maintain currency of the following federal and state databases, EDR contacts the appropriate governmental agency on a monthly or quarterly basis, as required.

Number of Days to Update: Provides confirmation that EDR is reporting records that have been updated within 90 days from the date the government agency made the information available to the public.

#### STANDARD ENVIRONMENTAL RECORDS

#### Federal NPL site list

NPL: National Priority List

National Priorities List (Superfund). The NPL is a subset of CERCLIS and identifies over 1,200 sites for priority cleanup under the Superfund Program. NPL sites may encompass relatively large areas. As such, EDR provides polygon coverage for over 1,000 NPL site boundaries produced by EPA's Environmental Photographic Interpretation Center (EPIC) and regional EPA offices.

Date of Government Version: 12/05/2016 Date Data Arrived at EDR: 01/05/2017 Date Made Active in Reports: 02/03/2017 Number of Days to Update: 29 Source: EPA Telephone: N/A Last EDR Contact: 01/05/2017 Next Scheduled EDR Contact: 04/17/2017 Data Release Frequency: Quarterly

NPL Site Boundaries

#### Sources:

EPA's Environmental Photographic Interpretation Center (EPIC) Telephone: 202-564-7333

EPA Region 1 Telephone 617-918-1143

EPA Region 3 Telephone 215-814-5418

EPA Region 4 Telephone 404-562-8033

EPA Region 5 Telephone 312-886-6686

EPA Region 10 Telephone 206-553-8665 Telephone: 913-551-7247 EPA Region 8 Telephone: 303-312-6774

Telephone: 214-655-6659

EPA Region 6

EPA Region 7

EPA Region 9 Telephone: 415-947-4246

Proposed NPL: Proposed National Priority List Sites

A site that has been proposed for listing on the National Priorities List through the issuance of a proposed rule in the Federal Register. EPA then accepts public comments on the site, responds to the comments, and places on the NPL those sites that continue to meet the requirements for listing.

Date of Government Version: 12/05/2016 Date Data Arrived at EDR: 01/05/2017 Date Made Active in Reports: 02/03/2017 Number of Days to Update: 29 Source: EPA Telephone: N/A Last EDR Contact: 01/05/2017 Next Scheduled EDR Contact: 04/17/2017 Data Release Frequency: Quarterly

NPL LIENS: Federal Superfund Liens

Federal Superfund Liens. Under the authority granted the USEPA by CERCLA of 1980, the USEPA has the authority to file liens against real property in order to recover remedial action expenditures or when the property owner received notification of potential liability. USEPA compiles a listing of filed notices of Superfund Liens.

Date of Government Version: 10/15/1991 Date Data Arrived at EDR: 02/02/1994 Date Made Active in Reports: 03/30/1994 Number of Days to Update: 56 Source: EPA Telephone: 202-564-4267 Last EDR Contact: 08/15/2011 Next Scheduled EDR Contact: 11/28/2011 Data Release Frequency: No Update Planned

#### Federal Delisted NPL site list

Delisted NPL: National Priority List Deletions

The National Oil and Hazardous Substances Pollution Contingency Plan (NCP) establishes the criteria that the EPA uses to delete sites from the NPL. In accordance with 40 CFR 300.425.(e), sites may be deleted from the NPL where no further response is appropriate.

Date of Government Version: 12/05/2016 Date Data Arrived at EDR: 01/05/2017 Date Made Active in Reports: 02/03/2017 Number of Days to Update: 29 Source: EPA Telephone: N/A Last EDR Contact: 01/05/2017 Next Scheduled EDR Contact: 04/17/2017 Data Release Frequency: Quarterly

#### Federal CERCLIS list

FEDERAL FACILITY: Federal Facility Site Information listing

A listing of National Priority List (NPL) and Base Realignment and Closure (BRAC) sites found in the Comprehensive Environmental Response, Compensation and Liability Information System (CERCLIS) Database where EPA Federal Facilities Restoration and Reuse Office is involved in cleanup activities.

Date of Government Version: 09/14/2016 Date Data Arrived at EDR: 10/04/2016 Date Made Active in Reports: 10/21/2016 Number of Days to Update: 17 Source: Environmental Protection Agency Telephone: 703-603-8704 Last EDR Contact: 01/05/2017 Next Scheduled EDR Contact: 04/17/2017 Data Release Frequency: Varies

## SEMS: Superfund Enterprise Management System

SEMS (Superfund Enterprise Management System) tracks hazardous waste sites, potentially hazardous waste sites, and remedial activities performed in support of EPA's Superfund Program across the United States. The list was formerly know as CERCLIS, renamed to SEMS by the EPA in 2015. The list contains data on potentially hazardous waste sites that have been reported to the USEPA by states, municipalities, private companies and private persons, pursuant to Section 103 of the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA). This dataset also contains sites which are either proposed to or on the National Priorities List (NPL) and the sites which are in the screening and assessment phase for possible inclusion on the NPL.

Date of Government Version: 10/10/2016 Date Data Arrived at EDR: 10/20/2016 Date Made Active in Reports: 01/06/2017 Number of Days to Update: 78 Source: EPA Telephone: 800-424-9346 Last EDR Contact: 01/06/2017 Next Scheduled EDR Contact: 05/01/2017 Data Release Frequency: Quarterly

#### Federal CERCLIS NFRAP site list

SEMS-ARCHIVE: Superfund Enterprise Management System Archive

SEMS-ARCHIVE (Superfund Enterprise Management System Archive) tracks sites that have no further interest under the Federal Superfund Program based on available information. The list was formerly known as the CERCLIS-NFRAP, renamed to SEMS ARCHIVE by the EPA in 2015. EPA may perform a minimal level of assessment work at a site while it is archived if site conditions change and/or new information becomes available. Archived sites have been removed and archived from the inventory of SEMS sites. Archived status indicates that, to the best of EPA's knowledge, assessment at a site has been completed and that EPA has determined no further steps will be taken to list the site on the National Priorities List (NPL), unless information indicates this decision was not appropriate or other considerations require a recommendation for listing at a later time. The decision does not necessarily mean that there is no hazard associated with a given site; it only means that. based upon available information, the location is not judged to be potential NPL site.

Date of Government Version: 10/10/2016 Date Data Arrived at EDR: 10/20/2016 Date Made Active in Reports: 01/06/2017 Number of Days to Update: 78 Source: EPA Telephone: 800-424-9346 Last EDR Contact: 01/06/2017 Next Scheduled EDR Contact: 05/01/2017 Data Release Frequency: Quarterly

#### Federal RCRA CORRACTS facilities list

CORRACTS: Corrective Action Report

CORRACTS identifies hazardous waste handlers with RCRA corrective action activity.

Date of Government Version: 12/12/2016 Date Data Arrived at EDR: 12/28/2016 Date Made Active in Reports: 02/10/2017 Number of Days to Update: 44 Source: EPA Telephone: 800-424-9346 Last EDR Contact: 12/28/2016 Next Scheduled EDR Contact: 04/10/2017 Data Release Frequency: Quarterly

#### Federal RCRA non-CORRACTS TSD facilities list

#### RCRA-TSDF: RCRA - Treatment, Storage and Disposal

RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Transporters are individuals or entities that move hazardous waste from the generator offsite to a facility that can recycle, treat, store, or dispose of the waste. TSDFs treat, store, or dispose of the waste.

Date of Government Version: 12/12/2016 Date Data Arrived at EDR: 12/28/2016 Date Made Active in Reports: 02/10/2017 Number of Days to Update: 44 Source: Environmental Protection Agency Telephone: 214-665-6444 Last EDR Contact: 12/28/2016 Next Scheduled EDR Contact: 04/10/2017 Data Release Frequency: Quarterly

#### Federal RCRA generators list

#### RCRA-LQG: RCRA - Large Quantity Generators

RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Large quantity generators (LQGs) generate over 1,000 kilograms (kg) of hazardous waste, or over 1 kg of acutely hazardous waste per month.

Date of Government Version: 12/12/2016 Date Data Arrived at EDR: 12/28/2016 Date Made Active in Reports: 02/10/2017 Number of Days to Update: 44 Source: Environmental Protection Agency Telephone: 214-665-6444 Last EDR Contact: 12/28/2016 Next Scheduled EDR Contact: 04/10/2017 Data Release Frequency: Quarterly

#### RCRA-SQG: RCRA - Small Quantity Generators

RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Small quantity generators (SQGs) generate between 100 kg and 1,000 kg of hazardous waste per month.

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Source: Environmental Protection Agency . Telephone: 214-665-6444 Last EDR Contact: 12/28/2016 Next Scheduled EDR Contact: 04/10/2017 Data Release Frequency: Quarterly

#### RCRA-CESQG: RCRA - Conditionally Exempt Small Quantity Generators

RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Conditionally exempt small quantity generators (CESQGs) generate less than 100 kg of hazardous waste, or less than 1 kg of acutely hazardous waste per month.

Date of Government Version: 12/12/2016 Date Data Arrived at EDR: 12/28/2016 Date Made Active in Reports: 02/10/2017 Number of Days to Update: 44 Source: Environmental Protection Agency Telephone: 214-665-6444 Last EDR Contact: 12/28/2016 Next Scheduled EDR Contact: 04/10/2017 Data Release Frequency: Varies

#### Federal institutional controls / engineering controls registries

#### LUCIS: Land Use Control Information System

LUCIS contains records of land use control information pertaining to the former Navy Base Realignment and Closure properties.

Date of Government Version: 05/28/2015 Date Data Arrived at EDR: 05/29/2015 Date Made Active in Reports: 06/11/2015 Number of Days to Update: 13

Source: Department of the Navy Telephone: 843-820-7326 Last EDR Contact: 02/13/2017 Next Scheduled EDR Contact: 05/29/2017 Data Release Frequency: Varies

#### US ENG CONTROLS: Engineering Controls Sites List

A listing of sites with engineering controls in place. Engineering controls include various forms of caps, building foundations, liners, and treatment methods to create pathway elimination for regulated substances to enter environmental media or effect human health.

Date of Government Version: 11/15/2016	Source: Environmental Protection Agency
Date Data Arrived at EDR: 11/29/2016	Telephone: 703-603-0695
Date Made Active in Reports: 02/03/2017	Last EDR Contact: 11/29/2016
Number of Days to Update: 66	Next Scheduled EDR Contact: 03/13/2017
	Data Release Frequency: Varies

#### US INST CONTROL: Sites with Institutional Controls

A listing of sites with institutional controls in place. Institutional controls include administrative measures, such as groundwater use restrictions, construction restrictions, property use restrictions, and post remediation care requirements intended to prevent exposure to contaminants remaining on site. Deed restrictions are generally required as part of the institutional controls.

Date of Government Version: 11/15/2016 Date Data Arrived at EDR: 11/29/2016 Date Made Active in Reports: 02/03/2017 Number of Days to Update: 66 Source: Environmental Protection Agency Telephone: 703-603-0695 Last EDR Contact: 11/29/2016 Next Scheduled EDR Contact: 03/13/2017 Data Release Frequency: Varies

#### Federal ERNS list

ERNS: Emergency Response Notification System

Emergency Response Notification System. ERNS records and stores information on reported releases of oil and hazardous substances.

Date of Government Version: 09/26/2016 Date Data Arrived at EDR: 09/29/2016 Date Made Active in Reports: 11/11/2016 Number of Days to Update: 43 Source: National Response Center, United States Coast Guard Telephone: 202-267-2180 Last EDR Contact: 12/28/2016 Next Scheduled EDR Contact: 04/10/2017 Data Release Frequency: Annually

#### State- and tribal - equivalent CERCLIS

SHWS: Potential and Confirmed Sites List

Confirmed status denotes that assessments have been performed and a determination made that (1) hazardous waste(s) or substance(s) are present at the site and (2) these sites are under the jurisdiction of the LDEQ/RSD. Potential status is an indicator that sites are either waiting to be assessed or the assessment is in progress.

Date of Government Version: 10/18/2016 Date Data Arrived at EDR: 10/21/2016 Date Made Active in Reports: 12/21/2016 Number of Days to Update: 61 Source: Department of Environmental Quality Telephone: 225-219-3181 Last EDR Contact: 01/12/2017 Next Scheduled EDR Contact: 05/01/2017 Data Release Frequency: Quarterly

#### State and tribal landfill and/or solid waste disposal site lists

#### SWF/LF: Landfill List

Solid Waste Facilities/Landfill Sites. SWF/LF type records typically contain an inventory of solid waste disposal facilities or landfills in a particular state. Depending on the state, these may be active or inactive facilities or open dumps that failed to meet RCRA Subtitle D Section 4004 criteria for solid waste landfills or disposal sites.

Date of Government Version: 12/12/2016 Date Data Arrived at EDR: 12/13/2016 Date Made Active in Reports: 12/21/2016 Number of Days to Update: 8 Source: Department of Environmental Quality Telephone: 225-219-3181 Last EDR Contact: 12/09/2016 Next Scheduled EDR Contact: 03/27/2017 Data Release Frequency: Annually

#### DEBRIS: LDEQ Approved Debris Sites

A listing of LDEQ Approved Debris Sites where hurricane debris is dumped.

Date of Government Version: 11/29/2016 Date Data Arrived at EDR: 12/01/2016 Date Made Active in Reports: 12/21/2016 Number of Days to Update: 20 Source: Department of Environmental Quality Telephone: 225-219-3953 Last EDR Contact: 12/01/2016 Next Scheduled EDR Contact: 03/13/2017 Data Release Frequency: Varies

HIST DEBRIS: LDEQ Approved Debris Sites

A listing of LDEQ Approved Debris Sites where hurricane debris is dumped.

Date of Government Version: 02/07/2007 Date Data Arrived at EDR: 11/14/2008 Date Made Active in Reports: 11/21/2008 Number of Days to Update: 7 Source: Department of Environmental Quality Telephone: 225-219-3070 Last EDR Contact: 03/23/2009 Next Scheduled EDR Contact: 06/22/2009 Data Release Frequency: No Update Planned

State and tribal leaking storage tank lists

#### LUST: Leaking Underground Storage Tanks

Leaking Underground Storage Tank Incident Reports. LUST records contain an inventory of reported leaking underground storage tank incidents. Not all states maintain these records, and the information stored varies by state.

Date of Government Version: 10/18/2016 Date Data Arrived at EDR: 10/21/2016 Date Made Active in Reports: 12/21/2016 Number of Days to Update: 61

Source: Department of Environmental Quality Telephone: 225-219-3181 Last EDR Contact: 01/12/2017 Next Scheduled EDR Contact: 05/01/2017 Data Release Frequency: Varies

INDIAN LUST R7: Leaking Underground Storage Tanks on Indian Land LUSTs on Indian land in Iowa, Kansas, and Nebraska

Date of Government Version: 10/09/2015 Date Data Arrived at EDR: 02/12/2016 Date Made Active in Reports: 06/03/2016 Number of Days to Update: 112

Source: EPA Region 7 Telephone: 913-551-7003 Last EDR Contact: 01/26/2017 Next Scheduled EDR Contact: 05/08/2017 Data Release Frequency: Varies

INDIAN LUST R8: Leaking Underground Storage Tanks on Indian Land

LUSTs on Indian land in Colorado, Montana, North Dakota, South Dakota, Utah and Wyoming.

Date of Government Version: 10/13/2015 Date Data Arrived at EDR: 10/23/2015 Date Made Active in Reports: 02/18/2016 Number of Days to Update: 118

Source: EPA Region 8 Telephone: 303-312-6271 Last EDR Contact: 01/26/2017 Next Scheduled EDR Contact: 05/08/2017 Data Release Frequency: Quarterly

INDIAN LUST R9: Leaking Underground Storage Tanks on Indian Land LUSTs on Indian land in Arizona, California, New Mexico and Nevada

Date of Government Version: 02/25/2016 Date Data Arrived at EDR: 04/27/2016 Date Made Active in Reports: 06/03/2016 Number of Days to Update: 37

Source: Environmental Protection Agency Telephone: 415-972-3372 Last EDR Contact: 01/26/2017 Next Scheduled EDR Contact: 05/08/2017 Data Release Frequency: Quarterly

INDIAN LUST R1: Leaking Underground Storage Tanks on Indian Land A listing of leaking underground storage tank locations on Indian Land.

Date of Government Version: 10/27/2015 Date Data Arrived at EDR: 10/29/2015 Date Made Active in Reports: 01/04/2016 Number of Days to Update: 67

Source: EPA Region 1 Telephone: 617-918-1313 Last EDR Contact: 01/26/2017 Next Scheduled EDR Contact: 05/08/2017 Data Release Frequency: Varies

INDIAN LUST R5: Leaking Underground Storage Tanks on Indian Land

Leaking underground storage tanks located on Indian Land in Michigan, Minnesota and Wisconsin.

Date of Government Version: 02/17/2016	Source: EPA, Region 5
Date Data Arrived at EDR: 04/27/2016	Telephone: 312-886-743
Date Made Active in Reports: 06/03/2016	Last EDR Contact: 01/26
Number of Days to Update: 37	Next Scheduled EDR Co
	Data Balanza Fraguena

86-7439 01/26/2017 DR Contact: 05/08/2017 Data Release Frequency: Varies

INDIAN LUST R4: Leaking Underground Storage Tanks on Indian Land LUSTs on Indian land in Florida, Mississippi and North Carolina.

Date of Government Version: 02/05/2016 Date Data Arrived at EDR: 04/29/2016 Date Made Active in Reports: 06/03/2016 Number of Days to Update: 35

Source: EPA Region 4 Telephone: 404-562-8677 Last EDR Contact: 01/24/2017 Next Scheduled EDR Contact: 05/08/2017 Data Release Frequency: Semi-Annually

INDIAN LUST R6: Leaking Underground Storage Tanks on Indian Land LUSTs on Indian land in New Mexico and Oklahoma.

Date of Government Version: 12/11/2015	Source: EPA Region 6
Date Data Arrived at EDR: 02/19/2016	Telephone: 214-665-6597
Date Made Active in Reports: 06/03/2016	Last EDR Contact: 01/26/2017
Number of Days to Update: 105	Next Scheduled EDR Contact: 05/08/2017
	Data Release Frequency: Varies

INDIAN LUST R10: Leaking Underground Storage Tanks on Indian Land LUSTs on Indian land in Alaska, Idaho, Oregon and Washington.

Date of Government Version: 01/07/2016	Source
Date Data Arrived at EDR: 01/08/2016	Telepho
Date Made Active in Reports: 02/18/2016	Last ED
Number of Days to Update: 41	Next So
	~ · -

Source: EPA Region 10 Telephone: 206-553-2857 Last EDR Contact: 01/26/2017 Next Scheduled EDR Contact: 05/08/2017 Data Release Frequency: Quarterly

HIST LUST: Underground Storage Tank Case History Incidents

This listing includes detailed information for Leaking Underground Storage Tanks reported through November 1999. It is no longer updated. Current LUST incidents, without detail, can be found in the Leaking Underground Storage Tank Database

Date of Government Version: 11/01/1999 Date Data Arrived at EDR: 02/16/2000 Date Made Active in Reports: 05/01/2000 Number of Days to Update: 75 Source: Department of Environmental Quality Telephone: N/A Last EDR Contact: 12/04/2001 Next Scheduled EDR Contact: N/A Data Release Frequency: No Update Planned

#### State and tribal registered storage tank lists

FEMA UST: Underground Storage Tank Listing

A listing of all FEMA owned underground storage tanks.

Date of Government Version: 01/01/2010	Source: FEMA
Date Data Arrived at EDR: 02/16/2010	Telephone: 202-646-5797
Date Made Active in Reports: 04/12/2010	Last EDR Contact: 01/23/2017
Number of Days to Update: 55	Next Scheduled EDR Contact: 04/24/2017
	Data Release Frequency: Varies

## UST: Louisiana Underground Storage Tank Database

Registered Underground Storage Tanks. UST's are regulated under Subtitle I of the Resource Conservation and Recovery Act (RCRA) and must be registered with the state department responsible for administering the UST program. Available information varies by state program.

Date of Government Version: 10/18/2016 Date Data Arrived at EDR: 10/21/2016 Date Made Active in Reports: 01/09/2017 Number of Days to Update: 80 Source: Department of Environmental Quality Telephone: 225-219-3181 Last EDR Contact: 01/12/2017 Next Scheduled EDR Contact: 05/01/2017 Data Release Frequency: Quarterly

#### INDIAN UST R6: Underground Storage Tanks on Indian Land

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 6 (Louisiana, Arkansas, Oklahoma, New Mexico, Texas and 65 Tribes).

Date of Government Version: 12/03/2015	Source: EPA Region 6
Date Data Arrived at EDR: 02/04/2016	Telephone: 214-665-7591
Date Made Active in Reports: 06/03/2016	Last EDR Contact: 01/26/2017
Number of Days to Update: 120	Next Scheduled EDR Contact: 05/08/2017
	Data Release Frequency: Semi-Annually

#### INDIAN UST R7: Underground Storage Tanks on Indian Land

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 7 (Iowa, Kansas, Missouri, Nebraska, and 9 Tribal Nations).

	Date of Government Version: 09/23/2014 Date Data Arrived at EDR: 11/25/2014 Date Made Active in Reports: 01/29/2015 Number of Days to Update: 65	Source: EPA Region 7 Telephone: 913-551-7003 Last EDR Contact: 01/26/2017 Next Scheduled EDR Contact: 05/08/2017 Data Release Frequency: Varies					
IND	IAN UST R1: Underground Storage Tanks on Ir The Indian Underground Storage Tank (UST) of Iand in EPA Region 1 (Connecticut, Maine, Ma Nations).	ndian Land database provides information about underground storage tanks on Indian assachusetts, New Hampshire, Rhode Island, Vermont and ten Tribal					
	Date of Government Version: 10/20/2015 Date Data Arrived at EDR: 10/29/2015 Date Made Active in Reports: 01/04/2016 Number of Days to Update: 67	Source: EPA, Region 1 Telephone: 617-918-1313 Last EDR Contact: 01/26/2017 Next Scheduled EDR Contact: 05/08/2017 Data Release Frequency: Varies					
IND		ndian Land database provides information about underground storage tanks on Indian gia, Kentucky, Mississippi, North Carolina, South Carolina, Tennessee					
	Date of Government Version: 02/05/2016 Date Data Arrived at EDR: 04/29/2016 Date Made Active in Reports: 06/03/2016 Number of Days to Update: 35	Source: EPA Region 4 Telephone: 404-562-9424 Last EDR Contact: 01/24/2017 Next Scheduled EDR Contact: 05/08/2017 Data Release Frequency: Semi-Annually					
IND	INDIAN UST R5: Underground Storage Tanks on Indian Land The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 5 (Michigan, Minnesota and Wisconsin and Tribal Nations).						
	Date of Government Version: 11/05/2015 Date Data Arrived at EDR: 11/13/2015 Date Made Active in Reports: 01/04/2016 Number of Days to Update: 52	Source: EPA Region 5 Telephone: 312-886-6136 Last EDR Contact: 01/26/2017 Next Scheduled EDR Contact: 05/08/2017 Data Release Frequency: Varies					

## INDIAN UST R10: Underground Storage Tanks on Indian Land

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 10 (Alaska, Idaho, Oregon, Washington, and Tribal Nations).

Date of Government Version: 01/07/2016
Date Data Arrived at EDR: 01/08/2016
Date Made Active in Reports: 02/18/2016
Number of Days to Update: 41

Source: EPA Region 10 Telephone: 206-553-2857 Last EDR Contact: 01/26/2017 Next Scheduled EDR Contact: 05/08/2017 Data Release Frequency: Quarterly

## INDIAN UST R9: Underground Storage Tanks on Indian Land

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 9 (Arizona, California, Hawaii, Nevada, the Pacific Islands, and Tribal Nations).

Date of Government Version: 02/25/2016	
Date Data Arrived at EDR: 04/27/2016	
Date Made Active in Reports: 06/03/2016	
Number of Days to Update: 37	

Source: EPA Region 9 Telephone: 415-972-3368 Last EDR Contact: 01/26/2017 Next Scheduled EDR Contact: 05/08/2017 Data Release Frequency: Quarterly

#### INDIAN UST R8: Underground Storage Tanks on Indian Land

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 8 (Colorado, Montana, North Dakota, South Dakota, Utah, Wyoming and 27 Tribal Nations).

Date of Government Version: 01/26/2016 Date Data Arrived at EDR: 02/05/2016 Date Made Active in Reports: 06/03/2016 Number of Days to Update: 119 Source: EPA Region 8 Telephone: 303-312-6137 Last EDR Contact: 01/26/2017 Next Scheduled EDR Contact: 05/08/2017 Data Release Frequency: Quarterly

#### State and tribal institutional control / engineering control registries

#### AUL: Listing of Institutional and/or Enginnering Controls

A notice of contamination (nature and levels of contaminants) and restriction of property to non-residential use are placed in the conveyance records for the property.

Date of Government Version: 10/18/2010	Source: Department of Environmental Quality
Date Data Arrived at EDR: 11/04/2010	Telephone: 225-219-3168
Date Made Active in Reports: 11/12/2010	Last EDR Contact: 01/09/2017
Number of Days to Update: 8	Next Scheduled EDR Contact: 04/24/2017
	Data Release Frequency: Quarterly

#### State and tribal voluntary cleanup sites

INDIAN VCP R1: Voluntary Cleanup Priority Listing

A listing of voluntary cleanup priority sites located on Indian Land located in Region 1.

Date of Government Version: 07/27/2015	Source: EPA, Region 1
Date Data Arrived at EDR: 09/29/2015	Telephone: 617-918-1102
Date Made Active in Reports: 02/18/2016	Last EDR Contact: 12/27/2016
Number of Days to Update: 142	Next Scheduled EDR Contact: 04/10/2017
	Data Release Frequency: Varies

## VCP: Voluntary Remediation Program Sites

Sites that have entered the Department of Environmental Quality's Voluntary Remediation Program

Date of Government Version: 10/11/2016 Date Data Arrived at EDR: 10/18/2016 Date Made Active in Reports: 12/21/2016 Number of Days to Update: 64 Source: Department of Environmental Quality Telephone: 225-219-3181 Last EDR Contact: 01/12/2017 Next Scheduled EDR Contact: 05/01/2017 Data Release Frequency: Varies

INDIAN VCP R7: Voluntary Cleanup Priority Lisitng

A listing of voluntary cleanup priority sites located on Indian Land located in Region 7.

Date of Government Version: 03/20/2008
Date Data Arrived at EDR: 04/22/2008
Date Made Active in Reports: 05/19/2008
Number of Days to Update: 27

Source: EPA, Region 7 Telephone: 913-551-7365 Last EDR Contact: 04/20/2009 Next Scheduled EDR Contact: 07/20/2009 Data Release Frequency: Varies

#### State and tribal Brownfields sites

BROWNFIELDS: Brownfields Inventory

Brownfields are abandoned, idled, or underused industrial or commercial real property, the expansion, redevelopment or reuse of which may be complicated by the presence of or potential presence of a hazardous substance, pollutant, or contaminant.

Date of Government Version: 10/18/2016 Date Data Arrived at EDR: 10/21/2016 Date Made Active in Reports: 12/21/2016 Number of Days to Update: 61

Source: Department of Environmental Quality Telephone: 225-219-3167 Last EDR Contact: 01/12/2017 Next Scheduled EDR Contact: 05/01/2017 Data Release Frequency: Quarterly

## ADDITIONAL ENVIRONMENTAL RECORDS

#### Local Brownfield lists

## US BROWNFIELDS: A Listing of Brownfields Sites

Brownfields are real property, the expansion, redevelopment, or reuse of which may be complicated by the presence or potential presence of a hazardous substance, pollutant, or contaminant. Cleaning up and reinvesting in these properties takes development pressures off of undeveloped, open land, and both improves and protects the environment. Assessment, Cleanup and Redevelopment Exchange System (ACRES) stores information reported by EPA Brownfields grant recipients on brownfields properties assessed or cleaned up with grant funding as well as information on Targeted Brownfields Assessments performed by EPA Regions. A listing of ACRES Brownfield sites is obtained from Cleanups in My Community. Cleanups in My Community provides information on Brownfields properties for which information is reported back to EPA, as well as areas served by Brownfields grant programs.

Date of Government Version: 12/19/2016 Date Data Arrived at EDR: 12/20/2016 Date Made Active in Reports: 02/10/2017 Number of Days to Update: 52 Source: Environmental Protection Agency Telephone: 202-566-2777 Last EDR Contact: 12/20/2016 Next Scheduled EDR Contact: 04/03/2017 Data Release Frequency: Semi-Annually

#### Local Lists of Landfill / Solid Waste Disposal Sites

SWRCY: Recycling Directory A listing of recycling facilities.

> Date of Government Version: 09/14/2010 Date Data Arrived at EDR: 09/21/2010 Date Made Active in Reports: 10/12/2010 Number of Days to Update: 21

Source: Department of Environmental Quality Telephone: 225-219-3181 Last EDR Contact: 12/09/2016 Next Scheduled EDR Contact: 03/27/2017 Data Release Frequency: Semi-Annually

INDIAN ODI: Report on the Status of Open Dumps on Indian Lands Location of open dumps on Indian land.

Date of Government Version: 12/31/1998 Date Data Arrived at EDR: 12/03/2007 Date Made Active in Reports: 01/24/2008 Number of Days to Update: 52 Source: Environmental Protection Agency Telephone: 703-308-8245 Last EDR Contact: 10/31/2016 Next Scheduled EDR Contact: 02/13/2017 Data Release Frequency: Varies

DEBRIS REGION 9: Torres Martinez Reservation Illegal Dump Site Locations A listing of illegal dump sites location on the Torres Martinez Indian Reservation located in eastern Riverside County and northern Imperial County, California.

Date of Government Version: 01/12/2009 Date Data Arrived at EDR: 05/07/2009 Date Made Active in Reports: 09/21/2009 Number of Days to Update: 137	Source: EPA, Region 9 Telephone: 415-947-4219 Last EDR Contact: 01/23/2017 Next Scheduled EDR Contact: 05/08/2017 Data Release Frequency: No Update Planned

ODI: Open Dump Inventory

An open dump is defined as a disposal facility that does not comply with one or more of the Part 257 or Part 258 Subtitle D Criteria.

Date of Government Version: 06/30/1985 Date Data Arrived at EDR: 08/09/2004 Date Made Active in Reports: 09/17/2004 Number of Days to Update: 39 Source: Environmental Protection Agency Telephone: 800-424-9346 Last EDR Contact: 06/09/2004 Next Scheduled EDR Contact: N/A Data Release Frequency: No Update Planned

#### IHS OPEN DUMPS: Open Dumps on Indian Land

A listing of all open dumps located on Indian Land in the United States.

 Date of Government Version: 04/01/2014
 Source: Department of Health & Human Serivces, Indian Health Service

 Date Data Arrived at EDR: 08/06/2014
 Telephone: 301-443-1452

 Date Made Active in Reports: 01/29/2015
 Last EDR Contact: 01/30/2017

 Number of Days to Update: 176
 Next Scheduled EDR Contact: 05/08/2017

 Data Release Frequency: Varies
 Data Release

#### Local Lists of Hazardous waste / Contaminated Sites

#### US HIST CDL: National Clandestine Laboratory Register

A listing of clandestine drug lab locations that have been removed from the DEAs National Clandestine Laboratory Register.

Date of Government Version: 09/30/2016 Date Data Arrived at EDR: 01/05/2017 Date Made Active in Reports: 02/10/2017 Number of Days to Update: 36 Source: Drug Enforcement Administration Telephone: 202-307-1000 Last EDR Contact: 11/29/2016 Next Scheduled EDR Contact: 03/13/2017 Data Release Frequency: No Update Planned

CDL: Clandestine Drug Lab

A list of residential real properties that have been reported as potentially contaminated.

Date of Government Version: 09/16/2016 Date Data Arrived at EDR: 09/20/2016 Date Made Active in Reports: 10/19/2016 Number of Days to Update: 29 Source: Department of Environmental Quality Telephone: 225-219-5337 Last EDR Contact: 11/28/2016 Next Scheduled EDR Contact: 03/13/2017 Data Release Frequency: Semi-Annually

# DEL SHWS: Deleted Potential & Confirmed Sites

A listing of sites removed from the Potential and Confirmed Listing.

Date of Government Version: 10/18/2016	Source: Department of Environmental Quality
Date Data Arrived at EDR: 10/21/2016	Telephone: 225-219-3168
Date Made Active in Reports: 12/21/2016	Last EDR Contact: 01/12/2017
Number of Days to Update: 61	Next Scheduled EDR Contact: 05/01/2017
	Data Release Frequency: Varies

#### US CDL: Clandestine Drug Labs

A listing of clandestine drug lab locations. The U.S. Department of Justice ("the Department") provides this web site as a public service. It contains addresses of some locations where law enforcement agencies reported they found chemicals or other items that indicated the presence of either clandestine drug laboratories or dumpsites. In most cases, the source of the entries is not the Department, and the Department has not verified the entry and does not guarantee its accuracy. Members of the public must verify the accuracy of all entries by, for example, contacting local law enforcement and local health departments.

Date of Government Version: 09/30/2016 Date Data Arrived at EDR: 12/05/2016 Date Made Active in Reports: 02/10/2017 Number of Days to Update: 67

Source: Drug Enforcement Administration Telephone: 202-307-1000 Last EDR Contact: 11/29/2016 Next Scheduled EDR Contact: 03/13/2017 Data Release Frequency: Quarterly

#### Local Land Records

#### LIENS: Environmental Liens

An Environmental Lien is a charge, security, or encumbrance upon title to a property to secure the payment of a cost, damage, debt, obligation, or duty arising out of response actions, cleanup, or other remediation of hazardous substances or petroleum products upon a property, including (but not limited to) liens imposed pursuant to CERCLA 42 USC ? 9607(1) and similar state or local laws. In other words: a lien placed upon a property's title due to an environmental condition.

Date of Government Version: 08/25/2015 Date Data Arrived at EDR: 10/20/2015 Date Made Active in Reports: 12/02/2015 Number of Days to Update: 43 Source: Department of Environmental Quality Telephone: N/A Last EDR Contact: 01/12/2017 Next Scheduled EDR Contact: 05/01/2017 Data Release Frequency: Varies

#### LIENS 2: CERCLA Lien Information

A Federal CERCLA ('Superfund') lien can exist by operation of law at any site or property at which EPA has spent Superfund monies. These monies are spent to investigate and address releases and threatened releases of contamination. CERCLIS provides information as to the identity of these sites and properties.

Date of Government Version: 02/18/2014 Date Data Arrived at EDR: 03/18/2014 Date Made Active in Reports: 04/24/2014 Number of Days to Update: 37 Source: Environmental Protection Agency Telephone: 202-564-6023 Last EDR Contact: 01/24/2017 Next Scheduled EDR Contact: 05/08/2017 Data Release Frequency: Varies

#### **Records of Emergency Release Reports**

HMIRS: Hazardous Materials Information Reporting System Hazardous Materials Incident Report System. HMIRS contains hazardous material spill incidents reported to DOT.

Date of Government Version: 12/28/2016
Date Data Arrived at EDR: 12/28/2016
Date Made Active in Reports: 02/03/2017
Number of Days to Update: 37

Source: U.S. Department of Transportation Telephone: 202-366-4555 Last EDR Contact: 12/28/2016 Next Scheduled EDR Contact: 04/10/2017 Data Release Frequency: Annually

## SPILLS: Emergency Response Section Incidents

Spills and/or releases, to land, reported to the Emergency Response Section.

Date of Government Version: 08/24/2016 Date Data Arrived at EDR: 09/15/2016 Date Made Active in Reports: 10/19/2016 Number of Days to Update: 34 Source: Department of Environmental Quality Telephone: 225-219-3620 Last EDR Contact: 02/13/2017 Next Scheduled EDR Contact: 05/29/2017 Data Release Frequency: Varies

#### SPILLS 90: SPILLS90 data from FirstSearch

Spills 90 includes those spill and release records available exclusively from FirstSearch databases. Typically, they may include chemical, oil and/or hazardous substance spills recorded after 1990. Duplicate records that are already included in EDR incident and release records are not included in Spills 90.

Date of Government Version: 10/30/2012 Date Data Arrived at EDR: 01/03/2013 Date Made Active in Reports: 03/07/2013 Number of Days to Update: 63 Source: FirstSearch Telephone: N/A Last EDR Contact: 01/03/2013 Next Scheduled EDR Contact: N/A Data Release Frequency: No Update Planned

#### Other Ascertainable Records

#### RCRA NonGen / NLR: RCRA - Non Generators / No Longer Regulated

RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Non-Generators do not presently generate hazardous waste.

Date of Government Version: 12/12/2016 Date Data Arrived at EDR: 12/28/2016 Date Made Active in Reports: 02/10/2017 Number of Days to Update: 44 Source: Environmental Protection Agency Telephone: 214-665-6444 Last EDR Contact: 12/28/2016 Next Scheduled EDR Contact: 04/10/2017 Data Release Frequency: Varies

#### FUDS: Formerly Used Defense Sites

The listing includes locations of Formerly Used Defense Sites properties where the US Army Corps of Engineers is actively working or will take necessary cleanup actions.

Date of Government Version: 01/31/2015 Date Data Arrived at EDR: 07/08/2015 Date Made Active in Reports: 10/13/2015 Number of Days to Update: 97 Source: U.S. Army Corps of Engineers Telephone: 202-528-4285 Last EDR Contact: 12/08/2016 Next Scheduled EDR Contact: 03/20/2017 Data Release Frequency: Varies

DOD: Department of Defense Sites

This data set consists of federally owned or administered lands, administered by the Department of Defense, that have any area equal to or greater than 640 acres of the United States, Puerto Rico, and the U.S. Virgin Islands.

Date of Government Version: 12/31/2005 Date Data Arrived at EDR: 11/10/2006 Date Made Active in Reports: 01/11/2007 Number of Days to Update: 62 Source: USGS Telephone: 888-275-8747 Last EDR Contact: 01/13/2017 Next Scheduled EDR Contact: 04/24/2017 Data Release Frequency: Semi-Annually

#### FEDLAND: Federal and Indian Lands

Federally and Indian administrated lands of the United States. Lands included are administrated by: Army Corps of Engineers, Bureau of Reclamation, National Wild and Scenic River, National Wildlife Refuge, Public Domain Land, Wilderness, Wilderness Study Area, Wildlife Management Area, Bureau of Indian Affairs, Bureau of Land Management, Department of Justice, Forest Service, Fish and Wildlife Service, National Park Service.

Date of Government Version: 12/31/2005 Date Data Arrived at EDR: 02/06/2006 Date Made Active in Reports: 01/11/2007 Number of Days to Update: 339 Source: U.S. Geological Survey Telephone: 888-275-8747 Last EDR Contact: 01/13/2017 Next Scheduled EDR Contact: 04/24/2017 Data Release Frequency: N/A

#### SCRD DRYCLEANERS: State Coalition for Remediation of Drycleaners Listing

The State Coalition for Remediation of Drycleaners was established in 1998, with support from the U.S. EPA Office of Superfund Remediation and Technology Innovation. It is comprised of representatives of states with established drycleaner remediation programs. Currently the member states are Alabama, Connecticut, Florida, Illinois, Kansas, Minnesota, Missouri, North Carolina, Oregon, South Carolina, Tennessee, Texas, and Wisconsin.

Date of Government Version: 03/07/2011 Date Data Arrived at EDR: 03/09/2011 Date Made Active in Reports: 05/02/2011 Number of Days to Update: 54 Source: Environmental Protection Agency Telephone: 615-532-8599 Last EDR Contact: 02/03/2017 Next Scheduled EDR Contact: 05/29/2017 Data Release Frequency: Varies

#### US FIN ASSUR: Financial Assurance Information

All owners and operators of facilities that treat, store, or dispose of hazardous waste are required to provide proof that they will have sufficient funds to pay for the clean up, closure, and post-closure care of their facilities.

