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Exhibit GG. West Calcasieu Port Site Phase I Cultural Resources Assessment Report

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A Phase I Cultural Resources Survey for the
Proposed West Calcasieu Port Site
in Calcasieu Parish, Louisiana

West Calcasieu Port Site Phase I Cultural Resources Assessment Report

Prepared for
SWLA Economic Development Alliance

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August 2019

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A Phase I Cultural Resources Survey for the Proposed West Calcasieu Port Site in Calcasieu Parish, Louisiana

DRAFT REPORT

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ABSTRACT

On July 16-18 of 2019, TerraXplorations, Inc. (TerraX) of Mobile, Alabama performed a cultural resources survey for the West Calcasieu Port Site located between Hackberry and Carlyss in Calcasieu Parish, Louisiana. The Phase I survey was performed by Paul D. Jackson, Principal Investigator, who was assisted by Lucinda Freeman, Victoria Natell, and Katherine Sinitiere. This is in support of the Louisiana Economic Development (LED) Site Certification process. Total acreage for this project is 32.16 acres (13 hectares). The investigation identified four archaeological sites (Site 16CU207-16CU210). They are all twentieth century sites mainly representing concrete foundation slabs for former structures. Site 16CU209 also includes a slight subsurface artifact scatter. These sites are all ineligible for the National Register of Historic Places under Criteria A-D. They are not associated with any significant events or persons, have no standing architecture, and no research potential. All paperwork and supporting documents will be curated at the Troy University Archaeological Research Center in Troy, Alabama. Accordingly, no further archaeological studies are recommended for the proposed West Calcasieu Port Site project.

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CHAPTER 1
INTRODUCTION

TerraXplorations, Inc. (TerraX) of Mobile, Alabama was contracted by SWLA Economic Development Alliance of Lake Charles, Louisiana to conduct a cultural resources survey for the proposed West Calcasieu Port Site in Calcasieu Parish, Louisiana. The Phase I survey was performed on July 16-18, 2019 by Paul D. Jackson, Principal Investigator, who was assisted by Lucinda Freeman, Victoria Natell, and Katherine Sinitiere. 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. This is in support of the Louisiana Economic Development (LED) Site Certification process. The project area (PA) is the same as the area of potential effect (APE).

The project area lies between Hackberry and Carlyss, just west of LA Highway 27 and just north of the Intracoastal Waterway off of the Calcasieu River (Figure 1.1). Total acreage for this project is 32.16 acres (13 hectares). The project area is found within Section 35, Township 11 South, Range 10 West as seen on the 1994 Moss Lake, Louisiana USGS 7.5' series topographic quadrangle (Figure 1.2).

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 contains the curation agreement, and the artifact inventory can be found in Appendix B.

