

Exhibit EE.

Chennault Airport #8 Site

Phase I Cultural Resources

Assessment Report



Chennault Airport #8 Site Phase I Cultural Resources Assessment Report



Negative Findings Draft Report

for

Southwest Louisiana Economic Development Alliance
4310 Ryan St. 3rd floor
Lake Charles, LA 70605

September 2024



SURA, INC.
P.O. Box 14414
Baton Rouge, LA 70898-4414
Since 1986



**PHASE I CULTURAL RESOURCES SURVEY
OF 34.6 ACRES (14 HECTARES)
IN LAKE CHARLES, CALCASIEU PARISH, LOUISIANA**

Negative Findings Draft OR Draft Report

by

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September 2024

ABSTRACT

On September 26th, Surveys Unlimited Research Associates, Inc. (SURA, Inc.) conducted a Phase I cultural resources survey of 34.6 acres (ac) (14 hectares [ha]) of Chennault Airport in Lake Charles, Calcasieu Parish, Louisiana. The Area of Potential Effects (APE) is a part of Township 10 south, and Range 8 west. This survey was undertaken at the request of Louisiana Economic Development (LED) for the site certification program. Nothing of cultural significance was discovered during the survey. We recommend that the project be allowed to proceed as planned.

ACKNOWLEDGEMENTS

The field personnel included Katt Doucet, Stephanie Banta and Jacob Chen. The crew was led by Katt Doucet, and the principal investigator was Dr. Malcolm Shuman. The following report was prepared by Stephanie Banta, Katt Doucet and Malcolm Shuman.

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CHAPTER ONE: INTRODUCTION

On September 26th, 2024, Surveys Unlimited Research Associates, Inc. (SURA, Inc.) conducted a Phase I cultural resources survey of 34.6 acres (ac) (14 hectares [ha]) of Chennault Airport in Lake Charles, Calcasieu Parish, Louisiana. The Direct APE consisted of a mowed lawn, sparse tree coverage, and concrete. The approximate center of the APE is 484838.61 m E and 3342456.21 m N. Field crew consisted of Katt Doucet, Stephanie Banta and Jacob Chen. A total of 17 high probability and 74 low probability shovel tests were excavated. This survey was undertaken at the request of Southwest Louisiana Economic Development Alliance for the site certification program. The indirect APE was determined to be 500 feet (ft) (152.4 meters [m]).

The following chapters in this report describe the environmental setting, previous archaeological investigations, the methodology employed in the survey, the survey's results, and the study's conclusions and recommendations.

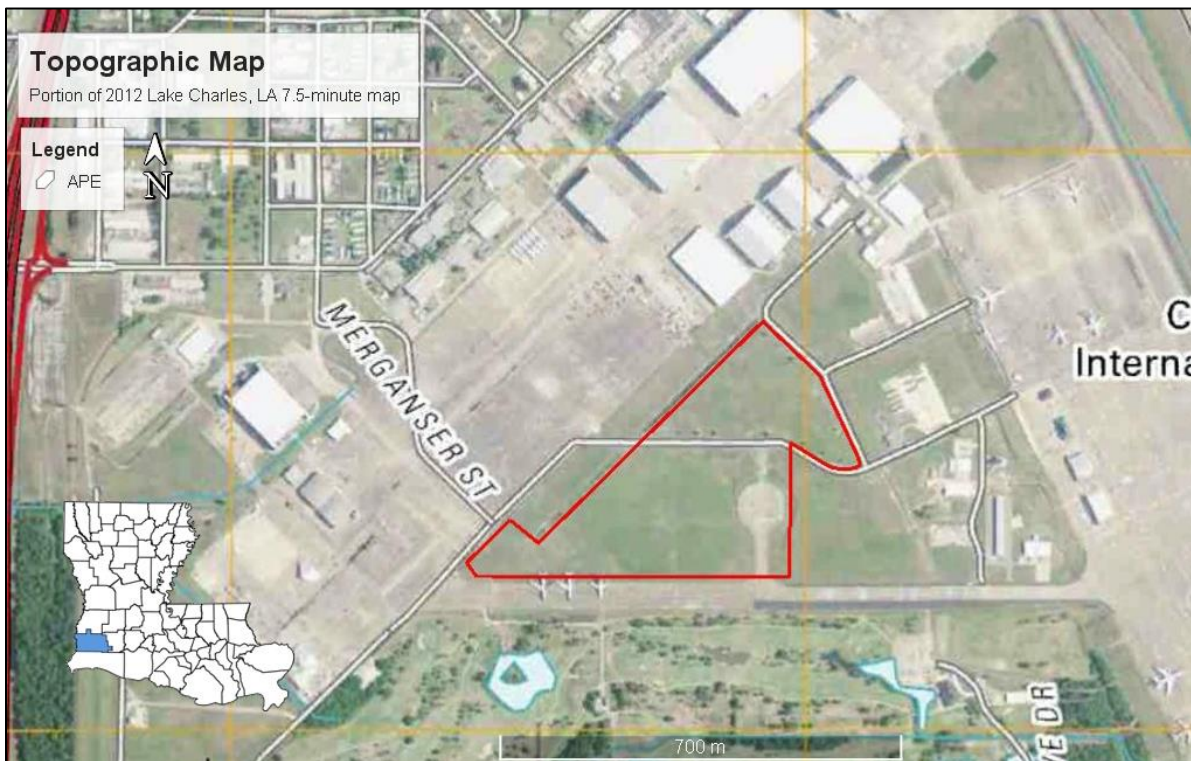


Figure 1. Topographic Quadrangle of 2012 Lake Charles, LA, 7.5-minute map (USGS).

CHAPTER TWO: LAND USE HISTORY

Geology and Geomorphology

The project area lies on the West Gulf Coastal Plain, an area of low relief, with altitudes ranging in general from 2 feet (ft) (61 centimeters [cm]) in the Sabine and Calcasieu River floodplains to 90 ft (27.4 meters [m]) just northwest of DeQuincy (Harder 1960:5); the project area is at an altitude of 17 ft (5.2 m). Three Pleistocene terraces are exposed in Calcasieu Parish; the project area is located on the youngest of these, the Prairie Terrace (Harder 1960:9; Saucier and Snead 1989). Notable features located on the surface of this terrace are pimple mounds, whose origin is uncertain but which are natural, and not man-made, formations (LeBlanc 1949:8). Nevertheless, human occupations may frequently be found atop some of them (Jones and Shuman 1988).

