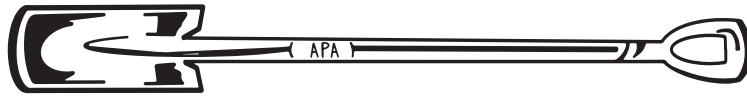


# Exhibit HH.

## South Lafourche Airport North Site Phase I Cultural Resources Assessment Report



# All Phases Archaeology



MARCH 5, 2024

A PHASE I CULTURAL RESOURCES SURVEY FOR THE  
PROPOSED SOUTH LAFOURCHE AIRPORT NORTH SITE,  
LAFOURCHE PARISH, LOUISIANA

**NEGATIVE FINDINGS**

Prepared for:  
South Louisiana Economic Council  
322 Audubon Avenue  
NSU-Babington Hall  
Thibodaux, Louisiana 70310

Prepared by:  
All Phases Archaeology, LLC  
257 Pinehill Drive  
Mobile, Alabama 36606

## **South Lafourche Airport North Site Phase I Cultural Resources Assessment Report**

All Phases Archaeology, LLC  
[www.allphasesarchaeology.com](http://www.allphasesarchaeology.com)



A PHASE I CULTURAL RESOURCES SURVEY FOR THE  
PROPOSED SOUTH LAFOURCHE AIRPORT NORTH  
SITE, LAFOURCHE PARISH, LOUISIANA

**NEGATIVE FINDINGS**

PREPARED BY

**ALL PHASES ARCHAEOLOGY, LLC**

257 PINEHILL DRIVE

MOBILE, ALABAMA 36606

PREPARED FOR

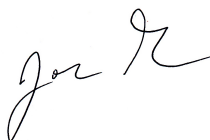
**SOUTH LOUISIANA ECONOMIC COUNCIL**

322 Audubon Avenue

NSU-Babington Hall

Thibodaux, Louisiana 70310

PRINCIPAL INVESTIGATOR



WILLIAM J. GLASS, RPA

APA REPORT No. 2024.011

MARCH 5, 2024

## ABSTRACT

On February 6-7, 2024, All Phases Archaeology (APA) of Mobile, Alabama performed a Phase I cultural resources survey for the proposed South Lafourche Airport North Site project located in Lafourche Parish, Louisiana. The survey was conducted in support of the Louisiana Economic Development (LED) Site Certification process. The project area encompasses 199 acres. No cultural resources or structures were encountered within the project area and there were no NRHP-listed properties in the project area. All paperwork and supporting documents will be curated at the Troy University Archaeological Research Center in Troy, Alabama. No further cultural resources studies are recommended for the proposed project. No historic properties are present within the APE.

## TABLE OF CONTENTS

Abstract .....	i
Table of Contents .....	ii
Acknowledgments.....	iii
Chapter 1: Introduction.....	1
Chapter 2: Land Use History .....	5
Chapter 3: Previous Investigations .....	13
Literature and Document Search. ....	13
Chapter 4: Methodology .....	15
Standing Structures .....	15
Archaeological Field Methods .....	15
Laboratory Methods.....	15
Curation .....	17
Chapter 5: Results.....	19
Overview.....	19
Sites/Isolated Finds .....	19
Standing Structures .....	19
Historic Areas .....	19
Chapter 6: Summary and Recommendations.....	25
References .....	26
Appendix A.....	A-1

## LIST OF FIGURES

Figure 1.1. Aerial image showing the project area .....	2
Figure 1.2. Topographic map showing the project area.....	3
Figure 2.1. Historic 1894 map showing the project area .....	6
Figure 2.2. Historic 1935 map showing the project area .....	7
Figure 2.3. Historic 1939 map showing the project area .....	8
Figure 2.4. Historic 1941 map showing the project area .....	9
Figure 2.5. Historic 1944 map showing the project area .....	10
Figure 2.6. Historic 1964 map showing the project area .....	11
Figure 2.7. Historic 1964 map showing the project area .....	12
Figure 3.1. Map showing the previous surveys and the archaeological site within one mile of the project area.....	14
Figure 4.1. Aerial image showing shovel tests within the project area.....	16
Figure 5.1. Typical shovel test profile.....	20
Figure 5.2. View of the northwest portion of project area, facing north.....	20
Figure 5.3. View of the northwest portion of the project area, facing south.....	21
Figure 5.4. View of the drainage on the west boundary of the project area, facing south.....	21
Figure 5.5. View of the inundated mixed hardwoods in the northwest, facing west .....	22
Figure 5.6. View of the wooded portion of the project area, facing west .....	22
Figure 5.7. View of the northeast portion of the project area, facing south.....	23
Figure 5.8. View of the southwest portion of the project area, facing southwest .....	23

Figure 5.9. View towards the Bristo housing in the east-central portion of the project area, facing southeast.....24

## LIST OF TABLES

Table 3.1. Previous surveys within one mile of the project area ..... 13

## ACKNOWLEDGMENTS

The Principal Investigator for this Phase I survey was William J. Glass, who was assisted by Dr. Virgil “Duke” Beasley, Matt Sumrall, Lucinda Freeman, Alex Jones, and Dale Pate. Natalie Ledesma and Stacey Baggett digitized the maps and Lucinda Freeman produced the report. This work was accomplished for the South Louisiana Economic Council of Thibodaux, Louisiana.

## CHAPTER 1 INTRODUCTION

All Phases Archaeology (APA) of Mobile, Alabama was contracted by the South Louisiana Economic Council of Thibodaux, Louisiana to conduct a cultural resources survey for the proposed South Lafourche Airport North Site project in Lafourche Parish, Louisiana. The survey was conducted in support of the Louisiana Economic Development (LED) Site Certification process.

The Phase I survey was performed on February 6-7, 2024. The Principal Investigator for the survey was William J. Glass, who was assisted by Dr. Virgil “Duke” Beasley, Matt Sumrall, Lucinda Freeman, Alex Jones, and Dale Pate. The purpose of this study was to determine if any prehistoric or historic properties exist within the limits of the project area, and if so, to document and assess each based on the National Register of Historic Places (NRHP) criteria. The project area (PA) is the same as the area of potential effect (APE).

The approximate 199-acre project area lies south of U. S. Highway 90, east of Bayou Lafourche, on the north side of Airport Road in Lafourche Parish, Louisiana (Figure 1.1). The project area is found within Section 31, Township 19 South, Range 22 East as seen on the 1998 Golden Meadow, Louisiana 7.5’ USGS series topographic quadrangle (Figure 1.2). The project area lies within an open hay field west of the South Lafourche Airport.

This report of our investigations is presented as follows. Chapter 2 contains information regarding land use history in the project area. Chapter 3 examines any previous sites or surveys in or near the project area. Chapter 4 presents the field and laboratory methodology as well as curation. Chapter 5 consists of the results of fieldwork. Chapter 6 concludes the report and summarizes our findings and recommendations. Appendix A is the curation agreement.