Date of Government Version: 10/11/2016 Date Data Arrived at EDR: 11/16/2016 Date Made Active in Reports: 02/03/2017 Number of Days to Update: 79 Source: Environmental Protection Agency Telephone: 202-566-1917 Last EDR Contact: 11/16/2016 Next Scheduled EDR Contact: 02/27/2017 Data Release Frequency: Quarterly

#### EPA WATCH LIST: EPA WATCH LIST

EPA maintains a "Watch List" to facilitate dialogue between EPA, state and local environmental agencies on enforcement matters relating to facilities with alleged violations identified as either significant or high priority. Being on the Watch List does not mean that the facility has actually violated the law only that an investigation by EPA or a state or local environmental agency has led those organizations to allege that an unproven violation has in fact occurred. Being on the Watch List does not represent a higher level of concern regarding the alleged violations that were detected, but instead indicates cases requiring additional dialogue between EPA, state and local agencies - primarily because of the length of time the alleged violation has gone unaddressed or unresolved.

Date of Government Version: 08/30/2013 Date Data Arrived at EDR: 03/21/2014 Date Made Active in Reports: 06/17/2014 Number of Days to Update: 88 Source: Environmental Protection Agency Telephone: 617-520-3000 Last EDR Contact: 02/03/2017 Next Scheduled EDR Contact: 05/22/2017 Data Release Frequency: Quarterly

## 2020 COR ACTION: 2020 Corrective Action Program List

The EPA has set ambitious goals for the RCRA Corrective Action program by creating the 2020 Corrective Action Universe. This RCRA cleanup baseline includes facilities expected to need corrective action. The 2020 universe contains a wide variety of sites. Some properties are heavily contaminated while others were contaminated but have since been cleaned up. Still others have not been fully investigated yet, and may require little or no remediation. Inclusion in the 2020 Universe does not necessarily imply failure on the part of a facility to meet its RCRA obligations.

Date of Government Version: 04/22/2013 Date Data Arrived at EDR: 03/03/2015 Date Made Active in Reports: 03/09/2015 Number of Days to Update: 6 Source: Environmental Protection Agency Telephone: 703-308-4044 Last EDR Contact: 02/10/2017 Next Scheduled EDR Contact: 05/22/2017 Data Release Frequency: Varies

#### TSCA: Toxic Substances Control Act

Toxic Substances Control Act. TSCA identifies manufacturers and importers of chemical substances included on the TSCA Chemical Substance Inventory list. It includes data on the production volume of these substances by plant site.

Date of Government Version: 12/31/2012 Date Data Arrived at EDR: 01/15/2015 Date Made Active in Reports: 01/29/2015 Number of Days to Update: 14 Source: EPA Telephone: 202-260-5521 Last EDR Contact: 12/23/2016 Next Scheduled EDR Contact: 04/03/2017 Data Release Frequency: Every 4 Years

#### TRIS: Toxic Chemical Release Inventory System

Toxic Release Inventory System. TRIS identifies facilities which release toxic chemicals to the air, water and land in reportable quantities under SARA Title III Section 313.

Date of Government Version: 12/31/2014 Date Data Arrived at EDR: 11/24/2015 Date Made Active in Reports: 04/05/2016 Number of Days to Update: 133 Source: EPA Telephone: 202-566-0250 Last EDR Contact: 11/22/2016 Next Scheduled EDR Contact: 03/06/2017 Data Release Frequency: Annually

#### SSTS: Section 7 Tracking Systems

Section 7 of the Federal Insecticide, Fungicide and Rodenticide Act, as amended (92 Stat. 829) requires all registered pesticide-producing establishments to submit a report to the Environmental Protection Agency by March 1st each year. Each establishment must report the types and amounts of pesticides, active ingredients and devices being produced, and those having been produced and sold or distributed in the past year.

Date of Government Version: 12/31/2009 Date Data Arrived at EDR: 12/10/2010 Date Made Active in Reports: 02/25/2011 Number of Days to Update: 77 Source: EPA Telephone: 202-564-4203 Last EDR Contact: 01/23/2017 Next Scheduled EDR Contact: 05/08/2017 Data Release Frequency: Annually

#### ROD: Records Of Decision

Record of Decision. ROD documents mandate a permanent remedy at an NPL (Superfund) site containing technical and health information to aid in the cleanup.

Date of Government Version: 11/25/2013 Date Data Arrived at EDR: 12/12/2013 Date Made Active in Reports: 02/24/2014 Number of Days to Update: 74 Source: EPA Telephone: 703-416-0223 Last EDR Contact: 12/06/2016 Next Scheduled EDR Contact: 03/20/2017 Data Release Frequency: Annually

#### RMP: Risk Management Plans

When Congress passed the Clean Air Act Amendments of 1990, it required EPA to publish regulations and guidance for chemical accident prevention at facilities using extremely hazardous substances. The Risk Management Program Rule (RMP Rule) was written to implement Section 112(r) of these amendments. The rule, which built upon existing industry codes and standards, requires companies of all sizes that use certain flammable and toxic substances to develop a Risk Management Program, which includes a(n): Hazard assessment that details the potential effects of an accidental release, an accident history of the last five years, and an evaluation of worst-case and alternative accidental releases; Prevention program that includes safety precautions and maintenance, monitoring, and employee training measures; and Emergency response program that spells out emergency health care, employee training measures and procedures for informing the public and response agencies (e.g the fire department) should an accident occur.

Date of Government Version: 08/01/2016 Date Data Arrived at EDR: 08/22/2016 Date Made Active in Reports: 11/11/2016 Number of Days to Update: 81 Source: Environmental Protection Agency Telephone: 202-564-8600 Last EDR Contact: 01/23/2017 Next Scheduled EDR Contact: 05/08/2017 Data Release Frequency: Varies

#### RAATS: RCRA Administrative Action Tracking System

RCRA Administration Action Tracking System. RAATS contains records based on enforcement actions issued under RCRA pertaining to major violators and includes administrative and civil actions brought by the EPA. For administration actions after September 30, 1995, data entry in the RAATS database was discontinued. EPA will retain a copy of the database for historical records. It was necessary to terminate RAATS because a decrease in agency resources made it impossible to continue to update the information contained in the database.

Date of Government Version: 04/17/1995 Date Data Arrived at EDR: 07/03/1995 Date Made Active in Reports: 08/07/1995 Number of Days to Update: 35 Source: EPA Telephone: 202-564-4104 Last EDR Contact: 06/02/2008 Next Scheduled EDR Contact: 09/01/2008 Data Release Frequency: No Update Planned

#### PRP: Potentially Responsible Parties

A listing of verified Potentially Responsible Parties

Date of Government Version: 10/25/2013	Source: EPA
Date Data Arrived at EDR: 10/17/2014	Telephone: 202-564-6023
Date Made Active in Reports: 10/20/2014	Last EDR Contact: 02/10/2017
Number of Days to Update: 3	Next Scheduled EDR Contact: 05/22/2017
	Data Release Frequency: Quarterly

#### PADS: PCB Activity Database System

PCB Activity Database. PADS Identifies generators, transporters, commercial storers and/or brokers and disposers of PCB's who are required to notify the EPA of such activities.

Date of Government Version: 01/20/2016	Source: EP
Date Data Arrived at EDR: 04/28/2016	Telephone:
Date Made Active in Reports: 09/02/2016	Last EDR C
Number of Days to Update: 127	Next Sched
	<b>D.I. D.I.</b>

Source: EPA Telephone: 202-566-0500 Last EDR Contact: 01/13/2017 Next Scheduled EDR Contact: 04/24/2017 Data Release Frequency: Annually

#### ICIS: Integrated Compliance Information System

The Integrated Compliance Information System (ICIS) supports the information needs of the national enforcement and compliance program as well as the unique needs of the National Pollutant Discharge Elimination System (NPDES) program.

Date of Government Version: 11/18/2016 Date Data Arrived at EDR: 11/23/2016 Date Made Active in Reports: 02/10/2017 Number of Days to Update: 79 Source: Environmental Protection Agency Telephone: 202-564-5088 Last EDR Contact: 01/09/2017 Next Scheduled EDR Contact: 04/24/2017 Data Release Frequency: Quarterly

FTTS tracks administrative cases and pestici	ederal Insecticide, Fungicide, & Rodenticide Act)/TSCA (Toxic Substances Control Act) de enforcement actions and compliance activities related to FIFRA, d Community Right-to-Know Act). To maintain currency, EDR contacts the
Date of Government Version: 04/09/2009 Date Data Arrived at EDR: 04/16/2009 Date Made Active in Reports: 05/11/2009 Number of Days to Update: 25	Source: EPA/Office of Prevention, Pesticides and Toxic Substances Telephone: 202-566-1667 Last EDR Contact: 11/17/2016 Next Scheduled EDR Contact: 03/06/2017 Data Release Frequency: Quarterly
FTTS INSP: FIFRA/ TSCA Tracking System - FIF A listing of FIFRA/TSCA Tracking System (F	RA (Federal Insecticide, Fungicide, & Rodenticide Act)/TSCA (Toxic Substances Control Act TTS) inspections and enforcements.
Date of Government Version: 04/09/2009 Date Data Arrived at EDR: 04/16/2009 Date Made Active in Reports: 05/11/2009 Number of Days to Update: 25	Source: EPA Telephone: 202-566-1667 Last EDR Contact: 11/17/2016 Next Scheduled EDR Contact: 03/06/2017 Data Release Frequency: Quarterly
	ry Commission and contains a list of approximately 8,100 sites which ch are subject to NRC licensing requirements. To maintain currency, s.
Date of Government Version: 08/30/2016 Date Data Arrived at EDR: 09/08/2016 Date Made Active in Reports: 10/21/2016 Number of Days to Update: 43	Source: Nuclear Regulatory Commission Telephone: 301-415-7169 Last EDR Contact: 02/03/2017 Next Scheduled EDR Contact: 05/22/2017 Data Release Frequency: Quarterly
COAL ASH DOE: Steam-Electric Plant Operation A listing of power plants that store ash in surf	
Date of Government Version: 12/31/2005 Date Data Arrived at EDR: 08/07/2009 Date Made Active in Reports: 10/22/2009 Number of Days to Update: 76	Source: Department of Energy Telephone: 202-586-8719 Last EDR Contact: 12/06/2016 Next Scheduled EDR Contact: 03/20/2017 Data Release Frequency: Varies
COAL ASH EPA: Coal Combustion Residues Surf A listing of coal combustion residues surface	ace Impoundments List impoundments with high hazard potential ratings.
Date of Government Version: 07/01/2014 Date Data Arrived at EDR: 09/10/2014 Date Made Active in Reports: 10/20/2014 Number of Days to Update: 40	Source: Environmental Protection Agency Telephone: N/A Last EDR Contact: 12/06/2016 Next Scheduled EDR Contact: 03/20/2017 Data Release Frequency: Varies
PCB TRANSFORMER: PCB Transformer Registra The database of PCB transformer registration	ation Database ns that includes all PCB registration submittals.
Date of Government Version: 02/01/2011 Date Data Arrived at EDR: 10/19/2011 Date Made Active in Reports: 01/10/2012 Number of Days to Update: 83	Source: Environmental Protection Agency Telephone: 202-566-0517 Last EDR Contact: 01/29/2016 Next Scheduled EDR Contact: 05/08/2017 Data Release Frequency: Varies

The Radiation Information Database (RADINFO) contains information about facilities that are regulated by U.S. Environmental Protection Agency (EPA) regulations for radiation and radioactivity.

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Date of Government Version: 01/04/2017 Date Data Arrived at EDR: 01/06/2017 Date Made Active in Reports: 02/10/2017 Number of Days to Update: 35 Source: Environmental Protection Agency Telephone: 202-343-9775 Last EDR Contact: 01/06/2017 Next Scheduled EDR Contact: 04/17/2017 Data Release Frequency: Quarterly

## HIST FTTS: FIFRA/TSCA Tracking System Administrative Case Listing

A complete administrative case listing from the FIFRA/TSCA Tracking System (FTTS) for all ten EPA regions. The information was obtained from the National Compliance Database (NCDB). NCDB supports the implementation of FIFRA (Federal Insecticide, Fungicide, and Rodenticide Act) and TSCA (Toxic Substances Control Act). Some EPA regions are now closing out records. Because of that, and the fact that some EPA regions are not providing EPA Headquarters with updated records, it was decided to create a HIST FTTS database. It included records that may not be included in the newer FTTS database updates. This database is no longer updated.

Date of Government Version: 10/19/2006	Source: Environmental Protection Agency
Date Data Arrived at EDR: 03/01/2007	Telephone: 202-564-2501
Date Made Active in Reports: 04/10/2007	Last EDR Contact: 12/17/2007
Number of Days to Update: 40	Next Scheduled EDR Contact: 03/17/2008
	Data Release Frequency: No Update Planned

HIST FTTS INSP: FIFRA/TSCA Tracking System Inspection & Enforcement Case Listing

A complete inspection and enforcement case listing from the FIFRA/TSCA Tracking System (FTTS) for all ten EPA regions. The information was obtained from the National Compliance Database (NCDB). NCDB supports the implementation of FIFRA (Federal Insecticide, Fungicide, and Rodenticide Act) and TSCA (Toxic Substances Control Act). Some EPA regions are now closing out records. Because of that, and the fact that some EPA regions are not providing EPA Headquarters with updated records, it was decided to create a HIST FTTS database. It included records that may not be included in the newer FTTS database updates. This database is no longer updated.

Date of Government Version: 10/19/2006	Source: Environmental Protection Agency
Date Data Arrived at EDR: 03/01/2007	Telephone: 202-564-2501
Date Made Active in Reports: 04/10/2007	Last EDR Contact: 12/17/2008
Number of Days to Update: 40	Next Scheduled EDR Contact: 03/17/2008
	Data Release Frequency: No Update Planned

DOT OPS: Incident and Accident Data

Department of Transporation, Office of Pipeline Safety Incident and Accident data.

Date of Government Version: 07/31/2012	Source: Department of Transporation, Office of Pipeline Safety
Date Data Arrived at EDR: 08/07/2012	Telephone: 202-366-4595
Date Made Active in Reports: 09/18/2012	Last EDR Contact: 02/01/2017
Number of Days to Update: 42	Next Scheduled EDR Contact: 05/08/2017
	Data Release Frequency: Varies

CONSENT: Superfund (CERCLA) Consent Decrees

Major legal settlements that establish responsibility and standards for cleanup at NPL (Superfund) sites. Released periodically by United States District Courts after settlement by parties to litigation matters.

Date of Government Version: 09/30/2016 Date Data Arrived at EDR: 11/18/2016 Date Made Active in Reports: 02/03/2017 Number of Days to Update: 77 Source: Department of Justice, Consent Decree Library Telephone: Varies Last EDR Contact: 01/23/2017 Next Scheduled EDR Contact: 04/10/2017 Data Release Frequency: Varies

#### BRS: Biennial Reporting System

The Biennial Reporting System is a national system administered by the EPA that collects data on the generation and management of hazardous waste. BRS captures detailed data from two groups: Large Quantity Generators (LQG) and Treatment, Storage, and Disposal Facilities.

Date of Government Version: 12/31/2013 Date Data Arrived at EDR: 02/24/2015 Date Made Active in Reports: 09/30/2015 Number of Days to Update: 218 Source: EPA/NTIS Telephone: 800-424-9346 Last EDR Contact: 11/23/2016 Next Scheduled EDR Contact: 03/06/2017 Data Release Frequency: Biennially

## INDIAN RESERV: Indian Reservations

This map layer portrays Indian administered lands of the United States that have any area equal to or greater than 640 acres.

Date of Government Version: 12/31/2014	Source: USGS
Date Data Arrived at EDR: 07/14/2015	Telephone: 202-208-3710
Date Made Active in Reports: 01/10/2017	Last EDR Contact: 01/13/2017
Number of Days to Update: 546	Next Scheduled EDR Contact: 04/24/2017
	Data Release Frequency: Semi-Annually

#### FUSRAP: Formerly Utilized Sites Remedial Action Program

DOE established the Formerly Utilized Sites Remedial Action Program (FUSRAP) in 1974 to remediate sites where radioactive contamination remained from Manhattan Project and early U.S. Atomic Energy Commission (AEC) operations.

Date of Government Version: 07/21/2016 Date Data Arrived at EDR: 07/26/2016 Date Made Active in Reports: 09/23/2016 Number of Days to Update: 59

Source: Department of Energy Telephone: 202-586-3559 Last EDR Contact: 02/03/2017 Next Scheduled EDR Contact: 05/22/2017 Data Release Frequency: Varies

#### UMTRA: Uranium Mill Tailings Sites

Uranium ore was mined by private companies for federal government use in national defense programs. When the mills shut down, large piles of the sand-like material (mill tailings) remain after uranium has been extracted from the ore. Levels of human exposure to radioactive materials from the piles are low; however, in some cases tailings were used as construction materials before the potential health hazards of the tailings were recognized.

Date of Government Version: 09/14/2010 Date Data Arrived at EDR: 10/07/2011 Date Made Active in Reports: 03/01/2012 Number of Days to Update: 146

Source: Department of Energy Telephone: 505-845-0011 Last EDR Contact: 09/09/2016 Next Scheduled EDR Contact: 12/05/2016 Data Release Frequency; Varies

#### LEAD SMELTER 1: Lead Smelter Sites A listing of former lead smelter site locations.

Date of Government Version: 12/05/2016 Date Data Arrived at EDR: 01/05/2017 Date Made Active in Reports: 02/10/2017 Number of Days to Update: 36

Source: Environmental Protection Agency Telephone: 703-603-8787 Last EDR Contact: 01/05/2017 Next Scheduled EDR Contact: 04/17/2017 Data Release Frequency: Varies

#### LEAD SMELTER 2: Lead Smelter Sites

A list of several hundred sites in the U.S. where secondary lead smelting was done from 1931and 1964. These sites may pose a threat to public health through ingestion or inhalation of contaminated soil or dust

Date of Government Version: 04/05/2001 Date Data Arrived at EDR: 10/27/2010 Date Made Active in Reports: 12/02/2010 Number of Days to Update: 36

Source: American Journal of Public Health Telephone: 703-305-6451 Last EDR Contact: 12/02/2009 Next Scheduled EDR Contact: N/A Data Release Frequency: No Update Planned

#### US AIRS (AFS): Aerometric Information Retrieval System Facility Subsystem (AFS)

The database is a sub-system of Aerometric Information Retrieval System (AIRS). AFS contains compliance data on air pollution point sources regulated by the U.S. EPA and/or state and local air regulatory agencies. This information comes from source reports by various stationary sources of air pollution, such as electric power plants, steel mills, factories, and universities, and provides information about the air pollutants they produce. Action, air program, air program pollutant, and general level plant data. It is used to track emissions and compliance data from industrial plants.

Date of Government Version: 10/12/2016 Date Data Arrived at EDR: 10/26/2016 Date Made Active in Reports: 02/03/2017 Number of Days to Update: 100	Source: EPA Telephone: 202-564-2496 Last EDR Contact: 12/22/2016 Next Scheduled EDR Contact: 04/10/2017 Data Release Frequency: Annually
US AIRS MINOR: Air Facility System Data A listing of minor source facilities.	
Date of Government Version: 10/12/2016 Date Data Arrived at EDR: 10/26/2016 Date Made Active in Reports: 02/03/2017 Number of Days to Update: 100	Source: EPA Telephone: 202-564-2496 Last EDR Contact: 12/22/2016 Next Scheduled EDR Contact: 04/10/2017 Data Release Frequency: Annually
US MINES: Mines Master Index File Contains all mine identification numbers issu violation information.	ed for mines active or opened since 1971. The data also includes
Date of Government Version: 08/05/2016 Date Data Arrived at EDR: 09/01/2016 Date Made Active in Reports: 09/23/2016 Number of Days to Update: 22	Source: Department of Labor, Mine Safety and Health Administration Telephone: 303-231-5959 Last EDR Contact: 12/01/2016 Next Scheduled EDR Contact: 03/13/2017 Data Release Frequency: Semi-Annually
US MINES 2: Ferrous and Nonferrous Metal Mine This map layer includes ferrous (ferrous meta ore or molybdenum) and nonferrous (Nonferr as gold, silver, copper, zinc, and lead) metal	al mines are facilities that extract ferrous metals, such as iron rous metal mines are facilities that extract nonferrous metals, such
Date of Government Version: 12/05/2005 Date Data Arrived at EDR: 02/29/2008 Date Made Active in Reports: 04/18/2008 Number of Days to Update: 49	Source: USGS Telephone: 703-648-7709 Last EDR Contact: 12/12/2016 Next Scheduled EDR Contact: 03/13/2017 Data Release Frequency: Varies
US MINES 3: Active Mines & Mineral Plants Datal Active Mines and Mineral Processing Plant o of the USGS.	base Listing perations for commodities monitored by the Minerals Information Team
Date of Government Version: 04/14/2011 Date Data Arrived at EDR: 06/08/2011 Date Made Active in Reports: 09/13/2011 Number of Days to Update: 97	Source: USGS Telephone: 703-648-7709 Last EDR Contact: 12/02/2016 Next Scheduled EDR Contact: 03/13/2017 Data Release Frequency: Varies
detail. EDR includes the following FINDS dat Information Retrieval System), DOCKET (En enforcement cases for all environmental state Docket System used to track criminal enforce	stem facility information and 'pointers' to other sources that contain more tabases in this report: PCS (Permit Compliance System), AIRS (Aerometric forcement Docket used to manage and track information on civil judicial utes), FURS (Federal Underground Injection Control), C-DOCKET (Criminal ement actions for all environmental statutes), FFIS (Federal Facilities nental Laws and Statutes), and PADS (PCB Activity Data System).
Date of Government Version: 07/15/2016 Date Data Arrived at EDR: 09/07/2016 Date Made Active in Reports: 11/11/2016 Number of Days to Update: 65	Source: EPA Telephone: (214) 665-2200 Last EDR Contact: 12/06/2016 Next Scheduled EDR Contact: 03/20/2017 Data Balazas Ersquescer: Quadarky

Next Scheduled EDR Contact: 03/20/2017 Data Release Frequency: Quarterly

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Date of Government Version: 06/02/2016	Source: Environmental Protection Agency
Date Data Arrived at EDR: 06/03/2016 Date Made Active in Reports: 09/02/2016 Number of Days to Update: 91	Telephone: 202-564-0527 Last EDR Contact: 11/28/2016 Next Scheduled EDR Contact: 03/13/2017
	Data Release Frequency: Varies
UXO: Unexploded Ordnance Sites A listing of unexploded ordnance site location	S
Date of Government Version: 10/25/2015 Date Data Arrived at EDR: 01/29/2016 Date Made Active in Reports: 04/05/2016 Number of Days to Update: 67	Source: Department of Defense Telephone: 571-373-0407 Last EDR Contact: 01/20/2017 Next Scheduled EDR Contact: 05/01/2017 Data Release Frequency: Varies
AIRS: Air Permit List A listing of facilities with air permits issued by	the Air Permits Division
Date of Government Version: 11/17/2016 Date Data Arrived at EDR: 12/09/2016 Date Made Active in Reports: 12/21/2016 Number of Days to Update: 12	Source: Department of Environmental Quality Telephone: 225-219-3417 Last EDR Contact: 02/13/2017 Next Scheduled EDR Contact: 05/29/2017 Data Release Frequency: Varies
ASBESTOS: Asbestos Projects List Asbestos demolition and renovation notification	on projects locations in the state.
Date of Government Version: 12/31/2015 Date Data Arrived at EDR: 04/20/2016 Date Made Active in Reports: 07/01/2016 Number of Days to Update: 72	Source: Department of Environmental Quality Telephone: 225-219-3181 Last EDR Contact: 01/20/2017 Next Scheduled EDR Contact: 05/01/2017 Data Release Frequency: Annually
COAL ASH: Coal Ash Disposal Sites A listing of coal ash impoundments.	
Date of Government Version: 07/13/2015 Date Data Arrived at EDR: 08/04/2015 Date Made Active in Reports: 08/24/2015 Number of Days to Update: 20	Source: Department of Environmental Quality Telephone: 225-219-3168 Last EDR Contact: 01/09/2017 Next Scheduled EDR Contact: 04/24/2017 Data Release Frequency: Varies
DRYCLEANERS: Drycleaner Facility Listing A listing of drycleaner facilities.	
Date of Government Version: 10/07/2016 Date Data Arrived at EDR: 10/18/2016 Date Made Active in Reports: 12/21/2016 Number of Days to Update: 64	Source: Department of Environmental Quality Telephone: 225-219-3168 Last EDR Contact: 01/12/2017 Next Scheduled EDR Contact: 05/01/2017 Data Release Frequency: Varies

Date of Government Version: 11/04/2016 Date Data Arrived at EDR: 11/29/2016 Date Made Active in Reports: 12/21/2016 Number of Days to Update: 22

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Source: Department of Environmental Quality Telephone: 225-219-3168 Last EDR Contact: 01/23/2017 Next Scheduled EDR Contact: 05/08/2017 Data Release Frequency: Varies

#### Financial Assurance 2: Financial Assurance Information Listing

Information for solid waste facilities. Financial assurance is intended to ensure that resources are available to pay for the cost of closure, post-closure care, and corrective measures if the owner or operator of a regulated facility is unable or unwilling to pay

Date of Government Version: 11/04/2016 Date Data Arrived at EDR: 11/29/2016 Date Made Active in Reports: 12/21/2016 Number of Days to Update: 22	Source: Department of Environmental Quality Telephone: 225-219-3168 Last EDR Contact: 01/23/2017 Next Scheduled EDR Contact: 05/08/2017 Data Beloace Ergeueney: Varian
	Data Release Frequency: Varies

NPDES: LPDES Permits Database

A listing of sites with a Louisiana Pollutant Discharge Elimination System (LPDES) program issued permit.

Date of Government Version: 10/24/2016	Source: Department of Environmental Qua
Date Data Arrived at EDR: 10/26/2016	Telephone: 225-219-3181
Date Made Active in Reports: 12/21/2016	Last EDR Contact: 01/23/2017
Number of Days to Update: 56	Next Scheduled EDR Contact: 05/08/2017
	Data Release Frequency: Varies

#### REM: Division of Remediation Services Database

Facilities or sites come to the Underground Storage Tank and Remediation Divison either through self notification or referral. These sites are designated for remediation via the following regulatory paths: Solid Waste (SW), Hazardous Waste (Haz Waste), Groundwater (Grwater), Inactive & Abandoned Sites (Confirmed or Potential), or Underground Storage Tanks (UST).

Date of Government Version: 10/18/2016 Date Data Arrived at EDR: 10/21/2016 Date Made Active in Reports: 12/21/2016 Number of Days to Update: 61 Source: Department of Environmental Quality Telephone: 225-219-3168 Last EDR Contact: 01/12/2017 Next Scheduled EDR Contact: 05/01/2017 Data Release Frequency: Quarterly

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# UIC: Underground Injection Wells Listing

A listing of underground injection well locations.

Date of Government Version: 07/08/2016 Date Data Arrived at EDR: 07/12/2016 Date Made Active in Reports: 08/24/2016 Number of Days to Update: 43 Source: Department of fNatural Resources Telephone: 225-342-5515 Last EDR Contact: 12/27/2016 Next Scheduled EDR Contact: 01/09/2017 Data Release Frequency: Varies

#### ABANDONED MINES: Abandoned Mines

An inventory of land and water impacted by past mining (primarily coal mining) is maintained by OSMRE to provide information needed to implement the Surface Mining Control and Reclamation Act of 1977 (SMCRA). The inventory contains information on the location, type, and extent of AML impacts, as well as, information on the cost associated with the reclamation of those problems. The inventory is based upon field surveys by State, Tribal, and OSMRE program officials. It is dynamic to the extent that it is modified as new problems are identified and existing problems are reclaimed.

Date of Government Version: 06/09/2016 Date Data Arrived at EDR: 06/13/2016 Date Made Active in Reports: 09/02/2016 Number of Days to Update: 81 Source: Department of Interior Telephone: 202-208-2609 Last EDR Contact: 12/09/2016 Next Scheduled EDR Contact: 03/27/2017 Data Release Frequency: Quarterly

## ECHO: Enforcement & Compliance History Information

ECHO provides integrated compliance and enforcement information for about 800,000 regulated facilities nationwide.

Date of Government Version: 09/18/2016 Date Data Arrived at EDR: 09/20/2016 Date Made Active in Reports: 10/21/2016 Number of Days to Update: 31 Source: Environmental Protection Agency Telephone: 202-564-2280 Last EDR Contact: 12/20/2016 Next Scheduled EDR Contact: 04/03/2017 Data Release Frequency: Quarterly

#### FUELS PROGRAM: EPA Fuels Program Registered Listing

This listing includes facilities that are registered under the Part 80 (Code of Federal Regulations) EPA Fuels Programs. All companies now are required to submit new and updated registrations.

Date of Government Version: 11/21/2016 Date Data Arrived at EDR: 11/22/2016 Date Made Active in Reports: 02/03/2017 Number of Days to Update: 73 Source: EPA Telephone: 800-385-6164 Last EDR Contact: 11/22/2016 Next Scheduled EDR Contact: 03/06/2017 Data Release Frequency: Quarterly

#### EDR HIGH RISK HISTORICAL RECORDS

#### EDR Exclusive Records

EDR MGP: EDR Proprietary Manufactured Gas Plants

The EDR Proprietary Manufactured Gas Plant Database includes records of coal gas plants (manufactured gas plants) compiled by EDR's researchers. Manufactured gas sites were used in the United States from the 1800's to 1950's to produce a gas that could be distributed and used as fuel. These plants used whale oil, rosin, coal, or a mixture of coal, oil, and water that also produced a significant amount of waste. Many of the byproducts of the gas production, such as coal tar (oily waste containing volatile and non-volatile chemicals), sludges, oils and other compounds are potentially hazardous to human health and the environment. The byproduct from this process was frequently disposed of directly at the plant site and can remain or spread slowly, serving as a continuous source of soil and groundwater contamination.

Date of Government Version: N/A Date Data Arrived at EDR: N/A Date Made Active in Reports: N/A Number of Days to Update: N/A Source: EDR, Inc. Telephone: N/A Last EDR Contact: N/A Next Scheduled EDR Contact: N/A Data Release Frequency: No Update Planned

#### EDR Hist Auto: EDR Exclusive Historic Gas Stations

EDR has searched selected national collections of business directories and has collected listings of potential gas station/filling station/service station sites that were available to EDR researchers. EDR's review was limited to those categories of sources that might, in EDR's opinion, include gas station/filling station/service station establishments. The categories reviewed included, but were not limited to gas, gas station, gasoline station, filling station, auto, automobile repair, auto service station, service station, etc. This database falls within a category of information EDR classifies as "High Risk Historical Records", or HRHR. EDR's HRHR effort presents unique and sometimes proprietary data about past sites and operations that typically create environmental concerns, but may not show up in current government records searches.

Date of Government Version: N/A Date Data Arrived at EDR: N/A Date Made Active in Reports: N/A Number of Days to Update: N/A Source: EDR, Inc. Telephone: N/A Last EDR Contact: N/A Next Scheduled EDR Contact: N/A Data Release Frequency: Varies

#### EDR Hist Cleaner: EDR Exclusive Historic Dry Cleaners

EDR has searched selected national collections of business directories and has collected listings of potential dry cleaner sites that were available to EDR researchers. EDR's review was limited to those categories of sources that might, in EDR's opinion, include dry cleaning establishments. The categories reviewed included, but were not limited to dry cleaners, cleaners, laundry, laundromat, cleaning/laundry, wash & dry etc. This database falls within a category of information EDR classifies as "High Risk Historical Records", or HRHR. EDR's HRHR effort presents unique and sometimes proprietary data about past sites and operations that typically create environmental concerns, but may not show up in current government records searches.

Date of Government Version: N/A Date Data Arrived at EDR: N/A Date Made Active in Reports: N/A Number of Days to Update: N/A Source: EDR, Inc. Telephone: N/A Last EDR Contact: N/A Next Scheduled EDR Contact: N/A Data Release Frequency: Varies

#### EDR RECOVERED GOVERNMENT ARCHIVES

#### **Exclusive Recovered Govt. Archives**

RGA HWS: Recovered Government Archive State Hazardous Waste Facilities List The EDR Recovered Government Archive State Hazardous Waste database provides a list of SHWS incidents derived from historical databases and includes many records that no longer appear in current government lists. Compiled from Records formerly available from the Department of Environmental Quality in Louisiana.

Date of Government Version: N/A	Source: Department of Environmental Quality
Date Data Arrived at EDR: 07/01/2013	Telephone: N/A
Date Made Active in Reports: 01/03/2014	Last EDR Contact: 06/01/2012
Number of Days to Update: 186	Next Scheduled EDR Contact: N/A
	Data Release Frequency: Varies

#### RGA LF: Recovered Government Archive Solid Waste Facilities List

The EDR Recovered Government Archive Landfill database provides a list of landfills derived from historical databases and includes many records that no longer appear in current government lists. Compiled from Records formerly available from the Department of Environmental Quality in Louisiana.

Date of Government Version: N/A	Source: Department of Envi
Date Data Arrived at EDR: 07/01/2013	Telephone: N/A
Date Made Active in Reports: 01/15/2014	Last EDR Contact: 06/01/20
Number of Days to Update: 198	Next Scheduled EDR Contact
	Data Release Frequency: Va

ironmental Quality )12 act: N/A 'aries

## RGA LUST: Recovered Government Archive Leaking Underground Storage Tank

The EDR Recovered Government Archive Leaking Underground Storage Tank database provides a list of LUST incidents derived from historical databases and includes many records that no longer appear in current government lists. Compiled from Records formerly available from the Department of Environmental Quality in Louisiana.

Date of Government Version: N/A Date Data Arrived at EDR: 07/01/2013 Date Made Active in Reports: 01/03/2014 Number of Days to Update: 186

Source: Department of Environmental Quality Telephone: N/A Last EDR Contact: 06/01/2012 Next Scheduled EDR Contact: N/A Data Release Frequency: Varies

#### OTHER DATABASE(S)

Depending on the geographic area covered by this report, the data provided in these specialty databases may or may not be complete. For example, the existence of wetlands information data in a specific report does not mean that all wetlands in the area covered by the report are included. Moreover, the absence of any reported wetlands information does not necessarily mean that wetlands do not exist in the area covered by the report.

#### CT MANIFEST: Hazardous Waste Manifest Data

Facility and manifest data. Manifest is a document that lists and tracks hazardous waste from the generator through transporters to a tsd facility.

Date of Government Version: 07/30/2013 Date Data Arrived at EDR: 08/19/2013 Date Made Active in Reports: 10/03/2013 Number of Days to Update: 45

Source: Department of Energy & Environmental Protection Telephone: 860-424-3375 Last EDR Contact: 11/11/2016 Next Scheduled EDR Contact: 02/27/2017 Data Release Frequency: No Update Planned

NY MANIFEST: Facility and Manifest Data

Manifest is a document that lists and tracks hazardous waste from the generator through transporters to a TSD facility.

Telephone: 518-402-8651 Last EDR Contact: 02/01/2017

Telephone: 717-783-8990

Last EDR Contact: 01/12/2017

Date of Government Version: 01/30/2017 Date Data Arrived at EDR: 02/01/2017 Date Made Active in Reports: 02/13/2017 Number of Days to Update: 12

PA MANIFEST: Manifest Information Hazardous waste manifest information.

> Date of Government Version: 12/31/2015 Date Data Arrived at EDR: 07/22/2016 Date Made Active in Reports: 11/22/2016 Number of Days to Update: 123

WI MANIFEST: Manifest Information Hazardous waste manifest information.

> Date of Government Version: 12/31/2015 Date Data Arrived at EDR: 04/14/2016 Date Made Active in Reports: 06/03/2016 Number of Days to Update: 50

Source: Department of Natural Resources Telephone: N/A Last EDR Contact: 12/12/2016 Next Scheduled EDR Contact: 03/27/2017 Data Release Frequency: Annually

Next Scheduled EDR Contact: 05/01/2017 Data Release Frequency: Annually

Source: Department of Environmental Conservation

Source: Department of Environmental Protection

Next Scheduled EDR Contact: 05/08/2017 Data Release Frequency: Annually

#### **Oil/Gas Pipelines**

Source: PennWell Corporation

Petroleum Bundle (Crude Oil, Refined Products, Petrochemicals, Gas Liquids (LPG/NGL), and Specialty Gases (Miscellaneous)) N = Natural Gas Bundle (Natural Gas, Gas Liquids (LPG/NGL), and Specialty Gases (Miscellaneous)). This map includes information copyrighted by PennWell Corporation. This information is provided on a best effort basis and PennWell Corporation does not guarantee its accuracy nor warrant its fitness for any particular purpose. Such information has been reprinted with the permission of PennWell.

#### Electric Power Transmission Line Data

Source: PennWell Corporation

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Sensitive Receptors: There are individuals deemed sensitive receptors due to their fragile immune systems and special sensitivity to environmental discharges. These sensitive receptors typically include the elderly, the sick, and children. While the location of all sensitive receptors cannot be determined, EDR indicates those buildings and facilities - schools, daycares, hospitals, medical centers, and nursing homes - where individuals who are sensitive receptors are likely to be located.

#### AHA Hospitals:

Source: American Hospital Association, Inc.

Telephone: 312-280-5991

The database includes a listing of hospitals based on the American Hospital Association's annual survey of hospitals. Medical Centers: Provider of Services Listing

Source: Centers for Medicare & Medicaid Services

Telephone: 410-786-3000

A listing of hospitals with Medicare provider number, produced by Centers of Medicare & Medicaid Services,

a federal agency within the U.S. Department of Health and Human Services.

Nursing Homes

Source: National Institutes of Health

Telephone: 301-594-6248

Information on Medicare and Medicaid certified nursing homes in the United States.

Public Schools

Source: National Center for Education Statistics

Telephone: 202-502-7300

The National Center for Education Statistics' primary database on elementary

and secondary public education in the United States. It is a comprehensive, annual, national statistical database of all public elementary and secondary schools and school districts, which contains data that are comparable across all states.

**Private Schools** 

Source: National Center for Education Statistics Telephone: 202-502-7300 The National Center for Education Statistics' primary database on private school locations in the United States.

Flood Zone Data: This data was obtained from the Federal Emergency Management Agency (FEMA). It depicts 100-year and 500-year flood zones as defined by FEMA. It includes the National Flood Hazard Layer (NFHL) which incorporates Flood Insurance Rate Map (FIRM) data and Q3 data from FEMA in areas not covered by NFHL.

Source: FEMA Telephone: 877-336-2627 Date of Government Version: 2003, 2015

NWI: National Wetlands Inventory. This data, available in select counties across the country, was obtained by EDR in 2002, 2005 and 2010 from the U.S. Fish and Wildlife Service.

Current USGS 7.5 Minute Topographic Map Source: U.S. Geological Survey

## STREET AND ADDRESS INFORMATION

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# **GEOCHECK ®- PHYSICAL SETTING SOURCE ADDENDUM**

## TARGET PROPERTY ADDRESS

SOUTH TRACT 321 US HIGHWAY 80 EAST CALHOUN, LA 71225

## TARGET PROPERTY COORDINATES

Latitude (North):	32.511111 - 32° 30' 40.00"
Longitude (West):	92.344444 - 92° 20' 40.00"
Universal Tranverse Mercator:	Zone 15
UTM X (Meters):	561576.7
UTM Y (Meters):	3597090.8
Elevation:	146 ft. above sea level

## USGS TOPOGRAPHIC MAP

Target Property Map:	5630395 CALHOUN, LA
Version Date:	2012
South Map:	5630393 CADEVILLE, LA
Version Date:	2012

EDR's GeoCheck Physical Setting Source Addendum is provided to assist the environmental professional in forming an opinion about the impact of potential contaminant migration.