Soils pertain to the Mowata-Beaumont Association (Figure 2). The poorly drained Morey soils are found on the broad flats and depressed areas and comprise about 70 percent of the association. The Beaumont soils on the flats make up about 15 percent of the association; Mowata soils make up the remaining 15 percent (USDA 1971). In terms of usage, these soils are utilized for cultivation and pasture. The topography and soils of this area make it a possible location for prehistoric habitation, though prior to the coming of modern agriculture, the most favorable areas for living would have been near streams, especially the major rivers.

Soils

Two soil types are present within the APE. Prarieland Silt Loam (Lt) and Mowata Vidrine Complex (Mt) are both characterized as poorly drained and rarely flooded. Neither are considered to be prime farmland.



Figure 2. Soil map of APE (University of California, Davis 2016/Google Earth).

Flora and Fauna

Animal life is diverse and most of the 62-mammal species found in Louisiana may at one time have been found within the area. These include white-tail deer (*Odocoileus virginianus*), cottontail rabbit (*Sylvilagus floridanus*), swamp rabbit (*Sylvilagus aquaticus*), gray squirrel (*Sciurus carolinensis*), fox squirrel (*Sciurus niger*), skunk (*Mephitis mephitis*), black bear (*Euarctos americanus*), raccoon (*Procyon lotor*), mink (*Mustela vison*), beaver (*Castor canadensis*), opossum (*Didelphus virginiana*), bobcat (*Lynx rufus*), gray fox (*Urocyon cinereoargenteus*) and red fox (*Vulpes fulva*) (Lowery 1974). Birds include such predators as the great horned owl (*Bubo virginianus*), barred owl (*Strix platypterus*), marsh hawk (*Circus cyaneus*), and many others. Non-predatory types include woodcocks (*Philohela minor*), wood ducks (*Aix sponsa*), bobwhite quail (*Colinus virginianus*), and mourning doves (*Zenaidura macroura*) (Lowery 1955).

Reptile life is particularly diverse, owing to the heterogeneity of habitats in the area. Included are alligators (*Alligator mississippiensis*), several species of snakes, including the cotton mouth (*Agkistrodon piscivorus*), and varied species of lizards and turtles. Amphibians include species of salamanders, frogs, and toads (Dundee and Rossman 1989).

Fish life is very prolific in this part of Louisiana and no doubt was likewise prehistorically. Prominent fish species are gar (*Lepisosteus spp*), largemouth bass (*Micropterus salmoides*), and bluegill (*Lepomis macrochirus*), among many others.

Historic Land Use

According to a collection of historic topographic maps from between 1942 and 2012, what is referred to as Lake Charles Airport (Figure 3), Lake Charles Airforce Base (Figure 4), Chennault Airport (Figure 5) and Chennault International Airport (Figure 6) can be seen expanding around and within the Direct APE.

Topographic Maps

Beginning in 1942, Lake Charles Airport can be seen northeast of the APE, and the Municipal Golf Course can be seen northwest of the APE (Figure 3). US Interstate (I-) 210 runs north to south to the west of the APE. A road branches off of I-210 and runs west to east just north of the APE. Another road runs north to south in between the APE and the Lake Charles Airport. Kayouche Coulee runs north to southeast to the west and south of the APE. Several structures appear along the roads surrounding the APE. A train track runs west to southeast to the southwest of the APE.

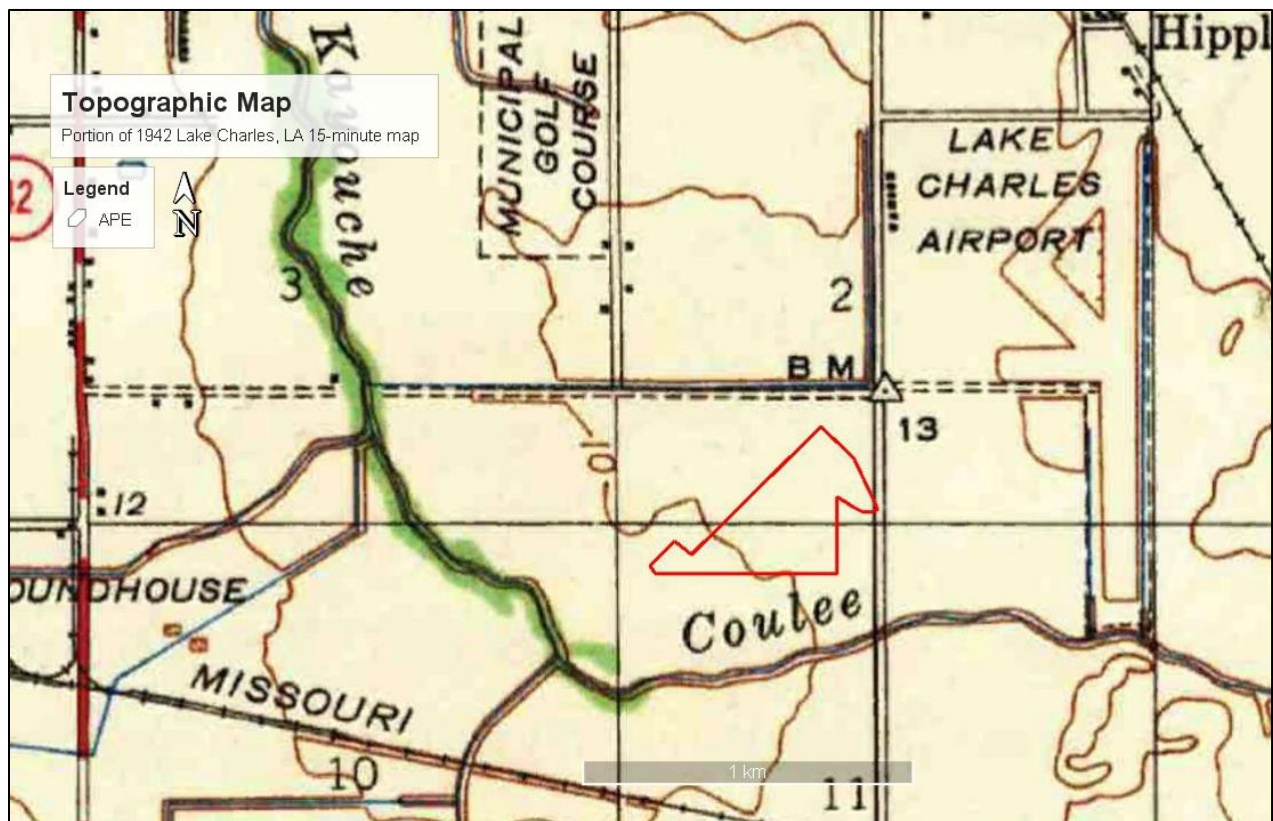


Figure 3. Portion of 1942 Lake Charles, LA 15-minute map (Source: USGS)

By 1955, many structures and roads have been developed northwest of the APE (Figure 4). The APE is now included in the Lake Charles Air Force Base and two structures are now present within the APE. There appears to be development surrounding the APE in all directions. Railroad tracks now appear closer to the APE to the south and southwest.

