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**PHASE I CULTURAL RESOURCES SURVEY
AND ARCHEOLOGICAL INVENTORY OF
THE PROPOSED VERMILION RIVER
DREDGE DISPOSAL PROJECT AREA,
LAFAYETTE PARISH, LOUISIANA**

FINAL REPORT
APRIL 2003

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13. ABSTRACT (Maximum 200 words)

This document presents the results of the Phase I cultural resources survey of the Vermilion River Dredge Disposal Project Areas in Lafayette Parish, Louisiana. This survey was conducted by R. Christopher Goodwin & Associates, Inc., during March and April of 2002; it was performed on behalf of the U.S. Army Corps of Engineers, New Orleans District. The examined study area consisted of a 372 ac (150.5 ha) tract of land located along the Vermilion River and approximately 1.2 km (0.75 mi) east of the town of Lafayette, Louisiana. Cultural resources survey and archeological inventory of the study area resulted in the identification of two non-site cultural resources loci (VRD-1A-01 and VRD-1D-02) and a single newly recorded archeological site (16LY116). In addition, the locations of two previously recorded sites (16LY24 and 16LY50) were revisited.

The two non-site cultural resources loci consisted of an isolated prehistoric ceramic sherd (VRD-1A-01) and an isolated historic artifact (VRD-1D-02). The single newly recorded archeological site (16LY116) was characterized in the field as a historic artifact scatter with an associated historic structure. Each of the newly identified cultural resources loci and Site 16LY116 produced sparse artifact assemblages and the loci lacked both intact cultural deposits and research potential. Therefore, Locus VRD-1A-01, Locus VRD-1D-02, and Site 16LY116 do not possess the qualities of significance as defined by the National Register of Historic Places criteria for evaluation (36 CFR 60.4 [a-d]). No additional testing of these non-site loci and newly recorded archeological site is recommended.

Of the previously recorded archeological site locations that were revisited, Site 16LY24 previously was described as a multi-component site that contained both prehistoric and historic components, while Site 16LY50 consisted of a prehistoric period cultural resource. Intensive pedestrian survey, shovel testing, auger testing, and backhoe trenching were conducted throughout the area associated with each of these previously recorded site locations. Site 16LY24 yielded a limited artifact assemblage and it lacked intact cultural deposits and research potential. Despite the recovery of a large and diverse artifact assemblage from Site 16LY50, there was substantial evidence that suggested that the site lacked stratigraphic integrity and that it may have been redeposited to its current location. As a result, the potential for Site 16LY50 to add to archeological knowledge of prehistoric lifeways in southern Louisiana was limited at best. Because no evidence of intact cultural deposits or research potential was identified at either of the previously archeological sites, neither site possessed the qualities of significance as defined by the National Register of Historic Places criteria for evaluation (36 CFR 60.4 a-d). No additional testing of Sites 16LY24 and 16LY50 is recommended.

In summary, no potentially significant cultural resources were identified during the current Phase I investigation of the proposed Vermilion River Dredge Disposal Area in Lafayette Parish, Louisiana. No additional testing of the proposed Area of Potential Effect is recommended.

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Tchefuncte

Redeposited

Dredge Disposal

Vermilion River

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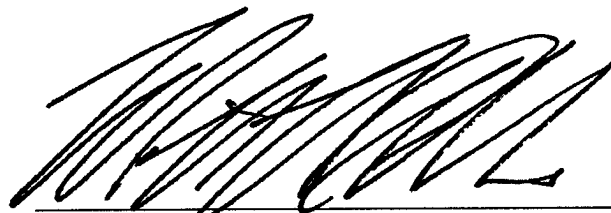
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AND ARCHEOLOGICAL INVENTORY OF THE PROPOSED
VERMILION RIVER DREDGE DISPOSAL PROJECT AREA,
LAFAYETTE PARISH, LOUISIANA**

FINAL REPORT

A large, stylized handwritten signature in black ink, likely belonging to William P. Athens, is positioned above a horizontal line.

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Principal Investigator**

By

**Catherine Labadia, Susan Barrett Smith, Alicia Ventresca,
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April 2003

For

**U.S. Army Corps of Engineers
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CHAPTER I

INTRODUCTION

This report presents the results of Phase I cultural resources survey and archeological inventory of the proposed U.S. Army Corps of Engineers Vermilion River Dredge Disposal Project Area in Lafayette Parish, Louisiana (Figure 1). These investigations were completed during March and April of 2002, by R. Christopher Goodwin & Associates, Inc., on behalf of the U.S. Army Corps of Engineers, New Orleans District, pursuant to Contract DACW29-01-D0017, Delivery Order 2. All fieldwork was performed in accordance with the National Historic Preservation Act of 1966, as amended; the National Environmental Policy Act of 1969, as amended; with *Louisiana's Comprehensive Archeological Plan* (Smith et al. 1983); and with the Scope of Work drafted by the U.S. Army Corps of Engineers, New Orleans District.

Project Description

The U.S. Army Corps of Engineers, New Orleans District, plans to dredge material from an approximately 28.1 km (17.5 mi) long stretch of the Vermilion River near the city of Lafayette, Louisiana. Current construction plans call for the dredge material to be deposited within a single disposal area. The examined Vermilion River Dredge Disposal Project Area consists of a 372 ac (150.5 ha) tract of land located along the Vermilion River and 1.2 km (0.75 mi) east of the town of Lafayette, Louisiana, i.e., in Sections 93, 95, 96, 97, and 98, of Township 9S, Range 5E and Sections 4 and 5 of Township 10S, Range 5E (Figure 2). A portion of this parcel will serve as the disposal area for material excavated during maintenance dredging of the Ver-

million River. At the time of survey, the parcel was utilized as a cattle farm and crawfish pond. In addition to surveying the 372 ac (150.5 ha) parcel for cultural resources, the reported locations of two previously recorded sites (16LY24 and 16LY50) were revisited and examined for cultural resources.

Project Design and Field Methods

This Phase I cultural resources survey and archeological inventory of the proposed dredge disposal area was designed to identify, record, and assess the distribution of all cultural resources located within and immediately adjacent to the Area of Potential Effect that may be impacted adversely as a result of this undertaking. To accomplish this goal, the entire length and width of the entire 372 ac (150.5 ha) parcel, or study area, was surveyed for cultural resources. Fieldwork included intensive pedestrian reconnaissance augmented by systematic subsurface testing throughout the study area. Finally, architectural review of the proposed project item was completed in an effort to identify and record all standing structures 50 years in age or older and historic cemeteries within or adjacent to the proposed Area of Potential Effect.

Prior to survey, the proposed study area was divided into four smaller units to facilitate control and provide greater accuracy during the survey and site delineation processes. These survey blocks were designated VRD-1A, VRD-1B, VRD-1C, and VRD-1D (Figures 3 – 6). The entire study area was perceived as having a high potential for containing intact cultural deposits based on its proximity to the Vermilion River and the number of previously identified cultural

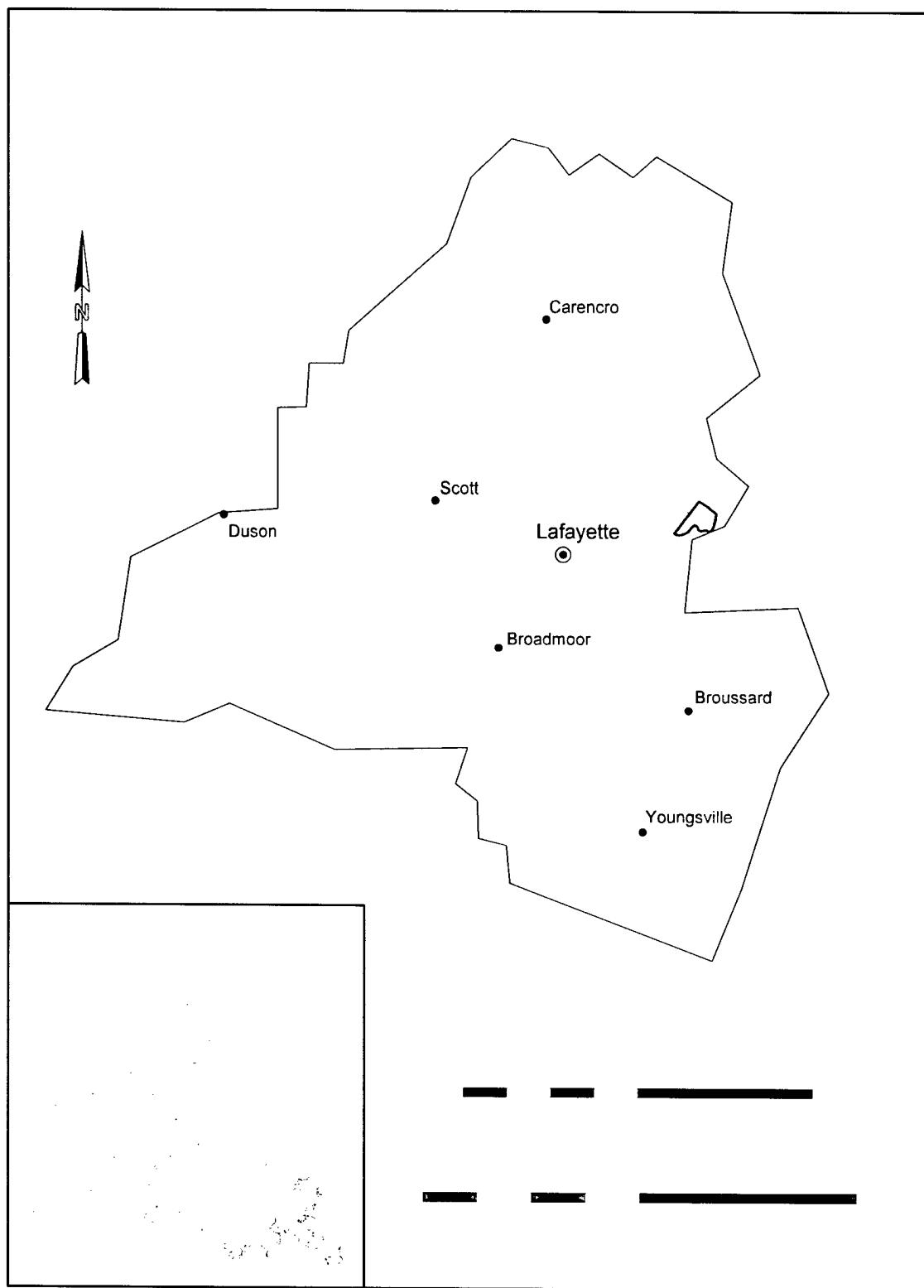


Figure 1. Map of Louisiana depicting the location of the proposed Vermilion River Dredge Disposal Study Area.

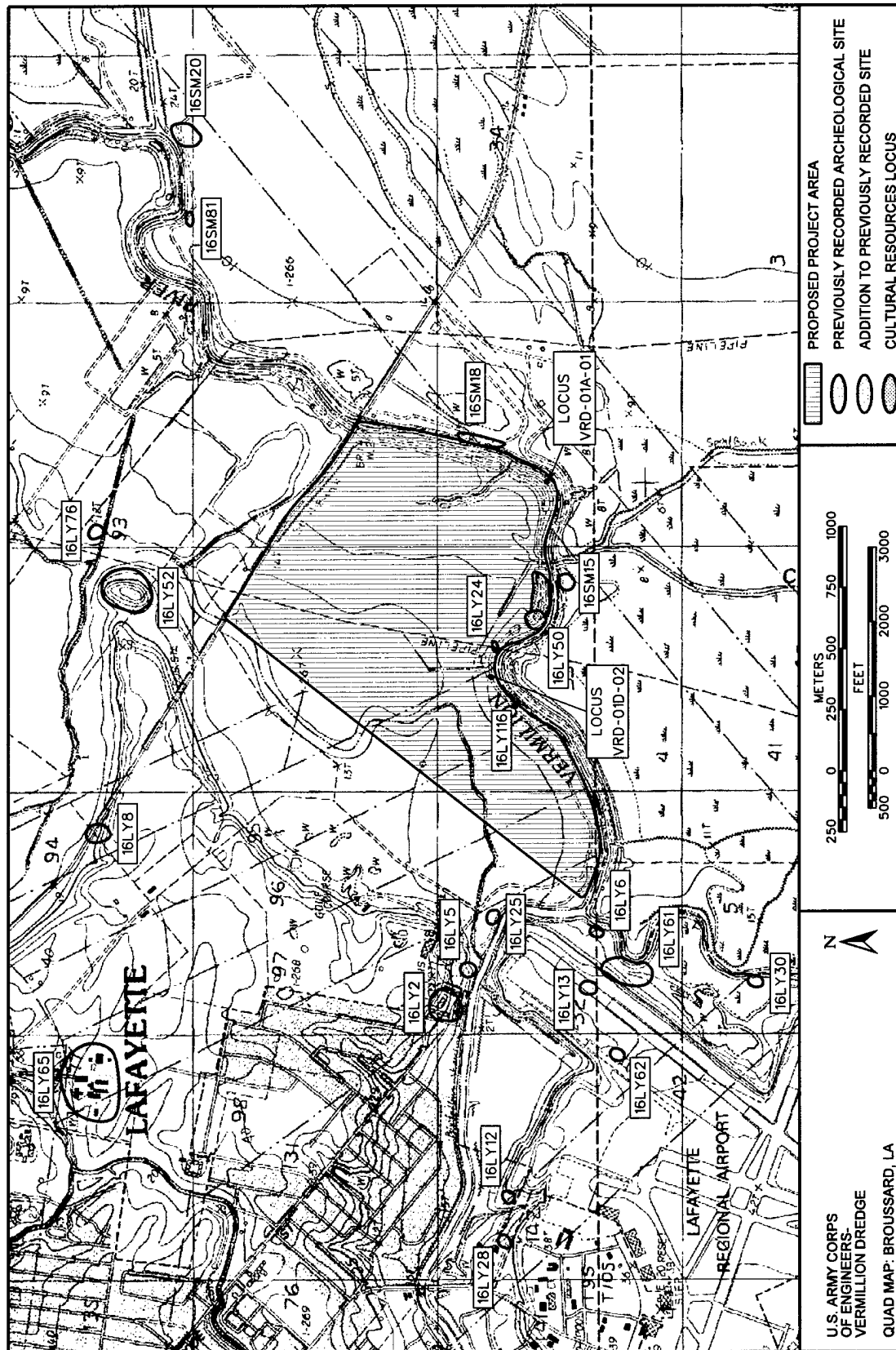


Figure 2. Excerpt from the 1983 7.5' series topographical quadrangle, Broussard, Louisiana, depicting the location of the proposed Vermilion River Dredge Disposal Study Area and previously recorded sites.

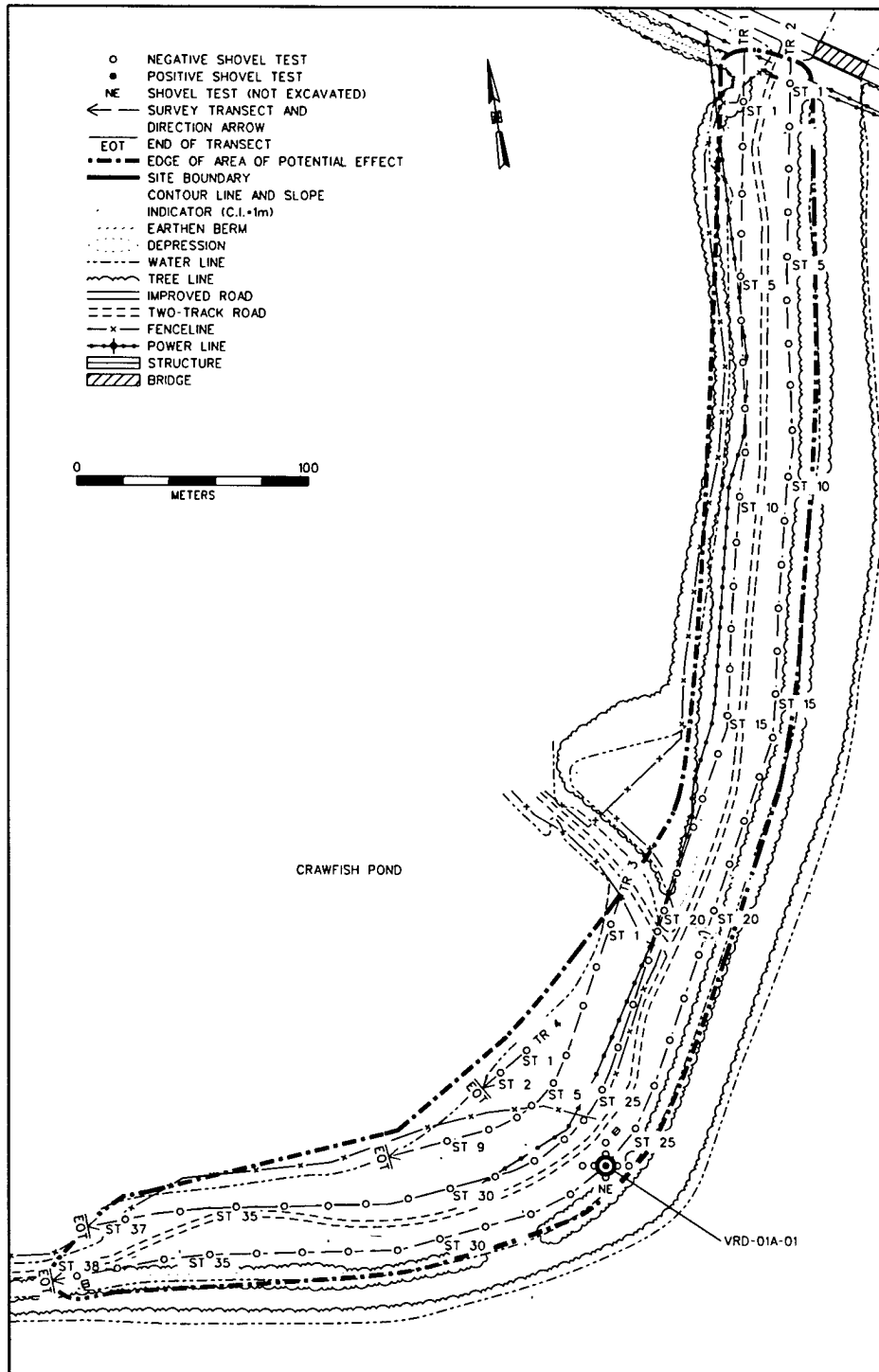


Figure 3. Plan View of Area VRD-1A.

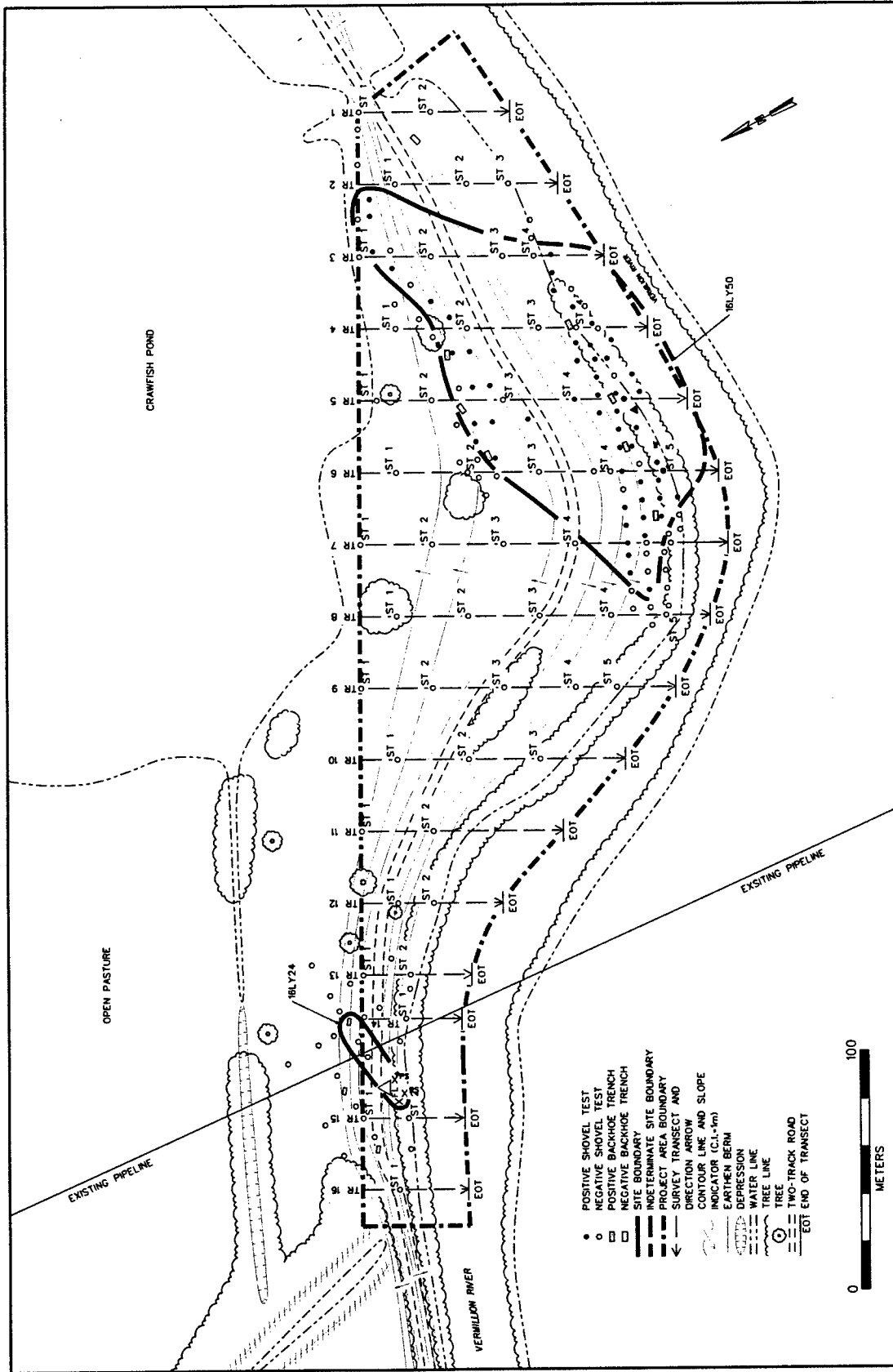


Figure 4. Plan View of Area VRD-1B.

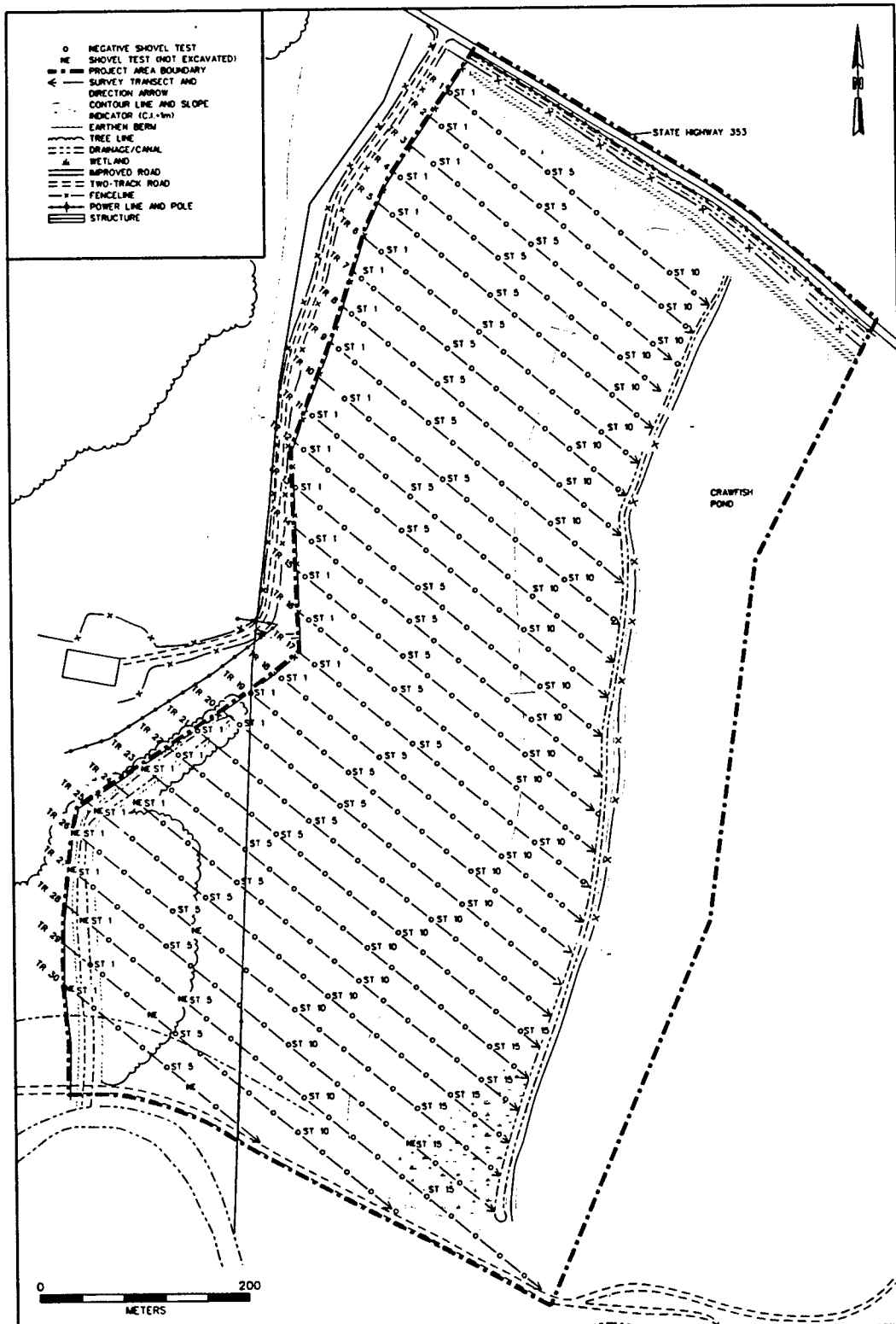


Figure 5. Plan View of Area VRD-1C.

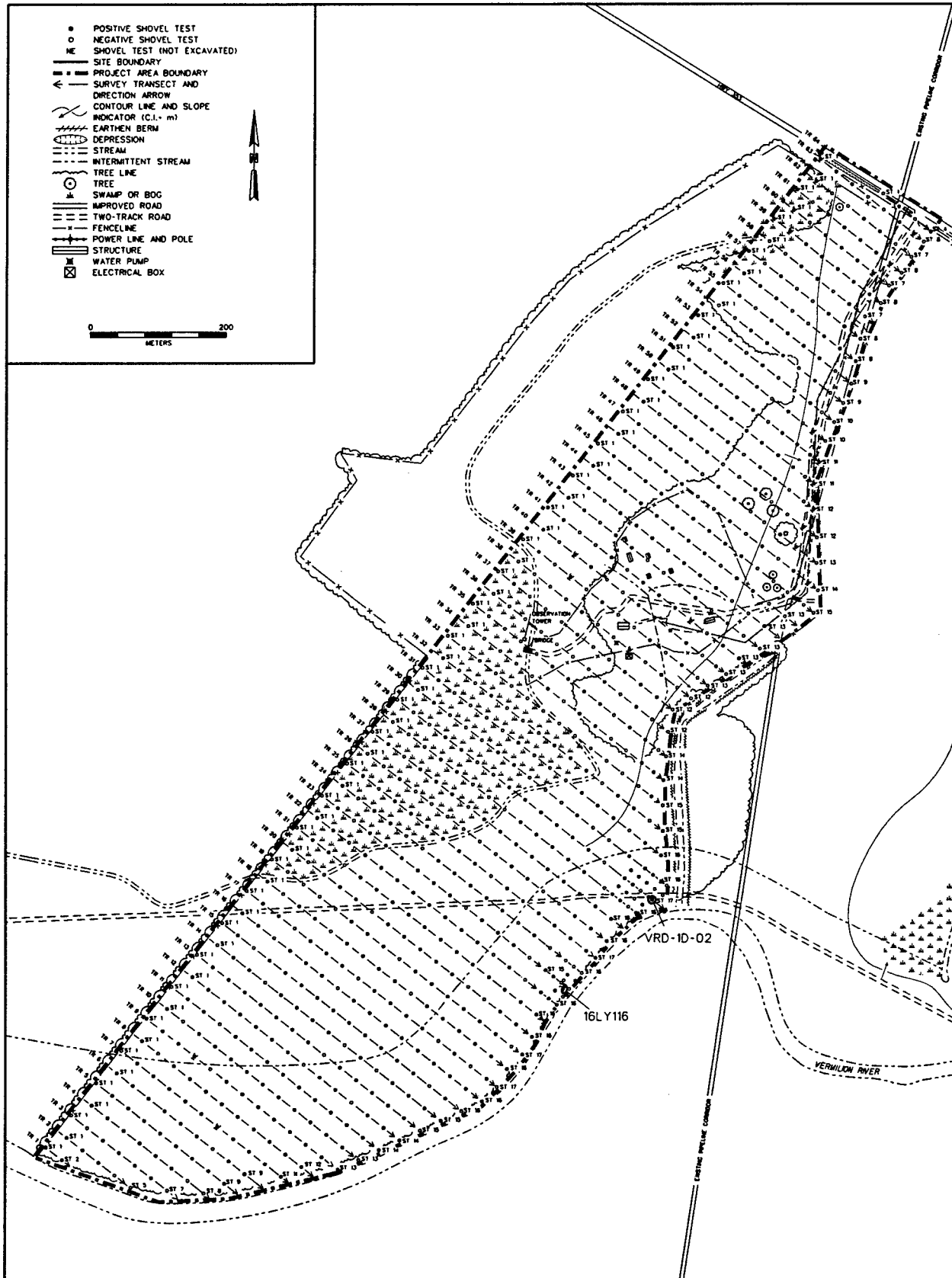


Figure 6. Plan View of Area VRD-1D.

cultural resources situated within and/or adjacent to this parcel. Therefore, shovel tests were excavated throughout the project parcel at 30 m (98.4 ft) intervals along parallel survey transects spaced 30 m (98.4 ft) apart. A total 1,289 of 1,311 (98 percent) planned shovel tests were excavated during the Phase I cultural resources survey and archeological inventory of the proposed dredge disposal study area. The remaining 22 shovel tests were not excavated because they were situated in areas either covered by standing water (n=10), a modern trash pile (n=1), compacted gravel (n=1), or because they were located in areas that contained buried utilities (n=10). In addition, shovel testing was not planned within those portions of the study area covered by artificial levee deposits or the above referenced crawfish pond.

Due to the high potential for encountering deeply buried cultural deposits, auger testing and backhoe trenching were conducted in the vicinity of all newly identified and previously recorded archeological sites. A total 137 of 137 (100 percent) auger tests and 14 of 14 (100 percent) planned backhoe trenches were excavated during the initial survey and subsequent site delineation processes.

Fieldwork also included an architectural survey to identify and record any standing structures older than 50 years in age situated within the examined study area. Because the deposition of dredge material has the potential to disturb or destroy historic properties, the purpose of the architectural recordation was: (1) to collect reconnaissance-level architectural survey data for each building 50 years in age or older; (2) to apply the National Register of Historic Places criteria for evaluation (36 CFR 60.4 [a-d]) to each recorded resource; and, (3) to apply the Advisory Council on Historic Preservation's Criteria of Effect to each historic property. Architectural investigations were undertaken in accordance with guidelines established in National Register Bulletin 24: Guidelines for Local Surveys: A Basis for Preservation Planning (National Park Service 1995).

Summary and Recommendations

This Phase I cultural resources survey and archeological inventory of the proposed Vermilion River Dredge Disposal Area resulted in the

relocation of two previously recorded sites (16LY24 and 16LY50), the identification of a single newly recorded archeological site with an associated historic structure (16LY116), and the identification of two non-site cultural resources loci (VRD-1A-01 and VRD-1D-02). None of the archeological sites (16LY24, 16LY50, and 16LY116) or two non-site cultural resources loci (VRD-1A-01 and VRD-1D-02) possessed research potential or the qualities of significance applying the National Register of Historic Places criteria for evaluation (36 CFR 60.4 [a-d]). No additional testing or recordation of these archeological sites and loci is recommended.

Project Personnel

William P. Athens, M.A., served as Principal Investigator and supervised all aspects of the study. Ms. Catherine M. Labadia, M.A., served as the Project Manager for the project. Ms. Susan Barrett Smith, B.A., coordinated the historic research for the project. Mr. Eric Vogelheim, M.A., served as Assistant Project Manager and he directed most aspects of the fieldwork. He was assisted by Ms. Heather Childers, B.S.; Mr. Richard Denniston, B.A.; Ms. Tatum Evans, B.A.; Mr. William Hays, B.A.; Ms. Elizabeth Holt, B.A.; Mr. Jason Huggan, B.A.; Ms. Carrie Humphrey, B.A.; Ms. Sarah Paulson, B.A.; Ms. Amy Prinkey, B.A.; and Ms. Ashley Sanders, B.A. Laboratory analysis was directed by Ms. Heather Backo, M.A. and Ms. Catherine Boatner, B.A. Finally, Ms. Heidi R. Post, B.A. produced this report, while David Sticher, B.A., created the accompanying graphics.

Organization of the Report

The natural setting of the project vicinity is presented in Chapter II, which includes a brief description of the regional geology, geomorphology, floral and faunal communities, and climate. The prehistoric and historic cultural overviews of the project area are contained in Chapters III and IV, respectively. Chapter V provides a review of all previous archeological investigations and previously recorded sites located in the immediate vicinity of the project corridor. Chapter VI contains a discussion of the research design, field methods, and laboratory procedures used during this Phase I cultural resources survey and archeological inventory.

Chapter VII presents the results of this investigation. Chapter VIII contains a summary of the report and management recommendations. A list of the artifacts recovered during the Phase I cultural resources investigation is included as Ap-

pendix I. Appendix II contains State of Louisiana archeological site and site update forms for each of the archeological sites identified during the investigation.

CHAPTER II

NATURAL SETTINGS

Environmental factors often influence the distribution of humans across the landscape and the preservation of the archeological deposits they leave behind. This chapter identifies those processes that characterized the development of the area containing the Vermilion River disposal project item, and it examines their influence upon both prehistoric and historic settlement and subsistence strategies throughout the region. This review of the natural setting of the proposed project area was compiled as an aid for identifying those areas likely to contain cultural resources. In addition, these data were used to predict the possible types, chronologies, and quality of the archeological deposits in the area.

Project Description

The proposed Vermilion River Disposal Project item encompasses approximately 150.5 ha (372 ac) of land that fronts on the Vermilion River within the city limits of Lafayette, in Lafayette Parish, Louisiana (Figure 2). Modern land use along this portion of the proposed project area primarily consists of suburban development. A golf course lies to the northwest of the project area, and a major roadway (Lake Martin Road, LA 353) runs to the east. The Vermilion River borders the southern edge of the project area. The area currently is composed of open grassy areas, as well as forested regions.

Physiographic and Geologic Setting

The proposed project area is located within the general physiographic region of the West Gulf Coastal Plain section of the Gulf and Atlantic Coastal Plain province of North America

(Murray 1961). More specifically, the proposed project area lies within a belt of Pleistocene coastwise terraces that stretches along the Gulf Coast. It is situated to the west of the Atchafalaya Basin portion of the Lower Mississippi Valley, and within a transition zone positioned between the Holocene alluvial valley section to the north/northeast and the deltaic (chenier) plain section to the south (Figure 7).

The proposed project area is located on the Prairie Terrace Complex, the youngest of several terraces that constitute the coastwise terrace belt. Within the Prairie Complex, the easternmost few kilometers, i.e., the area adjacent to the Atchafalaya Basin, has been designated as blufflands, while the remainder of the complex has been designated as prairie (or Southwest Prairies) because of the prevailing natural grassland vegetation that occurs there (Kniffen 1968). South of the proposed project area, the Prairie Complex surface gently dips southward beneath the fresh to saline marshes associated with the Holocene chenier plain of southwestern Louisiana.

The blufflands can be characterized as a dissected terrace margin with incised local drainage. The average elevation of the terrace surface is 12.2 m (40 ft) above mean sea level; however, local relief (including the terrace margin or scarp) is on the order of 6.0 to 7.6 m (20 to 25 ft) above mean sea level. Across the prairie subsection, and in the proposed project area, local relief declines to less than 2.0 m (6.5 ft) and elevations steadily decline to the southwest. The average elevation for the project area is approximately 3.0 m (10 ft) above mean sea level.

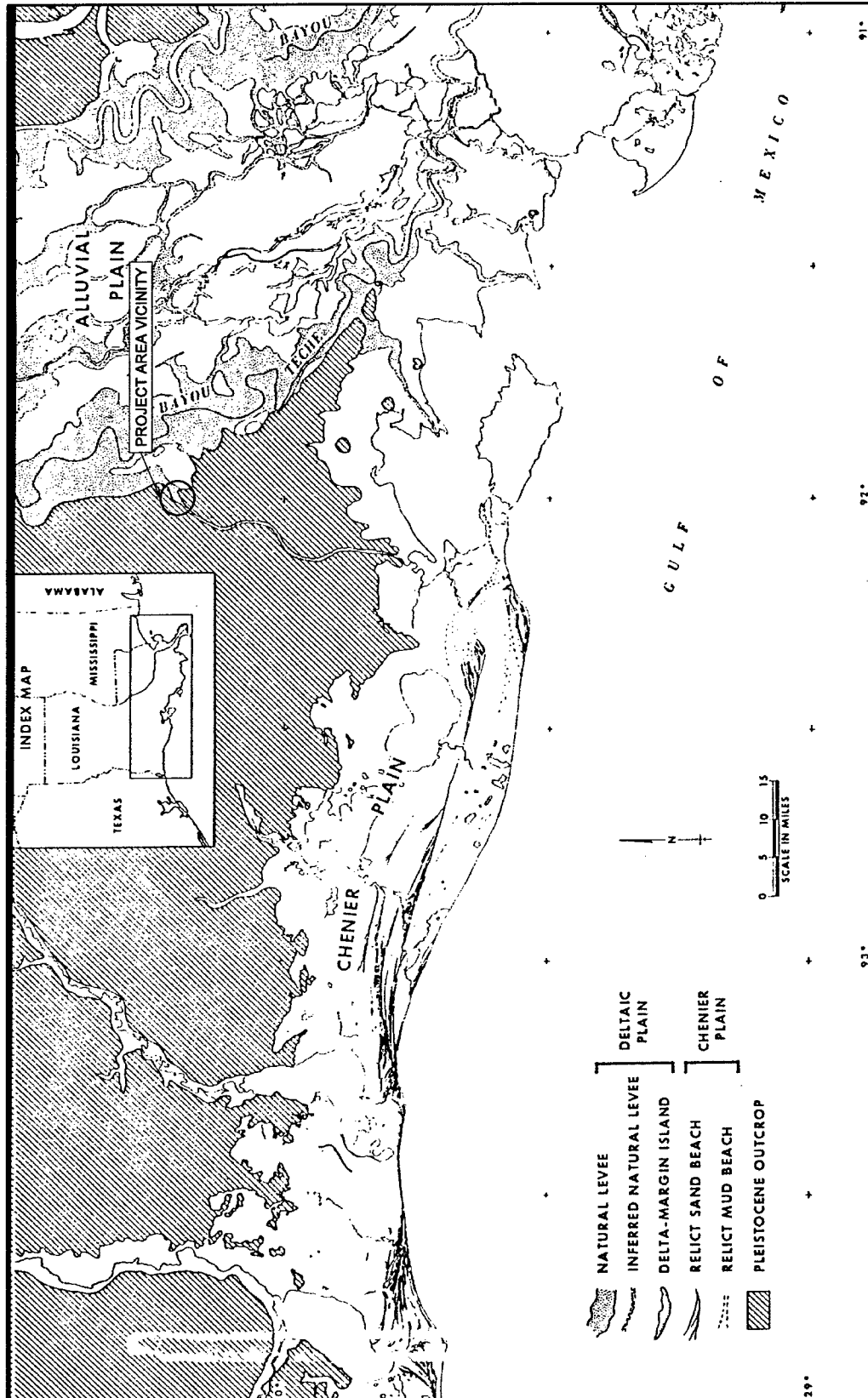


Figure 7. Location of the Vermilion River Proposed Disposal Area in Relation to the Atchafalaya Basin.

Local drainage networks on the Prairie Complex surface are developed poorly, resulting in high groundwater tables and moderate to severe seasonal surface flooding. Essentially all surface drainage is controlled by relict Mississippi or Red River abandoned channels or abandoned courses of Holocene or Pleistocene age. The Vermilion River has a complex history marked by a series of progressively more underfit relict Pleistocene channels that were occupied and modified during the Holocene by both Mississippi River flood overflows and Red River discharge.

Geologically, the project vicinity lies near the southern limit of the broad, north-south trending Mississippi Embayment, i.e., near the area where it joins the east-west trending Gulf Coast Geosyncline (Murray 1961; Saucier 1994). In combination, these two deep, subsidizing structural troughs have resulted in the deposition during the Tertiary and Quaternary periods (Cenozoic Era) of tens of thousands of meters of sediments in alternating fluvial, deltaic, estuarine, and shallow marine environments. During the millions of years of deposition, the thick sedimentary sequence has witnessed the formation of zones of east-west trending growth faults and the intrusion of diapiric salt domes (Autin et al. 1991).