2 - South Lafourche Airport North Site

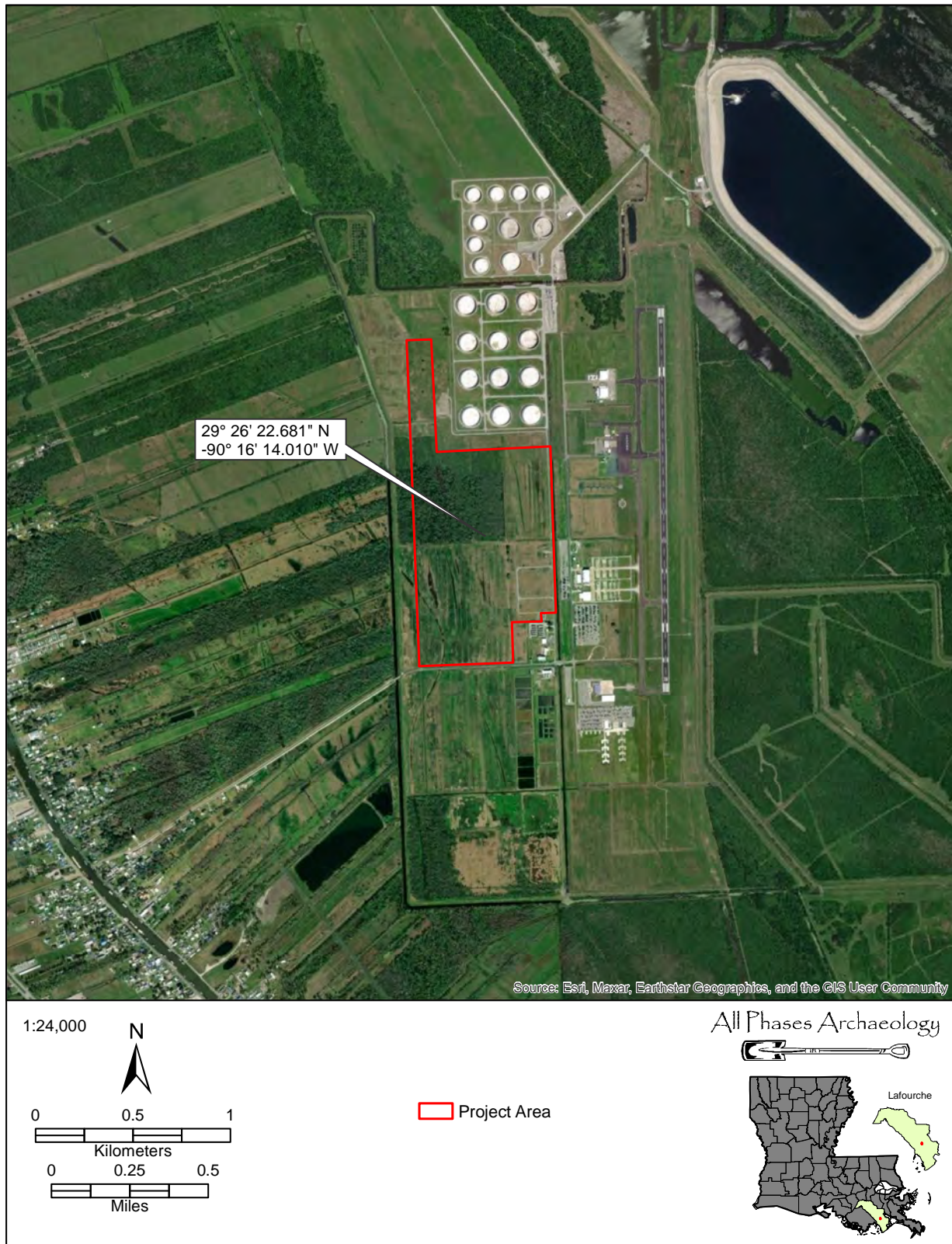


Figure 1.1. Aerial image showing the project area.

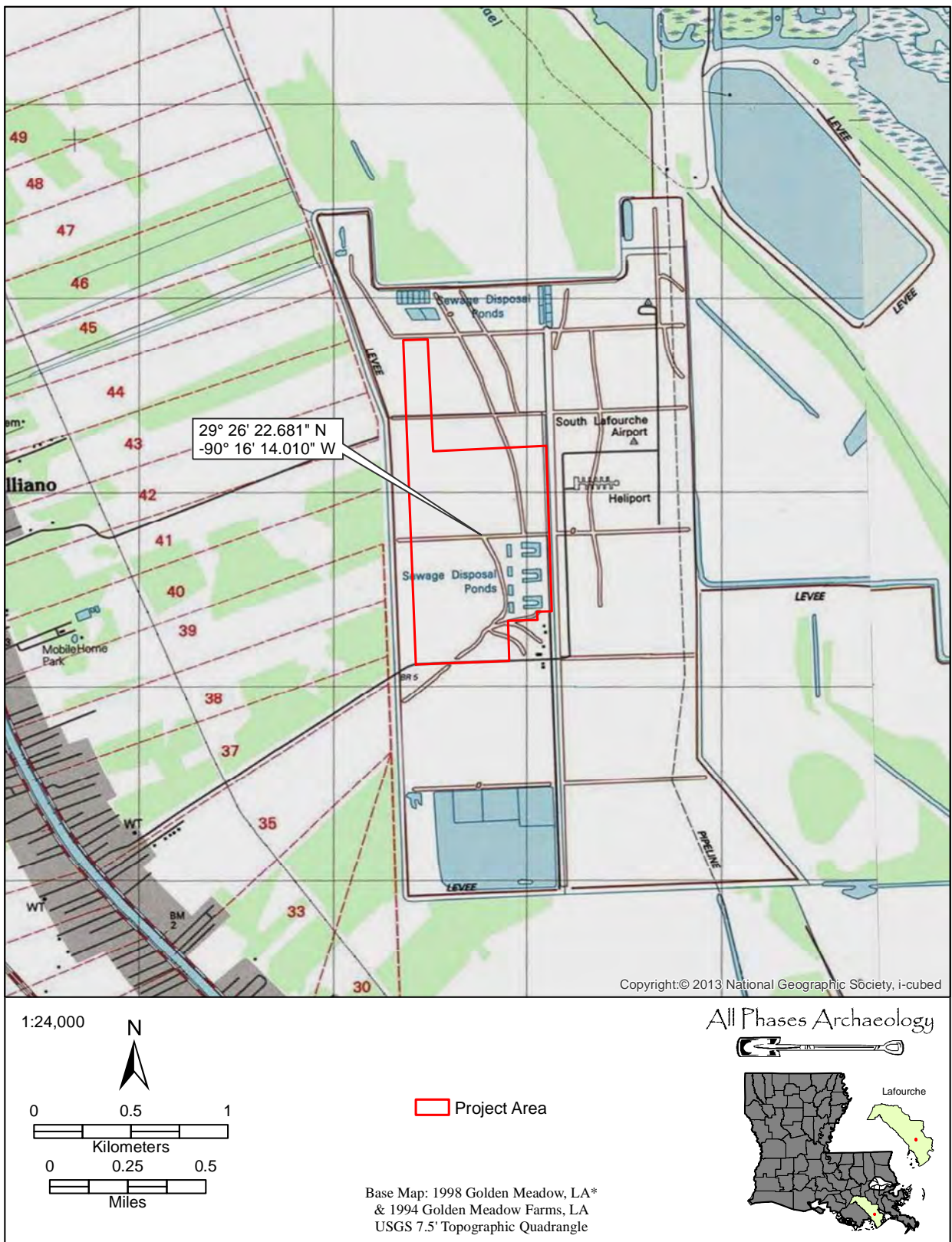


Figure 1.2. Topographic map showing the project area.