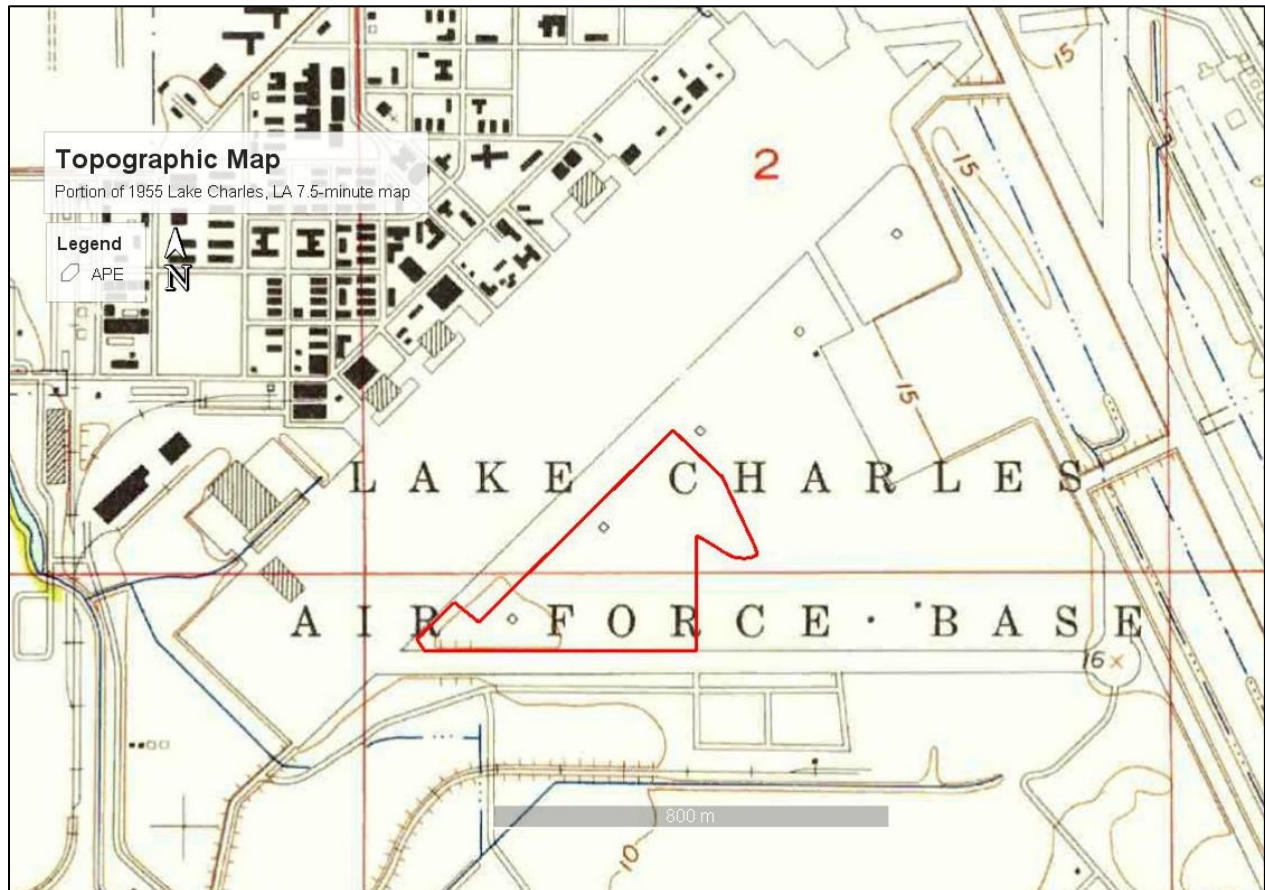


Figure 4. Portion of 1955 Lake Charles, LA 7.5-minute map (USGS).

By 1994, the airport continued to develop surrounding the APE (Figure 5). New structures, roads and lots can be seen surrounding the APE in all directions. A road runs west to east through the APE, and a round, elongated path has been developed within the APE. Previously unseen water features are present south of the APE.