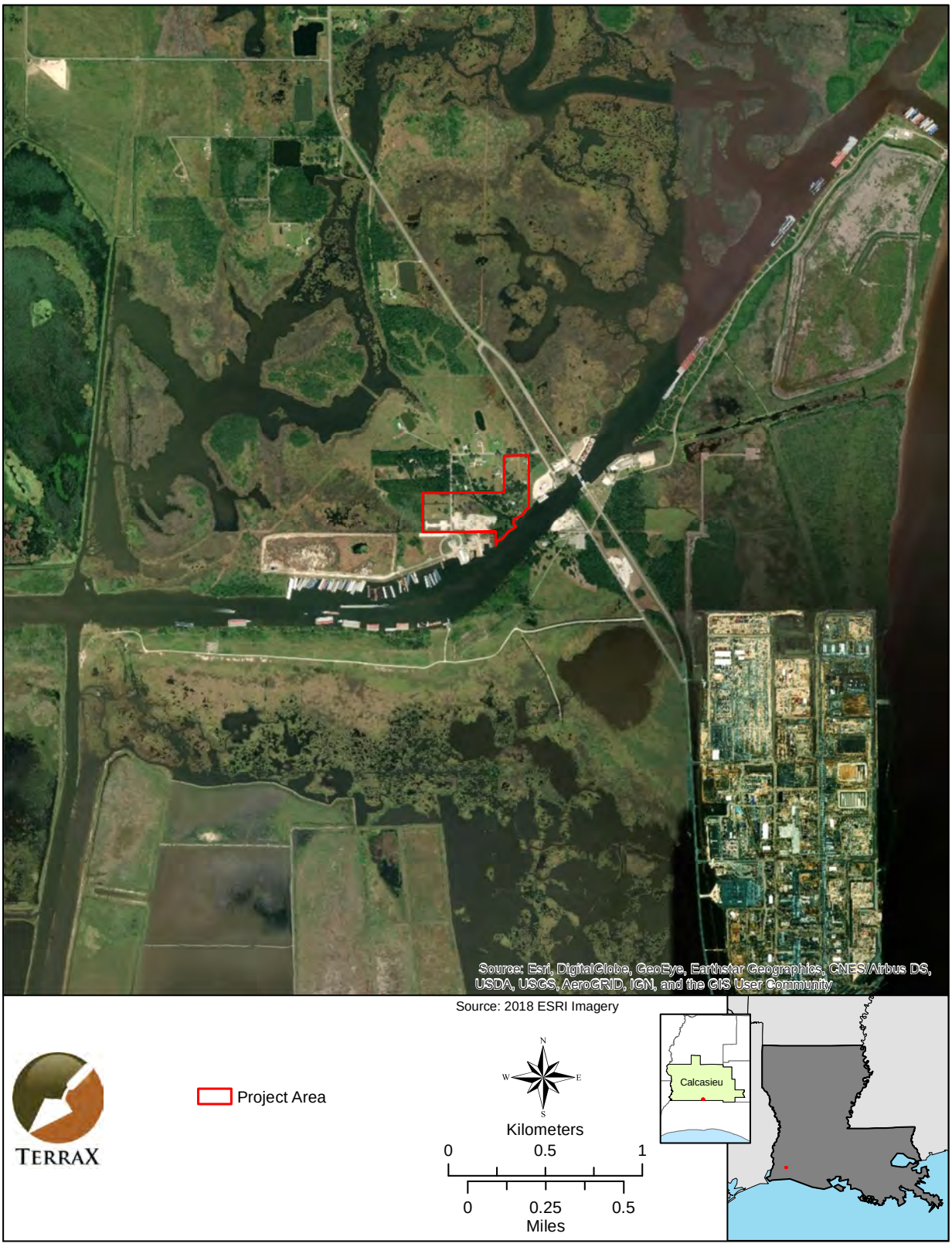

Figure 1.1. *Aerial image showing the project area.*

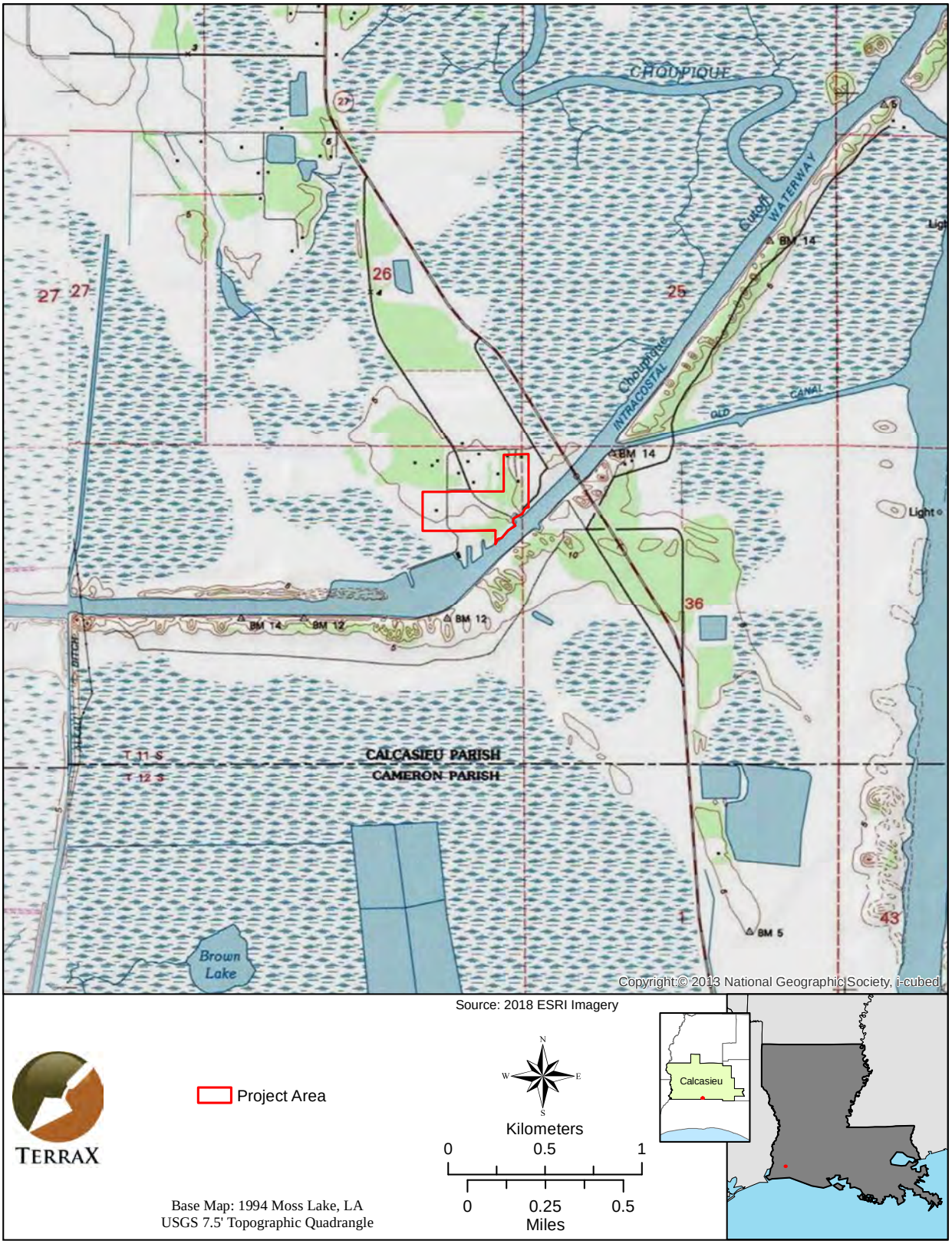

Figure 1.2. *Topographic map showing the project area.*

CHAPTER 2
LAND USE HISTORY

Located in southwest Louisiana in Calcasieu Parish, the project area is a mixture of grass lawns, mowed fields, live oaks, and some cleared areas with parking that supports a nearby industrial development area. In addition to the nearby port facilities, the area is surrounded to the north with light residential development. A couple of modern residences are located in the southeastern portion of the project area, with a large modern metal building and a large modern concrete slab in the northeastern portion. The project area is situated on the Intracoastal Waterway (ICW) west of the Calcasieu River. Elevations in the project area are about 5 ft above mean sea level.

The study area is occupied by Pleistocene Terraces and falls within the Western Gulf Coastal Plain ecoregion, which is composed of relatively flat areas that are historically mainly grasslands. Rice and soybeans are the principal crops grown in this region. Within this ecoregion, further divisions place the project area in the Texas-Louisiana Coastal Marshes, consisting of both freshwater and saltwater marshes with few bays and no barrier islands. Also called the Chenier Plain for the narrow ridges that parallel the shoreline, this area has many rivers, lakes, bayous, canals, and tidal channels. The few trees consist of live oaks and hackberries that are surrounded by an understory of palmettos and prickly pear cactus. The freshwater marshes contain sawgrass and maidencane while cordgrass marshes are found in the saltwater. Soils are very poorly drained. This region is an important habitat for waterfowl, small mammals, and alligators (Daigle et al. 2006).

The low ground containing the project area was probably not the ideal location for pre-contact sites. While there have been numerous surveys in the vicinity, no archaeological sites have been found within one mile. But historic maps depicting structures lend a strong possibility for the discovery of historic twentieth century sites.

The oldest topographic map available is the 1932 Moss Lake 1:31680 quadrangle (Figure 2.1). It depicts three structures at the ICW around the Ellender Ferry landing. The ferry operated on a cable system and was sometimes broken by a passing tugboat. In those cases, a boat would have to be sent to retrieve the drifting ferry (LeDoux 2016). An undated photograph appears to be from the 1940s based on the automobiles (Figure 2.2). A 1946 map shows no changes. By 1955, the ferry is still shown, but now there is a road under construction to the northeast (Figure 2.3). There are now only two structures at the ferry landing but three more structures appear in the northern and western portions of the project area. The 1975 photorevised version of the 1955 map depicts LA Highway 27 to the northeast, although the ferry is still depicted as well. Two additional structures bring the total structures in the project area to seven. Development can be seen at the shore of the ICW to the southwest of the project area (Figure 2.4).