Assessment of the impact of contaminant migration generally has two principal investigative components:

1. Groundwater flow direction, and

2. Groundwater flow velocity.

Groundwater flow direction may be impacted by surface topography, hydrology, hydrogeology, characteristics of the soil, and nearby wells. Groundwater flow velocity is generally impacted by the nature of the geologic strata.

## GROUNDWATER FLOW DIRECTION INFORMATION

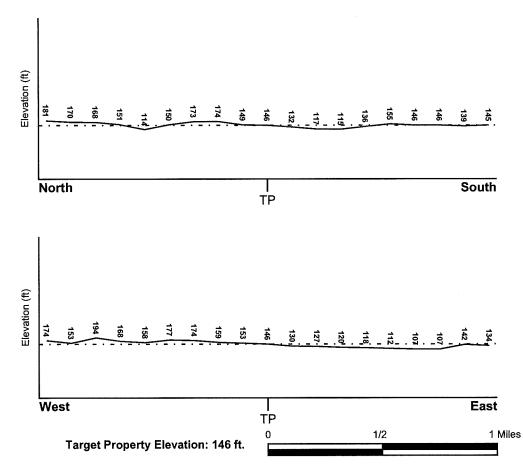
Groundwater flow direction for a particular site is best determined by a qualified environmental professional using site-specific well data. If such data is not reasonably ascertainable, it may be necessary to rely on other sources of information, such as surface topographic information, hydrologic information, hydrogeologic data collected on nearby properties, and regional groundwater flow information (from deep aquifers).

## **TOPOGRAPHIC INFORMATION**

Surface topography may be indicative of the direction of surficial groundwater flow. This information can be used to assist the environmental professional in forming an opinion about the impact of nearby contaminated properties or, should contamination exist on the target property, what downgradient sites might be impacted.

#### TARGET PROPERTY TOPOGRAPHY

General Topographic Gradient: General SSE



## SURROUNDING TOPOGRAPHY: ELEVATION PROFILES

Source: Topography has been determined from the USGS 7.5' Digital Elevation Model and should be evaluated on a relative (not an absolute) basis. Relative elevation information between sites of close proximity should be field verified.

## HYDROLOGIC INFORMATION

Surface water can act as a hydrologic barrier to groundwater flow. Such hydrologic information can be used to assist the environmental professional in forming an opinion about the impact of nearby contaminated properties or, should contamination exist on the target property, what downgradient sites might be impacted.

Refer to the Physical Setting Source Map following this summary for hydrologic information (major waterways and bodies of water).

#### FEMA FLOOD ZONE

Flood Plain Panel at Target Property	FEMA Source Type
22111C0625D	FEMA FIRM Flood data
Additional Panels in search area:	FEMA Source Type
22073C0060E	FEMA Q3 Flood data
NATIONAL WETLAND INVENTORY	
NWI Quad at Target Property NOT AVAILABLE	NWI Electronic <u>Data Coverage</u> YES - refer to the Overview Map and Detail Map

## HYDROGEOLOGIC INFORMATION

Hydrogeologic information obtained by installation of wells on a specific site can often be an indicator of groundwater flow direction in the immediate area. Such hydrogeologic information can be used to assist the environmental professional in forming an opinion about the impact of nearby contaminated properties or, should contamination exist on the target property, what downgradient sites might be impacted.

Site-Specific Hydrogeological Data\*: Search Radius: 1.25 miles Status: Not found

## **AQUIFLOW®**

Search Radius: 1.000 Mile.

EDR has developed the AQUIFLOW Information System to provide data on the general direction of groundwater flow at specific points. EDR has reviewed reports submitted by environmental professionals to regulatory authorities at select sites and has extracted the date of the report, groundwater flow direction as determined hydrogeologically, and the depth to water table.

MAP ID Not Reported LOCATION FROM TP GENERAL DIRECTION GROUNDWATER FLOW

## GROUNDWATER FLOW VELOCITY INFORMATION

Groundwater flow velocity information for a particular site is best determined by a qualified environmental professional using site specific geologic and soil strata data. If such data are not reasonably ascertainable, it may be necessary to rely on other sources of information, including geologic age identification, rock stratigraphic unit and soil characteristics data collected on nearby properties and regional soil information. In general, contaminant plumes move more quickly through sandy-gravelly types of soils than silty-clayey types of soils.

#### GEOLOGIC INFORMATION IN GENERAL AREA OF TARGET PROPERTY

Geologic information can be used by the environmental professional in forming an opinion about the relative speed at which contaminant migration may be occurring.

#### **ROCK STRATIGRAPHIC UNIT**

## GEOLOGIC AGE IDENTIFICATION

Era:	Cenozoic	Category:	Stratified Sequence
System:	Tertiary		-
Series:	Eocene Claiborne Group		
Code:	Te2 (decoded above as Era, System	n & Series)	

Geologic Age and Rock Stratigraphic Unit Source: P.G. Schruben, R.E. Arndt and W.J. Bawiec, Geology of the Conterminous U.S. at 1:2,500,000 Scale - a digital representation of the 1974 P.B. King and H.M. Beikman Map, USGS Digital Data Series DDS - 11 (1994).

#### DOMINANT SOIL COMPOSITION IN GENERAL AREA OF TARGET PROPERTY

The U.S. Department of Agriculture's (USDA) Soil Conservation Service (SCS) leads the National Cooperative Soil Survey (NCSS) and is responsible for collecting, storing, maintaining and distributing soil survey information for privately owned lands in the United States. A soil map in a soil survey is a representation of soil patterns in a landscape. Soil maps for STATSGO are compiled by generalizing more detailed (SSURGO) soil survey maps. The following information is based on Soil Conservation Service STATSGO data.

Soil Component Name:	SAVANNAH		
Soil Surface Texture:	fine sandy loam		
Hydrologic Group:	Class C - Slow infiltration rates. Soils with layers impeding downward movement of water, or soils with moderately fine or fine textures.		
Soil Drainage Class:	Moderately well drained. Soils have a layer of low hydraulic conductivity, wet state high in the profile. Depth to water table is 3 to 6 feet.		
Hydric Status: Soil does not meet the requirements for a hydric soil.			
Corrosion Potential - Uncoated Steel: MODERATE			

Depth to Bedrock Min:	> 60 inches

Depth to Bedrock Max: > 60 inches

Soil Layer Information							
	Bou	indary		Classification			
Layer	Upper	Lower	Soil Texture Class	AASHTO Group	Unified Soil	Permeability Rate (in/hr)	Soil Reaction (pH)
1	0 inches	11 inches	fine sandy loam	Granular materials (35 pct. or less passing No. 200), Silty, or Clayey Gravel and Sand.	COARSE-GRAINED SOILS, Sands, Sands with fines, Silty Sand.	Max: 2.00 Min: 0.60	Max: 5.50 Min: 3.60
2	11 inches	28 inches	sandy clay loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Silty Soils.	FINE-GRAINED SOILS, Silts and Clays (liquid limit less than 50%), Lean Clay	Max: 2.00 Min: 0.60	Max: 5.50 Min: 3.60
3	28 inches	68 inches	loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Silty Soils.	FINE-GRAINED SOILS, Silts and Clays (liquid limit less than 50%), Lean Clay	Max: 0.60 Min: 0.20	Max: 5.50 Min: 3.60

## OTHER SOIL TYPES IN AREA

Based on Soil Conservation Service STATSGO data, the following additional subordinant soil types may appear within the general area of target property.

Soil Surface Textures:	No Other Soil Types
Surficial Soil Types:	No Other Soil Types
Shallow Soil Types:	No Other Soil Types
Deeper Soil Types:	sandy clay loam

## LOCAL / REGIONAL WATER AGENCY RECORDS

EDR Local/Regional Water Agency records provide water well information to assist the environmental professional in assessing sources that may impact ground water flow direction, and in forming an opinion about the impact of contaminant migration on nearby drinking water wells.

## WELL SEARCH DISTANCE INFORMATION

DATABASE	SEARCH DISTANCE (miles)
Federal USGS	1.000
Federal FRDS PWS	Nearest PWS within 1 mile
State Database	1.000

## FEDERAL USGS WELL INFORMATION

MAP ID	WELL ID	LOCATION FROM TP
A2	USGS40000413975	1/8 - 1/4 Mile NNW
C7	USGS40000413994	1/4 - 1/2 Mile NNE
C8	USGS40000413995	1/4 - 1/2 Mile NNE
D9	USGS40000413915	1/4 - 1/2 Mile SE
E13	USGS40000413904	1/4 - 1/2 Mile South
D15	USGS40000413912	1/2 - 1 Mile SE
F17	USGS40000413971	1/2 - 1 Mile WNW
G19	USGS40000413903	1/2 - 1 Mile SE
H20	USGS40000413874	1/2 - 1 Mile SSE
123	USGS40000413875	1/2 - 1 Mile SSE
124	USGS40000413873	1/2 - 1 Mile SSE
J30	USGS40000413942	1/2 - 1 Mile West
K32	USGS40000413855	1/2 - 1 Mile SE

## FEDERAL FRDS PUBLIC WATER SUPPLY SYSTEM INFORMATION

MAP ID	WELL ID	LOCATION FROM TP
B3	LA1073034	1/8 - 1/4 Mile NW

Note: PWS System location is not always the same as well location.

## STATE DATABASE WELL INFORMATION

MAP ID	WELL ID	LOCATION FROM TP
A1	LATD40000122666	1/8 - 1/4 Mile NNW
B4	1073034001	1/4 - 1/2 Mile NW
C5	LATD40000056171	1/4 - 1/2 Mile NNE
C6	LATD40000157476	1/4 - 1/2 Mile NNE
D10	LATD40000055283	1/4 - 1/2 Mile SE
E11	LATD40000131293	1/4 - 1/2 Mile South
12	LATD40000057773	1/4 - 1/2 Mile WSW
E14	LATD40000055282	1/4 - 1/2 Mile South
D16	LATD40000156869	1/2 - 1 Mile SE
F18	LATD40000057066	1/2 - 1 Mile WNW
G21	LATD40000156102	1/2 - 1 Mile SE
H22	LATD40000116318	1/2 - 1 Mile SSE
125	LATD40000055281	1/2 - 1 Mile SSE
126	LATD40000198173	1/2 - 1 Mile SSE
27	1073006001	1/2 - 1 Mile West
J28	LATD40000054755	1/2 - 1 Mile West
J29	LATD40000055579	1/2 - 1 Mile West
J31	1073006002	1/2 - 1 Mile West
K33	LATD40000192721	1/2 - 1 Mile SE
34	LATD40000197990	1/2 - 1 Mile NNW

## **OTHER STATE DATABASE INFORMATION**

#### STATE OIL/GAS WELL INFORMATION

MAP ID	WELL ID	LOCATION FROM TP
A1	LAOG90000163941	1/4 - 1/2 Mile South

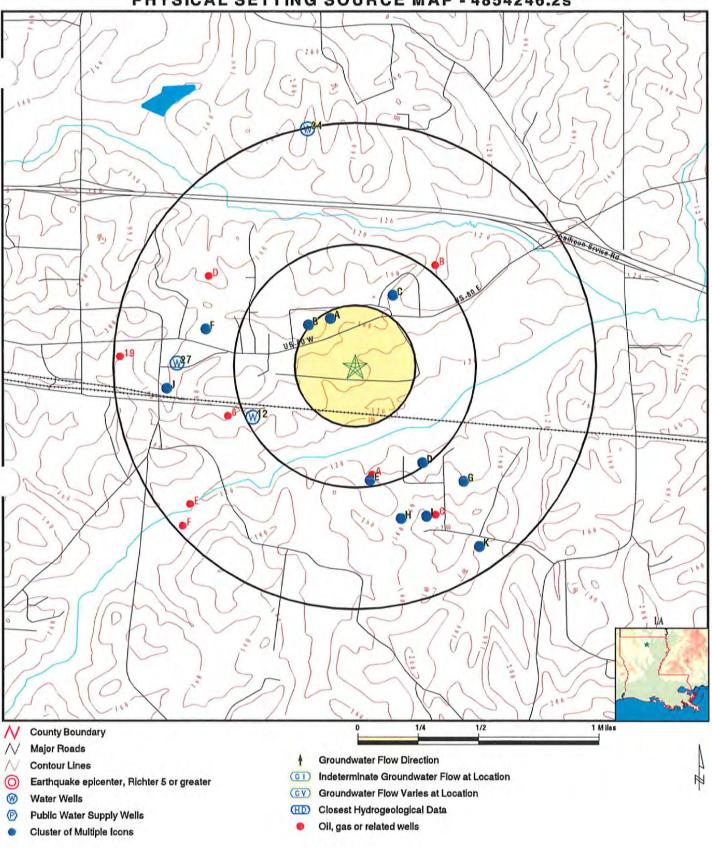
# GEOCHECK<sup>®</sup> - PHYSICAL SETTING SOURCE SUMMARY

#### STATE OIL/GAS WELL INFORMATION

MAP ID	WELL ID
A2	LAOG90000220196
В3	LAOG90000050391
B5	LAOG90000085806
B4	LAOG90000049006
6	LAOG90000055503
C7	LAOG90000047624
C8	LAOG90000048057
D9	LAOG90000050262
D10	LAOG90000052653
D11	LAOG90000047730
D12	LAOG90000053950
E14	LAOG90000058330
E13	LAOG90000055740
E15	LAOG90000088620
F17	LAOG90000050033
F16	LAOG90000044558
F18	LAOG90000162013
19	LAOG90000218003

LOCATION FROM TP 1/4 - 1/2 Mile South 1/2 - 1 Mile NE 1/2 - 1 Mile NE 1/2 - 1 Mile NE 1/2 - 1 Mile WSW 1/2 - 1 Mile SSE 1/2 - 1 Mile SSE 1/2 - 1 Mile WNW 1/2 - 1 Mile SW 1/2 - 1 Mile West

# **PHYSICAL SETTING SOURCE MAP - 4854246.2s**



 SITE NAME:
 South Tract
 CLIENT:
 PPM Consultants Inc.

 ADDRESS:
 321 US Highway 80 East
 CONTACT:
 Jordan Harper

 Calhoun LA 71225
 INQUIRY #:
 4854246.2s

 LAT/LONG:
 32.511111 / 92.344444
 DATE:
 February 14, 2017 6:01 pm

#### Map ID Direction Distance

Distance Elevation			Database	EDR ID Number
A1 NNW 1/8 - 1/4 Mile Higher			LA WELLS	LATD40000122666
- Water wel1:	464047			
Water wel2:	073-149	State code:	22	
Parish num:	073	Local well:	149	
Identifica:	323050092204601	Latitude:	323050	
Longitude:	922046	Sequence n:	01	
Owners nam:	LSU EXP STATION	Well depth:	567	
Well use:	1	Well subus:	Not Reported	
Date compl:	10/45	Geologic u:	124SPRT	
Available :	Driller Log, Water Level	-		
Revised la:	Not Reported	Revised lo:	Not Reported	
Elec log:	Not Reported	Drill log:	D	
Mechanic a:	Not Reported	Chem analy:	Not Reported	
Bio analys:	Not Reported	Pump test:	Not Reported	
Avail info:	W	Drillers 1:	L & R DRLG	
Drillers 2:	000	Section:	027	
Township:	18N	Range:	01E	
Hole depth:	570	Elevation:	184	
Quad num:	034D	Water leve:	160.00	
Date measu:	10/01/45	Source of :	Z	
Date of ad:	1996-10-17	Date regis:	12/77	
Date plugg:	Not Reported	Plugged b1:	Not Reported	
Plugged b2:	Not Reported	Yield:	110	
Drawdown:	Not Reported	Casing di1:	6X4	
Casing mat:	Not Reported	Screen di1:	4	
Screen int:	537-567	Serial num:	Not Reported	
Owners num:	N LA STA	Latitude d:	0	
Latitude m:	0	Lundov di	•	
Latitude s:	0			
Longitude1:	0	Longitude2:	0	
Longitude3:	Not Reported	Longhadez.	Ũ	
Create dat:	2010 720	Create use:	SONRIS_DBA	
Update dat:	2012 130	Update use:	SONRIS_DBA	
Parish cod:	37	Industria1:	Not Reported	
		Replacemen:	Not Reported	
Owner stat: Industria2:	Not Reported Not Reported	Public su1:	Not Reported	
Public su2:		Pumpdown c:	Not Reported	
	Not Reported	Extension2:	· · · · · · · · · · · · · · · · · · ·	
Extension1:	Not Reported		Not Reported	
Extension3:	Not Reported	Screen typ: Ground eve:	Not Reported Not Reported	
Gravel pac:	N Not Depertud			
Diameter o:	Not Reported	Site city:	Not Reported	
Site zip:	Not Reported	Site addre:	Not Reported	
Remarks:	Not Reported	Authorize	0	
Authorize1:	Not Reported	Authorize2:	0	
Heat pump1:	0 Nat David da d	Leastley 1	Net Developed	
Heat pump2:	Not Reported	Location I:	Not Reported	
Location m:	0	<b>A A H</b>		
Location c:	Not Reported	Cemented f:	Not Reported	
Slot lengt:	Not Reported	Slot size:	Not Reported	
Inspector:	Not Reported			

Inspector : Inspection: Pump motor: Pump plan2: Pump rate: Pump hour1: Pump stati: Pump groun: X longdd: Y latdd: Pump down : Pa remarks: Pa signat1: Pa details: Casing di2: Contact: Screen di2: Wwo seq nu: Screen di3: Aquifer na: Use descri: Well statu:

A2 NNW 1/8 - 1/4 Mile Higher

#### Not Reported 0 Not Reported 0 Not Reported 0 Not Reported Not Reported -92.34611111 32.51388889 Not Reported 0 Not Reported SPARTA AQUIFER irrigation Active

Pump setti: Pump plan1: Pump plan3: Yield meas: Pump hour2: Pump deter: Pump test :

Pa signat2:

Casing len:

Casing di3:

Parish nam:

Site id:

Not Reported 0 0 Not Reported Not Reported

0

0

Not Reported

Not Reported Not Reported

OUACHITA LATD40000122666

FED USGS

USGS40000413975

Org. Identifier: Formal name: Monloc Identifier:	USGS-LA USGS Louisiana Water Science USGS-323050092204601	Center	
Monloc name:	Ou- 149		
Monloc type:	Well		
Monloc desc:	Not Reported		
Huc code:	08040207	Drainagearea value:	Not Reported
Drainagearea Units:	Not Reported	Contrib drainagearea:	Not Reported
Contrib drainagearea units:	Not Reported	Latitude:	32.5140355
Longitude:	-92.3462518	Sourcemap scale:	62500
Horiz Acc measure:	1	Horiz Acc measure units:	seconds
Horiz Collection method:	Interpolated from map		
Horiz coord refsys:	NAD83	Vert measure val:	184.30
Vert measure units:	feet	Vertacc measure val:	.1
Vert accmeasure units:	feet		
Vertcollection method:	Level or other surveying method		
Vert coord refsys:	NGVD29	Countrycode:	US
Aquifername:	Mississippi embayment aquifer s	ystem	
Formation type:	Sparta Sand		
Aquifer type:	Confined single aquifer		
Construction date:	19451001	Welldepth:	567
Welldepth units:	ft	Wellholedepth:	570
Wellholedepth units:	ft		

Ground-water levels, Number of Measurements: 1

	Feet below	Feet to	
Date	Surface	Sealevel	

Date	ounace	Qealevel

1945-10-01 160.00

Map ID				
Direction Distance Elevation			Database	EDR ID Number
B3 NW 1/8 - 1/4 Mile Higher			FRDS PWS	LA1073034
Epa region:	06	State:	LA	
Pwsid:	LA1073034			
Pwsname:	CALHOUN RESEARCH STA.	NS		
City served:	Not Reported	State served:	LA	
Zip served:	Not Reported	Fips county:	22073	
Status:	Closed	Pop srvd:	14	
Pwssvcconn:	6	Source:	Groundwater	
Pws type:	CWS	Owner:	Private	
Contact:	CALHOUN RESEARCH STAT	ION		
Contactor gname:	Not Reported			
Contact phone:	318-644-5886	Contact address1:	CALHOUN RESEAF	RCH STATION
Contact address2:	P. O. BOX 539	Contact city:	CALHOUN	
Contact state:	LA	Contact zip:	71225	
Activity code:	Ν			
Facid:	3744			
Facname:	WELL #1			
Facility type:	Treatment_plant	Activity code:	I	
Treatment obj:	disinfection	Treatment process:	hypochlorination, po	st
Location Information:				
Name:	CALHOUN RESEARCH STAN	NS		
Pwstypcd:	CWS	Primsrccd:	GW	
Popserved:	14	T TIMBIOOD.	011	
Add1:	CALHOUN RESEARCH STAT	ION		
Add2:	P. O. BOX 539			
City:	CALHOUN	State:	LA	
Zip:	71225	Phone:	318-644-5886	
Cityserv:	Not Reported	Cntyserv:	Not Reported	
Stateserv:	LA	Zipserv:	Not Reported	
Enforcement Information:				
Violation id:	1V00	Orig cd:	F	
Enf fy:	2001	Enf act date:	10/20/2000	
Enf act detail:	Fed Compliance achieved	Enf act cat:	Resolving	
Enforcement Information:				
Violation id:	1V00	Orig cd:	F	
Enf fy:	2000	Enf act date:	04/11/2000	
Enf act detail:	Fed Formal NOV issued	Enf act cat:	Informal	
Enforcement Information:				
Violation id:	1V00	Orig cd:	F	
Enf fy:	2000	Enf act date:	05/16/2000	
Enf act detail:	Fed FAO issued	Enf act cat:	Formal	

Violations Information:			
Violation id:	1∨00	Orig cd:	F
State:	LA	Viol fy:	1999
Contamcd:	7000	···· <b>3</b> ··	
Contamnm:	Consumer Confidence Rule		
Viol code:	71		
Viol name:	CCR Complete Failure to Repor	t	
Rule code:	420	l de la construcción de la constru	
Rule name:	CCR		
Violmeasur:	0	Unitragour	Net Deperture
		Unitmeasur:	Not Reported
State mcl:	0	Cmpbdt:	10/19/1999
Cmpedt:	10/20/2000		
PWS ID:	LA1073034		
Date Initiated:	Not Reported Date Dea	ctivated: Not Reported	
PWS Name:	CALHOUN RESEARCH STA.W	S	
	321 HIGHWAY 80 EAST		
	CALHOUN, LA 71225		
Addressee / Facility:	Operator		
	DR. RON ROBBINS, RESIDEN	T DIR.	
Addressee / Facility:	System Owner/Responsible Par	ty	
	AFTER HOURS		
<b>F</b> . 10. 1 . 00. 1 .	00.00.40.0000	<b>-</b>	00.00.54.0000
Facility Latitude:	32 30 48.0000	Facility Longitude:	92 20 51.0000
City Served:	Not Reported		
City Served: Treatment Class:	Treated	Population:	48
Treatment Class:	Treated	Population:	48
	Treated	Population:	48
Treatment Class:	Treated t reported.	Population:	48
Treatment Class: Violations information no ENFORCEMENT INFORMA	Treated t reported.		48
Treatment Class: Violations information no ENFORCEMENT INFORMA System Name:	Treated t reported. ATION: CALHOUN RESEARCH STA.W	S	48
Treatment Class: Violations information no ENFORCEMENT INFORMA System Name: Violation Type:	Treated t reported. ATION: CALHOUN RESEARCH STA.W CCR Complete Failure to Repor	S	48
Treatment Class: Violations information no ENFORCEMENT INFORMA System Name: Violation Type: Contaminant:	Treated t reported. ATION: CALHOUN RESEARCH STA.W CCR Complete Failure to Repor 7000	S	48
Treatment Class: Violations information no ENFORCEMENT INFORMA System Name: Violation Type: Contaminant: Compliance Period:	Treated t reported. ATION: CALHOUN RESEARCH STA.W CCR Complete Failure to Repor 7000 1999-10-19 - 2015-12-31	S	48
Treatment Class: Violations information no ENFORCEMENT INFORMA System Name: Violation Type: Contaminant: Compliance Period: Violation ID:	Treated t reported. ATION: CALHOUN RESEARCH STA.W CCR Complete Failure to Repor 7000 1999-10-19 - 2015-12-31 00V0001	S t	
Treatment Class: Violations information no ENFORCEMENT INFORMA System Name: Violation Type: Contaminant: Compliance Period:	Treated t reported. ATION: CALHOUN RESEARCH STA.W CCR Complete Failure to Repor 7000 1999-10-19 - 2015-12-31	S	48 Fed Formal NOV Issued
Treatment Class: Violations information no ENFORCEMENT INFORMA System Name: Violation Type: Contaminant: Compliance Period: Violation ID:	Treated t reported. ATION: CALHOUN RESEARCH STA.W CCR Complete Failure to Repor 7000 1999-10-19 - 2015-12-31 00V0001	S t Enf. Action:	
Treatment Class: Violations information no ENFORCEMENT INFORMA System Name: Violation Type: Contaminant: Compliance Period: Violation ID: Enforcement Date:	Treated t reported. ATION: CALHOUN RESEARCH STA.W CCR Complete Failure to Repor 7000 1999-10-19 - 2015-12-31 00V0001 2000-04-11 CALHOUN RESEARCH STA.W	S t Enf. Action: S	
Treatment Class: Violations information no ENFORCEMENT INFORMA System Name: Violation Type: Contaminant: Compliance Period: Violation ID: Enforcement Date: System Name: Violation Type:	Treated treported. ATION: CALHOUN RESEARCH STA.W CCR Complete Failure to Repor 7000 1999-10-19 - 2015-12-31 00V0001 2000-04-11	S t Enf. Action: S	
Treatment Class: Violations information no ENFORCEMENT INFORMA System Name: Violation Type: Contaminant: Compliance Period: Violation ID: Enforcement Date: System Name: Violation Type: Contaminant:	Treated treported. ATION: CALHOUN RESEARCH STA.W CCR Complete Failure to Repor 7000 1999-10-19 - 2015-12-31 00V0001 2000-04-11 CALHOUN RESEARCH STA.W CCR Complete Failure to Repor 7000	S t Enf. Action: S	
Treatment Class: Violations information no ENFORCEMENT INFORMA System Name: Violation Type: Contaminant: Compliance Period: Violation ID: Enforcement Date: System Name: Violation Type: Contaminant: Compliance Period:	Treated t reported. ATION: CALHOUN RESEARCH STA.W CCR Complete Failure to Repor 7000 1999-10-19 - 2015-12-31 00V0001 2000-04-11 CALHOUN RESEARCH STA.W CCR Complete Failure to Repor 7000 1999-10-19 - 2015-12-31	S t Enf. Action: S	
Treatment Class: Violations information no ENFORCEMENT INFORMA System Name: Violation Type: Contaminant: Compliance Period: Violation ID: Enforcement Date: System Name: Violation Type: Contaminant: Compliance Period: Violation ID:	Treated treported. ATION: CALHOUN RESEARCH STA.W CCR Complete Failure to Repor 7000 1999-10-19 - 2015-12-31 00V0001 2000-04-11 CALHOUN RESEARCH STA.W CCR Complete Failure to Repor 7000 1999-10-19 - 2015-12-31 00V0001	S t Enf. Action: S t	Fed Formal NOV Issued
Treatment Class: Violations information no ENFORCEMENT INFORMA System Name: Violation Type: Contaminant: Compliance Period: Violation ID: Enforcement Date: System Name: Violation Type: Contaminant: Compliance Period: Violation ID: Enforcement Date:	Treated treported. ATION: CALHOUN RESEARCH STA.W CCR Complete Failure to Repor 7000 1999-10-19 - 2015-12-31 00V0001 2000-04-11 CALHOUN RESEARCH STA.W CCR Complete Failure to Repor 7000 1999-10-19 - 2015-12-31 00V0001 2000-05-16	S t Enf. Action: S t Enf. Action:	
Treatment Class: Violations information no ENFORCEMENT INFORMA System Name: Violation Type: Contaminant: Compliance Period: Violation ID: Enforcement Date: System Name: Violation Type: Contaminant: Compliance Period: Violation ID: Enforcement Date: System Name:	Treated treported. ATION: CALHOUN RESEARCH STA.W CCR Complete Failure to Repor 7000 1999-10-19 - 2015-12-31 00V0001 2000-04-11 CALHOUN RESEARCH STA.W CCR Complete Failure to Repor 7000 1999-10-19 - 2015-12-31 00V0001 2000-05-16 CALHOUN RESEARCH STA.W	S t Enf. Action: S	Fed Formal NOV Issued
Treatment Class: Violations information no ENFORCEMENT INFORMA System Name: Violation Type: Contaminant: Compliance Period: Violation ID: Enforcement Date: System Name: Violation Type: Contaminant: Compliance Period: Violation ID: Enforcement Date: System Name: Violation Type:	Treated treported. ATION: CALHOUN RESEARCH STA.W CCR Complete Failure to Repor 7000 1999-10-19 - 2015-12-31 00V0001 2000-04-11 CALHOUN RESEARCH STA.W CCR Complete Failure to Repor 7000 1999-10-19 - 2015-12-31 00V0001 2000-05-16 CALHOUN RESEARCH STA.W CCR Complete Failure to Repor	S t Enf. Action: S	Fed Formal NOV Issued
Treatment Class: Violations information no ENFORCEMENT INFORMA System Name: Violation Type: Contaminant: Compliance Period: Violation ID: Enforcement Date: System Name: Violation Type: Contaminant: Compliance Period: Violation ID: Enforcement Date: System Name:	Treated treported. ATION: CALHOUN RESEARCH STA.W CCR Complete Failure to Repor 7000 1999-10-19 - 2015-12-31 00V0001 2000-04-11 CALHOUN RESEARCH STA.W CCR Complete Failure to Repor 7000 1999-10-19 - 2015-12-31 00V0001 2000-05-16 CALHOUN RESEARCH STA.W	S t Enf. Action: S	Fed Formal NOV Issued
Treatment Class: Violations information no ENFORCEMENT INFORMA System Name: Violation Type: Contaminant: Compliance Period: Violation ID: Enforcement Date: System Name: Violation Type: Contaminant: Compliance Period: Violation ID: Enforcement Date: System Name: Violation Type:	Treated treported. ATION: CALHOUN RESEARCH STA.W CCR Complete Failure to Repor 7000 1999-10-19 - 2015-12-31 00V0001 2000-04-11 CALHOUN RESEARCH STA.W CCR Complete Failure to Repor 7000 1999-10-19 - 2015-12-31 00V0001 2000-05-16 CALHOUN RESEARCH STA.W CCR Complete Failure to Repor	S t Enf. Action: S	Fed Formal NOV Issued
Treatment Class: Violations information no ENFORCEMENT INFORMA System Name: Violation Type: Contaminant: Compliance Period: Violation ID: Enforcement Date: System Name: Violation Type: Contaminant: Compliance Period: Violation ID: Enforcement Date: System Name: Violation ID: Enforcement Date: System Name: Violation Type: Contaminant:	Treated treported. ATION: CALHOUN RESEARCH STA.W CCR Complete Failure to Repor 7000 1999-10-19 - 2015-12-31 00V0001 2000-04-11 CALHOUN RESEARCH STA.W CCR Complete Failure to Repor 7000 1999-10-19 - 2015-12-31 00V0001 2000-05-16 CALHOUN RESEARCH STA.W CCR Complete Failure to Repor 7000	S t Enf. Action: S	Fed Formal NOV Issued
Treatment Class: Violations information no ENFORCEMENT INFORMA System Name: Violation Type: Contaminant: Compliance Period: Violation ID: Enforcement Date: System Name: Violation Type: Contaminant: Compliance Period: Violation ID: Enforcement Date: System Name: Violation ID: Enforcement Date: System Name: Violation Type: Contaminant: Compliance Period:	Treated treported. ATION: CALHOUN RESEARCH STA.W CCR Complete Failure to Repor 7000 1999-10-19 - 2015-12-31 00V0001 2000-04-11 CALHOUN RESEARCH STA.W CCR Complete Failure to Repor 7000 1999-10-19 - 2015-12-31 00V0001 2000-05-16 CALHOUN RESEARCH STA.W CCR Complete Failure to Repor 7000 1999-10-19 - 2015-12-31	S t Enf. Action: S	Fed Formal NOV Issued

B4 NW 1/4 - 1/2 Mile Higher

"International

LA WELLS 1073034001

Site Name: Site ID: Public Water Sys. ID: Latitude/Longitude: Diameter: Supply Name:

Parish: Owner: Contact1: Telephone1: Contact2: Telephone2: WELL #1 001 1073034 SPARTA Source: 3230487 / 9220517 Total Depth: 0525 Not Reported Capacity: 110 CALHOUN RESEARCH STA.WS P. O. BOX 539 CALHOUN, LA 71225 OUACHITA FIPS County Code: 073 CALHOUN RESEARCH STATIONSystem Type: Comm DR. RON ROBBINS, RESIDENT DIR. (318) 644 - 5886 AFTER HOURS (318) 644 - 2662

#### C5 NNE 1/4 - 1/2 Mile Higher

Water wel1: Water wel2: Parish num: Identifica: Longitude: Owners nam: Well use: Date compl: Available : Revised la: Elec log: Mechanic a: Bio analys: Avail info: Drillers 2: Township: Hole depth: Quad num: Date measu: Date of ad: Date plugg: Plugged b2: Drawdown: Casing mat: Screen int: Owners num: Latitude m: Latitude s: Longitude1: Longitude3: Create dat: Update dat: Parish cod: Owner stat: Industria2: Public su2: Extension1: Extension3: Gravel pac:

463958 073-66 State code: 073 Local well: 323055092203001 Latitude: 922030 Sequence n: LSU EXP STATION Well depth: 7 Well subus: Not Reported Geologic u: Driller Log, Quality of Water, Water Level Not Reported Revised lo: Not Reported Drill log: Not Reported Chem analy: Not Reported Pump test: w Drillers 1: 000 Section: 18N Range: 558 Elevation: 034D Water leve: 04/30/06 Source of : 1998-03-06 Date regis: 05/84 Plugged b1: 268 Yield: Not Reported Casing di1: STEEL Screen di1: Not Reported Serial num: CALHOUN Latitude d: 0 0 0 Longitude2: Not Reported 2010 720 Create use: 2012 130 Update use: 37 Industria1: Not Reported Replacemen: Not Reported Public su1: Not Reported Pumpdown c: Not Reported Extension2: Not Reported Screen typ: Ν Ground eve:

22 66 323055 01 558 PA 124SPRT Not Reported D Q Not Reported HART WELL CO 026 01E 160 70.00 Z Not Reported HARGROVE Not Reported Not Reported Not Reported 0 0 SONRIS DBA SONRIS DBA Not Reported Not Reported Not Reported Not Reported Not Reported

LA WELLS

LATD40000056171

Not Reported

Not Reported

Diameter o: Site zip: Remarks: Authorize1: Heat pump1: Heat pump2: Location m: Location c: Slot lengt: Inspector: Inspector : Inspection: Pump motor: Pump plan2: Pump rate: Pump hour1: Pump stati: Pump groun: X longdd: Y latdd: Pump down : Pa remarks: Pa signat1: Pa details: Casing di2: Contact: Screen di2: Wwo seq nu: Screen di3: Aquifer na: Use descri: Well statu:

Not Reported	Site city: Site addre:	Not Reported Not Reported
Not Reported	Sile addre.	Not Reported
Not Reported Not Reported	Authorize2:	0
0	Authonzez.	0
Not Reported	Location I:	Not Reported
0		
Not Reported	Cemented f:	Not Reported
Not Reported	Slot size:	Not Reported
Not Reported		
Not Reported		
0	Pump setti:	Not Reported
Not Reported	Pump plan1:	0
0	Pump plan3:	Not Reported
Not Reported	Yield meas:	Not Reported
0	Pump hour2:	0
Not Reported	Pump deter:	Not Reported
Not Reported	Pump test :	0
-92.34166667		
32.51527778		
Not Reported		
Not Reported		
Not Reported	Pa signat2:	0
Not Reported		
Not Reported	Casing len:	Not Reported
Not Reported	Casing di3:	Not Reported
Not Reported		
0		
Not Reported	Parish nam:	OUACHITA
SPARTA AQUIFER		
plugged and abandoned		
Plugged and Abandonded	Site id:	LATD40000056171

# C6 NNE 1/4 - 1/2 Mile Higher

Water wel1: Water wel2: Parish num: Identifica: Longitude: Owners nam: Well use: Date compl: Available : Revised la: Elec log: Mechanic a: Bio analys: Avail info: Drillers 2: Township: Hole depth: Quad num: Date measu: Date of ad:

073-150 073 323055092203002 922030 LSU EXP STATION Ζ 1906 Driller Log Not Reported Not Reported Not Reported Not Reported Not Reported 000 18N 558 034D Not Reported 1999-05-24

464048

#### LA WELLS LATD40000157476

State code: Local well: Latitude: Sequence n: Well depth: Well subus: Geologic u:
Revised Io: Drill log: Chem analy: Pump test: Drillers 1: Section: Range: Elevation:
Water leve:
Source of :
Date regis:

02 558 PA 124SPRT Not Reported D Not Reported Not Reported HART WELL CO 027 01E 184 0.00 Not Reported Not Reported

22

150

323055

Date plugg: Plugged b2: Drawdown: Casing mat: Screen int: Owners num: Latitude m: Latitude s: Longitude1: Longitude3: Create dat: Update dat: Parish cod: Owner stat: Industria2: Public su2: Extension1: Extension3: Gravel pac: Diameter o: Site zip: Remarks: Authorize1: Heat pump1: Heat pump2: Location m: Location c: Slot lengt: Inspector: Inspector : Inspection: Pump motor: Pump plan2: Pump rate: Pump hour1: Pump stati: Pump groun: X longdd: Y latdd: Pump down : Pa remarks: Pa signat1: Pa details: Casing di2: Contact: Screen di2: Wwo seq nu: Screen di3: Aquifer na: Use descri: Well statu:

1945 000 Not Reported Not Reported Not Reported N LA STA 0 0 0 Not Reported 2010 720 2012 130 37 Not Reported Not Reported Not Reported Not Reported Not Reported Ν Not Reported Not Reported Not Reported Not Reported 0 Not Reported 0 Not Reported Not Reported Not Reported Not Reported 0 Not Reported n Not Reported 0 Not Reported Not Reported -92.34166667 32.51527778 Not Reported n Not Reported SPARTA AQUIFER plugged and abandoned Plugged and Abandonded

Plugged b1: UNKNOWN Yield: Not Reported Casing di1: 4 Screen di1: Not Reported Serial num: Not Reported Latitude d: 0 Longitude2: 0 SONRIS\_DBA Create use: Update use: SONRIS DBA Industria1: Not Reported Replacemen: Not Reported Public su1: Not Reported Pumpdown c: Not Reported Extension2: Not Reported Screen typ: Not Reported Not Reported Ground eve: Site city: Not Reported Site addre: Not Reported Authorize2: 0 Location I: Not Reported Cemented f: Not Reported Slot size: Not Reported Pump setti: Not Reported Pump plan1: 0 Pump plan3: Not Reported Yield meas: Not Reported Pump hour2: 0 Pump deter: Not Reported Pump test : 0 Pa signat2: 0 Casing len: Not Reported Casing di3: Not Reported Parish nam: OUACHITA

Site id:

C7 NNE 1/4 - 1/2 Mile Higher

FED USGS USGS40000413994

LATD40000157476

Org. Identifier: Formal name: Monloc Identifier: Monloc name: Monloc type:	USGS-LA USGS Louisiana Water Science USGS-323055092203001 Ou- 66 Well	Center	
Monloc desc:	Not Reported		
Huc code:	08040207	Drainagearea value:	Not Reported
Drainagearea Units:	Not Reported	Contrib drainagearea:	Not Reported
Contrib drainagearea units:	Not Reported	Latitude:	32.5154243
Longitude:	-92.3418073	Sourcemap scale:	62500
Horiz Acc measure:	5	Horiz Acc measure units:	seconds
Horiz Collection method:	Interpolated from map		
Horiz coord refsys:	NAD83	Vert measure val:	160.00
Vert measure units:	feet	Vertacc measure val:	10
Vert accmeasure units:	feet		
Vertcollection method:	Interpolated from topographic ma	ap	
Vert coord refsys:	NGVD29	Countrycode:	US
Aquifername:	Mississippi embayment aquifer s	ystem	
Formation type:	Sparta Sand		
Aquifer type:	Confined single aquifer		
Construction date:	19060430	Welldepth:	558
Welldepth units:	ft	Wellholedepth:	558
Wellholedepth units:	ft		

Ground-water levels, Number of Measurements: 1 Feet below Feet to

Date Surface Sealevel

1906-04-30 70.00

#### C8 NNE 1/4 - 1/2 Mile Higher

FED USGS USGS40000413995

Org. Identifier:	USGS-LA		
Formal name:	USGS Louisiana Water Science	Center	
Monloc Identifier:	USGS-323055092203002		
Monloc name:	Ou- 150		
Monloc type:	Well		
Monloc desc:	Not Reported		
Huc code:	08040207	Drainagearea value:	Not Reported
Drainagearea Units:	Not Reported	Contrib drainagearea:	Not Reported
Contrib drainagearea units:	Not Reported	Latitude:	32.5154243
Longitude:	-92.3418073	Sourcemap scale:	62500
Horiz Acc measure:	1	Horiz Acc measure units:	seconds
Horiz Collection method:	Interpolated from map		
Horiz coord refsys:	NAD83	Vert measure val:	184.30
Vert measure units:	feet	Vertacc measure val:	.1
Vert accmeasure units:	feet		
Vertcollection method:	Level or other surveying method		
Vert coord refsys:	NGVD29	Countrycode:	US
Aquifername:	Mississippi embayment aquifer sy	ystem	
Formation type:	Sparta Sand		

Aquifer type:		Confined single aquifer			
Construction date	:	19060620	Welldepth:	558	
Welldepth units:		ft	Wellholedepth:	558	
Wellholedepth un	its:	ft			
Ground-water leve	els, Numb	er of Measurements: 0			
					a construction of the second sec
D9 SE					1186840000442045
5⊑ 1/4 - 1/2 Mile				FED USGS	USGS40000413915
Lower					
Org. Identifier:		USGS-LA			
Formal name:		USGS Louisiana Water Sci	ence Center		
Monloc Identifier:		USGS-323020092202401			
Monloc name:		Ou- 533			
Monloc type:		Well			
Monloc desc:		Not Reported			
Huc code:		08040207	Drainagearea value:	Not Reported	
Drainagearea Uni		Not Reported	Contrib drainagearea:	Not Reported	
Contrib drainagea	irea units:		Latitude:	32.5057024	
Longitude:		-92.3401406	Sourcemap scale:	62500	
Horiz Acc measur		1 Internaliste d'Energian	Horiz Acc measure units:	seconds	
Horiz Collection n		Interpolated from map		400.00	
Horiz coord refsys Vert measure unit		NAD83 feet	Vert measure val: Vertacc measure val:	120.00 10	
Vert accmeasure		feet	venacc measure val.	10	
Vertcollection met		Interpolated from topograph	aic man		
Vert coord refsys:		NGVD29	Countrycode:	US	
Aquifername:		Mississippi embayment aqu		00	
Formation type:		Cockfield Formation of Clai			
Aquifer type:		Not Reported	201112 C100p		
Construction date	:	19810902	Welldepth:	36	
Welldepth units:		ft	Wellholedepth:	41	
Wellholedepth un	its:	ft			
Ground-water lev	ole Numb	er of Measurements: 1			
	et below				
Date Sur	face	Sealevel			
		disted that would affect the n	neasured water level.		
D10					
SE				LA WELLS	LATD40000055283
1/4 - 1/2 Mile Lower					
		404400			
Water wel1:		464436	State and a	22	
Water wel2:		073-533	State code:	22	
Parish num:		073	Local well:	533	
Identifica:		323020092202401	Latitude:	323020	
Longitude:		922024 U S GEOL SURVEY	Sequence n: Woll donth:	01 36	
Owners nam: Well use:		0 S GEOL SURVEY	Well depth: Well subus:	36 D	
Date compl:		09/81	Geologic u:	124CCKF	
Available :		Driller Log, Quality of Wate		1270011	
Revised la:		Not Reported	Revised lo:	Not Reported	

1

Elec log: Mechanic a: Bio analys: Avail info: Drillers 2: Township: Hole depth: Quad num: Date measu: Date of ad: Date plugg: Plugged b2: Drawdown: Casing mat: Screen int: Owners num: Latitude m: Latitude s: Longitude1: Longitude3: Comments: Create dat: Update dat: Parish cod: Owner stat: Industria2: Public su2: Extension1: Extension3: Gravel pac: Diameter o: Site zip: Remarks: Authorize1: Heat pump1: Heat pump2: Location m: Location c: Slot lengt: Inspector: Inspector : Inspection: Pump motor: Pump plan2: Pump rate: Pump hour1: Pump stati: Pump groun: X longdd: Y latdd: Pump down : Pa remarks: Pa signat1: Pa details: Casing di2: Contact: Screen di2: Wwo seq nu: Screen di3: Aquifer na:

Not Reported Not Reported Not Reported	Drill log: Chem analy: Pump test:	D Q Not Reported
w	Drillers 1:	U.S.G.S.
002	Section:	035
18N	Range:	01E
41	Elevation:	120
034D	Water leve:	7.35
09/02/81	Source of :	A
1998-10-23	Date regis:	Not Reported
Not Reported	Plugged b1:	Not Reported
•	Yield:	
Not Reported		Not Reported
Not Reported	Casing di1:	1.25
METAL	Screen di1:	1.25 Nat Dama ta d
33-36	Serial num:	Not Reported
8	Latitude d:	0
0		
0		
0	Longitude2:	0
Not Reported		
WELL DESTROYEDSEE U	JSGS FIELD REPORT DATE	07/27/98.
2010 720	Create use:	SONRIS_DBA
2012 130	Update use:	SONRIS_DBA
37	Industria1:	Not Reported
Not Reported	Replacemen:	Not Reported
Not Reported	Public su1:	Not Reported
Not Reported	Pumpdown c:	Not Reported
Not Reported	Extension2:	Not Reported
-	Screen typ:	Not Reported
Not Reported	Ground eve:	•
N Nat Dependent		Not Reported
Not Reported	Site city:	Not Reported
Not Reported	Site addre:	Not Reported
Not Reported		
Not Reported	Authorize2:	0
0		
Not Reported	Location I:	Not Reported
0		
Not Reported	Cemented f:	Not Reported
Not Reported	Slot size:	Not Reported
Not Reported		
Not Reported		
0	Pump setti:	Not Reported
Not Reported	Pump plan1:	0
0	Pump plan3:	Not Reported
Not Reported	Yield meas:	Not Reported
0	Pump hour2:	0
Not Reported	Pump deter:	Not Reported
Not Reported	Pump test :	0
-92.34		
32.50555556		
Not Reported		
Not Reported		
-	Do signat2:	0
Not Reported	Pa signat2:	U
Not Reported	Cooling land	Not Devented
Not Reported	Casing len:	Not Reported
Not Reported	Casing di3:	Not Reported
Not Reported		
0		
Not Reported	Parish nam:	OUACHITA
COCKFIELD AQUIFER		

Use descri: destroyed observation Well statu: Destroyed Site id: LATD4000055283 E11 South 1/4 - 1/2 Mile LA WELLS LATD40000131293 Lower Water wel1: 465471 Water wel2: 073-5884Z State code: 22 Parish num: 073 Local well: 5884Z Latitude: 323016 Identifica: 323016092203601 Longitude: 922036 Sequence n: 01 Owners nam: SEAGULL ENERGY Well depth: 540 Well use: s Well subus: PA Date compl: 05/97 Geologic u: 124SPRT Available : Driller Log, Water Level Not Reported Revised lo: Revised la: Not Reported Drill log: Elec log: Not Reported D Mechanic a: Not Reported Chem analy: Not Reported Not Reported Pump test: Bio analys: Not Reported SCRUGGS, INC. Avail info: w Drillers 1: Drillers 2: 208 Section: 035 18N Range: 01E Township: Hole depth: 540 Elevation: 136 90.00 Quad num: 034D Water leve: Date measu: 05/10/97 Source of : n Date of ad: 1997-09-12 Date regis: 06/97 SCRUGGS, INC. 08/97 Plugged b1: Date plugg: Plugged b2: 208 Yield: Not Reported Drawdown: Not Reported Casing di1: 4 Casing mat: PLASTIC Screen di1: 4 480-540 220262 Screen int: Serial num: Owners num: **BROWN 2** Latitude d: 0 Latitude m: ۵ Latitude s: 0 0 Longitude1: 0 Longitude2: Longitude3: Not Reported Create dat: 2010 720 Create use: SONRIS DBA SONRIS DBA Update dat: 2012 130 Update use: Parish cod: 37 Industria1: Not Reported Owner stat: Not Reported Replacemen: Not Reported Industria2: Not Reported Public su1: Not Reported Not Reported Not Reported Public su2: Pumpdown c: Extension1: Not Reported Extension2: Not Reported Not Reported Not Reported Extension3: Screen typ: Not Reported Gravel pac: Ground eve: Ν Diameter o: Not Reported Site city: Not Reported Not Reported Site addre: Site zip: Not Reported Remarks: Not Reported Not Reported Authorize2: 0 Authorize1: Heat pump1: 0 Heat pump2: Not Reported Location I: Not Reported Location m: Ω Location c: Not Reported Cemented f: Not Reported Slot lengt: Not Reported Slot size: Not Reported Inspector: Not Reported

Inspector : Inspection: Pump motor: Pump plan2: Pump rate: Pump hour1: Pump stati: Pump groun: X longdd: Y latdd: Pump down : Pa remarks: Pa signat1: Pa details: Casing di2: Contact: Screen di2: Wwo seq nu: Screen di3: Aquifer na: Use descri: Well statu:

#### Not Reported Pump setti: 0 Not Reported Not Reported Pump plan1: 0 Pump plan3: Not Reported 0 Not Reported Yield meas: Not Reported Pump hour2: 0 0 Not Reported Pump deter: Not Reported Not Reported Pump test : 0 -92.34333333 32.50444444 Not Reported Not Reported Not Reported Pa signat2: 0 Not Reported Not Reported Casing len: Not Reported Not Reported Not Reported Casing di3: Not Reported 0 Not Reported Parish nam: OUACHITA SPARTA AQUIFER plugged and abandoned rig supply LATD40000131293 Plugged and Abandonded Site id:

#### 12 WSW 1/4 - 1/2 Mile Higher

Water wel1: Water wel2: Parish num: Identifica: Longitude: Owners nam: Well use: Date compl: Available : Revised la: Elec log: Mechanic a: Bio analys: Avail info: Drillers 2: Township: Hole depth: Quad num: Date measu: Date of ad: Date plugg: Plugged b2: Drawdown: Casing mat: Screen int: Owners num: Latitude m: Latitude s: Longitude1: Longitude3:

LA WELLS LATD40000057773

#### State code: Local well: Latitude: Sequence n: Well depth: Well subus: Geologic u: Revised lo: Drill log: Chem analy: Pump test: Drillers 1:

Section: Range: Elevation: Water leve: Source of : Date regis: Plugged b1: Yield: Casing di1: Screen di1: Serial num: Latitude d:

Longitude2:

22 6619Z 323029 01 33 Not Reported 00000000 Not Reported D Not Reported Not Reported HAMMETT 034 01E 206 8.00 D 06/07

Not Reported

Not Reported

Not Reported

2

2

n

0

Create dat: Update dat: Parish cod: Owner stat: Industria2: Public su2: Extension1: Extension3: Gravel pac: Diameter o: Site zip: Remarks: Authorize1: Heat pump1: Heat pump2: Location m: Location c: Slot lengt: Inspector: Inspector : Inspection: Pump motor: Pump plan2: Pump rate: Pump hour1: Pump stati: Pump groun: X longdd: Y latdd: Pump down : Pa remarks: Pa signat1: Pa details: Casing di2: Contact: Screen di2: Wwo seq nu: Screen di3: Aquifer na: Use descri: Well statu:

2010 720 2012 130 37 Not Reported Not Reported Not Reported Not Reported Not Reported Ν Not Reported Not Reported Not Reported Not Reported 0 Not Reported Λ Not Reported Not Reported Not Reported Not Reported 0 Not Reported ٥ Not Reported 0 Not Reported . Not Reported -92.35166667 32.50805556 Not Reported TO BE DETERMINED domestic Active

Create use: SONRIS DBA Update use: SONRIS DBA Not Reported Industria1: Replacemen: Not Reported Public su1: Not Reported Not Reported Pumpdown c: Extension2: Not Reported Not Reported Screen typ: Ground eve: Not Reported Site city: Not Reported Not Reported Site addre: Authorize2: 0 Location I: Not Reported Cemented f: Not Reported Slot size: Not Reported Not Reported Pump setti: Pump plan1: 0 Pump plan3: Not Reported Yield meas: Not Reported Pump hour2: 0 Pump deter: Not Reported Pump test : 0 Pa signat2: 0 Casing len: Not Reported Casing di3: Not Reported Parish nam: OUACHITA

E13 South 1/4 - 1/2 Mile Lower

> USGS-LA Org. Identifier: USGS Louisiana Water Science Center Formal name: USGS-323015092203601 Monloc Identifier: Monloc name: Ou- 532 Monloc type: Well Not Reported Monloc desc: Huc code: 08040207 Drainagearea Units: Not Reported Contrib drainagearea units: Not Reported -92.343474 Longitude:

Drainagearea value: Contrib drainagearea: Latitude: Sourcemap scale:

Site id:

Not Reported Not Reported 32.5043136 62500

LATD40000057773

FED USGS USGS40000413904

Horiz Acc measure: Horiz Collection method: Horiz coord refsys: Vert measure units: Vert accmeasure units: Vert collection method: Vert coord refsys: Aquifername: Formation type: Aquifer type: Construction date: Welldepth units: Wellholedepth units:

1	Horiz Acc measure units:	seconds
Interpolated from map		
NAD83	Vert measure val:	120.00
feet	Vertacc measure val:	10
feet		
Interpolated from topographic ma	ар	
NGVD29	Countrycode:	US
Mississippi embayment aquifer s	system	
Cockfield Formation of Claiborne	e Group	
Not Reported		
19810902	Welldepth:	17
ft	Wellholedepth:	86
ft		

Ground-water levels, Number of Measurements: 0

E14 South 1/4 - 1/2 Mile Lower			LA WELLS
Water wel1:	464435		
Water wel2:	073-532	State code:	22
Parish num:	073	Local well:	532
Identifica:	323015092203601	Latitude:	323015
Longitude:	922036	Sequence n:	01
Owners nam:	U S GEOL SURVEY	Well depth:	17
Well use:	0	Well subus:	D
Date compl:	09/81	Geologic u:	124CCKF
Available :	Driller Log, Quality of Wate	r	
Revised la:	Not Reported	Revised Io:	Not Reported
Elec log:	Not Reported	Drill log:	D
Mechanic a:	Not Reported	Chem analy:	Q
Bio analys:	Not Reported	Pump test:	Not Reported
Avail info:	Not Reported	Drillers 1:	U.S.G.S.
Drillers 2:	002	Section:	035
Township:	18N	Range:	01E
Hole depth:	86	Elevation:	120
Quad num:	034D	Water leve:	0.00
Date measu:	Not Reported	Source of :	Not Reported
Date of ad:	1998-10-23	Date regis:	Not Reported
Date plugg:	Not Reported	Plugged b1:	Not Reported
Plugged b2:	Not Reported	Yield:	1
Drawdown:	Not Reported	Casing di1:	1.25
Casing mat:	METAL	Screen di1:	1.25
Screen int:	14-17	Serial num:	Not Reported
Owners num:	7	Latitude d:	0
Latitude m:	0		
Latitude s:	0		
Longitude1:	0	Longitude2:	0
Longitude3:	Not Reported		
Comments:	WELL DESTROYED SEE US	SGS FIELD REPORT DATED	07/27/98.
Create dat:	2010 720	Create use:	SONRIS_DBA
Update dat:	2012 130	Update use:	SONRIS_DBA
Parish cod:	37	Industria1:	Not Reported
Owner stat:	Not Reported	Replacemen:	Not Reported
Industria2:	Not Reported	Public su1:	Not Reported
Public su2:	Not Reported	Pumpdown c:	Not Reported
Extension1:	Not Reported	Extension2:	Not Reported
Extension3:	Not Reported	Screen typ:	Not Reported
Gravel pac:	N	Ground eve:	Not Reported

#### LA WELLS LATD40000055282

Diameter o: Site zip: Remarks: Authorize1: Heat pump1: Heat pump2: Location m: Location c: Slot lengt: Inspector: Inspector : Inspection: Pump motor: Pump plan2: Pump rate: Pump hour1: Pump stati: Pump groun: X longdd: Y latdd: Pump down : Pa remarks: Pa signat1: Pa details: Casing di2: Contact: Screen di2: Wwo seq nu: Screen di3: Aquifer na: Use descri: Well statu:

Not Reported	Site city:	Not Reported
Not Reported	Site addre:	Not Reported
Not Reported		
Not Reported	Authorize2:	0
0		
Not Reported	Location I:	Not Reported
0		
Not Reported	Cemented f:	Not Reported
Not Reported	Slot size:	Not Reported
Not Reported		
Not Reported		
0	Pump setti:	Not Reported
Not Reported	Pump plan1:	0
0	Pump plan3:	Not Reported
Not Reported	Yield meas:	Not Reported
0 Nat Danastad	Pump hour2:	0 Not Dependent
Not Reported	Pump deter:	Not Reported 0
Not Reported -92.34333333	Pump test :	0
32.50416667		
Not Reported		
Not Reported		
Not Reported	Pa signat2:	0
Not Reported	i a signatz.	0
Not Reported	Casing len:	Not Reported
Not Reported	Casing di3:	Not Reported
Not Reported	e consigned	
0		
Not Reported	Parish nam:	OUACHITA
COCKFIELD AQUIFER		
destroyed observation		
Destroyed	Site id:	LATD40000055282

D15 SE 1/2 - 1 Mile Lower

> Org. Identifier: Formal name: Monloc Identifier: Monloc name: Ou- 531 Monloc type: Well Monloc desc: 08040207 Huc code: Drainagearea Units: Contrib drainagearea units: Not Reported Longitude: Horiz Acc measure: 1 Horiz Collection method: Horiz coord refsys: NAD83 Vert measure units: feet Vert accmeasure units: feet Vertcollection method: Vert coord refsys: NGVD29

Aquifername: Formation type: FED USGS USGS40000413912

USGS-LA USGS Louisiana Water Science Center USGS-323018092202101 Not Reported Not Reported Drainagearea value: Not Reported Contrib drainagearea: Not Reported Latitude: 32.5051469 -92.3393072 62500 Sourcemap scale: Horiz Acc measure units: seconds Interpolated from map Vert measure val: 135.00 Vertacc measure val: 10 Interpolated from topographic map US Countrycode: Mississippi embayment aquifer system Cockfield Formation of Claiborne Group

Aquifer type: Not Reported Construction date: 19810902 Welldepth: 44 53 Welldepth units: Wellholedepth: ft Wellholedepth units: ft Ground-water levels, Number of Measurements: 0 D16 LA WELLS LATD40000156869 SE 1/2 - 1 Mile Lower Water wel1: 464434 Water wel2: 073-531 State code: 22 Parish num: 073 Local well: 531 323018 Identifica: 323018092202101 Latitude: Longitude: 922021 Sequence n: 01 **U S GEOL SURVEY** Well depth: Owners nam: 44 Well use: 0 Well subus: D 124CCKF 09/81 Geologic u: Date compl: Available : Driller Log, Quality of Water Revised la: Not Reported Revised lo: Not Reported Elec log: Not Reported Drill log: D Mechanic a: Not Reported Chem analy: Q Bio analys: Not Reported Pump test: Not Reported Avail info: Not Reported Drillers 1: U.S.G.S. Drillers 2: 002 Section: 035 18N 01E Township: Range: Hole depth: 53 Elevation: 135 Quad num: 034D Water leve: 0.00 Not Reported Not Reported Date measu: Source of : 1998-10-23 Date regis: Not Reported Date of ad: Date plugg: Not Reported Plugged b1: Not Reported Plugged b2: Not Reported Yield: 1 Drawdown: Not Reported Casing di1: 1.25 METAL Casing mat: Screen di1: 1.25 41-44 Screen int: Serial num: Not Reported Owners num: 6 Latitude d: 0 Latitude m: 0 Latitude s: 0 Longitude1: 0 Longitude2: 0 Longitude3: Not Reported Comments: WELL DESTROYED -- SEE USGS FIELD REPORT DATED 07/27/98. Create dat: 2010 720 Create use: SONRIS DBA Update dat: 2012 130 Update use: SONRIS DBA Parish cod: 37 Industria1: Not Reported Not Reported Owner stat: Not Reported Replacemen: Not Reported Not Reported Industria2: Public su1: Public su2: Not Reported Pumpdown c: Not Reported Not Reported Extension2: Not Reported Extension1: Extension3: Not Reported Screen typ: Not Reported Gravel pac: Ν Ground eve: Not Reported Diameter o: Not Reported Site city: Not Reported Not Reported Site addre: Not Reported Site zip: Not Reported Remarks: Authorize1: Not Reported Authorize2: 0 Heat pump1: 0 Heat pump2: Not Reported Location I: Not Reported Location m: ۵ Location c: Not Reported Cemented f: Not Reported Slot lengt: Not Reported Slot size: Not Reported Inspector: Not Reported

Inspector :	Not Reported			
Inspection:	0	Pump setti:	Not Reported	
Pump motor:	Not Reported	Pump plan1:	0	
Pump plan2:	0	Pump plan3:	Not Reported	
Pump rate:	Not Reported	Yield meas:	Not Reported	
Pump hour1:	0	Pump hour2:	0	
Pump stati:	Not Reported	Pump deter:	Not Reported	
Pump groun:	Not Reported	Pump test :	0	
X longdd:	-92.33916667			
Y latdd:	32.505			
Pump down :	Not Reported			
Pa remarks:	Not Reported			
Pa signat1:	Not Reported	Pa signat2:	0	
Pa details:	Not Reported			
Casing di2:	Not Reported	Casing len:	Not Reported	
Contact:	Not Reported	Casing di3:	Not Reported	
Screen di2:	Not Reported	-		
Wwo seq nu:	0			
Screen di3:	Not Reported	Parish nam:	OUACHITA	
Aquifer na:	COCKFIELD AQUIFER			
Use descri:	destroyed observation			
Well statu:	Destroyed	Site id:	LATD40000156869	
7 NW 2 - 1 Mile			FED USGS	USGS400004139
Ŵ			FED USGS	USGS40000413
VW 2 - 1 Mile gher Org. Identifier:	USGS-LA		FED USGS	USGS40000413
VW 2 - 1 Mile gher Org. Identifier: Formal name:	USGS Louisiana Water Scien	nce Center	FED USGS	USGS40000413
VW 2 - 1 Mile gher Org. Identifier: Formal name: Monloc Identifier:	USGS Louisiana Water Scier USGS-323048092211801	nce Center	FED USGS	USGS40000413
VW 2 - 1 Mile gher Org. Identifier: Formal name: Monloc Identifier: Monloc name:	USGS Louisiana Water Scier USGS-323048092211801 Ou-6272Z	nce Center	FED USGS	USGS40000413
VW 2 - 1 Mile gher Org. Identifier: Formal name: Monloc Identifier: Monloc name: Monloc type:	USGS Louisiana Water Scier USGS-323048092211801 Ou-6272Z Well	nce Center	FED USGS	USGS40000413
VW 2 - 1 Mile gher Org. Identifier: Formal name: Monloc Identifier: Monloc name: Monloc type: Monloc desc:	USGS Louisiana Water Scier USGS-323048092211801 Ou-6272Z Well Not Reported			USGS40000413
W 2 - 1 Mile gher Org. Identifier: Formal name: Monloc Identifier: Monloc name: Monloc type: Monloc desc: Huc code:	USGS Louisiana Water Scier USGS-323048092211801 Ou-6272Z Well Not Reported Not Reported	Drainagearea value:	Not Reported	USGS40000413
W 2 - 1 Mile gher Org. Identifier: Formal name: Monloc Identifier: Monloc name: Monloc name: Monloc type: Monloc desc: Huc code: Drainagearea Units:	USGS Louisiana Water Scier USGS-323048092211801 Ou-6272Z Well Not Reported Not Reported Not Reported	Drainagearea value: Contrib drainagearea:	Not Reported Not Reported	USGS40000413
W 2 - 1 Mile gher Org. Identifier: Formal name: Monloc Identifier: Monloc name: Monloc name: Monloc type: Monloc desc: Huc code: Drainagearea Units: Contrib drainagearea units:	USGS Louisiana Water Scier USGS-323048092211801 Ou-6272Z Well Not Reported Not Reported Not Reported Not Reported Not Reported	Drainagearea value: Contrib drainagearea: Latitude:	Not Reported Not Reported 32.5133333	USGS40000413
W 2 - 1 Mile gher Org. Identifier: Formal name: Monloc Identifier: Monloc name: Monloc name: Monloc type: Monloc desc: Huc code: Drainagearea Units: Contrib drainagearea units: Longitude:	USGS Louisiana Water Scier USGS-323048092211801 Ou-6272Z Well Not Reported Not Reported Not Reported Not Reported -92.355	Drainagearea value: Contrib drainagearea: Latitude: Sourcemap scale:	Not Reported Not Reported 32.5133333 24000	USGS40000413
W 2 - 1 Mile gher Org. Identifier: Formal name: Monloc Identifier: Monloc name: Monloc type: Monloc desc: Huc code: Drainagearea Units: Contrib drainagearea units: Longitude: Horiz Acc measure:	USGS Louisiana Water Scier USGS-323048092211801 Ou-6272Z Well Not Reported Not Reported Not Reported Not Reported -92.355 1	Drainagearea value: Contrib drainagearea: Latitude: Sourcemap scale: Horiz Acc measure units:	Not Reported Not Reported 32.5133333	USGS40000413
W 2 - 1 Mile gher Org. Identifier: Formal name: Monloc Identifier: Monloc name: Monloc type: Monloc desc: Huc code: Drainagearea Units: Contrib drainagearea units: Longitude: Horiz Acc measure: Horiz Collection method:	USGS Louisiana Water Scier USGS-323048092211801 Ou-6272Z Well Not Reported Not Reported Not Reported Not Reported -92.355 1 Global positioning system (G	Drainagearea value: Contrib drainagearea: Latitude: Sourcemap scale: Horiz Acc measure units: PS), uncorrected	Not Reported Not Reported 32,5133333 24000 seconds	USGS40000413
WW 2 - 1 Mile gher Org. Identifier: Formal name: Monloc Identifier: Monloc name: Monloc type: Monloc desc: Huc code: Drainagearea Units: Contrib drainagearea units: Longitude: Horiz Acc measure: Horiz Collection method: Horiz coord refsys:	USGS Louisiana Water Scier USGS-323048092211801 Ou-6272Z Well Not Reported Not Reported Not Reported Not Reported -92.355 1 Global positioning system (G NAD83	Drainagearea value: Contrib drainagearea: Latitude: Sourcemap scale: Horiz Acc measure units: PS), uncorrected Vert measure val:	Not Reported Not Reported 32.5133333 24000 seconds 185	USGS40000413
W 2 - 1 Mile gher Org. Identifier: Formal name: Monloc Identifier: Monloc name: Monloc type: Monloc desc: Huc code: Drainagearea Units: Contrib drainagearea units: Longitude: Horiz Acc measure: Horiz Collection method: Horiz coord refsys: Vert measure units:	USGS Louisiana Water Scier USGS-323048092211801 Ou-6272Z Well Not Reported Not Reported Not Reported -92.355 1 Global positioning system (G NAD83 feet	Drainagearea value: Contrib drainagearea: Latitude: Sourcemap scale: Horiz Acc measure units: PS), uncorrected	Not Reported Not Reported 32,5133333 24000 seconds	USGS40000413
W 2 - 1 Mile gher Org. Identifier: Formal name: Monloc Identifier: Monloc name: Monloc type: Monloc desc: Huc code: Drainagearea Units: Contrib drainagearea units: Longitude: Horiz Acc measure: Horiz Collection method: Horiz coord refsys: Vert measure units: Vert accmeasure units:	USGS Louisiana Water Scier USGS-323048092211801 Ou-6272Z Well Not Reported Not Reported Not Reported Not Reported -92.355 1 Global positioning system (G NAD83 feet feet	Drainagearea value: Contrib drainagearea: Latitude: Sourcemap scale: Horiz Acc measure units: PS), uncorrected Vert measure val: Vertacc measure val:	Not Reported Not Reported 32.5133333 24000 seconds 185	USGS40000413
W 2 - 1 Mile gher Org. Identifier: Formal name: Monloc Identifier: Monloc name: Monloc type: Monloc desc: Huc code: Drainagearea Units: Contrib drainagearea units: Longitude: Horiz Acc measure: Horiz Collection method: Horiz coord refsys: Vert measure units: Vert accmeasure units: Vert accmeasure units: Vert collection method:	USGS Louisiana Water Scier USGS-323048092211801 Ou-6272Z Well Not Reported Not Reported Not Reported Not Reported -92.355 1 Global positioning system (G NAD83 feet feet Interpolated from topographic	Drainagearea value: Contrib drainagearea: Latitude: Sourcemap scale: Horiz Acc measure units: PS), uncorrected Vert measure val: Vertacc measure val:	Not Reported Not Reported 32,5133333 24000 seconds 185 5	USGS40000413
W 2 - 1 Mile gher Org. Identifier: Formal name: Monloc Identifier: Monloc name: Monloc type: Monloc desc: Huc code: Drainagearea Units: Contrib drainagearea units: Longitude: Horiz Acc measure: Horiz Collection method: Horiz coord refsys: Vert measure units: Vert accmeasure units: Vert coord refsys: Vert coord refsys:	USGS Louisiana Water Scier USGS-323048092211801 Ou-6272Z Well Not Reported Not Reported Not Reported Not Reported -92.355 1 Global positioning system (G NAD83 feet feet Interpolated from topographic NGVD29	Drainagearea value: Contrib drainagearea: Latitude: Sourcemap scale: Horiz Acc measure units: PS), uncorrected Vert measure val: Vert acc measure val: Vertacc measure val:	Not Reported Not Reported 32.5133333 24000 seconds 185	USGS40000413
W 2 - 1 Mile gher Org. Identifier: Formal name: Monloc Identifier: Monloc name: Monloc type: Monloc desc: Huc code: Drainagearea Units: Contrib drainagearea units: Longitude: Horiz Acc measure: Horiz Collection method: Horiz coord refsys: Vert accmeasure units: Vert accmeasure units: Vert coord refsys: Vert coord refsys: Aquifername:	USGS Louisiana Water Scier USGS-323048092211801 Ou-6272Z Well Not Reported Not Reported Not Reported Not Reported -92.355 1 Global positioning system (G NAD83 feet feet Interpolated from topographic NGVD29 Mississippi embayment aquif	Drainagearea value: Contrib drainagearea: Latitude: Sourcemap scale: Horiz Acc measure units: PS), uncorrected Vert measure val: Vert acc measure val: Vertacc measure val:	Not Reported Not Reported 32,5133333 24000 seconds 185 5	USGS40000413
WW 2 - 1 Mile gher Org. Identifier: Formal name: Monloc Identifier: Monloc name: Monloc type: Monloc desc: Huc code: Drainagearea Units: Contrib drainagearea units: Longitude: Horiz Acc measure: Horiz Collection method: Horiz Coord refsys: Vert measure units: Vert accmeasure units: Vert coord refsys: Aquifername: Formation type:	USGS Louisiana Water Scier USGS-323048092211801 Ou-6272Z Well Not Reported Not Reported Not Reported Not Reported -92.355 1 Global positioning system (G NAD83 feet feet Interpolated from topographic NGVD29 Mississippi embayment aquif Sparta Sand	Drainagearea value: Contrib drainagearea: Latitude: Sourcemap scale: Horiz Acc measure units: PS), uncorrected Vert measure val: Vert acc measure val: Vertacc measure val:	Not Reported Not Reported 32,5133333 24000 seconds 185 5	USGS40000413
WW 2 - 1 Mile gher Org. Identifier: Formal name: Monloc Identifier: Monloc name: Monloc type: Monloc desc: Huc code: Drainagearea Units: Contrib drainagearea units: Longitude: Horiz Acc measure: Horiz Collection method: Horiz coord refsys: Vert measure units: Vert accmeasure units: Vert coord refsys: Vert coord refsys: Aquifername: Formation type: Aquifer type:	USGS Louisiana Water Scier USGS-323048092211801 Ou-6272Z Well Not Reported Not Reported Not Reported -92.355 1 Global positioning system (G NAD83 feet feet Interpolated from topographic NGVD29 Mississippi embayment aquif Sparta Sand Confined single aquifer	Drainagearea value: Contrib drainagearea: Latitude: Sourcemap scale: Horiz Acc measure units: PS), uncorrected Vert measure val: Vertacc measure val: c map Countrycode: er system	Not Reported Not Reported 32,5133333 24000 seconds 185 5 US	USGS40000413
WW 2 - 1 Mile gher Org. Identifier: Formal name: Monloc Identifier: Monloc name: Monloc type: Monloc desc: Huc code: Drainagearea Units: Contrib drainagearea units: Longitude: Horiz Acc measure: Horiz Collection method: Horiz coord refsys: Vert measure units: Vert accmeasure units: Vert coord refsys: Aquifername: Formation type: Aquifer type: Construction date:	USGS Louisiana Water Scier USGS-323048092211801 Ou-6272Z Well Not Reported Not Reported Not Reported -92.355 1 Global positioning system (G NAD83 feet feet Interpolated from topographic NGVD29 Mississippi embayment aquif Sparta Sand Confined single aquifer 19991109	Drainagearea value: Contrib drainagearea: Latitude: Sourcemap scale: Horiz Acc measure units: PS), uncorrected Vert measure val: Vertacc measure val: countrycode: er system Welldepth:	Not Reported Not Reported 32,5133333 24000 seconds 185 5 US VS	USGS40000413
WW 2 - 1 Mile gher Org. Identifier: Formal name: Monloc Identifier: Monloc name: Monloc type: Monloc desc: Huc code: Drainagearea Units: Contrib drainagearea units: Longitude: Horiz Acc measure: Horiz Collection method: Horiz coord refsys: Vert measure units: Vert accmeasure units: Vert coord refsys: Vert coord refsys: Aquifername: Formation type: Aquifer type:	USGS Louisiana Water Scier USGS-323048092211801 Ou-6272Z Well Not Reported Not Reported Not Reported -92.355 1 Global positioning system (G NAD83 feet feet Interpolated from topographic NGVD29 Mississippi embayment aquif Sparta Sand Confined single aquifer	Drainagearea value: Contrib drainagearea: Latitude: Sourcemap scale: Horiz Acc measure units: PS), uncorrected Vert measure val: Vertacc measure val: c map Countrycode: er system	Not Reported Not Reported 32,5133333 24000 seconds 185 5 US	USGS40000413

Ground-water levels, Number of Measurements: 0

F18 WNW 1/2 - 1 Mile Higher

LA WELLS LATD4000057066

Water wel1: Water wel2: Parish num: Identifica: Longitude: Owners nam: Well use: Date compl: Available : Revised la: Elec log: Mechanic a: Bio analys: Avail info: Drillers 2: Township: Hole depth: Quad num: Date measu: Date of ad: Date plugg: Plugged b2: Drawdown: Casing mat: Screen int: Owners num: Latitude m: Latitude s: Longitude1: Longitude3: Comments: Create dat: Update dat: Parish cod: Owner stat: Industria2: Public su2: Extension1: Extension3: Gravel pac: Diameter o: Site zip: Remarks: Authorize1: Heat pump1: Heat pump2: Location m: Location c: Slot lengt: Inspector: Inspector : Inspection: Pump motor: Pump plan2: Pump rate: Pump hour1: Pump stati: Pump groun: X longdd: Y latdd:

	465859		
	073-6272Z	State code:	22
	073	Local well:	6272Z
	323048092211801	Latitude:	323048
	922118	Sequence n:	01
	OU SCHOOL BOARD	Well depth:	765
	т	Well subus:	PA
	11/99	Geologic u:	124SPRT
	Geophysical, Driller Log, Mechani	ical Analysis, Quality of Water,	Pumping Test, Water Level
	Not Reported	Revised lo:	Not Reported
	E	Drill log:	D
	M	Chem analy:	Q
	Not Reported	Pump test:	Р
	W	Drillers 1:	CONTINENTAL
	004	Section:	027
	18N	Range:	01E
	800	Elevation:	185
	034D	Water leve:	278.00
	11/09/99	Source of :	D
	2002-11-22	Date regis:	04/01
	11/99	Plugged b1:	CONTINENTAL
	004	Yield:	30
	118	Casing di1:	4
	STEEL	Screen di1:	4
	745-765	Serial num:	Not Reported
	CALHOUN MD	Latitude d:	0
	0		
	0		
	0	Longitude2:	0
	Not Reported		
TE	EST WELL AT CALHOUN MIDDLE		
	2010 720	Create use:	SONRIS_DBA
	2012 130	Update use:	SONRIS_DBA
	37	Industria1:	Not Reported
	Not Reported	Replacemen:	Not Reported
	Not Reported	Public su1:	Not Reported
	Not Reported	Pumpdown c:	Not Reported
	Not Reported	Extension2:	Not Reported
	Not Reported	Screen typ:	Not Reported
	N Net Deperted	Ground eve:	Not Reported Not Reported
	Not Reported	Site city: Site addre:	Not Reported
	Not Reported Not Reported	Site audre.	Not Reported
	Not Reported	Authorize2:	0
	0	Autionzez.	0
	Not Reported	Location I:	Not Reported
	0	Location I.	Not Reported
	Not Reported	Cemented f:	Not Reported
	Not Reported	Slot size:	Not Reported
	Not Reported		Not Reported
	Not Reported		
	0	Pump setti:	Not Reported
	Not Reported	Pump plan1:	0
	0	Pump plan3:	Not Reported
	Not Reported	Yield meas:	Not Reported
	0	Pump hour2:	0
	Not Reported	Pump deter:	Not Reported
	Not Reported	Pump test :	0
	-92.355		-
	32.51333333		
	52.0100000		

Pump down :	Not Reported			
Pa remarks:	Not Reported			
Pa signat1:	Not Reported	Pa signat2:	0	
Pa details:	Not Reported			
Casing di2:	Not Reported	Casing len:	Not Reported	
Contact:	Not Reported	Casing di3:	Not Reported	
Screen di2:	Not Reported	J.	•	
Wwo seq nu:	0			
Screen di3:	Not Reported	Parish nam:	OUACHITA	
Aguifer na:	SPARTA AQUIFER			
Use descri:	plugged and abandoned test hole			
Well statu:	Plugged and Abandonded	Site id:	LATD40000057066	
19 E /2 - 1 Mile ower			FED USGS	USGS4000041390
Org. Identifier:	USGS-LA			
Formal name:	USGS Louisiana Water Science (	Center		
Monloc Identifier:	USGS-323015092201201	Senter		
Monioc name:	Ou- 555			
Monioc type:	Well			
Monioc type. Monioc desc:	Not Reported			
	08040207	Designed and walking	Net Deceded	
Huc code:		Drainagearea value:	Not Reported	
Drainagearea Units:	Not Reported	Contrib drainagearea:	Not Reported	
Contrib drainagearea units:		Latitude:	32.5043135	
Longitude:	-92.3368071	Sourcemap scale:	24000	
Horiz Acc measure:	1	Horiz Acc measure units:	seconds	
Horiz Collection method:	Interpolated from map			
Horiz coord refsys:	NAD83	Vert measure val:	150.00	
Vert measure units:	feet	Vertacc measure val:	5	
Vert accmeasure units:	feet			
Vertcollection method:	Interpolated from topographic ma	-		
Vert coord refsys:	NGVD29	Countrycode:	US	
Aquifername:	Mississippi embayment aquifer sy	/stem		
Formation type:	Sparta Sand			
Aquifer type:	Confined single aquifer			
Construction date:	19831014	Welldepth:	570	
Welldepth units:	ft	Wellholedepth:	570	
Wellholedepth units:	ft	·		
Ground-water levels, Numb	er of Measurements: 1			
<b>—</b>	Feet to			
Feet below				

H20 SSE 1/2 - 1 Mile Higher

FED USGS USGS40000413874

Org. Identifier: Formal name: Monloc Identifier: Monloc name: Monloc type:	USGS-LA USGS Louisiana Water Science USGS-323007092202801 Ou- 529 Well	Center	
Monioc type: Monioc desc:	Not Reported		
Huc code:	08040207	Drainagearea value:	Not Reported
Drainagearea Units:	Not Reported	Contrib drainagearea:	Not Reported
Contrib drainagearea units	•	Latitude:	32.5020914
Longitude:	-92.3412517	Sourcemap scale:	62500
Horiz Acc measure:	1	Horiz Acc measure units:	seconds
Horiz Collection method:	Interpolated from map		
Horiz coord refsys:	NAD83	Vert measure val:	125.00
Vert measure units:	feet	Vertacc measure val:	10
Vert accmeasure units:	feet		
Vertcollection method:	Interpolated from topographic ma	ар	
Vert coord refsys:	NGVD29	Countrycode:	US
Aquifername:	Mississippi embayment aquifer s	ystem	
Formation type:	Cockfield Formation of Claiborne	Group	
Aquifer type:	Not Reported		
Construction date:	19810731	Welldepth:	29
Welldepth units:	ft	Wellholedepth:	31
Wellholedepth units:	ft		

Ground-water levels, Number of Measurements: 0

# G21 SE 1/2 - 1

Lowe

/2 - 1 Mile .ower				L/// D /0000 / (
Water wel1:	464458			
Water wel2:	073-555	State code:	22	
Parish num:	073	Local well:	555	
Identifica:	323015092201201	Latitude:	323015	
Longitude:	922012	Sequence n:	01	
Owners nam:	GARRETT, KEVIN	Well depth:	570	
Well use:	Н	Well subus:	Not Reported	
Date compl:	10/83	Geologic u:	124SPRT	
Available :	Driller Log, Water Level	_		
Revised la:	Not Reported	Revised lo:	Not Reported	
Elec log:	Not Reported	Drill log:	D	
Mechanic a:	Not Reported	Chem analy:	Not Reported	
Bio analys:	Not Reported	Pump test:	Not Reported	
Avail info:	W	Drillers 1:	HARGROVE (BEN)	
Drillers 2:	069	Section:	035	
Township:	18N	Range:	01E	
Hole depth:	570	Elevation:	150	
Quad num:	034D	Water leve:	210.00	
Date measu:	10/14/83	Source of :	D	
Date of ad:	Not Reported	Date regis:	12/83	
Date plugg:	Not Reported	Plugged b1:	Not Reported	
Plugged b2:	Not Reported	Yield:	47	
Drawdown:	18	Casing di1:	4X2.50	
Casing mat:	STEEL	Screen di1:	2.50	
Screen int:	549-570	Serial num:	Not Reported	
Owners num:	Not Reported	Latitude d:	0	
Latitude m:	0			
Latitude s:	0			
Longitude1:	0	Longitude2:	0	
Longitude3:	Not Reported			

LA WELLS LATD40000156102

Create dat: Update dat: Parish cod: Owner stat: Industria2: Public su2: Extension1: Extension3: Gravel pac: Diameter o: Site zip: Remarks: Authorize1: Heat pump1: Heat pump2: Location m: Location c: Slot lengt: Inspector: Inspector : Inspection: Pump motor: Pump plan2: Pump rate: Pump hour1: Pump stati: Pump groun: X longdd: Y latdd: Pump down : Pa remarks: Pa signat1: Pa details: Casing di2: Contact: Screen di2: Wwo sea nu: Screen di3: Aquifer na: Use descri: Well statu:

H22 SSE 1/2 - 1 Mile

Higher

2010 720 2012 130 37 Not Reported Not Reported Not Reported Not Reported Not Reported Ν Not Reported Not Reported Not Reported Not Reported 0 Not Reported 0 Not Reported Not Reported Not Reported Not Reported 0 Not Reported 0 Not Reported 0 Not Reported Not Reported -92.33666667 32.50416667 Not Reported 0 Not Reported SPARTA AQUIFER domestic Active

. . . . . .