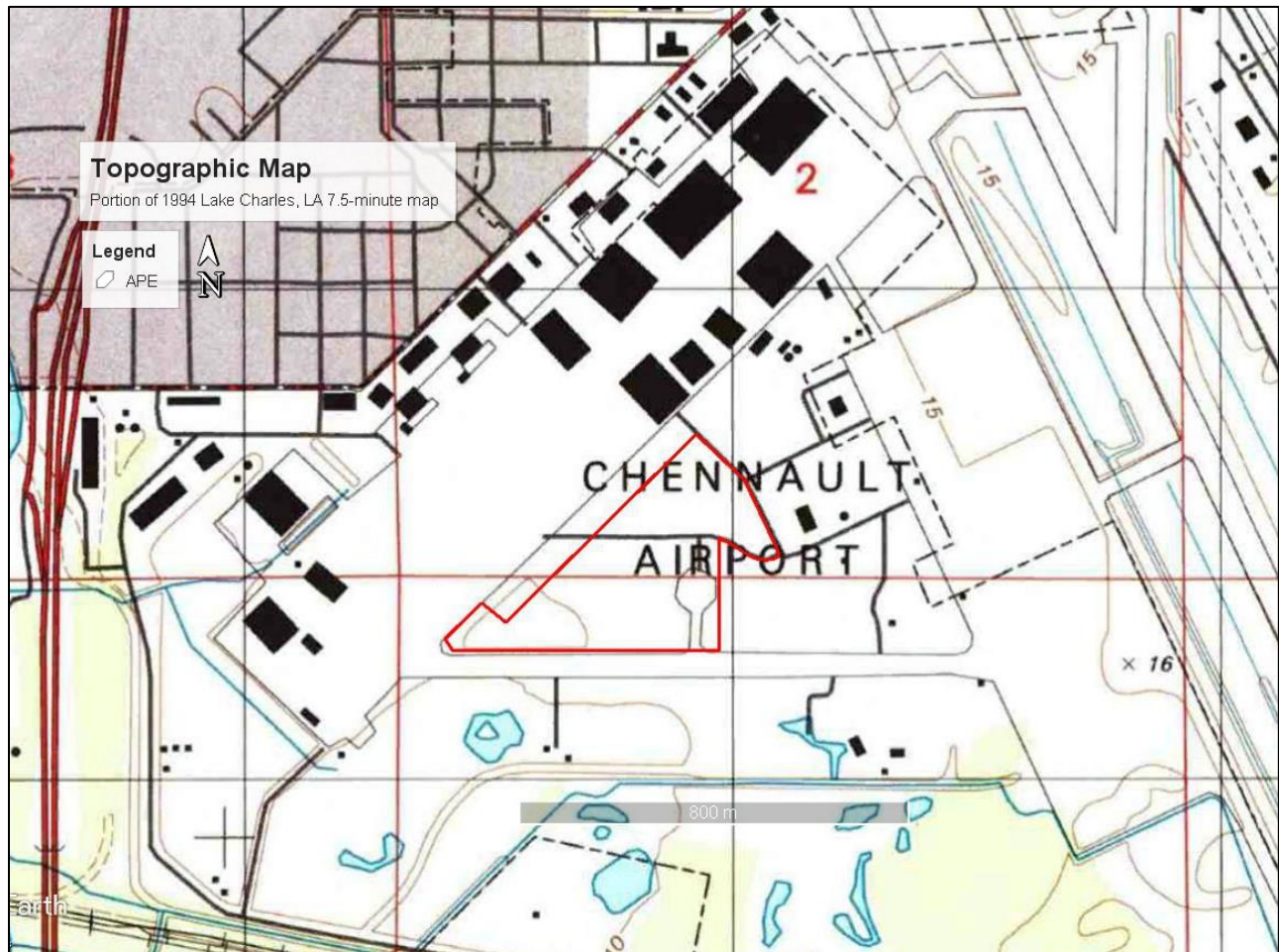


Figure 5. Portion of 1994 Lake Charles, LA 7.5-minute map (USGS).

By 2012, new structures can be seen east of the APE (Figure 6). There is no change within the Direct APE.

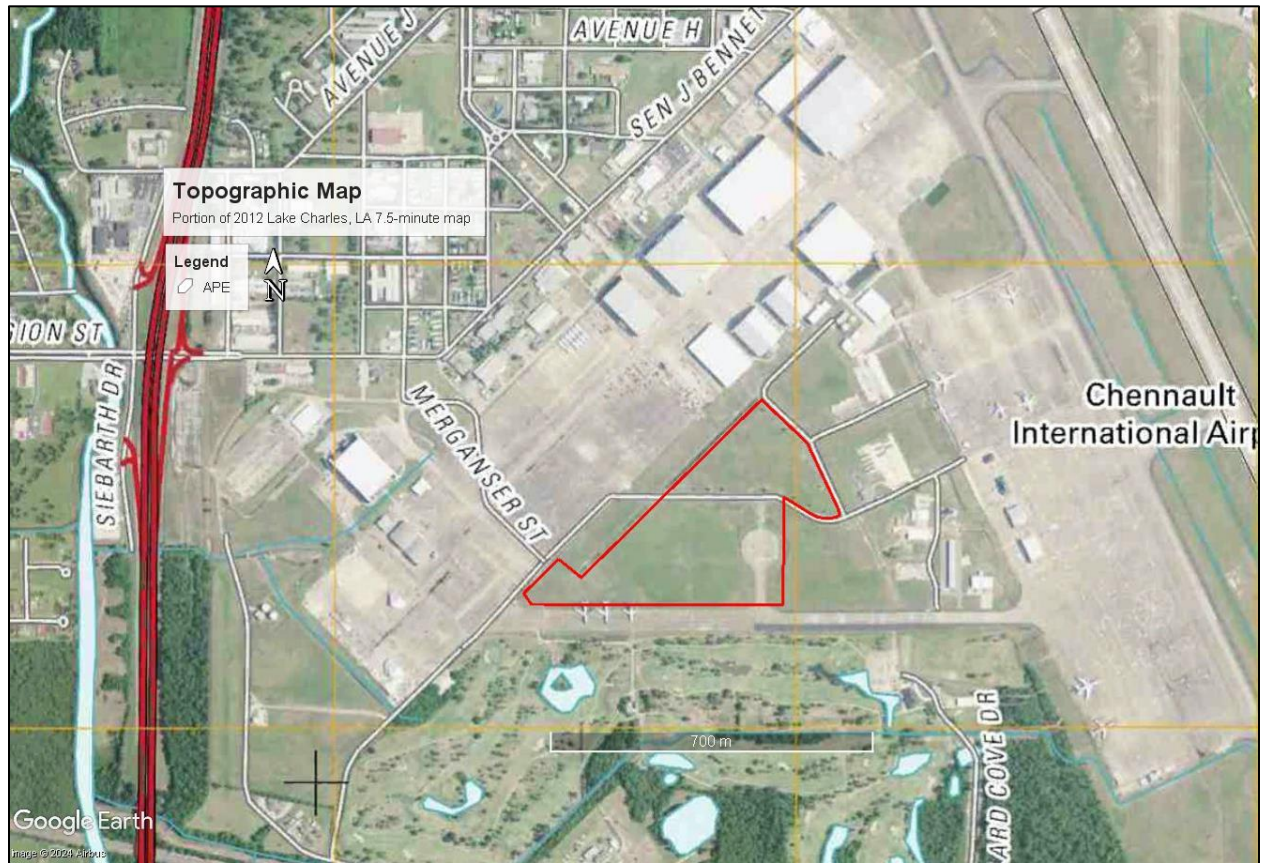


Figure 6. Portion of 2012 Lake Charles, LA 7.5-minute map (USGS).

Satellite Imagery

Beginning in 1998, the Direct APE is surrounded by Chennault Airport infrastructure including structures, roads and concrete lots. A road runs through the APE west to east, and connects southward to a round, elongated concrete path (Figure 7). A structure is present around the center of the southern portion of the APE, but this structure is likely relatively new as it was not present on a 1994 topographic map (Figure 5). A few trees are present within the direct APE but most of the lot is mowed. A road is shown running west to east just south of the APE.



Figure 7. Satellite imagery of the Direct APE, 1998 (Source: Google Earth).

By 2004, most of the trees that could previously be seen within the Direct APE are no longer present. New structures are present east, and northeast of the APE and previously present structures have been razed directly east of the APE. A ditch now lines the western boundary of the APE. Airplanes can be seen in different positions west of as well as within the Direct APE (Figure 8).



Figure 8. Satellite imagery of the Direct APE, 2004 Source: Google Earth).

By 2006, portable shipping containers appear throughout the concrete lot west of the APE as well as on the road directly south of the APE (Figure 9). Several temporary structures appear on the round, elongated concrete path within the Direct APE. A new structure and new concrete lots are present east of the APE. Airplanes can be seen in new positions west of the APE. New tree growth can be seen within the northern portion of the Direct APE. The structure previously seen around the center of the southern portion of the Direct APE is no longer present.