Within this overall structural geologic framework, events relevant to the current study are those that have occurred during the Pleistocene and Holocene epochs of the Quaternary period, since all deposits within several hundred meters of the surface are of this age. Constituting the last 2.5 million years of geological time, these epochs were dominated by the cyclical advance and retreat of continental glaciers and the rise and fall of sea level. Glaciers did not directly affect the Lower Mississippi Valley area, but on several occasions the alluvial valley served as a giant sluiceway for the transport of vast quantities of meltwater and glacial outwash to the Gulf of Mexico. Glacial stages were episodes marked by a Mississippi River braided stream regime, the transport and deposition largely of sands and gravels, and relatively low sea level stands (Autin et al. 1991). In contrast, interglacial stages were times of stream meandering and meander belt formation, predominantly fine-grained sediment loads (silts and

clays), and relatively high sea level stands. Near the Gulf Coast, glacial stages were characterized by stream entrenchment with the shoreline positioned well south of its present location. Interglacial stages were times of entrenched valley filling, transgressing shorelines, and eventually deltaic plain formation by delta lobe growth and decay.

In the project region, the Mississippi alluvial valley experienced incision and widening during the last (or Late Wisconsin) glaciation. The alluvial fill was deposited mostly during the waning of that glaciation (decay of the Laurentide ice sheet) during an episode known as the Holocene sea level transgression. The Pleistocene formations into which valley incision took place were deposited during the Sangamon and Middle Wisconsin stages. Laterally and away from the entrenchment, these Pleistocene formations constitute the young Prairie Complex terrace of the project area. Traditionally, the terrace (of Mississippi River origin) has been referred to as the Prairie terrace (Fisk 1939; Russell 1938), but recently it has been designated as the Prairie Complex (Autin et al. 1991; Saucier 1994) in view of a better understanding of its multiple origins and long history of development. Intermediate in age and elevation between the Prairie Complex and the Holocene floodplain are remnants of a terrace of Red River origin that has not been given a formal designation.

In various parts of south Louisiana and adjacent states, the Prairie Complex includes sediments laid down during multiple glacial cycles in an even greater variety of environments, including fluvial, estuarine, deltaic, and shallow water marine (Saucier 1994). In the vicinity of the proposed project area, however, most of the sediments in the upper several tens of meters were deposited in Mississippi River meander belt environments. These consisted principally of point bar, abandoned channel, and natural levee environments, comprising what has been referred to as the Lafayette Meander Belt (Goodwin et al. 1991) (Figure 8). Although at least 30,000 years old, characteristic meander belt morphology is still strongly evident on the terrace surface (e.g., point bar ridge and swale topography) despite a thin surficial blanket or veneer of loess measuring up to 6.1 m (20 ft) in thickness. This veneer partially obscures but it

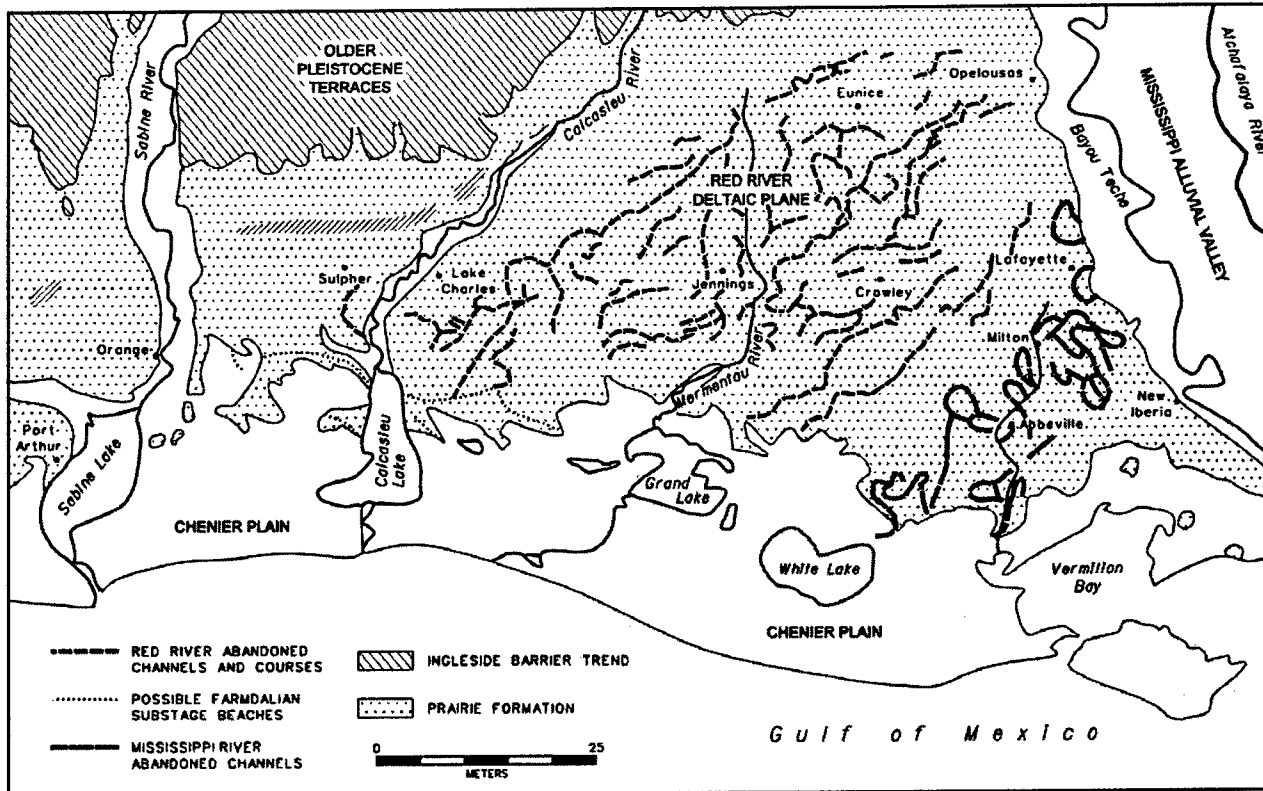


Figure 8. Fluvial and Marine features of the Prairie Complex of the southwestern Louisiana. Lafayette Meander Belt is marked by the complex of Mississippi River abandoned channels trending from Lafayette southwestward toward White Lake. From Saucier 1997.

does not hide the underlying meander belt topography, which is manifested in the patterns of surface drainage. The loess, correlated with the Peoria loess sheet, represents wind-blown (eolian) silt that was deflated during the last (Late Wisconsinan) glacial stage from valley train (braided stream) surfaces and deposited on the adjacent terraces and uplands (Daniels and Young 1968).

Subsidence and Sea Level Rise

Subsidence and sea level rise are two related basic geologic controls that have affected directly or indirectly virtually every aspect of the geology of south Louisiana during the Quaternary period. Subsidence is defined as the relative lowering of the land surface with respect to sea level, and it may involve five basic factors or natural processes (Kolb and VanLopik 1958). These include: true or actual sea level rise; sinking or downwarping of the basement (Paleozoic) rocks due to crustal processes; consolidation of the thousands of meters of sediments in the Gulf Basin (geosyncline); local consolidation of near-surface deposits due to desiccation and compaction; and tectonic activity such as faulting. Since the project area lies beyond the northwestern limit of the zone of major downwarping (Fisk and McFarlan 1955) where the Quaternary sedimentary sequence is relatively thin (but still hundreds of meters thick), downwarping, the consolidation of sediments, and dessication and compaction are relatively minor. Sea level rise has been the dominant control, with tectonic activity being of secondary importance.

Rather than being in the zone of active downwarping, the proposed project area lies near the southern limit of a coast-parallel band that measures several tens of kilometers in width; this area has experienced seaward tilting. The band represents a structural transition between a zone of active uplift to the north and the downwarping into the geosyncline to the south. The actual amount of displacement of the Prairie Complex surface in the project area due to tilting has not been established, but probably it is on the order of 3 to 5 m (9.8 to 16.4 ft). The Holocene alluvial sequence to the east of the proposed project area has experienced considerably less displacement due to its young age.

The lithology and stratigraphy of the Pleistocene and Holocene sedimentary sequence of the proposed project area reflect sea level variations that have occurred since the Sangamon stage more than 120,000 years ago. The magnitude and chronology of the variations are known imperfectly, with multiple models having been proposed by various workers based on evidence from both, terrestrial and oceanographic sources (Saucier 1994).

A comprehensive discussion of the sea level history of South Louisiana and the northern Gulf Coast is beyond the scope of this study; however, several key events and periods of time are pertinent to the current review and critical to understanding the evolution of the present landscape. As illustrated in Figure 9, the Sangamon Interglacial Stage was marked by two intervals in which sea level was several meters higher than at present. For at least the following 80,000 years, i.e., during the Eowisconsinan and Early Wisconsin stages when glacial conditions prevailed, the sea level is presumed to have fluctuated by 50 to 60 m (165 to 197 ft), remaining well below the present level. During the brief Middle Wisconsinan Stage, an interval of moderate glacial recession, sea level rose and perhaps attained a maximum elevation of approximately 20 m (65.6 ft) below present levels. Although sea levels during this interval are controversial, some significant events that occurred in the Gulf Coast area indicate an appreciable shallowing of stream gradients and shoreline transgression.

With the onset of the Late Wisconsin glaciation (ca. 30,000 to 20,000 B.P.), which included formation of the Laurentide ice sheet over North America, sea level fell dramatically. During that interval of major stream entrenchment, valley cutting, and shoreline regression, sea level fell to an elevation of approximately 122 m (400 ft) below present. Subsequently, as glaciation waned, the Holocene transgression took place as sea level rose rapidly but episodically with periods of rise separated by brief stillstands. The highest rates of rise apparently took place at approximately 12,000 to 10,000 years ago and then began to decline. Sea level attained an elevation only a few meters below that of present by around 5000 B.P., and then it ap-

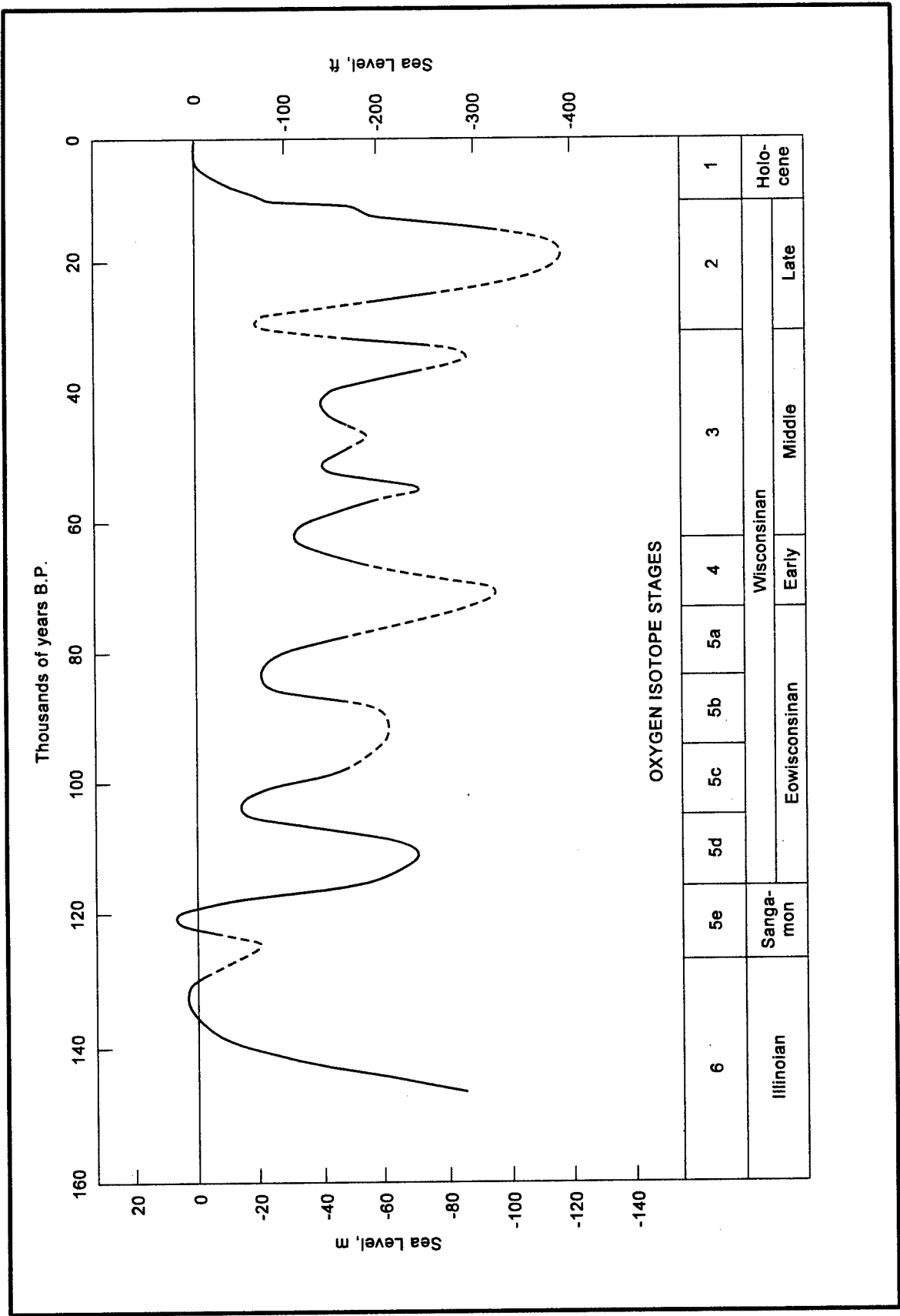


Figure 9. History of sea level variations in the Gulf Coast area as adapted from various sources. From Saucier 1994.

proached slowly its present level by 3,500 years ago. Since the last 12,000 years or so marks the period of human occupation in the region, landscape formation and geomorphic processes as related to sea level variations are discussed more fully later in this chapter.

The second major factor in regional subsidence has been tectonic activity. Growth faults are known to occur in the overall project vicinity, but none have been identified and mapped that have resulted in displacement of the Prairie Complex surface or the Holocene floodplain. The Anse La Butte salt dome, located approximately 50 km (31.1 mi) northeast of the proposed project area, is the most significant diapiric intrusion of the region. Other than the local uplift, however, this geological feature has been of no particular geomorphic significance to the proposed project area.

Landforms, Geomorphic Processes, and Depositional Environments

Following a tradition in the Lower Mississippi Valley of classification and mapping established several decades ago (Kolb et al. 1968), the Holocene alluvial deposits found near the proposed project area have been classified according to the inferred environments in which they developed (Figure 10). This includes the basic environments of fluvial deposition such as abandoned channels and point bars. In the past, Pleistocene terraces have been mapped according to morphostratigraphic units such as the Prairie Terrace (e.g., Saucier and Snead 1989; Snead and McCulloh 1984).

Pleistocene Terrace, Prairie Complex (PT_P)

This mapping unit characterized a majority of the region surrounding the current project area. The landscape in this unit is that of a characteristic relict Mississippi River point bar sequence of alternating linear ridges and swales within the Lafayette Meander Belt. The topography in these areas, which is level to gently undulating, however, has been muted by a several-meter-thick veneer of leached Peoria loess. The original ridge and swale sequences are now more discernible by the numerous, parallel, shallow swales and drainage ways rather than by actual relief (Rouly 1989).

The surface loess in the Pleistocene Terrace, Prairie Complex consists of massive, tan to light brown or grayish brown silt or silt loam and it is the parent material in which the soils have formed. Where the loess is thickest and best drained near the eastern terrace margin, Memphis silt loam and Coteau silt loam are the predominant soil types. Farther to the south and west, Patoutville silt loam soils occur in relatively well drained areas, Frost silt loam soils are found in moderately well-drained situations, and Jeanerette silt loam soils lie in poorly drained areas. An important aspect of the soil formation processes for all of these soils was the presence of prairie grassland vegetation such big bluestem (*Andropogon gerardii*) in prehistoric times. Forest vegetation consisting of mixed, deciduous hardwood species such as red maple (*Acer drummondii*), green ash (*Fraxinus pennsylvanica*), redgum (*Liquidambar styraciflua*), water oak (*Quercus nigra*), and cherrybark oak (*Quercus pagoda*) was restricted to narrow bands in the larger swales and along streams.

Little specific information is available regarding the lithology of the point bar topstratum deposits underlying the loess. Based on regional geologic studies, however, it is safe to assume that they consist of several meters of stiff to hard, highly oxidized, yellowish brown silty and sandy clays with numerous iron and calcareous concretions (VanLopik 1955). These grade downward into progressively sandier deposits and eventually into massive, fine to medium substratum sands and then to graveliferous sands. The latter extend to the depth of maximum scour of the Mississippi River channel, which is in excess of 36 m (120 ft).

Backswamp Over Point Bar (Bs/PB)

This is an intermediate situation between the Point Bar and Backswamp units. The Point Bar mapping unit includes the zones in which the Mississippi River has meandered laterally in Holocene times, scouring away older alluvial deposits, and laying down relatively coarse-grained channel deposits. Silty and sandy point bar deposits extend to the maximum depth of the migrating channel (about 45 m [148 ft]) and constitute a part of the substratum, but they are capped with finer-grained topstratum deposits near the sur-

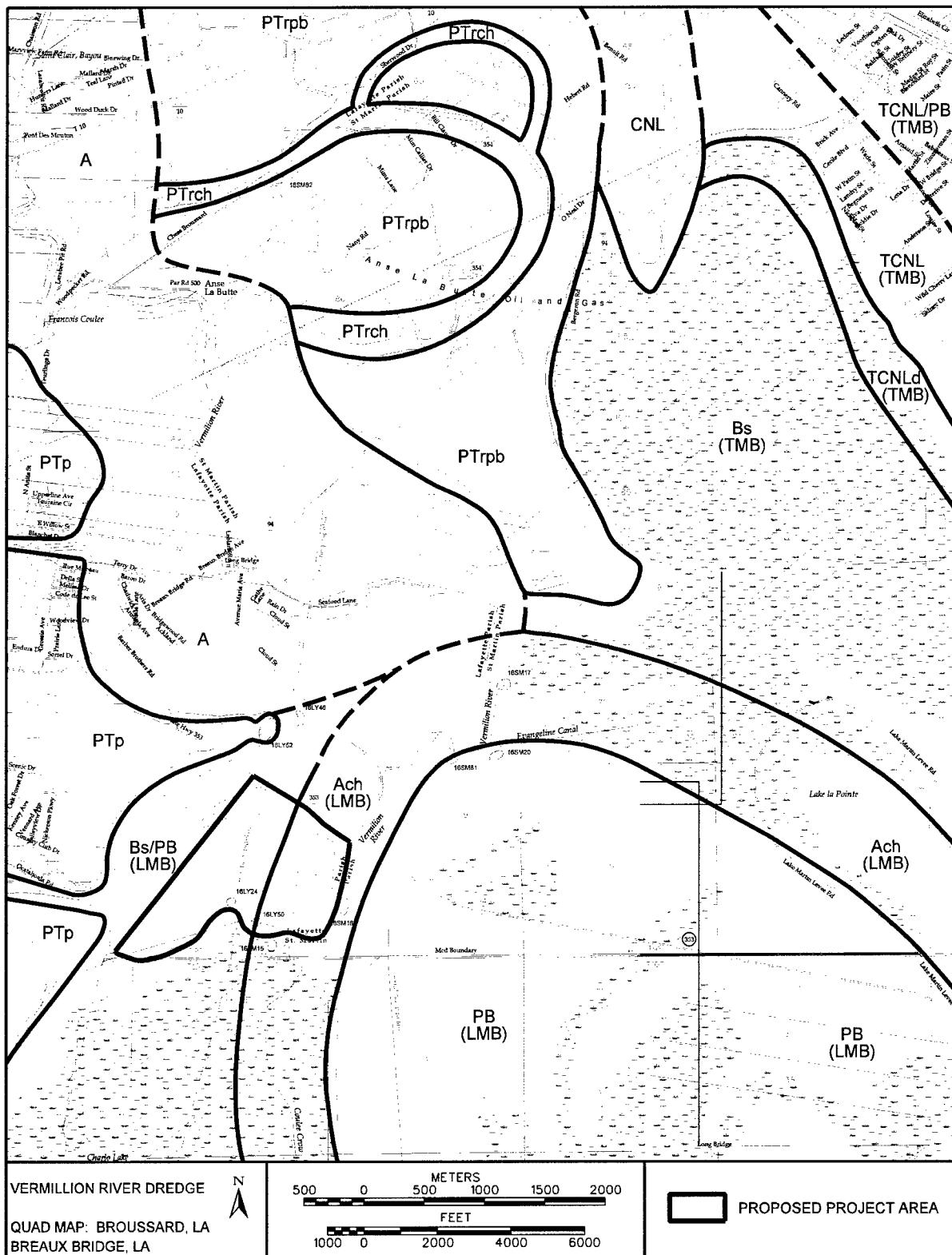


Figure 10. Excerpts from the 1996 digital 7.5' series topographic quadrangles, Broussard and Breaux Bridge, Louisiana, depicting geomorphic interpretations along the Vermilion River.

face. As a migrating river bend moves away from a given point, point bar deposits typically become progressively veneered with overbank sediments that eventually form a true capping of natural levee deposits. Newly formed point bar areas typically exhibit an alternating ridge and swale topography, but these features become progressively obscured as the natural levee veneer thickens. With increasing age and as the overall alluvial valley floodplain aggrades, point bar areas and their natural levees may become veneered with backswamp deposits if the river shifts to a new meander belt.

Such is the case within the project area, which lies inside of a large Mississippi River abandoned channel occupied in part by the Vermilion River, Coulee Crow, and Bayou Capucin, but named after Lake la Pointe, the only significant water body in the channel. The point bar area still displays ridge and swale topography and a flanking natural levee, but the entire area is moderately veneered with fine-grained backswamp deposits derived from the Mississippi River in the somewhat younger Teche meander belt. Backswamp deposits perhaps 2 to 3 m (6.5 to 9.8 ft) thick are present in these areas, but they do not completely obscure the underlying point bar deposits. The area lies in the rim swamp between the Teche Ridge and the Prairie complex surface. It is poorly drained, largely undeveloped, and it is forested with a combination of mixed, deciduous hardwood and swamp forest species. Soil types in the point bar area include Baldwin silty clay loam (on the few relatively high ridges), Iberia silty clay, Fausse association, and Sharkey clay (frequently flooded) in the lower areas.

Abandoned Channel (ACh)

Within the project area, the Abandoned Channel mapping unit includes only the Lake la Pointe abandoned channel. This large and well preserved (but moderately veneered) feature obviously resulted from a Mississippi River neck cutoff in a meander belt preceding the Teche meander belt but younger than the Red River terrace. The several-meter lower elevation of the natural levees flanking the Lake la Pointe channel than that of the Teche Ridge suggests that the meander belt in which the Lake la Pointe channel was formed might have been graded to a sea level slightly lower than at present.

No specific subsurface data are available for the abandoned channel, but the deposits probably consist of thick, soft clays that eventually grade downward into sands. The soils and vegetation of the channel are essentially the same as those in the surrounding backswamp areas.

Alluvium (A)

Just to the east of Lafayette, Louisiana, off the edge of the Prairie complex surface, and just north and east of the current project area, the Vermilion River occupies a 2- to 3-km-wide (1.2 to 1.9 mi) valley that is graded to, and merges with, the Mississippi alluvial plain at the Lake la Pointe abandoned channel. Specific environments of deposition cannot be delineated just by aerial photo interpretation, but most of the near-surface deposits probably consist of Red River natural levees and adjacent backswamp-like areas. Elevations of the land surface along the immediate river banks are 2 to 3 m (6.5 to 9.8 ft) higher than those a kilometer or so away and slope gently outward.

On the basis of this information, deposits along the Vermilion River simply are designated "alluvium." The deposits consist of reddish-brown silts and clays and the mapped soil types are mostly Sharkey clay with lesser areas of Baldwin silty clay loam and Iberia silty clay. Natural vegetation was probably a mixture of mixed, deciduous hardwood and swamp forest species.

Geomorphic History and Chronology

The landform and deposits associated with the proposed project area span a considerable length of geologic time. The following discussion is a basic chronological model adapted from a Lower Mississippi Valley geomorphic synthesis by Saucier (1994). It presents landform and age as related to an understanding of human habitation and settlement patterns in the region.

The initial geologic events relevant to the project vicinity occurred during the Sangamon Interglacial Stage, more than 120,000 years ago (Figure 9). At that time, with sea level a few meters higher than at present, sediments that now constitute the basal part of the Prairie Complex were laid down in a shallow water, offshore, marine environment. The Gulf shoreline at that

Table 1. Soil series previously mapped in the immediate vicinity of the proposed Vermilion River Disposal project area.

SOIL SERIES	TOP ELEVATION (cm)	BOTTOM ELEVATION (cm)	DESCRIPTION
Sharkey	0	8	Dark grayish brown (10YR 4/2) clay; weak medium subangular blocky structure.
	8	31	Gray (10YR 5/1) clay; common medium distinct yellowish brown (10YR 5/8) mottles; moderate medium subangular blocky structure.
	31	53	Light brownish gray (2.5YR 6/2) clay; common medium distinct light olive brown (10YR 5/8) mottles; moderate medium subangular blocky structure.
	53	117	Light brownish gray (10YR 6/2) clay; common medium distinct yellowish brown (10YR 5/6) mottles; moderate medium subangular blocky structure.
	117	152	Gray (10YR 5/1) clay with fine yellowish brown mottles; massive.
Fausse	0	18	Very dark grayish brown (10YR 3/2) clay; weak medium angular blocky structure.
	18	53	Dark gray (10YR 4/1) clay; weak medium angular blocky structure.
	53	94	Dark gray (5Y 4/1) clay; massive; few medium distinct brown (10YR 4/3) mottles; weak medium subangular blocky structure.
	94	152	Dark greenish gray (5G 4/1) clay; massive; common medium faint grayish green (5G 4/2) mottles; massive.
Baldwin	0	18	Very dark grayish brown (10YR 3/2) silty clay loam; few fine yellowish brown mottles; weak fine subangular blocky structure.
	18	43	Dark gray (10YR 4/1) silty clay; common medium distinct yellowish brown (10YR 5/8) mottles; moderate medium subangular blocky structure.
	43	64	Gray (10YR 5/1) silty clay; common medium distinct yellowish brown (10YR 5/6) mottles; moderate medium subangular blocky structure.
	64	104	Olive gray (5YR 5/2) silty clay; common medium prominent yellowish brown (10YR 5/6) mottles; weak medium subangular blocky structure.
	104	152	Olive gray (5YR 5/2) silt loam; few fine light brown mottles and common medium prominent yellowish brown (10YR 5/6) mottles; massive.
Iberia	0	23	Very dark gray (10YR 3/1) silty clay; common fine distinct yellowish brown mottles; moderate fine angular blocky structure.
	23	36	Black (10YR 2/1) clay; few fine light brownish gray mottles; weak coarse angular blocky structure.
	36	79	Gray (10YR 5/1) clay; common medium distinct olive yellow (2.5Y 6/6) mottles; moderate coarse prismatic structure that parts to moderate medium angular blocky structure.
	79	119	Gray (10YR 5/1) clay; few medium distinct brownish yellow (10YR 6/6) and few fine distinct yellowish brown mottles; weak coarse prismatic structure.
	119	196	Gray (5Y 5/1) silty clay loam; many coarse prominent yellowish brown (10YR 5/6) mottles; massive structure.

*Table adapted from Murphy et al. (1977b; 32-37)

time was several tens of kilometers north of the project corridor.

A sea level regression that was caused by the onset of continental glaciation occurred between about 120,000 and 100,000 years ago. During that time, the shallow offshore area became an emergent coastal plain landscape with stream entrenchment. The Gulf shoreline was located well south of the project area as a result of the regression. Following that regression, there were perhaps two interstadial intervals when sea level rose to within a few tens of meters of its present level, once again submerging parts of the coastal plain and driving the shorelines inland. Those events would have occurred during the Eowisconsinan Stage during Oxygen Isotope Stages 5c and 5a (Figure 9). In neither stage would sea level have risen high enough to submerge the vicinity of the currently proposed project area; however, during either or possibly both, it was sufficiently high to reduce the gradient of the Mississippi River and cause it to aggrade out of an entrenched valley in the older Prairie Complex deposits. During one of these stages (ca. 100,000 - 80,000 years ago) it is believed that the Mississippi River aggraded its valley to a sufficiently high level to allow it to form the Lafayette Meander Belt. In doing so, the river incised deeply into the basal Prairie Complex marine deposits that had been laid down during the Sangamon Stage.

Abandonment of the Lafayette Meander Belt probably took place during the Early Wisconsin Stage (ca. 80,000 to 60,000 years ago). During that stage, the Mississippi River degraded its valley by at least 40 m (131 ft), created an entrenchment beneath the area of the Atchafalaya Basin, and continued to develop southeastward and off the edge of the continental shelf. In effect, this entrenchment truncated the Lafayette Meander Belt near Lafayette, creating the terrace escarpment approximately where it is today. Abandonment of the Lafayette Meander Belt was not abrupt, however, since declining discharges continued long enough to form the small abandoned courses (underfit streams) that were described above. Since that time, the Lafayette Meander Belt has not experienced any active fluvial deposition.

The next significant regional geomorphic event for which there is stratigraphic evidence

probably took place during the moderate sea level transgression of the Middle Wisconsinan Stage (Oxygen Isotope Stage 3c; Figure 9). During that interval of floodplain alluviation and aggradation, it is surmised that the Mississippi River was located somewhere in the central or eastern part of its entrenched valley; however, the Red River created one or more meander belts near the western side of the entrenchment at an elevation slightly higher than the present floodplain but lower than the Prairie Complex surface. During this period (ca. 30,000 years ago) the Red River flowed parallel to but west of the Mississippi River, probably discharging directly into the Gulf of Mexico near the present Louisiana coast. Several areas of Red River terrace present west of the project area are believed to be remnants of this floodplain and the underlying deposits but they are not of direct relevance to this discussion.

The Middle Wisconsinan Stage floodplain was abandoned and the Red and Mississippi Rivers began another cycle of valley degradation and entrenchment with the onset of the Late Wisconsin glaciation, i.e., about 25,000 years ago. As the Mississippi River began transporting glacial outwash and forming a sandy valley train through the Atchafalaya Basin area, seasonally strong northerly winds deflated large quantities of silt and deposited some of it as Peoria loess on the Prairie Complex surface. The thickest loess accumulations logically took place closest to the valley train surfaces, which were located east of Lafayette. Loess deposition continued until about 12,000 years ago, i.e., until the effective end of the Laurentide ice sheet meltwater runoff through the Mississippi Valley.

Between about 12,000 and 7,000 years ago, both the Mississippi and Red Rivers were aggrading within the entrenched valley through the accumulation of fine-grained alluvium in a backswamp environment. About 7,000 years ago, the Mississippi River began forming the Maringouin delta complex offshore from the present central Louisiana coast (Frazier 1967). It is known that the trunk course leading to this delta complex was located along the western side of the Atchafalaya Basin in the project vicinity, but at that time it probably was flowing in an anastomosing rather than a meandering regime (Aslan and Autin 1996). However, by

about 6,000 years ago, the Mississippi River began constructing the Teche delta complex slightly farther inland in coastal Louisiana and the trunk course leading to this complex is believed to have been in a well-developed meandering regime. Because sea level was still a few meters below its present level, the meander belt in the project vicinity formed at a slightly lower floodplain elevation.

Between 6,000 and 5,000 years ago, sea level rose at a moderate rate to an elevation close to that of the present. Perhaps in response to a consequent and coincident base level change in the project vicinity, the Mississippi River diverted to a new course approximately 60 km (37.3 mi) upstream but still within the same basic meander belt. Thereafter, it rapidly developed the Teche Ridge with its substantial natural levees, crevasses, narrow point bar zones, and flanking backswamp areas. Thus, there is the rather unusual situation of two discrete courses, both with natural levee ridges, occupying essentially the same broad meander belt, but at slightly differing elevations.

With a major stream diversion situated upstream in central Louisiana about 4,800 years ago, Mississippi River discharge through the Teche meander belt started to decline; however, flow apparently did not cease effectively until at least 3,000 years ago. Thus, the Teche Ridge was able to develop to the very substantial proportions that it exhibits today. Sometime during the interval from about 5,500 to 3,000 years ago, probably early in that period, seasonal overflow from the Teche system became impounded in the rimswamp between its meander belt and the Prairie Complex to the west. It eventually found an outlet to the southwest across the Prairie Complex surface through a series of interconnected cutoffs in the Lafayette Meander Belt and an entrenched local stream (Saxton 1986). Hence, it actually became a minor distributary of the Mississippi River. This event marked the initiation of the channel through which the Vermilion River currently flows, but that river system *per se* did not develop until the channel was at least partially abandoned and later occupied for a short period by a course of the Red River. Archeological evidence indicates that the Red River channel in which the Vermilion River

flows had formed and was already abandoned by about 3,000 years ago (during the late Poverty Point to Tchefuncte Periods). After abandoning the Vermilion River route, the Red River is believed to have occupied the recently abandoned Teche course wherein it flowed as an underfit stream for the next 1,000 to 1,500 years. These events only had indirect bearing on the prehistory of the proposed project area in that they indicate that essentially all modern drainage was established by at least 3,000 years ago.

Geoarcheological Considerations

Certain general aspects of culture history provide valuable clues regarding possible prehistoric settlement patterns and landscape relationships of the region. Paleo-Indian and Archaic Period sites, consisting of temporary hunting camps and manifested as lithic scatters, could occur anywhere on the Prairie Complex surface, but probably would be concentrated near permanent water sources or rich aquatic habitats that include abandoned channels. It already is known that the prairies in the vicinity of the proposed project area were frequented by Pleistocene megafauna (Gagliano 1964; Gibson and Miller 1973; Neuman 1984; see also Chapter III) and the scattered wooded tracts would have provided excellent cover for hunters.

During the Formative Stage, the probability of human occupation decreases even further because the landscape of the area would not have been attractive to a population that based its subsistence on intensive hunting and gathering or agriculture. Despite the presence of water courses adjacent to the proposed project area, the prairie habitats would not have been nearly as conducive to settlement as larger, relatively nearby floodplain areas associated with the Mississippi River alluvial plain to the east. After 5,000 years ago, environmental conditions in the abandoned channel area would have shifted the focus of habitability to areas like the natural levees flanking the Red River course in which the Vermilion River is located.

In general terms, most of the landscapes in or adjacent to the project area are sufficiently old that they may have witnessed prehistoric human activity, but other factors must be considered in evaluating the specific probability of

encountering preserved remains. Any aboriginal settlements older than about 5,000 years have been destroyed by the vertical scouring and/or lateral migration of the Red River and possibly by the earlier Mississippi River distributary. After about 3,000 years ago, the immediate river channel and banks would not have been an environmental setting conducive to settlement because of low elevations and the possibility of occasional flooding.

In contrast, habitation sites of any prehistoric age could be present on the Prairie Complex surface adjacent to the Pleistocene abandoned channel now occupied by Anselm Coulee. The surface would have been relatively immune from flooding, a permanent water source (the Vermilion River or earlier water courses) would have been positioned nearby, and the abandoned channel would have provided an environment rich in floral and faunal resources. While archaeological sites could be present, their probable density, based on the results of other surveys in the region, is such that the probability of a site being located in the project area is low. Moreover, while possibilities exist throughout the proposed dredged material disposal site for archaeological site stratification, these possibilities have been diminished greatly in those areas where mechanical impacts such as construction or deep plowing associated with modern agriculture and land use have been practiced. The probability of site stratification also has been reduced by natural erosion along the terraces slopes found throughout the area.

Once again, considering the portion of the Vermilion River channel to be dredged, it is theoretically possible that sites dating from the Paleo-Indian, Early Archaic, and Middle Archaic periods could be present and preserved on the Prairie complex surface where it is buried by a thin veneer of Holocene natural levee deposits. Only a small part of the river channel is flanked by this stratigraphic sequence and, provided that the dredging would not widen the channel and involve previously undisturbed deposits, these areas should be of no consequence to the proposed dredging activities. There is an extremely remote possibility that sites could have existed at the top of the original bank and slumped into the river channel after abandonment by the Red

River, but the cultural remains would be badly disturbed and unlikely to constitute a "significant" site applying the National Register of Historic Places criteria for evaluation (36 CFR 60.4 [a-d]).

Flora

The Prairie complex surface (Coastal Prairies Area) is distinguished by being relatively treeless. The major plant species common to this area are little bluestem, yellow Indian grass, and big bluestem (*Andropogon gerardii*). Seacoast bluestem, eastern gama grass, gulf muhly (*Muhlenbergia capillaris*), vetches (Fabaceae), milkweeds (*Asclepias* sp.), spiderwort (Commelinaceae), compass-plant (*Lactuca* sp.), chenopods (*Chenopodium* sp.), and amaranths (*Amaranthus* sp.) are additional forbs found in the region. Bison (*Bos bison*) have been associated with the Tall Grass region; however, it is unclear if bison were in these prairies prior to A.D. 1200.

The proposed project area is located adjacent to the Vermilion River. Historically, the major rivers and streams of the Prairie complex have comprised an oak-pine region that approximates the bottomland communities found throughout the southeast. This area is characterized by a wide range of oak (*Quercus* sp.) and hickory (*Carya* sp.) species with shortleaf (*Pinus echinata*) and loblolly (*pinus taeda*) pines in the drier uplands. Other common trees include willow (Salicaceae), basswood (*Tilia* sp.), hack/sugarberry (*Celtis* sp.), black walnut (*Juglans nigra*), locusts (*Robinia* sp.), elms (*Ulmus* sp.), cottonwood (*Populus* sp.), birch (*Betula* sp.), magnolia (Magnoliaceae), maples (*Acer* sp.), and gums (*Liquidamba*). The understory typically is dominated by shrubby species including persimmons (*Diospora virginiana*), hawthorn (*Crataegus* sp.), sassafras (*Sassafras albidum*), hollies (*Ilex* sp.), pawpaw (*Asimina triloba*), mulberry (*Morus* sp.), and red-bud (*Cercis canadensis*) (Tables 2 and 3). Several vining species, e.g., grapes (*Vitis* sp.), and catbriars (*Smilax* sp.) are associated with open portions of this forest type. Due to the rich diversity of mast and fruit producing species found in the oak-pine region, "it is reasonable to expect that higher animal densities could be supported than in the pine dominated region" (Story 1990a:15). It is probable that the Native Americans would

Table 2. Plant taxa of swamps and natural levees present within the vicinity of the proposed project area.

COMMON NAME	LATIN NAME	FRESH
Aster	<i>Aster spp.</i>	x
Water hyssop	<i>Bacopa monnieri</i>	x
Coontail	<i>Ceratophyllum demersum</i>	x
Saw-grass	<i>Cladium jamaicense</i>	x
Umbrella-sedges	<i>Cyperus spp.</i>	x
Walter's millet	<i>Echinochloa walteri</i>	x
Spikerush	<i>Eleocharis spp.</i>	x
Whorled pennywort	<i>Hydrocotyle verticillata</i>	x
Spider lily	<i>Hymenocallis caroliniana</i>	x
Morning glories	<i>Ipomoea spp.</i>	x
Marsh elder	<i>Iva frutescens</i>	x
Rushes	<i>Juncus spp.</i>	x
Virginia saltmarsh mallow	<i>Kosteletzkya virginica</i>	x
Sprangle top	<i>Leptochloa fascicularis</i>	x
False loosestrife	<i>Ludwigia leptocarpa</i>	x
Wax myrtle	<i>Myrica cerifera</i>	x
White waterlily	<i>Nymphaea odorata</i>	x
Maidencane	<i>Panicum hemitomon</i>	x
Panicoid grasses	<i>Panicum spp.</i>	x
Paspalum	<i>Paspalum spp.</i>	x
Common reed	<i>Phragmites communis</i>	x
Camphorweed	<i>Pluchea camphorata</i>	x
Smartweed	<i>Polygonum spp.</i>	x
Arrowhead	<i>Sagittaria spp.</i>	x
Black willow	<i>Salix nigra</i>	x
Common elderberry	<i>Sambucus canadensis</i>	x
Bulrush	<i>Scirpus spp.</i>	x
Rattlebox	<i>Sesbania spp.</i>	x
Yellow foxtail	<i>Setaria glauca</i>	x
Marsh-grass	<i>Spartina spp.</i>	x
Cattail	<i>Typha spp.</i>	x
Deerpea	<i>Vigna luteola</i>	x
Giant cutgrass	<i>Zizaniopsis miliacea</i>	x

Table 3. Plant taxa of swamps and natural levees present within the vicinity of the proposed project area.