Create use: SONRIS DBA Update use: SONRIS DBA Industria1: Not Reported Replacemen: Not Reported Public su1: Not Reported Pumpdown c: Not Reported Extension2: Not Reported Screen typ: Not Reported Ground eve: Not Reported Site city: Not Reported Not Reported Site addre: Authorize2: 0 Location I: Not Reported Cemented f: Not Reported Slot size: Not Reported Pump setti: Not Reported Pump plan1: 0 Pump plan3: Not Reported Yield meas: Not Reported Pump hour2: 0 Pump deter: Not Reported Pump test : 0 Pa signat2: 0 Casing len: Not Reported Casing di3: Not Reported Parish nam: OUACHITA

> LA WELLS LATD40000116318

LATD40000156102

Water wel1:	464432		
Water wel2:	073-529	State code:	22
Parish num:	073	Local well:	529
Identifica:	323007092202801	Latitude:	323007
Longitude:	922028	Sequence n:	01
Owners nam:	U S GEOL SURVEY	Well depth:	29
Well use:	0	Well subus:	D
Date compl:	07/81	Geologic u:	124CCKF
Available :	Driller Log, Quality of Water	-	
Revised la:	Not Reported	Revised lo:	Not Reported

Site id:

Elec log: Mechanic a: Bio analys: Avail info: Drillers 2: Township: Hole depth: Quad num: Date measu: Date of ad: Date plugg: Plugged b2: Drawdown: Casing mat: Screen int: Owners num: Latitude m: Latitude s: Longitude1: Longitude3: Comments: Create dat: Update dat: Parish cod: Owner stat: Industria2: Public su2: Extension1: Extension3: Gravel pac: Diameter o: Site zip: Remarks: Authorize1: Heat pump1: Heat pump2: Location m: Location c: Slot lengt: Inspector: Inspector : Inspection: Pump motor: Pump plan2: Pump rate: Pump hour1: Pump stati: Pump groun: X longdd: Y latdd: Pump down : Pa remarks: Pa signat1: Pa details: Casing di2: Contact: Screen di2: Wwo seq nu: Screen di3: Aquifer na:

Not Reported	Drill log:	D
Not Reported	Chem analy:	Q
Not Reported	Pump test:	Not Reported
Not Reported	Drillers 1:	U.S.G.S.
002	Section:	035
18N	Range:	01E
31	Elevation:	125
034D	Water leve:	0.00
Not Reported	Source of :	Not Reported
1998-10-23		Not Reported
	Date regis:	Not Reported
Not Reported	Plugged b1:	
Not Reported	Yield:	2
Not Reported	Casing di1:	1.25
METAL	Screen di1:	1.25
26-29	Serial num:	Not Reported
4	Latitude d:	0
0		
0		
0	Longitude2:	0
Not Reported	5	
WELL DESTROYED-SEE USO	S FIELD REPORT DATE	07/27/98
2010 720	Create use:	SONRIS DBA
2012 130	Update use:	SONRIS DBA
37	Industria1:	
		Not Reported
Not Reported	Replacemen:	Not Reported
Not Reported	Public su1:	Not Reported
Not Reported	Pumpdown c:	Not Reported
Not Reported	Extension2:	Not Reported
Not Reported	Screen typ:	Not Reported
N	Ground eve:	Not Reported
Not Reported	Site city:	Not Reported
Not Reported	Site addre:	Not Reported
Not Reported		·
Not Reported	Authorize2:	0
0	,	-
Not Reported	Location I:	Not Reported
0	Eocation I.	Norreported
	Cemented f:	Not Reported
Not Reported		•
Not Reported	Slot size:	Not Reported
Not Reported		
Not Reported		
0	Pump setti:	Not Reported
Not Reported	Pump plan1:	0
0	Pump plan3:	Not Reported
Not Reported	Yield meas:	Not Reported
0	Pump hour2:	0
Not Reported	Pump deter:	Not Reported
Not Reported	Pump test :	0
-92.34111111	•	
32.50194444		
Not Reported		
Not Reported		
Not Reported	Pa signat2:	0
•	ra signalz.	U
Not Reported	Cooling land	Not Dawards -1
Not Reported	Casing len:	Not Reported
Not Reported	Casing di3:	Not Reported
Not Reported		
0		
Not Reported	Parish nam:	OUACHITA
COCKFIELD AQUIFER		

Use descri: Well statu:		destroyed observation Destroyed	Site id:	LATD40000116318	
3 SE ⁄2 - 1 Mile igher				FED USGS	USGS4000041387
• Org. Identifier:		USGS-LA			
Formal name:		USGS Louisiana Water Sci	ence Center		
Monloc Identifier:		USGS-323008092202101			
Monloc name:		Ou- 530			
Monloc type:		Well			
Monloc desc:		Not Reported			
Huc code:		08040207	Drainagearea value:	Not Reported	
Drainagearea Un	its:	Not Reported	Contrib drainagearea:	Not Reported	
Contrib drainage			Latitude:	32.5023692	
Longitude:	10 T	-92.3393072	Sourcemap scale:	62500	
Horiz Acc measu	re:	1	Horiz Acc measure units:	seconds	
Horiz Collection	method:	Interpolated from map			
Horiz coord refsy		NAD83	Vert measure val:	160.00	
Vert measure un		feet	Vertacc measure val:	10	
Vert accmeasure	units:	feet			
Vertcollection me	athod:	Interpolated from topograp	nic map		
Vert coord refsys	5:	NGVD29	Countrycode:	US	
Aquifername:		Mississippi embayment aqı	uifer system		
Formation type:		Cockfield Formation of Clai			
Aquifer type:		Not Reported			
Construction date	e:	19810901	Welldepth:	72	
Welldepth units: Wellholedepth ur	nits:	ft ft	Wellholedepth:	80	
Cround water les	iola Numb	er of Measurements: 1			
	et below	Feet to			
	irface	Sealevel			
Date Su					
1981-09-01 21	.14				
4 SE				FED USGS	USGS400004138
/2 - 1 Mile ligher					
Org. Identifier:		USGS-LA			
Formal name:		USGS Louisiana Water Sc	ience Center		
Monloc Identifier	:	USGS-323007092202201			
Monloc name:		Ou- 528			
		Well			
Monloc type:		Not Reported			
Monloc type: Monloc desc:			Drainagearea value:	Not Reported	
••		08040207	Drainagearea value.	Not Keponeu	
Monloc desc:	nits:	08040207 Not Reported	Contrib drainagearea:	Not Reported	
Monloc desc: Huc code:		Not Reported	5		

Horiz Acc me	easure:	1	Horiz Acc measure units:	seconds		
Horiz Collect	tion method:	Interpolated from map				
Horiz coord	refsys:	NAD83	Vert measure val:	160.00		
Vert measur	e units:	feet	Vertacc measure val:	10		
Vert accmeasure units: Vertcollection method: Vert coord refsys: Aquifername:		feet				
		Interpolated from topograp				
		NGVD29	Countrycode:	US		
		Mississippi embayment a	quifer system			
Formation ty		Cockfield Formation of Cla				
Aquifer type:		Not Reported	·			
Construction		19810730	Welldepth:	55		
Welldepth ur	nits:	ft	Wellholedepth:	59		
Wellholedep		ft	•			
Date	Surface	Sealevel				
1981-07-31	24.27					
25 SE /2 - 1 Mile				LA WELLS	LATD40000055281	
ligher						
Water wel1:		464433				
Water wel2:		073-530	State code:	22		
Parish num:		073	Local well:	530		
Identifica:		323008092202101	Latitude:	323008		
Longitude:		922021	Sequence n:	01		

Owners nam: Well use: Date compl: Available : Revised la: Elec log: Mechanic a: Bio analys: Avail info: Drillers 2: Township: Hole depth: Quad num: Date measu: Date of ad: Date plugg: Plugged b2: Drawdown: Casing mat: Screen int: Owners num: Latitude m: Latitude s: Longitude1: Longitude3:

0

0

Not Reported

Well depth: U S GEOL SURVEY 0 Well subus: Geologic u: 09/81 Driller Log, Quality of Water, Water Level Not Reported Revised lo: Not Reported Drill log: Not Reported Chem analy: Not Reported Pump test: w Drillers 1: 002 Section: 18N Range: Elevation: 80 034D Water leve: 09/01/81 Source of : 1998-10-23 Date regis: Not Reported Plugged b1: Not Reported Yield: Not Reported METAL Casing di1: Screen di1: 69-72 Serial num: 5 Latitude d: 0

Longitude2:

72 D 124CCKF Not Reported D Q Not Reported U.S.G.S. 035 01E 160 21.14 А Not Reported Not Reported Not Reported 1.25 1.25 Not Reported 0

0

Comments: Create dat: Update dat: Parish cod: Owner stat: Industria2: Public su2: Extension1: Extension3: Gravel pac: Diameter o: Site zip: Remarks: Authorize1: Heat pump1: Heat pump2: Location m: Location c: Slot lengt: Inspector: Inspector : Inspection: Pump motor: Pump plan2: Pump rate: Pump hour1: Pump stati: Pump groun: X longdd: Y latdd: Pump down : Pa remarks: Pa signat1: Pa details: Casing di2: Contact: Screen di2: Wwo seq nu: Screen di3: Aquifer na: Use descri: Well statu:

WELL DESTROYED SEE U	JSGS FIELD REPORT DATE	D 07/27/98.
2010 720	Create use:	SONRIS_DBA
2012 130	Update use:	SONRIS_DBA
37	Industria1:	Not Reported
Not Reported	Replacemen:	Not Reported
Not Reported	Public su1:	Not Reported
Not Reported	Pumpdown c:	Not Reported
Not Reported	Extension2:	Not Reported
Not Reported	Screen typ:	Not Reported
N	Ground eve:	Not Reported
Not Reported	Site city:	Not Reported
Not Reported	Site addre:	Not Reported
Not Reported		
Not Reported 0	Authorize2:	0
Not Reported 0	Location I:	Not Reported
Not Reported	Cemented f:	Not Reported
Not Reported	Slot size:	Not Reported
Not Reported		
Not Reported		
0	Pump setti:	Not Reported
Not Reported	Pump plan1:	0
0	Pump plan3:	Not Reported
Not Reported	Yield meas:	Not Reported
0	Pump hour2:	0
Not Reported	Pump deter:	Not Reported
Not Reported	Pump test :	0
-92.33916667	•	
32.50222222		
Not Reported		
Not Reported		
Not Reported	Pa signat2:	0
Not Reported	-	
Not Reported	Casing len:	Not Reported
Not Reported	Casing di3:	Not Reported
Not Reported	-	
0		
Not Reported	Parish nam:	OUACHITA
COCKFIELD AQUIFER		
destroyed observation		
Destroyed	Site id:	LATD40000055281

# l26 SSE 1/2 - 1 Mile Higher

Water wel1: Water wel2: Parish num: Identifica: Longitude: Owners nam: Well use: Date compl: Available : Revised la:

LATD40000198173 LA WELLS

073-528	State code:
073	Local well:
323007092202201	Latitude:
922022	Sequence n:
U S GEOL SURVEY	Well depth:
0	Well subus:
07/81	Geologic u:
Driller Log, Quality of Water, V	Water Level
Not Reported	Revised lo:

464431

Not Reported

Elec log: Mechanic a: Bio analys: Avail info: Drillers 2: Township: Hole depth: Quad num: Date measu: Date of ad: Date plugg: Plugged b2: Drawdown: Casing mat: Screen int: Owners num: Latitude m: Latitude s: Longitude1: Longitude3: Comments: Create dat: Update dat: Parish cod: Owner stat: Industria2: Public su2: Extension1: Extension3: Gravel pac: Diameter o: Site zip: Remarks: Authorize1: Heat pump1: Heat pump2: Location m: Location c: Slot lengt: Inspector: Inspector : Inspection: Pump motor: Pump plan2: Pump rate: Pump hour1: Pump stati: Pump groun: X longdd: Y latdd: Pump down : Pa remarks: Pa signat1: Pa details: Casing di2: Contact: Screen di2: Wwo seq nu: Screen di3: Aquifer na:

Not Reported	Drill log:	D
Not Reported	Chem analy:	Q
Not Reported	Pump test:	Not Reported
W	Drillers 1:	U.S.G.S.
002	Section:	035
18N	Range:	01E
59	Elevation:	160
034D	Water leve:	24.27
07/31/81	Source of :	A
1998-10-23	Date regis:	Not Reported
	-	Not Reported
Not Reported	Plugged b1:	•
Not Reported	Yield:	3
Not Reported	Casing di1:	1.25
METAL	Screen di1:	1.25
52-55	Serial num:	Not Reported
3	Latitude d:	0
0		
0		
0	Longitude2:	0
Not Reported	-	
WELL DESTROYED SEE USGS	FIELD REPORT DATED 07/27	/98.
2010 720	Create use:	SONRIS_DBA
2012 130	Update use:	SONRIS DBA
37	Industria1:	Not Reported
Not Reported	Replacemen:	Not Reported
Not Reported	Public su1:	Not Reported
Not Reported	Pumpdown c:	Not Reported
Not Reported	Extension2:	Not Reported
Not Reported	Screen typ:	Not Reported
N	Ground eve:	Not Reported
Not Reported	Site city:	Not Reported
Not Reported	Site addre:	Not Reported
Not Reported		·
Not Reported	Authorize2:	0
0		-
Not Reported	Location I:	Not Reported
0	Ecolution I.	Not Reported
	Computed fr	Not Reported
Not Reported	Cemented f:	Not Reported
Not Reported	Slot size:	Not Reported
Not Reported		
Not Reported		
0	Pump setti:	Not Reported
Not Reported	Pump plan1:	0
0	Pump plan3:	Not Reported
Not Reported	Yield meas:	Not Reported
0	Pump hour2:	0
Not Reported	Pump deter:	Not Reported
Not Reported	Pump test :	0
-92.33944444		
32.50194444		
Not Reported		
Not Reported		
•	De signat?	0
Not Reported	Pa signat2:	0
Not Reported	<b>.</b>	
Not Reported	Casing len:	Not Reported
Not Reported	Casing di3:	Not Reported
Not Reported		
0		
Not Reported	Parish nam:	OUACHITA
COCKFIELD AQUIFER		

Use descri: Well statu:	destroyed observation Destroyed	Site id:	LATD40000198173	
27 West 1/2 - 1 Mile Higher	,		LA WELLS	1073006001
Site Name:	WELL #2			
Site ID:	001			
Public Water Sys. ID:	1073006	Source:	SPARTA SAND	
Latitude/Longitude:	3230401 / 9221249	Total Depth:	0750	
Diameter:	008	Capacity:	185	
Supply Name:	CALHOUN WATER SYSTEM P. O. BOX 165 CALHOUN, LA 71225			
Parish:	OUACHITA	FIPS County Code:	073	
Owner:	CALHOUN WATER SYSTEM	System Type:	Comm	
Contact1:	RICHARD PUCKETT, PRES./O			
Telephone1:	(318) 644 - 7202			
Contact2:	SAMPLE COLLECTION U.D.S.			
Telephone2:	Not Reported			
J28 West 1/2 - 1 Mile Higher			LA WELLS	LATD4000005475
Water wel1:	464462			
Water wel2:	073-559	State code:	22	
Parish num:	073	Local well:	559	
ldentifica: Longitude:	323035092212701 922127	Latitude: Sequence n:	323035 01	
Owners nam:	CALHOUN WTR SYS	Well depth:	738	
Well use:	P	Well subus:	730 R	
Date compl:	10/85	Geologic u:	124SPRT	
Available :	Geophysical, Driller Log, Water	-		
Revised la:	323005	Revised lo:	922127	
Elec log:	E	Drill log:	D	
Mechanic a:	Not Reported	Chem analy:	Not Reported	
Bio analys:	Not Reported	Pump test:	Not Reported	
Avail info:	W	Drillers 1:	CONTINENTAL	
Drillers 2:	004	Section:	034	
Township:	18N	Range:	01E	
Hole depth:	750	Elevation:	180	
Quad num:	034D	Water leve: Source of :	247.00	
Date measu:	10/07/85 1994-07-20	Date regis:	D 12/85	
Date of ad:	1004-01-20	Plugged b1:	Not Reported	
Date of ad: Date plugg:	Not Reported		-	
Date plugg:	Not Reported Not Reported		80	
	Not Reported Not Reported 9	Yield:	80 8X4X4	
Date plugg: Plugged b2:	Not Reported			
Date plugg: Plugged b2: Drawdown:	Not Reported 9	Yield: Casing di1:	8X4X4	
Date plugg: Plugged b2: Drawdown: Casing mat:	Not Reported 9 STEEL	Yield: Casing di1: Screen di1:	8X4X4 4	
Date plugg: Plugged b2: Drawdown: Casing mat: Screen int: Owners num: Latitude m:	Not Reported 9 STEEL MULTIPLE 2 0	Yield: Casing di1: Screen di1: Serial num:	8X4X4 4 1073006	
Date plugg: Plugged b2: Drawdown: Casing mat: Screen int: Owners num: Latitude m: Latitude s:	Not Reported 9 STEEL MULTIPLE 2 0 0	Yield: Casing di1: Screen di1: Serial num: Latitude d:	8X4X4 4 1073006 0	
Date plugg: Plugged b2: Drawdown: Casing mat: Screen int: Owners num: Latitude m:	Not Reported 9 STEEL MULTIPLE 2 0	Yield: Casing di1: Screen di1: Serial num:	8X4X4 4 1073006	

Create dat: Update dat: Parish cod: Owner stat: Industria2: Public su2: Extension1: Extension3: Gravel pac: Diameter o: Site zip: Remarks: Authorize1: Heat pump1: Heat pump2: Location m: Location c: Slot lenat: Inspector: Inspector : Inspection: Pump motor: Pump plan2: Pump rate: Pump hour1: Pump stati: Pump groun: X longdd: Y latdd: Pump down : Pa remarks: Pa signat1: Pa details: Casing di2: Contact: Screen di2: Wwo seq nu: Screen di3: Aquifer na: Use descri: Well statu:

2010 720 Create use: 2012 130 Update use: Industria1: 37 Replacemen: Not Reported Not Reported Public su1: Not Reported Pumpdown c: Not Reported Extension2: Not Reported Screen typ: N Ground eve: Not Reported Site city: Not Reported Site addre: Not Reported Not Reported Authorize2: 0 Not Reported Location I: Not Reported Cemented f: Not Reported Slot size: Not Reported Not Reported n Pump setti: Not Reported Pump plan1: Pump plan3: 0 Not Reported Yield meas: Pump hour2: 0 Not Reported Pump deter: Not Reported Pump test : -92.3575 32.50972222 Not Reported Not Reported Not Reported Pa signat2: Not Reported Not Reported Casing len: Not Reported Casing di3: Not Reported 0 Not Reported Parish nam: SPARTA AQUIFER rural public supply Site id: Active

J29 West 1/2 - 1 Mile Higher

> Water wel1: Water wel2: Parish num: Identifica: Longitude: Owners nam: Well use: Date compl: Available : Revised la:

#### 464317 073-418 State code: 073 Local well: 323035092212801 Latitude: Sequence n: 922128 CALHOUN WTR SYS Well depth: Well subus: Ρ 1965 Geologic u: Geophysical, Driller Log, Quality of Water, Water Level Not Reported Revised lo:

SONRIS\_DBA SONRIS DBA

Not Reported

OUACHITA

LATD40000054755

0

0

Ω

0

0

Not Reported

LA WELLS LATD40000055579

Elec log: Mechanic a: Bio analys: Avail info: Drillers 2: Township: Hole depth: Quad num: Date measu: Date of ad: Date plugg: Plugged b2: Drawdown: Casing mat: Screen int: Owners num: Latitude m: Latitude s: Longitude1: Longitude3: Create dat: Update dat: Parish cod: Owner stat: Industria2: Public su2: Extension1: Extension3: Gravel pac: Diameter o: Site zip: Remarks: Authorize1: Heat pump1: Heat pump2: Location m: Location c: Slot lengt: Inspector: Inspector : Inspection: Pump motor: Pump plan2: Pump rate: Pump hour1: Pump stati: Pump groun: X longdd: Y latdd: Pump down : Pa remarks: Pa signat1: Pa details: Casing di2: Contact: Screen di2: Wwo seq nu: Screen di3: Aquifer na:

Е Not Reported Not Reported W 000 18N 670 034D 11/08/65 1996-10-17 Not Reported Not Reported 20 METAL 604-654 1 0 0 0 Not Reported 2010 720 2012 130 37 Not Reported Not Reported Not Reported Not Reported Not Reported Ν Not Reported Not Reported Not Reported Not Reported 0 Not Reported ٥ Not Reported Not Reported Not Reported Not Reported 0 Not Reported 0 Not Reported 0 Not Reported Not Reported -92.35777778 32.50972222 Not Reported 0 Not Reported SPARTA AQUIFER Drill log: Chem analy: Pump test: Drillers 1: Section: Range: Elevation: Water leve: Source of : Date regis: Plugged b1: Yield: Casing di1: Screen di1: Serial num: Latitude d: Longitude2: Create use: Update use: Industria1: Replacemen: Public su1: Pumpdown c: Extension2: Screen typ: Ground eve: Site city: Site addre: Authorize2: Location I: Cemented f: Slot size: Pump setti: Pump plan1: Pump plan3: Yield meas: Pump hour2: Pump deter: Pump test : Pa signat2: Casing len: Casing di3:

Parish nam:

Q Not Reported EDINGTON DRLG 027 01E 185 206.00 z 11/77 Not Reported 65 7X3 3 1073006 0 0 SONRIS DBA SONRIS\_DBA Not Reported 0 Not Reported Not Reported Not Reported Not Reported 0 Not Reported Not Reported 0 Not Reported 0 0 Not Reported Not Reported

D

OUACHITA

Use descri: Well statu:		rural public supply Active	Site id:	LATD40000055579	
30					
Vest				FED USGS	USGS400004139
/2 - 1 Mile ligher					
Org. Identifier:		USGS-LA			
Formal name:		USGS Louisiana Water Science	Center		
Monloc Identifier:		USGS-323035092212801			
Monloc name:		Ou- 418			
Monloc type:		Well			
Monloc desc:		SWUDS Well,May-2005			
Huc code:		08040207	Drainagearea value:	Not Reported	
Drainagearea Uni		Not Reported	Contrib drainagearea:	Not Reported	
Contrib drainagea	rea units:		Latitude:	32.5098692	
Longitude:		-92.3579188	Sourcemap scale:	62500	
Horiz Acc measur		1	Horiz Acc measure units:	seconds	
Horiz Collection m		Interpolated from map			
Horiz coord refsys		NAD83	Vert measure val:	185.00	
Vert measure unit		feet	Vertacc measure val:	10	
Vert accmeasure		feet			
Vertcollection met		Interpolated from topographic m			
Vert coord refsys:		NGVD29	Countrycode:	US	
Aquifername:		Mississippi embayment aquifer s	system		
Formation type:		Sparta Sand			
Aquifer type:		Confined single aquifer		054	
Construction date	:	19650101	Welldepth:	654	
Welldepth units:		ft	Wellholedepth:	670	
Wellholedepth un	its:	ft			
		er of Measurements: 1			
Fee	et below	Feet to			
Date Sur	face	Sealevel			
1965-11-08 206	6.00				
31				LA WELLS	1073006002
lest					
lest 2 - 1 Mile					
/est /2 - 1 Mile		WELL #1			
/est /2 - 1 Mile igher		WELL #1 002			
/est /2 - 1 Mile igher Site Name:	. ID:		Source:	SPARTA	
vest /2 - 1 Mile igher Site Name: Site ID:		002	Source: Total Depth:	SPARTA 0640	
<b>/est</b> /2 - 1 Mile igher Site Name: Site ID: Public Water Sys		002 1073006			
Vest /2 - 1 Mile ligher Site Name: Site ID: Public Water Sys Latitude/Longitud		002 1073006 3230350 / 9221281	Total Depth:	0640	
Site ID: Public Water Sys Latitude/Longitud Diameter:		002 1073006 3230350 / 9221281 006	Total Depth:	0640	
Vest /2 - 1 Mile ligher Site Name: Site ID: Public Water Sys Latitude/Longitud Diameter:		002 1073006 3230350 / 9221281 006 CALHOUN WATER SYSTEM P. O. BOX 165	Total Depth:	0640	
<b>Jest</b> <b>i2 - 1 Mile</b> <b>igher</b> Site Name: Site ID: Public Water Sys Latitude/Longitud Diameter:		002 1073006 3230350 / 9221281 006 CALHOUN WATER SYSTEM	Total Depth:	0640	
Vest /2 - 1 Mile ligher Site Name: Site ID: Public Water Sys Latitude/Longitud Diameter: Supply Name:		002 1073006 3230350 / 9221281 006 CALHOUN WATER SYSTEM P. O. BOX 165 CALHOUN, LA 71225	Total Depth: Capacity:	0640 84	
Vest /2 - 1 Mile ligher Site Name: Site ID: Public Water Sys Latitude/Longitud Diameter: Supply Name: Parish:		002 1073006 3230350 / 9221281 006 CALHOUN WATER SYSTEM P. O. BOX 165 CALHOUN, LA 71225 OUACHITA CALHOUN WATER SYSTEM	Total Depth: Capacity: FIPS County Code: System Type:	0640 84 073	
Vest /2 - 1 Mile igher Site Name: Site ID: Public Water Sys Latitude/Longitud Diameter: Supply Name: Parish: Owner:		002 1073006 3230350 / 9221281 006 CALHOUN WATER SYSTEM P. O. BOX 165 CALHOUN, LA 71225 OUACHITA	Total Depth: Capacity: FIPS County Code: System Type:	0640 84 073	
Vest /2 - 1 Mile igher Site Name: Site ID: Public Water Sys Latitude/Longitud Diameter: Supply Name: Parish: Owner: Contact1:		002 1073006 3230350 / 9221281 006 CALHOUN WATER SYSTEM P. O. BOX 165 CALHOUN, LA 71225 OUACHITA CALHOUN WATER SYSTEM RICHARD PUCKETT, PRES./O	Total Depth: Capacity: FIPS County Code: System Type: PERATR	0640 84 073	

diam'r

istance levation				Database	EDR ID Number
32					
5 2 - 1 Mile				FED USGS	USGS4000041385
igher Org. Identifier	<b>.</b> .	USGS-LA			
Formal name		USGS Louisiana Water So	sience Center		
Monloc Identi		USGS-323001092200801			
Monloc name		Ou- 527			
Monloc type:		Well			
Monloc desc:		Not Reported			
Huc code:		08040207	Drainagearea value:	Not Reported	
Drainagearea	units:	Not Reported	Contrib drainagearea:	Not Reported	
Contrib draina	agearea units:	Not Reported	Latitude:	32.5004247	
Longitude:		-92.335696	Sourcemap scale:	62500	
Horiz Acc me	asure:	1	Horiz Acc measure units:	seconds	
Horiz Collecti		Interpolated from map			
Horiz coord re	•	NAD83	Vert measure val:	180.00	
Vert measure		feet	Vertacc measure val:	10	
Vert accmeas		feet			
Vertcollection		Interpolated from topograp	•		
Vert coord re		NGVD29	Countrycode:	US	
Aquifername:		Mississippi embayment ac			
Formation typ	be:	Cockfield Formation of Cla	alborne Group		
Aquifer type:		Not Reported		00	
Construction		19810729	Welldepth:	88 91	
Welldepth un Wellholedept		ft ft	Wellholedepth:	91	
	r levels, Numb Feet below	Feet to			
Date	Feet below Surface	Sealevel			
Date  1981-07-31	Feet below Surface	Sealevel			
 1981-07-31 33	Feet below Surface	Sealevel			
1981-07-31 3 2 - 1 Mile	Feet below Surface	Sealevel		LA WELLS	
1981-07-31 13 2 - 1 Mile gher	Feet below Surface	Sealevel		LA WELLS	LATD4000019272
1981-07-31 3 2 - 1 Mile gher Water wel1:	Feet below Surface	Sealevel 464430	State code:		LATD4000019272
1981-07-31 3 2 - 1 Mile gher Water wel1: Water wel2:	Feet below Surface	Sealevel 464430 073-527	State code:	22	LATD4000019272
1981-07-31 <b>3</b> <b>2 - 1 Mile</b> <b>gher</b> Water wel1: Water wel2: Parish num:	Feet below Surface	Sealevel 464430 073-527 073	Local well:	22 527	LATD4000019272
1981-07-31 3 2 - 1 Mile gher Water wel1: Water wel2: Parish num: Identifica:	Feet below Surface	Sealevel 464430 073-527 073 323001092200801	Local well: Latitude:	22 527 323001	LATD4000019272
1981-07-31 33 2 - 1 Mile gher Water wel1: Water wel2: Parish num: Identifica: Longitude:	Feet below Surface 53.35	Sealevel 464430 073-527 073 323001092200801 922008	Local well: Latitude: Sequence n:	22 527 323001 01	LATD4000019272
1981-07-31 33 2 - 1 Mile gher Water wel1: Water wel2: Parish num: Identifica: Longitude: Owners nam:	Feet below Surface 53.35	Sealevel 464430 073-527 073 323001092200801 922008 U S GEOL SURVEY	Local well: Latitude: Sequence n: Well depth:	22 527 323001 01 88	LATD4000019272
1981-07-31 33 2 - 1 Mile gher Water wel1: Water wel2: Parish num: Identifica: Longitude: Owners nam: Well use:	Feet below Surface 53.35	Sealevel 464430 073-527 073 323001092200801 922008 U S GEOL SURVEY O	Local well: Latitude: Sequence n: Well depth: Well subus:	22 527 323001 01 88 D	
1981-07-31 33 2 2 - 1 Mile gher Water wel2: Parish num: Identifica: Longitude: Owners nam: Well use: Date compl:	Feet below Surface 53.35	Sealevel 464430 073-527 073 323001092200801 922008 U S GEOL SURVEY O 07//81	Local well: Latitude: Sequence n: Well depth: Well subus: Geologic u:	22 527 323001 01 88	
1981-07-31 33 2 - 1 Mile gher Water wel1: Water wel2: Parish num: Identifica: Longitude: Owners nam: Well use:	Feet below Surface 53.35	Sealevel 464430 073-527 073 323001092200801 922008 U S GEOL SURVEY O	Local well: Latitude: Sequence n: Well depth: Well subus: Geologic u:	22 527 323001 01 88 D	
1981-07-31 33 2 - 1 Mile gher Water wel2: Parish num: Identifica: Longitude: Owners nam: Well use: Date compl: Available :	Feet below Surface 53.35	Sealevel 464430 073-527 073 323001092200801 922008 U S GEOL SURVEY O 07/81 Driller Log, Quality of Wat	Local well: Latitude: Sequence n: Well depth: Well subus: Geologic u: er, Water Level	22 527 323001 01 88 D 124CCKF	
1981-07-31 2 - 1 Mile gher Water wel2: Parish num: Identifica: Longitude: Owners nam: Well use: Date compl: Available : Revised la:	Feet below Surface 53.35	Sealevel 464430 073-527 073 323001092200801 922008 U S GEOL SURVEY O 07/81 Driller Log, Quality of Wat Not Reported	Local well: Latitude: Sequence n: Well depth: Well subus: Geologic u: er, Water Level Revised lo:	22 527 323001 01 88 D 124CCKF Not Reported	
1981-07-31 33 2 - 1 Mile gher Water wel1: Water wel2: Parish num: Identifica: Longitude: Owners nam: Well use: Date compl: Available : Revised la: Elec log:	Feet below Surface 53.35	464430 073-527 073 323001092200801 922008 U S GEOL SURVEY O 07/81 Driller Log, Quality of Wat Not Reported Not Reported	Local well: Latitude: Sequence n: Well depth: Well subus: Geologic u: er, Water Level Revised lo: Drill log:	22 527 323001 01 88 D 124CCKF Not Reported D	
1981-07-31 <b>33</b> <b>2 - 1 Mile</b> <b>gher</b> Water wel1: Water wel2: Parish num: Identifica: Longitude: Owners nam: Well use: Date compl: Available : Revised la: Elec log: Mechanic a:	Feet below Surface 53.35	464430 073-527 073 323001092200801 922008 U S GEOL SURVEY O 07/81 Driller Log, Quality of Wat Not Reported Not Reported Not Reported	Local well: Latitude: Sequence n: Well depth: Well subus: Geologic u: er, Water Level Revised lo: Drill log: Chem analy:	22 527 323001 01 88 D 124CCKF Not Reported D Q	
1981-07-31 33 2 - 1 Mile gher Water wel1: Water wel2: Parish num: Identifica: Longitude: Owners nam: Well use: Date compl: Available : Revised la: Elec log: Mechanic a: Bio analys:	Feet below Surface 53.35	464430 073-527 073 323001092200801 922008 U S GEOL SURVEY O 07/81 Driller Log, Quality of Wat Not Reported Not Reported Not Reported Not Reported Not Reported	Local well: Latitude: Sequence n: Well depth: Well subus: Geologic u: er, Water Level Revised lo: Drill log: Chem analy: Pump test:	22 527 323001 01 88 D 124CCKF Not Reported D Q Not Reported	
1981-07-31 33 2 - 1 Mile gher Water wel1: Water wel2: Parish num: Identifica: Longitude: Owners nam: Well use: Date compl: Available : Revised la: Elec log: Mechanic a: Bio analys: Avail info:	Feet below Surface 53.35	464430 073-527 073 323001092200801 922008 U S GEOL SURVEY O 07/81 Driller Log, Quality of Wat Not Reported Not Reported Not Reported Not Reported Not Reported W	Local well: Latitude: Sequence n: Well depth: Well subus: Geologic u: er, Water Level Revised lo: Drill log: Chem analy: Pump test: Drillers 1:	22 527 323001 01 88 D 124CCKF Not Reported D Q Not Reported U.S.G.S. 035 01E	
1981-07-31 33 2 - 1 Mile gher Water wel1: Water wel2: Parish num: Identifica: Longitude: Owners nam: Well use: Date compl: Available : Revised la: Elec log: Mechanic a: Bio analys: Avail info: Drillers 2: Township: Hole depth:	Feet below Surface 53.35	464430 073-527 073 323001092200801 922008 U S GEOL SURVEY O 07/81 Driller Log, Quality of Wat Not Reported Not Reported Not Reported Not Reported Not Reported Not Reported W 002	Local well: Latitude: Sequence n: Well depth: Well subus: Geologic u: er, Water Level Revised lo: Drill log: Chem analy: Pump test: Drillers 1: Section:	22 527 323001 01 88 D 124CCKF Not Reported D Q Not Reported U.S.G.S. 035	
1981-07-31 1981-07-31 2 - 1 Mile gher Water wel1: Water wel2: Parish num: Identifica: Longitude: Owners nam: Well use: Date compl: Available : Revised la: Elec log: Mechanic a: Bio analys: Avail info: Drillers 2: Township:	Feet below Surface 53.35	Sealevel 464430 073-527 073 323001092200801 922008 U S GEOL SURVEY O 07/81 Driller Log, Quality of Wat Not Reported Not Re	Local well: Latitude: Sequence n: Well depth: Well subus: Geologic u: er, Water Level Revised lo: Drill log: Chem analy: Pump test: Drillers 1: Section: Range:	22 527 323001 01 88 D 124CCKF Not Reported D Q Not Reported U.S.G.S. 035 01E	
1981-07-31 33 2 - 1 Mile gher Water wel1: Water wel2: Parish num: Identifica: Longitude: Owners nam: Well use: Date compl: Available : Revised la: Elec log: Mechanic a: Bio analys: Avail info: Drillers 2: Township: Hole depth:	Feet below Surface 53.35	464430 073-527 073 323001092200801 922008 U S GEOL SURVEY O 07/81 Driller Log, Quality of Wat Not Reported Not Reported No	Local well: Latitude: Sequence n: Well depth: Well subus: Geologic u: er, Water Level Revised lo: Drill log: Chem analy: Pump test: Drillers 1: Section: Range: Elevation:	22 527 323001 01 88 D 124CCKF Not Reported D Q Not Reported U.S.G.S. 035 01E 180	LATD4000019272