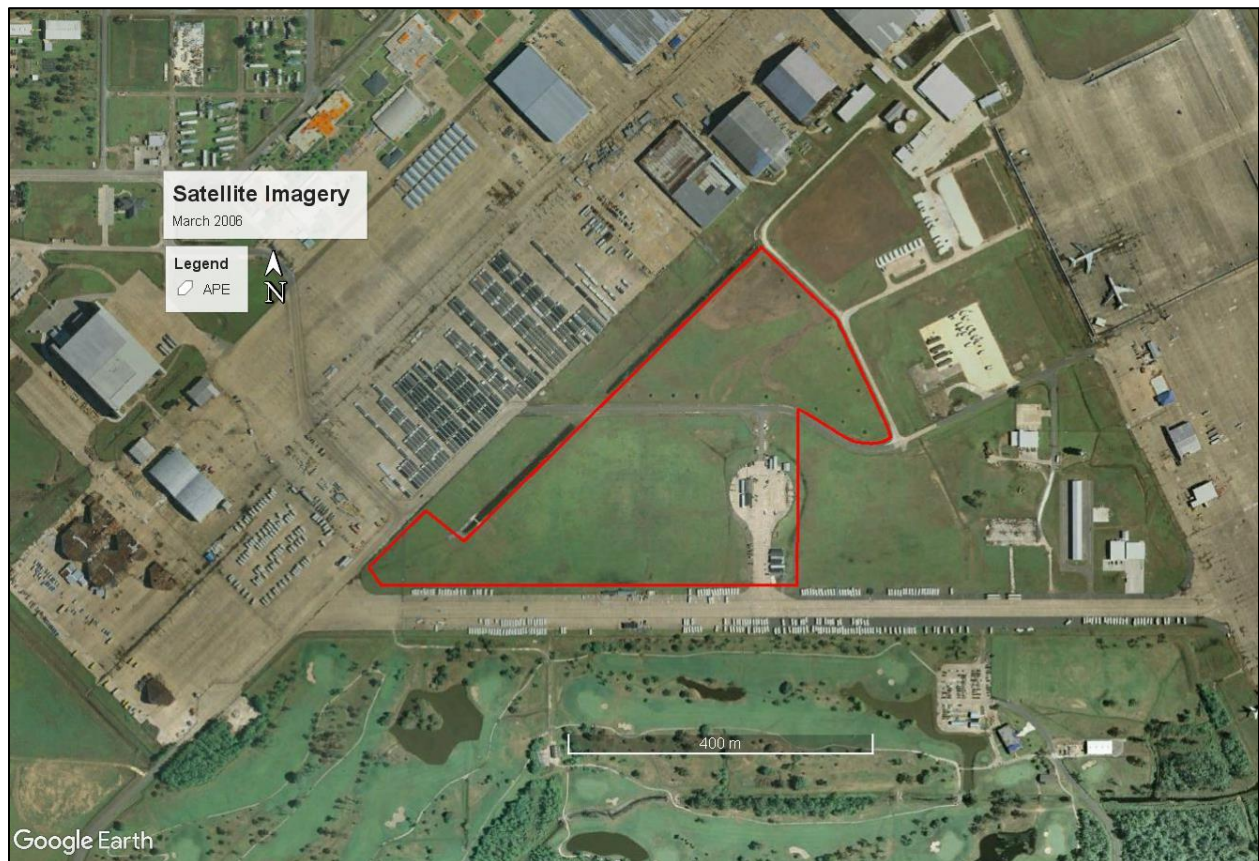


Figure 9. Satellite imagery of the Direct APE, 2006 (Source: Google Earth).

By 2009, previously seen temporary structures are no longer present on the elongated, round concrete path (Figure 10). Tree growth continues within the northern portion of the APE, and new paths can be seen surrounding development directly east of the APE. West of the Direct APE, in a large concrete lot, previously seen standing structures have been replaced by new smaller structures. New structures are present southeast of the APE.

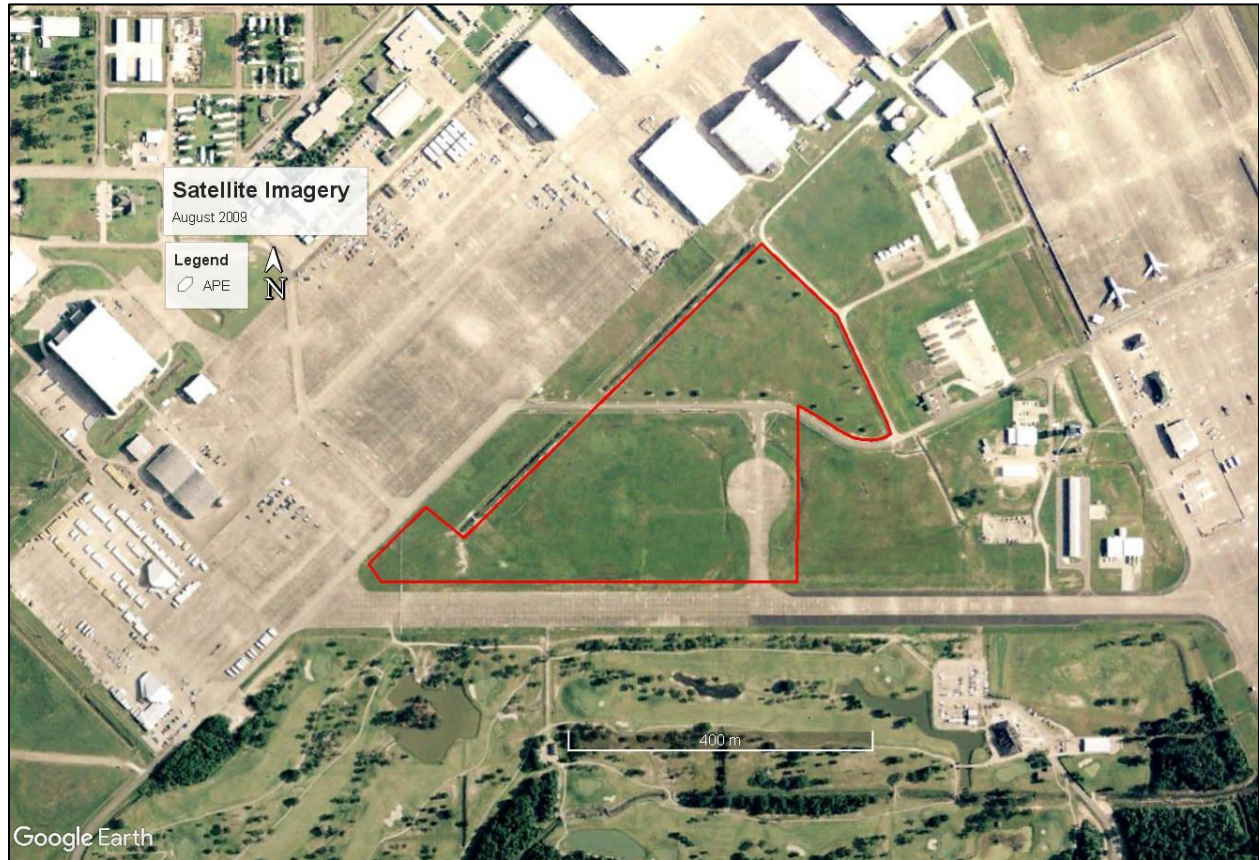


Figure 10. Satellite imagery of the Direct APE, 2009 (Source: Google Earth).