COMMON NAME	LATIN NAME	SWAMPS	LEVEES
Drummond red maple	<i>Acer drummondii</i>	x	x
Box elder	<i>Acer negundo</i>	x	x
Wild onion	<i>Allium canadense</i>		x
Pigweed	<i>Amaranthus spp.</i>		x
Common ragweed	<i>Ambrosia artemisiifolia</i>		x
Peppervine	<i>Ampeopsis arborea</i>	x	x
Hog peanut	<i>Apios americana</i>	x	x
Green dragon	<i>Arisaema dracontium</i>	x	
Jack-in-the-pulpit	<i>Arisaema triphyllum</i>	x	
Cane	<i>Arundinaria spp.</i>	x	x
Rattan vine	<i>Berchemia scandens</i>		x
False nettle	<i>Boehmeria cylindrica</i>		x
Trumpet creeper	<i>Campsis radicans</i>	x	x
Sedges	<i>Carex spp.</i>		x
Water hickory	<i>Carya aquatica</i>	x	x
Bitternut hickory	<i>Carya cordiformis</i>	x	x
Pecan	<i>Carya illinoensis</i>		x
Sugarberry	<i>Celtis laevigata</i>	x	x
Buttonbush	<i>Cephalanthus occidentalis</i>	x	
Spiny thistle	<i>Cirsium horridulum</i>		x

Table 3. continued

COMMON NAME	LATIN NAME	SWAMPS	LEVEES
Virginia dayflower	<i>Commelina virginiana</i>		x
Dogwood	<i>Cornus</i> spp.		x
Swamp dogwood	<i>Cornus stricta</i>	x	
Hawthorn	<i>Crataegus</i> spp.	x	x
Swamp lily	<i>Crinum americanum</i>	x	
Titi	<i>Cyrilla racemiflora</i>	x	
Rattlebox	<i>Daubentonia texana</i>		x
Persimmon	<i>Diospyros virginiana</i>		x
Horseweed	<i>Erigeron canadensis</i>		x
Mistflower	<i>Eupatorium coelestinum</i>		x
Swamp privet	<i>Forestiera acuminata</i>	x	x
Pumpkin ash	<i>Fraxinus profunda</i>	x	
Ashes	<i>Fraxinus</i> spp.		x
Bedstraw	<i>Galium aparine</i>		x
Water locust	<i>Gleditsia aquatica</i>	x	x
Honey locust	<i>Gleditsia triacanthos</i>		x
Marshmallow	<i>Hibiscus</i> spp.		x
Pennywort	<i>Hydrocotyle</i> spp.		x
Possum haw	<i>Ilex decidua</i>	x	x
Yaupon	<i>Ilex vomitoria</i>		x
Touch-me-not	<i>Impatiens capensis</i>		x
Marsh elder	<i>Iva frutescens</i>	x	
Wild lettuce	<i>Lactuca canadensis</i>		x
Sweetgum	<i>Liquidambar styraciflua</i>	x	x
Magnolias	<i>Magnolia</i> spp.	x	x
Sensitive plant	<i>Mimosa strigillosa</i>		x
Red mulberry	<i>Morus rubra</i>		x
Wax myrtle	<i>Myrica cerifera</i>		x
Tupelogum	<i>Nyssa aquatica</i>	x	
Black gum	<i>Nyssa biflora</i>	x	x
Virginia creeper	<i>Parthenocissus quiquefolia</i>	x	
Maypops	<i>Passiflora</i> spp.	x	x
Swamp bay	<i>Persea palustris</i>	x	x
Water elm	<i>Planera aquatica</i>	x	x
Sycamore	<i>Platanus occidentalis</i>	x	x
Mayapple	<i>Podophyllum peltatum</i>		x
Knotweeds	<i>Polygonum</i> spp.		x
Resurrection fern	<i>Polypodium polypodioides</i>	x	x
Water oak	<i>Quercus nigra</i>	x	
Willow oak	<i>Quercus phellos</i>	x	
Oaks	<i>Quercus</i> spp.		x
Swamp honeysuckle	<i>Rhododendron viscosa</i>	x	x
Poison ivy	<i>Rhus radicans</i>	x	x
Snout bean	<i>Rhynchosia minima</i>		x
Brambles	<i>Rubus</i> spp.		x
Palmetto	<i>Sabal minor</i>	x	x
Black willow	<i>Salix nigra</i>	x	
Elderberry	<i>Sambucus canadensis</i>	x	
Sassafras	<i>Sassafras albidum</i>	x	
Skullcap	<i>Scutellaria ovata</i>		x
Cat/green briar	<i>Smilax</i> spp.	x	x
Wild bean	<i>Strophostyles helvola</i>		x
Baldcypress	<i>Taxodium distichum</i>	x	
Shield fern	<i>Thelypteris normalis</i>		x
Spanish moss	<i>Tillandsia usneoides</i>	x	x
American elm	<i>Ulmus americana</i>		x
Stinging nettle	<i>Urtica chamaedryoides</i>		x
Ironweed	<i>Veronica altissima</i>		x
Grapes	<i>Vitis</i> spp.	x	x

have focused their subsistence efforts on this region due to the variety of plants and animals associated with it.

Ethnographic and Paleoethnobotanical Evidence of Plant Use

The ethnographic and paleoethnobotanical records reveal the importance of wild plants to the residents of southwestern Louisiana. A lack of paleoethnobotanical evidence from the vicinity of the proposed project area prohibits an estimation of the importance of agriculture to the local populations. There is evidence, however, that Native Americans inhabiting the vicinity of the proposed dredged material disposal area practiced little or no horticulture until very late in prehistory (Story 1990b; Swanton 1942, 1979; see also Chapter III). The distribution and importance of wild plant species is discussed below in relation to ethnographic and paleoethnobotanical evidence for these species.

Among the most important plant resources used by prehistoric groups in southeastern North America were nuts. Of major importance were hickory nuts (both thin and thick-shelled varieties) and acorns. Oak and hickory trees are scattered throughout the oak-pine region along major waterways. The ripening of these nuts in the late fall would have attracted not only humans to these forests but also animals such as deer, bear, and squirrels. Humans would have had to compete with these animals for the nut crops, but the close contact between humans and animals also would have presented excellent hunting opportunities.

Hickory nuts were an important source of oil and protein for the prehistoric Woodland populations. Indeed, hickory nutshell represented a large part of the paleoethnobotanical assemblages throughout prehistory (Asch and Asch 1985; Chapman and Shea 1981; Crane 1988; Johannessen 1984; King 1984; Perttula and Bruseth 1981, 1983). Hickory nuts probably were used in the form of "hickory milk." To produce hickory milk, unshelled hickory nuts were pulverized and boiled in water to produce a rich milky liquid with a high oil and protein content (Swanton 1979:273). Hickory nutmeats, especially those of thin-shelled hickories such as

pecans, were sometimes ground and added to breads (Swanton 1979:272).

At Contact, Native Americans were using acorns for a variety of subsistence related purposes. Ethnographic accounts describe groups leaching acorn nutmeats in water, sometimes with ashes, to remove the bitter tannins (Densmore 1974; Gilmore 1977). The leached nutmeats then were ground and used as flour for making bread (Gilmore 1977; Swanton 1979:273, 279). Oil from the acorn was used for cooking and for personal adornment (Swanton 1979:277). Evidence of acorn use exists throughout much of the Southeast from the Archaic period to Contact (Caddell 1983; Chapman and Shea 1981; Crane 1988; King 1984; Lopinot 1984; Perttula and Bruseth 1981, 1983; Scarry 1986). However, acorn nutshell tends to be much less common than hickory nutshell. The low rate of occurrence may be because acorn nutshell breaks into smaller pieces when compared to hickory, rather than to a significantly lower rate of acorn use.

Mast bearing species such as black walnut, hazelnut, and beechnut probably were used by local Native American groups but to a much lesser extent than acorns and hickories. It is difficult to estimate why these nuts were not more important. One possibility is that only hickories and oaks produce sufficient predictable masts to support extensive exploitation.

Other significant wild plant resource utilized by residents of the proposed project area environs included fruits. Farther to the north, i.e., in Management Unit I (Smith et al. 1983), there are ethnographic reports of Caddoan groups having orchards of native plums (*Prunus* sp.) and persimmons, along with European peaches (Roseaceae), figs (Moraceae), and pomegranates (Punicaceae) (Swanton 1942). Wild and nonarboreal sources of fruit also were collected. Wild plums, cherries (Roseaceae), sugar/hackberries, persimmons, pawpaw, hawthorn (Roseaceae), sumacs (*Rhus* sp.) and other arboreal fruits would have been found scattered in the open areas beside the waterways running through the rich deciduous forests of this oak-pine region. The seeds from these arboreal fruits are quite common at southeastern archeological

sites (Crane 1982, 1988; Cutler and Blake 1973; King 1984; Perttula and Bruseth 1981, 1983; Scarry 1986; Story 1990b). Early European explorers noted that persimmon fruits often were dried and stored by Native Americans (Swanton 1979:363, 373). The fresh persimmons were sieved to remove the seeds, or simply pulverized, then dried to form a cake. These persimmon cakes served as a source of starch and sugar during the winter months.

Vining fruits native to the current project area vicinity include maypops (*Passiflora incarnata*), brambles, and several species of grapes. These fruits also could have been collected, dried, and stored for later use. As with the arboreal fruits, the vining fruits would have been most common in the oak-pine region, although they could be found scattered in other regions.

Unlike many of the arboreal and vining wild subsistence plants, those plants collected for their roots would have been more common in semi-aquatic and grassland environments. Locally abundant semi-aquatic species such as arrowroot (*Taccaceae*), American lotus (*Nelumbonaceae*), and cattail (*Typha latifolia*) would have been collected for their rich starchy roots (King 1984). Numerous species of tuberous plants are associated with the prairie environments, such as the Tall Grass region (Kindscher 1987). Among these plants are wild onion (*Allium* sp.), and bush morning glory (*Ipomea pandurata*). Groundnut (*Apios americana*), wood sorrel (*Oxalis stricta*), and catbriars occur in woodlands, but the roots of those plants also were collected by Native American groups.

Wild grains and pulses were collected (and possibly cultivated) by southeastern Native Americans (Kindscher 1987). The greatest natural concentration of these plants would be in open areas. Some of the plants whose seeds were collected and processed as grains or pulses included chenopods, sunflower (*Helianthus* sp.), amaranths, vetches, sumpweed (*Iva annua*), knotweed (*Polygonum* sp.), sedges, and wild bean (*Fabaceae*) (Crane 1982, 1988; Perttula and Bruseth 1981). The use of these wild grains is supported by early historic descriptions of Native Americans collecting "seeds of reeds" (Swanton 1942:134). In addition, specific species of chenopods, amaranths, sumpweed, sunflower, and knotweed were encouraged or culti-

vated by prehistoric farmers in the Midwest (Smith 1992).

Fauna

Lafayette Parish has a total land area of 73,299 ha (181,120 ac) and in 1972 approximately 77 percent of that area was dedicated to some form of crop cultivation. Since that time, however, there has been a steady decline in agricultural acreage due to urban expansion. Woodland areas have been reduced to 1,821 ha (4,500 ac), and although some of this is scattered about in small blocks throughout the parish, it principally is located in the eastern portion of the parish. These modifications to the natural environment have resulted in a loss of suitable wildlife habitat causing a reduction in diversity and population of the local fauna and flora (Murphy et al. 1977b).

The largest populations of wild game animals and birds are those associated with openlands. Some of these are: Eastern cottontail rabbit; (*Sylvilagus floridanus*); doves, such as the mourning dove (*Zenaida macroura*) and rock dove (*Columba livia*); bobwhite quail (*Colinus virginianus*), and the common snipe (*Capella gallinago*). Rice is a dietary favorite of the dove and many are seen around the harvested rice fields of the Lafayette area. The common snipe, whose population is influenced by rainfall patterns, is commonly seen around the flooded rice fields. Urban sprawl and high agricultural usage has led to a loss of suitable habitats for many faunal species; however, the low ground cover protection provided by to underbrush offfields and sugarcane crops has allowed the bobwhite quail and the cottontail rabbit to maintain average populations (Smith 1977:28).

White-tailed deer (*Odocoileus virginianus*), Eastern gray squirrel (*Sciurus carolinensis*), fox squirrel (*Sciurus niger*), swamp rabbit (*Sylvilagus aquaticus*), wood duck (*Aix sponsa*), and the American woodcock (*Philohela minor*) are all woodland game whose habitat has shrunk with the decline of woodland acreage. Small furbearing mammals such as muskrat (*Ondatra zibethicus*), mink (*Mustela vison*), otter (*Lutra canadensis*), and nutria (*Myocastor coypus*) have been reduced in number due to the same lack of suitable habitat (Smith 1977:28) (Table 4).

Table 4. Mammals present within the vicinity of the proposed project area.

COMMON NAME	LATIN NAME
Fin whale family	Balaenopteridae family
Red wolf	<i>Canis rufus</i>
Least shrew	<i>Cryptotis parva</i>
Porpoise and dolphin family	Delphinidae family
Southern flying squirrel	<i>Glaucomys volans</i>
Red bat	<i>Lasiurus borealis</i>
Northern yellow bat	<i>Lasiurus intermedius</i>
Seminole bat	<i>Lasiurus seminolus</i>
River otter	<i>Lutra canadensis</i>
Bobcat	<i>Lynx rufus</i>
Long-tailed weasel	<i>Mustela frenata</i>
North American mink	<i>Mustela vison</i>
Southeastern myotis	<i>Myotis austroriparius</i>
Eastern wood rat	<i>Neotoma floridana</i>
Evening bat	<i>Nycticeius humeralis</i>
White-tailed deer	<i>Odocoileus virginianus</i>
Common muskrat	<i>Ondatra zibethicus</i>
Marsh rice rat	<i>Oryzomys palustris</i>
Cotton mouse	<i>Peromyscus gossypinus</i>
White-footed mouse	<i>Peromyscus leucopus</i>
Sperm whale family	Physeteridae family
Rafinesque's big-eared bat	<i>Plecotus rafinesquii</i>
Northern raccoon	<i>Procyon lotor</i>
Fulvous harvest mouse	<i>Reithrodontomys fulvescens</i>
Gray squirrel	<i>Sciurus carolinensis</i>
Fox squirrel	<i>Sciurus niger</i>
Hispid cotton rat	<i>Sigmodon hispidus</i>
Swamp rabbit	<i>Sylvilagus aquaticus</i>
Eastern cottontail rabbit	<i>Sylvilagus floridanus</i>
Brazilian free-tailed bat	<i>Tadarida brasiliensis</i>
Gray fox	<i>Urocyon cinereoargenteus</i>
Black bear	<i>Ursus americanus</i>
Beaked whale family	Ziphiidae family

Note: Nutria (*Myocaster coypus*) is an introduced species

The spotted salamander (*Ambystoma maculatum*), tiger salamander (*Ambystoma tigrinum*), Eastern spadefoot (*Scaphiopus holbrookii*), bullfrog (*Rana catesbeiana*), southern toad (*Bufo terrestris*), American toad (*Bufo americanus*), spring peeper (*Hyla crucifer*), chorus frog (*Pseudacris triseriata*), gray tree frog (*Hyla versicolor*), and green tree frog (*Hyla cinerea*) are amphibians common to the parish. The eastern fence lizard (*Sceloporus undulatus*), ground skink (*Scincella lateralis*), five-lined skink (*Eumeces fasciatus*), and slender glass lizard (*Ophisaurus attenuatus*) are examples of lizards found in the project area. Colubrid snakes are represented by racer (*Coluber constrictor*), eastern hognose (*Heterodon platyrhinos*), mud snake (*Farancia abacura*), smooth green snake

(*Opheodrys vernalis*), brown snake (*Storeria dekayi*), and common king snake (*Lampropeltis getulus*). Some examples of the poisonous snakes or pit vipers common to the area include copperhead (*Agkistrodon contortrix*), cottonmouth (*Agkistrodon piscivorus*), Eastern diamondback rattlesnake (*Crotalus adamanteus*), and the timber rattlesnake (*Crotalus horridus*). The alligator (*Alligator mississippiensis*) is another reptile that can be seen throughout the project area (Gibson 1975:30-31) (Table 5).

Along with the above mention fauna, there were large populations of birds and fish throughout the project area and the adjacent Vermilion River (Tables 6 – 8). The range of animals is broad and diverse but the faunal populations have suffered from the effects of civilization.

Table 5. Reptiles and amphibians present within the vicinity of the proposed project area.

COMMON NAME	LATIN NAME
Northern cricket frog	<i>Acris crepitans</i>
Copperhead	<i>Agkistrodon contrortix</i>
Cottonmouth	<i>Agkistrodon piscivorus</i>
American alligator	<i>Alligator mississippiensis</i>
Three-toed amphiuma	<i>Amphiuma tridactylum</i>
Green anole	<i>Anolis carolinensis</i>
True toads	Bufonidae family
Snapping turtle	<i>Chelydra serpentina</i>
River cooter	<i>Chrysemys concinna</i>
Painted turtle	<i>Chrysemys picta</i>
Pond slider	<i>Chrysemys scripta</i>
Racer	<i>Coluber constrictor</i>
Newts	<i>Diemictylus</i> spp.
Chicken turtle	<i>Dierochelys reticularia</i>
Ratsnakes and cornsnakes	<i>Elaphe</i> spp.
Mud snake	<i>Farancia abacura</i>
Eastern narrowmouth toad	<i>Gastrophryne carolinensis</i>
Mississippi mud turtle	<i>Graptemys komni</i>
Treefrogs	Hylidae family
Mud turtle	<i>Kinosternon subrubrum</i>
Speckled king snake	<i>Lampropeltis getulus</i>
Green water snake	<i>Natrix cyclopion</i>
Plain-bellied water snake	<i>Natrix erythrogaster</i>
Banded water snake	<i>Natrix fasciata</i>
Diamond-backed water snake	<i>Natrix rhombifera</i>
Water snakes	<i>Nerodia</i> spp.
True frogs	Ranidae family
Crayfish snake	<i>Regina</i> spp.
Lesser siren	<i>Siren intermedia</i>
Stinkpot	<i>Sternotherus odoratus</i>
Brown snake	<i>Storeria dekayi</i>
Box turtles	<i>Terrapene</i> spp.
Garter snakes	<i>Thamnophis</i> spp.
Spiny softshell	<i>Trionyx spiniferus</i>

Table 6. Crustaceans and shellfish present within the vicinity of the proposed project area.

COMMON NAME	LATIN NAME	FRESH
Freshwater clam	<i>Anodonta</i> sp.	x
Freshwater clam	<i>Elliptio</i> sp.	x
River shrimp	<i>Macrobrachium ohione</i>	x
Freshwater mussel	<i>Mytilopsis leucopuaeta</i>	x
Freshwater snail	<i>Physa</i> sp.	x
River crawfish	<i>Procambarus blandingii</i>	x
Red swamp crawfish	<i>Procambarus clarkii</i>	x

Table 7. Fish present within the vicinity of the proposed project area.

COMMON NAME	LATIN NAME	FRESH
Bowfin	<i>Amia calva</i>	x
American eel	<i>Anguilla rostrata</i>	x
Pirate perch	<i>Aphredoderus sayanus</i>	x
Freshwater drum	<i>Aplodinotus grunniens</i>	x
Silversides	Atherinidae family	x
River carpsuckers	<i>Carpoides carpio</i>	x
Carp	<i>Cyprinus carpio</i>	x
Shad	<i>Dorosoma spp.</i>	x
Banded pygmy sunfish	<i>Elassoma zonatum</i>	x
Topminnows	<i>Fundulus spp.</i>	x
Mosquitofish	<i>Gambusia affinis</i>	x
Least killfish	<i>Heterandria formosa</i>	x
Freshwater catfish	Ictaluridae family	x
Brook silverside	<i>Labidesthes sicculus</i>	x
Gars	<i>Lepisosteus spp.</i>	x
Sunfishes	<i>Lepomis spp.</i>	x
Largemouth bass	<i>Micropterus salmoides</i>	x
Basses	<i>Morone spp.</i>	x
Golden shiner	<i>Notemigonus crysoleucas</i>	x
Shiners	<i>Notropis spp.</i>	x
Bullhead shiner	<i>Pimephales vigilax</i>	x
Sailfin molly	<i>Poecilia latipinna</i>	x
Paddle fish	<i>Polydon spathula</i>	x
Crappie	<i>Promoxis sp.</i>	x

Table 8. Birds present within the vicinity of the proposed project area.

COMMON NAME	LATIN NAME
Spotted sandpiper	<i>Actitis macularia</i>
Red-winged blackbird	<i>Agelaius phoeniceus</i>
Seaside sparrow	<i>Ammodramus maritimus</i>
Pond ducks	<i>Anas spp.</i>
Greater white-fronted goose	<i>Anser albifrons</i>
Great blue heron	<i>Ardea herodias</i>
Short-eared owl	<i>Asio flammeus</i>
Diving ducks	<i>Aythya spp.</i>
Solidary sandpiper	<i>Bartramia longicauda</i>
American bittern	<i>Botaurus lentiginosus</i>
Green-backed heron	<i>Butorides striatus</i>
Sandpiper	<i>Calidris spp.</i>
Snipe	<i>Capilla gallinago</i>
Great egret	<i>Casmerodius albus</i>
Boat-tailed grackle	<i>Cassidix major</i>
Belted kingfisher	<i>Ceryle alcyon</i>
Killdeer	<i>Charadrius vociferus</i>
Snow goose	<i>Chen caerulescens</i>
Black tern	<i>Chilonias niger</i>
Common nighthawk	<i>Chordeiles minor</i>
Northern harrier	<i>Circus cyaneus</i>
Wrens	<i>Cistothorus spp.</i>
Fish crow	<i>Corvus ossifragus</i>
Yellow rail	<i>Coturnicops noveboracensis</i>
Heron/egret	<i>Egretta spp.</i>

Table 8. continued

COMMON NAME	LATIN NAME
White ibis	<i>Eudocimus albus</i>
Merlin	<i>Falco columbarius</i>
Artic peregrine falcon	<i>Falco peregrinus tundrius</i>
American kestrel	<i>Falco sparverius</i>
Magnificent frigate bird	<i>Fregata magnificens</i>
Common snipe	<i>Gallinago gallinago</i>
Common moorehen	<i>Gallinula chloropus</i>
Common yellowthroat	<i>Geothlypis trichas</i>
Bald eagle	<i>Haliaeetus leucocephalus</i>
Black-necked stilt	<i>Himantopus mexicanus</i>
Swallows	Hirundinidae family
Louisiana heron	<i>Hydranassa tricolor</i>
Least bittern	<i>Ixobrychus exilis</i>
Gulls	<i>Larus</i> sp.
Black rail	<i>Laterallus jamaicensis</i>
Hooded merganser	<i>Lophodytes cucullatus</i>
Belted sandpiper	<i>Meaceryle alcyon</i>
Swamp sparrow	<i>Melospiza georgiana</i>
Red-breasted merganser	<i>Mergas serrator</i>
Barn swallow	<i>Mirundo rustica</i>
Wood stork	<i>Mycteria americana</i>
Night-heron	<i>Nycticorax</i> spp.
Savannah sparrow	<i>Passerculus sanwicensis</i>
American white pelican	<i>Pelecanus erythorhynchus</i>
Brown pelican	<i>Pelecanus occidentalis</i>
Double crested cormorant	<i>Pharacrocorax auritus</i>
Glossy ibis	<i>Plegadis falcinellus</i>
Black-bellied plover	<i>Pluvialis squatarola</i>
Eared grebe	<i>Podiceps nigricollis</i>
Purple gallinule	<i>Porphycula martinica</i>
Boat-tailed grackle	<i>Quiscalus major</i>
Rails	<i>Rallus</i> spp.
Bank swallow	<i>Riparia riparia</i>
Terns	<i>Sterna</i> sp.
Tree swallow	<i>Tachycineta bicolor</i>
Royal tern	<i>Thalasseus maximus</i>
Sandpiper/yellow-legs	<i>Tringa</i> spp.
Red-winged blackbird	<i>Agelaius phoeniceus</i>
Cedar waxwing	<i>Bombycilla cedrorum</i>
Great horned owl	<i>Bubo virginianus</i>
Red-tailed hawk	<i>Buteo jamaicensis</i>
Red-shouldered hawk	<i>Buteo lineatus</i>
Broad-winged hawk	<i>Buteo platypterus</i>
Willet	<i>Catoptrophorus semipalmatus</i>
Common nighthawk	<i>Chordeiles minor</i>
Yellow-billed cuckoo	<i>Coccyzus americanus</i>
Common flicker	<i>Colaptes auratus</i>
Black vulture	<i>Coragyps atratus</i>
Common crow	<i>Corvus brachyrhynchos</i>
Yellow rail	<i>Coturnicops noveboracensis</i>
Downy woodpecker	<i>Dendrocopos pubescens</i>
Acadian flycatcher	<i>Empidonax varescens</i>
American kestrel	<i>Falco sparverius</i>
Wood thrush	<i>Hylocichla mustelina</i>
Wild turkey	<i>Meleagris gallopavo</i>
Mockingbird	<i>Mimus polyglottos</i>
Common screech owl	<i>Otus asio</i>

Table 8, continued

COMMON NAME	LATIN NAME
American woodcock	<i>Philohela minor</i>
Barred owl	<i>Strix varia</i>
Brown thrasher	<i>Toxostoma rufum</i>
Robin	<i>Turdus migratorius</i>
Mourning doves	<i>Zenaida macroura</i>

Note: Some of these species are only seasonal residents.

Urban spread has reduced the areas for suitable faunal habitats. Pollution of the lakes, streams and rivers has reduced the fish population. Several faunal species are recognized by both federal and state agencies as threatened with the possibility of extinction. The Louisiana Black Bear is a threatened species and it will likely join the growing list of animals endangered of extinction. The Eastern diamond-backed rattlesnake also is considered extremely rare in Louisiana. Both state and federal agencies consider many of the migratory and stationary bird species to be threatened or endangered of extinction. Some these are the glossy ibis (*Plegadis falcinellus*), the golden eagle (*Aquila chrysaetos*), the bald eagle (*Haliaeetus leucocephalus*), the interior least tern (*Sterna antrillarum athalassos*), the caspian tern (*Sterna caspia*), the gull-billed tern (*Sterna nilotica*), and the sooty tern (*Sterna fuscata*) (Louisiana Department of Wildlife and Fisheries 1997).

Ethnographic and Zooarcheological Evidence of Animal Use

Mammals, birds, reptiles, amphibians, and fish all were used by the prehistoric and historic inhabitants of the proposed project vicinity. While no reports of zooarcheological collections were found for the immediate area, information on regional and extra-regional patterns of faunal exploitation was available (Dillehay 1975; Pertulla and Bruseth 1981, 1983; Story 1990b; Styles and Purdue 1984). In addition, Swanton (1942, 1979) summarizes ethnographic and ethnohistoric reports on the Chitimacha and other southeastern Native American groups (see Chap-

ter III). Ethnographic accounts suggest that wildlife diversity and numbers were abundant. Native Americans relied on the local wildlife not only for food, but also for the materials that could be processed for non-food items (Swanton 1946).

Most of the mammals significant to Native American subsistence inhabit the margins of forests and rivers. The principal mammals identified in the zooarcheological record are white-tailed deer (*Odocoileus virginianus*), rabbit (swamp and cottontail) (*Sylvilagus* sp.), opossum (*Didelphis virginiana*), squirrel (gray and fox) (*Sciurus* sp.), raccoon (*Procyon lotor*), and pocket gopher (*Geomys* sp.) (Pertulla and Bruseth 1981, 1983; Styles and Purdue 1984). Mink (*Mustela vison*) and bear (*Ursus americanus*) remains also occasionally are identified (Styles and Purdue 1984). The patterns of mammalian exploitation are quite similar to those described in the ethnographic record. Deer, rabbit, bear, and buffalo (North American bison) all represent mammals hunted by historic groups populating the area (Swanton 1979).

All of the mammals discussed above would have been used for a variety of purposes (Swanton 1979). The major use of the animals would have been as a source of meat. Mammals, especially white-tailed deer, were a vital source of raw materials such as hides for clothing and bones for tools. Bear, buffalo, and to a limited extent white-tailed deer, were used as a source of fat. Bear fat especially was prized since it could be rendered and stored for later use.

Bison remains have not been found commonly in zooarcheological collections from this

region. There may be several explanations for this lack of buffalo remains given the importance of this species to the historic Caddoan groups located in north Louisiana (Dillehay 1975; Swanton 1942). First, large herds of buffalo probably did not migrate into the Southeast prior to A.D. 1200. As a result, the use of this species would be limited until late in prehistory. Second, if bison hunts occurred at some distance from settlements, perhaps only the processed meat would have been brought back from the hunting locales. This procedure would have limited the amount of bison bone found at habitation sites. Finally, the addition of horses during late prehistory may have increased the importance of bison hunting for those groups at prairie margins just prior to contact with the Europeans.

Avian species were another source of protein and technological material for Native Americans. Ethnographic accounts and the archeological record suggests that wild turkey was the most important avian resource utilized throughout the broader region (Perttula and Bruseth 1981; Story 1990b; Styles and Purdue 1984; Swanton 1942, 1979). Indeed, wild turkeys were the most commonly utilized avian species found at Caddoan sites excavated in southeastern Texas. Other woodland birds that have been identified at these archeological sites include bobwhite quail, owls, woodpeckers, crows, hawks, and bald eagles. The flesh of these species may have been consumed, and the feathers and bones were utilized in tool manufacturing. There are relatively few migratory or residential waterfowl found at archeological sites in the area despite historic descriptions of the importance of these waterfowl (Swanton 1942). Within the vicinity of the project area, turkey and bobwhite quail would have been attracted to the heavy mast production. Raptors and scavengers, however, prefer a more open canopy than the woodland species, and they may have clustered near forest margins.

Various reptile and amphibian species undoubtedly were collected/hunted by the historic and prehistoric residents of the proposed project area. Box turtles commonly are found in southern Caddoan zooarcheological collections (Perttula and Bruseth 1981, 1983; Story 1990b; Styles and Purdue 1984). In addition, aquatic

turtle species such as snapping turtles, sliders, stinkpots, and soft shell turtles also are associated with some of these collections (Perttula and Bruseth 1981, 1983). Alligator remains rarely are identified in these samples, but it is likely that alligators were hunted in local swamps and waterways, because ethnographic accounts reveal the importance of alligators to the Southeastern Native American groups (Swanton 1942, 1979). Amphibian species such as frogs and toads probably were collected, but the delicate nature of their bones makes zooarcheological recovery difficult.

The importance of aquatic resources to the Native Americans in the region is revealed in the quantity of fish bone recovered from sites and in the ethnographic accounts of fishing techniques practiced in the region. Important game fish include bowfin, gar, sucker, pickerel, catfish, bass, sunfish, and freshwater drum (Table 7). Historic Southeastern Native American fishing techniques included poisoning, spearing, and using hook and line and trotlines (Swanton 1979).

Climate

Southwest Louisiana is characterized by a humid subtropical climate. Summers are long, hot, and rainy, but winters generally are mild and pleasant. Average annual precipitation is 145 cm (57 in), of which over half (79.3 cm [31.2 in]) falls during the April through September growing season. Local weather patterns are controlled primarily by prevailing southeasterly winds blowing from the Gulf of Mexico. These winds average about 25 km per hour (10 mi per hour) during the spring and assist in the formation of localized afternoon thundershowers, which are common throughout the spring and summer months. The summer and autumn months also are subject to occasional tropical storms or hurricanes, which threaten the area every few years and can cause extremely heavy rains for one to three days. During the winter, cool fronts from the north usually are weakened or completely dissipate before reaching south Louisiana.

Based on data recorded from 1941 to 1970 in Lafayette Parish, the daily average temperature peaks in July and August at 27.5° C (81.5° F), with an average maximum temperature of

33° C (91° F) (Muller 1977). Temperatures only occasionally exceed 38° C (100° F). Summer nighttime temperatures drop to about 21.8° C (71.3° F). July also is the rainiest month, averaging 17.8 cm (7 in) of precipitation, although 32.3 cm (12.7 in) of rain may fall during the month in

one of every 10 years (Muller 1977). The Winter temperature averages about 12.1° C (53.7° F), and it may reach freezing 0° C (32° F) from late November through mid-March, although this usually occurs only after nightfall.

CHAPTER III

PREHISTORIC SETTING

The proposed Vermilion River Dredge Disposal project area is located on the Gulf Coastal Plain physiographic region. This landscape of prairie terraces is characterized by meandering rivers that act as a buffer between the swampy lowlands to the south, and the piney woods to the north. The proposed project area is located along this transitional zone at the eastern border of Lafayette Parish, Louisiana (Figure 2). This parish is contained within Management Unit III, as defined in *Louisiana's Comprehensive Archaeological Plan* (Smith et al. 1983). This unit is bordered to the west by the Sabine River and to the east by the Atchafalaya River. In his annual summary for this unit, regional archeologist Charles McGimsey (1997) presents Lafayette Parish as one of the 13 southwest and south central Louisiana parishes (Acadia, Allen, Beauregard, Calcasieu, Cameron, Evangeline, Iberia, Jefferson Davis, Lafayette, St. Landry, St. Martin, St. Mary, and Vermilion) encompassed by this management unit. The study area also lies within the Southeastern Culture Area of the United States (Muller 1983). As a result, cultural characteristics found within the proposed project area vicinity resemble those manifested in the Lower Mississippi Valley and along the northern coast of the Gulf of Mexico, as well as other parts of the region.

The prehistory of Management Unit III extends from ca. 12,000 B.C. to A.D. 1700 and it can be divided into four general archeological stages. These four stages (Paleo-Indian, Archaic, Woodland, and Mississippian) are developmental segments characterized by dominant patterns of subsistence and technology (Kreiger 1953; Willey and Phillips 1958). Each stage consists of

a sequence of chronologically defined periods, which may be sub-divided into phases based on similar sets of artifacts and other cultural traits characteristic of a particular geographic region (e.g., Jenkins 1979; Walthall 1980). In recent years, eight major cultural units have been used to describe the prehistoric sequence of this management unit: Paleo-Indian, Archaic, Poverty Point, Tchefuncte, Marksville, Troyville-Coles Creek, Plaquemine, and Mississippian (Jeter et al. 1989; Smith et al. 1983). Research by Kidder (1988) suggests that Plaquemine Culture actually represents a variant phase of the Emergent Mississippian period, and it will be discussed as such. Refinements in the comparative or actual dating of artifacts, as well as in the assignment of cultural periods, phases, and horizons throughout the Southeast, have documented both the temporal and spatial overlap of material traits and lifeways. They suggest varying degrees of cultural diffusion and invention, as well as technological persistence among indigenous populations. Therefore, overlapping dates may be noted throughout the following review.

Paleo-Indian Stage (ca. 10,000 - 6000 B.C.)

Initial human occupation of the southeastern United States generally is believed to have occurred sometime between 10,000 and 12,000 years ago (8000 - 10,000 B.C.). Paleo-Indian sites are characterized by a distinctive assemblage of lithic tools that includes fluted and unfluted lanceolate projectile points/knives, unifacial end and side scrapers, graters, and spokeshaves. Paleo-Indian lithic technology displays a high level of workmanship, and chipped stone artifacts of the period exhibit fine flaking, edge

grinding, retouching, and basal thinning (Neuman 1984; Smith et al. 1983).

The earliest Paleo-Indian culture identified in North America has been named "Clovis," after the type-site identified in the southwestern United States. In the western United States, Clovis sites appear to fall within a relatively narrow time range, i.e., between 10,900 and 11,500 years ago (9550 - 8950 B.C.) (Haynes 1991; Story et al. 1990:178). While the evidence for earlier "pre-Clovis" occupations continues to be debated (Chrisman et al. 1996), no earlier sites have been documented convincingly in North America. The lithic tool assemblage of the Clovis Culture, and the Folsom Culture of the Great Plains and Southern Plains, generally is referred to as the Llano complex. The smaller, fluted Folsom and unfluted Midland projectile points/knives once were thought to postdate Clovis; however, accepted radiocarbon dating of numerous Folsom components in Texas produced dates ranging from ca. 9050 - 8050 B.C. (Largent et al. 1991:323-332; Story et al. 1990:189). These dates suggest that Folsom Culture may be partially contemporaneous with the Clovis Culture.

The Plano complex represents a similar tradition in the Southern Plains. In East Texas and Louisiana, this complex is represented by unfluted lanceolate Plainview, Firstview, Hell Gap, and Angostura projectile points/knives. These types first were thought to be unfluted variants of the Clovis type, but radiocarbon dating suggests a later temporal placement. Current data place the Plano complex in the period from 8150 - 6050 B.C. (Turner and Hester 1985:66, 141). Artifacts in the Plano style have been found throughout Louisiana (e.g., Cantley et al. 1984; Hillman 1990:206-207). Gagliano (1963:12) recovered a single Plainview projectile point/knife from the Palmer Site (16EBR26) situated east of the currently proposed project area near Baton Rouge.

Another Paleo-Indian tradition identified in North America is the Cody complex. This assemblage includes the stemmed lanceolate Scottsbluff and Eden projectile points/knives. Cody complex bifacial tools usually are identifiable by the presence of fine comedial pressure flaking. The uplands in the Texarkana region of northwest Louisiana, northeast Texas, and southern Arkansas have produced relatively

large numbers of Cody Complex artifacts (Gagliano and Gregory 1965:62-77; Story et al. 1990:209), but the associated radiocarbon (^{14}C) dates have not been conclusive. These ^{14}C dates range from 8200 - 7150 B.C. (Story et al. 1990:209), although Turner and Hester (1985:149) place the Scottsbluff projectile point/knife at ca. 7120 - 6650 B.C.

Paleo-Indian peoples are thought to have been highly mobile hunter-gatherers that traveled in small bands or extended family groups. The formerly prevalent notion that the Paleo-Indian populations were specialized big game hunters seems less tenable as information becomes available from a more inclusive set of Paleo-Indian sites. While sufficient evidence exists for the exploitation of large mammals (mega-fauna) including mammoth, mastodon, bison, caribou, and elk at sites in the western and northern United States, kill sites are rare in the Southeast. The occurrence of Clovis-like fluted projectile points/knives in the southeastern United States is thought to reflect contemporaneity with a culture similar to the Clovis sites recorded in the western and northern parts of the country. Whether or not this suggests that big game hunting was the dominant adaptive strategy in the Southeast is less certain because of the regional environmental differences associated with the availability of the big game species. For example, excavations at the Kimmswick Site in southeastern Missouri produced Clovis projectile points in direct association with disarticulated mastodon bones, suggesting that Southeastern Paleo-Indian populations exploited large Pleistocene mammals at least occasionally (Graham et al. 1981). In contrast, two locations in south central Louisiana, Avery Island (Salt Mine Valley; 16IB3) and the Trappey Mastodon Site (16LY63) in Lafayette, produced the remains of Pleistocene fauna, but failed to provide a Paleo-Indian relationship (Gagliano 1964; Gibson and Miller 1973; Neuman 1984).

Although there are few data upon which to base a dietary reconstruction, Paleo-Indian subsistence throughout the Southeast is believed to have encompassed a broad spectrum of resources, including fish, fowl, deer, small mammals, nuts, and gathered plants (Smith 1986:9-10; Steponaitis 1986:369; Walthall 1980:36).

The exception may be the Folsom Culture. Folsom artifacts have been associated consistently with bison kill sites on the Great Plains. The lack of faunal evidence in association with Folsom finds in east Texas and Louisiana, due mainly to the highly acidic nature of the soils and the moist climate, precludes insight into the subsistence strategies of the area. Indications are that the Folsom Culture could represent an adaptation to a specialized hunting strategy associated with the cyclical migration of large herds of bison (Story et al. 1990:189).

Most of the archeological evidence associated with the Paleo-Indian occupation of the southeastern United States is limited to surface finds of temporally diagnostic projectile points/knives (Mason 1962). In the Lower Mississippi Valley, Paleo-Indian projectile points/knives have been recovered along valley margins but only occasionally in the alluvial valley or along the coastal plain, and distribution studies indicate that Paleo-Indian sites in the eastern United States tend to be located on eroded terrace and plateau surfaces (Walthall 1980). Paleo-Indian and Early Archaic presence in the Lower Mississippi Valley is best documented from Macon Ridge, a relict Pleistocene braided plain in Northeast Louisiana (Saucier 1981). Hillman (1985, 1990) collected information concerning 121 sites on the Macon Ridge from which over a thousand Paleo-Indian and "epipaleoindian" (Gibson 1982) projectile points/knives have been collected, including 272 Dalton-Meserve, 39 Hardin, and over 400 San Patrice types. He concluded that Early and Middle Paleo-Indian occupation of Macon Ridge apparently was sporadic or seasonal, possibly reflecting the somewhat inhospitable conditions caused by the excessive accumulation of wind-blown dust across open grasslands during the formation of the loess hills. The distribution of recorded sites suggests that Macon Ridge was occupied more intensely during the Late Paleo-Indian and Early Archaic periods. However, during the Late Paleo-Indian period, hunting camps and base camps normally were located very close to streams, ponds, or sloughs, on landforms generally no more than 1 m (3.3 ft) above the water source, even when higher elevations or ridges were located in the immediate vicinity. This preferential use of the area adjacent to the wa-

terways may reflect the intensive use of the wooded fringes situated along the waterways rather than the exploitation of the open grasslands. By the Early Archaic, settlement shifted to the higher elevations, possibly reflecting an environmental transformation of Macon Ridge from open grasslands to open woodlands (Hillman 1990). Brain (1983) states that Paleo-Indian projectile points/knives have been found along relict channels of the Mississippi River and remnant Pleistocene surfaces in the floodplain that pre-date ca. 7000 B.C. In Louisiana, Paleo-Indian sites have been found along Tertiary upland ridges and uplands/floodplain bluffs (Guy and Gunn 1983). Projectile points/knives such as Clovis, Folsom, Scottsbluff, Plainview, and Meserve have been found on the surfaces of these sites. The majority of these projectile points/knives have been found in northern Louisiana; only a very few have been found on late Pleistocene age Prairie Terrace deposits in the southern part of the state.