Date regis:

Date of ad:

1998-10-23

Not Reported

Date plugg: Plugged b2: Drawdown: Casing mat: Screen int: Owners num: Latitude m: Latitude s: Longitude1: Longitude3: Comments: Create dat: Update dat: Parish cod: Owner stat: Industria2: Public su2: Extension1: Extension3: Gravel pac: Diameter o: Site zip: . Remarks: Authorize1: Heat pump1: Heat pump2: Location m: Location c: Slot lengt: Inspector: Inspector : Inspection: Pump motor: Pump plan2: Pump rate: Pump hour1: Pump stati: Pump groun: X longdd: Y latdd: Pump down : Pa remarks: Pa signat1: Pa details: Casing di2: Contact: Screen di2: Wwo seq nu: Screen di3: Aquifer na: Use descri: Well statu:

Not Reported	Plugged b1:	Not Reported
Not Reported	Yield:	Not Reported
Not Reported	Casing di1:	2
METAL	Screen di1:	2
83-88	Serial num:	Not Reported
2	Latitude d:	0
0		•
õ		
0	Longitude2:	0
Not Reported	Eonghadoz.	v
WELL DESTROYEDSEE USGS	FIELD REPORT DATED 07/27	198
2010 720	Create use:	SONRIS_DBA
2012 130	Update use:	SONRIS DBA
37	Industria1:	Not Reported
Not Reported	Replacemen:	Not Reported
Not Reported	Public su1:	Not Reported
Not Reported	Pumpdown c:	Not Reported
Not Reported	Extension2:	Not Reported
	Screen typ:	Not Reported
Not Reported N	Ground eve:	Not Reported
	Site city:	Not Reported
Not Reported	Site addre:	
Not Reported	Sile addre.	Not Reported
Not Reported	Authorize2:	0
Not Reported	Autionzez.	U
0 Not Deported	Location I:	Not Reported
Not Reported	Location I.	Not Reported
0 Not Deported	Cemented f:	Not Reported
Not Reported	Slot size:	•
Not Reported	Siot size.	Not Reported
Not Reported		
Not Reported	Dump activ	Not Doported
0 Not Deported	Pump setti:	Not Reported 0
Not Reported	Pump plan1:	
0 Not Dependent	Pump plan3:	Not Reported
Not Reported	Yield meas:	Not Reported
0 Not Dependent	Pump hour2:	0 Not Reported
Not Reported	Pump deter:	Not Reported 0
Not Reported	Pump test :	U
-92.33555556		
32.50027778		
Not Reported		
Not Reported		0
Not Reported	Pa signat2:	U
Not Reported	Casing land	Not Donortod
Not Reported	Casing len:	Not Reported
Not Reported	Casing di3:	Not Reported
Not Reported		
	Desiste a same	
Not Reported	Parish nam:	OUACHITA
COCKFIELD AQUIFER		
destroyed observation	Cite id:	
Destroyed	Site id:	LATD40000192721

34 NNW 1/2 - 1 Mile Higher

LA WELLS LATD40000197990

Water wel1: Water wel2: Parish num: Identifica: Longitude: Owners nam: Well use: Date compl: Available : Revised la: Elec log: Mechanic a: Bio analys: Avail info: Drillers 2: Township: Hole depth: Quad num: Date measu: Date of ad: Date plugg: Plugged b2: Drawdown: Casing mat: Screen int: Owners num: Latitude m: Latitude s: Longitude1: Longitude3: Create dat: Update dat: Parish cod: Owner stat: Industria2: Public su2: Extension1: Extension3: Gravel pac: Diameter o: Site zip: Remarks: Authorize1: Heat pump1: Heat pump2: Location m: Location c: Slot lengt: Inspector: Inspector : Inspection: Pump motor: Pump plan2: Pump rate: Pump hour1: Pump stati: Pump groun: X longdd: Y latdd:

464700 073-5113Z 073 323131092205201 922052 SAWYER DRLG s 01/86 Driller Log Not Reported Not Reported Not Reported Not Reported Not Reported 006 18N 545 034D Not Reported 1996-10-17 05/87 208 Not Reported PLASTIC 505-545 BOYD 1 0 0 0 Not Reported 2010 720 2012 130 37 Not Reported Not Reported Not Reported Not Reported Not Reported Ν Not Reported Not Reported Not Reported Not Reported ۵ Not Reported ۵ Not Reported Not Reported Not Reported Not Reported 0 Not Reported 0 Not Reported n Not Reported Not Reported -92.34777778 32.52527778

State code: Local well: Latitude: Sequence n: Well depth: Well subus: Geologic u: Revised lo: Drill log: Chem analy: Pump test: Drillers 1: Section: Range: Elevation: Water leve: Source of : Date regis: Plugged b1: Yield: Casing di1: Screen di1: Serial num: Latitude d: Longitude2: Create use: Update use: Industria1: Replacemen: Public su1: Pumpdown c: Extension2: Screen typ: Ground eve: Site city: Site addre: Authorize2: Location I: Cemented f: Slot size: Pump setti: Pump plan1: Pump plan3: Yield meas: Pump hour2: Pump deter: Pump test :

22 5113Z 323131 01 545 PA 124SPRT Not Reported D Not Reported Not Reported TALLEY, JOHN L. 022 01E 165 0.00 Not Reported 09/86 SCRUGGS, INC. Not Reported 4 4 Not Reported 0 0 SONRIS DBA SONRIS DBA Not Reported Not Reported

#### 0

0

Not Reported

Not Reported Not Reported

Not Reported

Not Reported Not Reported

Not Reported

Pump down : Pa remarks: Pa signat1: Pa details: Casing di2: Contact: Screen di2: Wwo seq nu: Screen di3: Aquifer na: Use descri: Well statu: Not ReportedNot ReportedNot ReportedPa signat2:Not ReportedCasing len:Not ReportedCasing di3:Not Reported0Not ReportedParish nam:SPARTA AQUIFERplugged and abandoned rig supplyPlugged and AbandondedSite id:

0

Not Reported Not Reported

OUACHITA

LATD40000197990

## Map ID

stance			Database	EDR ID Numbe
1 outh 4 - 1/2 Mile			OIL_GAS	LAOG9000016394
Objectid: Wic line id: Received date: Lambert y: Create date: Update date: Coordinate sourc: Ground elevation: Longmin: Latsec: Latdeg: Longdd: G utmx: Glaty: Column28: Calcglongx: Calcglongx: Site id:	163941 1 01-APR-1997 668575 02-MAY-1999 06-OCT-2009 03 Not Reported 0 0 Not Reported 561682.404720977 32.5047172193416 Not Reported -92.3433511264348 32.5047172193416 LAOG90000163941	Well serial num: Coordinate syste: Lambert x: Zone : Create username: Update username: Coordinate prior: Longsec: Longdeg: Latmin: Latdd: Coordval: G utmy: Glongx:	220262 01 2048343 N CONVALL OPS\$OOC Not Reported 0 0 Not Reported 17 3596571.96748336 -92.3433511264348	
2 outh 4 - 1/2 Mile			OIL_GAS	LAOG9000022019
Objectid: Wic line id: Received date: Lambert y: Create date: Update date: Coordinate sourc: Ground elevation: Longmin: Latsec: Latdeg: Longdd: G utmx: Glaty: Column28: Calcglongx: Calcglaty: Site id:	220196 2 07-OCT-2003 668525 08-OCT-2003 24-NOV-2011 05 135.6 Not Reported Not Reported Not Reported 92.34299 561703.311031061 32.504556320469 Not Reported -92.3431297386379 32.504556320469 LAOG90000220196	Well serial num: Coordinate syste: Lambert x: Zone : Create username: Update username: Coordinate prior: Longsec: Longdeg: Latmin: Latdd: Coordval: G utmy: Glongx:	220262 01 2048407 N SONRIS_DBA CON_USER 1 Not Reported Not Reported Not Reported 32.50441 9 3596554.25912662 -92.3431297386379	

OIL\_GAS LAOG90000050391

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Objectid: Wic line id: Received date: Lambert y: Create date: Update date: Coordinate sourc: Ground elevation: Longmin: Latsec: Latdeg: Longdd: G utmx: Glaty: Column28: Calcglongx: Calcglaty: Site id:

50391 1 01-DEC-1976 673107 02-MAY-1999 24-NOV-2011 03 Not Reported 20 1.199 32 Not Reported 562069.378558892 32.5171454826346 Not Reported -92.3391406933781 32.5171454826346 LAOG90000050391 Well serial num: Coordinate syste: Lambert x: Zone : Create username: Update username: Coordinate prior: Longsec: Longdeg: Latmin: Latdd: Coordval: G utmy: Glongx:

76701 01 2049630 Ν CONVALL CON\_USER 1 20.399 92 31 Not Reported 17 3597952.14094898 -92.3391406933781

### **B**5 NE 1/2 - 1 Mile

Objectid: Wic line id: Received date: Lambert y: Create date: Update date: Coordinate sourc: Ground elevation: Longmin: Latsec: Latdeg: Longdd: G utmx: Glaty: Column28: Calcolongx: Calcglaty: Site id:

85806 1 01-DEC-1972 673107 02-MAY-1999 24-NOV-2011 03 Not Reported 20 1.199 32 Not Reported 562125,748173075 32.5171447176142 Not Reported -92.338540536998 32.5171447176142 LAOG9000085806

#### Well serial num: Coordinate syste: Lambert x: Zone : Create username: Update username: Coordinate prior: Longsec: Longdeg: Latmin: Latdd: Coordval: G utmy: Glongx:

LAOG9000085806

2049815 CONVALL CON\_USER Not Reported 17 3597952.40591277 -92.338540536998

OIL\_GAS

B4 NE 1/2 - 1 Mile

Objectid: WIc line id: Received date: Lambert v: Create date: Update date: Coordinate sourc: Ground elevation: Longmin: Latsec:

1 01-DEC-1972 673107 02-MAY-1999 24-NOV-2011 03 Not Reported 20 1.199

49006

Well serial num: Coordinate syste: Lambert x: Zone : Create username: Update username: Coordinate prior: Longsec: Longdeg: Latmin:

### OIL\_GAS

LAOG90000049006

01 2049815 Ν CONVALL CON\_USER 18.239 92 31

74245

Latdeg: Longdd: G utmx: Glaty: Column28: Calcglongx: Calcglaty: Site id:

32 Not Reported 562125.748173075 32.5171447176142 Not Reported -92.338540536998 32.5171447176142 LAOG90000049006 Latdd: Coordval: G utmy: Glongx:

Not Reported 17 3597952.40591277 -92.338540536998

#### 6 ŵsw 1/2 - 1 Mile

Objectid: Wic line id: Received date: Lambert y: Create date: Update date: Coordinate sourc: Ground elevation: Longmin: Latsec: Latdeg: Longdd: G utmx: Glaty: Column28: Calcglongx: Calcglaty: Site id:

#### 01-DEC-1972 669826 02-MAY-1999 24-NOV-2011 03 Not Reported 21 28.8 32 Not Reported 560732.189915271 32.5081446627789 Not Reported -92.3534420609526

32.5081446627789 LAOG90000055503

55503

#### Well serial num: Coordinate syste: Lambert x: Zone : Create username: Update username: Coordinate prior: Longsec: Longdeg: Latmin: Latdd: Coordval: G utmy: Glongx:

## OIL\_GAS

LAOG90000055503

83553 01 2045226 Ν CONVALL CON\_USER 1 11.879 92 30 Not Reported 17 3596946.12123751 -92.3534420609526

### C7 SSE

1/2 - 1 Mile Objectid:

WIc line id: Received date: Lambert y: Create date: Update date: Coordinate sourc: Ground elevation: Longmin: Latsec: Latdeg: Longdd: G utmx: Glaty: Column28: Calcglongx: Calcglaty: Site id:

47624 1 01-DEC-1976 667686 02-MAY-1999 24-NOV-2011 03 Not Reported 20 7.559 32 Not Reported 562117.081350713 32.5022447020809 Not Reported -92,3387418968918 32.5022447020809 LAOG90000047624

#### Well serial num: Coordinate syste: Lambert x: Zone ' Create username: Update username: Coordinate prior: Longsec: Longdeg: Latmin: Latdd: Coordval: G utmy: Glongx:

OIL\_GAS

LAOG90000047624

73298 01 2049761 Ν CONVALL CON\_USER 1 18.959 92 30 Not Reported 17 3596300.55396988 -92.3387418968918

# Map ID Direction Distance

### Database

### EDR ID Number

## C8

"Version"

inconeed.

C8 SSE 1/2 - 1 Mile			OIL_GAS	LAOG90000048057
Objectid: Wic line id: Received date: Lambert y: Create date: Update date: Coordinate sourc: Ground elevation: Longmin: Latsec: Latdeg: Longdd: G utmx: Glaty: Column28: Calcglongx:	48057 1 01-NOV-1977 667686 02-MAY-1999 24-NOV-2011 03 Not Reported 20 7.559 32 Not Reported 562117.081350713 32.5022447020809 Not Reported -92.3387418968918	Well serial num: Coordinate syste: Lambert x: Zone : Create username: Update username: Coordinate prior: Longsec: Longdeg: Latmin: Latdd: Coordval: G utmy: Glongx:	74812 01 2049761 N CONVALL CON_USER 1 18.959 92 30 Not Reported 17 3596300.55396988 -92.3387418968918	
Calcglaty: Site id:	32.5022447020809 LAOG90000048057			
D9 WNW 1/2 - 1 Mile			OIL_GAS	LAOG90000050262
Objectid: Wic line id: Received date: Lambert y: Create date: Update date: Coordinate sourc: Ground elevation: Longmin: Latsec: Latdeg: Longdd: G utmx: Glaty: Column28: Calcglongx: Calcglaty:	50262 1 01-DEC-1976 672845 02-MAY-1999 24-NOV-2011 03 Not Reported 21 58.679 32 Not Reported 560613.89701005 32.5164441296343 Not Reported -92.3546420921209 32.5164441296343	Well serial num: Coordinate syste: Lambert x: Zone : Create username: Update username: Coordinate prior: Longsec: Longdeg: Latmin: Latdd: Coordval: G utmy: Glongx:	77354 01 2044852 N CONVALL CON_USER 1 16.199 92 30 Not Reported 17 3597865.47111409 -92.3546420921209	

D10 WNW 1/2 - 1 Mile

OIL\_GAS LAOG90000052653

Objectid: Wic line id: Received date: Lambert y: Create date: Update date: Coordinate sourc: Ground elevation: Longmin: Latsec: Latdeg: Longdd: G utmx: Glaty: Column28: Calcglongx: Calcglaty: Site id:

#### 52653 01-OCT-1976 672845 02-MAY-1999 24-NOV-2011 03 Not Reported 21 58.679 32 Not Reported 560613.89701005 32.5164441296343 Not Reported -92.3546420921209 32.5164441296343 LAOG90000052653

Well serial num: Coordinate syste: Lambert x: Zone : Create username: Update username: Coordinate prior: Longsec: Longdeg: Latmin: Latdd: Coordval: G utmy: Glongx:

75835 01 2044852 N CONVALL CON\_USER 1 16.199 92 30 Not Reported 17 3597865.47111409 -92.3546420921209

### D11 WNW 1/2 - 1 Mile

Objectid: WIc line id: Received date: Lambert y: Create date: Update date: Coordinate sourc: Ground elevation: Longmin: Latsec: Latdeg: Longdd: G utmx: Glaty: Column28: Calcglongx: Calcglaty: Site id:

01-NOV-1977 672882 02-MAY-1999 24-NOV-2011 03 Not Reported 21 59.039 32 Not Reported 560585.506676992 32.5165461751428 Not Reported -92.3549436294022 32.5165461751428 LAOG90000047730

47730

#### Well serial num: Coordinate syste: Lambert x: Zone : Create username: Update username: Coordinate prior: Longsec: Longdeg: Latmin: Latdd: Coordval: G utmy: Glongx:

72538 01 2044759 N

OIL GAS

LAOG90000047730

CONVALL CON\_USER 17.28 92 30 Not Reported 17 3597876.6117673 -92.3549436294022

#### D12 ŴŃW 1/2 - 1 Mile

Objectid:

WIc line id: Received date: Lambert y: Create date: Update date: Coordinate sourc: Ground elevation: Longmin: Latsec:

53950 01-DEC-1976 672882 02-MAY-1999 24-NOV-2011 03 Not Reported 21 59.039

1

Well serial num: Coordinate syste: Lambert x: Zone : Create username: Update username: Coordinate prior: Longsec: Longdeg: Latmin:

### OIL\_GAS

LAOG90000053950

81034 01 2044759 Ν CONVALL CON USER 1 17.28 92 30

Latdeg: Longdd: G utmx: Glaty: Column28: Calcglongx: Calcglaty: Site id:

32 Not Reported 560585.506676992 32.5165461751428 Not Reported -92.3549436294022 32.5165461751428 LAOG90000053950

Latdd: Coordval: G utmy: Glongx:

Not Reported 17 3597876.6117673 -92.3549436294022

### E14 SW 1/2 - 1 Mile

Objectid: WIc line id: Received date: Lambert y: Create date: Update date: Coordinate sourc: Ground elevation: Longmin: Latsec: Latdeg: Longdd: G utmx: Glaty: Column28: Calcglongx: Calcglaty: Site id:

#### 01-DEC-1976 667861 02-MAY-1999 24-NOV-2011 03 Not Reported 21 9.359 32 Not Reported 560519.587445547 32.5027462647426 Not Reported -92.3557438939949 32.5027462647426

LAOG90000058330

58330

#### Well serial num: Coordinate syste: Lambert x: Zone : Create username: Update username: Coordinate prior: Longsec: Longdeg: Latmin: Latdd: Coordval: G utmy: Glongx:

### OIL\_GAS 86391

LAOG90000058330

01 2044519 Ν CONVALL CON USER 1 20.159 92 30 Not Reported 17 3596346.37659296 -92.3557438939949

### E13 SW 1/2 - 1 Mile

Objectid: WIc line id: Received date: Lambert y: Create date: Update date: Coordinate sourc: Ground elevation: Longmin: Latsec: Latdeg: Longdd: G utmx: Glaty: Column28: Calcglongx: Calcglaty: Site id:

55740 1 01-DEC-1976 667861 02-MAY-1999 24-NOV-2011 03 Not Reported 21 9.359 32 Not Reported 560519.587445547 32.5027462647426 Not Reported -92.3557438939949 32.5027462647426 LAOG90000055740

#### Well serial num: Coordinate syste: Lambert x: Zone : Create username: Update username: Coordinate prior: Longsec: Longdeg: Latmin: Latdd: Coordval: G utmy: Glongx:

OIL\_GAS

LAOG90000055740

85072 01 2044519 N CONVALL CON USER 1 20.159 92 30 Not Reported 17 3596346.37659296 -92.3557438939949

### Map ID Direction

rèction stance			Database	EDR ID Number
15 N 2 - 1 Mile			OIL_GAS	LAOG900008862
Objectid: Wic line id: Received date: Lambert y: Create date: Update date: Coordinate sourc: Ground elevation: Longmin: Latsec: Latdeg: Longdd: G utmx: Glaty: Column28: Calcglongx:	88620 1 01-DEC-1972 668006 02-MAY-1999 24-NOV-2011 03 Not Reported 21 10.8 32 Not Reported 560406.640184799 32.5031461803993 Not Reported -92.3569433975499 32.5031461803993	Well serial num: Coordinate syste: Lambert x: Zone : Create username: Update username: Coordinate prior: Longsec: Longdeg: Latmin: Latdd: Coordval: G utmy: Glongx:	128451 01 2044149 N CONVALL CON_USER 1 24.479 92 30 Not Reported 17 3596390.02866132 -92.3569433975499	
Calcglaty: Site id:	LAOG9000088620			
• •			OIL_GAS	LAOG9000005003
Site id:		Well serial num:	<b>OIL_GAS</b> 72479	LAOG9000005003
Site id: 17 W 2 - 1 Mile	LAOG90000088620 50033 1	Coordinate syste:	- 72479 01	LAOG9000005003
Site id: 7 7 7 7 7 7 7 7 7 7 7 7 7	LAOG90000088620 50033 1 01-DEC-1972	Coordinate syste: Lambert x:	72479 01 2044150	LAOG9000005003
Site id: 7 7 7 7 7 7 7 7 7 7 7 7 7	LAOG90000088620 50033 1 01-DEC-1972 667533	Coordinate syste: Lambert x: Zone :	72479 01 2044150 N	LAOG9000005003
Site id: 7 N 2 - 1 Mile Objectid: WIc line id: Received date: Lambert y: Create date:	LAOG90000088620 50033 1 01-DEC-1972 667533 02-MAY-1999	Coordinate syste: Lambert x: Zone : Create username:	72479 01 2044150 N CONVALL	LAOG9000005003
Site id: 7 7 7 7 7 7 7 7 7 7 7 7 7	LAOG90000088620 50033 1 01-DEC-1972 667533 02-MAY-1999 24-NOV-2011	Coordinate syste: Lambert x: Zone : Create username: Update username:	72479 01 2044150 N CONVALL CON_USER	LAOG9000005003
Site id: 7 W 2 - 1 Mile Objectid: WIc line id: Received date: Lambert y: Create date: Update date: Update date: Coordinate sourc:	LAOG90000088620 50033 1 01-DEC-1972 667533 02-MAY-1999 24-NOV-2011 03	Coordinate syste: Lambert x: Zone : Create username: Update username: Coordinate prior:	72479 01 2044150 N CONVALL CON_USER 1	LAOG9000005003
Site id: 7 7 7 7 7 7 7 7 7 7 7 7 7	LAOG90000088620 50033 1 01-DEC-1972 667533 02-MAY-1999 24-NOV-2011 03 Not Reported	Coordinate syste: Lambert x: Zone : Create username: Update username: Coordinate prior: Longsec:	72479 01 2044150 N CONVALL CON_USER 1 24.479	LAOG9000005003
Site id: 7 7 7 7 7 7 7 7 7 7 7 7 7	50033 1 01-DEC-1972 667533 02-MAY-1999 24-NOV-2011 03 Not Reported 21	Coordinate syste: Lambert x: Zone : Create username: Update username: Coordinate prior:	72479 01 2044150 N CONVALL CON_USER 1	LAOG9000005003
Site id: 7 W 2 - 1 Mile Objectid: Wlc line id: Received date: Lambert y: Create date: Update date: Update date: Coordinate sourc: Ground elevation: Longmin: Latsec:	LAOG90000088620 50033 1 01-DEC-1972 667533 02-MAY-1999 24-NOV-2011 03 Not Reported	Coordinate syste: Lambert x: Zone : Create username: Update username: Coordinate prior: Longsec: Longdeg:	72479 01 2044150 N CONVALL CON_USER 1 24.479 92	LAOG 9000005003
Site id: 7 W 2 - 1 Mile Objectid: Wlc line id: Received date: Lambert y: Create date: Update date: Update date: Coordinate sourc: Ground elevation: Longmin:	50033 1 01-DEC-1972 667533 02-MAY-1999 24-NOV-2011 03 Not Reported 21 6.119	Coordinate syste: Lambert x: Zone : Create username: Update username: Coordinate prior: Longsec: Longdeg: Latmin:	72479 01 2044150 N CONVALL CON_USER 1 24.479 92 30	LAOG 9000005003
Site id: 7 W 2 - 1 Mile Objectid: Wlc line id: Received date: Lambert y: Create date: Update date: Update date: Coordinate sourc: Ground elevation: Longmin: Latsec: Latdeg:	50033 1 01-DEC-1972 667533 02-MAY-1999 24-NOV-2011 03 Not Reported 21 6.119 32	Coordinate syste: Lambert x: Zone : Create username: Update username: Coordinate prior: Longsec: Longdeg: Latmin: Latdd:	72479 01 2044150 N CONVALL CON_USER 1 24.479 92 30 Not Reported	LAOG 9000005003
Site id: 7 W 2 - 1 Mile Objectid: Wlc line id: Received date: Lambert y: Create date: Update date: Coordinate sourc: Ground elevation: Longmin: Latsec: Latdeg: Longdd:	50033 1 01-DEC-1972 667533 02-MAY-1999 24-NOV-2011 03 Not Reported 21 6.119 32 Not Reported	Coordinate syste: Lambert x: Zone : Create username: Update username: Coordinate prior: Longsec: Longdeg: Latmin: Latdd: Coordval:	72479 01 2044150 N CONVALL CON_USER 1 24.479 92 30 Not Reported 17	LAOG9000005003
Site id: <b>17</b> W <b>2 - 1 Mile</b> Objectid: Wlc line id: Received date: Lambert y: Create date: Update date: Coordinate sourc: Ground elevation: Longmin: Latsec: Latdeg: Longdd: G utmx:	50033 1 01-DEC-1972 667533 02-MAY-1999 24-NOV-2011 03 Not Reported 21 6.119 32 Not Reported 560407.623773357	Coordinate syste: Lambert x: Zone : Create username: Update username: Coordinate prior: Longsec: Longdeg: Latmin: Latdd: Coordval: G utmy:	72479 01 2044150 N CONVALL CON_USER 1 24.479 92 30 Not Reported 17 3596245.90751548	LAOG9000005003
Site id: 17 W 2 - 1 Mile Objectid: Wlc line id: Received date: Lambert y: Create date: Update date: Coordinate sourc: Ground elevation: Longmin: Latsec: Latdeg: Longdd: G utmx: Glaty: Column28: Calcglongx:	50033 1 01-DEC-1972 667533 02-MAY-1999 24-NOV-2011 03 Not Reported 21 6.119 32 Not Reported 560407.623773357 32.5018460779915 Not Reported -92.3569421797972	Coordinate syste: Lambert x: Zone : Create username: Update username: Coordinate prior: Longsec: Longdeg: Latmin: Latdd: Coordval: G utmy:	72479 01 2044150 N CONVALL CON_USER 1 24.479 92 30 Not Reported 17 3596245.90751548	LAOG9000005003
Site id: 17 W 2 - 1 Mile Objectid: Wlc line id: Received date: Lambert y: Create date: Update date: Coordinate sourc: Ground elevation: Longmin: Latsec: Latdeg: Longdd: G utmx: Glaty: Column28:	50033 1 01-DEC-1972 667533 02-MAY-1999 24-NOV-2011 03 Not Reported 21 6.119 32 Not Reported 560407.623773357 32.5018460779915 Not Reported	Coordinate syste: Lambert x: Zone : Create username: Update username: Coordinate prior: Longsec: Longdeg: Latmin: Latdd: Coordval: G utmy:	72479 01 2044150 N CONVALL CON_USER 1 24.479 92 30 Not Reported 17 3596245.90751548	LAOG 9000005003

F16 SW 1/2 - 1 Mile

140000

OIL\_GAS LAOG90000044558

Objectid: WIc line id: Received date: Lambert y: Create date: Update date: Coordinate sourc: Ground elevation: Longmin: Latsec: Latdeg: Longdd: G utmx: Glaty: Column28: Calcglongx: Calcglaty: Site id:

#### 44558 1 01-DEC-1972 667533 02-MAY-1999 24-NOV-2011 03 Not Reported 21 6.119 32 Not Reported 560407.623773357 32.5018460779915 Not Reported -92.3569421797972 32.5018460779915 LAOG90000044558

Well serial num: Coordinate syste: Lambert x: Zone : Create username: Update username: Coordinate prior: Longsec: Longdeg: Latmin: Latdd: Coordval: G utmy: Glongx:

67701 01 2044150 N CONVALL CON\_USER 1 24.479 92 30 Not Reported 17 3596245.90751548 -92.3569421797972

### F18 SW 1/2 - 1 Mile

Objectid: WIc line id: Received date: Lambert y: Create date: Update date: Coordinate sourc: Ground elevation: Longmin: Latsec: Latdeg: Longdd: G utmx: Glaty: Column28: Calcolongx: Calcglaty: Site id:

162013 01-NOV-1961 667250 02-MAY-1999 24-NOV-2011 03 Not Reported 21 3.312 32 Not Reported 560487.252016484 32.5010672591372 Not Reported -92.3561000765046 32,5010672591372 LAOG90000162013

#### Coordinate syste: Lambert x: Zone : Create username: Update username: Coordinate prior: Longsec: Longdeg: Latmin: Latdd: Coordval: G utmy: Glongx:

Well serial num:

970172 01 2044410 Ν CONVALL CON\_USER 1 21.452 92 30 Not Reported 17 3596160.04957977 -92.3561000765046

OIL\_GAS

# 19 West 1/2 - 1 Mile

Objectid: WIc line id: Received date: Lambert v: Create date: Update date: Coordinate sourc: Ground elevation: Longmin: Latsec:

218003 2 07-OCT-2003 671115 08-OCT-2003 24-NOV-2011 05 172 Not Reported Not Reported

Well serial num: Coordinate syste: Lambert x: Zone : Create username: Update username: Coordinate prior: Longsec: Longdeg: Latmin:

#### OIL\_GAS

219395 01 2042866 Ν SONRIS\_DBA CON USER Not Reported Not Reported

LAOG90000218003

LAOG90000162013

Not Reported

Latdeg: Longdd: G utmx: Glaty: Column28: Calcglongx: Calcglongx: Site id: Not Reported 92.36095 560011.246894311 32.5116962839921 Not Reported -92.3610919999276 32.5116962839921 LAOG90000218003 Latdd: Coordval: G utmy: Glongx: 32.51155 9 3597335.50164025 -92.3610919999276

### AREA RADON INFORMATION

State Database: LA Radon

Radon Test Results

Parish	Avg pCi/L	Total Sites
OUACHITA	0.60682	44

### Federal EPA Radon Zone for OUACHITA County: 3

Note: Zone 1 indoor average level > 4 pCi/L.

: Zone 2 indoor average level >= 2 pCi/L and <= 4 pCi/L. : Zone 3 indoor average level < 2 pCi/L.

### Federal Area Radon Information for Zip Code: 71225

Number of sites tested: 4

Area	Average Activity	% <4 pCi/L	% 4-20 pCi/L	% >20 pCi/L
Living Area - 1st Floor	0.225 pCi/L	100%	0%	0%
Living Area - 2nd Floor	Not Reported	Not Reported	Not Reported	Not Reported
Basement	Not Reported	Not Reported	Not Reported	Not Reported

### PHYSICAL SETTING SOURCE RECORDS SEARCHED

#### **TOPOGRAPHIC INFORMATION**

USGS 7.5' Digital Elevation Model (DEM)

Source: United States Geologic Survey

EDR acquired the USGS 7.5' Digital Elevation Model in 2002 and updated it in 2006. The 7.5 minute DEM corresponds to the USGS 1:24,000- and 1:25,000-scale topographic quadrangle maps. The DEM provides elevation data with consistent elevation units and projection.

Current USGS 7.5 Minute Topographic Map Source: U.S. Geological Survey

#### HYDROLOGIC INFORMATION

Flood Zone Data: This data was obtained from the Federal Emergency Management Agency (FEMA). It depicts 100-year and 500-year flood zones as defined by FEMA. It includes the National Flood Hazard Layer (NFHL) which incorporates Flood Insurance Rate Map (FIRM) data and Q3 data from FEMA in areas not covered by NFHL.

Source: FEMA Telephone: 877-336-2627 Date of Government Version: 2003, 2015

NWI: National Wetlands Inventory. This data, available in select counties across the country, was obtained by EDR in 2002, 2005 and 2010 from the U.S. Fish and Wildlife Service.

#### HYDROGEOLOGIC INFORMATION

AQUIFLOW<sup>R</sup> Information System

Source: EDR proprietary database of groundwater flow information

EDR has developed the AQUIFLOW Information System (AIS) to provide data on the general direction of groundwater flow at specific points. EDR has reviewed reports submitted to regulatory authorities at select sites and has extracted the date of the report, hydrogeologically determined groundwater flow direction and depth to water table information.

#### **GEOLOGIC INFORMATION**

Geologic Age and Rock Stratigraphic Unit

Source: P.G. Schruben, R.E. Arndt and W.J. Bawiec, Geology of the Conterminous U.S. at 1:2,500,000 Scale - A digital representation of the 1974 P.B. King and H.M. Beikman Map, USGS Digital Data Series DDS - 11 (1994).

STATSGO: State Soil Geographic Database

Source: Department of Agriculture, Natural Resources Conservation Service (NRCS) The U.S. Department of Agriculture's (USDA) Natural Resources Conservation Service (NRCS) leads the national Conservation Soil Survey (NCSS) and is responsible for collecting, storing, maintaining and distributing soil survey information for privately owned lands in the United States. A soil map in a soil survey is a representation of soil patterns in a landscape. Soil maps for STATSGO are compiled by generalizing more detailed (SSURGO) soil survey maps.

SSURGO: Soil Survey Geographic Database

Source: Department of Agriculture, Natural Resources Conservation Service (NRCS) Telephone: 800-672-5559

SSURGO is the most detailed level of mapping done by the Natural Resources Conservation Service, mapping scales generally range from 1:12,000 to 1:63,360. Field mapping methods using national standards are used to construct the soil maps in the Soil Survey Geographic (SSURGO) database. SSURGO digitizing duplicates the original soil survey maps. This level of mapping is designed for use by landowners, townships and county natural resource planning and management.

### PHYSICAL SETTING SOURCE RECORDS SEARCHED

#### LOCAL / REGIONAL WATER AGENCY RECORDS

#### FEDERAL WATER WELLS

PWS: Public Water Systems
Source: EPA/Office of Drinking Water
Telephone: 202-564-3750
Public Water System data from the Federal Reporting Data System. A PWS is any water system which provides water to at least 25 people for at least 60 days annually. PWSs provide water from wells, rivers and other sources.

PWS ENF: Public Water Systems Violation and Enforcement Data
Source: EPA/Office of Drinking Water
Telephone: 202-564-3750
Violation and Enforcement data for Public Water Systems from the Safe Drinking Water Information System (SDWIS) after
August 1995. Prior to August 1995, the data came from the Federal Reporting Data System (FRDS).

USGS Water Wells: USGS National Water Inventory System (NWIS) This database contains descriptive information on sites where the USGS collects or has collected data on surface water and/or groundwater. The groundwater data includes information on wells, springs, and other sources of groundwater.

#### STATE RECORDS

Louisiana Public Water Supply Wells Source: Office of Public Health Telephone: 504-568-5101

Water Well Registration Data File Source: Department of Transportation and Development Telephone: 225-274-4172

#### **OTHER STATE DATABASE INFORMATION**

Oil and Gas Well Database Source: Department of Natural Resources Telephone: 225-342-1977 Oil and gas well locations in Louisiana.

#### RADON

State Database: LA Radon Source: Department of Environmenal Quality Telephone: 225-925-1752 Radon Levels

Area Radon Information

Telephone: 703-356-4020

The National Radon Database has been developed by the U.S. Environmental Protection Agency (USEPA) and is a compilation of the EPA/State Residential Radon Survey and the National Residential Radon Survey. The study covers the years 1986 - 1992. Where necessary data has been supplemented by information collected at private sources such as universities and research institutions.

#### EPA Radon Zones

Source: EPA Telephone: 703-356-4020

Sections 307 & 309 of IRAA directed EPA to list and identify areas of U.S. with the potential for elevated indoor radon levels.

## PHYSICAL SETTING SOURCE RECORDS SEARCHED

#### OTHER

Airport Landing Facilities: Private and public use landing facilities Source: Federal Aviation Administration, 800-457-6656

Epicenters: World earthquake epicenters, Richter 5 or greater Source: Department of Commerce, National Oceanic and Atmospheric Administration

Earthquake Fault Lines: The fault lines displayed on EDR's Topographic map are digitized quaternary faultlines, prepared in 1975 by the United State Geological Survey

### STREET AND ADDRESS INFORMATION

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**APPENDIX E – HISTORICAL RECORDS DOCUMENTATION** 

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### **AERIAL PHOTOGRAPHS**



## Historical Aerial Photographs

Target Property: South Tract 321 Highway 80 East Calhoun, Ouachita Parish, Louisiana 71225

Prepared For:

PPM Consultants-Birmingham

Order #: 81388 Job #: 176308 Project #: 11452003 Date: 02/17/2017

phone: 888-396-0042 · fax: 512-472-9967 · www.geo-search.com

### TARGET PROPERTY SUMMARY

South Tract 321 Highway 80 East Calhoun, Ouachita Parish, Louisiana 71225

USGS Quadrangle: Calhoun, LA Target Property Geometry:Point

Target Property Longitude(s)/Latitude(s): (-92.345002, 32.511173)

County/Parish Covered: Ouachita (LA)

Zipcode(s) Covered: Calhoun LA: 71225

State(s) Covered: LA

\*Target property is located in Radon Zone 3. Zone 3 areas have a predicted average indoor radon screening level less than 2 pCi/L (picocuries per liter).