By 2015, some temporary structures previously present within the concrete lot west of the APE are no longer present. Two new structures can be seen within this lot directly west of the APE (Figure 11). There is further development to the structures and small lots to the east of the APE. Airplanes can be seen in different positions surrounding the APE.

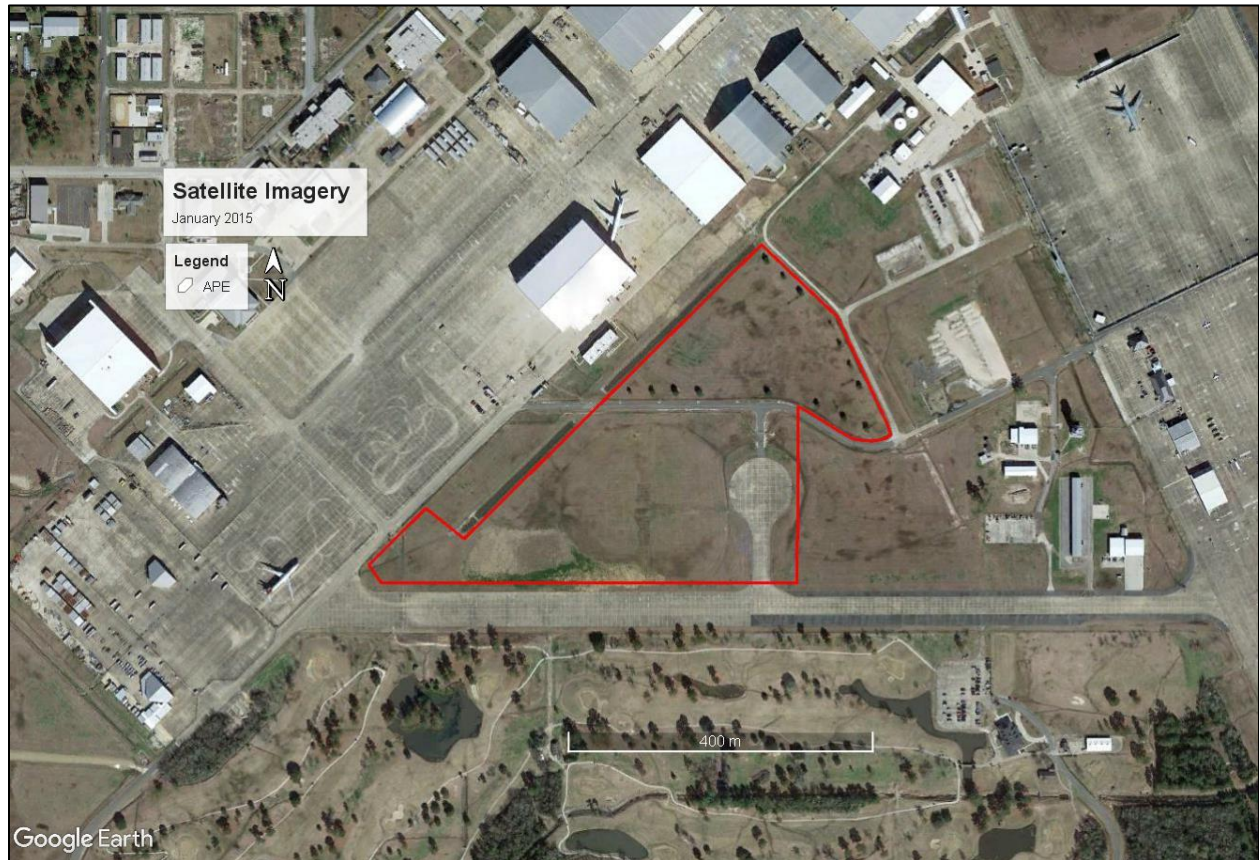


Figure 11. Satellite imagery of the Direct APE, 2015 (Source: Google Earth).

By 2019, temporary structures are present within the Direct APE, on and west of the round, elongated concrete path, as well as on the road running west to east just south of the APE (Figure 12).



Figure 12. Satellite Imagery of the Direct APE, 2019 (Source: Google Earth).

Finally, none of the previously seen temporary structures are present within the Direct APE. A new structure and concrete lot are now present directly east of the APE (Figure 13).



Figure 13. Satellite imagery of the Direct APE, 2023 (Source: Google Earth).

CHAPTER THREE: PREVIOUS INVESTIGATIONS

Projects within 1 mi (1.6 km) of APE

There are 4 projects recorded within one mile of the APE boundaries. These surveys are compiled in Table 1 and their proximity to the APE is depicted in Figure 14.

Table 1. Projects within 1 mi (1.6 km) of APE.

Report No.	Report Title	Contractor	Author(s)	Type of Survey	Date
22-2805	Phase I Cultural Resources Survey of The Senator J. Bennett Johnston Avenue Improvements, Calcasieu Parish, Louisiana	Gulf South Research Corporation	John Lindemuth and Carl Welch	Phase I	2006
22-4990	A Phase I Cultural Resources Survey of 26 Louisiana National Guard Properties Throughout Louisiana	Cultural Resource Analysts, Inc.	Jeremy W. Pye and Holly Higgins	Phase I	2015
22-5872	Phase I Cultural Resources Survey of 70 Acres (28.3 Hectares) on East Prein Lake Road, Calcasieu Parish, Louisiana.	Surveys Unlimited Research Associates, Inc.	Margeaux Murray and Malcolm Shuman	Phase I	2018
22-5682	A Cultural Resources Survey of 10 Acres "Juvenile Justice Service Site" in Calcasieu Parish, Louisiana.	Flat Earth Archaeology, LLC.	Chris M. Branam	Phase I	2017

Archaeological Sites within 1 mi (1.6 km) of APE

There are no previously recorded archaeological sites within 1 mi (1.6 km) of the APE.

Standing Structures within 1 mi (1.6 km) of APE

There are 33 previously recorded historic standing structures located within 1 mi (1.6 km) of the APE. These structures are compiled in Table 2 and their proximity to the APE is depicted in Figure 14.