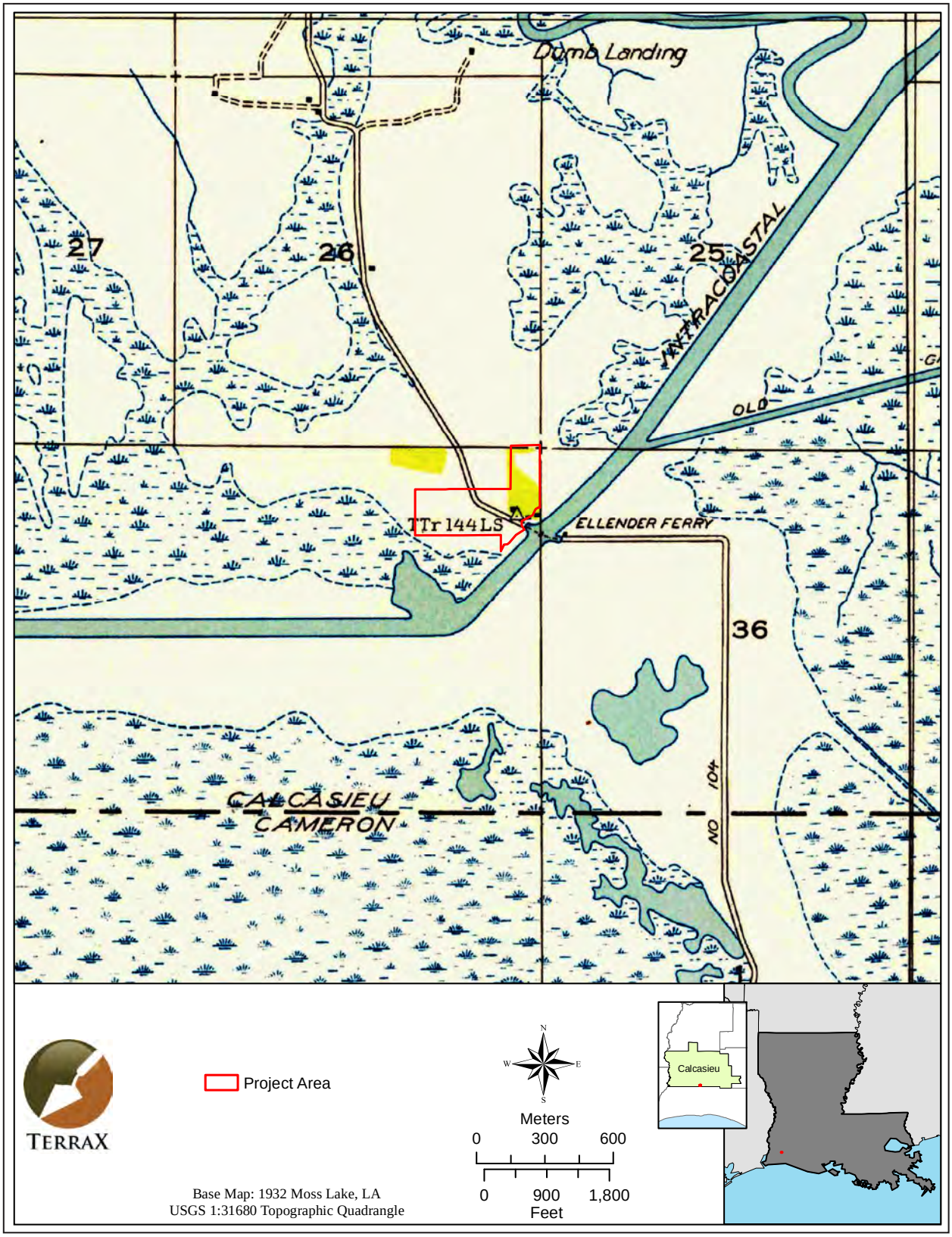

Figure 2.1. *Historic 1932 topographic map showing the project area.*

Figure 2.2. *Undated photograph of the Ellender Ferry (LeDoux 2016).*

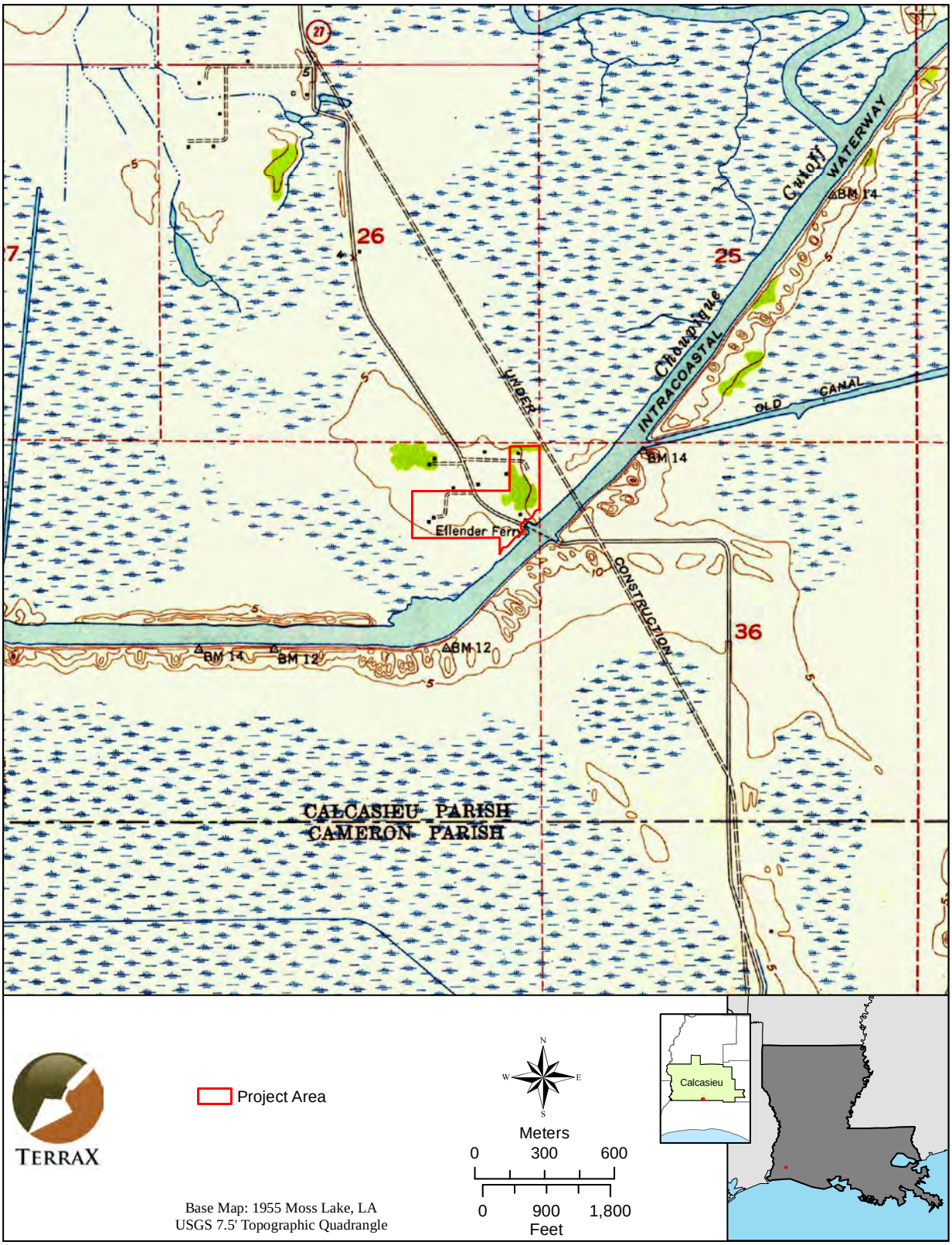

Figure 2.3. *Historic 1955 topographic map showing the project area.*

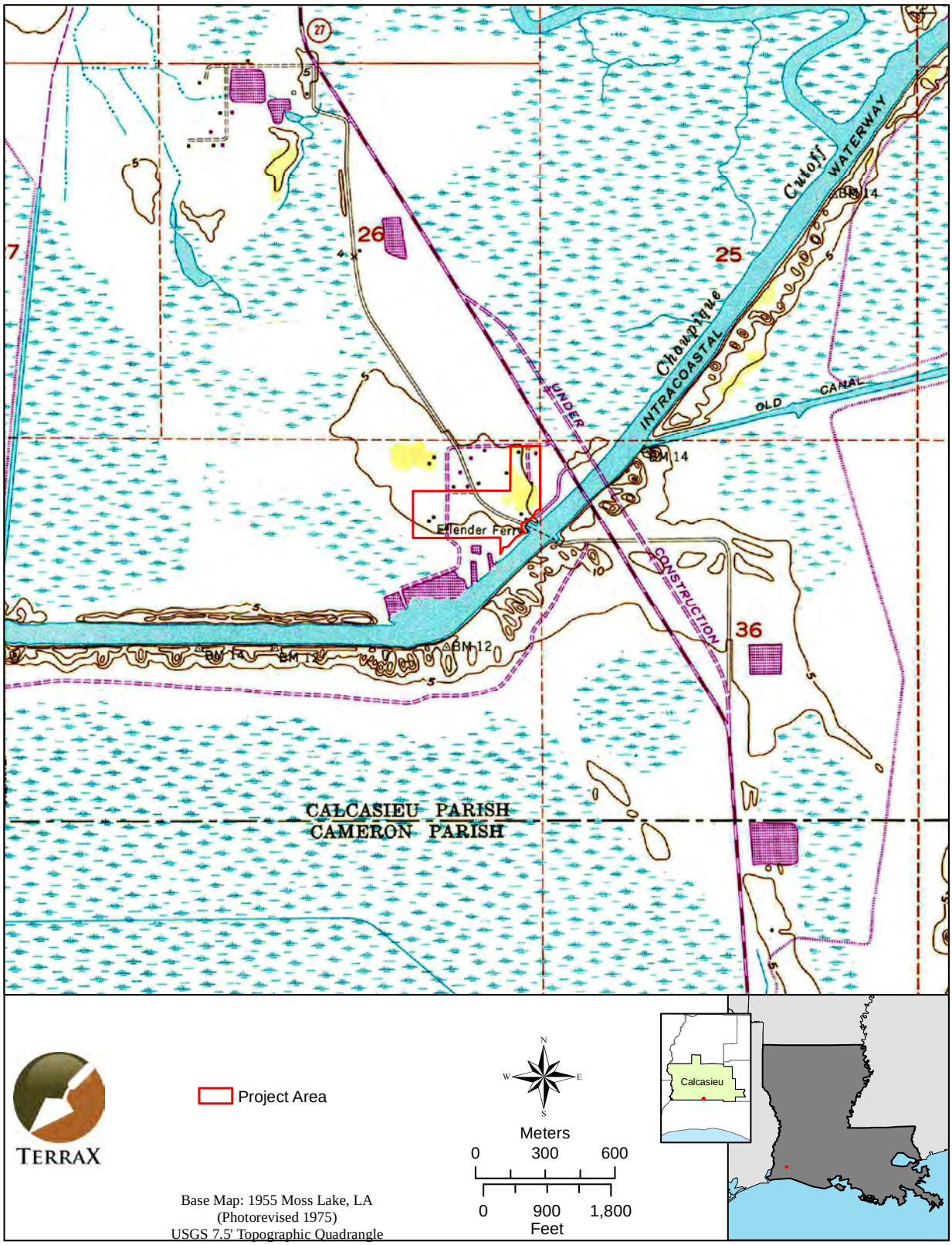

Figure 2.4. *Photorevised 1975 version of 1955 topographic map showing the project area.*

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 West Calcasieu Port Site project located in Calcasieu Parish, Louisiana. This search included an online query of the Louisiana Site Files (Louisiana Division of Archaeology [LDOA] 2019). 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. An examination of the Historic Standing Structure Survey Files at the State Library in Baton Rouge, Louisiana was performed to ascertain whether any historic resources have been recorded within or near the project area. Lastly, a query into the National Register of Historic Places (NRHP) (National Park Service 2019) was conducted.

A search of the Phase I Surveys database maintained by LDOA (2019) identified 13 surveys conducted within one mile, none within the project area (Figure 3.1, Table 3.1). There are no NRHP-listed resources nor previously recorded sites or historic structures within one mile.

Historic map research revealed several structures within the project area that varied through time. The 1932 and 1946 Moss Lake 1:31680 topographic quadrangles (see Figure 2.1) depict three structures at the Ellender Ferry crossing the ICW. The 1955 Moss Lake 7.5' series map shows five structures, two of them presumably the same as on the 1932 and 1946 maps, along with three new ones (see Figure 2.3). A 1975 photorevised version depicts seven structures (see Figure 2.4).