The previously mentioned Avery Island site (16IB22), is the only substantial Early Paleo-Indian occupation that has been identified within Management Unit III. It is located on the Avery Island salt dome, near the coast of central Louisiana. Although the site produced the remains of Pleistocene fauna intermingled with and/or above lithic artifacts and basketry remains, no temporally diagnostic artifacts were recovered from this component (Gagliano 1970; Neuman 1984). Consequently, the relationship of the faunal remains to the artifacts is unclear.

From the Late Paleo-Indian period, two cultural phases (the Strohe Phase and the Vatican Phase) have been suggested in the general region encompassing the proposed project area (Ryan et al. 1996). Little is known about the Vatican Phase in south central Louisiana, but the Strohe Phase of southwest Louisiana is better documented. This phase was defined by Bonnin and Weinstein (1975, 1978) following the identification of a Dalton-like projectile point type that was recovered during excavation of the multi-component Strohe Site (16JD10) in Jefferson Davis Parish.

In the original publication of *Louisiana's Comprehensive Archaeological Plan*, and based on records obtained from the Division of Archaeology, only four Paleo-Indian sites/components have been documented within Man-

agement Unit III (Smith et al. 1983:63). These sites are located in Acadia, Evangeline, St. Landry, and Iberia Parishes. The Jefferson Davis Parish component recorded at the Strohe Site (16JD10) was not included in the 1983 publication, nor were two other possible Paleo-Indian components that have been identified at separate multicomponent sites (16AL1 and 16AL36) in Allen Parish.

Archaic Stage (ca. 6000 - 1550 B.C.)

The term "Archaic" first was developed in the second quarter of the twentieth century as a descriptor for the transitional pre-ceramic cultures that followed the Paleo-Indian Stage. The Archaic Stage can be divided into three subdivisions or periods: Early Archaic, Middle Archaic, and Late Archaic. A warming trend and a drier climate at the end of the Pleistocene, accompanied by a rise in sea level, may have spurred a combination of technological and social changes that now are associated with the initiation of the Archaic Stage (Willey and Phillips 1958). This economic shift has been correlated with highly diverse localized resource and food procurement strategies (Goodwin et al. 1991; Haag 1971). Caldwell (1958) termed this hunting and gathering specialization "primary forest efficiency." Brain (1971) modified this phrase to "primary riverine efficiency" in reference to southeastern riverine and coastal communities. Archaic peoples moved on a seasonal basis within a home range to exploit nuts, fruits, fish, game, shellfish, and other natural resources (Muller 1978). Archaic populations apparently exploited a greater variety of terrestrial and marine species than their Paleo-Indian predecessors did. The increased number of sites dating from the Archaic Stage suggests an increase in population throughout the Southeast. Macrobands formed during the spring and summer months, while in the winter months smaller microbands exploited upland ranges (Muller 1978). An increase in the number of sites dating from the Archaic Stage suggests an overall increase in population throughout the area; *Louisiana's Comprehensive Archaeological Plan* lists 40 sites from this period for Management Unit III, versus only four sites dating from the Paleo-Indian period (Smith et al. 1983).

The Paleo-Indian to Archaic Stage transition was accompanied by a change in projectile point/knife morphology. These changes included the emergence of a variety of notched and stemmed projectile point/knife forms and the disappearance of the fluted projectile point/knife type. Nevertheless, archeological evidence suggests that there was some continuity between the adaptations of the Paleo-Indian and the later Archaic peoples who occupied the Southeast (Smith 1986). Archaic projectile point/knife sequences follow a general trend in haft morphology that progresses from side-notched to corner-notched to stemmed basal forms. These basal forms, however, are not mutually exclusive. Other Archaic Stage stone flaked artifact types included adzes, scrapers, and choppers. During the latter half of the Archaic Stage, granitic rock, chert, jasper, sandstone, slate, steatite, and scoria were ground and polished into a variety of stone ornaments and tools that included beads, gorgets, bowls, and celts/axes.

Early Archaic Period

In the Southeast, the Early Archaic period is considered to extend from ca. 8050 - 6050 B.C., but because of the regional variation and the temporal overlapping of stages, the assignment of Late Paleo-Indian and Early Archaic period artifacts to correct temporal stages can be complex. As noted above, Gibson (1982) used "epipaleoindian" as a term for this transition; Hillman (1985) included Dalton, Hardin, and San Patrice projectile points types in his review of the transitional period at Macon Ridge.

Dalton projectile points/knives temporally succeeded Clovis projectile points and they have been dated between 8550 and 7950 B.C. in Arkansas and Missouri (Goodyear 1982:382). At the Stanfield-Worley Bluff Shelter (1CT125) in northwestern Alabama, the Dalton zone dates from ca. 7750 - 7050 B.C. (DeJarnette et al. 1962; Griffin 1974). Dalton projectile points also have been found in Horizon 11 at the Koster Site (11GE4) in southern Illinois, which dates from 6750 - 6500 B.C. (Cook 1976) This date suggests that Dalton points/knives may extend later in time than initially presumed. Dalton projectile points/knives sometimes are recovered with bifacially chipped stone adzes that may

represent woodworking tools. Chipped and ground stone celts, probably the functional equivalent of Dalton adzes, have been recovered from the Kirk Horizon in Zone 16 at the St. Albans Site (46WV27) and from Early Archaic sites in the Little Tennessee River Valley (Smith 1986:14). The distribution of Dalton projectile points/knives and other artifacts associated with the Dalton Culture usually are restricted to northern Louisiana.

Some of the earliest recognized Terminal Paleo-Indian/Early Archaic projectile point/knife types identified in Louisiana are the San Patrice, Keithville, and Pelican forms (Webb et al. 1971). Although the distribution of San Patrice points previously was thought to be limited to the area of northwest Louisiana, northeast Texas, and southwest Arkansas, later investigations have extended the geographic range of San Patrice to include an area from central Texas to southwest Alabama, and from southern Louisiana to central Arkansas (Brain 1983:32; Cantley et al. 1984; Giliberti, personal communication 1995).

The San Patrice Culture is believed to represent a local adaptation of hunter/gatherers that operated within restricted ranges. A hallmark of San Patrice is the almost exclusive use of local lithic materials for the production of tools. Tool assemblages include San Patrice and Keithville projectile points/knives, hafted scrapers, Albany side scrapers, unifacial scrapers, burins, and engravers (Webb et al. 1971). Initially, the San Patrice projectile point/knife type consisted of varieties *Hope* and *St. John*, but more recently other varieties have been added to the assemblage in Louisiana, Mississippi, and Alabama (Brain 1983; Giliberti, personal communication 1995). On Maçon Ridge, Hillman (1985) reported that in addition to the *Hope* and *St. John* varieties, the San Patrice projectile point/knife variety (var.) *Keithville* also was present. More recently, archeological investigations in the western part of the state at Fort Polk have produced a number of San Patrice projectile point/knives of differing types, including one that contained a combination of Dalton/San Patrice/Holland affinities (Largent et al. 1992; Williams et al. 1995). Reliable radiocarbon dates for these types are virtually non-existent, but estimates, based on morphology and strati-

graphic placement, range from ca. 8050 - 6050 B.C. (Brain 1983:25; Story et al. 1990:202; Turner and Hester 1985:147; Webb 1981). Ensor (1986) suggests that the San Patrice projectile point/knife type, and related forms in the Southeast, may have developed from the earlier Dalton projectile point/knife forms. Story et al. (1990:197), however, suggest that both Dalton and San Patrice types evolved from the earlier fluted point traditions.

Throughout the Early Archaic, the subsistence pattern probably resembled that of the preceding Paleo-Indian Stage. Early Archaic peoples traveled seasonally in small groups between a series of base camps and extractive sites, hunting deer and collecting edible plants (Chapman and Shea 1981; Lentz 1986; Parmalee 1962; Parmalee et al. 1976). Tools associated with food processing, including milling and nutting stones, first appear in Early Archaic period sites. Commonly utilized plant foods, such as walnuts and hickory nuts, could be hulled and eaten without cooking or additional processing (Larson 1980). Herbaceous seeds, which became an important food source later during the Archaic Stage, generally were absent from the diet during the Early Archaic period (Chapman 1977; Lentz 1986). While living floors associated with hearths, shallow pit features, and milling tools are known from the Early and Middle Archaic, there is little evidence from the Early Archaic period sites suggestive of extended food storage or of substantial structures (Steponaitis 1986:371).

Much of our knowledge regarding Paleo-Indian and Archaic lifeways is limited by problems of preservation. Lithic tools often are the only artifacts to survive, but they provide only limited information about a narrow range of activities (i.e., manufacture and maintenance of tools, processing of meat and hides, and working of wood and bone). Although they rarely are preserved in the archeological record, clothing, baskets, and other artifacts made of perishable materials such as bone, wood, antler, shell, hair, hide, plant fiber, and feathers were no doubt an important part of the Archaic cultural tradition. Impressions of woven mats and net bags preserved in fired clay hearths from strata attributed to Kirk occupation at the Icehouse Bottom Site (40MR23) in Tennessee provide rare insight into

the richness of the Early Archaic material culture (Chapman and Adavasio 1977).

The Early Archaic cultures immediately preceding San Patrice are little understood in Louisiana. Thus far, diagnostic projectile points/knives dating from the Early Archaic period, including Cache River, Calf Creek, Kirk, and Palmer, have been recovered only from questionable contexts and in limited numbers. Large Early Archaic sites, such as those identified in Florida, Georgia, Alabama, Tennessee, and the Carolinas, have yet to be recorded in Louisiana. Gagliano's (1963:12) survey of "pre-ceramic" sites in southern Louisiana revealed that Kirk Serrated projectile points/knives were not uncommon in the southeastern portion of the state; however, no cultural phases have been assigned to either the central or western portions of the state.

Middle Archaic Period

During the Middle Archaic period, the effects of continental glaciation were reduced, resulting in a warmer and drier climate, with modern climatic and environmental conditions prevailing. These environmental changes coincided with several minor changes in technology and subsistence patterns. Middle Archaic projectile points tend to be stemmed rather than notched types, such as Eva, Morrow Mountain, Sykes, Benton, and Newnan examples. In addition, the Middle Archaic is represented by projectile points/knives that include Evans, Morrow Mountain, Johnson, Edgewood, and possibly Calcasieu types (Campbell et al. 1990:96; Green 1991; Perino 1985:195). Excavations at Site 16VN791 in Vernon Parish, Louisiana, northwest of the proposed project area in Management Unit I, produced evidence of a long tradition of corner notched projectile points/knives dating from in the late Middle Archaic. It has been suggested that these points, and others in the region, were derived from types indigenous to central Louisiana (Campbell et al. 1990).

Other Middle Archaic technological innovations include the appearance of ground, pecked, and polished stone tools and the use of celts and grooved axes for heavy woodworking, such as for dugout canoe manufacture. The atlatl, or spear thrower, first appeared during the Middle Archaic, as is indicated by bone atlatl

hooks and by the appearance of ground stone bannerstones that apparently were attached to spear throwers and that may have served as counterweights for spear throwers or as fetishes.

The widespread occurrence of plant processing tools such as milling slabs, pestles, and nutting stones suggests an increase in the utilization of plant foods. However, comparisons of floral and faunal assemblages from the Early Archaic show little change in the diversity or relative importance of species utilized. The Middle Archaic rough milling tools used in plant processing all have Early Archaic antecedents (Smith 1986:21).

Acorns and hickory nuts continued to be the dominant plant foods. Remains of *Curcubita* (squash) and bottle gourds appear for the first time during the Middle Archaic. The earliest occurrence of the bottle gourd (*Lagenaria siceraria*) in the Southeast dates from 5340 $\pm$ 120 radiocarbon years B.C. at the Windover Site (8BR246) in Florida (Doran et al. 1990). "Squash" rind dating from 5050 B.C. from the Napoleon Hollow (11PK500) and Koster (11GE4) sites in west-central Illinois, initially identified as the cultivar *C. pepo*, now is thought to be representative of the Texas wild gourd (*C. texana*), rather than cultivated squash. Although the seeds of these plants are edible, it appears that their rinds were thin, woody, and inedible; these gourds probably were collected primarily for use as containers rather than as sources of food. Stronger evidence for the domestication of squash gourds occurs after 2350 B.C., i.e., during the Late Archaic (Smith 1987).

In addition to this apparent continuity of earlier subsistence practices, there was a significant increase in the utilization of fish and shellfish. The rising importance of aquatic resources can be seen in the development of the extensive shell middens found along many of the southeastern rivers. Shell middens first appear between 4550 and 4050 B.C. during the Hypsithermal (Altitheermal) climatic episode, when rivers entered a phase of aggradation and low flow, which promoted the development of oxbow lakes and shallow water shoal habitats favorable for mollusk growth and shellfish collection (Stein 1982). Although the food value of mollusks is low, they can be collected efficiently in bulk and appear to represent the economic focus for semi-sedentary

Archaic Stage occupations for many parts of the southeastern United States (Russo et al. 1992).

Extensive deep shell midden sites presumably represent seasonal reoccupation of favored locations by small social groups with band-type socio-political organization. Large cemeteries at some Middle Archaic sites, such as Carlestone Annis (15BT5) in Kentucky and Windover (8BR246) and Little Salt Spring (8SO18) in Florida, represent interments made over long periods of time by groups that returned seasonally to these specific locations (Clausen et al. 1979). Increasing population during the Middle Archaic also may have led to more circumscribed territories, which is evidenced by the repeated occupation of favored locations and increased emphasis on locally available raw materials utilized in stone tool manufacture.

Recent research has demonstrated that earthwork and mound building activity occurred at least a few instances during the Middle Archaic period (Saunders 1994, 1996, 1997; Saunders et al. 1992). At present, four possible Middle Archaic mound sites are known in northeast Louisiana: Hedgepeth Mounds (Site 16LI7), Watson Brake Mounds (Site 16OU175), Frenchman's Bend Mounds (Site 16OU259), and Hillman's Mound (Site 16MA201). Of the four, the Watson Brake mound group (16OU175) is the largest and the most securely dated at 5400 years B.P. (ca. 3450 B.C.) (Saunders et al. 1997:1797). The site consists of 11 mounds and connecting ridges constructed on a terrace above the Ouachita River floodplain. Only one Middle Archaic period phase currently is recognized in coastal Louisiana. The Banana Bayou Phase, identified in the Petite Anse region along the central part of the coast, is represented by the artifact assemblage observed by Gagliano (1964) at Avery Island, near Banana Bayou (Neuman 1984).

Late Archaic Period

For most of eastern North America, the Late Archaic represents the first cultural adaptation to an essentially modern environment. By 4000 years ago, the current bay tree-bald cypress, southern pine, southern pine-bald cypress, and oak-southern pine forests were established along both the Gulf and Atlantic Coastal plains (Delcourt and Delcourt 1981). The population

structure and boundaries of those forest communities may have varied as a result of subsequent climatic changes, but they remained similar to their modern counterparts.

The Late Archaic period was a time of population growth, evidenced by an increasing number of sites found throughout the United States (Griffin 1978). In the eastern United States, the Late Archaic economy focused on a few resources, including deer, mussels, and nuts. Jenkins (1979) recognized a seasonal procurement strategy in place in Middle Tennessee during the Late Archaic. During the spring, macrobands formed to exploit forested riverine areas. Archeological investigations of Late Archaic shell middens and mounds indicate a reliance on shellfish, fish, and riverine fauna and flora. During late fall and winter, Late Archaic peoples split into microbands and subsisted on harvested and stored nut foods and faunal species commonly found in the upland areas.

During this period, the mid-south also witnessed the beginnings of indigenous plant domestication, based on a group of cultigens. Although not found in the vicinity of the project area, the remains of domesticated squash, gourds, goosefoot, marshelder, and sunflower have been recovered from parts of Kentucky, Tennessee, north Alabama, and other regions of the mid-south. While domesticated plants often imply the existence of a more sedentary way of life, the seasonal exploitation of resources was still an important element of the Late Archaic subsistence system. Finally, the latter part of the Archaic marked the beginning of trade networks inferred from the presence of exotic items such as those recovered from the burials at the Indian Knoll Site in Kentucky (Muller 1978).

Sites associated with this cultural period typically are found along the boundary of Quaternary and Tertiary areas with relatively flat or undulating bluff tops that overlook the floodplains. Within the region, Late Archaic sites appear on the Prairie terraces and relict levees (Gagliano 1963). According to Russo (1993:20), monumental earthworks also begin to appear in appreciable numbers at around 2750 B.C.

Stone vessels made from steatite, occasional fiber-tempered pottery, and groundstone artifacts characterize this period. Late Archaic projectile point/knife types found throughout

Louisiana include corner notched and stemmed forms. Archaic style projectile points/knives are found commonly throughout the state; however, few of Louisiana's discrete, intact archeological deposits dating from the Archaic have been excavated systematically, analyzed, and comprehensively reported (Neuman 1984). Those few sites that have been studied carefully are located in the west-central and northern part of the state, and they have yielded projectile points/knives that include Gary, Kent, Palmillas, Carrollton, Marcos, Bulverde, Ensor, Ellis, Epps, Macon, Yarbrough, Motley, Pontchartrain, Delhi, and Sinner types. Groundstone objects recovered from these sites include celts/axes, plummets, and steatite bowl fragments (Campbell et al. 1990; Smith 1975). At this time, there is evidence for widespread trade in shell, copper, slate, greenstone, and jasper ornaments, including carved stone zoomorphic locust beads (Blitz 1993; Brose 1979; Smith 1986:31; Steponaitis 1986:374).

Poverty Point Culture (ca. 2000 - 500 B.C.)

Poverty Point represents a transitional culture that originated ca. 2000 B.C., but it did not flourish until much later. As a result, the Poverty Point sphere of influence probably did not arrive in south central or southwest Louisiana until ca. 1500 B.C. (Gibson 1979, 1994; Neuman 1984; Pertula and Bruseth 1994). The Poverty Point Culture is best known for exhibiting characteristics of a complex society, i.e., large-scale public architecture and long-distance trade within a hunting and foraging economy (Jackson 1991). "Archaeological evidence of the Poverty Point Culture derives from at least seven, and possibly 10, isolated localities in the Lower Mississippi River Valley" (Gibson 1974:9). In Louisiana, these clusters consist of: Macon Ridge-Joes Bayou (Poverty Point Cluster), the Neimeyer-Dare group, and the Bayou Rivage cluster (Gibson 1974:9). In Mississippi, four groups have been identified: the Savory cluster, the Jaketown cluster, the Teoc creek cluster and the Claiborne group (Gibson 1974:9). These clusters may represent chiefdoms that regulated the flow of exotic goods to the Poverty Point type site (16WC5) in northeast Louisiana.

Both the Poverty Point Site (16WC5), and the neighboring Jackson Place Mounds (Site

16WC6) are situated adjacent to Bayou Macon and near several major rivers, including the Mississippi, Tensas, Ouachita, and Boeuf. This riverine location was ideal for exploiting the flow of trade goods from other regions (Jeter and Jackson 1994:142; Muller 1978; Neitzel and Perry 1977) and for cultural diffusion. Evidence of long distance trade at Poverty Point includes ceramic artifacts similar to those from the St. Johns River region of Florida and lithic materials from sources in Arkansas, Illinois, Indiana, Missouri, Ohio, Oklahoma, and Tennessee (Connaway et al. 1977:106-119; Gibson 1974:26, 1979, 1994; Jeter and Jackson 1994; Lehmann 1982:11-18; Phillips 1996; Webb 1982:13-14). It has been postulated that the Poverty Point Culture may represent the first chiefdom-level society to develop in the eastern United States (Gibson 1985a; Muller 1978).

The Poverty Point Site is distinguished primarily by its large earthworks and its complex microlithic industry. The earthworks include six segmented ridges, measuring 15 to 46 m (50 to 150 ft) wide and approximately 1 to 2 m (3.3 to 6.6 ft) high, that form five sides of an octagon, and several other mounds scattered throughout the immediate site area. The largest mound, Mound A, may be a large bird effigy (Webb 1982). At the time of its construction, Poverty Point was the largest earthwork in the Americas.

The material culture of Poverty Point society was highly distinctive and it differentiates these sites from other late Archaic period sites. Typical Poverty Point period projectile points include Carrollton, Delhi, Epps, Gary, Kent, Motley, and Pontchartrain (Smith et al. 1983:152; Webb 1982:22,47). Although first made during the Archaic Stage, these stemmed projectile point types frequently were manufactured from either novaculite or gray flint during Poverty Point times (Gibson 1994). The presence of exotic lithic materials may be an indicator of a Poverty Point period site; these lithic materials include: "dark midwestern flint," Dover flint, Ozark chert, novaculite, magnetite, hematite, limonite, steatite, slate, quartz, galena, red jasper, copper and several others (Gibson 1974:9).

Cultural materials associated with Poverty Point Culture also includes atlatl weights,

plummets, two hole gorgets, red jasper beads and owl pendants, thin micro flints/blades, Jake-town Perforators, baked clay cooking balls in dozens of geometrical shapes, clay figurines/fetishes, as well as food storage and preparation containers. Container types included sandstone and steatite vessels, basketry, and untempered ceramic materials. Most ceramic vessels were sand tempered, although a minority of grit tempered, clay tempered, and untempered sherds and vessels have been recovered. Webb (1982) also reported the recovery of seed processing implements, polished stone hoe blades, nutting stones, and milling stones.

Little is known of the everyday life of the people of this culture, and it is believed that patterns of hunting and gathering established during the Archaic stage still were practiced by Poverty Point people (Connaway et al. 1977 and Webb 1982). Although gourd and squash were present and may have been cultivated (as suggested by the presence of chipped stone hoes with use polish), it appears that maize agriculture was never a part of Poverty Point subsistence (Smith 1986:35). Starchy and oily seeds were rare in flotation samples from the J. W. Copes Site (16MA47) and they may have been of only limited significance (Fritz and Kidder 1993:6). Preferred resources appear to have been deer, pecans (*Carya illinoensis*), and catfish (Jackson 1986).

Although earthen ovens also have been identified, baked clay balls (Poverty Point Objects [PPOs]) and stone/ceramic containers may have provided technological means for increasing the efficiency and caloric return of previously utilized resources such as pecans. Experiments demonstrate that boiling is a significantly more efficient means of extracting food value from *Carya* nuts than hand cracking; more nutmeat and oil are recovered through boiling (Munson 1988).

Brain (1971) describes Poverty Point as a bottomland occurrence, while Webb (1982) suggests that Poverty Point sites typically are found in four locations. These areas include the Quaternary terraces or older land masses that overlook major stream courses, major river levees along active or relict river channels, river-lake junctions, and coastal estuaries or older land surfaces located within coastal marshes. Poverty

Point sites appear to be located in areas that would have been ideal for exploiting forest-edge resources and for transporting exotic materials. Sites range in size from large ceremonial centers to more frequently identified hamlets or foraging stations. On several of the larger Poverty Point Culture sites, earthworks or shell middens occur either as mounds or in circular patterns.

Within the general vicinity of the current proposed project area, Phillips (1970) identified a Poverty Point phase that he labeled Rabbit Island. Sites associated with the Rabbit Island Phase are situated in the Teche-Mississippi region of coastal Louisiana, and artifacts recovered from the type site include non-local lithic materials, microlithics, and baked clay objects (Gagliano 1963). Subsequently, the name Bayou Rivage was applied by Gibson (1975) to four Poverty period sites (16LY5, 16LY6, 16LY13, and 16SL2) that he investigated along the Vermilion River, and that apparently represent a distinct phase. The type site (Bayou Rivage [16LY5]) is located within the Lafayette corporate limits, and sites of this phase are found in a different geographic setting than sites of the Rabbit Island Phase; they occur to the northwest of the previously recorded Rabbit Island sites and they occupy the edge of the prairie terrace that overlooks the alluvial plain (Gibson 1980). A typical Bayou Rivage artifact assemblage includes Poverty Point ceramic objects (clay balls and figurines) and lithic materials, as well as decorative rectangular or circular ceramic objects that have not yet been recovered at more inland Poverty Point locations. Temporally diagnostic projectile points/knives have included, among others, examples of Gary, Wells, Evans, Elam, Sinner, Ellis, Delhi, Marshall, and Palmillas points. These lithic projectile points/knives are characteristically shorter and narrower than those found at other Poverty Point sites.

Bayou Rivage and Rabbit Island Phase sites apparently represent geographically distinct examples of Poverty Point Culture in south central Louisiana. While Gibson (1975) dates the Bayou Rivage Phase from ca. 1500 - 650 B.C., no dates have been suggested for the Rabbit Island Phase. Additional research is required to provide solid chronological information, and to reach conclusions about the relationship between the two phases. In the original publication of *Louisiana's*

Comprehensive Archaeological Plan, 15 Poverty Point sites/components were documented in Management Unit III (Smith et al. 1983).

Woodland Stage (ca. 500 B.C. - A.D. 1000)

Despite the many innovations introduced during the Poverty Point cultural period, it is portrayed frequently as either a Late Archaic culture or as a pre-Woodland transitional manifestation. The Woodland Stage in Louisiana is a formative one that is characterized by a combination of itinerant and possibly sedentary agriculture, the introduction of the bow and arrow, and the widespread use of ceramics. The Woodland Stage includes three periods: Early Woodland, Middle Woodland, and Late Woodland. The Early Woodland (ca. 500 B.C. - A.D. 300) is represented by the Tchefuncte Culture, the Middle Woodland (ca. A.D. 1 - 400) is associated with the Marksville Culture and to a lesser extent the Troyville Culture, and the Late Woodland (ca. A.D. 400 - 1200) originated with the Troyville Culture but is dominated by the Coles Creek Culture. Each of these is discussed below in more detail.

Tchefuncte Culture (ca. 500 B.C. - A.D. 300)

Tchefuncte Culture is characterized by the first widespread use of pottery within the context of a hunting and gathering tradition and tool inventory that is reminiscent of the Late Archaic (Byrd 1994; Neuman 1984; Shenkel 1981:23). The culture first was identified at the type site (16ST1), which is located on the north shore of Lake Pontchartrain in southeast Louisiana (Ford and Quimby 1945; Weinstein and Rivet 1978). Later, the Tchefuncte Culture was defined by Ford and Quimby (1945) based on Works Progress Administration (WPA) excavations at Big Oak Island (16OR6) and Little Woods Midden (16OR1-5), both of which are situated on the southeastern edge of the lake in Orleans Parish.

Originally, the Tchefuncte Culture was thought to represent a local adaptation by an indigenous populace to the southwest Louisiana coast and to the central portion of the Vermilion River in south-central Louisiana. Tchefuncte or Tchefuncte-like ceramics now have been found in southeast Missouri, northwest Mississippi, the Yazoo Basin, coastal Alabama, and east Texas (Brookes and Taylor 1986:23-27; Mainfort

1986:54; Neuman 1984; Webb et al. 1969:32-35; Weinstein 1986:102). In southern Louisiana, five phases have been designated for the Tchefuncte period. From west to east, these are the Sabine Lake Phase bordering Sabine Lake in southeast Texas and southwest Louisiana; the Grand Lake Phase in the Grand Lake and Vermilion Bay area; the Lafayette Phase on the west side of the Atchafalaya basin (west of the Vermilion River); the Beau Mire Phase below Baton Rouge in the Ascension Parish area; and the Pontchartrain Phase, encompassing Lake Maurepas and Lake Pontchartrain in the Pontchartrain Basin (Weinstein 1986:108).

For the purpose of this review, a date range extending from ca. 500 B.C. to A.D. 300 for the Tchefuncte Culture will be used; however, research suggests that dates for the Tchefuncte differ quite widely from region to region and occasionally within the same region (Webb et al. 1969:96; Weinstein 1986). Most scholars agree that Tchefuncte dates from as early as 700 B.C. in the south and that it diffuses to the north, where it is known as Tchula, and terminates sometime around A.D. 100 (Gibson and Shenkel 1988:14; Perrault and Weinstein 1994:48-49; Shenkel 1974:47; Toth 1988:19). There is, however, evidence suggesting that some coastal Tchefuncte sites were occupied as late as ca. A.D. 300 (Byrd 1994:23; Neuman 1984:135). If these dates are correct, then Tchefuncte communities were coeval with Marksville settlements (Toth 1988:27-28).

Tchefuncte ceramics usually are characterized by a soft, chalky paste, and a laminated cross-section (Phillips 1970). Vessel forms consist of bowls, cylindrical and shouldered jars, and globular pots that sometimes exhibit podal supports. Many vessels are plain; however, some are decorated with punctations, incisions, simple stamping, drag and jab, and rocker stamping. Punctated types usually are more numerous than stamped types, but parallel and zoned banding, stippled triangles, chevrons, and nested diamonds also represent popular motifs. During the later portion of the Tchefuncte period, red filming also was used to decorate some vessels (Perrault and Weinstein 1994:46-47; Phillips 1970; Speaker et al. 1986:38).

For the most part, the stone and bone tool subassemblages remained nearly unchanged

from the preceding Poverty Point Culture. Stone tools included boat stones, grooved plummets, chipped celts, and sandstone saws; bone tools included awls, fish hooks, socketed antler points, and ornaments. In addition, some tools such as chisels, containers, punches, and ornamental artifacts were manufactured from shell. Projectile points/knives characteristic of Tchefuncte Culture include Gary, Ellis, Delhi, Motley, Pontchartrain, Macon, and Epps (Ford and Quimby 1945; Smith et al. 1983:163). Bone and antler artifacts, such as projectile points, hooks, awls, and handles became increasingly common during this period.

Tchefuncte sites generally are classified either as coastal middens, or as inland villages or hamlets. Settlement usually occurred along the slack-water environments of slow, secondary streams that drained bottomlands, floodplain lakes, and littoral zones (Neuman 1984; Toth 1988:21-23). Tchefuncte burials and artifacts from sites in southwest and south central Louisiana suggest an egalitarian social organization. The widespread distribution of similar ceramic types and motifs implies a patrilocal residence with exogamous band marriage (Speaker et al. 1986:39). Social organization probably remained focused within macrobands, and hunting, gathering, and fishing remained integral to Tchefuncte life. Shell midden sites and their associated faunal remains are well known for the Tchefuncte Culture and they document the wide variety of food resources utilized during this period. Recovered faunal remains include deer, opossum, muskrat, raccoon, otter, bear, fox, dog, ocelot, wildcat, alligator, bird, fish, shellfish (freshwater and marine), and turtle (aquatic and terrestrial). Recovered plant remains (all non-domesticated) include squash, gourds, plums, nuts, grapes, and persimmons (Neuman 1984; Smith et al. 1983).

Examination of faunal and floral remains from Morton Shell Mound (16IB3), a coastal Tchefuncte shell midden in Iberia Parish, suggests that some coastal sites were occupied on a seasonal basis, usually in the summer and autumn, and possibly during the spring (Byrd 1994:103). However, McGimsey (1997:11) notes that year round occupations have been documented for coastal sites and also may have occurred at a majority of the riverine sites in Management Unit III (Byrd 1974; Neuman

1984: 122). The preponderance of freshwater fish remains at coastal southeastern Louisiana sites such as Big Oak Island (16OR6) and Little Oak Island (16OR7) indicates a reliance on aquatic resources (Shenkel and Gibson 1974). As of 1983, the original publication date for *Louisiana's Comprehensive Archaeological Plan*, 37 Tchefuncte period sites or components had been documented in Management Unit III (Smith et al. 1983). Only four of these sites/components were located in Lafayette Parish.

Marksville Culture (ca. A.D. 1 - 400)

Marksville Culture, named for the Marksville Site (16AV1) in Avoyelles Parish, often is viewed as a localized version of the elaborate midwestern Hopewell Culture that filtered down the Mississippi River from Illinois (Toth 1988:29-73). That the Marksville peoples possessed more highly organized social structure than their Tchefuncte predecessors is implied by the complex geometric earthworks, conical burial mounds for the elite, and unique mortuary ritual systems that characterize Marksville. Some items, such as intricately decorated ceramics, were manufactured primarily for inclusion in burials. Burial items also frequently consisted of pearl beads, carved stone effigy pipes, copper ear spools, copper tubes, galena beads, and carved coal objects. Toward the end of the Marksville period, Hopewellian influences declined, and mortuary practices became less complex (Smith et al. 1983; Speaker et al. 1986).

Ceramic decorative motifs such as cross-hatching, U-shaped incised lines, zoned dentate rocker stamping, cord-wrapped stick impressions, stylized birds, and bisected circles were shared by the Marksville and Hopewell Cultures (Toth 1988:45-50). Additional Marksville traits include a chipped stone assemblage of knives, scrapers, celts, drills, ground stone atlatl weights and plummets, bone awls and fishhooks, baked clay balls, and medium to large stemmed projectile points dominated by the Gary type.

A variety of exotic artifacts commonly found at Marksville sites suggests extensive trade networks and possibly a ranked society. Some commonly recovered exotic items include imported copper earspools, panpipes, platform pipes, figurines, and beads (Toth 1988:50-73;

Neuman 1984). The utilitarian material culture remained essentially unchanged, reflecting an overall continuity in subsistence patterns (Toth 1988:211).

Marksville peoples probably used a hunting, fishing, and gathering subsistence strategy much like those associated with earlier periods. Gagliano (1979) suggests that food procurement activities were a cyclical/seasonal (transhumance) activity that revolved around two or more shifting camps. There may also have been an increased focus on the use of oily seeds (marshelder, sunflower, cucurbits) and starchy seeds (*Chenopodium*, wild bean, maygrass, knotweed, little barley) (Fritz and Kidder 1993:7; Smith 1986:51). At the Reno Brake Site (16TE93) in Tensas Parish, Kidder and Fritz (1993) recovered subsistence remains from deer, squirrel, rabbit, bird, and fish as well as acorns, persimmons, palmettos, grapes, blackberries, and very minor amounts of *Chenopodium* and sumpweed. Although maize has been identified and dated from a Middle Woodland context at sites in Tennessee and Ohio (Ford 1987), maize does not appear to have been of economic significance until much later, i.e., during Mississippian times (Fritz and Kidder 1993:7; Kidder and Fritz 1993:294; Smith 1986:50-51).

Definition of phases of the Marksville Culture has been based largely on combinations of temporally diagnostic ceramic traits. Within the general vicinity of the current proposed project area, two phases (Jefferson Island and Veazey) have been identified. These phases are found in the south central or Petite Anse region of the state, and representative sites typically are situated along the Teche-Mississippi river channel (specifically, the Jefferson saltdome). Jefferson Island Phase sites, discussed by Toth (1977), date from ca. A.D. 1 to 200. Decorated ceramics from this early phase are characterized by curvilinear motifs, rocker stamping, and fabric impression. The Veazey Phase dates from ca. A.D. 200 - 400. This second phase, named for the Veazey Site (16VM7) in Vermilion Parish, frequently is associated with limited presence of Late Marksville/Issaquena ceramic sherds that overlay Tchefuncte period sites of the Grand Lake Phase (Jeter et al. 1989; Phillips 1970).

As of 1983, the original publication date for *Louisiana's Comprehensive Archaeological*

Plan, 38 Marksville sites had been documented in Management Unit III (Smith et al. 1983). A total of two of these sites are located in the immediate vicinity (i.e., within 1.6 km [1 mi]) of the current proposed project area. Site 16LY61 has a Marksville component, and 16SM81 is a potentially significant site that dates to the Marksville period.

Troyville-Coles Creek Period (ca. A.D. 400 - 1200)

The Troyville Culture, labeled Baytown elsewhere, was named after the mostly destroyed Troyville mound group (16CT7) in Jonesville, Catahoula Parish, Louisiana (For a discussion of the Troyville/Baytown issue, see Gibson 1984 or Belmont 1984). Troyville represents a transition from the Middle to Late Woodland period that culminated in the Coles Creek Culture (Gibson 1984). Though distinct, these two cultures share a sufficient number of traits to cause many researchers to group them as a single prehistoric cultural unit (Belmont 1967). According to Neuman (1984:169), 23 ¹⁴C dates for 14 Troyville-Coles Creek sites in Louisiana place the beginning of Troyville Culture at A.D. 395. Furthermore, Kidder (1988:57) places the beginning of the Coles Creek Culture at some time between ca. A.D. 700 and A.D. 800. The continuing developments of agriculture and the refinement of the bow and arrow during this time (reflected by Alba, Catahoula, Friley, Hayes, and Livermore projectile point types) radically altered subsequent prehistoric lifeways. During the Troyville cultural period, bean and squash agriculture may have become widespread, as is suggested by the appearance of large ceramic vessels in the archeological record. This shift in subsistence practices probably fostered the development of more complex settlement patterns and social organization.

The Late Woodland Coles Creek Culture emerged from Troyville around A.D. 750 and represented an era of considerable economic and social change in the Lower Mississippi Valley. By the end of the Coles Creek period, communities became larger and more socially and politically complex, large-scale mound construction occurred, and near the end of the period, there is evidence for the resumption of long-distance trade on a scale not seen since Poverty Point

times. These changes imply that a chiefdom-like society was re-emerging in the Lower Mississippi Valley (Muller 1978). The diffusion of material and sociopolitical concepts from the Midwest may be indicated by the fact that Coles Creek ceramics have been recovered from early Cahokian contexts dating from ca. A.D. 900 in southeastern Missouri (Kelly 1990:136). These changes probably initiated the transformation of Coles Creek cultural traits into what now is recognized as the Plaquemine Culture at sometime around A.D. 1200 (Jeter et al. 1989; Williams and Brain 1983).

Ceramics of the Troyville/Coles Creek period are distinguished by their grog and grog/sand tempers, as opposed to the chalky, sand tempered paste of the previous ceramic series. Decorative motifs include cord marking, red filming, and simplified zoned rocker-stamping, as well as decorations with incised lines and curvilinear lines. As was noted by McIntire (1958), the Coles Creek peoples continued to produce the earlier Troyville wares, with only minor elaborations. For instance, the Churupa Punctated and the Mazique Incised designs, both of which are characteristic of the Troyville Culture, were used by both Coles Creek and later Plaquemine pottery makers (McIntire 1958). Similarly, French Fork Incised, which formed the basis for many Troyville classifications, continued to be used well into the Coles Creek period (Phillips 1970).

Coles Creek peoples also developed a new ceramic complex that included larger vessels and a wider range of decorative motifs, usually positioned on the upper half of the vessel (Neuman 1984). Coles Creek Incised, Beldeau Incised, and Pontchartrain Check Stamped types characterize the period (Phillips 1970; Weinstein et al. 1979). A distinctive decorative type, Coles Creek Incised, contains a series of parallel, incised lines placed perpendicular to the rim of the vessel, often accompanied underneath by a row of triangular impressions (Phillips 1970:70; Phillips et al. 1951:96-97). Several of the ceramic motifs suggest outside cultural influences. French Fork Incised motifs and decorative techniques, for example, mimic almost exactly Weeden Island Incised and Weeden Island Punctated ceramics from the northwest Florida Gulf Coast (Phillips 1970:84; Phillips et al. 1951:101;

Wiley 1949:411-422). Pontchartrain Check Stamped ceramics also appear at the same time as the resurgence of the Weeden Island III check stamped ceramic tradition in northwest Florida (Brown 1982:31).

Sites from the Coles Creek cultural period were situated primarily along stream systems where soil composition and fertility were favorable for agriculture. Natural levees, particularly those situated along old cutoffs and inactive channels, appear to have been the most desirable locations (Neuman 1984). Most large Coles Creek sites contain one or more pyramidal mounds. Coles Creek mounds typically are larger, and exhibit more building episodes, than the earlier Marksville burial mounds. Burials occasionally are recovered from Coles Creek mounds; however, the primary function of the mounds appears to have been ceremonial. At some Coles Creek sites, mounds are connected by low, narrow causeways; sometimes, plazas are associated with these multiple mound sites (Gibson 1985b). The sophistication of Coles Creek mound systems suggests a more complex social structure; a centralized authority and sizable labor force must have existed to build, maintain, and utilize these mounds. The centralized authority probably was of a special religious class, while the general population occupied the region surrounding the large ceremonial centers (Gibson 1985b; Neuman 1984; Smith et al. 1983).