LHRI Number	Name	Address	Function	Form	Condition	Listed on NRHP	Date Visited
10-00497	Lake Charles Air Force Base	Mallard Cove Street	Military	Other	Fair	Ineligible	Unknown
10-00612	Chennault WTP- Water Tower	1501 West Main Street	Commercial	Other	N/A	Ineligible	2022
10-00613	Control Building SOV 95	1501 West Main Street	Commercial	Other	N/A	Ineligible	2022
10-00614	Chennault WTP Chlorine Building	1501 West Main Street	Commercial	Other	N/A	Ineligible	2022
10-00651	Chennault Rec Center	4305 Avenue H.	Commercial	Other	N/A	Ineligible	2024
10-03279	Chennault Water Treatment Plant MCC Building	1501 West Main Street	Commercial	Other	N/A	Ineligible	2022
10-03283	Unknown	2823 General Collins Street	Residential	Ranch	N/A	Ineligible	2023
10-03284	Unknown	2616 General Patch Street	Residential	Other	N/A	Ineligible	2023
10-03285	Unknown	2712 General Moore Avenue	Residential	Ranch	N/A	Ineligible	2022
10-03287	Unknown	3005 South General Wainwright Drive	Residential	Ranch	N/A	Ineligible	2022
10-03288	Unknown	3101 North General Wainwright Drive	Residential	Ranch	N/A	Ineligible	2022
10-03290	Unknown	2717 General Travis Avenue	Residential	Ranch	N/A	Ineligible	2022

10-03291	Unknown	2720 General Moore Avenue	Residential	Ranch	N/A	Ineligible	2022
10-03292	Unknown	2701 General Patton Street	Residential	Minimal Traditional Cottage	N/A	Ineligible	2022
10-03293	Unknown	3105 North General Wainwright Drive	Residential	Ranch	N/A	Ineligible	2022
10-03303	Unknown	105 Gelpi Drive	Residential	Other	N/A	Ineligible	2022
10-03316	Unknown	2901 General Marshall	Residential	Ranch	N/A	Ineligible	2022
10-03410	Unknown	2710 12 th Street	Residential	Other	N/A	Ineligible	2022
10-03411	Unknown	2924 General Doolittle Avenue	Residential	Ranch	N/A	Ineligible	2022
10-03473	Unknown	2708 General Patch Street	Residential	Other	N/A	Ineligible	2022
10-03498	Unknown	2717 General Patch Street	Residential	Other	N/A	Unknown	2022
10-03505	Unknown	2936 General Doolittle Avenue	Residential	Other	N/A	Unknown	2022
10-03546	Unknown	1713 Eleanor Street	Residential	Minimal Traditional Cottage	N/A	Ineligible	2023
10-03550	Unknown	2813 Hinton Drive	Residential	Other	N/A	Ineligible	2021
10-03556	Unknown	407 Gelpi Drive	Residential	Ranch	N/A	Ineligible	2022
10-03576	Unknown	2921 7 th Street	Residential	Shotgun	N/A	Ineligible	2022
10-03673	Unknown	504 Gelpi Drive	Residential	Ranch	N/A	Ineligible	2022
10-03675	Unknown	106 Gelpi Drive	Residential	Ranch	N/A	Ineligible	2023
10-03683	Unknown	2716 General Moore Avenue	Residential	Ranch	N/A	Ineligible	2023
10-03684	Unknown	505 Gelpi Drive	Residential	Ranch	N/A	Ineligible	2023
10-03781	Unknown	2817 8 th Street	Residential	Ranch	N/A	Ineligible	2022
10-03796	Unknown	3208 North General Wainwright Drive	Residential	Ranch	N/A	Ineligible	2022
10-06818	Briscoe Treatment Facility	4012 Avenue H.	Commercial	Other	N/A	Ineligible	2024