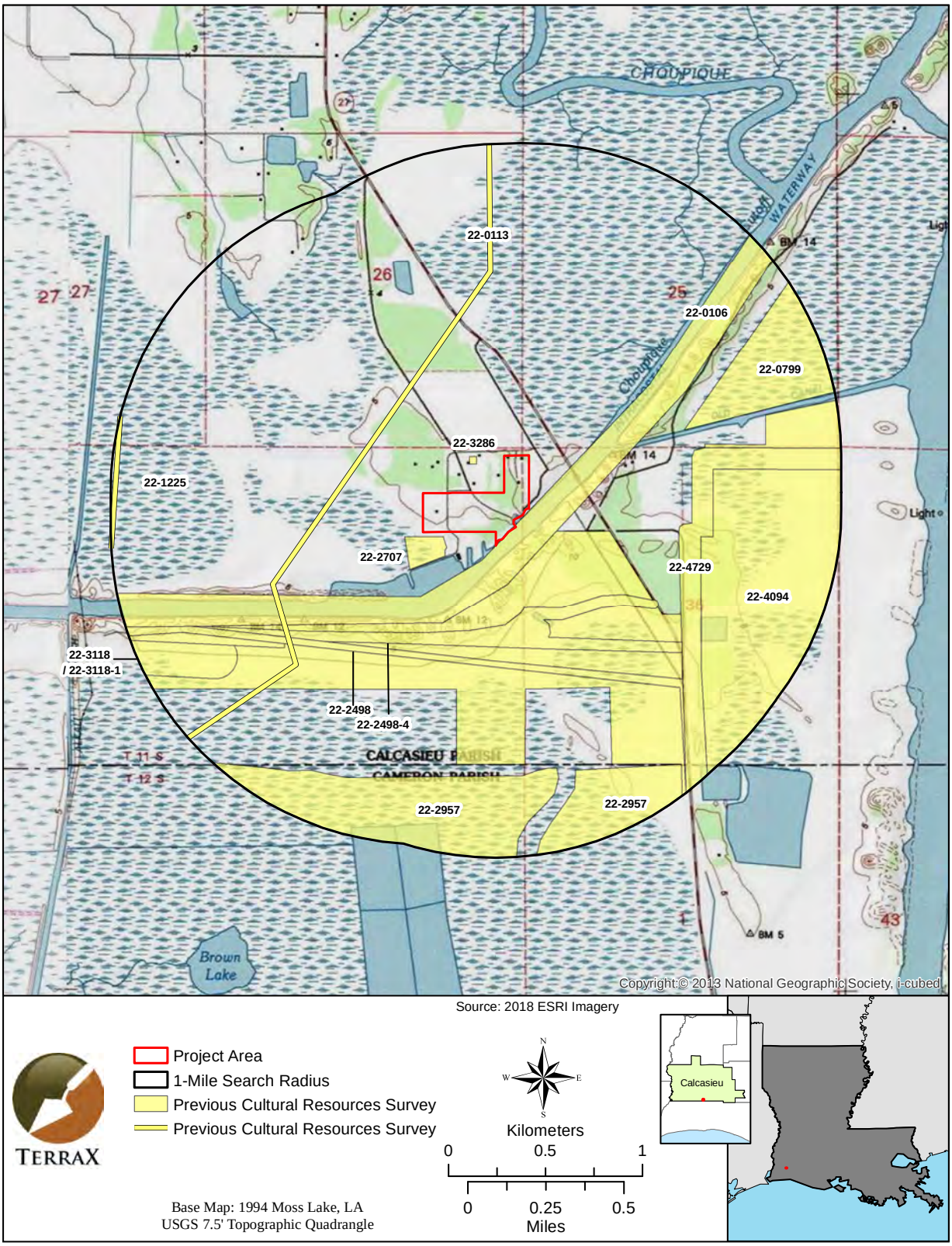

Figure 3.1. *Map showing previous surveys within a one-mile radius of the project area.*

Table 3.1. Previous surveys within one mile of the proposed project area.			
LDOA report number	***Acreage***	***Report Title***	***Author***
22-0106	315.1 miles	*Archaeological Investigations Along the Gulf Intracoastal Waterway: Coastal Louisiana Area*	Gagliano et al. 1975
22-0113	unknown	*Archaeological Survey: Mobil Pipe Line Company Six-Inch Natural Gas Pipeline Iowa, Louisiana to Orange, Texas*	Gagliano et al. 1976
22-0799	unknown	*A Cultural Resource Survey of the Calcasieu River and Pass and the Mermentau River, Louisiana*	Tribble & Garrison 1982
22-1225	320	*Level II Cultural Resource Investigation for the Texoma Distribution Enhancements Project, Cameron and Calcasieu Parishes Louisiana*	LeeDecker & Holland 1987
22-2498	575.43	*Phase I Cultural Resources Survey of the Proposed Hackberry LNG Terminal L.L.C. Project, Beauregard, Calcasieu and Cameron Parishes, Louisiana*	Ryan et al. 2002
22-2498-4	217.7	*Phase I Cultural Resources Survey of the Proposed Cameron Interstate Pipeline Project (Formerly Cameron LNG L.L.C and Hackberry LNG Terminal L.L.C. Projects) Beauregard, Calcasieu and Cameron Parishes, Louisiana*	Hunter 2007
22-2707	171.1 miles	*A Cultural Resources Survey for the Proposed Cheniere Creole Trail Pipeline Cameron, Calcasieu, Beauregard, Jefferson Davis, Allen, and Acadia Parishes, Louisiana FERC Docket No. PF05-08-000*	Dixon et al. 2005
22-2957	11.5 miles	*Calcasieu River and Pass Dredged Material Management Plan Calcasieu and Cameron Parishes, Louisiana: Cultural Resources Literature Search, Records Review and Research Design*	Ryan & Pearson 2008
22-3118	1,218	*Phase I Cultural Resources Investigation of the Proposed Liberty Gas Storage, LLC (Liberty) Expansion Project, Cameron and Calcasieu Parishes, Louisiana*	Coughlin et al. 2008
22-3118-1	41.89	*Addendum No. 1- Phase I Cultural Resources Inventory of Additional Survey Areas Associated with the Proposed Liberty Gas Storage, LLC (Liberty) Expansion Project, Cameron and Calcasieu Parishes, Louisiana*	Coughlin & Athens 2008
22-3286	47	*Cultural Resources Findings From FEMA Monitoring of Debris Removal and Demolition in Calcasieu Parish, Louisiana*	Ryan & Wells 2009
22-4094	503	*Phase I Cultural Resource Investigations for the Cameron LNG Terminal Liquefaction Project, Calcasieu and Cameron Parishes, Louisiana*	Thomas & Holland 2012
22-4729	2,294	*Phase I Cultural Resources Survey of the Proposed Columbia Gulf Transmission, LLC Cameron Access Project in Jefferson Davis, Cameron and Calcasieu Parishes, Louisiana*	Leben et al. 2014

CHAPTER 4
METHODOLOGY

STANDING STRUCTURES

Historic maps were reviewed before the field work was accomplished to ascertain the presence or absence of possible historic resources within the project area. As mentioned in previous chapters, three historic structures appear on 1932 and 1946 topographic quadrangles; five are shown on the 1955 map; and by 1975 there were seven structures. Field reconnaissance demonstrated that there are no historic standing structures within the project area currently, as older structures have been razed, leaving behind only concrete slabs.

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.

Subsurface testing was performed along 30-m interval transects comprised of shovel tests spaced 30 m apart. 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 TerraX's laboratory. Any cultural material identified during transecting was further examined in order to better define its horizontal and vertical limits. Delineations were conducted by placing additional shovel tests around positive tests. These additional tests were placed at 10 m intervals off of the original positive tests or cultural features in cardinal directions within the project area. This testing was conducted until two negative shovel tests were encountered in each direction or until delineations extended beyond the project boundary. A hand held Garmin GPS unit was used to record the site center and a sketch map was drawn by compass and pace and plotted to scale. Digital photographs were taken for any site recorded as well as for the survey area.

For the West Calcasieu Port Site project, 145 shovel tests were attempted (Figure 4.1). Of these, 105 were negative and 39 were unable to be excavated due to concrete pads, gravel, or standing water. One of the transect shovel tests contained cultural material. This, and other sites, will be discussed in Chapter 5, Results.

LABORATORY METHODS

All cultural materials recovered during field projects are delivered to TerraX's laboratory in Mobile, Alabama for processing. Upon initial receipt of materials and field forms, bag lists were entered into a computer database for use with a labeling program. Materials were cleaned and, if necessary, stabilized before classification and quantification by laboratory analysts. Cultural materials were sorted on the basis of material (i.e., ceramic, glass, etc.), manufacturing method, and/or decoration.

Common reference sources used for historic artifacts include Deiss (1981), Greer (1981), Jefferson Patterson Park and Museum (2012), Jones and Sullivan (1989), Samford (1997), and Lindsey (2018).