Recent archeological investigations have dispelled the old theory that an intensification of agriculture, particularly maize (*Zea mays* spp. *mays*) and squash (*Cucurbita pepo*), created the stable base from which the Coles Creek Culture arose and flourished. Although Coles Creek populations exhibit tooth decay rates consistent with a diet based on starchy foods such as maize, limited archeobotanical evidence for maize in Coles Creek midden deposits suggests that consumption of some other starchy foods must be the cause (Kidder 1992; Steponaitis 1986). While researchers speculate that the use of cultigens, especially squash species, as a dietary supplement occurred in conjunction with the incipient Coles Creek Culture, evidence of dependence on domesticated plants has been lacking at early Coles Creek and related Plum Bayou sites (Kidder and Fritz 1993; Kidder

1992). The preponderance of evidence now available indicates that cultivation and consumption of maize was not widespread in the Lower Mississippi Valley until after the Coles Creek period, ca. A.D. 1200 (Kidder 1992:26; Kidder and Fritz 1993). Thus, while maize existed during the Coles Creek period, and has been recovered archeologically, it was not the economic basis of the society.

Some sites in the Petite Anse region, e.g., the Morgan Site (16VM9; Brown 1981; Fuller and Fuller 1987), have produced limited amounts of wild plant species, however, subsistence in the coastal region of Louisiana apparently was based on the exploitation of available aquatic and/or terrestrial animal resources. Excavations by Goodwin et al. (1986) at Site 16CM61, a *Rangia* shell midden in the western part of the state, indicated patterns of seasonal exploitation for both marine mollusks and fish. In addition, at the Pierre Clement Site (16CM47) in Cameron Parish, Springer (1979) documented a variety of faunal material including mammals, avians, reptiles, and fish that originated from a Coles Creek component.

Earlier assumptions about the nature and extent of social and political differentiation during the Coles Creek period also must be reexamined. Square-sided, flat-topped mounds that are believed to have served as platform bases for elite structures appear first during the Coles Creek period. However, evidence for the elite residential or mortuary structures often said to be associated with Coles Creek mounds remains elusive prior to A.D. 1000 (Kidder and Fritz 1993; Smith 1986; Steponaitis 1986).

Louisiana's Comprehensive Archaeological Plan lists 196 sites with Troyville-Coles Creek components within Management Unit III (Smith et al. 1983); however, these sites seldom have been identified in Lafayette Parish (n=4).

Mississippian Stage (ca. A.D. 1200 - 1700)

The Mississippian stage represents a cultural climax in population growth and social and political organization for those cultures occupying the southeastern United States (Phillips 1970; Williams and Brain 1983). In the Lower Mississippi Valley, the advent of the Mississippian stage is represented at sites along the Lower Mississippi Valley and along the northern Gulf

Coast by incorporation of traits such as shell tempered ceramics, triangular arrow points, copper-sheathed wooden earspools, and maize/beans/squash agriculture (Williams and Brain 1983). Formalized site plans consisting of large sub-structure "temple mounds" and plazas have been noted throughout the Southeast at such places as Winterville, Transylvania (16EC6), Natchez, Moundville, Bottle Creek, and Etowah (Hudson 1978; Knight 1984; Walthall 1980; Williams and Brain 1983). In southern Louisiana, the Mississippian Culture stage is characterized by both the Plaquemine or Emergent Mississippian period (A.D. 1200 - 1450) and by the Late Mississippian period (A.D. 1450 - 1700). However, it is likely that in some parts of the region either Plaquemine culture or a hybrid of that culture was in existence until European contact (Jeter et al. 1989).

Within Management Unit III, *Louisiana's Comprehensive Archaeological Plan* (Smith et al. 1983:63) reports 83 sites from the Plaquemine (Emergent Mississippian) period, but only 13 from the Late Mississippian period. Of these 96 sites, a total of 3 (3 Plaquemine and 0 Mississippian sites) have been recorded in Lafayette Parish.

Emergent Mississippian Period (A.D. 1200 - 1450/1700)

The Emergent Mississippian period Plaquemine culture appears to represent a transitional phase from the Coles Creek Culture to a pure Mississippian Culture (Kidder 1988). Interaction with the emerging Mississippian cultures of the Middle Mississippi Valley probably exerted enough influence during the latter part of the Coles Creek period to initiate the cultural change that eventually became the Plaquemine culture. The Medora Site (16WBR1), described by Quimby (1951) and considered to be the type site, epitomizes Plaquemine culture. Plaquemine peoples continued the settlement patterns, economic organization, and religious practices established during the Coles Creek period; however, agriculture, sociopolitical structure, and religious ceremonialism were intensified. Sites of this period typically are characterized either as ceremonial centers, with multiple mounds surrounding a central plaza, or as dispersed villages and hamlets (Neuman 1984; Smith et al. 1983).

Plaquemine lithic assemblages are quite similar to those of the preceding Troyville-Coles Creek cultural complex and they are dominated by the same small projectile point styles (Smith et al. 1983). In addition, Plaquemine ceramics are derived from the Coles Creek tradition, although they display distinctive features that mark the emergence of a new cultural tradition. In addition to incising and punctuating their ceramics, Plaquemine craftsmen also brushed and engraved decorations on their vessels (Phillips 1970). Plaquemine Brushed appears to have been the most widespread ceramic type. Plaquemine ceramic types included Leland Incised, Hardy Incised, L'Eau Noire Incised, Anna Burnished Plain, and Addis Plain.

In the past, the cultural achievements of the Plaquemine period were thought to have been supported by the intensive cultivation of maize. During the early part of this period, subsistence may have shifted to agriculture that was supplemented by native plants and animals; however, evidence of intensive agriculture has been inconclusive (Kidder and Fritz 1993:9).

Gregory (1969) indicates that Plaquemine site distributions reveal a preference for lowland areas including swamps and marshes. However, Neuman (1984) cites Hall's observation that Plaquemine Culture sites in the upper Tensas basin were located most frequently on well-drained natural levees characterized by sandy soils. In general, coastal sites tend to be smaller and less elaborate; it has been suggested that coastal shell middens are a product of early Plaquemine activities (Brown et al. 1979; Davis et al. 1979). The presence of these sites may indicate the persistence of seasonal food procurement strategies. Kidder (1988) asserts that the Plaquemine Culture had evolved into a true Mississippian Culture ca. A.D. 1450.

Late Mississippian Period (A.D. 1450 - 1700)

During this time, several traits that are now definitive of the Mississippian period were widespread across most of the Southeast. These diagnostic traits include well-designed mound groups, a wide distribution of sites and trade networks, shell tempered ceramics, and a revival in ceremonial burial of the dead (Griffin 1990:7-9). It is Knight's (1984) contention that displaced Mississippian populations from the cen-

tral Gulf Coast, i.e., the Mobile Bay area and the Alabama/Tombigbee river systems, resettled in coastal Louisiana. In addition, Brown and Lambert-Brown (1978) have recovered Yazoo River Basin-like pottery from Avery Island in the Petite Anse region.

Mississippian subsistence was based on the cultivation of maize, beans, squash, and pumpkins; collection of local plants, nuts, and seeds; and fishing and hunting of local species. Major Mississippian sites were located on fertile bottomlands of major river valleys; sandy and light loam soils usually composed these bottomlands. A typical Mississippian settlement consisted of an orderly arrangement of village houses surrounding a truncated pyramidal mound. These mounds served as platforms for temples or as houses for the elite. A highly organized and complex social system undoubtedly existed to plan these intricate communities.

Ceramic types frequently were characterized by shell tempering, and they included such forms as globular jars, plates, bottles, pots, and salt pans. The loop handle has been noted on many Mississippian vessels. Although utilitarian plainware was common, decorative techniques included engraving, negative painting, and incising; modeled animal heads and anthropomorphic images also adorned ceramic vessels. Other Mississippian artifacts included chipped and groundstone tools; shell items such as hairpins, beads, and gorgets; and mica and copper items. Chipped and ground stone tools and projectile point styles such as Alba and Bassett also were common.

Mississippian Culture had a weak presence in south central and southwestern Louisiana, and only two Mississippian or Mississippian-like phases have been recognized. The first, Petite Anse (ca. A.D. 1600 - 1700), has been used to describe Mississippian peoples/traders from the lower Yazoo river basin who traveled to the Petite Anse region (Avery Island) to procure salt (Brown and Lambert-Brown 1978). The second, in southwest Louisiana, is the Little Pecan Phase (ca. A.D. 1650/1700 - 1750); it is associated with the historic Attakapa, and represents a synthesis of ceramic types that originate from the Lower Mississippi Valley, Louisiana and from Texas (Frank 1976; Jeter et al. 1989).

Protohistoric and Early Historic Period (A.D. 1500 - 1800)

An understanding of protohistoric and historic Native American cultures of the southeastern United States is limited severely by our frequent inability to recognize the ancestral cultures from which these groups were derived. This is due partially to the waning influence of Mississippian Culture, but primarily is a result of the social disruption initiated by the legacy of the de Soto entrada of 1539 - 1543, and the subsequent French and Spanish exploration and colonization throughout the Southeast. These social interactions necessitated a major social/demographic reorganization. Native American population upheaval and depletions were related to warfare, disruptive migrations, and epidemics introduced by European contact (Davis 1984; Smith 1989). Information on protohistoric and historic populations, gleaned only in part from the archeological record, relies predominately on early European chroniclers, the historical record, and later ethnographic accounts of this tumultuous era.

According to *Louisiana's Comprehensive Archaeological Plan* (Smith et al. 1983), only two Native American groups (Attakapa and Opelousa) occupied Management Unit III at the time of European contact; however, Swanton (1946) also reported the presence of the Chitimacha in this region. Little is known of the Opelousa who were decimated by European disease between 1715 and 1804; however, Swanton (1946) states that they probably were members of the Attakapan linguistic family. The second group was the Attakapa, a Choctaw and Mobilian phrase meaning "man eater" or "eaters of human flesh." While no acts of cannibalism have ever been documented, this information may have been taken from a French officer, Simars de Delle-Isle, who was stranded on the Louisiana coast in 1719 (Post 1962). The Attakapa are known to have consisted of three or more groups that lived on the Calcasieu, Mermentau, and Vermilion Rivers of Louisiana but

extended as far west as the Trinity River in Texas (Aten 1983; Swanton 1946).

Convention holds that as the influence of Mississippian Culture declined throughout the Southeast, populations along the northern Gulf Coast reverted to egalitarian societies and re-adopted the localized/regional hunting and gathering subsistence strategies that had been successful throughout the Archaic and Woodland stages (Peebles and Kus 1977; Peebles and Mann 1983). These strategies frequently were augmented by either itinerant horticulture or small-scale agriculture that produced corn, beans, and squash. Both archeological and ethnographic evidence indicates that the historic Attakapa lived an Archaic stage-like existence of fishing, hunting, and plant gathering.

The historical record indicates that the Attakapa interacted both with the French and the Spanish, and Swanton (1946) reports that in 1779, they allied against the British and supplied both men and supplies to Galvez for the purpose of attacking forts on the Mississippi River. Disease and disruptive migrations due to colonial expansion and to the change in ownership of the regions from France to Spain and subsequently to England accounted for the disintegration of aboriginal populations in the area. Subsequently, only about 80 Attakapa warriors inhabited south Louisiana in 1805 (Swanton 1946).

The Chitimacha, members of the Tunica linguistic family, also are known to have inhabited both Bayou Teche and the Atchafalaya Basin at the time of French exploration (Swanton 1946; Usher 1989). During this period, they controlled much of the upper Barataria Basin along both Bayou Lafourche and the Mississippi River. Following unfavorable interactions with first European and then American colonists beginning as early as A.D. 1702, much of the Chitimacha population eventually was dispersed to inaccessible locations throughout the coastal region of the state. The Chitimacha continue to reside along Bayou Teche near present-day Charenton, Louisiana.

CHAPTER IV

HISTORICAL OVERVIEW

Introduction

The proposed dredge disposal area is located along the right descending bank of the Vermilion River, between its confluence with Bayou Tortue and the Louisiana Highway 353 bridge. This portion of the Vermilion River forms part of the common boundary between Lafayette and upper St. Martin Parishes. The project area is roughly triangular in shape, and it is situated just east of the city of Lafayette; it is located entirely within Lafayette Parish. Much of the development of the region has been associated with settlement and commerce along the waterways, including the Vermilion River and Bayou Teche. This chapter presents a general overview of the history of the project vicinity, with an emphasis on the evolution of the city of Lafayette and the riverine activities that prompted the economic growth of the region adjoining the banks of the Vermilion River.

Colonial Era

During the French and Spanish colonial periods, the Area of Potential Effect was included in that part of the Louisiana colony called the Attakapas region, or district, so-named for one of the Native American tribes indigenous to the area. Overall, the French colonial period was not one of growth. The earliest significant influx of white settlement came during the term of transition from French to Spanish rule. French trappers and concessionaires were joined in the Attakapas region by Acadians, many from the Chignecto Isthmus of Nova Scotia, and Málagaans, emigrants from the Costa del Sol in southern Spain. By the end of the Spanish regime, the Vermilion River was lined with land claims.

French Colonial Period

Nearly 140 years following the last of the unsuccessful sixteenth century Spanish expeditions through the Louisiana region, the French began exploration of the lower Mississippi River. On April 9, 1682, René Robert Cavelier, Sieur de la Salle, claimed all lands drained by the Mississippi River for Louis XIV, King of France. Sixteen years later, in 1698-1699, Pierre le Moyne, Sieur d'Iberville, led an expedition to explore the lower "Colbert or Mississippi River, from its mouth to the Natchez Nation," and to "establish a colony in Louisiana" (French 1875:29, 31).

Shortly after the founding of the Louisiana colony in 1699, the French began to establish permanent settlements along the Mississippi River and the Gulf Coast; however, colonization of southwestern Louisiana was not encouraged by the French government. In addition, settlers were reluctant to leave the security of the Mississippi River posts for "the west," as the territory was called then by the French colonists. Still, Spanish missionaries reported isolated groups of colonists in the Attakapas as early as 1713. The Native Americans of the Attakapas-Opelousas region initiated trade with the colonial government, offering pelts, tallow, and horses in exchange for French goods. By the 1740s, a profitable deerskin and fur trade had been established with the "Attakapas Country," the name that had replaced "the west" as the common designation for southwestern Louisiana (Bergerie 1962:3; De Ville 1973:24-31, 1986:4; Fontenot and Freeland 1976:1; Iberia Parish Development Board ca. 1948:12).

The French government proposed a military post in the Attakapas country as part of its plan to

protect and secure the boundaries of the developing Louisiana colony. The *Poste des Opelousas* was established under the command of Louis Pellerin in 1763, shortly before western Louisiana was transferred officially to Spain. The Opelousas Post, situated in the vicinity of modern-day Port Barre (St. Landry Parish), also apparently was referred to as Attakapas, for the region it served; however, that name was discontinued with the establishment of the *Poste des Attakapas* at present-day St. Martinville (Brasseaux 1987:94; De Ville 1973:32-34; Fontenot and Freeland 1976:19; Pittman 1973:36).

Spanish Colonial Period

On November 3, 1762, under terms of the Treaty of Fontainebleau, France secretly ceded the Isle of Orleans and all of the Louisiana colony west of the Mississippi River to Spain. Not only would France be ridding itself of the heavy financial burden of administering and supporting the colony, but the transfer also would prevent a sizeable portion of the territory from falling under British control as a result of impending English victory in the French and Indian War. Although the transfer was announced publicly in 1764, it was not until 1769 that the French colonial government finally was abolished and Spanish control was established under the governorship of Alejandro O'Reilly (Chambers 1898:48; Davis 1971:69-70, 97-105).

During the transition period from French to Spanish rule, small groups of exiled Acadians arrived in Louisiana and they were sent by the French government in New Orleans to the Attakapas region. The Spanish Attakapas District extended "along the sea coast between the Delta of the Mississippi and the Western boundary" (the Sabine River) and it was bounded above by the Opelousas District (Sibley 1806:97). Several Acadian settlements were established in these southwestern districts by ca. 1765-1766. Closest to the proposed project item were *La Manque*, located approximately 3.2 km (2 mi) below present-day Breau Bridge (along Bayou Teche) in St. Martin Parish, and *Côte Gelée*, which was established on the west bank of Bayou Tortue between the modern communities of Pilette (on the southeastern outskirts of Lafayette) and Broussard in Lafayette Parish (Figure 11). The census of April 25, 1766, listed an estimated 150

inhabitants of the Attakapas District, including 37 (17 households) at *Côte Gelée* and 45 (14 households) at *La Manque*. Although these early Acadian settlements were situated approximately 4 to 6.5 km (2.5 to 4 mi) east and south, respectively, of the proposed project item, their establishment was paramount to the development of the region (Brasseaux 1987:93-95; Voorhies 1973:124-125).

In early 1770, Don Eduardo Nugent and Don Juan Kelly journeyed through western Louisiana on a fact-finding expedition for the colonial government. Their report to the Spanish governor recorded a white population of 166 inhabitants of the Attakapas District. In addition, the account listed 33 slaves, of whom 26 were at least 12 years of age and "able to work." The livestock included 1,323 oxen and bulls, 18 calves, 14 "carts with oxen," 266 horses and mares, and 565 pigs (Martin 1976:187, 191-192). The conclusion of the district survey noted:

This district is quite similar to the district of Opelousas with regard to pastures and food production [corn, rice, and sweet potatoes].

Considered as a whole, it stretches over twenty leagues of longitude by six of latitude with population scattered throughout the district.

The Attakapas are favored with a better situation. More lands are cleared [there] than in the Opelousas District. The Acadians have settled there and raised cattle. They are extremely industrious and eager to work. Their women weave cotton which they turn into excellent cloth. They use it to make clothes for everyone. They also make stockings and cloth which they use as linen, but they were discouraged from cultivating cotton and manufacturing it, not knowing if the government would permit them to do so (Martin 1976:192).

By 1774, the general census of the Attakapas region (October 30, 1774) listed 129 white adults and 194 children, as well as 12 free black adults and 6 children. One hundred fifty-five slaves were counted. The white inhabitants owned 5,208 head of cattle, 701 horses and mules, 1,126 pigs, and 96 sheep. The free blacks owned 87 head of cattle, 33 horses and mules, and 45 pigs (Voorhies 1973:280-283).

During the 1770s, many of the Acadians moved westward from their settlements along

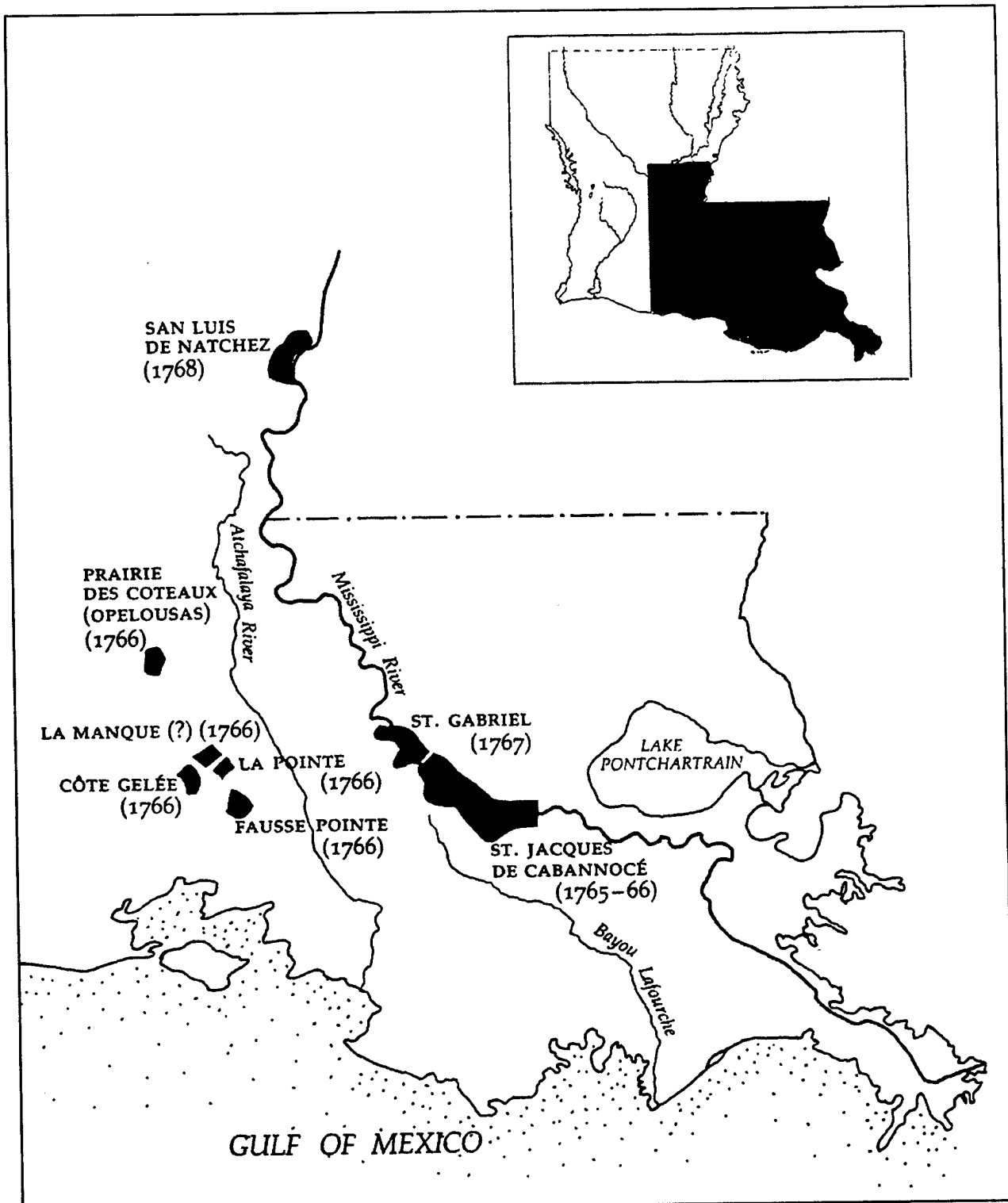


Figure 11. "Areas of Acadian settlement, 1760s" (Brasseaux 1987:93). Text figure depicts mid-eighteenth century Acadian settlements in Louisiana.

Bayou Teche and Bayou Tortue to the Vermilion River. By 1777, approximately 12 families had migrated westward to settle at *Grande Prairie*, located just northwest of modern downtown Lafayette (and the proposed project item). During the next year, an additional 18 or so Acadian families settled farther south, between present-day Lafayette and Abbeville; however, settlement beyond the floodplain of the Vermilion River proceeded slowly because timber supplies in those areas were not adequate to sustain a settlement. Low, flood-prone banks initially discouraged migration to the upper Vermilion River as well; however, settlers ultimately were attracted by the fertile soil and they established homes north of today's Lafayette at *Beaubassin* and *La Grande Prairie de Bayou Carencro* (Figure 12). By the mid-1790s, a number of Acadians had settled at *Grande Prairie de Vermilion*, which was the plains region situated west of the Vermilion River between present-day Lafayette and Maurice (Brasseaux 1987:95-99).

Among the Acadians who acquired Spanish land grants along the Vermilion River within the bounds of the proposed project item were Olivier Thibedeau [sic] and André, or Andrew, Martin. Early claims also were conveyed to members of the Dugas and Grangé families (Figure 13). The Thibedeau and Dugas families were among the eight Acadian "Chieftain" families that originally were dispatched to settle the Attakapas region. Martin was in the region as early as 1770. Downstream from the proposed project item, along the lower Vermilion River, many of the land grants were held by Americans, Englishmen, and French nationals (Griffin 1959:15-17; Perrin 1999; Vermilion Historical Society 1983:7-9).

Throughout the Spanish era, the Attakapas region grew and prospered. In 1784, the American geographer Thomas Hutchins published the following account of the area:

Although this country might produce all the valuable articles raised in other parts of the globe, situated in the same latitudes, yet the inhabitants principally cultivate indigo, rice, tobacco, indian corn and some wheat; and they raise large stocks of black cattle, horses, mules, hogs, sheep and poultry. The sheep is said to be the sweetest mutton in the world. The black cattle, when fat enough for sale, which they commonly are the year round, are

driven across the country to New Orleans, where there is always a good market [sic throughout] (Hutchins 1784:48).

This record reflects the economic importance of animal husbandry within the Attakapas region during the late eighteenth century. Most of the Attakapas Acadians immigrated from the Chignecto region of Nova Scotia, "a sparsely wooded sea marsh and prairie that for half a century before the Grand Dérangement had supported small cattle ranches" (Brasseaux 1987:122). A description of the Chignecto beef economy concludes: "In view of their background, it is hardly surprising that the 1765 Acadian immigrants, whose leaders were drawn exclusively from the Chignecto Isthmus, selected homesites in South Louisiana's prime grasslands and immediately engaged in ranching" (Brasseaux 1987:122). Acadian herdsman drove their cattle to market in New Orleans down a trail that ran parallel to Bayou Teche; today Highway 90 approximates this route. By the 1780s, Acadian ranchers had emerged as the predominant suppliers of beef for the Crescent City slaughterhouses. In addition to raising cattle, the Attakapas Acadians also farmed enough corn, cotton, and vegetables to be self-sufficient (Brasseaux 1987:122-125).

Descriptions of the region during the colonial era indicate that the Vermilion River did not become an important transport and commerce route until after it became U.S. territory in the early nineteenth century. Area colonists would have used the waterway for their own needs, using shallow-draft dugout canoes for reaching their fishing, trapping, and timbering destinations (Lafayette Parish Bayou Vermilion District n.d.). Bayou Teche, with its eastward waterborne connections, was the water route most commonly used for transportation to the Mississippi River and New Orleans. The portage between the Acadian settlements in the Lafayette area and the *La Manque*, or Breaux Bridge, area of the Teche covered a distance of approximately 6.4 km [4 mi]. To the south, the distance between Vermilion Bay and Bayou Teche was that same portage span, allowing the small Spanish gunboats carrying "immense quantities of bullion and specie from Vera Cruz and the coast of Mexico" to evade enemy detection and make

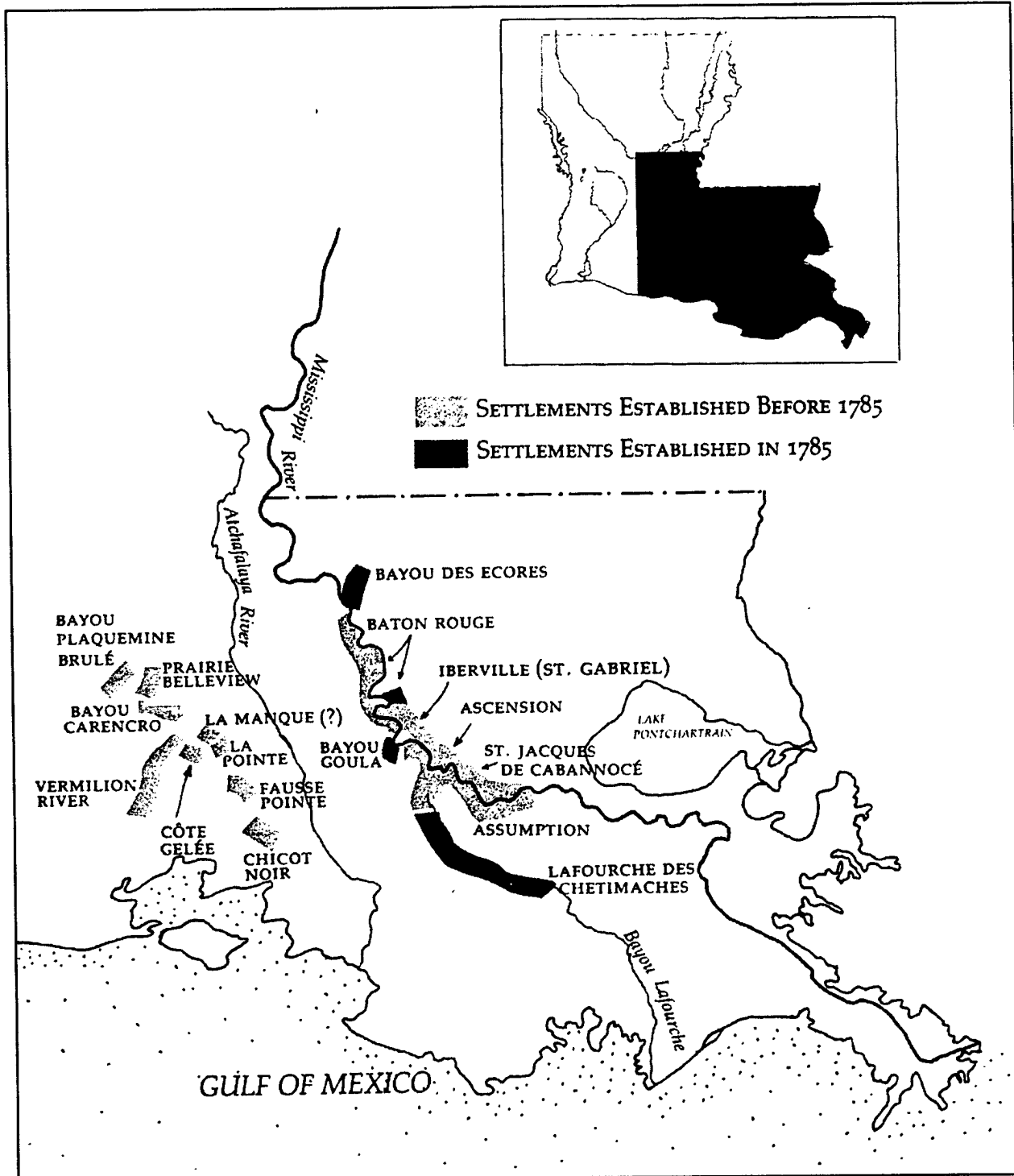


Figure 12. "Areas of Acadian settlement, 1785" (Brasseaux 1987:97). Text figure depicts late eighteenth century Acadian settlements in Louisiana.

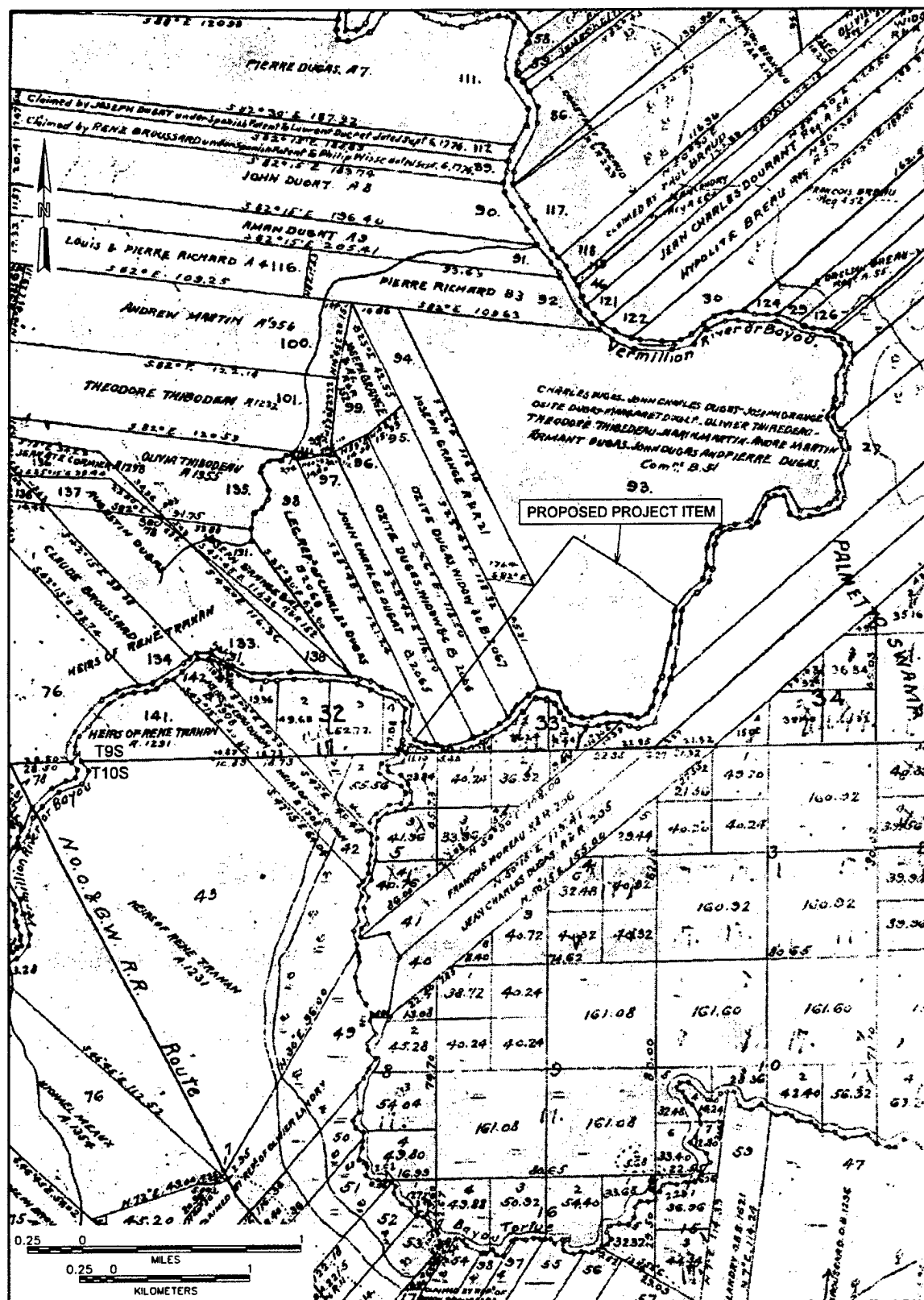


Figure 13. [1856] Excerpts from the Louisiana Surveyor General's original approved plats of Township 9S, Range 5E, and Township 10S, Range 5E, in reference to the project item. Map excerpts depict early land claims along the Vermilion River or Bayou.

"an easy inland navigation . . . to New Orleans" (Dumain 1832:842).

The Vermilion River was known more notoriously as a smugglers' "highway" during the Spanish period. Pinhook Bridge, which today is the Highway 182 (Pinhook Road) crossing of the Vermilion River (approximately 5 km [3 mi] downstream from the project item), was once the site of a small settlement called Petit Manchac, which served as a trading center for Native Americans, trappers, and colonists. During low water periods, Petit Manchac, later called Pinhook, or Pin Hook, was the farthest inland that English smugglers could deliver their goods up the Vermilion River. By the early nineteenth century, the contraband had expanded to include the illegal slave trade, which will be discussed later in this chapter (Griffin 1959:27; Hansen 1971:396; Lafayette Parish Bayou Vermilion District n.d.).

Territorial and Antebellum Era

As part of the negotiations leading to the 1803 Louisiana Purchase, Spain restored western Louisiana to France, which shortly thereafter conveyed the Louisiana Territory to the United States. On March 26, 1804, that portion of the Louisiana Purchase located below the thirty-third parallel was designated the Territory of Orleans. The following year, Orleans was partitioned into 12 counties, including the county of Attakapas, which encompassed the present-day parishes of Iberia, St. Mary, and Vermilion; most of Lafayette and St. Martin Parishes; and portions of Cameron and Iberville Parishes. In 1807, the territorial legislature reorganized the county system, further dividing the Territory of Orleans into 19 parishes. Attakapas County was superseded by the parish of St. Martin, which encompassed roughly the same territory as its predecessor (Figure 14) (Davis 1971:157-164, 167-169, 176; Goins and Caldwell 1995:41-42).

On April 30, 1812, the State of Louisiana was admitted to the Union. Political boundaries continued to change in the Attakapas region after statehood was declared. Lafayette Parish was carved out of the western half of St. Martin Parish in 1823, and Vermilion Parish was created from the southern portion of Lafayette Parish in 1844. From that time, Lafayette Parish retained its general configuration, with only minor boundary

changes over the ensuing years (Figure 14) (Bergerie 1962:22-23; Goins and Caldwell 1995:44; Griffin 1959:23).

In 1815, the United States government established a construction and repair agenda to address the naval shortcomings exposed during the War of 1812. As part of this program, timber surveys were ordered in 1818 through southern Louisiana and Alabama under the leadership of James Leander Cathcart and James Hutton, with John Landreth as surveyor (Prichard et al. 1945:735-736). According to the journal kept by Cathcart, the original strategy of the expedition included a plan to coast along Vermilion Bay and the Gulf of Mexico as far westward as the Mermentau River (modern Cameron Parish) (Prichard et al. 1945:765). After exploring the mouth of the Atchafalaya River in early February 1819, the venture into the Attakapas country was abandoned due to "the risks of the day, & finding that our boat was not sufficiently large to carry so many men, & provisions along the sea coast, to explore Cheniere au Tigre, & to the Mermentau river" (Prichard et al. 1945:811). It was "unanimously declared, that the boat was not trustworthy," and the expedition members were warned by their pilot that:

. . . if we lost our boat, & even got safe ashore, we must inevitably perish, either by the hands of Indian hunters, pirates, or smugglers, which infest this coast, or from wild beasts, the Panther or Tiger, being numerous, that we could not cross the innumerable swamps & Bayous which intersect this Country, & would die of hunger, before we could get to any habitation, even if we escaped the other dangers . . . (Prichard et al. 1945:811).

Upon reviewing these "disagreeable circumstances," it was determined that an inland survey of the timberlands between the Vermilion and Mermentau Rivers, via Bayou Teche and St. Martinville, would be a wiser course of action; however, that plan also was abandoned after the expedition arrived in St. Martinville and reviewed the anticipated dangers, logistic difficulties, and expenses of an overland journey. From these vivid journal entries of 1819, it may be concluded that at that time much of the Attakapas region remained uninhabited, not to mention inhospitable. It has been suggested, though, that the reports of the perils lurking in southwestern Louisiana may

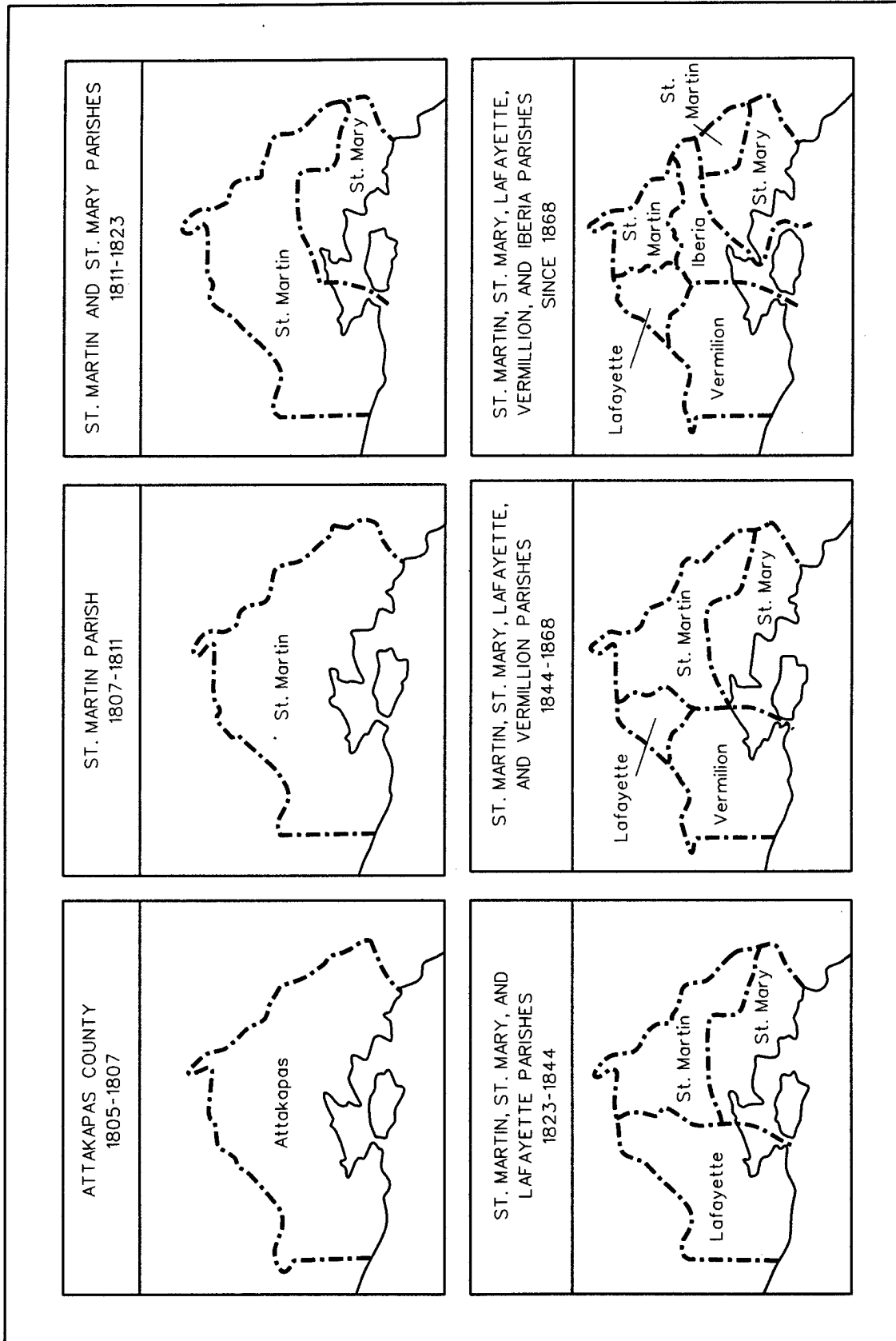


Figure 14. Divisions of the original Attakapas County, or St. Martin Parish, 1805 - 1868. Derived from St. Martin Parish Development Board ca. 1950:8 facing.

have been exaggerated in order to discourage Federal representatives from scrutinizing certain lawless activities too closely (Prichard et al. 1945:811, 817-827, 898-902).