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GeoSearch www.geo-search.com · phone: 888-396-0042 · fax: 512-472-9967





SITE: SOUTH TRACT SOURCE: USDA DATE: 2015 COUNTY: OUACHITA PARISH SCALE: 1" = 500'

GeoSearch





SITE: SOUTH TRACT SOURCE: USGS DATE: 2004 COUNTY: OUACHITA PARISH SCALE: 1" = 500'

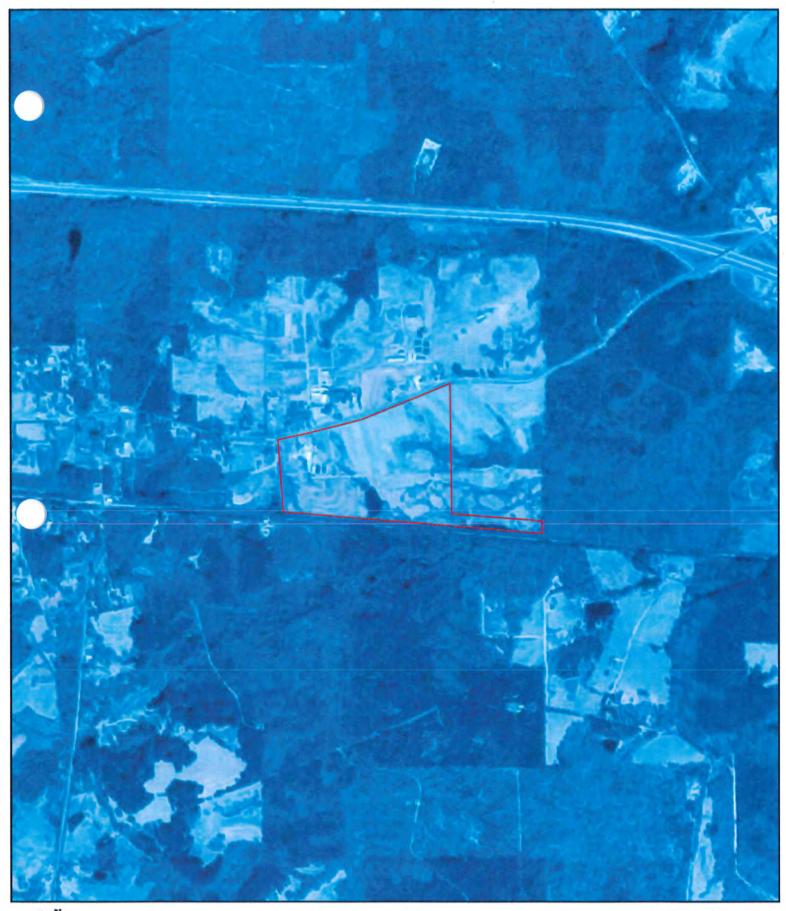






SITE: SOUTH TRACT SOURCE: USGS DATE: 01/11/1999 COUNTY: OUACHITA PARISH SCALE: 1" = 500'

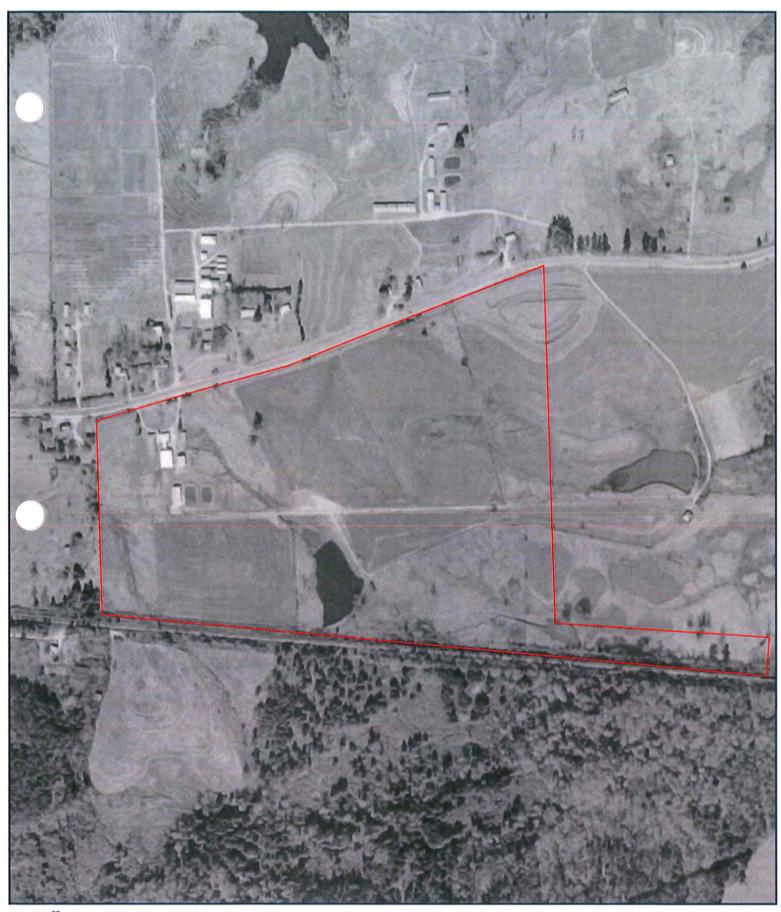
GeoSearch





SITE: SOUTH TRACT SOURCE: USGS DATE: 02/08/1985 COUNTY: OUACHITA PARISH SCALE: 1" = 1320'

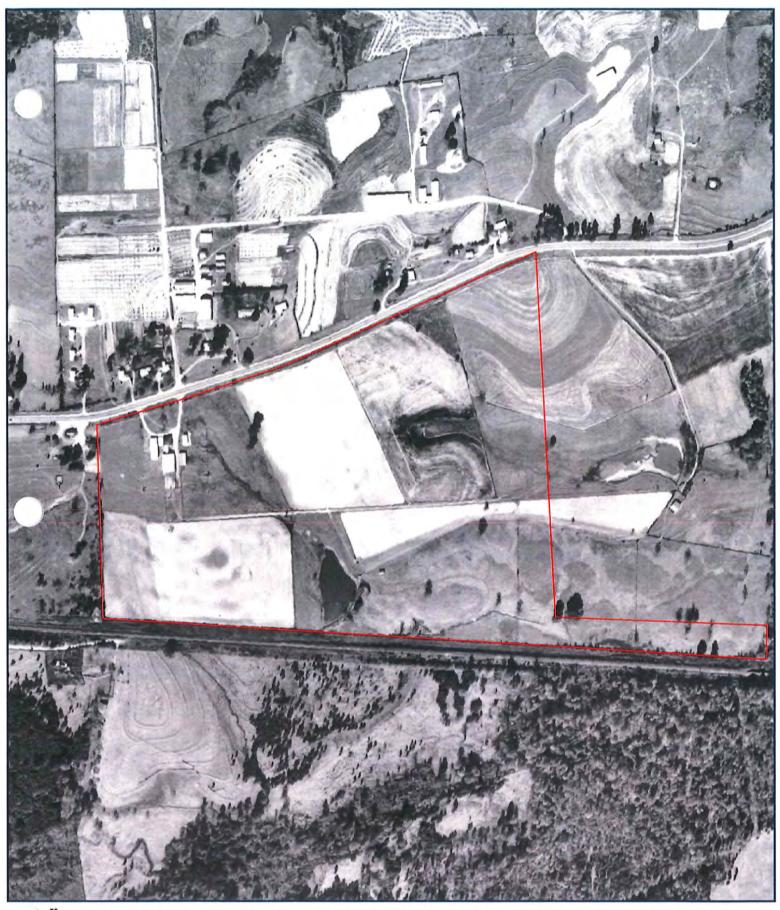






SITE: SOUTH TRACT SOURCE: USGS DATE: 01/08/1976 COUNTY: OUACHITA PARISH SCALE: 1" = 500'

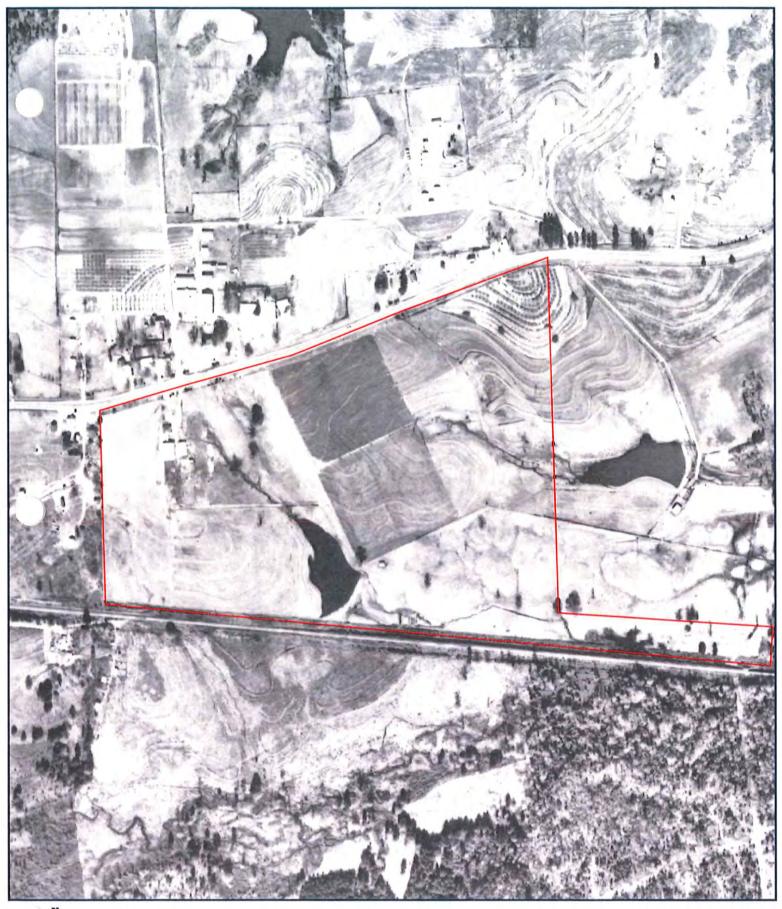






SITE: SOUTH TRACT SOURCE: ASCS DATE: 11/18/1967 COUNTY: OUACHITA PARISH SCALE: 1" = 500'

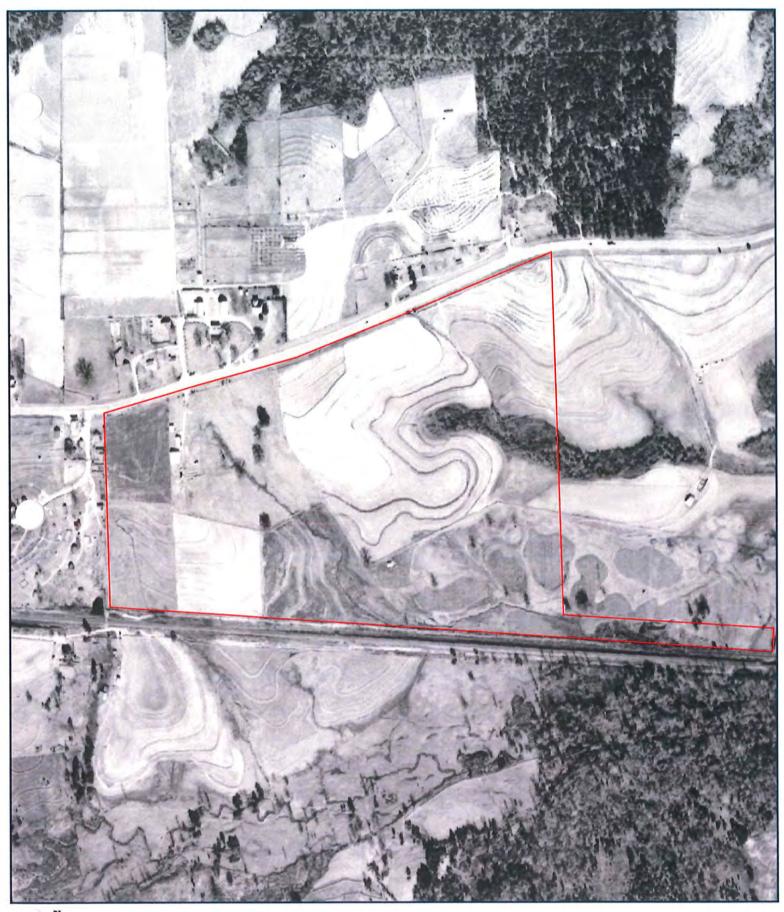
GeoSearch





SITE: SOUTH TRACT SOURCE: ASCS DATE: 01/09/1961 COUNTY: OUACHITA PARISH SCALE: 1" = 500'

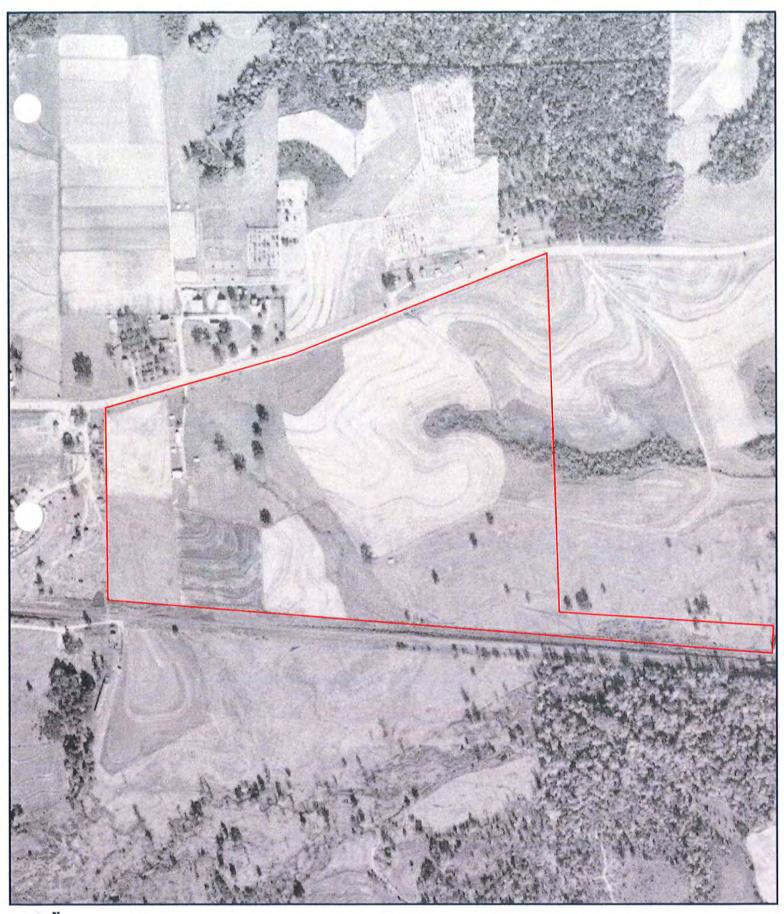
GeoSearch





SITE: SOUTH TRACT SOURCE: ASCS DATE: 01/21/1951 COUNTY: OUACHITA PARISH SCALE: 1" = 500'







SITE: SOUTH TRACT SOURCE: USGS DATE: 11/26/1947 COUNTY: OUACHITA PARISH SCALE: 1" = 500'







SITE: SOUTH TRACT SOURCE: ASCS DATE: 01/05/1942 COUNTY: OUACHITA PARISH SCALE: 1" = 500'



SANBORN MAP

,

South Tract 321 US Highway 80 East Calhoun, LA 71225

Inquiry Number: 4854246.5 February 14, 2017

# **Certified Sanborn® Map Report**

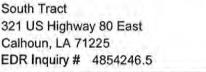


6 Armstrong Road, 4th floor Shelton, CT 06484 Toll Free: 800.352.0050 www.edrnet.com

### **Certified Sanborn® Map Report**

### Site Name:

## **Client Name:**



PPM Consultants Inc. 1600 Lamy Lane Monroe, LA 71201 Contact: Jordan Harper

02/14/17

The Sanborn Library has been searched by EDR and maps covering the target property location as provided by PPM Consultants Inc. were identified for the years listed below. The Sanborn Library is the largest, most complete collection of fire insurance maps. The collection includes maps from Sanborn, Bromley, Perris & Browne, Hopkins, Barlow, and others. Only Environmental Data Resources Inc. (EDR) is authorized to grant rights for commercial reproduction of maps by the Sanborn Library LLC, the copyright holder for the collection. Results can be authenticated by visiting www.edrnet.com/sanborn.

The Sanborn Library is continually enhanced with newly identified map archives. This report accesses all maps in the collection as of the day this report was generated.

### Certified Sanborn Results:

Certification #	6E89-4D24-9233
PO#	NA
Project	South Tract/ 11452003

### UNMAPPED PROPERTY

This report certifies that the complete holdings of the Sanborn Library, LLC collection have been searched based on client supplied target property information, and fire insurance maps covering the target property were not found.



Sanborn® Library search results Certification #: 6E89-4D24-9233

The Sanborn Library includes more than 1.2 million fire insurance maps from Sanborn, Bromley, Perris & Browne, Hopkins, Barlow and others which track historical property usage in approximately 12,000 American cities and towns. Collections searched:

> Library of Congress University Publications of America **EDR Private Collection**

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**APPENDIX F – OTHER DOCUMENTATION** 

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NORTH TRACT GAS WELL

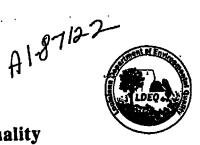
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Country,



## State of Louisiana



J. DALE GIVENS

SECRETARY

**Department of Environmental Quality** 

M.J. "MIKE" FOSTER, JR. GOVERNOR

May 29, 2001

CERTIFIED MAIL (7000 0600 0025 0579 5071) RETURN RECEIPT REQUESTED

## LOUISIANA STATE UNIVERSITY AGRICULTURAL CENTER

c/o Chancellor William B. Richardson 101 Efferson Hall Highland Road Baton Rouge, LA 70814

### RE: NOTICE OF VIOLATION ENFORCEMENT TRACKING NO. AE-N-01-0061 AGENCY INTEREST NO. 87122

Dear Sir:

On or about October 23, 2000, an inspection of LOUISIANA STATE UNIVERSITY AGRICULTURAL CENTER, owned and/or operated by LOUISIANA STATE UNIVERSITY (RESPONDENT), was performed to determine the degree of compliance with the Louisiana Environmental Quality Act (the Act) and Air Quality Regulations. The facility is located at 505 U.S. Highway 80 in Calhoun, Ouachita Parish, Louisiana.

While the Department's investigation is not yet complete, the following violations were noted during the course of the inspection:

- A. The Respondent failed to conduct a three-year reinspection of all friable and nonfriable known or assumed asbestos containing building materials (ACBM) in each building that it leases, owns, or otherwise uses. This is in violation of Louisiana Air Quality Regulations, in particular LAC 33:III.2707.B.1 and Section 2057(A)(2) of the Act.
- B. The Respondent failed to update the management plan. This is in violation of Louisiana Air Quality Regulations, in particular LAC 33:III.2723.C and Section 2057(A)(2) of the Act.
- C. The Respondent failed to conduct periodic surveillance of all friable and non-friable known or assumed ACBM in each building that it leases, owns, or otherwise uses. This is in violation of Louisiana Air Quality Regulations, in particular LAC 33:III.2721.B.1 and Section 2057(A)(2) of the Act.





LSU Agricultural Center NOV Page 2

It is requested that you respond in writing within thirty (30) days of receipt of this Notice as to what actions will be taken to address the above noted violations and to prevent future violations of this nature. You may direct your response to Ms. Sonya Hargrave, Environmental Scientist Supervisor, at P.O. Box 82215, Baton Rouge, LA 70884-2215.

Further enforcement action may be taken if compliance is not promptly achieved. For each violation described herein, the Department reserves the right to seek civil penalties and the right to seek compliance with its rules and regulations in any manner allowed by law, and nothing herein shall be construed to preclude the right to seek such penalties and compliance.

To reduce document handling, please refer to the Enforcement Tracking Number and Agency Interest Number on the front of this document on all correspondence in response to this action.

Sincerely,

Linda Korn Levy Assistant Secretary

LKL/SMF

	enter_		Alt. ID	# <u>NONE</u>
forcement Trackin	g#AE-	N-01-001 cruta Par Date	rish	87/22
Scatt 3/16/01		Approved	IN TENPO	
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Region Supervisor	AB	1.15/01		
IQ Supervisor	St	4/03/01		·
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Asst. Admin.			•	
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Legal	TOKLA	5-09-31	Jee chenes	noted. Changes after
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## State of Louisiana



## Department of Environmental Quality

M.J. "MIKE" FOSTER, JR. GOVERNOR	SMALL 8	OURCE PERMIT		J. DALE GIVENS SECRETARY
	<u>Oil and Natur</u>	al Gas Product	<u>lon</u> .	
COMPANY NAME: Seagul]	Mid-South, Inc	FACILITY:	LSU N	1 - 26
LOCATION: Calhou (City)		Ouachita (Parish)	UTM 15 Zone	<u>562.049</u> <u>3597.62</u> Km E Km N
Approximate	ely 1.2 miles ea	ast of Calhoun (Physical La	<u>in rural</u>	<u>Ouachita Parish.</u>
TYPE OF SOURCE:	Yes Existing	Now		Modified
CONTACT: Mr. Dougla	as G. Krenek	Production Mai (Title)	nager	(713)951-4700 (Phone)
MAILING ADDRESS: 10	<u> 001 Fannin - Su</u>	ite 1700 (Sireet)		(P. O. Box)
<u> </u>	Houston (City)		Texas (State)	77002 (Zip Code)
				- the comparation

**DESCRIPTION:** Operate an oil and gas production facility for the separation of oil, gas, and water produced by the LSU No. 1 - 26 well. This facility will consist of: a gas compressor, line heater, separator, storage tank, and truck loading station.

### EMISSIONS SUMMARY (Tons per year)

POLLUTANT	PROPOSED
PM <sub>10</sub>	0.02
SO <sub>2</sub>	< 0.01
NO <sub>x</sub>	14.76
CO	2.64
VOC	3.78

· .	ANNUAL	PRODUCTION RATES	
( <u>Crude Oil</u>	<u>1,460 bbl</u>	) ( <u>Natural Gas</u>	<u>142.70 MM_cf</u> )
(Product)	(Units/yr)	(Product)	(Unite/yr)



### SMALL SOURCE PERMIT Page Two

### LSU NO.1 - 26 PRODUCTION FACILITY SEAGULL MID-SOUTH, INC. CALHOUN, OUACHITA PARISH, LOUISIANA

## EMISSION POINTS

ID No.:	DESCRIPTION	MAX OPER. RATE <u>or tank capacity</u>	Hr/Da/Wk
01	<u>Gas Compresor - 100 HP</u>	0.79 MM BTU/hr	24/07/52
	Line Heater	0.50 MM BTU/hr	24/07/52
03	Oil Storage Tank - FR	210 bbl	24/07/52
04	0il Transporter Truck Loading	<u>1,460 bbl/yr</u>	25 hr/yr
05	. Fugitive Emissions	NA	24/07/52

		<u>E1</u>	MISSION F	ATEB - 1	<u>(71</u>		—OTHER—	
ID No.:		<u> </u>	<u>_NO,</u>	VOC	<u></u>		<u>.</u>	
		<u>&lt;0.01</u>	<u>14.57</u>	2.12	2.60		<u> </u>	
02	0.02	<0.01	<u>0.19</u>	0.01	0.04			
03	جنه بنین <u>منبع الم</u>	· <del>-</del>		1.37	<b></b> .			
04	<u> </u>	<b></b>	••••••••••••••••••••••••••••••••••••••	0.07				<u></u>
05	<u> </u>			0.21		•	<del></del> .	
TOTALS	0.02	<u>&lt;0.01</u>	<u>14.76</u>	3.78	2.64		•	

### EMISSION CONTROLS

ID NO.: CONTROL DESCRIPTION DESIGN EFFICIENCY

None

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....<sup>.</sup> . .

### SMALL SOURCE PERMIT Page Three

### LSU NO.1 - 26 PRODUCTION FACILITY SEAGULL MID-SOUTH, INC. CALHOUN, OUACHITA PARISH, LOUISIANA

The potential to emit VOCs above 25 tons per year from tank truck loading is limited by current production capability of the producing reservior. Current level of condensate production handled by this facility is approximately 4 barrels per day. A load rate of approximately 1,217 barrels per day would be required to generate VOC emissions of 25 tons per year.

This application, which was dated October 22, 1996, was reviewed for compliance with Louisiana Air Quality Regulations. Prevention of Significant Deterioration, NSPS, and NESHAP do not apply.

This facility is a minor source of toxic air pollutants.

A permit for the above referenced facility is hereby approved under LAC 33:III.503.B.2 subject to the general conditions attached.

Permit No.: \_\_\_\_\_2160-00081-00

Gustave A. Von Bodungen, P.E. Assistant Secretary

Date

GVB:CO

c: Northeast Regional Office

### LOUISIANA AIR EMISSION PERMIT GENERAL CONDITIONS

This permit is issued on the basis of the emissions reported in the application for approval of emissions and in no way guarantees that the design scheme presented will be capable of controlling the emissions to the type and quantities stated. Failure to install, properly operate and/or maintain all proposed control measures and/or equipment as specified in the application and supplemental information shall be considered a violation of the permit and LAC 33:III.503.B.2. If the emissions are determined to be greater than those allowed by the permit or if proposed control measures and/or equipment are not installed or do not perform according to design efficiency, an application to modify the permit must be submitted.

II. The permittee is subject to all applicable provisions of the Louisiana Air Quality Regulations. Violation of the terms and conditions of the permit constitutes a violation of these regulations.

- III: The attached data and/or Emission Inventory Questionaire sheets establish the emission and operating limitations and are a part of the permit. The synopsis and data sheets are based on the application and Emission Inventory Questionnaire dated October 22, 1996.
- IV. This permit shall become invalid, for the sources not constructed, if:
  - A. Construction is not commenced, or binding agreements or contractual obligations to undertake a program of construction of the project are not entered into, within two (2) years (18 months for PSD permits) after issuance of this permit, or;
  - B. If construction is discontinued for a period of two (2) years (18 months for PSD permits) or more.

The administrative authority may extend this time period upon a satisfactory showing that an extension is justified.

This provision does not apply to the time period between construction of the approved phases of a phased construction project. However, each phase must commence construction within two (2) years (18 months for PSD permits) of its projected and approved commencement date.

The permittee shall submit semi-annual reports of progress outlining the status of construction, noting any design changes, modifications or alterations in the construction schedule which have or may have an effect on the emission

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### LOUISIANA AIR EMISSION PERMIT GENERAL CONDITIONS

rates or ambient air quality levels. These reports shall continue to be submitted until such time as construction is certified as being complete. Furthermore, for any significant change in the design, prior approval shall be obtained from the Louisiana Air Quality Division.

The permittee shall notify the Department of Environmental Quality, Air Quality Division within ten (10) calendar days from the date that construction is certified as complete and the estimated date of start-up of operation. The appropriate Regional Office shall also be so notified within the same time frame.

VII. Any emissions testing performed for purposes of demonstrating compliance with the limitations set forth in paragraph III shall be conducted in accordance with the methods described in the Division's test manual or any other methods approved by the U.S. EPA. Any deviation from or modification of methods used for testing shall have prior approval from the Louisiana Air Quality Division.

- The emission testing described in paragraph VII above, or VIII. .established in the specific conditions of this permit, shall be conducted within sixty (60) days after achieving normal production rate, but in no event later than 180 days after initial start-up (or restart-up after modification). The Air Quality Division Surveillance Section shall be notified at least (30) days prior to testing and shall be given the opportunity to conduct a pretest meeting and observe the emission testing. The test results shall be submitted to the Air Quality Division within forty-five (45) days after the complete testing. As required by LAC 33:III.913, the permittee shall provide necessary sampling reports in stacks or ducts and such other safe and proper sampling and testing facilities for proper determination of the emission limits.
- IX. The permittee shall, within 180 days after start-up of each project or unit, report to the Louisiana Air Quality Division any significant difference in operating emission rates as compared to those limitations specified in paragraph III. This report shall also include, but not be limited to, malfunctions and upsets.

The permittee shall retain records of all information resulting from monitoring activities and information indicating operating parameters as specified in the specific conditions of this permit for a minimum of at least five (5) years.

XI. If for any reason the permittee does not comply with, or will not be able to comply with, the emission limitations specified in this permit, the permittee shall provide the

VI.

Χ.

### LOUISIANA AIR EMISSION PERMIT GENERAL CONDITIONS

Air Quality Division with the following information in writing within five (5) days of such conditions:

- A. Description of noncomplying emission(s);
- B. Cause of noncompliance;
- C. Anticipated time the noncompliance is expected to continue, or, if corrected, the duration of the period of noncompliance;
- D. Steps taken by the permittee to reduce and eliminate the noncomplying emissions; and
- E. Steps taken by the permittee to prevent recurrences of the noncomplying emissions.

XII. Permittee shall allow the authorized officers and employees of the Department of Environmental Quality, at all reasonable times and upon presentation of identification, to:

- A. Enter upon the permittee's premises where regulated facilities are located, regulated activities are conducted or where records required under this permit are kept;
- B. Have access to and copy any records that are required to be kept under the terms and conditions of this permit, the Louisiana Air Quality Regulations, or the Act;
- C. Inspect any facilities, equipment (including monitoring methods and an operation and maintenance inspection), or operations regulated under this permit; and
- D. Sample or monitor, for the purpose of assuring compliance with this permit or as otherwise authorized by the Act or regulations adopted thereunder, any substances or parameters at any location.
- XIII. If samples are taken under Section XII.D. above, the officer or employee obtaining such samples shall give the owner, operator or agent in charge a receipt describing the sample obtained. If requested prior to leaving the premises, a portion of each sample equal in volume or weight to the portion retained shall be given to the owner, operator or agent in charge. If an analysis is made of such samples, a copy of the analysis shall be furnished promptly to the owner, operator or agency in charge.

XIV. The permittee shall allow authorized officers and employees of the Department of Environmental Quality, upon presentation of identification, to enter upon the permittee's premises to investigate potential or alleged violations of the Act or the rules and regulations adopted

### LOUISIANA AIR EMISSION PERMIT GENERAL CONDITONS

thereunder. In such investigations, the permittee shall be notified at the time entrance is requested of the nature of the suspected violation. Inspections under this subsection shall be limited to the aspects of alleged violations. However, this shall not in any way preclude prosecution of all violations found.

The permittee shall comply with the reporting requirements specified under LAC 33:III.919.E as well as notification requirements specified under LAC 33:III.927.

XVI. In the event of any change in ownership of the source described in this permit, the permittee and the succeeding owner shall notify the Louisiana Air Quality Division, within ninety (90) days after the event, to amend this permit.

Typical emissions associated with routine operations that are under control upon release, that are predictable in nature, and that are quantifiable as described in this permit application, are considered authorized discharges. Any significant deviation from the emissions specified in the permit application for such discharges, by event, shall be reported to the department according to LAC 33:I.3901. Actual emissions resulting from such activities must be reported to the department on an annual basis. These emissions are not reflected in the permit totals as they are short term and/or intermittent in duration and have no. significant impact on air quality. Examples of such events include but are not limited to cleaning equipment, startups, shutdowns, opening off-line equipment (dual units), and releases to control devices such as flares or incinerators. This permit condition does not authorize the maintenance of a nuisance or a danger to public health and safety.

XV.

XVII.

WP THE: 18247 REL. SMS AIR QUALITY DIVISION PERMIT ROUTING/APPROVAL SLIP 6) DATE RECEIVED APPROVED DATE FORWARDED COMMENTS 10.25-96 1-26-97 VIEWER O.K AKUNPANYA HARTING/TOXICS 28D/NSR/KhJ INCIN/PSD/GNG TOURO/NOUVEN LANTZ DEVILLIER 2-12-97 HANNAH 3155 VON BODUNGEN PERMIT No.: 2/60 - 0008 ത PLEASE, ANSWER ALL OF THE FOLLOWING: (NA is not acceptable.) (Yes, No, HOLD) 1. Fee Paid Mes 🥑 2\* Groundwater Approval No (See Policy Memo 18) The ground encavation anded No 3\* Toxic Section Approved no toxico indicated 4. IT Questions Addressed (Policy Memo 32, Permit Manual Sect. apres 4.6) 5\* Compliance History: (Major new sources & maj. mod. -100 TPY Regulated, 10/25 Toxics; 50 TPY VOC Baton Rouge - See Policy Memo 9.) Hazardous Waste Water Air Solid Waste \_ mina 6\* Completeness Review (See LAC 33:I.1503; Policy Memo 41.) mina source 7\* Public Notice of Completeness (See Policy Memo 41, LAC 33:1.1505.A.4.) (INCLUDE DATE PUBLISHED BY COMPANY) Manni source DATE: 8\* Public Notice (Incl. Newspapers) See Policy Memo 48 & 36. mina source. DATES: (See LAC 33:III.2113.4.) 9\* VOC Reduction Plan minn source 10. Glycol Unit 2116 H 11. Compressor Testing \_ no 12. Tanks:  $K_b$ ,  $K_a$ , K Exercit 13. Other NSPS Subparts which apply menn 14. PSD Review or Netting? Attainment area 15. Nonattainment Review 16, Testing to Eng. (Jim Courville) (See Policy Memo 28) No testing, recursed PSD or Title V 17. Draft Permit to EPA (Date Sent) minn source 18. Record of Decision Required? (PSD only) Min source

\*If not done, state reason in space provided.

CONNERTS:	Pee:       1710       SICC:       1311       Description:       OIL & GAS       PRODUCTION       Type:       P       Value:       \$315.00         CHECK NO.       1202328       Amount:       \$5.670.00       CHECK DATE:       10/18/1996       Invoice No.:		RECEIVED: 10/25/1996       PUBLIC NOTICE:       NILESTONE DATES         ASSIGNED: 11/18/1996       TO ADMINISTRATOR:       1/3/97         DRAFT COPY: 1/14/97       TO UNDER SECRETARY:       2/3/97         MALESTONE MASE:       1/3/17         BERMIT ISSUE:       1/3/17         NEGIONAL OFFICE COMMENTS       2/1/97         Air Quality	NAME: <u>KENT WEISSLING</u> TITLE: <u>COMPANY CONTACT</u> PHONE: <u>(713)-951-4847</u> ADDRESS: <u>1001 Fannin, Suite 1700</u> CITY: Houston ZIP <u>TX 77002-6794</u>	SITE:NEAREST CITY: <u>Calhoun</u> PARISH <u>Ouachita</u> REGIONAL OFFICE: <u>NE</u>	COMPANY: <u>Seagull Mid-South Inc.</u> PROJECT: LSU $\frac{1}{26}$ PF PROJECT DESCRIPTION: <u>PERMIT FOR AN EXISTING FACILITY</u> PERMIT No.: $\frac{2}{60 - 000}$ - $\frac{2}{20}$ PERMIT DATE: $\frac{2}{7}$	$\frac{1}{2} = \frac{1}{2} + \frac{1}$
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P.O. Bo Baton Reuge	), LA 70884-2135 95-0219	Application for A	ISIANA pproval of Emis collutants	sions	2-182
1	Company Kane	······································			
Please		11 Mid-South, Inc.			
Туре	Parent Company (if	company Name given above is	a division)		
Print	Seagu	11 Energy Corporați	on		
	Plant name (if any)		1		
	LSU #1-26 Pr	oduction Facility			
	Mearest town	Par	ish where located		
	Calhoun		Ouachita 🚺		
	and nature	Production Facility 1 gas from the LSU with this project	#1-26 well. No e	xcavation is	
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3 Oliners	HIP AND USE OF ADJOIN	MG PROPERTY INCLUDING PHYS	ICAL LOCATION.	p or description at	tached.
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Note: A completed Emission Inventory Questionnaire (EIQ) that reflects projected emissions from your facility as a whole after the project described in this application becomes operational must be submitted with this application. If you are submitting an application that is for modification or expansion of an existing facility, the Department of Environmental Quality must also have an EIQ for existing emissions. If you have already submitted an EIQ that is on file with the Department, it may fulfill this requirement. Consult instructions for further details.

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### & ENISSIONS BY POLLUTANT

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List each emission from all sources. Group by pollutant PM<sub>10</sub>, SO<sub>2</sub>, NO<sub>2</sub>, CO, VOC Air Toxics, non-VOC Air Toxics, SARA VQC, SARA non-VOC, Other non-toxic VOC, Total VOC, and nonreactive hydrocarbons (including refrigerants). Show total tone/year for each pollutant. Consult instructions.

Emission Point ID number	t instructions, Pollutent (List individual toxics and noncriteria	Permitted Emission Rate Before	Permitted Emission Rate After
· •	hydrocarbons separately)	tons/yr	tone/yr
01	NOx		14.57
02 ,			0.19
.01	. CO	<b></b>	2.60
02			0.04
.01	VOC	-	2.12
02			0.01
03		· _	1.37
04	*		0.07
05		-	0.21
01	S02 .	· _	< 0.01
02	•		<0.01
02	PM-10		0.02
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### 7 MISTORY OF PERMITTED ENISSIONS

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List each emission level from facility permits (for unit specific permits, the history should be for the unit of concern only). Group by pollutant and show totals. Include as the last entry for each pollutant the total emissions following the proposed change, entering the project name for "Permit number" and date of submittel for "Date permit issued. Consult instructions.

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r 1996 r 1996	NOx	
r 1996		. 14.76
	CO	2.64
r 1996	VOC	3.78
r 1996	S02	< 0.01
r 1996	PM-10	0.02
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### 8 ENISSION POINTS

a.74

List each emission point. Use unique ID numbers. Consult instructions,

Emission Point 10 Number	Descriptive name of each emission point
01	100 HP compressor w/ Cat. 3306 NA engine
02	0.5 MMBTU/hr line heater Storage tank-venting and flash losses
03	Storage tank-venting and flash losses
04	Loading losses
05	Loading losses Fugitive Emissions
· · · · · · · · · · · · · · · · · · ·	
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WPLIANCE HISTORY/STATUS/CERTIFICATION - see instructions

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### **11 PERSONNEL**

a. Responsible Offic	dal (See 40 CFR 70.2)	•	<u> </u>	fessional Engineer	•	
•	Douglas G. Krenek			Jack Owen		
	Trie Production Manager	· · · · · · · · · · · · · · · · · · ·		. Bnvironmental Manager		
		Seagull Mid-South, Inc.			Corporation	
•	Ruite, mail drag, er division Suite 1700			Sulte, mel drep, ar division Sulte 1700		
,	Street of P.O. Ben 1001 Fannin			Street of P.O. Bex 1001 Fannin		
	Ciry Houston	State TX	2. 77002	Cay Houston	State 77002	
	(713) 951-4700	·-···		(713) 951-4852		
~	Signature of responsible official(s)			Signature of Proceedings	ous. Own	
	Data 10/22/96			Date 10/21/9	6 <sup>.</sup>	
				Registration No. 26083	State of Registration	
	Date .					
CERTIF	ICATION: I certify, under provisions in	Louisiana <sup>'</sup>	CERTI	FICATION: I certify that the eng	ineering calculations	

CERTIFICATION: I certify, under provisions in Louisiana and United States isw which provide oriminal penalties for false statements, that based on information and belief formed after reasonable inquiry, the statements and information contained in this Application for Approval of Emissions of Air Pollutants, including all attachments thereto, are true, accurate, and complete. CERTIFICATION: I certify that the engineering calculations, drawings, and design are true and accurate to the best of my knowledge.