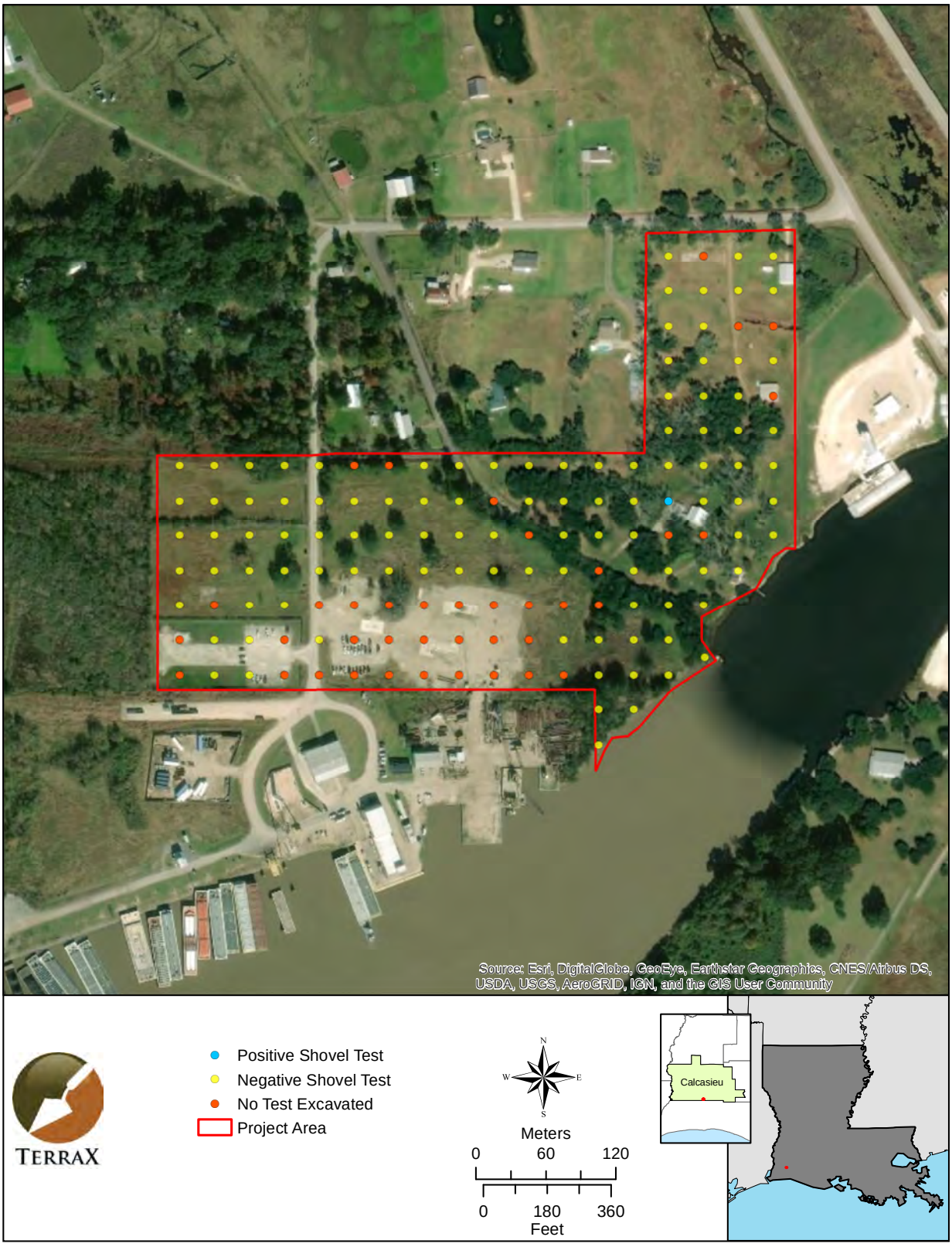

Figure 4.1. *Map showing shovel tests within the project area.*

CURATION

Along with the 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

This Phase I investigation included the placement of 145 shovel tests in this 32.16-acre (13-hectare) tract (see Figure 4.1). All were tested at 30-m high probability intervals. One of these shovel tests was positive for cultural material, 105 were negative, and 39 were unable to be excavated due to concrete and gravel. A typical shovel test consisted of 15 cm of grayish brown (10YR 5/2) silty clay over pale brown (10YR 6/3) clay (Figure 5.1). Many of the shovel tests contained hydric soils. Figures 5.2-5.9 depict the present condition of the project area.

An area in the southern portion adjacent to docks (outside the project area) along the ICW has what appears to be an abandoned industrial/commercial site with gravel and concrete pads, along with a paved parking lot. Dock Board Road runs from the northern part of the property to the docks. The northwest and north-central portions of the project area consist of grassy areas with a few live oaks. The northeastern portion also has grass with live oaks, along with a modern metal building and a modern concrete pad. The southeastern portion of the project area contains two modern residences with grass lawns and large live oaks and some gravel/dirt roads. These are accessed via Old Ferry Road, which presumably led to the Ellender Ferry Landing. An unnamed drainage runs alongside Old Ferry Road.

The investigation of the subject property led to the discovery of four historic archaeological sites, which are described below (Figure 5.10). See Appendix B for a complete list of artifacts recovered.

Figure 5.1. *View of typical shovel test.*

Figure 5.2. *Southeastern portion of project area, facing south.*

Figure 5.3. *Northeastern side of project area, facing south.*

Figure 5.4. *West-central portion of project area, facing south.*

Figure 5.5. *Southeastern portion of project area, facing east.*

Figure 5.6. *Modern residence in project area, facing west.*

Figure 5.7. *Modern residence in project area, facing west.*

Figure 5.8. *Modern concrete pad and metal building in project area, facing north.*

Figure 5.9. *View of industrial area in southern portion of project area, facing south.*

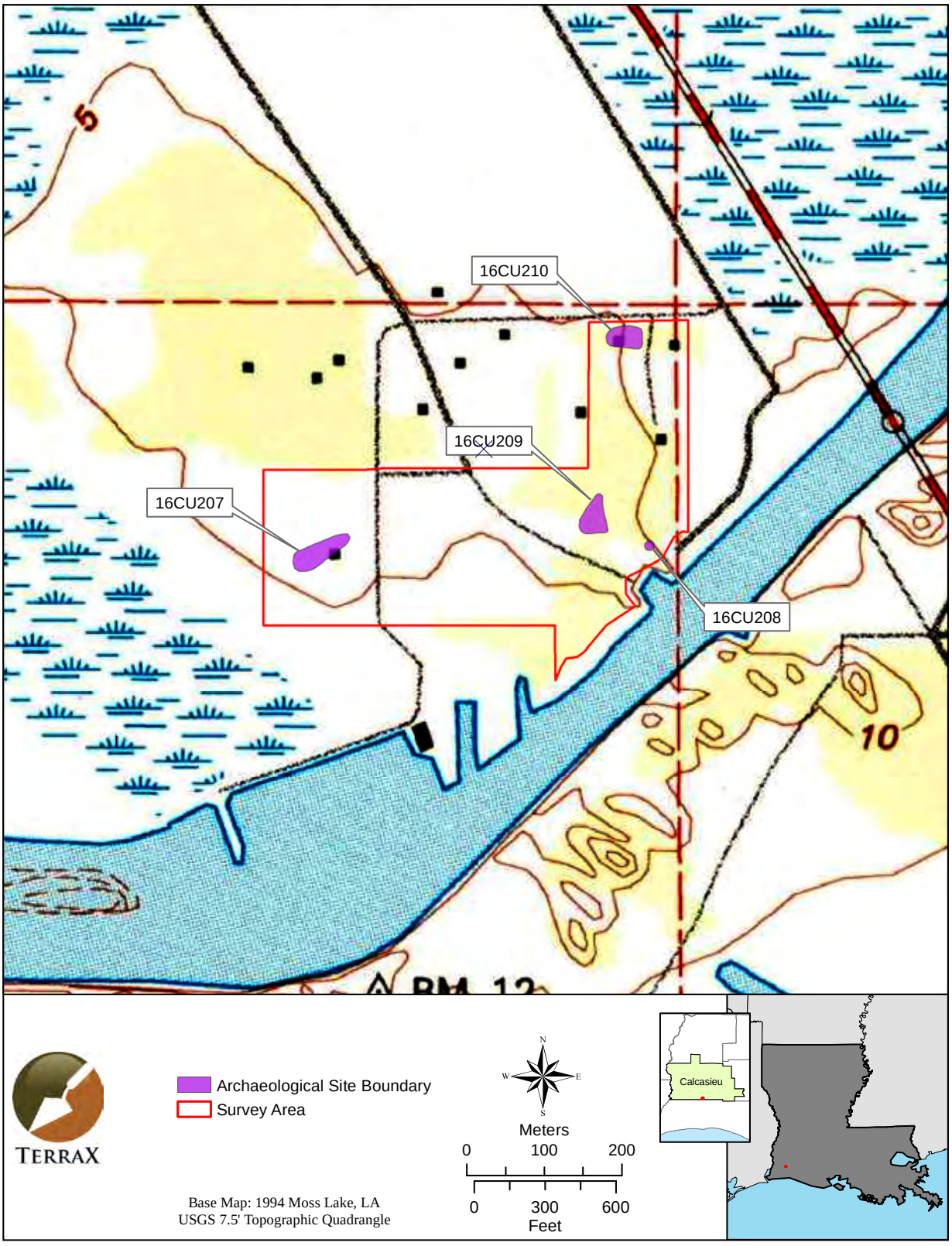

Figure 5.10. *Map showing locations of archaeological sites found within the project area.*

SITES

Site 16CU207. While no artifacts were found in shovel tests or on the surface, several concrete pads and a gravel driveway were noted west of Dock Board Road. Negative shovel tests 4-4 and 5-3 were both utilized as a datum point for delineation tests (Figure 5.11). Shovel Test 4-4 is located just south of a cluster of three small concrete pads, presumably outbuildings, and Shovel Test 5-3 is located east of the largest concrete pad, presumably a former residence (Figures 5.12-5.15). Delineation tests were placed at 10-m intervals in cardinal directions. A total of 24 shovel tests were attempted in the site area, with three being unable to be excavated due to the concrete pad or gravel driveway. The remaining 21 tests were negative. A typical shovel test consisted of 5 cm of grayish brown (10YR 5/2) silty clay over grayish brown (10YR 5/2) clay mottled with strong brown (7.5YR 5/6) clay to 20 cmbs. Visibility in the grass was poor and no artifacts were observed on the surface. Using the concrete pads as the site extent, the site measures approximately 82 m northeast-southwest by 30 m northwest-southeast. No structures appear in this area on the 1932 Moss Lake topographic map, but two structures do appear in the site area on the 1955 Sulphur and the 1955 Moss Lake topographic maps (Figure 5.16). Two structures also appear on the 1975 photorevised Moss Lake topo, but only one is still shown on the 1994 Moss Lake topo. So these concrete slabs date from sometime between 1932 and 1955, and perhaps the outbuildings were razed sometime after 1975 and the main structure after 1994. No other features were noted. As there does not appear to be any research potential, no further work is necessary. Site 16CU207 is recommended as ineligible for the NRHP.