Among the Americans who held land tracts along the lower Vermilion River was Reason (also spelled Resin or Rezin) Bowie, patriarch of the famed family linked to the Louisiana slave trade, the Bowie knife, and the Alamo. Bowie brought his family to Louisiana ca. 1801-1802 and settled first in Catahoula Parish before moving to the Attakapas region. In 1809, Reason Bowie purchased his Vermilion River property, known as Bowie's Woods, which was located between the river mouth and its conjunction with Little Bayou (well downstream from the project item) in present-day Vermilion Parish. The Bowie family later moved to the Opelousas region of St. Landry Parish, where they engaged in the lumber and sawmill business (Bradshaw 1997; Vermilion Historical Society 1983:8; Williamson 1999a, 1999b).

According to John J. Bowie, son of Reason and brother of Rezin P. and Jim Bowie, the Bowie brothers were associated with pirate Jean Lafitte through his slave smuggling activities. In an 1852 account, John Bowie described the process as follows:

James, Rezin and myself fitted out some small boats at the mouth of the Calcasieu and went into the trade on shares. We first purchased forty negroes from Laffite at the rate of one dollar per pound, or an average of \$140 for each negro; we brought them into the limits of the United States, delivered them to a custom house officer, and became the informers ourselves; the law gave the informer half of the [auction] value of the negroes, which we put up and sold by the United States Marshall, and we became the purchasers of the negros, which entitled us to sell them [legally] within the United States. We continued to follow this business until we made \$65,000. when we quit and soon spent all our earnings [sic throughout] (Williamson 1999b).

One of Lafitte's delivery routes was through Vermilion Bay to Bowie Island, located near the mouth of the Vermilion River. From that point, the Bowies would transport the slaves up the Vermilion River (past the project item), then

overland to St. Landry Parish, where they were sold (Taylor n.d.; Williamson 1999a, 1999b).

Although the contraband trade tarnished the Attakapas name, as so vividly recounted by Cathcart and Bowie, other descriptions were kinder to this southwestern district. Describing the region to Americans unfamiliar with Louisiana, William Darby wrote: "Nature has been more than usually beneficent to the Attakapas [sic], the fertility of the land is excessive, and the facility of navigation is seldom exceeded. It demands comparatively but little from the hand of art, to complete the benefits of this favored spot" (Darby 1816:73).

Settlement within the Attakapas region proceeded rapidly. Since lands were not difficult to clear, farms could be transformed easily into plantations, and cotton farming soon gave way to sugar cane cultivation. In addition, the region abounded with valuable timber and other natural resources. Inexpensive land encouraged settlement; for example, one arpent of land sold for approximately \$4.00 to \$5.00 (Sitterson 1953:16). Furthermore, the soil was rich, and inland waterways such as the Vermilion River provided convenient means of transportation.

When it created Lafayette Parish in 1823, the legislature also established a commission to select a seat of justice. The commission initially chose Pinhook, the former Petit Manchac trading post, which stood at the head of navigation of the Vermilion River. Several years earlier, the Lafayette post office had been established there at the Vermilion Bridge (later called the Pinhook Bridge) on February 6, 1817 (Figure 15). The origin of the name "Pinhook" has been much debated. Professor William A. Read suggests that the name was derived from *pinashuk*, the Choctaw name for linden or basswood tree. According to local legend, however, the name originated from an entrepreneur who used to steal chickens by catching them with a device similar to a fishing pole. A grain of corn on a pinhook served as bait, and when the chicken swallowed the bait, the ingenious chicken thief reeled in his prey (Griffin 1959:27-28, 115; Hansen 1971:396-397). According to a third explanation, the bridge at the village site was called Pinhook because it opened and closed like a pin to permit river traffic (Edmonds 1979:82).

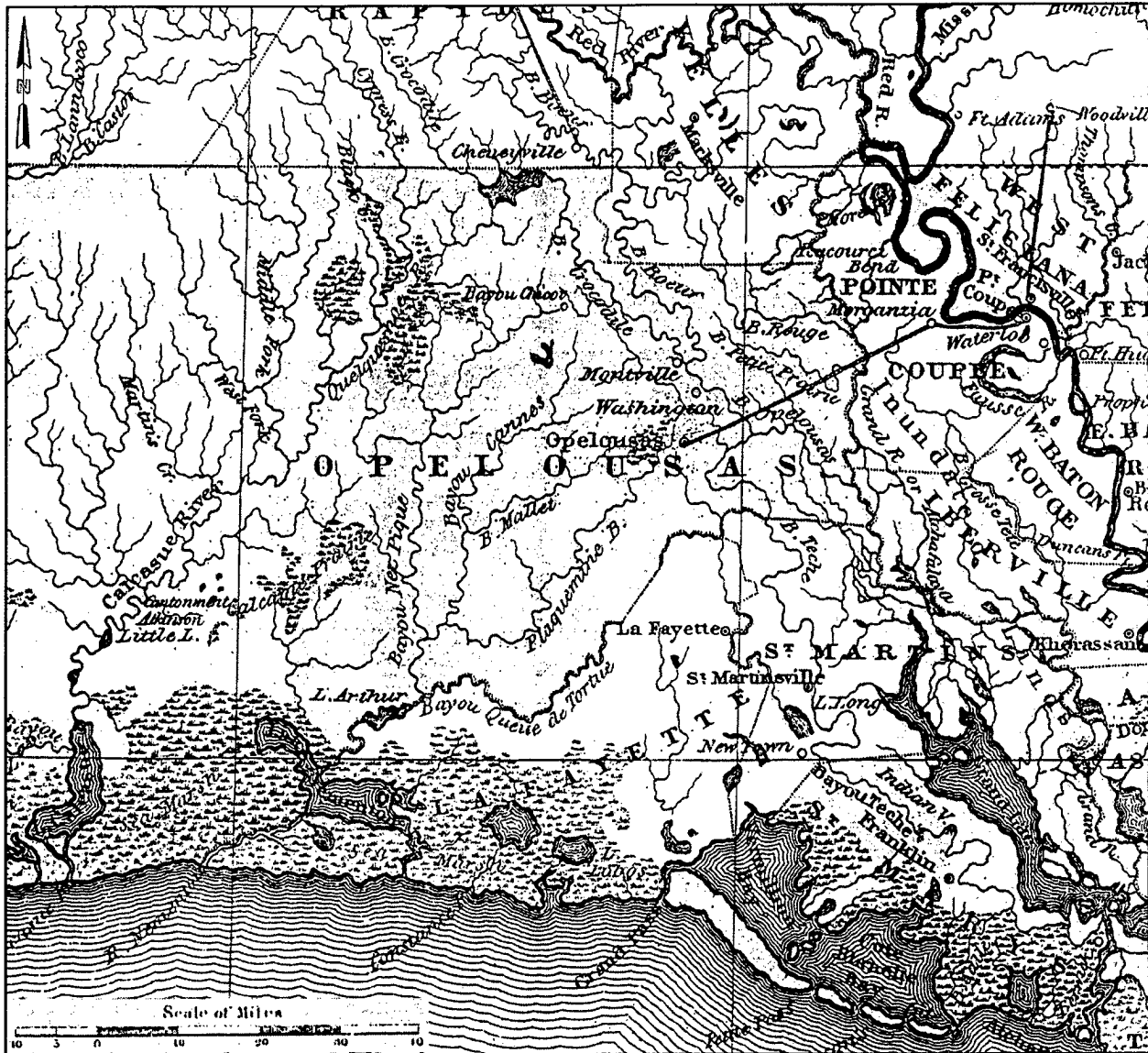


Figure 15. [ca. 1838] Excerpt from [Boynton's] *Louisiana*, in reference to the project vicinity. Map excerpt depicts the region surrounding the La Fayette [sic] post office.

The Louisiana Surveyor General's approved plat of Township 10S, Range 4E, indicates that a road or trail once crossed through the Michael Meaux land claim in Section 47 toward the Vermilion River. A river crossing was not marked on the map; however, the point where this pathway, if extended, would have reached the river lies near the position of the present-day Pinhook Bridge (Figure 13). Although the plat was not approved until November of 1854, the original surveys were conducted between 1807 and 1842, with most of the private claims surveyed prior to 1825. These early surveys would have covered the time period when the Pinhook community was evolving from the Petit Manchac trading post landing on the Vermilion River (Louisiana Surveyor General 1854). An early nineteenth century map depicted a river crossing and road network centered around a point on the Vermilion River marked Coleman that coincides with the general location of the Pinhook community and bridge. Judging by other vicinity labels, Coleman probably was a landholder or business owner who had property interests in that area (Figure 16).

When the commission of 1823 selected a site near the Pinhook bridge for the seat of the Lafayette Parish government, John and William Reeves donated four arpents of land where the public buildings were to be erected. A jail was built, but the parish used a rented room near the bridge as a courthouse. In the meantime, Jean Mouton formed a local faction in rivalry with the Reeves. Mouton had donated land for a Catholic church approximately 4.8 km (3 mi) from the river. He then laid out a town around the church, offered to donate to the parish sites for public buildings, and lobbied the legislature to move the seat of justice to his land. In an 1824 election, parish voters chose the Mouton site, called Vermilionville, which was confirmed as the parish seat by district court in 1827 (Figure 17). Vermilionville was incorporated in 1836 and, after the Civil War, it was renamed Lafayette (Griffin 1959:29-34). A contemporary description characterized Vermilionville in 1850 as "situated on a beautiful plain, 1½ m. [1.5 mi, or 2.4 km] from W. bank of Vermillion [sic] r., at the head of navigation," with a population of "about 250" residents (Fisher 1853:874). Although the town

grew up around the church rather than the bridge, the sprawling city of Lafayette today encompasses the site of Jean Mouton's church (now St. John's Cathedral) as well as the location of the Pinhook Bridge.

Cattle raising continued to prosper on the prairies of southwestern Louisiana through the first quarter of the nineteenth century. By 1827 cattlemen had registered more than 40 brands and identifying marks for livestock grazing in Lafayette Parish alone. Nevertheless, after 1830, ranching declined in relative economic importance, and the prairie grasslands along the Vermilion River were plowed up and replaced with cotton and sugar cane. These crops often were cultivated by slave labor, but on a comparatively small scale. The agriculturists of the southwestern prairies had only modest farms compared to the large sugar planters on the Mississippi River and the cotton planters on the Red River (Griffin 1959:105; Menn 1964:259-260 and *passim*).

Cotton and sugar cane predominated in southwestern Louisiana during the antebellum period; however, the popularity of rice as a staple crop developed after the Civil War. These regional agricultural trends held true for Lafayette Parish, which was described in the early 1850s as follows:

Surface low and level, with frequent swamps. Soil of great fertility, when not too wet for cultivation. Cotton and sugar are the staple products, of which great amounts are exported. Corn grows luxuriantly, and yields finely. Some rice is raised in the swamps (Fisher 1853:359).

The agricultural dominance at that time was reflected in the 1850 census, which recorded 441 farms and no manufacturers (Fisher 1853:359).

Although Lafayette Parish was sugar and cotton country, this was not a district of large plantations during the antebellum years. Census statistics demonstrate a general ratio of one slave per free man throughout that time period (Table 9). An exception to this rule appears to have been the Vermilionville area, which was home to several plantations along the Vermilion River. In 1860, there were only 492 slave holders in Lafayette Parish, less than 11 percent of the free population. Of that number, just 12 planters owned more than 50 slaves each, and at least

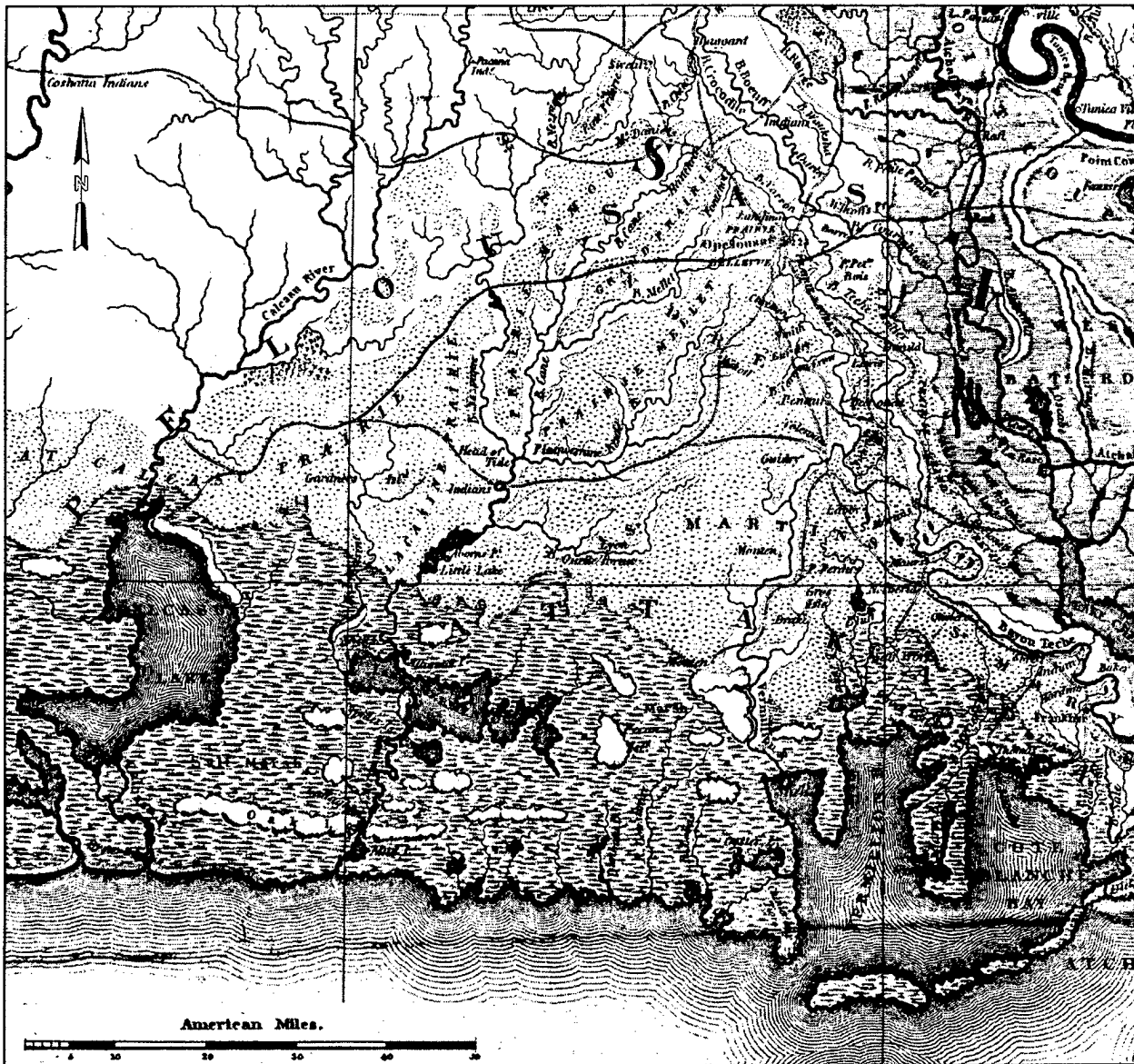


Figure 16. [1820] Excerpt from Tanner's *Louisiana and Mississippi*, in reference to the project region. Map excerpt depicts river crossings and roads along the Vermilion River.

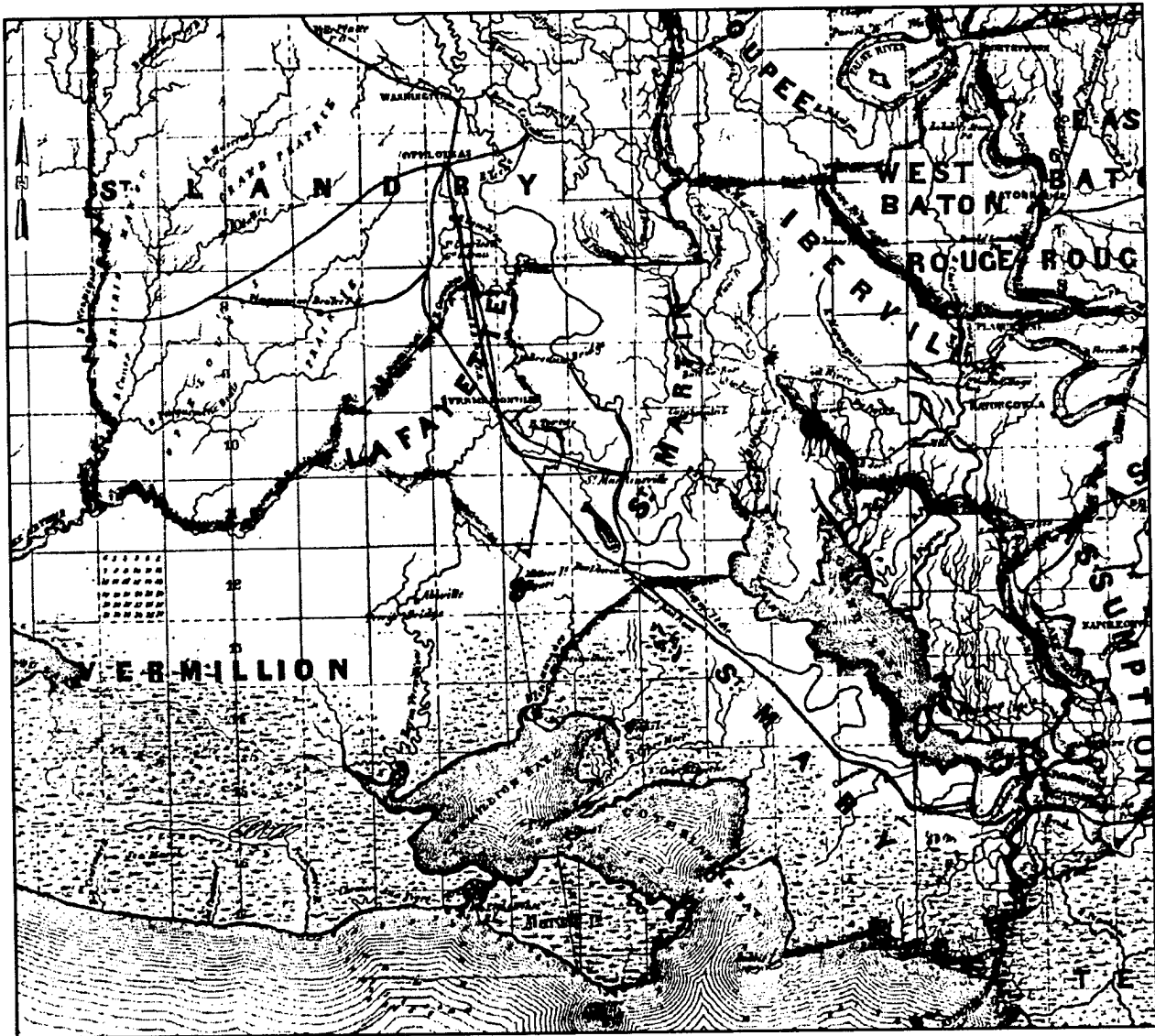


Figure 17. [1853] Excerpt from Bayley's *New and Improved Map of Louisiana*, in reference to the project vicinity. Map excerpt depicts the region surrounding Vermilionville.

Table 9. Antebellum population statistics in Lafayette Parish, 1830 - 1860 (Geostat 1998).

CENSUS YEAR	WHITE POPULATION	FREE PEOPLE OF COLOR	SLAVE POPULATION	TOTAL POPULATION
1830	3,177	109	2,367	5,653
1840	4,474	134	3,233	7,841
1850	3,390	160	3,170	6,720
1860	4,307	231	4,463	9,003

one-third of those large planters held plantations in the vicinity of Vermilionville (Menn 1964:259-261).

Despite the rich agricultural resources of the region, its economic growth was hampered by the difficulties of navigating the snags along the entire route of the Vermilion River. Pirogues could travel the shallow bayous of the region, but larger vessels were restricted to navigable waterways. Early traders built their "stores" on barges that carried gunpowder, traps, tea, and other goods to the scattered settlers, who offered furs, hides, and farm products in exchange. Barges also carried passengers traveling long distances; however, barge travel generally was an expensive journey, restricted to the wealthy. Due to navigation limitations, barge service could be obtained at only a few area locations: the Pinhook Bridge at Vermilionville, Breaux Bridge and New Iberia on Bayou Teche, and Washington on Bayou Courtableau (Figure 17) (Chief of Engineers 1887:2:1401; Griffin 1959:85-86).

Steamboats eventually plied the waters, but submerged logs and stumps continued to present constant obstacles. Between 1840 and 1850, the police jury of Lafayette Parish appropriated \$4,000.00, a large sum in those days, to remove obstructions in the Vermilion. The police jury's effort spurred an improvement in navigation, at least temporarily. According to a local newspaper editor, who may have exaggerated, four or five steamboats engaged in regular trade at the Vermilion River's upper landing, the Pinhook Bridge, before obstructions once more clogged the river. Whatever the case, periodic low water presented severe problems for the inhabitants of the region, often rendering the Vermilion route inaccessible. During these low water periods, the

only shipping points available to area residents were Breaux Bridge, New Iberia, and Washington, which meant an overland trek to Bayou Teche or Bayou Courtableau (Figure 17) (Griffin 1959:87).

According to ship enrollment records, most of the registered vessels based in the Attakapas region were schooners or sloops that sailed primarily along Bayou Teche. Most references to the port of Attakapas meant the town of Franklin (located along the Teche in present-day St. Mary Parish), which was the port of entry for the region during the early nineteenth century. The port of Lafayette usually referred to the city of Lafayette that later was incorporated into the municipal limits of New Orleans, rather than the parish of Lafayette (Figure 18) (Survey of Federal Archives in Louisiana [SFAL] 1941-1942).

There were a few Lafayette Parish shipowners, the most often-named of whom was Robert Perry of Vermilionville. During the 1820s, Perry constructed the first bridge to cross the lower Vermilion River (below the project item, in present-day Vermilion Parish). The community that developed around the crossing became known as Perry's Bridge, or Perry Village; it served as the Vermilion Parish seat for a decade until Abbeville, located approximately 4.8 km [3 mi] upriver, was designated the permanent seat of government in 1854 (Figures 17 and 18). Since that time, the town name has been abbreviated to Perry (Vermilion Parish Development Board ca. 1965:8; Vermilion Parish Tourist Commission 1999).

During the 1830s and 1840s, Robert Perry owned at least four schooners – the *Augustus*, the *Kosciusko*, the *Lady of the Lake*, and the *Southerner* – all of which were registered or enrolled at

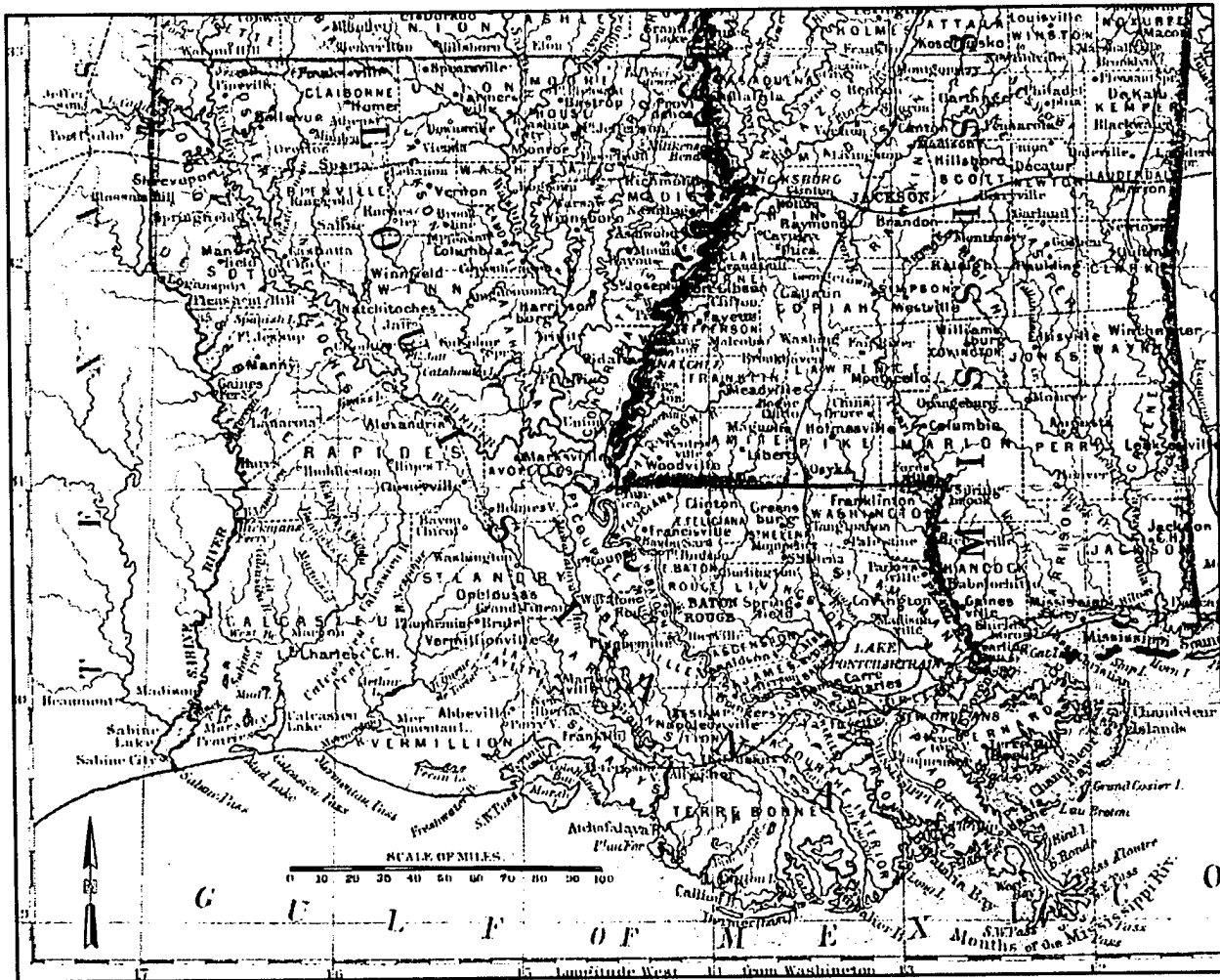


Figure 18. [1860] Excerpt from Mitchell's *County Map of Louisiana, Mississippi, and Arkansas*, in reference to the state of Louisiana. Map excerpt depicts the Vermilionville-Abbeville region, the city of La Fayette [sic] located on the west side of New Orleans, the proposed rail route through Vermilionville, and other features of southern Louisiana.

the port of Attakapas, or Franklin, at some point in time (Table 10). The *Lady of the Lake*, built at Madisonville on Lake Pontchartrain in 1820, originally was based out of New Orleans; however, in 1828, the schooner was purchased by Fayette [sic] Parish resident François Marceau. In 1833, Perry bought the *Lady of the Lake* and he also served as ship master. Historical research did not confirm whether the Lafayette port where Captain Perry based this schooner was near his Vermilionville home or was the city of Lafayette near New Orleans, where Perry first registered the *Kosciusko*. In any case, Perry's vessels all probably traveled the Bayou Teche route to New Orleans and they may have sailed along the Vermilion River, as well. One of his schooners, the *Augustus*, was one of the few registered vessels built in Vermilion Parish (1832); however, it was enrolled and based at Franklin (SFAL 1942:2:89; 3:15, 116, 118, 199-200; 4:154).

Although steamboats had journeyed along Bayou Teche since 1820, it appears that relatively few steamers traveled the Vermilion River route before the Civil War. In fact, of the known steamboats registered out of the port of New Orleans during the antebellum years, there appar-

ently was only one based at a Vermilion port. The *Arthur*, owned and captained by area resident François Corso, was built at Vermilion, or Abbeville, in 1852. This vessel was described as a 230-ton wood-hulled sidewheel packet measuring 133 x 29 x 6.5 ft in size, with one deck, a single mast, and a square stern. The brief career of the *Arthur* ended when it was "lost" in 1853; however, the historical sources failed to reveal the nature or location of that loss (Clune and Wheeler 1991; Lytle 1952:12; SFAL 1942:5:21; Way 1994:31).

During the antebellum era, there were at least two steamboat wrecks that occurred near the proposed project item. On March 29, 1842, the *Georgia*, a Pittsburgh-built (1837) 135-ton sidewheeler, burned on the upper Vermilion River between Vermilionville and Bayou Tortue (just downstream from the project item). Several years later, on June 17, 1851, the *Gretna*, a 22-ton wood-hulled sidewheel ferry (built in Gretna, Louisiana, in 1847), exploded a short distance below the site of the *Georgia* mishap, apparently near the Pinhook Bridge. While no lives were lost in the earlier incident, the explosion of the *Gretna* cost three lives (Clune and Wheeler 1991; Lytle 1952:75, 79, 220, 231; Way 1994:200).

Table 10. Antebellum vessels owned by Robert Perry that were registered at some point at the Port of Attakapas, or present-day Franklin (Survey of Federal Archives in Louisiana 1941-1942).

VESSEL NAME	VESSEL TYPE	DATE BUILT	PLACE BUILT	DESCRIPTION	FIRST REGISTERED BY PERRY	HOME PORT(S)	SOURCE
Augustus	Schooner	1832	Vermilion Parish, LA	55 81/95 tons; 56'5" x 18'10" x 6'3"; 1 deck, 2 masts, square stern, plain head	1833	Franklin	SFAL 1942:3:15
Kosciusko	Schooner	1835	New Haven, CT	30 44/95 tons; 47'7" x 15'4" x 4'11"; 1 deck, 2 masts, square stern, billethead, round tuck	1838	Lafayette and Franklin	SFAL 1942:3:116, 4:154
Lady of the Lake	Schooner	1820	Madisonville, LA (Lake Pontchartrain)	16 27/95 tons; 37'5" x 11'7" x 4'5"; 1 deck, 2 masts, round stern, fiddlehead	1833	Lafayette	SFAL 1942:2:89, 3:118
Southerner	Schooner	1836	Hancock Co, MS	48 26/95 tons; 59'10" x 19'9" x 4'10"; 1 deck, 2 masts, square stern, bust head	1837	Balize	SFAL 1942:3:199-200

Along with limited steamer commerce along the Vermilion River, the lack of rail transportation also hindered the development of the region during the antebellum period. In 1850, the New Orleans, Opelousas, and Great Western Railroad completed its tracks from the New Orleans to Brashear City (present-day Morgan City). Plans called for the railway to continue through New Iberia to Vermilionville and northward into St. Landry Parish; however, completion of the line was not effected until well after the Civil War (Figures 13, 17, and 18) (Griffin 1959:87-88).

The Project Vicinity on the Eve of the Civil War

Although absent in other areas of the parish, the plantation system (consisting of staple crop production by a controlled labor supply) was well-developed in the immediate project region by the eve of the Civil War. Several large plantations lined the Vermilion River in the Vermilionville area. Below the Pinhook Bridge was Walnut Grove, the large west bank cotton plantation belonging to Jean Sosthene Mouton, grandson of the Acadian founder of Lafayette (Jean Mouton) and son-in-law of Governor Alexandre Mouton (1843-1846). Across the river from Walnut Grove were the cotton plantations of Izidor Broussard and Honoré Beraud. The latter planter also ran a sawmill on his Long Plantation, while Broussard's income was supplemented by animal husbandry, specifically cattle, horses, and sheep (Calhoun 1995:472; Griffin 1959:39-41, 57 facing, 186-192; Menn 1964:260-261).

Upstream from Beraud and Broussard was the John Republican Creighton plantation (later called Myrtle Plantation), which was located above the Pinhook Bridge along the east bank of Vermilion Bayou, as the river was called above the bridge. Its grounds, in fact, once extended into the western portion of the present-day Lafayette Regional Airport (3 to 4 km [2 to 2.5 mi] downstream from the proposed project item). Creighton was married to Euphemie Mouton, niece of Governor Mouton. In addition to his cotton interests, Creighton also ran a sawmill near Vermilion Bayou, and attached to this sawmill was a gristmill where biweekly he ground his neighbors' corn into meal and grits (Barde 1981:273; Griffin 1959:40-41, 122).

Above the Creighton plantation was the eastern portion of Governor (and former U.S. Senator [1837-1842]) Alexandre Mouton's vast Ile Copal ("Sweet Gum Grove") Plantation, which extended across both sides of Vermilion Bayou. Eastward from the bayou toward Lake Martin (St. Martin Parish) was a swampy region that Mouton exploited for its timber. Logs were cut in the swamps and then floated downstream to the Creighton sawmill where they were processed into lumber. The principal part of Ile Copal Plantation, including the mansion, brick sugar mill, and slave quarters, lay on the west bank of Bayou Vermilion. According to the 1860 federal census, Mouton's real estate consisted of 2,100 improved ac (850 ha) and 18,140 unimproved ac (7,341 ha), valued at \$81,000.00. His personal property was valued at \$120,000.00; this amount would have included the worth of his 120 slaves. Unlike his downstream neighbors, Mouton cultivated sugar cane rather than cotton. In 1860, he harvested 180 hogsheads (1,000 lbs each) of cane sugar and 12,000 gallons of molasses. His livestock included 20 horses, 50 mules, 12 milk cows, 16 working oxen, 70 sheep (yielding 140 pounds of wool), and 15 swine. Mouton assigned garden plots to his slaves, who also were permitted to raise chickens and gather Spanish moss for sale in Vermilionville (Calhoun 1995:476; Griffin 1959:40-43; Menn 1964:260-261).

Above Ile Copal, on the right descending bank of the Vermilion River, John Greig established his 445.17 ha (1,100 ac) Oakbourne Plantation, which once encompassed much of the proposed project item. The Greig family (formerly called Gregory) emigrated from Scotland to southwestern Louisiana in the early nineteenth century. Prior to becoming a planter, John Greig worked in Vermilionville as a lawyer, merchant, and banker; in fact, he established the first private bank in the community. Greig later moved east of town to the west bank of Vermilion Bayou, where he established Oakbourne (Adams ca. 1986; Griffin 1959:185-186).

Downstream from Oakbourne, Ile Copal, and Creighton Plantations stood the Pinhook Bridge, the gateway between the Vermilion River/Bayou and the town of Vermilionville. This bridge was a low wooden structure with a draw that could be opened to allow boats to pass. Jim Higginbotham's enterprises stood on the right

descending bank of the Vermilion River by the road to the bridge (between Walnut Grove and the highway). Higginbotham established his home there, as well as a large warehouse with storage space that was utilized by steamboats and shippers. Near the warehouse was his wheelwright shop, where Higginbotham made hickory chairs with rawhide seats, spinning wheels, and other such items. He also operated a lumberyard adjoining the warehouse. Higginbotham's neighbor, John Baumgartner, was a woodworker, as well. Next to his home, Baumgartner kept a shop where he assembled cypress cisterns, hogsheads, and molasses barrels (Griffin 1959:40-41).

When the traveler crossed the Pinhook Bridge to the right descending bank of the Vermilion River he found the Higginbotham enterprises on the left side of the road. On the right side of the road at the bridge stood William Butcher's saloon and billiard parlor, a popular place of recreation and refreshment during the antebellum period. Nearby was the restaurant operated by Louis Grangé, famed for its chicken pies. The local inn, which ceased accommodating travelers and became a private residence ca. 1853, was located farther along the west side of the road toward Vermilionville; however, the property is of interest because it was occupied by Union troops during the Civil War skirmishing along the Vermilion River (Café Vermilionville n.d.; Griffin 1959:40-41, 48; Louisiana National Register of Historic Places [LNRHP] ca. 1983). Sources vary on the construction date of the Vermilion Inn, as the structure is commonly referenced today, i.e., "long before the Civil War" (Griffin 1959:48), "prior to 1818" (Café Vermilionville n.d.), and ca. 1835 (LNRHP ca. 1983). Today, the Vermilion Inn has been renovated and, as Café Vermilionville, it once again serves the public.

The establishment of these businesses at the Pinhook Bridge indicates the importance of that river landing to the development of the region. Although the town of Vermilionville existed a few miles away from the Vermilion River, waterborne travel and commerce, by necessity, had to be conducted from the Pinhook location. The establishments that existed near the bridge were facilities that accommodated trade and served the traveler. In addition, the road leading from the Pinhook Bridge was a main entrance into

Vermilionville, which was the only substantial town located near this stretch of the upper Vermilion River.

The Civil War

Former Governor Alexandre Mouton presided over Louisiana's convention of January 1861, in which the delegates voted overwhelmingly to secede from the Union. At least initially, Lafayette Parish enthusiastically supported the formation of the Confederate States of America, and a number of local sons fought for the cause (Figure 19). Some local patriotism abated, though, when the Pelican State was subjected to a Federal invasion. In April 1862, New Orleans fell to the United States, and, by the spring of 1863, General Nathaniel Banks was advancing up Bayou Teche with 20,000 Federal troops. A much smaller group of Confederates, commanded by General Richard Taylor, contested the Federal advance. The Confederates fought effectively but were forced to retreat.

The Teche Campaign was planned as part of the Federal grand strategy to split the Confederacy by gaining control of the lower Mississippi River. Union command of the western tributaries of the Mississippi River was considered necessary to the success of this objective. Additionally, Federal occupation of the Teche country would help terminate the southwestern Louisiana supply line connecting Texas and the Attakapas region to Confederate forces east of the Mississippi River (Raphael 1975:54; Winters 1963:221-241).

After capturing New Iberia and destroying the salt works on Avery Island in April of 1863, the Federal commanders divided their invading army. The Union proceeded from New Iberia directly to the Pinhook Bridge over the Vermilion River below Vermilionville. The Union right advanced up the west bank of Bayou Teche to St. Martinville; from there, the Federal troops crossed westward to the Vermilion River and the Pinhook Bridge (Figure 20) (Raphael 1975:141).

On April 17, 1863, the Federal troops, on a direct route from New Iberia to Vermilionville, arrived first at the Pinhook Bridge, as General Taylor and the last of his supply wagons crossed the river. As the last Confederate wagon reached the other side, Taylor ordered the bridge destroyed. After they set the bridge ablaze, the Con-



Figure 19.

Excerpt from "A group of Confederate veterans photographed in the park of Major Jean Sosthene Mouton at Beau Sejour [the family home after Federal troops destroyed Walnut Grove], his plantation home, in 1888" (Griffin 1959: photograph facing page 144). Excerpt from text figure includes Vermilionville area veterans Sidney Greig, Major Mouton, and Martial Martin, seated second, third, and fourth from right, respectively; Arthur Greig, standing second from left; and Louis Gustave Breaux and Leonidas Creighton, standing sixth and seventh from left, respectively.

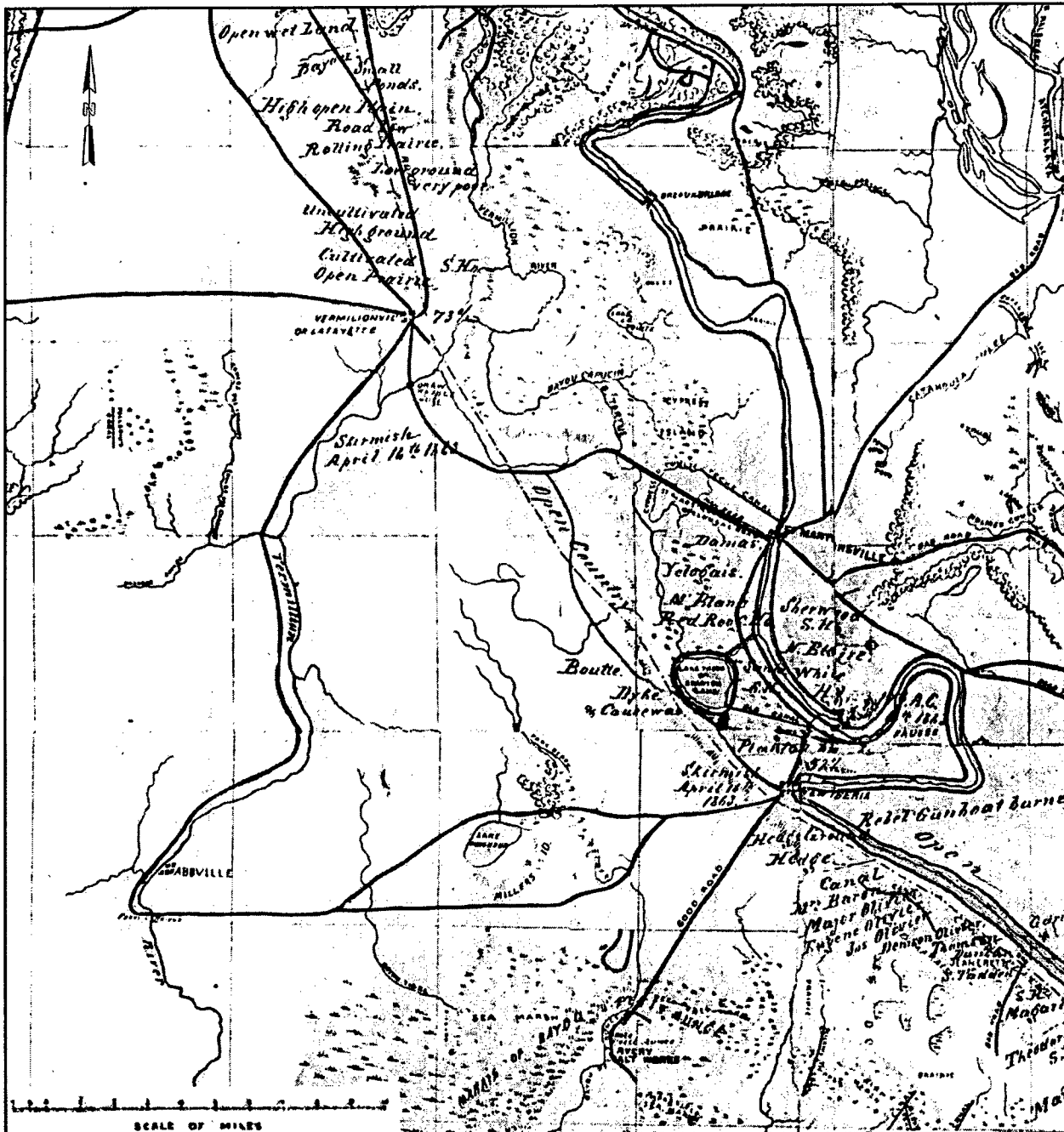


Figure 20.