## CHAPTER 2 LAND USE HISTORY

The study area falls within the Mississippi Alluvial Plains, Southern Holocene Meander Belts ecoregion. Oxbow lakes, point bars, natural levees and abandoned river channels occur in this region. The native bottomland forests have generally been cleared here to make way for extensive agricultural fields and for flood control. The growing season is longer due to the warm temperatures and heavy precipitation. The most common crops are soybeans, corn, cotton and sugarcane, as well as crawfish agriculture. Live oaks, laurel oaks and Spanish moss are located within this region as well. Soils are typically somewhat poorly drained (Daigle et al. 2006). Elevation in the project area is at mean sea level.

The earliest map available is the 1894 Lake Felicity 15' series topographic map (Figure 2.1). This revealed that the project area is located within a vast submerged marshland. At this time, only a few structures line the banks of Bayou Lafourche shown to the southwest. The footprint of Louisiana Highway 1 is in place although it ends a little further south past the project area. The map adjacent to Lake Felicity to the east, the 1892 Creole 15' topographic map labels this submerged marshland as a trembling prairie.

The 1935 Golden Meadow, Louisiana 1:31680 topographic map shows several drainages have been cut across the landscape to help drain the area for reclamation (Figure 2.2). To the east of the project area, the natural levees of two small bayous have been reclaimed, one of which runs through the east side of the project area. Another of the drainages crosses through the southern portion.

No changes to the project area can be seen on the 1939, 1941, and 1944 Lake Felicity, Louisiana 15' USGS topographic quadrangles (Figures 2.3-2.5). The 1964 Golden Meadow 7.5' series and the 1964 Lake Felicity 15' series USGS topographic quadrangles show the project area has been fully drained along with what will become the South Lafourche Airport and the Chevron Galliano Airbase (Figures 2.6 and 2.7). The entire area is surrounded by canals and levees with a pump station on the southern end. Airport Road has been constructed along the south boundary. There are still no structures within the project area. The 1998 Golden Meadow 7.5' series topographic map does show a series of sewage disposal ponds covering most of the east-central portion of the project area (see Figure 1.2).

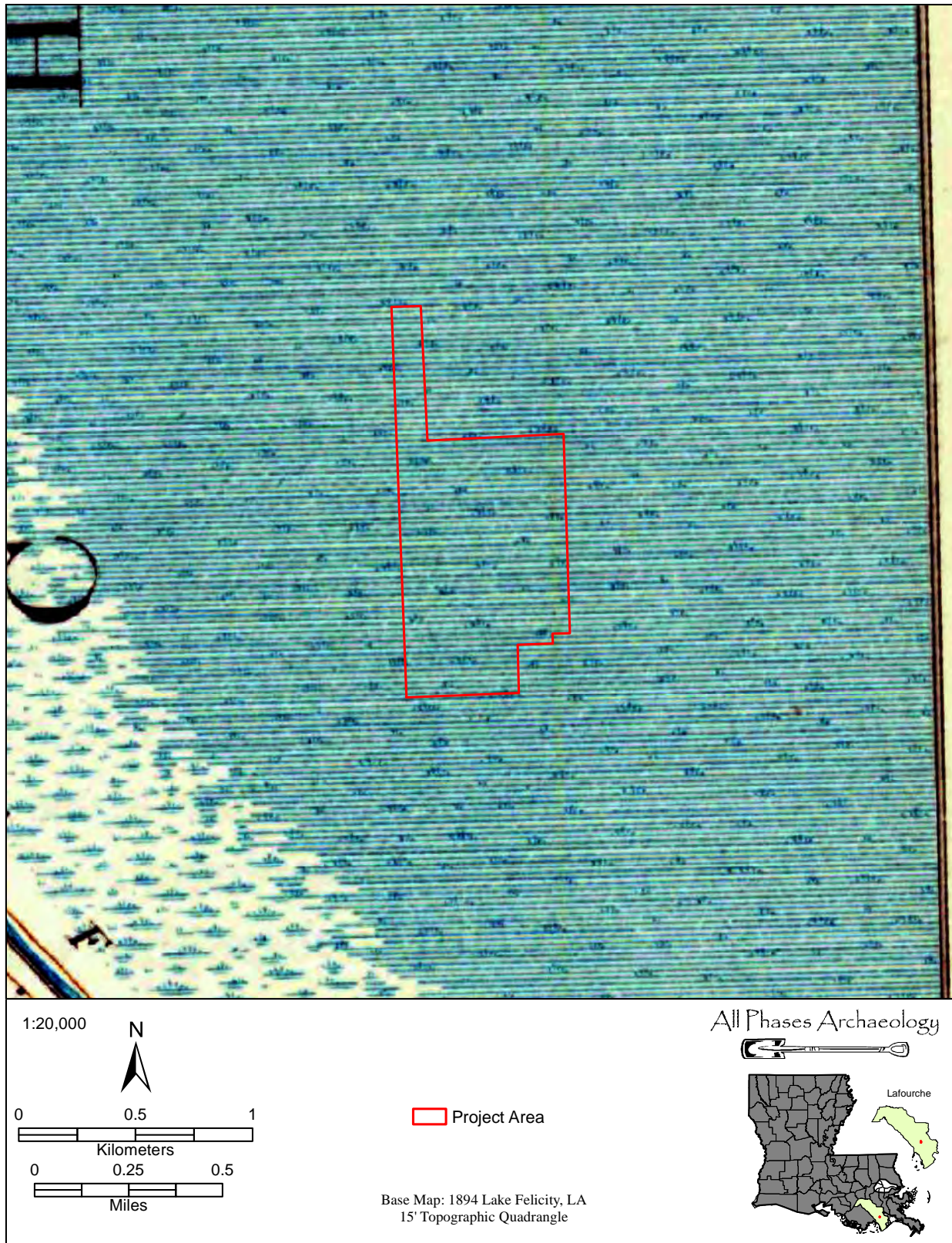


Figure 2.1. Historic 1894 map showing the project area.