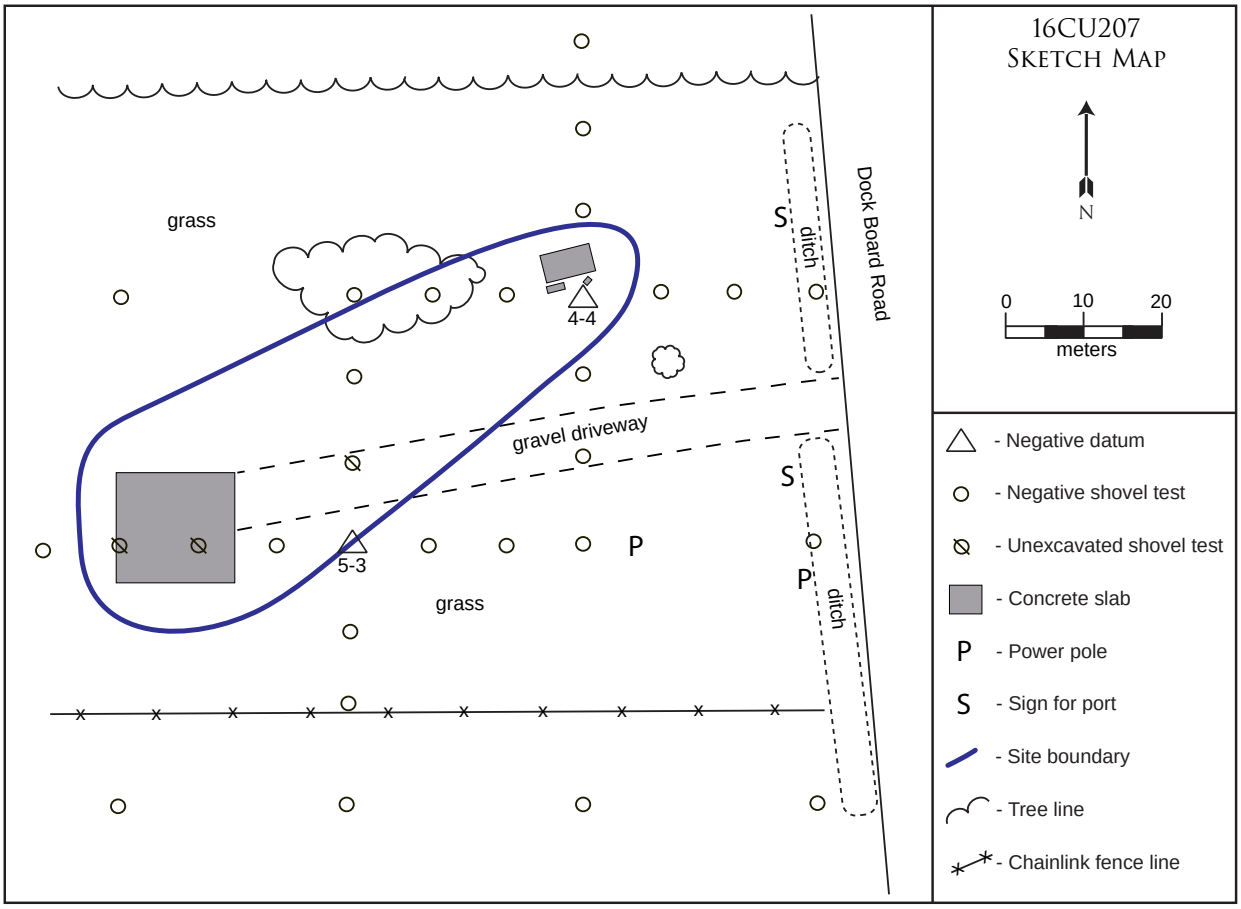

Figure 5.11. *Site 16CU207 sketch map.*

Figure 5.12. *View of large concrete pad at Site 16CU207, facing north.*

Figure 5.13. *View of large concrete pad at Site 16CU207, facing west.*

Figure 5.14. *View of small concrete pad at Site 16CU207, facing east.*

Figure 5.15. *View of vegetation at Site 16CU207, facing west.*

Figure 5.16. *Historic 1955 map showing locations of sites in relation to historic structures in the project area.*

Site 16CU208. This site is situated in the general location of a structure that appears on historic maps. While no artifacts were found in shovel tests in the vicinity, a remnant of a historic concrete pad was noted underneath a modern concrete patio slab attached to a modern residence. Ten negative shovel tests were excavated using Shovel Test 24-1 as datum, with an unexcavated test falling within the modern residence (Figure 5.17). A typical shovel test was 12 cm of grayish brown (10YR 5/2) silty clay over brown (10YR 5/3) oxidized clay to 26 cmbs. No artifacts were noted on the surface but exposure was poor in the grassy lawn, which also included several live oaks (Figure 5.18). Site size was difficult to determine with only a remnant of a concrete slab present (Figure 5.19), but the site was estimated at 12 m in diameter.

The 1932 Moss Lake topographic map shows a structure just to the south of the site and another structure to the southeast (Figure 5.20). It is uncertain if the historic concrete pad is part of one of these structures. The 1955 Sulphur and the 1955 Moss Lake topographic maps show two structures in this area that are positioned differently than the ones on the 1932 map (see Figure 5.16). The site seems to match the location of one of these. Two structures also appear on the 1975 photorevised Moss Lake map, but none are shown on the 1994 Moss Lake map. This concrete slab may date as far back as 1932 and certainly as far back as 1955, but the associated structure was razed sometime after 1975 but before 1994. This site may be related to the ferry landing for the Ellender Ferry. The modern structure atop the site has been built since 1994. No artifacts or other features were noted. As there does not appear to be any research potential, no further work is recommended at this site. Site 16CU208 is recommended as ineligible for the NRHP.

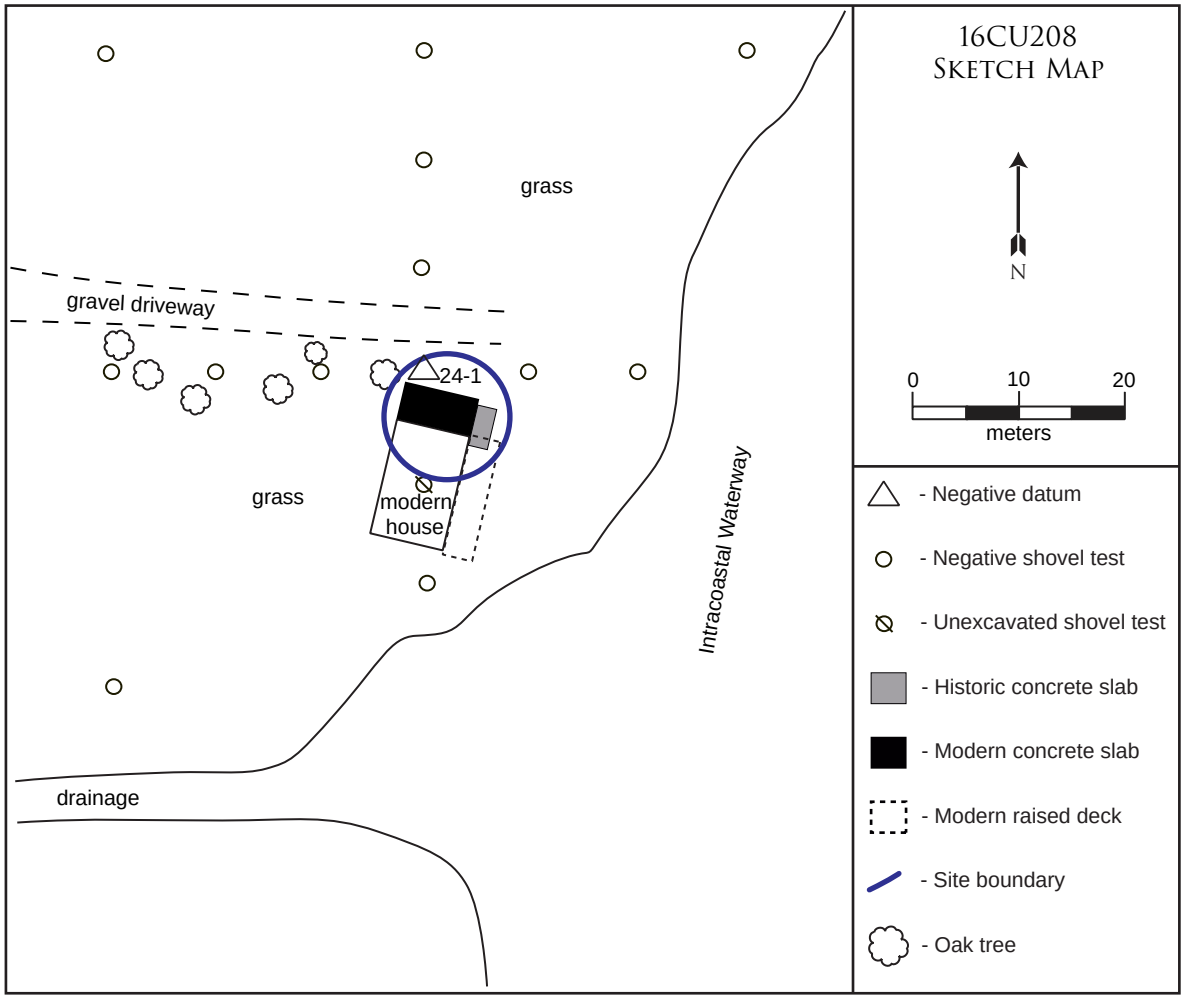

Figure 5.17. *Site 16CU208 sketch map.*

Figure 5.18. *View of lawn and live oaks at Site 16CU208, facing west.*

Figure 5.19. *View of historic slab underneath modern residence at Site 16CU208, facing west.*