[1863] Excerpt from Abbot's *Department of the Gulf, Map No. 8, Atchafalaya Basin . . .*, in reference to the project region. Map excerpt depicts features of the countryside between New Iberia and Vermilionville; it also includes the Avery Salt Works to the south. Please note that the skirmish notation of April 16, 1863, either refers to an incident en route to the Pinhook (Vermilion) drawbridge or is a transcription error regarding the April 17 confrontation at the bridge.

federates positioned their infantry and artillery around its upper approaches to engage the advancing Federal forces. The two armies struggled for approximately four hours, but with few casualties on either side. When Taylor was satisfied that most of the Confederate troops and their wagon train had proceeded onward to safety, he withdrew his rear guard from the bridge (Raphael 1975:145-147).

The Federal army constructed a pontoon bridge the next day in order for their forces to pursue the retreating Confederates. While waiting for the construction of the bridge, almost half the tired and dirty Federal troops stripped off their clothes and jumped into the river. Considerable confusion resulted when a troop of Taylor's Confederate cavalry swooped down to the opposite bank and opened fire on the naked men. One observer described the scene:

Such a spectacle never before was seen. The long [drum] roll was sounding and naked men, in every direction, were making a dash for their guns, trying to dress as they ran. Some with their trousers on hind side before; didn't know whether they were advancing or retreating. (Raphael 1975:147, quoting [?] Irwin).

The invasion of the Teche in the spring of 1863 provided no strategic victory for the Federal cause. The army was withdrawn in the summer to besiege Port Hudson on the Mississippi River. In the autumn of 1863, though, Federal troops once more advanced up the Teche, this time in an overland expedition intended to plant the United States flag in Confederate Texas. The citizens of the Teche were dismayed by the return of the Federal troops. To be twice invaded inflicted especially severe hardship on the civilian population.

At New Iberia, the Federal invasion force took the stagecoach road across the prairies to Vermilionville. On October 9, 1863, as the Federal invaders approached the Pinhook Bridge over the Vermilion River, they found the span ablaze once more. The bridge had been rebuilt since its burning in the spring, but the Confederates again destroyed the structure to slow the Federal advance. At 11 a.m. the Federal forces attacked, and a skirmish ensued. Like its predecessor, the second Pinhook Bridge was located where present-

day Highway 182 crosses the Vermilion (Figure 21) (Edmonds 1979:82-85; Jones 1961:320).

According to one Confederate from Texas, "We withdrew in brisk fashion" (Edmonds 1979:86). In this second engagement, Federal troops secured a bloodless victory for the Union. They once more replaced the destroyed Pinhook Bridge with a temporary span, but the new bridge would not support the heavy artillery and wagons that accompanied the Federal advance (Edmonds 1979:90). The Federal army then pursued the Confederates northwestward to Opelousas, which the Union forces occupied until the end of October (Winters 1963:297-298).

Following the Battles of Vermilion Bridge and Vermilion Bayou, the project vicinity remained relatively quiet through the end of the Civil War. In early 1865, a few reports were made regarding possible blockade running out of Vermilion Bay and other area waterways, but there was no significant activity noted by either Confederate or Federal officers monitoring the region (U.S. Secretary of War 1896:48[1]:722, 1441).

The Postbellum Era

The social, political, and economic effects of the Civil War on the South were staggering. In Louisiana, as in other Southern states, the postbellum period was an era of recovery from the aftermath. Besides the upheaval in politics, with many former slaves enfranchised as voters, Southerners had to find a way to conduct business in a cash-poor economy; planters in particular had to find a way to pay former slaves for their labor. The systems of tenant farming and sharecropping emerged in response to these needs, and they were in place by 1868.

Sugar cane cultivation in southern Louisiana revived during the postbellum era largely because the processing of cane became more centralized. Before the Civil War, most planters had their own sugar houses. After the war, with the economy in shambles and many sugar houses destroyed, planters eventually began to send their cane elsewhere for processing. As a result, there were fewer sugar houses, but much greater sugar production, since the newer sugar houses were more efficient than their antebellum predecessors. (Goodwin et al. 1985:68-69; Griffin 1959:106).

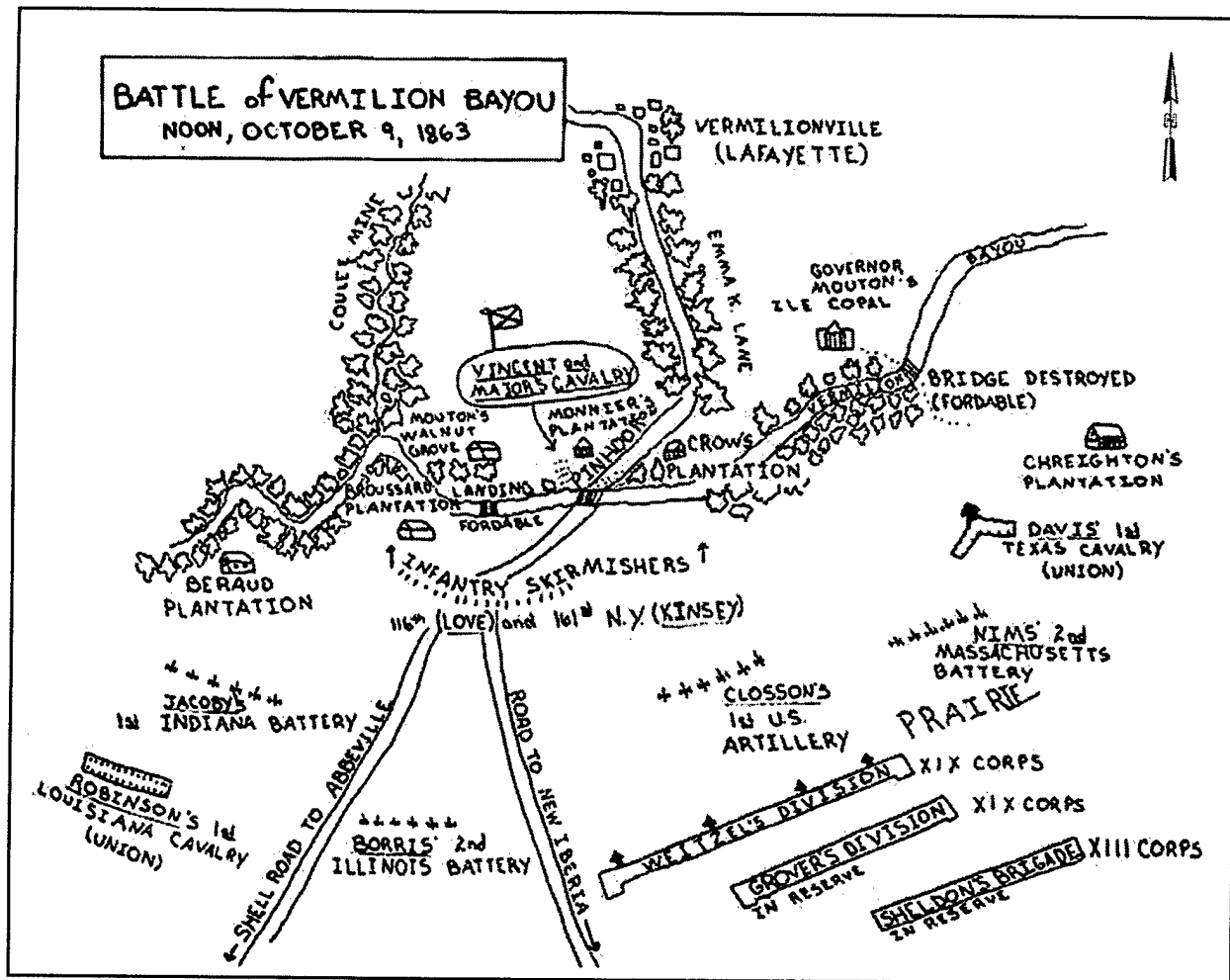


Figure 21. Figure depicting the "Battle of Vermilion Bayou" (Edmonds 1979:87).

A politician visiting southwestern Louisiana noted that "Under the old system it took a mint of money to run a sugar plantation" (Perrin 1999). He then described the shift toward centralization as follows:

... the future of the sugar business seems to be in the new system, which, in brief, is to separate the agricultural part of it from the manufacturing part. They speak of it in Louisiana as the Central System. A man or a company puts up a sugar house in some convenient center and buys the cane brought to him. This enables the planter to farm on either a large scale or small scale (Perrin 1999).

As predicted, this trend continued through the turn of the century (Griffin 1959:106).

Examples of the late nineteenth century trend toward the centralization of sugar processing existed in the project vicinity. The Billeaud Sugar Factory in Broussard, located approximately 3 km (2 mi) south of the proposed project item, was constructed by Martial Billeaud of that town in 1889. The Lafayette Sugar Factory, established in 1895 by Colonel Gustave Aurelian Breaux, A. B. Denbo et al., was located along the Southern Pacific Railroad, approximately 2.5 km (1.5 mi) above the Pinhook Bridge and almost 5 km (3 mi) downstream from the proposed project item. This concern later was purchased by New Orleans-based partners and became known as the Lafayette Sugar Refining Company. Colonel Breaux, co-founder of the Lafayette Sugar Factory, was a prominent area attorney who purchased Oakbourne Plantation from the heirs of John Greig during the late nineteenth century. Because that plantation was situated just a short distance above his sugar refinery, it may be presumed that Breaux cultivated sugar cane on his nearby property (Figure 22) (Griffin 1959:106-107, 185-186; Sanborn Map Company 1921:1).

After the Civil War, Lafayette Parish was included in an area touted in promotional literature as the "Rice Belt." As was the case with sugar production, new methods in rice cultivation helped to establish rice as an important crop. In the 1880s agriculturists from outside the South introduced into southwestern Louisiana new methods of rice cultivation, including the use of machinery such as twine-binders, threshers, and mowers. According to one source: "Un-

der the impetus of the profits made by rice growers, a rice craze seized upon southwestern Louisiana . . . Two years ago [ca. 1890] there were but 12,000 acres in rice in that section of the state. To-day the acreage is 179,900" (Goodspeed 1892:211).

Accompanying this "rice revolution" was the construction throughout the rice-producing parishes of irrigation canals that were fed by water pumping stations. Canal companies owned the pumping equipment. In exchange for raising levees to build the canals and for their other services, the canal companies shared in the profits of the rice crop. A partial list of canals and pumping plants published in 1904 included six plants to be constructed in the vicinity of Abbeville, south of the project item in Vermilion Parish. The six plants already in operation irrigated a total of 52,800 acres. In addition, in the five-year period before 1904, approximately 25 rice cleaning mills were built in the "Rice Belt" region of Louisiana (Southern Pacific Company 1904:n.p., 12, 22).

The late nineteenth century brought advances to cotton agriculture as well. In 1870, Lafayette Parish planters produced only 6,234 bales of cotton using horsepower-driven gins. Steam power was introduced to the parish cotton gins ca. 1876, when Avignac Arceneaux built his steam-propelled gin at Carencro, north of Vermilionville and the project item. Arceneaux's gin had a capacity of five bales per day; subsequent gins built there had an increased capacity ranging from 35 to 40 bales per day. Cotton gins later were constructed in Broussard, Lafayette, Milton, and other parish towns. Another boost to the area cotton economy was the establishment in 1896 of the People's Cotton Oil Company, which produced cotton-seed cake, meal, oil, and other products from the cotton seed processed at its mill. During the early twentieth century, this enterprise added a cotton gin and two ice plants to its manufacturing facility, which was located along the Southern Pacific rail line northwest of the project item (Griffin 1959:107; Sanborn Map Company 1921, 1928, 1940).

As noted in the preceding paragraphs, important agricultural processing facilities were constructed near the railroad tracks extending through Vermilionville/Lafayette. The coming of the railroad certainly aided area agriculture by



Figure 22. “Oakbourne Plantation Home of Colonel Gustave Breaux as it appears today” (Griffin 1959: photograph following page 72). According to one of the current property owners, this house burned in the late 1950s (Chappuis, personal communication 2002).

facilitating the transport of crops and products and also by opening up access to technological advances, which, in turn, created greater yields from the processed crops. The railways drastically altered the economy in the project region, helping the district to emerge from the poverty that it had experienced since the Civil War.

Although a railway had been projected to Vermilionville before the Civil War, the plan for a rail connection to New Orleans was not revived until 1869. After many delays and difficulties, Morgan's Louisiana and Texas Railroad reached Vermilionville in 1880, and a railway bridge were built across the Vermilion River about 2.5 km (1.5 mi) above the Pinhook Bridge (and about the same distance downstream from the project item). A year later, the east-west Louisiana Western Extension of the Louisiana and Western Railroad was completed between Vermilionville and the

Sabine River town of Orange, Texas, where the railway connected with another line to Houston, Texas (Figure 23). By early 1883, one could travel from New Orleans to Vermilionville to San Antonio, and, after a day's delay there, take another connection to San Francisco, California. Both of the rail lines extending through Vermilionville were absorbed later by the Southern Pacific Railroad system (Figure 24) (Griffin 1959:88-89).

The Vermilion River did not compete successfully with the railroad, nor did shipping on the river work in tandem with the new rail network that crossed the region during the late nineteenth century. Navigation on the Vermilion continued to present many problems, despite the beginning of channel work along the Vermilion River, or Bayou, by the U.S. Army Corps of Engineers in 1879-1880 (Chief of Engineers



Figure 23. [1881] Excerpt from Rand, McNally & Co.'s *Louisiana*, in reference to the project region. Map excerpt depicts southern Louisiana towns and railroad lines.



Figure 24. [1899] Excerpt from Rand, McNally & Company's map of Louisiana, from *Indexed Atlas of the World*, in reference to the project region. Map excerpt depicts southwestern Louisiana towns and railroads.

1879:1:112, 1880:2:1157). In 1887, O. T. Crosby, First Lieutenant of Engineers, stated in his report:

Three or four years ago a steam-boat . . . ran over the whole of this section, delivering goods at Pinhook Bridge, then running out of the Vermillion [sic] along the Gulf coast to the Atchafalaya, thence to the head of the Atchafalaya, then down the Mississippi to New Orleans.

This trip, something like 550 miles in length, was made in opposition to the railroad, the distance [by rail] from Lafayette to New Orleans being 144 miles. The steam-boat, working at such disadvantage, could not maintain its cause (Chief of Engineers 1887:2:1399).

Furthermore, when the little steamboat ceased operations, snags again clogged that section of the river. Continuing his report, Lieutenant Crosby noted that even if the obstructions were cleared, "the width and depth [of the river channel] are such that only small boats could pass at low water (Chief of Engineers 1887:2:1399).

Attached to Lieutenant Crosby's report was a plea for channel improvements from private citizen W. B. Bailey, editor of the *La Fayette Advertiser*. According to Mr. Bailey's letter:

The people . . . along the bayou [Vermilion River] have no other outlet to a market but that stream, which at one time saw four or five steam-boats at its upper landing in regular trade. The trade is considerable. Right on its banks you can count four sugar-houses and six or seven cotton-gins, with several more some distance within a few miles of the banks, from the line of Vermilion Parish to Pinhook (Chief of Engineers 1887:2:1401).

Bailey went on to praise the self-sustaining small farmers of the region who needed better market access and transport to the railroad. He even discussed the merits of inland navigation "as a military precaution" and as relief against the railroad monopoly in the area (Chief of Engineers 1887:2:1401-1402).

The railroads continued their adverse effect on transportation along the Vermilion River through the rest of the decade. By 1891, the crossing of Morgan's Railroad near Lafayette not only had "caused the withdrawal of the

steamers on that portion of the bayou extending from the railroad [downriver] to Sebastopol Coulee" (Figure 25), but they also had "caused an entire cessation of all [river] traffic above the crossing" (Chief of Engineers 1891:3:1856). Because of the thriving rail commerce, no efforts had been made to maintain the Vermilion channel since the mid-1880s; however, channel obstruction removal began again during the 1890s in order to address the problems of local transport and trade.

There was at least one steamboat wreck that occurred near the proposed project item during the postbellum era. On July 20, 1895, the *Assumption*, a 151 (or 181 ft, sources vary) x 35.8 x 6.5 ft wood-hulled sternwheel packet, hit a bluff bar on Bayou Vermilion above Bayou Tortue (apparently just below the present-day Highway 353 bridge that marks the upstream limit of the proposed project item). The *Assumption* was built in Jeffersonville, Indiana in 1875, and it had served the New Orleans - Bayou Lafourche trade route prior to taking on the more precarious New Orleans - Bayou Vermilion route. After she was beached, the *Assumption* was unloaded by the crews of the *Danube* (175 x 33.8 x 5.1 ft) and the *Stella Wilds* (156.6 ft x 30.5 ft x 4.6 ft), two sternwheelers that normally were employed along the Red River/Atchafalaya River and the lower Mississippi River, respectively (Clune and Wheeler 1991; Way 1994:32, 120, 433). There was no mention of the *Assumption* in the Chief of Engineers' reports of the late nineteenth century; however, one source noted that "She laid up for repairs until she rotted away" (Way 1994:32).

Improvements in transportation aided the development of the towns of the region. The railroads brought more traffic and industry through Vermilionville and other communities that had existed primarily as river landings. In fact, it wasn't until the rail lines were completed to Vermilionville that the town experienced much expansion at all. As streets were extended to the railroad, more businesses were established in that direction, and, eventually, the old community of Pinhook and its bridge were absorbed by the growing parish seat (Griffin 1959:56-58). Once referred to by author George Washington Cable as "the sorry little village of Vermilionville" (in *Bonaventure*, published in 1888), the town be-

Plate 19

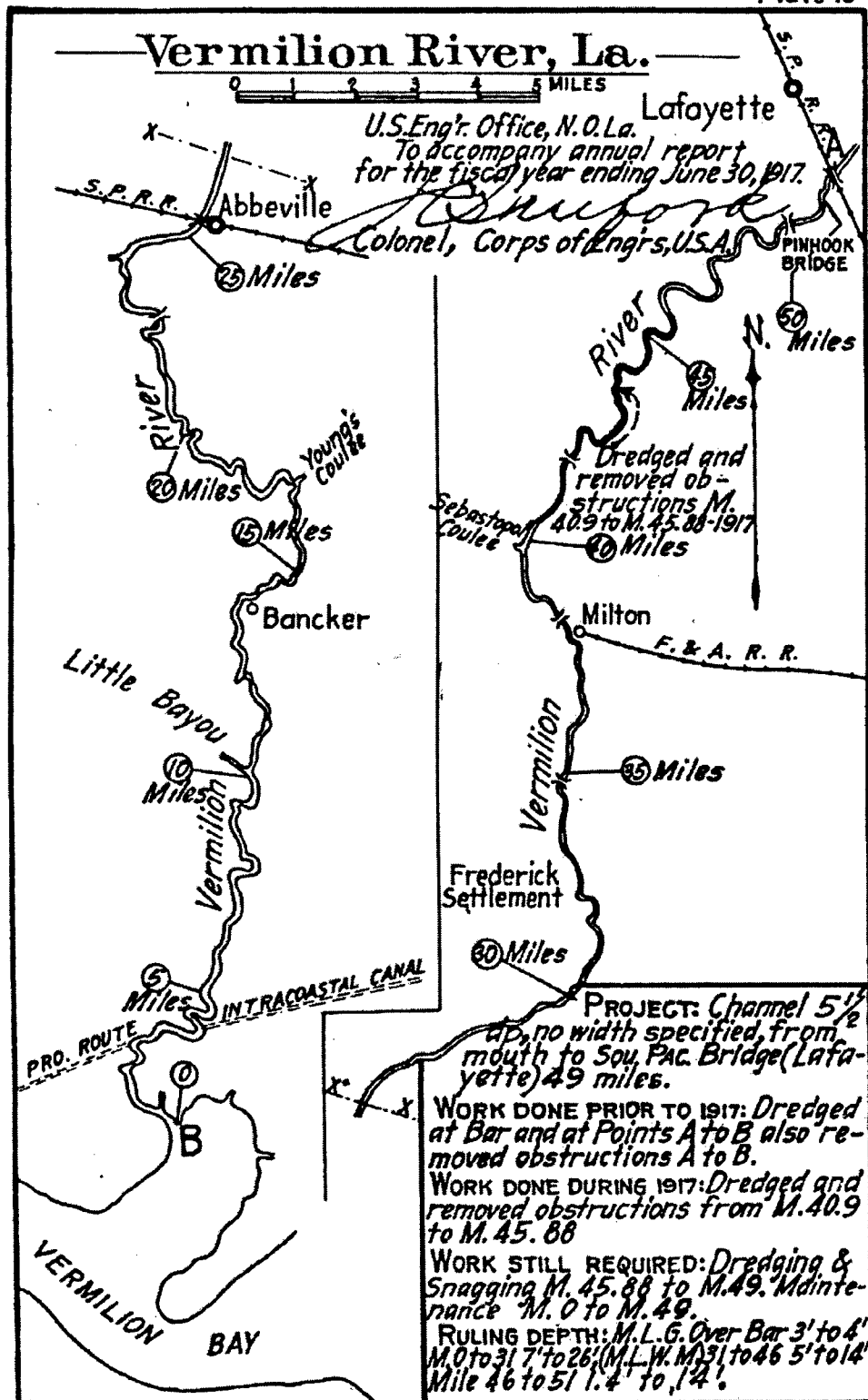


Figure 25.

"Vermilion River, La." (Chief of Engineers 1917:2:Plate 19, facing page 2549). Text figure depicts the Southern Pacific Railroad bridge at Lafayette, Sebastopol Coulee, and other features along the Vermilion River between said railway bridge and the town of Milton.

came a thriving regional hub with a population of 3,314 inhabitants by the turn of the century (Griffin 1959:57-58).

In 1884, the Vermilionville town charter was amended in order to change its name to Lafayette, which spelling was altered to Lafayette in 1925 (Figure 24). Although the original post office had been established as Lafayette at the Pinhook community in early 1817, the name of the nearby parish seat remained Vermilionville from the mid-1820s until 1884. The nearly eight-year existence of that first post office no doubt contributed to the conflicting labels given on nineteenth century maps, which sometimes called the town Lafayette rather than Vermilionville. According to one local source, the name change was held until the City of Lafayette that existed as a suburb of New Orleans was absorbed within the municipal limits of the larger city; however, that annexation was effected in 1852, long before the name amendment of the Lafayette Parish governmental seat (Griffin 1959:37, 115-116).

Like Vermilionville/Lafayette, the town of Broussard (located on the southeastern edge of modern Lafayette) benefited from the extension of the railroad through the area. Soon after the Civil War, Valsin Broussard acquired the site of the town that bears his name today, and ca. 1870, he hired a surveyor to lay out the community near the old Acadian *Côte Gelée* settlement (Figure 23). A post office was established there in 1878, and Broussard was incorporated in 1884, four years after the rail lines were completed (Figure 24). The local government soon became so unpopular that the citizens allowed the charter to lapse; however, Broussard was reincorporated in 1906. Although a small town and located south of the project item, the development of Broussard has significance to this study because of the enterprises situated there, e.g., the Billeaud Sugar Factory, that influenced the economy of the immediate region (Griffin 1959:73-74).

The Twentieth Century

The lands encompassing the proposed project item remained "a series of cane, cotton and corn fields" until 1900. The establishment nearby of the Southwestern Louisiana Industrial Institute in 1900-1901 had an important influence on the development of the city and the re-

gion. In 1921, the school was designated a state institution of higher learning by constitutional amendment, and it was renamed Southwestern Louisiana Institute, the precursor to the University of Southwestern Louisiana (1960-1999) and today's University of Louisiana at Lafayette (Griffin 1959:98-104; Payton 2000). Other significant influences on area economic growth included the completion of the railroad network, the construction of the paved highway system centered around Lafayette, the exploitation of area timber resources, and petroleum exploration.

With early twentieth century dredging improvements along the Vermilion River, or Vermilion Bayou, it was expected that steamer commerce could begin to hold its own with rail transport. Reduced rail freight rates were granted to the town of Abbeville (in Vermilion Parish, southwest of the project item) due to its situation at the intersection of railway and waterway. In addition, a boat line reportedly was to be established between Bayou Vermilion and New Orleans to compete with the rail lines (Chief of Engineers 1910:1:517).

Following these early dredging operations, traffic along the Vermilion increased considerably for a time. During 1911, the following registered freight vessels were recorded: 2 steamers, 5 gas boats, and 3 sailing vessels. Of unregistered vessels in 1911, there were 41 gas boats, 7, sailing vessels, and 14 unrigged barges. In 1916, five years later, freight was shipped on 5 steamers, 6 gas boats, and 3 sailing vessels. The steamers also carried 5,000 passengers that year. Unregistered vessel traffic in 1916 included 50 gas boats and 25 unrigged barges (Chief of Engineers 1912:2:1981; 1917:2:2556).

The gas boats listed were known commonly in the region as "Putt Putts" because of the sound their gasoline-powered engines made. These single and double cylinder engines were developed by Lockwood Ash near the turn of the century. The Natler company, which later became Evinrude, sold the engines to area trappers and fishermen through the Plaquemine market. Sears & Roebuck also carried the 6hp and 8hp engines, which they sold under the "Motorgo" name. The local men adapted their bateaux to hold the engine, which actually was the same hand-cranked, spark plug and coil system as that

installed in a Ford Model-T automobile (Lafayette Parish Bayou Vermilion District 1998).

During the early twentieth century, freight carried on the Vermilion River consisted principally of sugar cane, rice, cotton, and miscellaneous merchandise. In 1901, sugar cane comprised 41.4 percent of the freight total; by 1916, that figure nearly had doubled to 82.6 percent of the total freight carried. The shipment of cane required vessels of a draft of four ft. Rice, which comprised about 9.8 percent of the tonnage in 1916, required vessels with a draft of three ft to three ft six in. Table 11 charts the tonnage, value, and haul distance of selected freight shipped on the Vermilion River after early dredging operations opened up the channel. Besides the listed articles, cargo items also included livestock, refined sugar, molasses, various farm and dairy products, feed, fertilizers, and fuel oil (Chief of Engineers 1912:2:1981; 1917:1:930-932, 2:2256).

By 1926, no sailing vessels were reported as freight carriers on the Vermilion waterway. Over the next several years, the number of steamers declined, while the number of motor craft and barges increased significantly. In 1926, cargo on the Vermilion consisted chiefly of sugar cane, refined sugar, rice, and fuel oil. By the mid-1930s, petroleum products constituted the principal freight tonnage on the river, followed by crude sulphur [sulfur], sugar cane, and rice (Chief of Engineers 1927:1:893, 2:512-513; Pearson et al. 1989:237, 240-241).

Use of the Vermilion River as a transportation and shipping route declined drastically during the mid-twentieth century. Waterborne travel and commerce simply couldn't compete with the railroad and the paved road system, the latter of which was finished during the late 1930s. In 1944, federal engineers again began dredging the Vermilion River from its mouth to a point above the rebuilt Pinhook Bridge in order to improve navigation on the stream (Griffin 1959:90-91; Lafayette Parish Bayou Vermilion District n.d.). The river was considered non-navigable below the city of Lafayette, and therefore was not maintained for waterborne traffic. However, in 1944 the U.S. Army Corps of Engineers dredged the river between Lafayette and the junction of Bayous Fusilier and Bourbeau (west of Arnaudville, Louisiana), including the area adjacent to the Area of Potential Effect. The purpose of this dredge work was to improve the channel to create an "adequate capacity to carry flood flows of the upper Vermilion Basin" (Report of Chief of Engineers, U. S. Army, 1945:935).

Although barge traffic and light boats were noted along this "non-navigable" portion of the stream during the 1950s, a survey of Lafayette Parish in 1953 reported that no regularly scheduled lines plied the river: "Only traffic is for B & B Towing Co., an occasional barge of pipe, gravel or sand" (Lafayette Parish Development Board 1953:97). In 1956, the Army Corps of Engineers again deepened the channel adjacent to the project area:

Table 11. Commercial freight (selected articles) shipped on the Vermilion River, or Bayou Vermilion, in 1911 and 1916. Report years extend between January 1 and December 31 (Chief of Engineers 1912:2:1981; 1917:2:2556).

COMMERCIAL FREIGHT	SHORT TONS SHIPPED, 1911	VALUE, 1911	AVERAGE MILES HAULED, 1911	SHORT TONS SHIPPED, 1916	VALUE, 1916	AVERAGE MILES HAULED, 1916
Sugar cane	24,000	\$108,000	25	27,077	\$108,308	16
Cotton	275	\$55,000	25	318	\$63,600	35
Cotton seed	33	\$990	25	323	\$9,690	35
Rice	80	\$3,200	30	3,222	\$257,760	25
Potatoes	22	\$880	25	30	\$1,500	40
Oysters	20	\$500	60	110	\$2,750	60
Furs and hides	65	\$14,375	60	17	\$3,898	40
Coal	450	\$2,700	60	126	\$504	40
Lumber	500	\$5,000	25	386	\$4,825	30
Shingles	18	\$450	25	16	\$400	30
Brick	180	\$720	25	6	\$18	25
Iron and steel	30	\$3,000	15	41	\$2,460	40

...[I]mprovement of the Vermilion River from Lafayette, La., mile 52.0 to its junction with the lower end of Ruth Canal, mile 57.2, by both widening and deepening so as to provide a channel of 60-foot bottom width...in order to provide adequate capacity for flood discharges from the upper Vermilion River Basin, and also serve irrigation interests by conducting the flow of Ruth Canal to the lower Vermilion River during the rice season (Report of Chief of Engineer, U. S. Army, 1957:606).

Although the report of the Chief of Engineers does not specify a location or method for the disposal of dredge material, it is likely that the soil was redeposited along the nearby river banks. In fact, a comparison of aerial photographs from 1933 and 1956 reveals a significant increase in clearing and elevation along the bank line in the project area, probably due to the recent dredge work from that year (Figures 26 and 27).

An indication of the growing dependence on the railroad system was the construction of agricultural processing facilities near the Lafayette railways to facilitate the transport of refined sugar, cotton-seed oil, and other products. Both the Lafayette Sugar Refining Company and the Peoples Cotton Oil Company continued operating well into the twentieth century. During the 1920s, these trackside facilities were joined by the Texas Co. Lumber Mill and the Star Salt Co., both of which were constructed along Vermilion Bayou at the foot of the railway spurs branching southeast off the main track of the Southern Pacific Railroad and located upstream from the railroad bridge. By 1940, the lumber mill and salt company had been replaced by the canning factory of B. F. Trappey's Sons, Inc. In addition, most of the residences that formerly had existed to the west along the railroad tracks had been replaced by meat concerns – the Evangeline Live Stock Exchange, the Evangeline Packing Co. (a wholesale meat and packing plant), and the Dominique Slaughter House. Farther up the railroad line, the former site of the Lafayette Sugar Refining Company was occupied by the Lafayette Concrete Pipe Co., Inc., and the Louisiana Building Supply Co., Inc. During the next several years, B. F. Trappey & Sons expanded its canning facility; the Evangeline Packing Co. was replaced by another wholesale meat and packing plant, L. A. Frey &

Sons, Inc.; and Little & Co., Inc., added a dehydration plant to the trackside processors along Vermilion Bayou. Lumber concerns also established facilities on the old Louisiana Sugar Refining Company grounds and closer to the bayou (Sanborn Map Company 1921:1; 1928:1, 30; 1940:30; 1949:30). These enterprises were depicted on the Sanborn Map Company's fire insurance maps; however, unfortunately, most establishments that were built along the Vermilion River and Bayou (including the project item) vicinity were not included in the surveys because that area remained outside of the corporate limits of the city of Lafayette.

The construction of Lafayette processing facilities near the city's railway lines illustrates the importance of the railroad to area shipping and commerce; however, rail transport began to decline during the mid-twentieth century due to the popularity of automobiles and to improved highway systems. The chief blow to rail transportation in the project region was the destruction of the railroad bridge across the Atchafalaya River during the great flood of 1927. Until that time, there had been regular passenger and freight "through service" between Lafayette and Baton Rouge (Griffin 1959:89).

In 1914-1915, the city of Lafayette sponsored the first area plan to replace dirt roads with gravel-surfaced thoroughfares. In 1918, a \$300,000.00 bond issue in Lafayette Parish financed a system of gravel roads that connected Lafayette with the governmental seats of all adjacent parishes. The state and federal government added \$200,000.00 to this roadbuilding effort. By the late 1920s, though, gravel roads were becoming increasingly inadequate for the burgeoning automobile-owning population (Griffin 1959:89-90). Consequently, in 1928, Governor Huey P. Long proposed a 100 million dollar statewide bond issue to "lift Louisiana out of the mud" (Griffin 1959:90). Lafayette-area residents heartily approved of the Governor's plan. Implementation of this program had an important influence on southwestern Louisiana. As a result of this bond issue, state funds were contributed to the construction of a federal highway, U.S. 90 (the Old Spanish Trail), which was completed through Lafayette Parish to Lake Charles in 1931. The hard-surface roads connecting Lafayette to



Figure 26. This 1933 aerial photograph of the project area clearly indicates vegetation along the bankline of the Vermilion river, prior to dredge deposition (photograph on file at the Tobin International, Ltd.).



Figure 27. In contrast to the 1933 aerial photograph of the project area, this 1956 aerial photograph illustrates that the bankline had been cleared. Areas of dredge deposit are clearly visible, probably from the channel work conducted by the United States Army Corps of Engineers that year deposition (photograph on file at the Tobin International, Ltd.).

Carencro and Breaux Bridge were finished in 1932, and the paved links to Abbeville and Opelousas were in place by 1938 (Griffin 1959:90).

The twentieth century brought a brief timber boom to the project region. There had been small sawmills along the Vermilion River and Bayou since the antebellum era; however, it wasn't until after the turn of the century that large lumber concerns built mills in the area. In 1920, the Baldwin Lumber Company, owned by the Barnett family (Allen, Earl, and Robert), constructed a large sawmill near the Southern Pacific Railroad spurs along the bayou and north of the rail bridge. This facility became known as the Texas Co. Lumber Mill later in the decade (Sanborn 1921:1; 1928:30). Cypress logs were cut in the swamps surrounding Lake Martin (east of the proposed project item in St. Martin Parish) and then processed at the Baldwin mill at the rate of 100,000 board feet per day. By 1927, though, the Baldwin/Texas lumber facility, which once employed 600 men, was abandoned, apparently before the great flood of that spring struck the area (Figure 28) (Griffin 1959:111, 158). Other twentieth century lumber enterprises included the Hopkins Bros. Co., Lafayette Lumber Co., Mouton Lumber Co., the L. D. Nickerson Coal and Wood Yard, Burdin Lumber Co., Southern Lumber and Sales Co., Roy Lumber Co., Savoy Lumber Co., and the Farmers Lumber & Hardware Co. The later-established facilities generally were located near the Lafayette railroad tracks and away from the Vermilion River/Bayou (Sanborn Map Company 1921:1; 1928:1; 1940:1-2; 1949:1-3).

Prior to building its trackside facility, the Baldwin Lumber Company purchased Oakbourne Plantation from the Breaux family following the death of patriarch Gustave A. Breaux in 1910. After the lumber company dissolved during the 1920s, the plantation was conveyed to John Cameron "Jack" Nickerson and his brother-in-law, Leo Judice, who also purchased other Lafayette area property. Oakbourne Plantation survived the great flood of 1927; in fact, the property hilltop provided temporary safety for refugees headed for Lafayette from deluged St. Martin Parish (Chappuis, personal communication 2002; Griffin 1959:46, 111, 186).

Oakbourne has remained in the hands of the Nickerson family heirs since the 1920s, and the plantation house endured until it burned in the late 1950s (Figure 22). Much of the land has remained agrarian in nature through the twentieth century. Crops cultivated on the property once included soybeans, corn, and sugar cane; however, a cattle range currently occupies the undeveloped Nickerson family acreage (approximately 700 ac [283.3 ha]). In recent years, a large portion of Oakbourne Plantation has been subdivided into residential lots and a highly-rated private golf course. The Oakbourne Country Club, constructed in 1956, is situated along the northwestern side of the proposed project item and outside of the real estate development (Chappuis, personal communication 2002; Golf Interactive LLC 2000; Griffin 1959:46, 111, 186).

The twentieth century brought a new industry to the region that drastically changed the economy of Lafayette Parish. A small petroleum deposit was discovered within the municipal limits of Lafayette in 1891; however, the local resources were not successfully exploited until well after the turn of the century. In 1896, oil exploration began to the east in the Anse La Butte Field of St. Martin Parish (historically, located just northeast of the project item), but drilling in that area did not commence in earnest until 1907. By the 1920s, regional petroleum exploration was progressing westward into Lafayette Parish. In 1928, the Lafayette Oil Co., Magnolia Petroleum Co., Pan-American Oil Co., Pierce Oil Co., Prudhomme Oil Co., Sinclair Oil Co., Standard Oil Co., and the Texas Co. (petroleum products) all occupied offices in the city of Lafayette. Attracted by Lafayette's central location and its hospitality to industry, many more petroleum companies moved into the community ca. 1940 with landmen, production men, field supervisors, geologists, engineers, marketing supervisors and other personnel, as well as numerous individuals and companies involved in support services. In 1952, an oil center, or petroleum industry complex, was established between Pinhook Road and Girard Park, less than 5 km (3 mi) southwest of the proposed project item (Griffin 1959:113-114; Perrin 1999; Sanborn Map Company 1928:1; St. Martin Parish Devel-

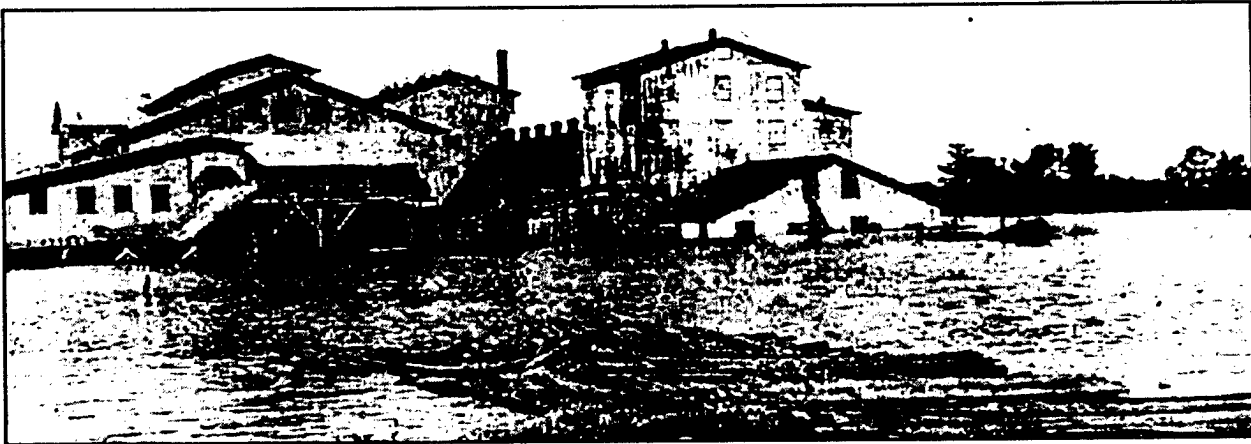


Figure 28. Photograph of the "Saw Mill plant of Baldwin Lumber Co. under water" during the flood of 1927 (Griffin 1959: page opposite index, bottom photograph).

opment Board ca. 1950). According to one local historian, "Thus began the move that has made Lafayette the oil center of all South Louisiana and has changed the face and character of the city" (Griffin 1959:114).