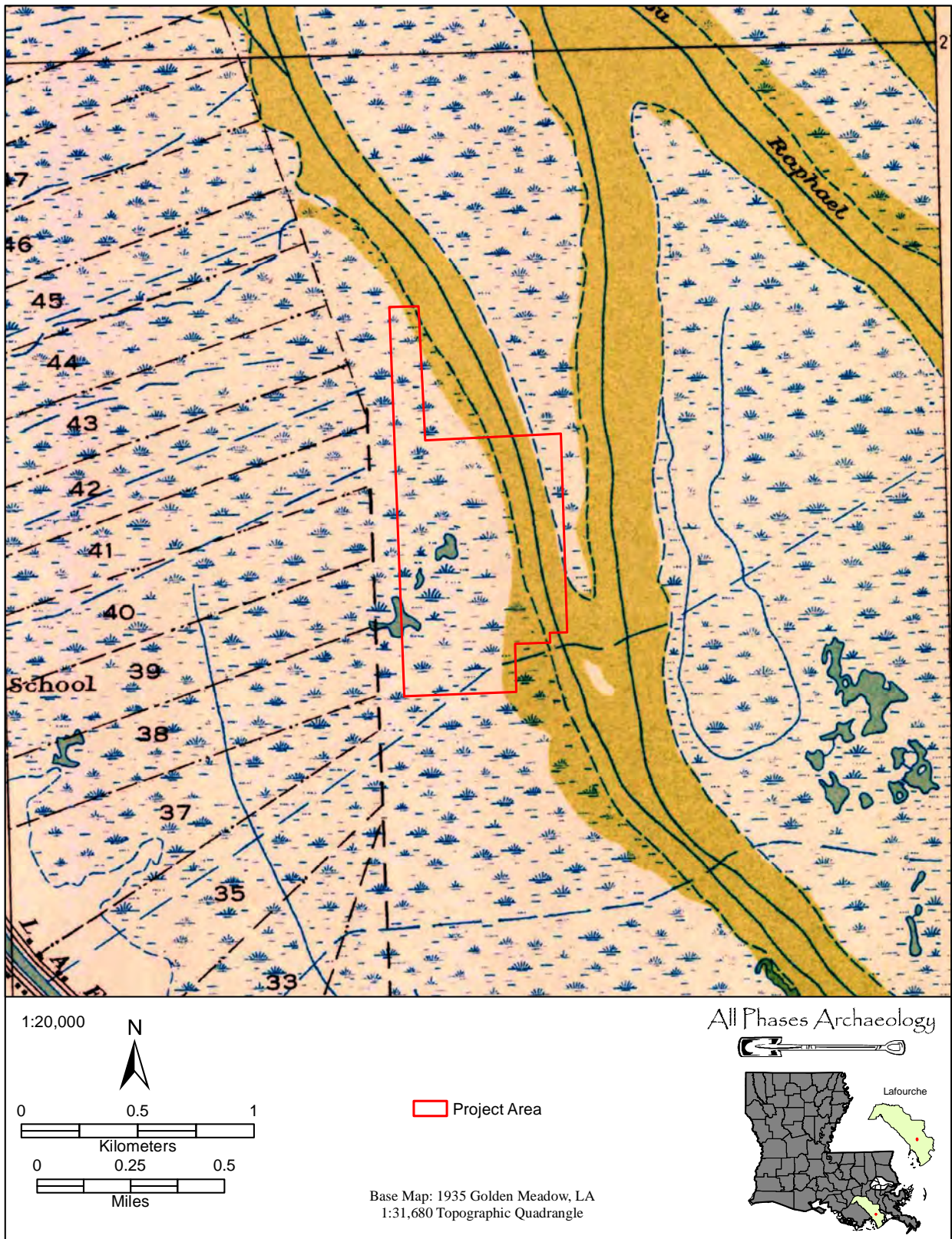


Figure 2.2. Historic 1935 map showing the project area.

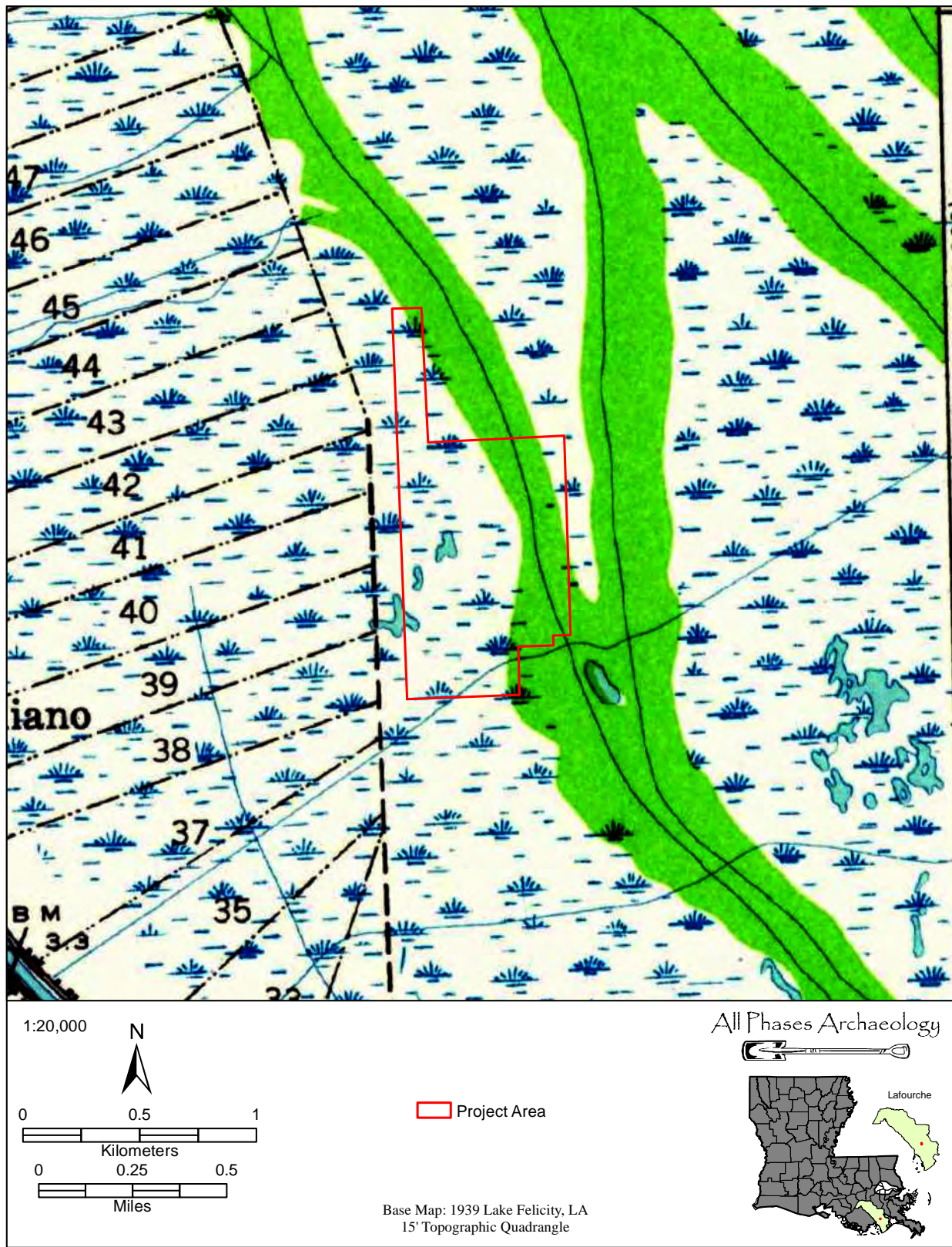


Figure 2.3. Historic 1939 map showing the project area.