Figure 5.20. *Historic 1932 map showing locations of sites in relation to historic structures in the project area.*

Site 16CU209. This site contains a slight subsurface artifact scatter and remnants of a small historic concrete pad, sidewalk, and capped well adjacent to a modern residence. One positive transect test, 22-4, was used as a datum. An additional judgmental shovel test was placed adjacent to one of the concrete pads and was used as a second datum. Delineation tests were placed off of both in cardinal directions. Thirty-one shovel tests in the vicinity resulted in three positive tests and 22 negative tests, with six unexcavated tests falling on concrete or gravel (Figure 5.21). Surface features consist of a 2-x-2 m concrete pad (Figure 5.22), a 1-x-7 m concrete linear walkway (Figure 5.23), and an approximate 2-x-4 m concrete well pad with a raised concrete lid (Figure 5.24). A modern residence with a large poured concrete driveway and parking area is adjacent to the east. A curved gravel driveway cuts though the site. Site 16CU209 measures approximately 46-x-35 m. Vegetation consists of a grass lawn and live oaks (Figure 5.25). No artifacts were noted on the surface but exposure was poor in the grassy lawn. Eleven artifacts were recovered from shovel tests at depths from 0 to 25 cmbs, most within 15 cm. A typical shovel test consisted of 20 cm of dark brown (10YR 3/3) silty clay loam over dark grayish brown (10YR 4/2) clay mottled with pale brown (10YR 6/3) clay. Recoveries include a 10 percent sample of brick fragments (n=5), wire nails/fragments (n=2), colorless container glass (n=2), aqua container glass (n=1), and a red glass automobile tail light fragment (Figure 5.26).

The 1932 Moss Lake topographic map shows a structure at the southern edge of the site (see Figure 5.20). The 1955 Sulphur and the 1955 Moss Lake maps show a structure to the southeast (see Figure 5.16). A structure also appears on the 1975 photorevised Moss Lake map, but is not shown on the 1994 Moss Lake map. This site may date as far back as 1932 but the associated structure was razed sometime after 1975 but before 1994. The modern structure adjacent to the site has been built since 1994. This site does not appear to have any research potential and no further work is required. Site 16CU209 is recommended as ineligible for the NRHP.

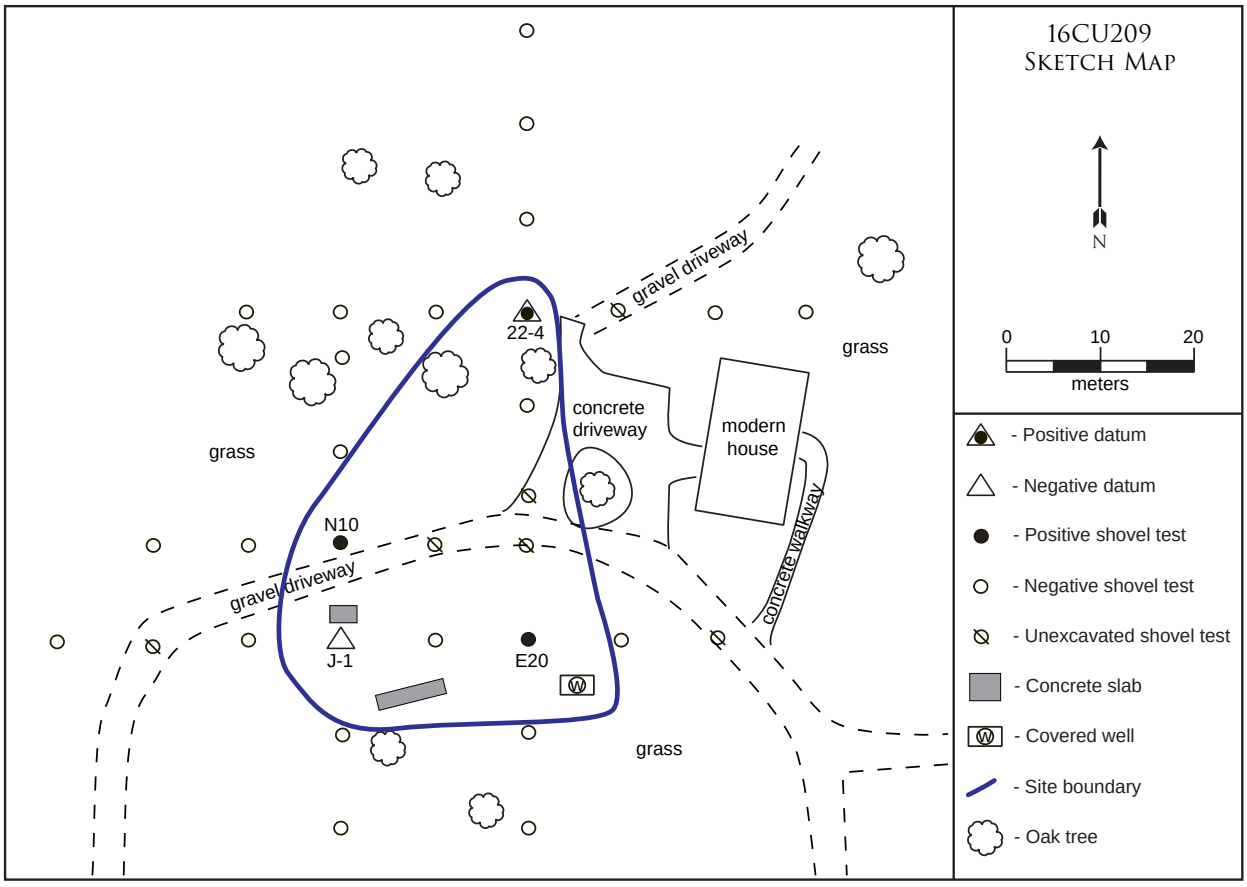

Figure 5.21. *Site 16CU209 sketch map.*

Figure 5.22. *View of small concrete slab at Site 16CU209, facing west.*

Figure 5.23. *View of walkway slab at Site 16CU209, facing west.*

Figure 5.24. *View of concrete well pad at Site 16CU209, facing north.*

Figure 5.25. *General view of Site 16CU209, facing south.*

Figure 5.26. *Red glass automobile tail light fragment from Site 16CU209.*

Site 16CU210. This site is in the location of a structure that appears on historic maps. While no artifacts were found in shovel tests in the vicinity, a large historic concrete pad was noted just south of Gross Road and adjacent to a gravel road running south of Gross Road (Figure 5.27). A smaller concrete pad is present to the south of the larger one (Figure 5.28). Shovel tests in the vicinity were all negative, with a couple of unexcavated tests falling within the concrete pad. Seven negative shovel tests were excavated in the site vicinity (Figure 5.29). A typical shovel test consists of 15 cm of grayish brown (10YR 5/2) oxidized clay. No artifacts were noted on the surface but exposure was poor in the grassy lawn, which also included several live oaks (Figure 5.30). The site measures approximately 48-x-30 m.

The 1932 Moss Lake topographic map does not show any structures in this area. The 1955 Sulphur and the 1955 Moss Lake maps do show a structure here, presumably a residence (see Figure 5.16). A structure also appears on the 1975 photorevised Moss Lake map and on the 1994 Moss Lake map. This concrete slab dates at least to 1955, with the associated structure razed sometime after 1994. No artifacts or other features were noted. As there does not appear to be any research potential, no further work is recommended at this site. Site 16CU210 is recommended as ineligible for the NRHP.

Figure 5.27. *View of large concrete pad at Site 16CU210, facing east (modern metal building in background).*

Figure 5.28. *View of small concrete pad at Site 16CU210, facing west.*

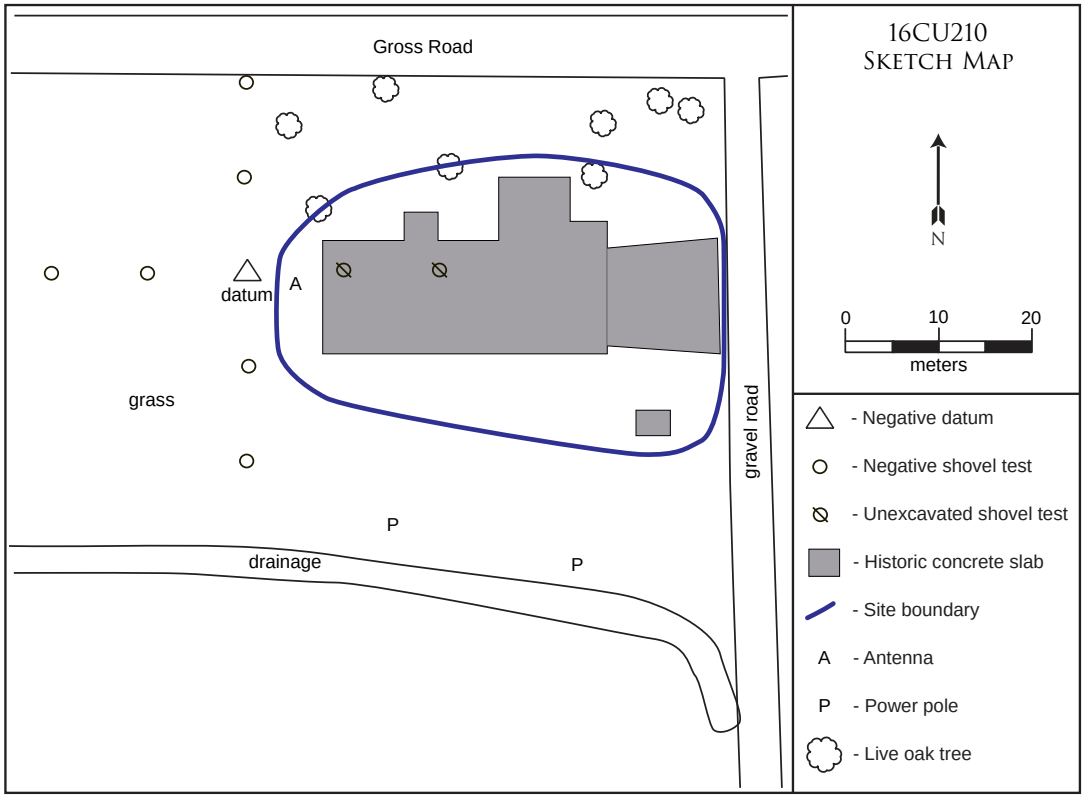

Figure 5.29. *Site 16CU210 sketch map.*

Figure 5.30. *General view of Site 16CU210, facing south.*

STANDING STRUCTURES

No historic standing structures are located within the project area boundaries.