Air Qualit	y Division		OIDIA	NA# 2	All the state of the
P.Q. Box	82135 LA 70684-2135	Emission Ir	ventory Q	uestionnaire	a de la contraction de
(604) 78		(EIQ)	for Air P	ollutants	
]	Company Name -				
Please	. Seagull M	id-South, Inc.			
Type or	Parent Company (if C	company Name given abo	ve is a divisio	n) '	
Print	Seagull E	nergy Corporati	on		
	Plant name (if any)			•	
•	LSU #1-26	Production Fac:	<b>ility</b>		
	Nearest tom		Parish where	located	
	Calhoun	•	Ouachita		
type of 1	EIQ 🗌 a. ONLY prei	sently existing emissions		with an application f construct, variance, existing emission exp	Itional emissions associated for a permit, authorization to or exemption AND presently sected to be still existing after ion described in application
		e requesting confiden	tiality for all	information, excep	pt air pollutant emission
Daily oper Approximat Details of	year facility typical uction assesson (list m rating schedule: [2] to number of employees f facilities that, as		unber of hours _ 0	urs 🛛 Fri 🛈 Sut 	
Daily oper Approximat Details of Ownership: [2] corpo [2] state	vear facility typical uction assesson (list ma rating schedule: its number of employees f facilities that, as facilities that, as ration, partnership, e government for	ly operates: <u>365</u> onths): 24-hours OR specify m s at this location:	p creater	ulated utility r, specify	🗆 micipal government
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Type of fuel	Annual consumption		Sulfur percent (by weight)	Ash percent (by weight)	Heating value	
latural ges	12.7	MM ft <sup>3</sup>	0	0	1128	BTU/ fr
TOCOSS GAS		MM ft <sup>3</sup>			\$	BTU/ fr
uel oil (No. )		gallons				BTU/ gel
uel cil (No. )		gallons				BTU/ ga
Coal (type: )	••	tons			•	BTU/ton
iark/wood chips/sawdust	•	tons	,			BTU/
Begesse		tons	· · · ·	· 1		BTU/
					•	BTU/
						BTU/
••						BTU/
•						
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6 MATERIALS USED, PRODUCED, STORED, OR TRANSPORTED BY FACILITY AS A WHOLE

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Name of material	Quantity used or transported		
e. Raw material or materials transported	Annusi average . (give units)	How stored (be specific - ` floating roof tank, fixed roof, etc.)	How moved (pipeline, tanktruck, etc.)
,			
Natural Gas	142.7 MMSCF/yr		Pipeline
Condensate	1,460 bbl/yr	Fixed Roof	Truck
		·	
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b. Products or byproducts		· .	•
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### 7 SUMMARY OF EMISSION FOR ENTIRE FACILITY AS A WHOLE

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Rates given should correspond in most cases to the sum of the individual average rates of the point sources listed on the Single Point Source/Area Source forms.

······································	Emission rate	Emission rate
n. Particulate (solide or liquids)	<b>ibs/hr</b> 40_01	tons/yr
. Sulfur Diaxide	<b>40.01</b>	
<u> </u>	< 0.01	< 0.01
. Nitrogen Dioxide		
, Hirogen Signate	3.37	14.76
•		
. Carbon Monoxide	0.60	2.64
		•
. Volatile Organic Compounds (total)	6.44*	3.78
. VOC Air Toxics		
. non-VOC Ak Texics		
		•
1. SARA VOC	•	
. SARA non-VOC	-	
. Other nontoxic VOC		-
k. Nonreactive Hydrocarbone (including refrigerants)		
•	· · · · ·	
l, Other	•	
·		•
* The relatively high VOC 1b/hr rate i	s due to the loading	ng loss emission
rate; however the actual hours per y		
Single Point EIQ), which is reflected	ed in the VOC tons/	<u> 72</u>
· · · · · · · · · · · · · · · · · · ·		•
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		·
· · · ·		

			-		·				mtal VOC lavel, these listed being	Carbon pomosida	Mimgen diaxide	Sultur dioxide	Particulate matter 1914			· Dollerta	Air Pollu		•			[Change yes X no]	Physical	Stack and Discharge	, , ,	Paint ID number	Seagull	Company Name	Department of Environmental Que Air Quelty Division F.O. Box 52155 Baton Rouge, LA 70654-2135 (504) 765-0219
									ted below!						ļ		Pollutant S			Natural eas	u) Ju	1-2.4		Height of Stack	100 1		Mid-South.		santal Quality Islon 315 654-2135 19
								•					3		Equipment	Control	Specific				nd heat in				IP Compr	NUMB HARMS	h. Inc.		
													ļ		Equipment Efficiency					0.79	pet fane inste			Diameter (It) or stack	essor w/	I the equipment			Emi
									0.40	0 4 0 7 4 7 7		3.33	<0.01		Averege (lbe/hr)		Information				uctions			in the sector of	100 HP Compressor w/ 3306 NA Engine	Descriptive some of the equipment served by the stack or vent	DST	Plant locu	SINGLE Emission I
		•								0 / 2	0 20	3.33	<0.01		br) Madmum (lba/hr)	Emission Reta		Cnaracteristics	Operating					-	ngine	stack or writ	<b>#1-26</b> Produ	Meat location and name (if any)	LOUI POINT/A hventory for Air
							<b> </b>				2-60	14.5	<0.0			Reta		2	÷	Dao-Fab	Percen pollutente	- 96.9	630	Stack gas flow at process conditions, pet at standard (ft?/m/n)	UTM zone no.	Location of st	Production Fa	ay!	UISIANA MT/AREA/VOLUME SOUR MEOTY QUESTIONNAILS
		•								13	60	57	01.	•	Annual (tone/yr)			6		Mar-May	through this			brocasa dard (ft?/arin		Itack or Vel	Facility		A Boundary
And the second se									-	~	5	2	3,		Mathod	Emission		C7		Jun Aug	Percent of annual throughput of polknams through this emission point				16 K	nt (see kistru			RCE (EIQ)
adhana ann an										6 A A A	Add	Add	Add		of Delete	>		+2 C2		ł			л 	Stack ges and velocity (It/sec)	Horizontal coordinate Vertical coordinate	ctions on how			
															•				1	ţ	Normal operating of this point			٤.	ordinate linate. <u>3</u>	r to determine			
																Concentrat		· ,	л Э	ŧ	4 Ume			Fer tanks, Bet volume (gate), data of construction	5620 59.26	location o	10/21		
	nom by yol	har sty wood	Jox yd mag	her signation and	hav sign the sol	لمدخلهم	lov ist mag				nom hv vol	· more by wo	pana ba va	oriend ft <sup>2</sup>	Aunte in Stanty	Concentration in gases			100 HP		Normal Operating Rate			) volume ) nstruction	<u>4</u> 9 mE 1 7 mN	ack or vent (see instructions on how to determine location of area sources)	176		

Apr0 1995				•								
les sa coor				• • •								
bar Aq wed			·									
hav yet man					<b>†</b>				•			
لمحيط يتطريح	ŀ											
or 14 miles		ŀ										
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ov sty under												
מי אל מוקוד												
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ber sty wood		Ī	Add			0.04		0.01	0.01		000	
ar Ay wad			· Add	┢		0.19	04	0.04	0.04		000	Nitroman dio sida
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oristd tt <sup>2</sup>			Add			0.02		< 0.01	<0.01		000	Particulate metter (PM),
		T		Î		Villan Workhi	ineren i		Valiadi aGeleav	<b>Annound</b>		
Concentration in gases exiting at stack	Concentr.		Add, Chenge, or Delete		 	Annual franshet	-			Control Equipment	Cantrol Equipment	Pollutant
		1		4					Information	1	Specific	Air Pollutant S
עזיטוק יוענ	. v.	\	24	5	2	25	tics 25	Characteristics				
201 VOE	5	1	2					Operating				
	-		F	Ī						2 U 2007 December 2007		Natural Coo
Normal - Operating Rate	- Um	Normal operating time of this point	Norma	put of Ion point	ennual throughput of ough this emission point	Percent of ennual pollutants through th	pogr		uctions)	urt (see Jost	nd heat Inp	Ē
				14.6			308.8		<b>5</b>	0.67		Characteristics 11.41
		1	-			y summer to the	Soul 'sponska		8	diachaige area (111) Bitt	-	
For tasks, Bet volume (asis), data of construction	or tanks, h		valocity	Stack gas aidt valocky		flow at process	Stack gas flow at pr			imeter (ft) er et		Stack and Discharge Height of Stack
5_6_204_9 mE 3_597_61_7 mN	5621 5975	1	Horizontal coordinate Vertical coordinate	Horizo Vertici		UTM zone no.	UTM		Heater .	Line	MMBTU/hr	02 0.5 1
to determine location of erea sources)	location	determine	an how	ck or vent (see instructions	AUX (000 ]	Location of stack or v	Locat	ck or vent	Descriptive name of the equipment cerved by this stack or vant	t the equipment	dpdve name o	
96	10/21				4	on Facility	<b>Production</b> Fac	LSU <b>#1−26</b> P	LSU		h. Inc.	Seamill Mid-South.
apuinal.	Date of submittal						(l' any)	b and here	Flaat location and name (If any)	•		very Name
				Ő	SOURCE Aire (EIQ)		LOUISIANA POINT/AREA/VOLUME nventory Questions for Air Pollutants	For Mr	SINGLE I Emission In			Department of Environmental Guality Air Quality Division P.O. Box 82135 Baton Rouge, LA 70884-2135 (SD4) 765-0219

Department of Environmental Guality Air Guality Division P.O. Box 82138 Beton Reuge, LA 70884-2138 (504) 765-0219 (504) 765-0219			Emission In Fmission In	LOUISIANA INGLE POINT/AREA/VOLUME SOURCE ion Inventory Questionnaire (I for Air Pollutants Panthornton and manne 54 any)	UISIAN	HE SOUT	(EIQ)			1	1 <b>(0.303)</b> (9
			Plant locarda			1 1 1				10/21	<u> </u>
Seagull Mid-South, Point ID aumber Descript	uth, Inc.	of the equipment	outh, Inc.   LSU #1-26 Pr Descriptive memo of the equipment served by this stack or work	-26 Produc	Production Fac	ility	t (see instru	want (see Instructions on how to determine location of area sources)	to determine	location of	
	Storage	ıge Tank			UTM zone no.	e no.	15 Ho	Horizonțal coordinate Vertical coordinate	rdinata <u>5</u> nata <u>35</u>	<u>562049</u> mE 3522612 mN	
Stack and Discharge Height Physical above	n (ft)	Diameter (ft) or stack discharge area (ft <sup>*</sup> )	ĨŦ	8	Stack gas flew at process didene, <u>ref</u> at standard (It <sup>2</sup> /min)	rt procees nderd (Itt <sup>3</sup> /min)		Black gas exit velocity (filled)	ê .	For tenks, list volume (gale), data of canstruction	
[Change_yee X no]							ŀ				
Type of fuel used and heat input isse instructions: Type of fuel Heat input (MM STUAR)	Lused and heat i	nput (see Instructions) Heat.input (MM BTV/hc)	nictions) A BTU/hc)		Percent		t of annual throughput of through this emission point		Normal operating time of this point		Normel Operating Rate
	A .	N/A		Operating Characteristics	Dec-Feb	Mar-May -	25 25	25 24	~	. 52	4
Air Pollutant	Specific		Information	r							I
Pollutant	Control Equipment			Emission Rate	-		Emission Estimation	Add, Change, or Delate		Concentration in gases exiting at stack	7 S
	Code	Efficiency	Average (Ibs/hr)	) Maximum (ibs/hr)	┢	Annual (tons/yr)	Method	Code			Ĩ
Particulate metter 1914.											· •
Sullyz dioxida						ŀ					
Nitmgen dioxide											
ental VDC (avr), these Bated below)	000		0.31	0.31	1.	37	ω	Add			
			-		┦			·			
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			•						total VOC lavel stress	Parton monorida			Bastalate matter (BN	Pollutant	. (	· Air Poll	Fuel				Characteristics	Stack and Discharge Physical	04	Point iD number	Company Manne Seagull Mid-South,	·	Department of Environmental Qua Air Quality Division P.O. Bax 82135 Baton Rouge, LA 70084-2135 (504) 765-0219
					•				need below				-			Pollutant S		. N/A	Type of fuel used and heat input isee instructions: Type of fuel Heat hour MM BTU/ht		N/A	re Height of Stack above grade (ft)			-South, Inc.		nt of Environmental Quality Ur Quality Division P.O. Bax #2115 Ronge, LA 70814-2115 (504) 765-0219
	-								000					Equipment	Cantrol	Specific		L.	nd heat in vel				Loading Losses	indua unune o			
														л¢	Cantra			N/A	put_isee_instructionst Heat-Input (MM_BTU/hr)		N/A	Diameter (ft) or eteck discharge area (ft <sup>*</sup> )	.088eS	Descriptive name of the equipment served by this stack or			
									5.59					Average (ibe/hr)		Information			M BTUM		רק ק ק 			It served by th	I mart is		SINGLE Emission I
																ž	Characteristics	Operating			N/A	Stack gas out temperature (°F)		is stack or t	Jocation and nam LSU ∲1—26	for	
1									5.59			•.	•	Maximum (iba/hr)	Emission Rate		eristics	atina	<b>.</b>			Stack ges flow : conditions, not at et			LSU #1-26 Production	Air Po	LOUISIANA B POINT/AREA/VOLUME
•									0.					Annu		•	25	Dec-Fab	pollutanta		N/A	gen flow st		×.		<b>Pollutants</b>	AVADIA
			•						.07					al (tons/yr)			25	Mar-May	through th			at process underd (ft?/min?	e no.	stack or vent	Facility	ts	
	•				Γ				ω					Eatimation Mathod	Emission		25	Jun-Aug	nt of annual viewgripes of It through this emission point		<u> </u>	•	65	nt (see instructions	-		SOURCE Aire (EIQ)
		┝							A					<u> </u>			25 .			۶ 	N/A	Stack gas and velocity (It/sec)	Horizontal coordinate Vertical coordinate		•		
									Add					or Delate Code	Add, Change,		0.5	New York			 	<b>V</b>	al coord coordinu	n how to		÷	
					ſ										c		0.96	ł	of this point			(geta)	inate 3 3 1 1	determine i		_	A <u>,-</u> ,
														exting	oncentrat		. 52	ł		Ī	N/A	tanks, Net date of s	<u>5620</u> 5976	ocation o	12/01	ļ	
Аргії 1995	les aq aux	har hy way	har Ay was	hav tut noge	hor Aq wed	Jaco by said	إمد يرا معوم	law ki waa	Jurity wood	or ty woo	المدرايط بسرين	with a state	orieta ft <sup>2</sup>	exiting at etack	Concentration in gases	•	25 hr/yr		Operating Rate	Warmal		For tenks, list volume (geh), date of construction	4 9 mE 1 7 mN	on how to determine location of area sources)	1/96		

sendite	Seagull Mid-South, Inc.     LSU #1-26 P.       Point ID number     Descriptive mame of the equipment served by this stack or want       05     Fugitive Emilssions       5teck and Discharge     Haight of Stack       binstear fit)     Stack ges out       above grade (h)     Stack fit)
SINGLE POINT/AREA/VOLUME SOURCE Emission Inventory Questionnaire (EI) for Air Pollutants Mantiocation and name 68 anyl	r. D. BOX 84740 8 INGL 18 Rouge, LA - 70884-2135 Emission 1904) 705-0219 Emission 19 Name Plant lo
2) structions on how to deter Horizontal coordinate Vertical coordinate (n/sec)	/AREA/VOLUME SOURCE bry Questionnaire (EIG roluction Facility coduction of stack or vent (see in Location of stack or vent (see in Stack gas flow at process

### 8 PERSONNEL

Managar	of facility or location at plant si	te			
Name	Douglas G. Krenek				
Title	Production Manager				
Cempi	Seagull Mid-South,				
Suite,	Suite 1700	,	** <b>*</b>		
	er P.O. Ben 1001 Fannin	•			•
City	Houston	State T	X	2 <del>.</del> 77002	
Busing	(713) 951-4700				

c. Headquarters or other off-site contact (see Instructions)

Name	Kent Weissling		
	vent wersering		
Title	Environmental Engin	neer	
Compo	сау — — — — — — — — — — — — — — — — — — —		
	_Seagull Energy Cor	poration	
Suite,	mail drop, ar division	-	
·	Suite 1700		
Street	er P.O. Ben		
	1001 Fannin		•
City	•	State	Ze
	Houston	TX	<b>Z</b> ≠ 77002
Busine	es phone		-
	(713) 951-4748		

Signature of ferformible official(s). Sea 40 CFR 70.2	
Date 10/22/91	
Date .	

CERTIFICATION: I certify, under provisions in Louisiana and United States law which provide oriminal penalties for false statements, that based on information and ballef formed after reasonable inquiry, the statements and information contained in this Emission inventory Questionnaire (EQ) of Air Pollutants, including all attachments thereto, are true, accurate, and complete.

on
20
2.0 77002

d. Person who prepared this report İNar

Sulness phone				
City		Suns	Zip	
Birest or P.O. Bax				
Suite, meil drop, er division	•			
Company -		•		
litie				
•		•		

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applicable regulation. Use attachments as necessary.

For sources subject to federal Title IV (acid rain) requirements, complete and submit the federal forms.

**10 Compliance with Federal Requirements** 

For sources currently in compliance: State briefly the compliance status of the facility. Indicate a commitment to continued compliance with currently applicable requirements and to future compliance on a timely basis with requirements which become applicable during the permit term.

For sources not currently in compliance: Give a description of how compliance will be achieved, including a schedule for compliance. Indicate remedial measures and milestones leading to compliance with any applicable requirements; include a schedule for submitting certified progress reports, to be submitted no less than every 6 months.

For all sources: Provide a schedule for submission of compliance certifications during the permit term. Include a brief description of methods used for determining compliance (monitoring, record keeping, reporting, etc.). Include a statement indicating the source's compliance status with any enhanced monitoring and compliance certification requirements of he Act. A responsible company official (as defined in 40 CFR 70.2) shall certify the truth, accuracy, and completeness of these statements.

- 11 Personnel
- -Responsible official.

Enter the name, address, and phone number of the responsible company official.

-Professional Engineer

A Professional Engineer must certify the application. The engineer's name, firm, address, and phone number should be entered.

•Certification. An authorized company agent should sign and date the form confirming its accuracy and completeness. A professional engineer should sign and date the form confirming accuracy of calculations, drawings, and designs.

- · A. "IT" QUESTIONS
  - Have the potential and real adverse environmental effects of the proposed facility (sctivity) been avoided to the maximum extent
     possible?

- 2. Does a cost benefit analysis of the environmental impact costs balanced against the social and aconomic benefits of the proposed facility(activity) demonstrate that the latter outweighs the former?  $Ye_{5}$
- 3. Are there alternative projects which would offer more protection to the environment than the proposed facility (activity) without unduly curtailing nonenvironmental benefits? No
- 4. Are there alternative sites which would offer more protection to the environment than the proposed facility (activity) site without unduly curtailing nonenvironmental benefits? NO
- 5. Are there mitigating measures which would offer more protection to the environment than the facility (activity) as proposed without unduly curtailing nonenvironmental benefits? No

B. title VI Stratospheric Ozone

- 1. Does your facility have any air conditioners or refrigeration equipment that uses CFCs, HCFCs or other ozone-depleting substances? \_\_\_\_\_yes \_\_\_\_\_ no
- 2. Does the air conditioner or refrigeration equipment contain a refrigeration charge greater than 50 pounds? \_\_\_ves \_\_\_no N/A
- 3. Do your facility personnel maintain, service, repair, or dispose of any motor vehicle air conditioners (MVACs) or appliances ("appliance" and "MVAC" as defined at 40 CFR 82.152)? yes X no
- 4. Cite and describe which title VI requirements are applicable to your facility (i.e. 40 CFR Part 82, Subpart A through G.) in the Regulatory Applicability section of the application.

title IV Acid Rain

C.

Complete the Acid Rain Program Phase II forms for affected facilities (available from the EPA bulletin board system). LSU 1-26

Eacility Emission Total - ton/yr

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Emission Point	ID Number	NOx -	со	voc	SO2	PART
Compressor	01	14.5678	2.6048	2.1225	0.0019	
Line Heater	02	0.1941	0.0408	0.0074	0.0012	0.0233
Storage Tank	03	•		1.3741		
Loading Losses	04			0.07		· · · · · · · · · · · · · · · · · · ·
Fugitives	· 05		•	· 0.2083	· ·	
Total		14.7619	2.6456	3,7823	0.0031	0.0233

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LSU 1-26

Facility Emission Total - Ib/hr

Emission Point	ID Number	NOx	со	VOC	SO2	PART
Compressor	01	3.326	0.5947	0.4846	0.0004	
Line Heater	02	0.0443	0.0093	0.0017	0.0003	0.0053
Storage Tank	03			0.3137		
Loading Losses	04			5.59		
Fugitives	05			0.0476		
Total		3.3703	0.604′	6.4376	0.0007	0.0053

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Barham Estate 2-20

# **Compressor Emission Calculations**

	Compressor w/ Cat. 3306NA	Component	Emission	
	100	(HP)	Rating	
	8760 ·	Hours gm/hp-hr gm/hp-hr gm/hp-hr gm/hp-hr	Rating Operating NOx CO VOC SO2	Maximum
	15.1	gm/hp-hr	NOx	
101/	2.7	gm/hp-hr	8	Emission Factors (1)
TOTAL EMISSIONS	2.20	gm/hp-hr	Voc	Factors (1
l	0.002 3.3260 14.567	gm/hp-hr	SO2	
3.3260	3.3260	ib/hr	z	
14.5678	14.5678	ton/yr	NOX	
0.5947	0.5947	lb/hr	0	•
2.6048	2.6048	ton/yr	8	Emissic
2.6048 0.4846 2.1225 0.0004	0,4846	lb/hr	~	Emission Rates
2.1225	2,1225	ton/yr	VOC	
0.0004	0.4846 2.1225 0.0004	lb/hr	Š	•
0.0019	0.0019	ton/yr	SO2	

Sample Calculations Short Term NOx Emissions

15.1 gm/np-hr(100 hp)/454 gm/lb = 3.3260 lb/hr

Annual NOx Emissions

3.3260 lb/hr (8760 hr/yr)/2000 lb/ton = 14.5678 ton/yr

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\*(1) NOx, CO and VOC emission factors are from Manufacturer's specifications; SO2 factor is from AP-42.

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### **Emission Calculation Sheet**

### Flashing Losses Using Vasquez-Beggs Equation

Operator: <u>SEAGULL MID-SOUTH, INC.</u>

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Ouachita

Facility Name: LSU 1-26

Parish:

Vasqu	ez-Beggs Equation	Value	Equation	Reference
Q =	Annual Production, bbl/yr	1460		
APIG =	API Gravity (Degrees)	55	From liquid analysis	
Cl =	Vasquez-Beggs Constant	0.0178	If API Gravity > 30 then C1=0.0178, otherwise =0.0362	Table 22.6, pg. 22.8 PE Handbook
C2 =	Vasquez-Beggs Constant		If API Gravity > 30 then C2=1.187, otherwise =1.0937	Table 22.6, pg. 22.8 PE Handbook
C3 =	Vasquez-Beggs Constant		If API Gravity > 30 then C3-23.931, otherwise =25.724	Table 22.6, pg. 22.8 PE Handbook
AD,=	Air density @14.7 psia and 60 F (lb/cu.ft.)		Default = 0.076318	Fig. 23.2, GFSA Data Book
T=	Fluid Temperature in vessel	. 90	Default = 100 F	
VP =	Upstream vessel pressure (psig)	60	Default = 30 paig	
UP =	Upstream pressure (psia)	74.7	UP = VP + 14.7	
\$G =	Specific gravity of gas in separator (Air = 1)	0.9	From gas analysis	
CSG =	Corrected specific gravity of gas	0.8509	CSG = SG * (1.0+5.912E-05*APIG*T*Log(UP/114.7))	Eq. 11, pg. 22-7 PE Handbook
GD =	Gas Density (lb/cu.ft.)	0.0584	GD - CSG * AD	•
GOR -	Gas to oil ratio (icf/bbl)	27.7501	GOR = CI*CSG*UP^C2*EXP((C3*APIG)/(T+460))	Vasquez-Beggs Correlation Equation
E=	Control efficiency (% Reduction)		Default: 0	
			•	
Lf=	Correlated Flashing Loss (lb/yr)	2367.48	Lf= GOR*Q*GD*(100-E)/100	· ]
VOC%	VOC WL %	20.06	From weight percent calculation sheet	•
	Flash VOC Emission (Ib/yr)		Flash VOC = Lf * VOC%/100	
	Flash VOC Emission (ton/yr)		Flash VOC (B/yr) / 2000 lb/ton	1
H2S% =	H2S W1. %		From weight percent calculation sheet	
	Flash H2S emission rate (lb/yr)	0.00		

Gas to oil ratio (GOR) is calculated using Vasquez-Beggs Correlation; equation (17), pg. 22-9 PE Handbook

Paint Characteristics Shell Color/Shade: Shell Condition: Roof Color/Shade: Roof Condition: Tank Dimensions Shell Height (ft): Diameter (ft): Liquid Height (ft): Avg. Liquid Height (ft): Volume (gallons): Turnovers: Net Throughput (gal/yr): Breather Vent Settings Vacuum Setting (psig): Pressure Setting (psig): Roof Characteristics Identification No.: Height (ft): Radius (ft) (Dome Roof): Slope (ft/ft) (Come Roof): Company: Type of Tank: City: State: ť ÷ LSU 1-26 Calhoun LA Seagull Mid-South Vert1cal Fixed Roof White/White Good White/White Good Cone 15.10 0.00 3.0200 115 10 10 10 10 10 5876 61110 0.01 0.01 TANK IDENTIFICATION AND PHYSICAL CHARACTERISTICS

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TANKS PROGRAM 2.0 EMISSIONS REPORT - SUMMARY FORMAT

09/10/96 PAGE 1

Meteorological Data Used in Emission Calculations: Shreveport, Louisiana

	•		·	-		E. Te	Mixtu	
•					•	xas Cor	Hixture/Component	
	,	ل				Texas Condensate	vonent	
	-					ю		
		·		·				
						AII	Month	
						67.33	, Datly Temper Avg.	
						61.75	, Daily Liquid : Temperatures Avg. Min.	
						72.91	Surf. (deg F) Max.	
		·				65.42	) Bulk (deg	0.0
						2 7.1833	Liquid Bulk Temp. Vapor Pressures (psia) (deg F) Avg. Min. Max.	IANKS PROVINCE CONTRACTS
			,			833 6.	or Pres	TANKS PROGRAM 2 0 S REPORT SUMMAR CONTENTS OF STORA
						6.5423 7	n. Nures (	OR I
•		-				7.8716	•	
					·	91.510	Vapor Moi: Weight	AM 2 U SUMMARY STORAGE
							Liquid Mass Fract.	
							d Vapor Mass Fract.	FORMAT
·					÷	91		
. ·						91.51 Op	Mol. Basis for Vapor Pressure Weight Calculations	
			· .	1		Option 4: RVP-8.90	Isis for Iculation	
,					• •	: RVP-8	r Vapor Ions	
		•			••	.90	Press	
			_			4 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	Ire	
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· · · · ·						Total :	E. Texas Conde	Liquid Contents	Annual Emissions Report
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		-			•			S.F.	
						1555.94	1555,94	osses (lbs.) tanding b	
•					;	717.33	717.33	Losses (lbs.): Standing Withdrawal	
· · ·						2273.26	2273.26	Tota]	
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Emission Component Line Healer	Maximum         Emission Factors (1)           Rating (2)         Operating         NOx         CO         VOC         (1)           MMBTU/hr         Hours         IbMAMSCF         IbMAMSCF	IDMANSCF	21.0 3.50 0.600	3.30	ABOD	12.000	0.0443	0.1941	0.0000 1940	0 ton/yr 0.0408	5,000	VOC Lonyr 0.0074	SO2	52 tanlyr 0.0012 -	0.0053	PM-10 bon/yr 0.0233
		بر جاری		TOTAL EMISSIONS			0.043	Q.1991	0.0083	0.0083	0.0017	0.0012 0.00174 0.0002 0.0012		0.0012	0,0053	0.0233
Sample Calculations_ Short Term NOx Emissions	Nicca		Ð	Annual NOx Emissions	niasions								•			
0.5 MMBtu/rr (sci/1128	0.5 MM8tuhr (sc(1128 Btu) (100.0 IonAMSCF) = 0.0443 lbhr	0.0443 lb/hr	g	0.0443 lb/hr (8760 kr/yr)/2000 lb/ton = 0.0.1941 ton/yr	80 hrtyr)/200	0.00mm = 0.0	,1941 tonlyr		•	,				•		
`				•												
			~													
(1) Emission factors a	Emission factors are from EPA AP-42, Table 1.4-1 (PM), 1.4-2 (NOx, SO2, CO) and 1.4-3 (NOC)							"								۰,
(2) Fuel Heating Value is 1128 Blurect.	e is 1128 Bluksci.	4-1 (PM), 1.4	2 (NOX, SO2, 1	CO) and 1.4-3	(NOC)			ſ				•				,
		.4-1 (PM), 1.4	2 (NOX, SO2, 1	8) <b>11</b> 1.1.	(voc)			,		•		•				`
		4-1 (PM), 1.4	2 (NOX, S02,		woc		• •	ſ					· .	:		,
	• •	4-1 (PM), 1.4	2 (NOX S02,	8) ∎ 	(NOC)		•	ť		- •		•	•	·.		,
	• •	4-1 (PM), 14	2 (NOX, SO2,	CO) and 1.43	woc	· · ·	, ,	r		- ·			· .		,	· · ·
.•		- (PM), 14	2 (NOX, SO2,	8) 11 · · · · · · · · · · · · · · · · · ·	(WOC)	· · · · · ·	•	ť					•	· ·	· ,	· · · · · · · · · · · · · · · · · · ·
••••••••	•		2 (NOX, SO2,		(VOC)		, ,	r		- ·			· .		,	

LSU #1-26	
Maximum Potential to Emit - Loading Losses	

Source	No. of Tanks	Thoroughput, bbl/yr	Loading, hrs/yr	VOC Emissions, lb/hr	VOC Emissions, tons/yr
Storage Tank	1	1460	25	5.59	0.070
Total	1	1460 ,	25	5.59	0.070

### **Example Calculation**

LL = 12.46 SMP/T = lbs/1000 gals loaded Where:

LL = Loading ioss

S = Saturation factor (0.6 for truck loading)

M = Molecular weight of vapors = 50

P = Vapor pressure of oll = 3.87 psia

T = Temperature of oil in Rankine = 540 \*

LL = 12.46 (0.6)(50)(3.87)/540 = 2.68 lb/1000 gais

Throughput = 1460 bbl/yr = 61.32 thousand gals/yr

LL/yr = 2.68 (61.32) = 164.34 lb/yr = 0.082 ton/yr Total Organic Compounds VOC percentage in Crude Oil Vapors = 85% 0.082 ton/yr (.85) = 0.07 ton/yr VOC

0.07 ton/yr x 2000 lb/ton/ 25 hr/yr = 5.59 lb/hr

Equations and factors are from AP-42 Section 4.4, "Transportation and Marketing of Petroleum Liquids".

0.2083	0.0476	Total Fugitive Emissions	Total Fugit			
0.0682	0.0156	0.00389	0.2006	0.0194	4	Others ·
0.0341	0.0078	0.00389	0.2006	0.0194	2	Compressor Seals
0.0189	0.0043	0.00017	0.2006	0.00086	25	Flanges
0.0872	0.0199	0.00199	0.2006	0.00992	1Ò	Valves
Ton/yr	lb/hr	(lb/hr-source)	Wt % _	(lb/hr-source)	Count	Component
Emission	Emission	Factor	Voc	Factor (1)	Source	Emission
		Final Emission		Emission		

## Sample Calculations

Annual VOC Emissions - Flanges

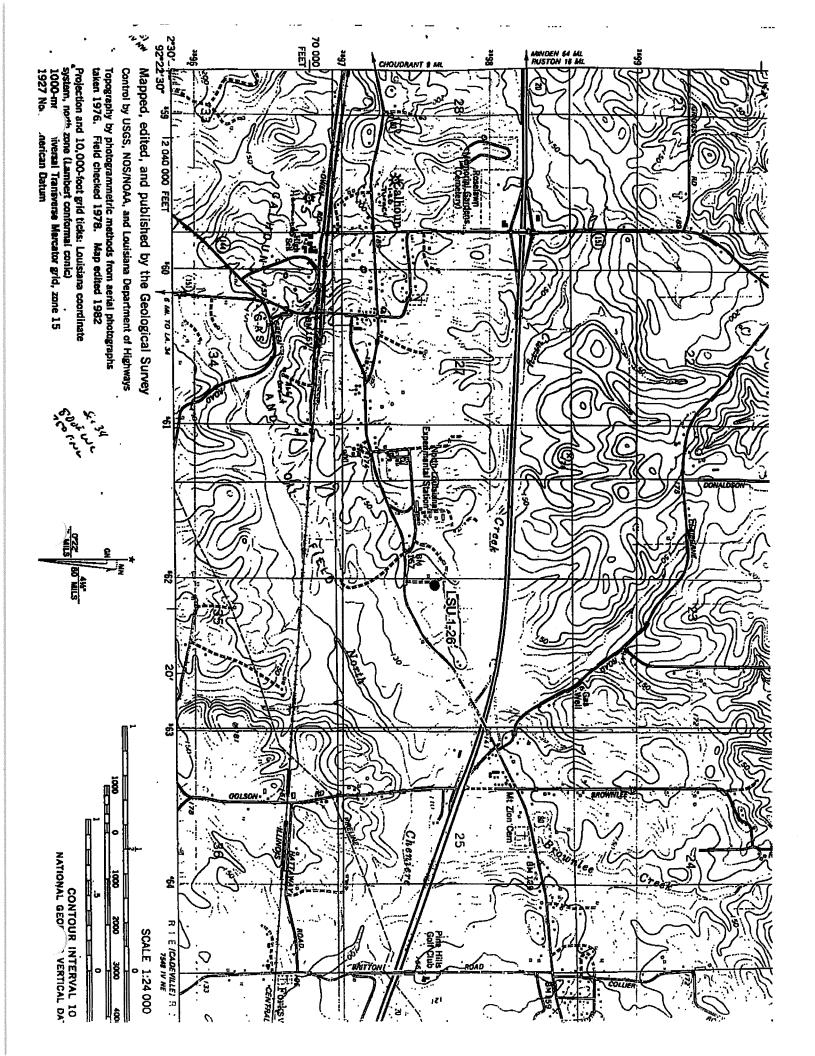
	25 valves
 hr-valve	0.00086 lb
	0.00086 lb 0.2006 Wt %
year	8760 hr
2000 lb	ton
	= 0.0189 ton/year

Emission factors from new Oil and Gas Production Operations factors approved by the EPA in August 1995.

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PARISH: OUACHITA

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	•		• •		
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3596.39	544-84	15 .	Calhoun- < 1 mile from Calhoun.	2160-00071 -01	Cadeville Compressor Stn.
5 3597.97	558.45	15	Calhoun- Approx. 1.0 mile nw of Calhoun.	2160-00080 -00	Mcbil J.M.Russel No. 1
3597.36	559.42	15	Calhoun- Approx. 0.3 miles west of Calhoun.	2160-00078 -00	Turner No. 1-28
3597.62	562.04	15	Calhoun- Approx. 1.2 miles east of Calhoun.	Calhoun-	LSU No. 1-26
1	•	15 :	Calhoun- Approx. 0.4 miles sw of Calhoun.	Exemption	F. E. Hammonds No. 5-33
1		15	Calhoun- Approx. 0.6 miles sw of Calhoun.	Exemption	F. E. Hammonds No. 1-33
3595.93	557.38	15	Calhoun- Approx. 1.7 miles sw of Calhoun.	2160-00079 -00	O. S. Chapman No. 1-32
UTM Km N	Kin E	UTM ZONE	CITY & PHYSICAL Location	-PERMIT NO.	FACILITY

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APPENDIX G – QUALIFICATIONS OF ENVIRONMENTAL PROFESSIONALS

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### JORDAN HARPER

### **Environmental Specialist**

### **Project Assignment: Environmental Specialist**

Mr. Harper has recently joined PPM's environmental staff and is involved in property transfer environmental assessments, statistical analyses, groundwater monitoring, and remediation studies. Mr. Harper's remediation experience includes review of groundwater monitoring reports, preparing Phase 1 Environmental Site Assessments (ESA), and groundwater site investigations. Mr. Harper is familiar with Louisiana Department of Environmental Quality (LDEQ) regulations and Environmental Protection Agency (EPA) protocols.

### **Relevant Experience:**

- Conducted multiple groundwater monitoring projects. Projects included well gauging, bailing, as well as sampling wells for petroleum hydrocarbon constituents, and conducting water table elevation surveys.
- Environmental Specialist on site investigation projects. Projects included collection of soil and groundwater samples, conducting water table elevation surveys, sampling wells for hydrocarbon constituents, data compilation and interpretation, and preparing reports.
- Researched and obtained DEQ files for project information.
- Conducted Phase I Environmental Site Assessment to determine environmental concerns. Projects included site visits, field reconnaissance, file reviews, report preparation and report assembly.
- Has laboratory experience with DNA extraction from both plant and animal tissue and the use of polymerase chain reaction. He is familiar with the use of light microscopes, and dissection scopes, microphotography, vertebrate physiology, histology, and immunology as well as laboratory health and safety practices.
- Familiar with state and federal regulations regarding threatened and endangered species.

### **Education:**

Bachelor of Science in Biology Grove City College 2012

### Training:

40-Hour Hazwoper Training, September 2014 In-house Training on Phase I ESA, 2014 Lock Out/ Tag Out 2014

Phase I ESA Report Resume

### GREGORY P. STOVER, P.G. SENIOR TECHNICAL CONSULTANT

Mr. Stover has 35 years of experience as a geologist, and serves as a Senior Technical Consultant with PPM. Mr. Stover declares that to the best of his professional knowledge and belief, he meets the definition of *Environmental Professional* as defined in §3.12.10 of 40 CFR 312, to wit: Mr. Stover earned a Bachelor of Science in Geology from Auburn University in 1979; has held a current Professional Geologist's license from a state since 1989 (Florida, Arkansas, Tennessee, Alabama, and Mississippi); and has 28 years of full-time relevant experience.

Since January 1988, Mr. Stover has performed, managed, supervised, and provided OA/OC reviews for several thousand Phase I and Phase II Environmental Site Assessments (ESA) conducted at a variety of facilities including gasoline stations, auto shops, auto dealerships, soda bottling plants, printers, dry cleaners, indoor and outdoor shooting ranges, paper mills, cotton gins, bulk terminals, oil and gas production fields, wood treatment facilities, asphalt plants, quarries and mines, light and heavy manufacturing factories, railroad terminals, roundhouses, tracks, and spurs, office/warehouses, high-rise office buildings, hotels, hospitals and medical offices, Research & Development facilities, aerospace facilities, former military airfields, private airports, private and public schools, apartment complexes, city-owned housing projects, strip shopping centers and malls, agricultural land, large and small tract timberlands, and EPA-funded brownfields. Mr. Stover has acted as an Environmental Professional in the performance of Phase I and II ESAs in 25 states with emphasis on EPA Regions 4 and 6. Mr. Stover has worked for and/or to satisfy the requirements of users, stakeholders, and regulators including owners, purchasers, banks, lawyers, brokers, other consultants, cities, parishes/counties, councils of government, state and local regulatory agencies, HUD, DOE, DOD, SBA, FEMA and the EPA. Mr. Stover applies his expertise in hydrogeology, organic chemistry, and chemical fate and transport to his extensive list of projects involving the assessment and remediation of petroleum products and hazardous substances including gasoline, diesel, bunker oil, polynuclear aromatic compounds, coal tar, heavy metals, PCBs, herbicides, pesticides, and chlorinated solvents.

Mr. Stover has been responsible for developing standard field forms, report formats, and training to support the company-wide use of the ASTM E 1527 Standard Practice for Phase I ESAs and the All Appropriate Inquiry (AAI) Rule since these standards were first published in 1993 and 2005. Mr. Stover is a member of ASTM Committee E50.

Mr. Stover is also proficient with non-ASTM scope items including asbestos-containing building materials, radon, lead-based paint, mold, wetlands, historical resources, and the National Environmental Policy Act (NEPA) of 1969. Mr. Stover also has extensive remediation experience including the use of technologies such as dual-phase vacuum extraction, air sparging, soil vapor extraction, ozone sparging, enhanced bioremediation, excavation, solidification and stabilization, land farming, natural attenuation, and risk assessment.