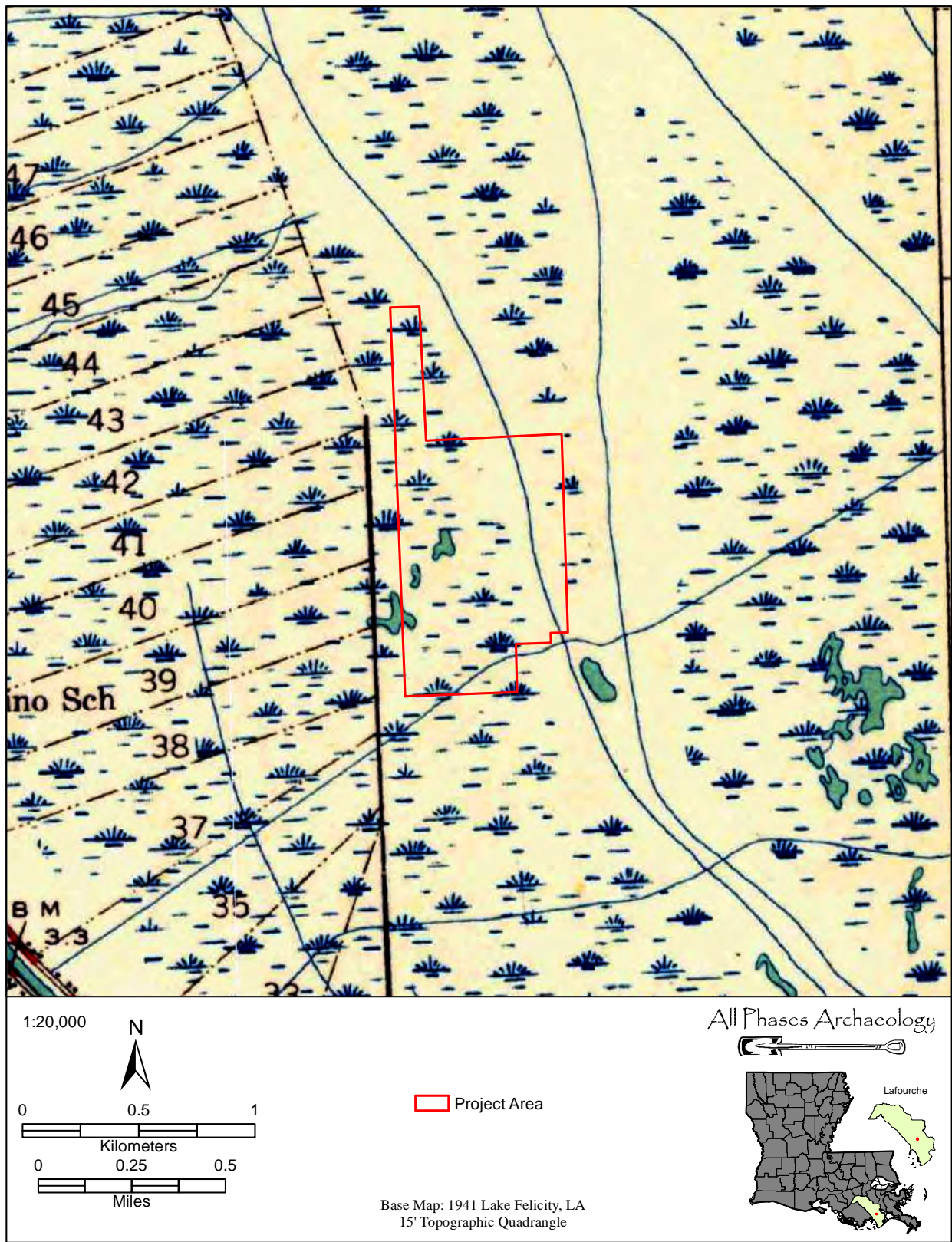


Figure 2.4. Historic 1941 map showing the project area.

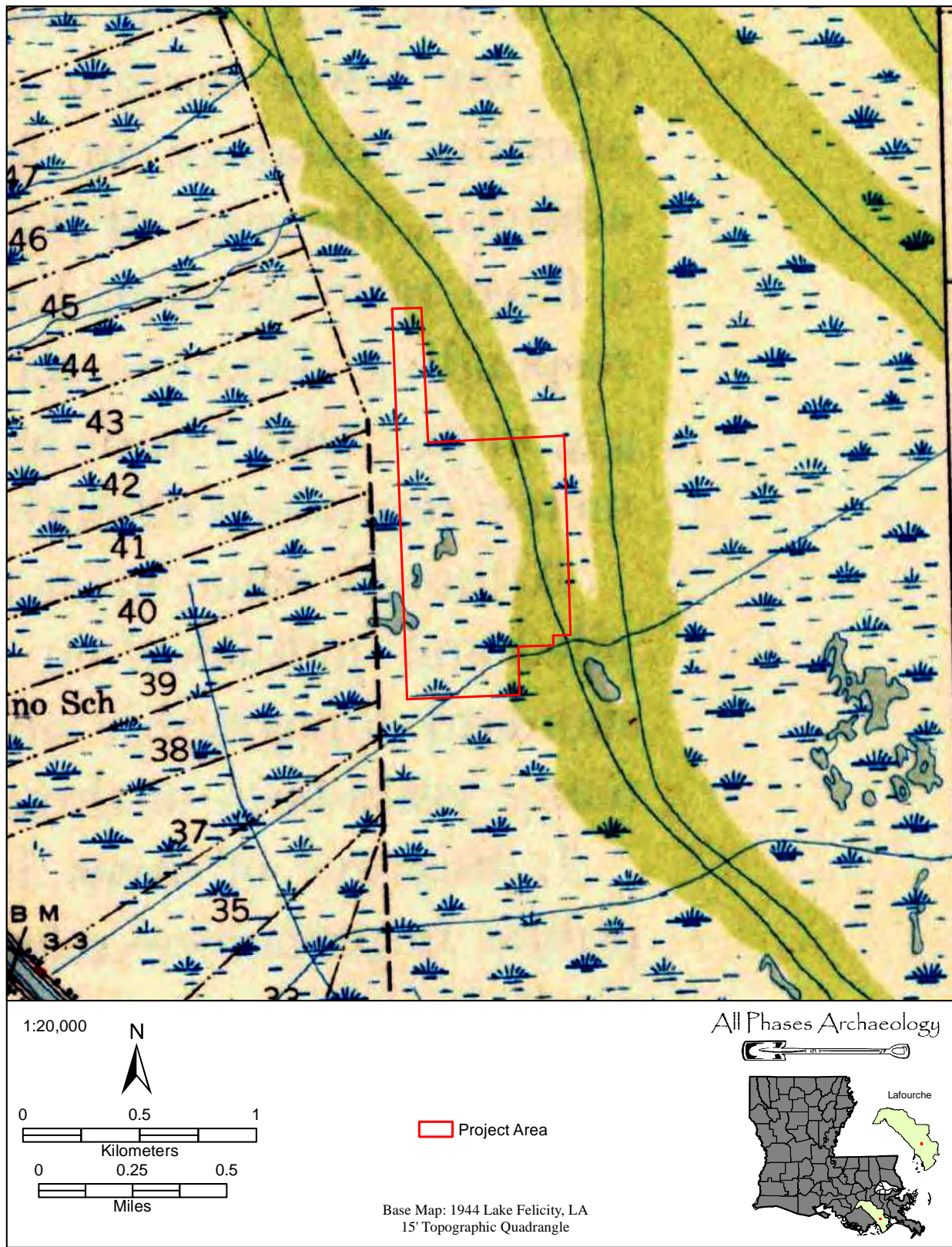


Figure 2.5. Historic 1944 map showing the project area.