HISTORIC AREAS

No historic areas are located within the project area boundaries.

NRHP ELIGIBILITY

None of the four historic sites (16CU207, 16CU208, 16CU209, and16CU210) discovered in the project area are eligible for the NRHP.

CHAPTER 6
SUMMARY AND RECOMMENDATIONS

TerraX, under contract with SWLA Economic Development Alliance of Lake Charles, Louisiana performed the Phase I cultural resources survey for the proposed West Calcasieu Port Site development project located in Calcasieu Parish, Louisiana in compliance with state regulations. The Phase I survey was performed between July 16-18, 2019. The investigation identified four historic sites (16CU207 - 16CU210), none of which are eligible for the NRHP. Site 16CU207 represents a mid-twentieth century site with no associated artifacts. One large and three smaller concrete slabs are present, appearing on 1955 maps but not on 1932 maps. Site 16CU208 contains a historic concrete slab partially covered by a modern residence. This site may date as early as 1932 based on historic map research. No artifacts were recovered. Site 16CU209 contains two slabs and a light amount of subsurface cultural material. Historic maps indicate this site may date as early as 1932. Site 16CU210 consists of a large concrete slab along with a smaller slab. No artifacts were found at this site where a structure appears on a 1955 map.

No historic standing structures are present within the project area. No further archaeological studies are recommended for the proposed West Calcasieu Port Site development project and this project will have no effect on the four historic sites identified.

REFERENCES

Coughlin, Sean, and William P. Athens

2008 *Addendum No. 1- Phase I Cultural Resources Inventory of Additional Survey Areas Associated with the Proposed Liberty Gas Storage, LLC (Liberty) Expansion Project, Cameron and Calcasieu Parishes, Louisiana.* LDOA #22-3118-1.

Coughlin, Sean, C. Foster-Curley, K. Coyle, N. Heller, L. Hannah, and W.P. Athens

2008 *Phase I Cultural Resources Investigation of the Proposed Liberty Gas Storage, LLC (Liberty) Expansion Project, Cameron and Calcasieu Parishes, Louisiana.* LDOA #22-3118.

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.

Deiss, Ronald W.

1981 *The Development and Application of a Chronology for American Glass*. Master's thesis on file at Illinois State University.

Dixon, Boyd, Dale Norton, Rita Fields, and John Fulmer

2005 *A Cultural Resources Survey for the Proposed Cheniere Creole Trail Pipeline Cameron, Calcasieu, Beauregard, Jefferson Davis, Allen, and Acadia Parishes, Louisiana FERC Docket No. PF05-08-000.* LDOA #22-2707.

Gagliano, Sherwood M., Richard A. Weinstein, and Eileen K. Burden

1975 *Archaeological Investigations Along the Gulf Intracoastal Waterway: Coastal Louisiana Area*. LDOA #22-0106.

1976 *Archaeological Survey: Mobil Pipe Line Company Six-Inch Natural Gas Pipeline Iowa, Louisiana to Orange, Texas.* LDOA #22-0113.

Greer, Georgeanna H.

1981 *American Stonewares: The Art and Craft of Utilitarian Potters.* Schiffer Publishing Limited, Exton, Pennsylvania.

Hunter, Donald G.

2007 *Phase I Cultural Resources Survey of the Proposed Cameron Interstate Pipeline Project (Formerly Cameron LNG L.L.C and Hackberry LNG Terminal L.L.C. Projects) Beauregard, Calcasieu and Cameron Parishes, Louisiana*. LDOA #22-2498-4.

Jefferson Patterson Park and Museum

2012 Diagnostic Artifacts in Maryland. Electronic document, http://www.jefpat.org/diagnostic/Index.htm.

Jones, Olive and Catherine Sullivan
1989 *The Parks Canada Glass Glossary for the Description of Containers, Tableware, Flat Glass, and Closures.* National Historic Parks and Sites, Canadian Parks Service, Environment Canada, Ottawa.

Leben, Tyler, K. Ryberg, H.H. Mehta, R. Buckley, A. Flanagan, J. Krummel, C. Wells, L. Clements, S. Slaughter, K. Verette, J. Adams, K. Coyle, N. Heller, and C.D. Pevny
2014 *Phase I Cultural Resources Survey of the Proposed Columbia Gulf Transmission, LLC Cameron Access Project in Jefferson Davis, Cameron and Calcasieu Parishes, Louisiana.* LDOA #22-4729.

LeDoux, Sarah
2016 Ellender Ferry. Electronic document, https://www.wikitree.com/wiki/Space:Ellender_Ferry, accessed July 22, 2019.

LeeDecker, Charles H., and Claudia C. Holland
1987 *Level II Cultural Resource Investigation for the Texoma Distribution Enhancements Project, Cameron and Calcasieu Parishes Louisiana.* LDOA #22-1225.

Lindsey, Bill
2018 Historic Glass Bottle Identification and Information Website. Electronic document, http://www.sha.org/bottle/index.htm.

Louisiana Division of Archaeology (LDOA)
2019 Louisiana Archaeological Site Files. Louisiana Division of Archaeology, Baton Rouge, Louisiana. Assessed online July 2019.

National Park Service
2019 *National Register of Historic Places*. Department of the Interior, Washington, D.C. Available online at www.cr.nps.gov/nr, accessed July 2019.

Ryan, Joanne, Thurston H.G. Hahn, and Jerame Cramer
2002 *Phase I Cultural Resources Survey of the Proposed Hackberry LNG Terminal L.L.C. Project, Beauregard, Calcasieu and Cameron Parishes, Louisiana.* LDOA #22-2498.

Ryan, Joanne, and Charles E. Pearson
2008 *Calcasieu River and Pass Dredged Material Management Plan Calcasieu and Cameron Parishes, Louisiana: Cultural Resources Literature Search, Records Review and Research Design.* LDOA #22-2957.

Ryan, Joanne, and Douglas C. Wells
2009 *Cultural Resources Findings From FEMA Monitoring of Debris Removal and Demolition in Calcasieu Parish, Louisiana.* LDOA #22-3286.

Samford, Patricia M.
1997 Response to a Market: Dating English Underglaze Transfer-Printed Wares. *Historical Archaeology*, 31 (2):1-30

Thomas, Larissa A., and Jeffery Holland
2012 *Phase I Cultural Resource Investigations for the Cameron LNG Terminal Liquefaction Project, Calcasieu and Cameron Parishes, Louisiana*. LDOA #22-4094.

Tribble, James Slater, and Ervan G. Garrison
1982 *A Cultural Resource Survey of the Calcasieu River and Pass and the Mermentau River, Louisiana.* LDOA #22-0799.

APPENDIX A
CURATION AGREEMENT

TROY UNIVERSITY

Archaeological
Research Center

Date: November 9, 2018

Paul Jackson
TerraXplorations
3523 18th Ave NE
Tuscaloosa, Alabama 35406

Dear Paul,

As per your request, this letter is to confirm our standing agreement with you to provide curation services to Terra Explorations 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.

Sincerely,

Jason Mann
Director
Archeological Research Center
Troy University

APPENDIX B
ARTIFACT INVENTORY

Artifact Inventory from 2019.221

Site	Location	Type	Count	Weight (g)	Accession #
16CU209					
	ST 22 TR 4/I/0-10 cmbs				***Bag: 1***
		brick fragment	1	78.7	2019.2211
		Location Totals	*1*	*78.7*	
	N 10/I/0-15 cmbs				***Bag: 2***
		ferrous metal wire nail	1	8.8	2019.2215
		ferrous metal wire nail fragment	1	13.0	2019.2216
		glass (aqua container)	1	3.1	2019.2214
		glass (colorless container)	2	50.4	2019.2212
		glass (red car tail light fragment)	1	17.6	2019.2213
		Location Totals	*6*	*92.9*	
	E 20/I/10-25 cmbs				***Bag: 3***
		brick fragment	4	798.8	2019.2217
		Location Totals	*4*	*798.8*	
Site Totals			*11*	*970.4*	
Project Totals			*11*	*970.4*	