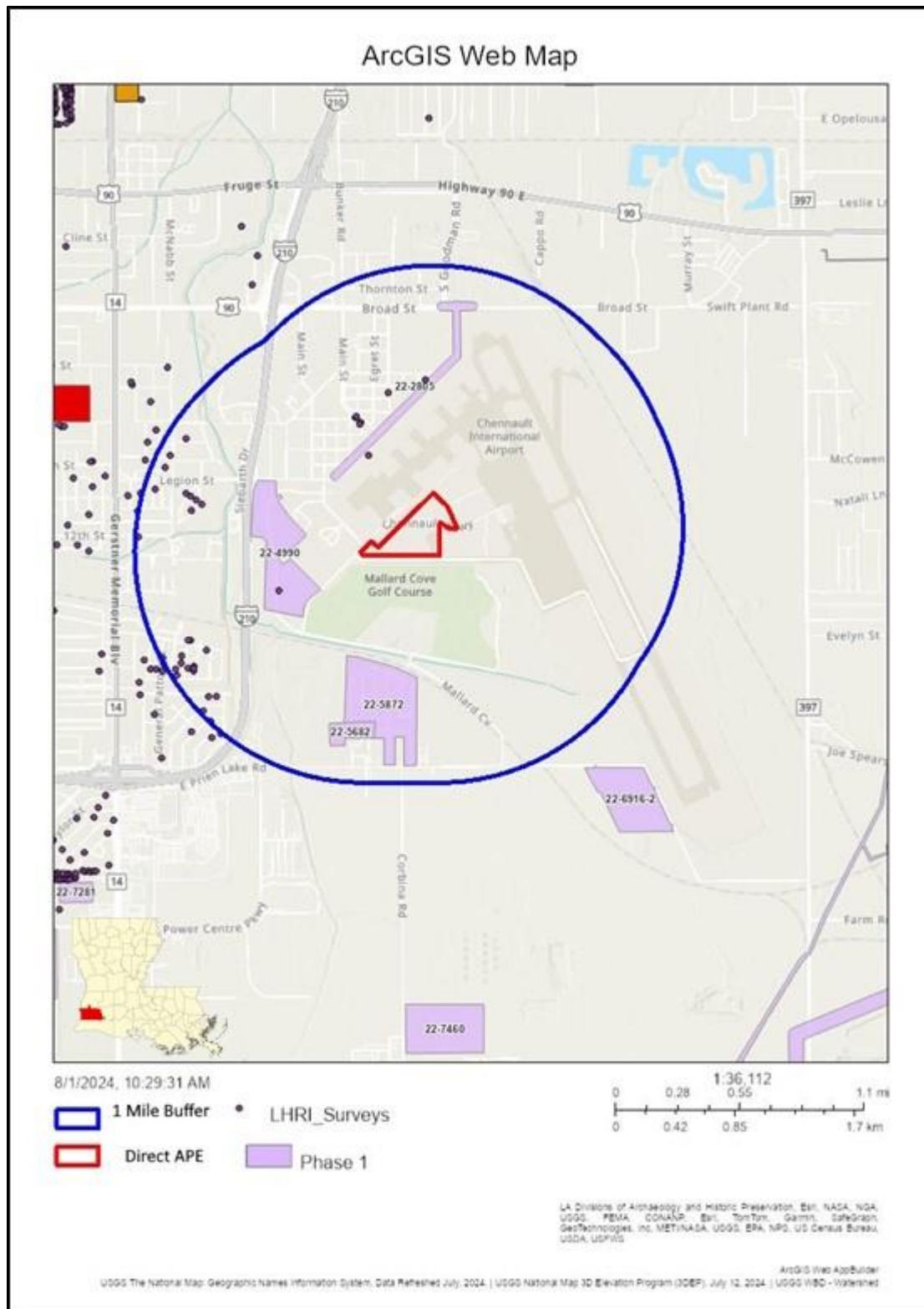


Figure 14. Map of known archaeological surveys, sites, and historic standing structures within one mile of project area (LDOA).

CHAPTER FOUR: METHODOLOGY

Procedures

Methodology for the cultural resources survey included archival research and fieldwork. Initially, historic maps and aerial photographs at the United States Geological Survey (USGS) were consulted to determine any structures or roads that might have existed on the property in the early and mid-twentieth century. In addition, the site files and report library of the Louisiana Division of Archaeology were examined to determine archaeological sites reported for this area by previous investigators. The survey methodology consisted of systematic shovel testing for low and high probability areas. A radius of 100 ft (30.5 m) around possible structures seen on a 1955 topographic map were determined to be high probability areas. The rest of the APE was determined to be low probability. High probability transects were spaced 98.4 ft (30 m) apart with a shovel test dug every 98.4 ft (30 m). Low probability transects were spaced 164 ft (50 m) apart with a shovel test dug every 164 ft (50 m). All shovel tests were excavated to 50 cm or clay, whichever came first. Material recovered from the shovel tests was screened using .25-inch hardware cloth. When archaeological sites are discovered, they are defined using the protocol described in the Louisiana Division of Archaeology Guidelines.

Each cultural resource site found is assessed per current National Register of Historic Places (NRHP) criteria, as given below.

Eligibility for the National Register of Historic Places

According to the National Register of Historic Places Bulletin 15 (1995:2), “The quality of significance in American history, architecture, archaeology, engineering, and culture is present in districts, sites, buildings, structures, and objects that possess integrity of location, design, setting, materials, workmanship, feeling, and association are potentially eligible for the National Register of Historic Places.” To evaluate this significance, four criteria have been developed. Eligible properties...

- “A. ... are associated with events that have made a significant contribution to the broad patterns of our history; or
- B. ... are associated with the lives of persons significant in our past; or
- C. ... embody the distinctive characteristics of a type, period, or method of construction or that represent the work of a master, or that possess high artistic values, or that represent a significant and distinguishable entity whose components may lack individual distinction; or...
- D. ... have yielded, or may be likely to yield, information important in history or prehistory” (NRHP 1995:2).

Curation Statement

For negative findings report:

As no cultural materials were recovered, no artifacts are to be curated; however, all project documents will be deposited with the Louisiana Division of Archaeology at:

LDOA Curation/CRT
Central Plant North Building, 2nd Floor
1835 N. Third Street
Baton Rouge, Louisiana 70802

CHAPTER FIVE: RESULTS OF THE SURVEY

Fieldwork

Field survey was conducted on September 26, 2024. The APE consisted of a mowed field, sparse tree coverage, and concrete. A total of 75 shovel tests were excavated during the initial survey (Figure 15). There were 16 shovel tests that were not able to be dug due to concrete (Figure 16) and gravel (Figure 17). Figures 16-22 show examples of topography encountered during the survey. Table 2 depicts representative Munsell soil profiles for the APE.



Figure 15. Aerial photograph depicting shovel tests and transects of the APE (Google Earth).

Table 2. Representative Munsell Soil Profiles.

Location	Depth	Munsell	Description
LP 7 ST 1	0-50 cmbs	4/3 10 YR	Brown clay
LP 7 ST 5	0-50 cmbs	5/4 10 YR, 4/6 7.5 YR mottled	Yellowish brown clay Strong brown clay
LP 6 ST 5	0-50 cmbs	5/4 7.5 YR, 6/2 7.5 YR mottled	Brown clay Pinkish gray clay
LP 14	0-50 cmbs	3/1 7.5 YR	Very dark gray clay



Figure 16. Concrete in the southern portion of the direct APE, facing south.



Figure 17. Gravel within the direct APE, facing down.



Figure 18. Construction within the southern portion of the direct APE.



Figure 19. Structures within the northern portion of the direct APE, facing west.



Figure 20. Part of the northern portion of the direct APE, facing east.



Figure 21. Part of the northern portion of the direct APE, facing south.



Figure 22. Part of the southern portion of the direct APE, facing north.

Indirect APE

The Indirect APE was determined to be 500 ft (152.4 m). There were no standing structures older than 50 years of age within the indirect APE.

Summary of Fieldwork

On September 26, 2024, 62 high probability and 13 low probability shovel tests were excavated in an attempt to locate cultural resources, but nothing of cultural significance was discovered. There were 16 shovel tests were not able to be excavated due to concrete and gravel. The direct APE consisted of a mowed field, sparse tree coverage, and concrete.

CHAPTER SIX:

CONCLUSIONS AND RECOMMENDATIONS

On September 26, 2024, SURA, Inc. conducted a Phase I cultural resources survey of 34.6 ac (14 ha) in Lake Charles, Calcasieu Parish, Louisiana, consisting of a mowed lawn, sparse tree coverage, and concrete. This survey was undertaken at the request of Louisiana Economic Development (LED) for the site certification program. A total of 13 high probability and 62 low probability shovel tests were excavated. There were 16 shovel tests were not able to be excavated due to concrete and gravel. The Indirect APE was determined to be 500 ft (152.4 m). There were no standing structures older than 50 years of age within the indirect APE. Nothing of cultural significance was discovered during the survey. We recommend that the project be allowed to proceed as planned.

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Maps

Lake Charles, La. (1942) 15-Minute Topographic map. U.S. Geological Survey.

Lake Charles, La. (1955) 7.5-Minute Topographic map. U.S. Geological Survey.

Lake Charles, La. (1994) 7.5-Minute Topographic map. U.S. Geological Survey.

Lake Charles, La. (2012) 7.5-Minute Topographic map. U.S. Geological Survey.