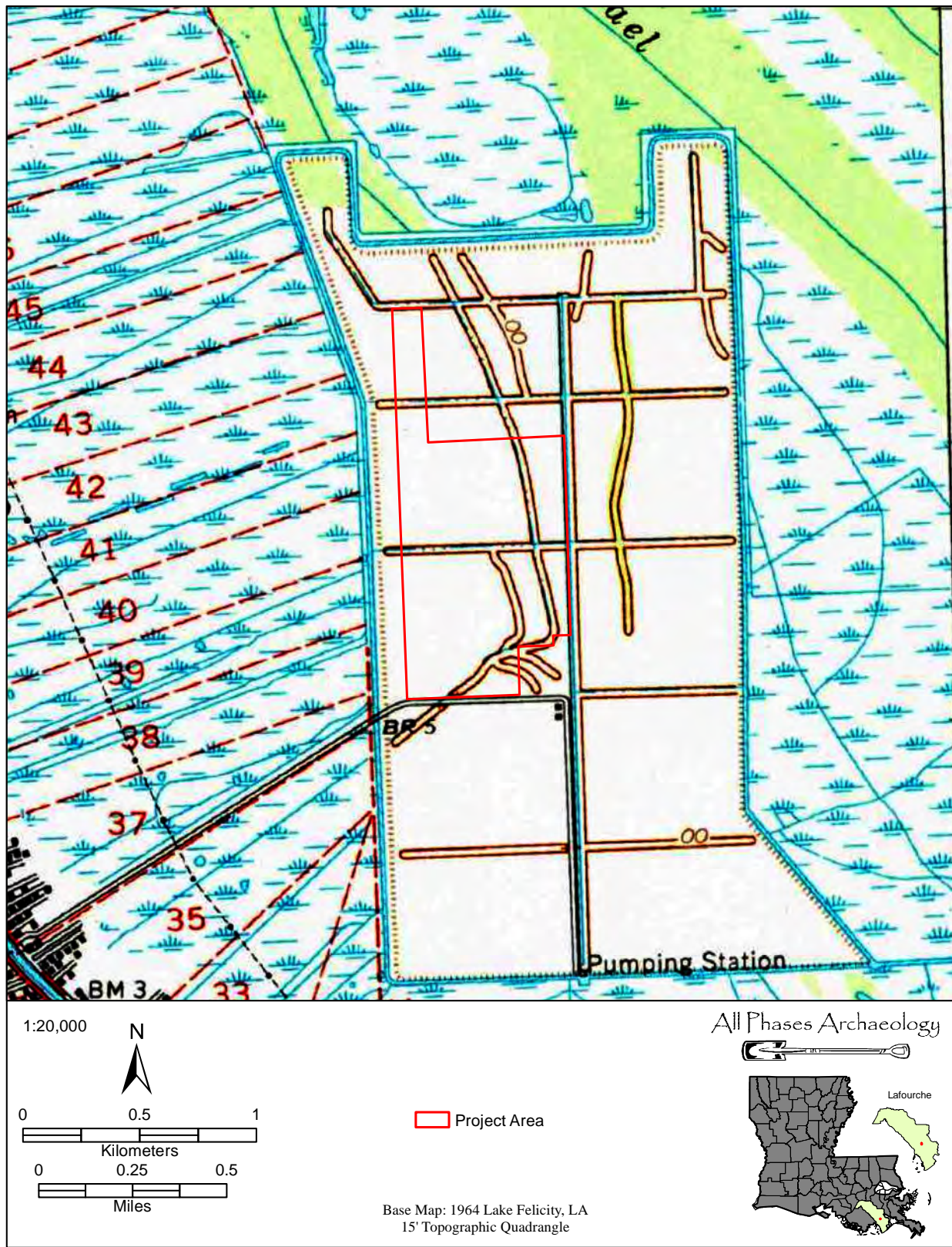


Figure 2.7. Historic 1964 map showing the project area.

## CHAPTER 3 PREVIOUS INVESTIGATIONS

### LITERATURE AND DOCUMENT SEARCH

Background research was conducted prior to the survey to identify previously recorded historic and prehistoric properties within a one-mile radius of the proposed South Lafourche Airport North site project located in Lafourche Parish, Louisiana. This search included an online query of the Louisiana Site Files (Louisiana Division of Archaeology [LDOA] 2024). A one-mile (1.6 km) radius search was conducted around the proposed project area for previously recorded archaeological sites and previous cultural resources surveys. Lastly, a query into the National Register of Historic Places (NRHP) (National Park Service 2024) was conducted.

Research of the site files (LDOA 2024) identified one previously recorded archaeological site, four documented cultural resource reports (Table 3.1), and no recorded historic resources within a mile of the proposed study area (Figure 3.1). An examination of the NRHP online files identified no National Register properties within the one mile search radius. None of the surveys were conducted within the study area boundaries.

Site 16LF88, Bayou Raphael, was recorded in 1974 by William G. McIntyre during the Louisiana Offshore Oil Port (LOOP) onshore pipeline project. The site includes an in situ midden with faunal bones and pottery sherds. The site is described as a Neo-Indian campsite or village. The information on the site form appears to be provided by an informant. It does not appear that McIntyre was able to successfully locate the site at the time it was recorded. Job Gibson revisited the site in 1977 and relocated the site and made a small collection of the pottery. Gibson also extended the site another 50 yards to the north incorporating the entire extent of the in situ midden. The NRHP eligibility of the site has not been determined.

**Table 3.1. Previous surveys within one mile of the proposed project area.**

<b>Report Number</b>	<b>Report Title</b>	<b>Author &amp; Date</b>
22-0394	<i>Cultural Resources Survey of LL&amp;E Realignment and Clovelly Farms, Lafourche Parish, South Louisiana</i>	Gibson 1978
22-0856	<i>Cultural Resources Survey of Larose Floodgate, Larose to Golden Meadow, La, Project Lafourche Parish, Louisiana</i>	Stout and Muller 1983
22-1581	<i>Cultural Resources Investigations of Larose to Golden Meadow Hurricane Protection Project Levee Section D-North (Compromise Alignment), Lafourche Parish, Louisiana</i>	Athens et al. 1992
22-6240	<i>Phase I Cultural Resources Survey of the Clovelly Restart Project in Lafourche Parish, Louisiana</i>	Beasley III and Mattox 2019

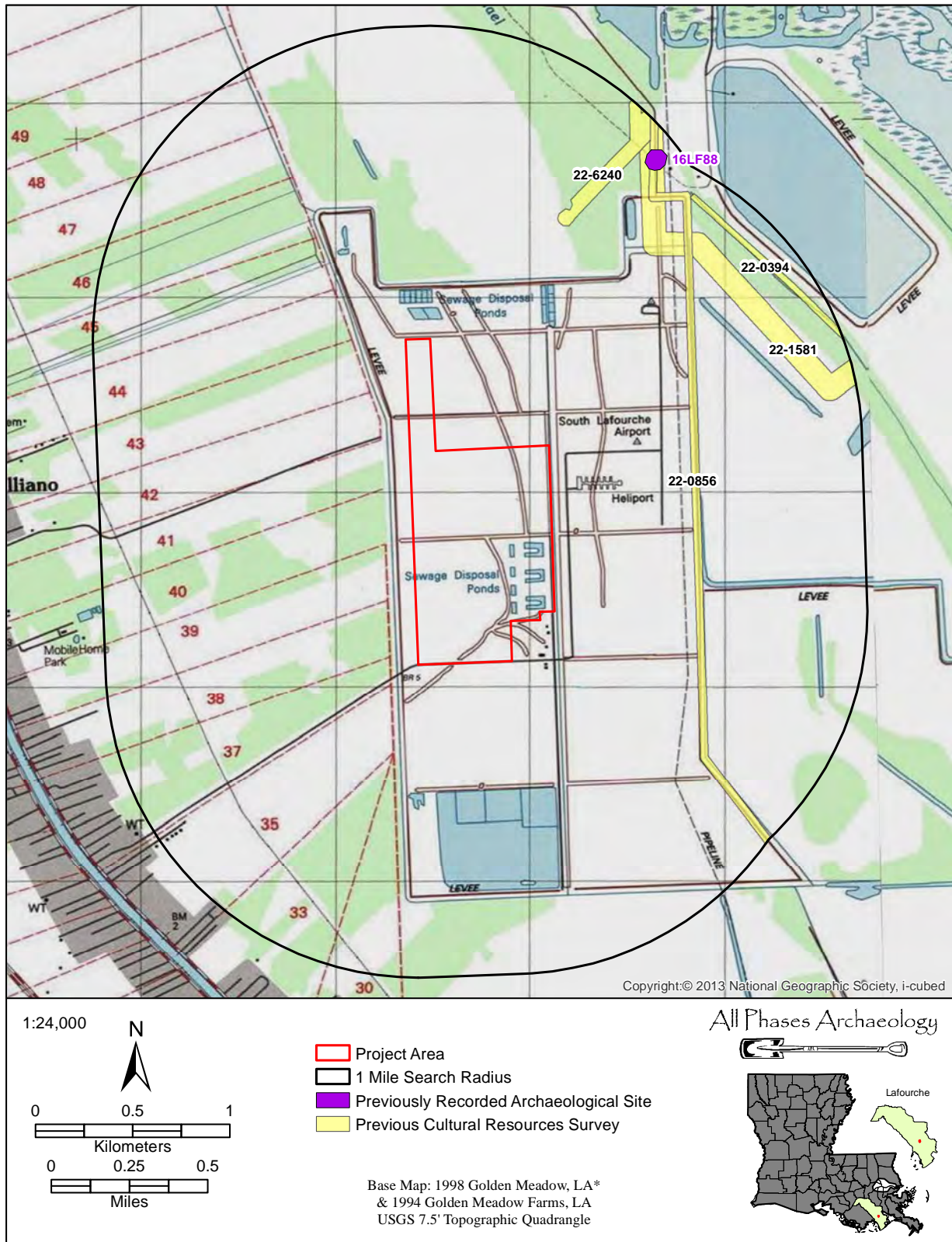


Figure 3.1. Map showing the previous surveys and the archeological site within one mile of the project area.

## CHAPTER 4 METHODOLOGY

### STANDING STRUCTURES

Historic maps were reviewed before the fieldwork was accomplished to ascertain the presence or absence of possible historic resources within the project area. Review of the 1894, 1939, 1941, 1944 and 1964 Lake Felicity 15' topographic maps and the 1935 and 1964 Golden Meadow 7.5' topographic quadrangles do not depict any structures within the project area. Field reconnaissance corroborated that there are no current standing structures within the project area.

### ARCHAEOLOGICAL FIELD METHODS

The field survey conducted implemented standard archaeological survey techniques. Full land coverage requirements were achieved through visual inspections of the entire survey area and subsurface testing. While conducting visual inspections, any exposed surfaces were carefully examined for cultural material.

The project area is located on land reclaimed between the 1940s and 1964. Despite being habitable, no historic structures were ever seen within the boundaries. A presumed sewage disposal pond covering the east-central portion was partially filled in 2006, and completely filled by 2010 according to the aerial images of the project area. The area has a low probability of containing prehistoric or historic material. As such, shovel testing was conducted in 50 meter intervals throughout the project area. Standard shovel tests consist of 30 centimeter (cm) diameter cylindrical holes excavated to the top of the sterile subsoil layer or until the water table or other obstruction was encountered. Soils from each test are screened through 1/4-inch (0.64 cm) hardware cloth for the purpose of recovering any cultural material that may exist at that location. When cultural material is encountered, the material is sorted by provenience and placed into bags labeled with the pertinent excavation information before being transported to APA's laboratory. If cultural material is identified during transecting, it is further examined in order to better define its horizontal and vertical limits. Delineations are conducted by placing additional shovel tests around positive tests. These additional tests are placed at 10 m intervals off of the original positive tests or cultural features in cardinal directions within the project area. This testing is conducted until two negative shovel tests are encountered in each direction or until delineations extend beyond the project boundary. A hand held Garmin GPS unit is used to record the site center and a sketch map is drawn by compass and pace and plotted to scale. Digital photographs are taken for any site recorded as well as for the survey area. For the South Lafourche Airport North site project, 324 transect shovel tests were attempted (Figure 4.1). Eighty tests could not be excavated due to standing water or being located within the filled-in pond located in the east-central portion of the project area. All excavated shovel tests were negative.

### LABORATORY METHODS

All cultural materials recovered during field projects are delivered to APA's laboratory in Mobile, Alabama for processing. Upon initial receipt of materials and field forms, bag lists are entered into a computer database for use with a labeling program. Materials are cleaned and, if necessary, stabilized before classification and quantification by laboratory analysts. Cultural materials are sorted on the basis of morphologic attributes, raw-material type (i.e., chert, quartz, etc.), measurements, and/or function. Previously defined types are often used to facilitate chronological assessments and intrasite comparisons. No material was recovered during this investigation.

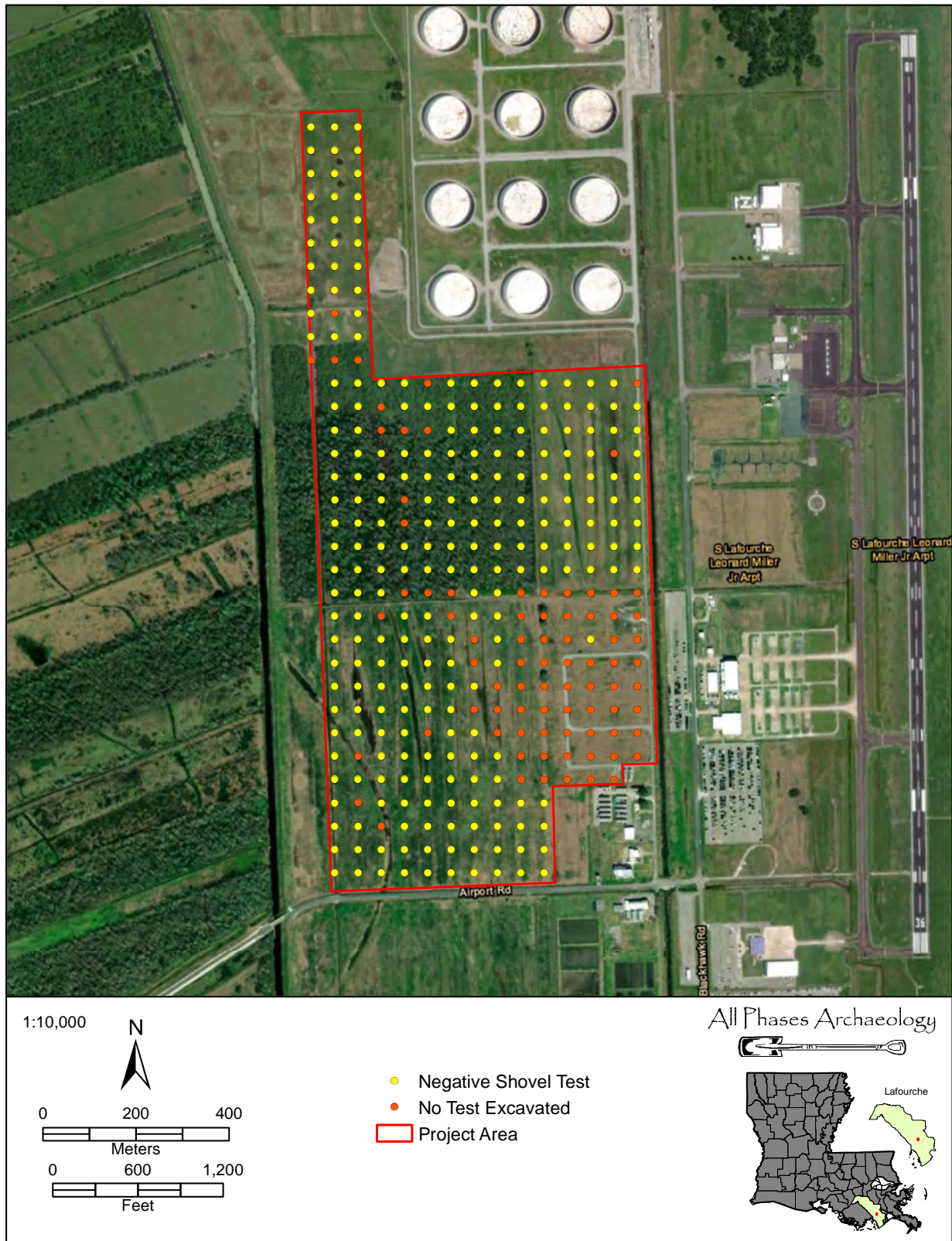


Figure 4.1. Aerial image showing shovel tests within the project area.

## CURATION

Along with any cultural material, all project records, photographs, and maps produced while conducting the investigation are transported for curation at the Troy University Archaeological Research Center, Troy, Alabama (Appendix A).



## CHAPTER 5 RESULTS

### OVERVIEW

The southern portion of the project area is a relatively flat open hay field which is dissected by several small drainages. The northern portion of the project is generally covered with a dense mixed hardwoods and briars, though to the east and north of the woods are hay fields. The wooded area contained several patches of standing water on the surface. The northernmost portion of the woods is inundated. A large drainage ditch runs along the western boundary as well as a smaller drainage ditch that runs east to west through the center of the project area. The remnant of the small bayou still passes through the northeast, though now terminates at the center canal without continuing further south. The small bayou's natural levees rise perhaps a foot above the rest of the project area. The grasses and leaf litter obscure most of the ground surface within the project area. The east-central portion of the project area is the location of filled in sewage disposal ponds. Gravel roads are located here and the southern portion is covered with gravel for the Bristo housing site which provides mobile homes for employees.

This Phase I investigation included the placement of 324 shovel tests (see Figure 4.1). All were tested at 50-m intervals as there is a low probability of finding cultural resources here. Eighty of the tests could not be excavated as they were located within the filled sewage disposal ponds or surface water prevented their excavation. All other tests were negative. A typical shovel test consisted of 10 cm of dark gray (10YR 4/1) silty loam over a gray (10YR 5/1) clay subsoil with organic staining to 50 cmbs (Figure 5.1). The water table was often reached by 20 cmbs. Figures 5.2-5.9 depict the present condition of the project area. No cultural material was identified within the project boundaries.

### SITES

No sites were encountered within the project area.

### STANDING STRUCTURES

There are no standing structures on the property.

### HISTORIC AREAS

No historic areas are located within the project area boundaries.



*Figure 5.1. Typical shovel test profile.*



*Figure 5.2. View of the northwest portion of project area, facing north.*



*Figure 5.3. View of the northwest portion of the project area, facing south.*



*Figure 5.4. View of the drainage on the west boundary of the project area, facing south.*



*Figure 5.5. View of the inundated mixed hardwoods in the northwest, facing west.*



*Figure 5.6. View of the wooded portion of the project area, facing west.*



*Figure 5.7. View of the northeast portion of the project area, facing south.*



*Figure 5.8. View of the southwest portion of the project area, facing southwest.*



**Figure 5.9.** *View towards the Bristo housing in the east-central portion of the project area, facing southeast.*

## CHAPTER 6 SUMMARY AND RECOMMENDATIONS

APA, under contract with the South Louisiana Economic Council of Thibodaux, Louisiana, performed the Phase I cultural resources survey for the proposed South Lafourche Airport North Site project located in Lafourche Parish, Louisiana. The Phase I survey was performed on February 6-7, 2024. The investigation did not identify any new archaeological sites or historic resources within the project area. No further cultural resources studies are recommended for the South Lafourche Airport North site project. No historic properties are present within the APE.

## REFERENCES

- Daigle, J.J., G.E. Griffith, J.M. Omernik, P.L. Faulkner, R.P. McCulloh, L.R. Handley, L.M. Smith, and S.S. Chapman  
2006 Ecoregions of Louisiana (color poster with map, descriptive text, summary tables, and photographs): Reston, Virginia, U.S. Geological Survey.
- Louisiana Division of Archaeology (LDOA)  
2024 Louisiana Archaeological Site Files. Louisiana Division of Archaeology, Baton Rouge, Louisiana. Assessed online January 2024.
- National Park Service  
2024 *National Register of Historic Places*. Department of the Interior, Washington, D.C. Available online at [www.cr.nps.gov/nr](http://www.cr.nps.gov/nr), accessed January 2024.

APPENDIX A  
CURATION AGREEMENT



**TROY UNIVERSITY**



**Archaeological  
Research Center**

*Date: Nov. 1, 2023*

Jon Glass  
All Phases Archaeology  
257 Pinehill Drive  
Mobile, AL 36606

Dear Jon,

Per your request, this letter is to confirm our standing agreement to provide curation services for archaeological collections to All Phases Archaeology on an as-needed basis. As you know, we are recognized by a variety of Federal agencies as a repository meeting the standards in 36 CFR Part 79 and have formal agreements to provide curation under these guidelines to multiple federal agencies such as the Army National Guard and Natural Resources Conservation Service.

Please be advised that once a year we must be notified of all reports in which we were named as the repository. Project collections must be submitted within one calendar year of completion. Small projects may be complied for periodic submission. The AHC survey policy specifies which materials must be curated (Administrative Code of Alabama, Chapter 460-X-9). Renewal of this agreement is contingent upon compliance.

We appreciate this opportunity to be of assistance and look forward to working with you in the future.

A handwritten signature in black ink, appearing to read 'Stephen Carmody'. The signature is fluid and cursive, with a long horizontal stroke extending to the right.

Stephen Carmody  
Director  
Archaeological Research Center  
Troy University