By the early 1920s, exploration of the Anse La Butte Oil and Gas Field had extended into the project vicinity. In 1923-1924, the Pashure No. 1 was drilled in Section 8, Township 9S, Range 5E, a few kilometers north of the project item. A total of 57 more petroleum wells were drilled in the project township between 1942 and 2000, all of which were designated within the Anse La Butte Field. Six of these wells were located in project Section 93 (none were drilled in the other project sections); however, none appear to have been situated within the project item. Several wells in other parts of the township, though, were drilled on Nickerson family property (Office of Conservation 2001).

The petroleum boom brought another sort of commercial traffic to the Vermilion River/Bayou during the twentieth century. By 1947, the United Gas Pipe Line [sic] Company had constructed two natural gas pipelines across the waterway between the towns of Lafayette and Abbeville (Louisiana Geological Survey 1947). Over the next 12 years, other companies joined United Gas in the construction of natural gas pipelines across Lafayette Parish, including Gulf Interstate Gas Company, Texas Gas Transmission Corporation,

and Louisiana Intrastate Gas Corporation. By 1959, the last-named company had a 10-in line in place just above the project item (Louisiana Geological Survey 1959). Today, although the oil and gas business generally has declined in the region, Lafayette Parish is crossed by a number of petroleum pipelines, including one through the proposed project item: a 36-in natural gas line operated by United Gas Pipeline Company (Design Technics Corporation 1992).

Summary

The proposed project item is situated along a section of the Vermilion River, or Bayou, that historically was the principal means of transport and commerce for residents of the region. Until the advent of railways and paved roads through the area, waterborne transport was faster and more economical than overland shipping and travel. Although no longer a commercial transportation artery, the Vermilion waterway, nevertheless, was an important factor in the economic development of both the parish and the city of Lafayette. Because the proposed project item is located outside of the municipal limits of Lafayette, it is unlikely that loci containing major concentrations of historic remains will be found along the route, with the exception of those areas near the river where plantation structures once may have existed. Because this part of southern Louisiana traditionally was cotton and sugarcane

country and the proposed project item once was occupied by at least one large plantation, Oakbourne, there is a possibility that some evidence

of past plantation life, although impacted by cultivation or modern petrochemical activity, may have survived the years.

PREVIOUS INVESTIGATIONS

Introduction

This chapter presents an overview of previous archeological research completed within the vicinity of the Vermilion River Disposal project area in Lafayette Parish, Louisiana. This discussion provides the comparative data necessary for assessing the results of the current Phase I cultural resources survey and archaeological inventory. In addition, it ensures that the potential impacts to all previously recorded cultural resources located within the general vicinity of the currently proposed project parcel are taken into consideration. The chapter is divided into two sections. The first contains a review of previous cultural resources surveys completed within 8 km (5 mi) of the proposed Vermilion River Disposal area project item. The second section presents a review of previously recorded archeological sites and historic standing structures located within 1.6 km (1 mi) of this study area.

Previously Conducted Cultural Resources Surveys within 8.05 km (5 mi) of the Proposed Vermilion River Disposal Project Area

A total of 22 previously completed cultural resources surveys and archeological inventories were identified within 8 km (5 mi) of the proposed Vermilion River Disposal project area (Table 12). These investigations resulted in the identification of over 160 archeological sites and 468 standing structures. While 18 previously recorded sites (16LY2, 16LY5, 16LY6, 16LY8, 16LY12, 16LY13, 16LY25, 16LY28, 16LY30, 16LY52, 16LY61, 16LY62, 16LY65, 16LY76, 16SM15, 16SM18, 16SM20, and 16SM81) are located within 1.6 km (1 mi) of the currently

proposed project area, only two of these are situated within the Area of Potential Effect (16LY24 and 16LY50). The 22 surveys that were examined are presented below in chronological order by the parish in which they were conducted. Those surveys completed in more than one parish are discussed at the end of the section.

Lafayette Parish

On October 2, 1975, the State of Louisiana, Department of Highways of Baton Rouge conducted a Phase I cultural resources survey and archeological inventory of the proposed Pinhook Road Vermilion River Bridge and Approaches project area (Rivet 1975). The survey was designed to identify all cultural resources located near the Vermilion River Bridge and its approaches along Pinhook Road (Highway 182). The overall size of the proposed project area was not noted. Despite an intensive visual reconnaissance, no cultural resources were identified during survey. No additional testing of the proposed project corridor was recommended.

Jon Gibson conducted a Phase I cultural resources survey and archeological inventory during December of 1975 of the Lafayette Municipal Airport. This survey was performed prior to the start of a proposed expansion project (Gibson 1976). The cultural resources survey was requested by Domingue, Szabo, and Associates, Inc. of Lafayette, Louisiana. Fieldwork consisted of pedestrian survey throughout the Area of Potential Effect; however, the overall size of the area subjected to survey was not reported. Gibson (1976) stated that 11 previously known and/or newly recorded sites (16LY5, 16LY6, 16LY10, 16LY12, 16LY13, 16LY25,

Table 12. Previous archeological investigations completed 8.05 km (5 mi) of the proposed Vermilion River Dredge Disposal project area.

SURVEY DATE	REPORT NUMBER	TITLE/AUTHOR	FIELD METHODOLOGY	RESULTS
Lafayette Parish				
1975	22-259	Letter report. Subject: Cultural Resources Survey of Vermilion River Bridge and Approaches at Pinhook Road (Route LA 182), Lafayette Parish, Louisiana (Rivet 1975)	Records review and an unspecified type of field survey	No cultural resources were identified; no additional testing was recommended.
1975	22-5	<i>Archaeological Survey of the Lafayette Municipal Airport, Lafayette, Louisiana</i> (Gibson 1976)	Records review and pedestrian survey	Identified and/or relocated Sites 16LY5, 16LY6, 16LY10, 16LY12, 16LY13, 16LY25, 16LY28, 16LY30, 16LY61, 16LY62, and 16SM13. Of these, Sites 16LY6, 16LY12, 16LY28, 16LY30, and 16LY61 were assessed as potentially significant and additional testing was recommended.
1978	22-1429	<i>Hotard Airport West: Determination of Significance and Evaluation of Adverse Impact</i> (Gibson 1978)	Pedestrian survey and the examination of an escarpment profile	No cultural resources or features were identified during additional testing of the Hotard Airport West Sites (16LY28). The site was assessed as not significant and no additional testing was recommended.
1979	22-496	<i>Archeological Survey, Four Laning of Kaliste Saloom Road Extension</i> (OCES Corporation 1979)	Records review, pedestrian survey, and shovel testing	No cultural resources were identified; no additional testing was recommended.
1980	22-819	<i>Cultural Resources Survey, South College Road Extension, Pinhook Road - Kaliste Saloom Road, Lafayette Parish</i> (Coastal Environments, Inc. 1982)	Records review, vehicular survey, pedestrian survey, and shovel testing	Identified Sites 16LY56 and 16LY58. In addition, previously recorded Site 16LY55 was relocated and isolated finds X16LY-C and X16LY-D were noted. Sites 16LY56 and 16LY58 were assessed as potentially significant. Additional testing of Site 16LY58 was recommended while no additional testing was recommended at Site 16LY56 as it was situated beyond the Area of Potential Effect. The remaining site (16LY55) and the two isolated finds were assessed as not significant and no additional testing was recommended.
1986	22-1167	<i>A Cultural Resources Survey of Three Proposed Vermilion River Bridge Alignments in Lafayette Parish, Louisiana</i> (Whelan and Castille 1988)	Records review, pedestrian survey, and shovel testing	Identified Sites 16LY59 and 16LY60. Site 16LY60 was assessed as not significant and no additional testing was recommended. Site 16LY59 was not assessed; however, additional testing of the site was recommended.
1986	22-1152	<i>Cultural Resources Survey of River Oaks Flood Protection Project, Phase II, Lafayette, Louisiana</i> (Gibson 1986)	Records review, pedestrian survey, and subsurface probing	No cultural resources were identified; no additional testing was recommended.
1989	22-1385	<i>A Cultural Resources Survey of a Portion of Beaver Park, Lafayette Parish, Louisiana</i> (Hahn III 1991)	Records review, pedestrian survey, and auger testing	A total of 19 historic period artifacts, 11 <i>Rangia cuneata</i> shells, 1 oyster shell, and 5 unmodified pebbles were recovered during auger testing; however, no site number was assigned and no additional testing of the proposed project area was recommended.
1991	22-1557	<i>Where the River and the Ridge Meet: Cultural Resources Investigations along the I-49 Connector, Lafayette, Louisiana</i> (Gibson 1991)	Records review, pedestrian survey, shovel testing, and soil probing	No archeological sites were identified; however, a total of 436 standing structures, which appeared to be greater than 50 years in age, were noted. Of these, 252 structures were assessed as potentially significant, while a total of 112 structures were reportedly eligible for listing on the National Register. Additional recordation of these 364 structures was recommended.
1994	22-1882	<i>Cultural Resources Survey of Four Disposal Areas along the Vermilion River, Lafayette Parish, Louisiana</i> (Meyer et al. 1995)	Records review, pedestrian survey, shovel testing, and mechanical excavation	No archeological sites or loci were identified and no additional testing was recommended.

Table 12, continued

SURVEY DATE	REPORT NUMBER	TITLE/AUTHOR	FIELD METHODOLOGY	RESULTS
1995	22-1957	<i>Phase I Cultural Resources Assessment for the Proposed New Federal Courthouse, Lafayette, Louisiana</i> (Largent and Green 1996)	Records review and pedestrian survey	Identified 20 standing structures within the proposed project area. Of these, 13 structures were assessed as potentially significant; however, 11 of these would not be adversely impacted by proposed construction and no additional recordation was recommended. The remaining two structures (situated at 816 and 822 Lafayette Street) reportedly would be destroyed during proposed construction. Additional recordation of these two structures was recommended.
1996	22-1969	<i>Phase I Archaeological Investigation of the Proposed New Federal Courthouse Lafayette, Louisiana</i> (Servello and Patterson 1996)	Records review, pedestrian survey, shovel testing, and unit excavation	Identified Site 16LY79 within the proposed construction area. The site was assessed as not significant and no additional testing was recommended.
1996	22-1927	<i>Beyond the River and the Ridge: Cultural Resources Investigations of Ambassador Caffery Parkway, Lafayette Parish, South-Central Louisiana</i> (Gibson et al. 1996)	Records review, pedestrian survey, and shovel testing	Identified a scatter of historic period artifacts; however, no site number was assigned. In addition, seven standing structures were noted. The historic period locus and the seven standing structures were assessed as not significant and no additional testing/recordation was recommended.
1997	22-1927 Addendum	<i>Addendum to Beyond the River and the Ridge: Cultural Resources Investigations of Ambassador Caffery Parkway, Lafayette Parish, South-Central Louisiana. Alternates C, D, G, K, and L</i> (Gibson and Brasseaux 1997)	Records review, pedestrian survey, and shovel testing	Identified historic period Site 16LY81 as well as an historic period isolated for which no site number was assigned. Both of these cultural resources were assessed as not significant and no additional testing was recommended.
1998	22-2242	<i>Phase I Cultural Resources Survey and Inventory of the Proposed Vermilion River Dredge Maintenance Project, Lafayette Parish, Louisiana</i> (Lichtenberger et al. 1999)	Records review, pedestrian survey, shovel testing, auger testing, probing, magnetometer survey, and a marine remote sensing survey	Identified Sites 16LY94, 16LY95, and 16LY97 as well as two non-site loci (4-1 and 5-1) and one standing structure (SS1). All of these cultural resources were assessed as not significant and no additional testing was recommended; however, it was recommended that Site 16LY97 (Picard Cemetery) be avoided. In addition, a marine remote sensing survey identified 31 anomalies; however, none of these were believed to represent cultural resources and no additional testing of these anomalies was recommended.
St. Martin Parish				
1977	22-452	Letter report. Subject: Phase I Cultural Resources Survey of Two Proposed Bridge Construction Locations over Bayou Teche in St. Martin Parish, Louisiana (Rivet 1977)	Records review and pedestrian survey	No cultural resources were identified and no additional testing was recommended.
1978	22-434	<i>Cultural Resources Survey of the Breaux Bridge Sewerage System, St. Martin Parish, Louisiana</i> (Gibson 1978)	Records review, windshield survey, pedestrian survey, shovel testing, and auger testing	Identified three cultural resource loci, eight standing structures, and a single historic cemetery; however, no site numbers were assigned. The three archeological loci were assessed as not significant and no additional testing was recommended. The author noted that the identified standing structures, as well as the historic cemetery, would not be impacted and thus, they were not assessed and no additional recordation was recommended.
Multiple Parishes				
1974 and 1976	22-119	<i>Supplement to Environment Effect Assessment of the Lafayette Loop [State Project 700-07-96 (21)]</i> (Gulf South Research Institute 1976)	Records review and pedestrian survey	Identified and/or relocated Sites 16LY11, 16LY24, 16LY27, 16LY32 – 16LY54, 16LY57, 16LY70 – 16LY78, 16SM15, 16SM18, 16SM24, and 16SM82. While none of the sites were specifically assessed, various degrees of additional testing was recommended at Sites 16LY11, 16LY24, 16LY27, 16LY32 – 16LY37, 16LY39 – 16LY53, 16LY57, 16LY70 – 16LY73, and 16LY76 – 16LY78. No additional testing was recommended for the remaining sites.

Table 12, continued

SURVEY DATE	REPORT NUMBER	TITLE/AUTHOR	FIELD METHODOLOGY	RESULTS
1975	22-105	<i>Archeological Survey of Bayou Teche, Vermilion River, and Freshwater Bayou, South Central Louisiana</i> (Gibson 1975)	Records review, pedestrian survey, bankline survey, and limited subsurface testing utilizing a trowel	Identified and/or relocated Sites 16LY5 - 16LY7, 16LY10, 16LY12 - 16LY14, 16LY17, 16LY22 - 16LY26, 16LY28, 16LY29, 16LY55, 16LY61 - 16LY63, 16SM15, 16SM17, 16SM20, 16VM104, 16VM126, and 16VM127. An additional 13 identified sites were discussed using the number assigned by the University of Southwestern Louisiana (USL Sites 16IB2, 16SL2, 16SL31, 16SM6, 16SM13, 16SM18, 16SM20, 16SM21, 16SM24 - 16SM26, 16VM11, and 16VM17); however, the corresponding official state site numbers were not noted. While none of these sites was specifically assessed, avoidance or additional testing of Sites 16LY5 - 16LY7, 16LY14, 16LY17, 16LY23, 16LY61, 16SM15, 16SM17, 16SM20, 16VM126, USM 16IB2, USM 16SL2, USM 16SM13, USM 16SM24, USM 16VM11, and USM 16VM17 was recommended. In addition, archeological monitoring of the remaining sites during proposed construction was recommended.
1978	22-366	<i>The Texas-Louisiana Ethylene (TLP) Project</i> (McIntire 1978)	Records review, helicopter survey, boat survey, vehicular survey, pedestrian survey, shovel testing, and auger testing	Within Louisiana, Site 16AC21 was identified within the proposed corridor; however, the site is not situated within the vicinity of the current project area.
1997 - 1998	22-2203	<i>Phase I Cultural Resources Survey and Archeological Inventory of the Proposed Tends Breaux Bridge System Pipeline Project, Vermilion, Lafayette, and St. Martin Parishes, Louisiana</i> (Robblee et al. 1999)	Records review, vehicular survey, pedestrian survey, and shovel testing	Identified Sites 16VM148 - 16VM151 and 16LY82 - 16LY93 as well as four non-site loci (V02-02, V07-01, V07-02, and LAF10-01) and four standing structures (22-1 - 22-4). Of these, only Site 16LY87 was assessed as potentially significant; however, it was reportedly located beyond the Area of Potential Effect and no additional testing of the site was recommended. The remaining 16 archeological sites, four non-site loci, and four standing structures were assessed as not significant and no additional testing was recommended.
1998	22-2171	<i>Archeological Phase I Survey of Eight 90th Regional Support Command Facilities in Louisiana</i> (Parsons Engineering Science, Inc. 1998)	Records review, pedestrian survey, and shovel testing	Within the vicinity of the current project area, a single site (16LY96) was identified. Site 16LY96 was assessed as not significant and no additional testing was recommended.
2000	22-2387	<i>Submerged Cultural Resources Survey of the Vermilion River between Route 353 to the Milton Bridge, Lafayette and Vermilion Parishes, Louisiana</i> (Pelletier et al. 2001)	Records review and marine remote sensing survey	Identified 131 magnetic anomalies and 23 acoustic anomalies, which comprised 60 targets. The authors noted that none of these 60 targets represented shipwrecks or other significant cultural resources. No additional testing of the study area was recommended.

16LY28, 16LY30, 16LY61, 16LY62, and 16SM13) were examined within the project area. Of these 11 sites, only one (Site 16LY62) contained both prehistoric and historic period components; the remaining 10 sites were described as prehistoric in origin. The cultural composition of these sites included evidence of Archaic, Poverty Point, Tchefuncte, Marksville, Issaquena, Troyville and/or Coles Creek, and Plaquemine period cultural activities. Despite previous mechanical impacts, Gibson (1976) assessed five of the sites (16LY6, 16LY12, 16LY28, 16LY30, and 16LY61) as potentially significant resources applying the National Register of Historic Places criteria for evaluation (36 CFR 60.4 [a-d]); he recommended either avoidance or additional evaluatory testing at these sites. Furthermore, Gibson (1976) offered suggestions for the development of a comprehensive testing regime that could be implemented in conjunction with a five-year development plan for the airport. Of these sites, 10 (Sites 16LY5, 16LY6, 16LY10, 16LY12, 16LY13, 16LY25, 16LY28, 16LY30, 16LY61, and 16LY62) are located within 1.6 km (1 mi) of the currently proposed project area. These 10 sites are discussed in greater detail below.

During August of 1978, Jon Gibson performed archeological testing at previously recorded Site 16LY28 on behalf of Domingue, Szabo, and Associates of Lafayette, Louisiana at the request of the Lafayette Airport Commission (Gibson 1978). The testing was conducted in anticipation of the proposed construction of a minimum security prison by the Lafayette Parish Police Jury; the project area was located on property encompassed by the Lafayette Regional Airport and held under the jurisdiction of the Federal Aviation Administration. Site 16LY28 was described as a Troyville and Coles Creek period site identified during the previously discussed survey. At that time, the site was assessed as a potentially significant resource applying the National Register of Historic Places criteria for evaluation (36 CFR 60.4 [a-d]) and either avoidance or additional evaluatory testing was recommended. Despite this evaluation, approximately 0.6 m (2 ft) of soil had been removed from Site 16LY28 during mechanical landscaping activities that apparently were associated with the construction of an additional runway pad.

Gibson (1978) noted that archeological testing of the site area included intensive pedestrian survey augmented by the random excavation of an *unspecified* number of "small trowel holes". No artifacts or cultural features were identified at the site, and Gibson (1978a) determined that Site 16LY28 had been destroyed by the above-mentioned earthmoving activities. As a consequence, Site 16LY28 was assessed as not significant applying the National Register of Historic Places criteria for evaluation (36 CFR 60.4 [a-d]) and no further work was recommended. Site 16LY28 is situated within 1.6 km (1 mi) of the currently proposed project area and it is discussed below.

OECs Corporation of Lafayette, Louisiana conducted a Phase I cultural resources survey and archeological inventory during 1979 of the proposed Kaliste Saloom Road extension; this work was performed prior to proposed widening of the roadway (OCES Corporation 1979). The survey was conducted on behalf of the City of Lafayette, Department of Public Works of, Lafayette, Louisiana. The proposed project corridor measured 1,371.6 m (4,500 ft) in length; however, the width of the proposed Kaliste Saloom widening project was not reported. Pedestrian survey augmented by shovel testing within all wooded lots (presumably where the ground surface was obscured) failed to identify any cultural resources. No additional work was recommended.

During May and June of 1980, Coastal Environments, Inc. and D. Ralph Caffery & Associates, Inc. conducted a Phase I cultural resources survey and archeological inventory of the proposed South College Road extension for the City of Lafayette, Department of Public Works of Lafayette, Louisiana (Coastal Environments, Inc. 1982). The length and width of the proposed road extension was not reported; however, the proposed expansion was labeled "Zone I". A second, poorly defined area (termed "Zone II") also was examined at this time in anticipation of future development. Survey methods for both project areas consisted of vehicle and pedestrian survey; in Zone I, this testing strategy was augmented by the excavation of an *unspecified* number of systematic shovel tests. A total of two archeological sites (16LY56 and 16LY58) and two isolated loci (X16LY-C and X16LY-D) were identified during survey of

Zone I. In addition, previously recorded Site 16LY55 was relocated. Coastal Environments, Inc. (1982) also noted that an *unspecified* number of isolated, historic/modern period artifacts were observed in Zone II; however these loci were not given field designations.

The first of the two isolates (Locus X16LY-C) consisted of 4 sherds of pearlware that originated from the same vessel; the second isolate (X16LY-D) contained only a single projectile point/knife fragment with an unknown cultural/temporal affiliation. Each of these loci was assessed as not significant applying the National Register of Historic Places criteria for evaluation (36 CFR 60.4 [a-d]). Of the three identified archeological sites, one (Site 16LY55) dated from the prehistoric (Tchefuncte and/or Marksville) period, while the remainder (Sites 16LY56 and 16LY58) was described as historic in origin. Only two sites (16LY55 and 16LY58) were evaluated as potentially significant cultural resources applying the National Register of Historic Places criteria for evaluation (36 CFR 60.4 [a-d]), and each of these sites was recommended for additional evaluatory testing. Site 16LY56 was assessed as not significant applying the above-mentioned criteria for evaluation (36 CFR 60.4 [a-d]).

Although it reportedly would not be impacted under the proposed alignment plan, "Level II" testing was conducted at Site 16LY55. The excavation of four backhoe trenches at the site failed to identify any features or evidence of intact cultural deposits, and Site 16LY55 eventually was evaluated as not significant applying the National Register of Historic Places criteria for evaluation (36 CFR 60.4 [a-d]). Level II testing at Site 16LY58, a mid-eighteenth to early nineteenth century cultural material scatter, included the excavation of a single 2 x 2 m (6.6 x 6.6 ft) test unit and three 1 x 1 m (3.3 x 3.3 ft) units. While these investigations resulted in an assessment of not significant applying the National Register of Historic Places criteria for evaluation (36 CFR 60.4 [a-d]), archeological monitoring of the site was recommended during the initial grading and construction activities associated with the road expansion. Sites 16LY55, 16LY56, and 16LY58 are situated within 1.6 km (1 mi) of the proposed

project area and they are discussed in greater detail below.

Coastal Environments, Inc. of Baton Rouge, Louisiana conducted a Phase I cultural resources survey and archeological inventory during March of 1986 of three proposed bridge construction sites crossing the Vermilion River within the city of Lafayette, Lafayette Parish, Louisiana (Whelan and Castille 1988). The survey, which was completed at the request of PENSICO of Lafayette, Louisiana, included the examination of a parcel of land measuring 14.2 ha (35 ac) in size. Pedestrian survey augmented by shovel testing resulted in the identification of archeological Sites 16LY59 and 16LY60.

Site 16LY59 was described as a surface scatter of historic period artifacts that dated from the late nineteenth to early twentieth century, while Site 16LY60 consisted of a single Baytown Plain *var. unspecified* prehistoric period ceramic sherd recovered from the ground surface. Of these two sites, Site 16LY60 was assessed as not significant applying the above-mentioned criteria for evaluation (36 CFR 60.4 [a-d]) and no additional testing was recommended. The remaining site (16LY59) was not assessed by Whelan and Castile (1988) applying the National Register of Historic Places criteria for evaluation (36 CFR 60.4 [a-d]). Additional testing of the site was recommended. Of these two archeological sites, only one (Site 16LY59) is situated within 1.6 km (1 mi) of the currently proposed project area and it is discussed in the section on sites below.

In May 1986, Archaeology Inc., of Lafayette, Louisiana completed a Phase I cultural resources survey and archeological inventory of the proposed River Oaks Flood Protection Project at the request of Domingue, Szabo, and Associates of Lafayette, Louisiana (Gibson 1986). The project area measured approximately 20 x 300 m (65.6 x 984 ft) in size and it was situated between River Road and the western bank of the Vermilion River. Pedestrian survey augmented by the excavation of an *unspecified* number of soil corings failed to identify any cultural resources. No additional testing of the proposed project area was recommended.

During January 1989, Coastal Environments, Inc. of Baton Rouge, Louisiana com-

pleted a Phase I cultural resources survey and archeological inventory of a 2.8 ha (6.8 ac) parcel of land within Beaver Park, Lafayette Parish; the tract represented the proposed site of the planned Acadian Culture Center (Hahn 1991). Survey of the project area was conducted on behalf of Hamilton and Associates of Opelousas, Louisiana, and Jean Lafitte National Historical Park and Preserve in New Orleans, Louisiana. Pedestrian survey of the project area was conducted along transects spaced 20 m (65.6 ft) apart within the floodplain and along transects spaced 5 m (16.4 ft) apart on the adjacent bluffs. In addition, 241 auger tests were excavated within the project area; they produced a total of 36 artifacts. Hahn (1991) stated that all of these artifacts originated from disturbed contexts, and the stratigraphic profiles demonstrated that the landscape had been altered and heavily impacted by a combination of *unspecified* mechanical and natural processes. A majority of the artifacts were related to modern activities associated with the park and only two artifacts were identified as historic/modern period whiteware sherds. No loci or archeological sites were recorded and no additional testing of the tract was recommended.

Between February and April of 1991, Jon Gibson completed a Phase I cultural resources survey and archeological inventory of the proposed Lafayette Interstate 49 Connector Project corridor on behalf of Howard, Needles, Tammen, & Bergendoff, Inc. of Baton Rouge, Louisiana, and the State of Louisiana, Department of Transportation and Development (Gibson 1991). The project corridor measured approximately 800 m (2,624.7 ft) in width by 8.9 km (5.5 mi) in length. The proposed right-of-way was situated adjacent to U.S. Highways 167 and 90 and it extended southward from Ponte de Moutom Road to the Lafayette Regional Airport. Although a majority of this corridor crossed urban areas within the city of Lafayette and it was not conducive to shovel testing, three areas (the Le Rosen school, the south bank of the Vermilion River west of Evangeline Throughway, and several square blocks within the Sterling Grove Historic District) were identified as having the potential to contain buried intact historical deposits. Within these areas, Gibson (1991) recommended either avoidance or an intensive survey/recovery prior to road construction. In addition,

the Vermilion River portion of the project area was singularly identified as exhibiting a high probability for containing prehistoric cultural resources. This portion of the survey area included a 1,500 m (4,921.3 ft) long section of the Vermilion River that originated near the southern edge of U.S. Highway 90 and extended south to the "new" University Avenue bridge. Fieldwork in this area consisted of pedestrian survey augmented by the excavation of shovel tests at 30 m (98.4 ft) intervals along each bank of the river. No cultural resources loci were identified along the Vermilion River and no additional testing of this portion of the right-of-way corridor was recommended.

In addition to the archeological survey, an architectural survey was undertaken to identify all built properties older than 50 years in age. A total of 436 previously unexamined historic period standing structures were identified as a result of this undertaking; 72 of these structures were assessed as not significant applying the above-mentioned criteria for evaluation (36 CFR 60.4 [a-d]). The 364 remaining structures were assessed as either potentially significant or significant cultural properties applying the National Register of Historic Places criteria for evaluation (36 CFR 60.4 [a-d]) that might be eligible for inclusion in the National Register of Historic Places. No state standing structure numbers were requested for these structures as a result of the survey.

Prentice Thomas and Associates, Inc. conducted a Phase I cultural resources survey and archeological inventory of four disposal areas along the Vermilion River Lafayette Parish, Louisiana during November of 1994 (Meyer et al. 1995). The survey was completed on behalf of the U.S. Army Corps of Engineers, New Orleans District. Shovel tests were excavated at an interval of 30 m (98.4 ft) in an offset pattern along transects spaced 20 m (65.6 ft) apart. Each shovel test measured 30 cm (11.8 in) in diameter, and each was excavated to sterile subsoils or a minimum depth of 50 cm (19.7 in). In addition, a single backhoe trench was excavated in each of the four locations in order to determine if deeply buried deposits were evident, and to assess soil types in the project area.

No archeological sites or standing structures were identified within the four areas that

were surveyed (Areas B, C, D, F). An additional 2 areas (A and E) were visually surveyed by the Corps archeologists on September 28, 1994. These two areas were determined to be previously disturbed, and it was unlikely that they would reveal intact cultural resources.

Geo-Marine, Inc. of Plano, Texas conducted an architectural evaluation during August and September of 1995 of a 3 ha (7.4 ac) parcel of land situated within the city of Lafayette, Lafayette Parish, Louisiana. This survey was undertaken prior to proposed construction of a new Federal courthouse (Largent and Green 1996). The survey was completed on behalf of the General Services Administration, Public Buildings Service of Fort Worth, Texas. Following a literature review, a photographic and architectural survey of the proposed building site was conducted. Largent and Green (1996) stated that this survey resulted in the identification of 20 historic standing structures within the Area of Potential Effect; however, no standing structure numbers were assigned to the buildings.

Of the identified buildings, 13 structures were assessed as potentially significant applying the National Register of Historic Places criteria for evaluation (36 CFR 60.4 [a-d]); however, only two of these (816 and 822 Lafayette Street) would be adversely impacted by proposed construction. Additional recordation of these two structures was recommended. The remaining seven structures identified within the Area of Potential Effect were assessed as not significant applying the above-mentioned criteria for evaluation (36 CFR 60.4 [a-d]) and no additional recordation was recommended. In addition, as they would not be adversely impacted, no additional recordation of the 11 remaining potentially significant standing structures was recommended. None of these 20 standing structures are situated within 1.6 km (1 mi) of the currently proposed project area.

Subsequently, during July of 1996, the U.S. Army Corps of Engineers completed a Phase I cultural resources survey and archeological inventory of the same 3 ha (7.4 ac) parcel of land prior to proposed construction of the Federal courthouse building (Servello and Patterson 1996). As noted above, an architectural survey of the proposed project area had been previously conducted by Geo-Marine, Inc. (Largent and

Green 1996). Servello and Patterson (1996) reported that pedestrian survey augmented by shovel testing and the excavation of a single 1 x 1 m (3.3 x 3.3 ft) test unit resulted in the identification of Site 16LY79.

Site 16LY79 was described as a scatter of historic period artifacts that dated from the 1800s to the present. In addition, it was noted that the site measured 3 ha (7.4 ac) in size and included the entire proposed construction site location. Servello and Patterson (1996) stated that Site 16LY79 had been disturbed previously and thus, it was assessed as not significant applying the National Register of Historic Places criteria for evaluation (36 CFR 60.4 [a-d]). No additional testing of Site 16LY79 was recommended. Site 16LY79 is not situated within 1.6 km (1 mi) of the currently proposed project area.

During 1995, Jon Gibson conducted a Phase I cultural resources survey and archeological inventory of three proposed alternate alignments of the Ambassador Caffery Parkway extension corridor located between Louisiana Highway 339 and U.S. 90 in Lafayette Parish, Louisiana (Gibson et al. 1996). In total, the three proposed alignments measured 12.1 km (7.5 mi) in length; however, the widths of the proposed rights-of-way were not reported. The survey was conducted on behalf of the State of Louisiana, Department of Transportation and Development, Baton Rouge, Louisiana (LDOTD).

Fieldwork for this project included pedestrian survey augmented by the excavation of 102 shovel tests along survey transects spaced approximately 30 m (98.4 ft) apart. No archeological sites were identified, and only one locus (a historic/modern period scatter) was located as a result of this inventory; no further testing of this locus was recommended. A total of seven standing structures were identified during windshield survey of the project corridors. None of these was assessed as potentially significant applying the National Register of Historic Places criteria for evaluation (36 CFR 60.4 [a-d]) and no standing structure numbers were assigned. No additional testing of the three proposed highway corridors was recommended.

Subsequently in 1997, Sellers & Associates, Inc. of Lafayette, Louisiana conducted a Phase I cultural resources survey and archeological inventory of five additional proposed

highway alignments (C, D, G, K, and L) associated with the Ambassador Caffery Parkway extension project within Lafayette Parish, Louisiana (Gibson and Brasseaux 1997). The survey was completed on behalf of the State of Louisiana, Department of Transportation and Development (LDOTD). The proposed rights-of-way corridors extended from Louisiana Highway 339 to U.S. 90. Gibson and Brasseaux (1997) stated that 27.1 ha (67 ac) were examined as a result of this investigation. Fieldwork consisted of pedestrian survey augmented by shovel testing at 30 to 50 m (98.4 to 164 ft) intervals. Only one archeological site (16LY81) and an isolated historic/modern whiteware sherd were identified during survey. Site 16LY81 consisted of a small scatter of historic artifacts that was associated with a wooden barn. The barn was constructed of wooden pegs and square nails, and it apparently dated from the late eighteenth to early nineteenth century. Site 16LY81 was assessed as not significant applying the National Register of Historic Places criteria for evaluation (36 CFR 60.4 [a-d]) and no additional testing the site or of the five proposed highway corridors was recommended. Site 16LY81 is not situated within 1.6 km (1 mi) of the currently proposed project area.

R. Christopher Goodwin & Associates, Inc. of New Orleans, Louisiana conducted a Phase I cultural resources survey and archeological inventory during May and June of 1998 of the proposed U.S. Army Corps of Engineers Vermilion River Dredge Maintenance Project area in Lafayette Parish, Louisiana (Lichtenberger et al. 1999). The survey, which was completed on behalf of the U.S. Army Corps of Engineers, New Orleans District included a section of the Vermilion River located between river miles 47.5 and 48.4, as well as a 14.2 ha (35 ac) parcel situated within Section 50 of Township 11S, Range 4E.

A marine remote sensing survey of the Vermilion River portion of the proposed project area utilizing a side scan sonar, a recording proton precession magnetometer, and a fathometer resulted in the identification of 21 magnetic and 10 acoustic anomalies; however, Lichtenberger et al. (1999) noted that these anomalies did not include readings consistent with those of submerged cultural resources. The terrestrial portion

of the of the proposed U.S. Army Corps of Engineers Vermilion Dredge Maintenance Project area was surveyed utilizing a combination of pedestrian survey, shovel testing, magnetometer survey, probing, and auger testing. This testing resulted in the identification of two archeological sites (16LY94 and 16LY95), an historic period cemetery (Site 16LY97), two non-site loci (4-1 and 5-1), and one historic period standing structure (SS 669).

Lichtenberger et al. (1999) described Sites 16LY94 and 16LY95 as historic period artifact scatters, while Site 16LY97 represented the Picard Cemetery. All three cultural resources dated from the nineteenth to twentieth century. Locus 4-1 consisted of an isolated, non-temporally diagnostic prehistoric period lithic flake, while Locus 5-1 was described as several pieces of brick that were observed during excavation of a shovel test. Finally, Standing Structure 669 was described as a barn that possibly dated from the early to mid twentieth century. Lichtenberger (1999) assessed all of these cultural resources as not significant applying the National Register of Historic Places criteria for evaluation (36 CFR 60.4 [a-d]). While no additional testing of any of these resources was recommended, it was recommended that Site 16LY97 (Picard Cemetery) be avoided. Finally, no additional testing of the 21 magnetic and 10 acoustic anomalies which were identified during the marine remote sensing survey was recommended. None of these cultural resources (Sites 16LY94, 16LY95, 16LY97, Locus 4-1, Locus 5-1, and Standing Structure 669) are situated within 1.6 km (1 mi) of the currently proposed project area.

St. Martin Parish

On August 13, 1978, a Phase I cultural resources survey and archeological inventory, combining vehicular and pedestrian survey and augmented by limited shovel and auger testing, was performed by Jon L. Gibson for the proposed Breau Bridge Sewerage System in St. Martin Parish, Louisiana (Gibson 1978b). Proposed lines followed existing streets, a natural levee, and a dog-leg path. An additional 3.2 ha (8 ac) site was chosen outside of the existing street network.

The survey resulted in the identification of 3 archeological sites and 36 historic standing structures. The archeological sites all lie within the project area, and they were determined to be historic in age. These three sites were all assessed as not significant applying the National Register of Historic Places criteria for evaluation (36 CFR 60.4 [a-d]). The remaining 36 standing structures were positioned outside of the construction corridor, and they were determined to date from the early 19th through early 20th century. No site or standing structure numbers were assigned during this survey.

On November 17, 1977, a Phase I cultural resources survey and archeological inventory consisting of pedestrian survey was performed by Philip G. Rivet for State Projects 737-02-12 and 213-08-06 (Rivet 1977). The exact location of the proposed corridor, as well as the length and width of the right-of-way subjected to survey, was not noted. No archeological sites or historic standing structures were identified within the Area of Potential Effect and no additional work was recommended.

Multiple Parishes

During September of 1974 and March of 1976, Gulf South Research Institute of Baton Rouge, Louisiana conducted a Phase I cultural resources survey and archeological inventory of three alignments (Original, Alternative 1, and Alternative 2) proposed for the Lafayette Loop highway project within portions of Lafayette and St. Martin Parishes, Louisiana (Gulf South Research Institute 1976). Each proposed corridor measured 154.2 m (500 ft) in width; however, the length of these alignments was not reported. Cultural resources inventory of the proposed project areas was conducted as part of an environmental assessment on behalf of an unreported agency.

Pedestrian survey of the project area resulted in the identification of 40 archeological sites (16LY11, 16LY24, 16LY27, 16LY32 - 16LY54, 16LY57, 16LY70 - 16LY78, 16SM15, 16SM18, 16SM24, and 16SM82). While none of these sites were specifically assessed applying the National Register of Historic Places criteria for evaluation (36 CFR 60.4 [a-d]), a variety of recommendations were made by Gulf South Research Institute (1976). A total of 5 sites

(16LY38, 16LY44, 16LY74, 16LY75, and 16SM82) required no additional testing; 23 sites (16LY11, 16LY32 - 16LY37, 16LY39, 16LY40, 16LY42, 16LY43, 16LY45, 16LY46, 16LY49, 16LY53, 16LY57, 16LY70 - 16LY73, 16LY76, 16LY77, and 16LY78) required only additional archival research; and 9 sites (16LY24, 16LY27, 16LY41, 16LY47, 16LY48, 16LY50 - 16LY52, and 16SM24) required additional archival research and monitoring during construction. No recommendations were made for the remaining three sites (16LY54, 16SM15 and 16SM18), as they were situated outside of the Area of Potential Effect. Of these 40 sites, 12 (Sites 16LY24, 16LY44, 16LY46, 16LY50, 16LY52, 16LY72, 16LY73, 16LY76 - 16LY78, 16SM15, and 16SM18) are located within 1.6 km (1 mi) of the proposed project area and they are described in detail below.

During 1975, the University of Southwestern Louisiana in Lafayette conducted a Phase I cultural resources survey and archeological inventory of the banklines of five waterways (Bayou Teche, the Vermilion River, Bayou Fusilier, the Ruth [Evangeline] Canal, and Freshwater Bayou) prior to maintenance work by the U.S. Army Corp of Engineers, New Orleans District (Gibson 1975). Fieldwork consisted of visual inspection of the bankline by boats on each of the five water courses; it also included pedestrian survey and shovel testing along each bank that was considered to have a high probability for containing cultural resources. A total of 25 archeological sites were identified (Sites 16LY5 - 16LY7, 16LY10, 16LY12 - 16LY14, 16LY17, 16LY22 - 16LY26, 16LY28, 16LY29, 16LY55, 16LY61 - 16LY63, 16SM15, 16SM17, 16SM20, 16VM104, 16VM126, and 16VM127). An additional 13 identified sites were discussed with reference to the catalog number assigned by the University of Southwestern Louisiana; however, the corresponding official state site numbers were not noted. These sites included Sites USL16IB2, USL16SL2, USL16SL31, USL16SM6, USL16SM13, USL16SM18, USL16SM20, USL16SM21, USL16SM24 - USL16SM26, USL16VM11, and USL16VM17.

A total of four of the identified sites (16LY6, 16LY7, 16LY14, and 16LY62) contained both historic and prehistoric period com-

ponents. The other 34 sites produced evidence of Paleo-Indian, Archaic, Poverty Point, Tchefuncte, Marksville, Issaquena, Troysville, Coles Creek, and Plaquemine period components. The impacts of the proposed maintenance work upon the recorded sites was unknown. While none of the sites were assessed applying the National Register of Historic Places criteria for evaluation (36 CFR 60.4 [a-d]), recommendations were presented for each site in the event that the proposed project area changed or the sites were threatened in the future; two sites (16LY13 and 16LY63) required no additional work; 19 sites (16LY10, 16LY12, 16LY22, 16LY24, 16LY25, 16LY26, 16LY28, 16LY29, 16LY55, 16LY62, 16VM104, 16VM127, USL16SL31, USL16SM6, USL16SM18, USL16SM20, USL16SM21, USL16SM25, and USL16SM26) were recommended for intermittent monitoring; 15 sites (16LY5, 16LY6, 16LY7, 16LY14, 16LY17, 16LY23, 16LY61, 16SM15, 16SM17, 16SM20, 16VM126, USL16SL2, USL16SM13, USL16VM11, and USL16VM17) were recommended for additional testing; a single site (USL16IB2) was recommended for preservation; and one site (USL16SM24) was recommended for data recovery or avoidance. Of the 25 sites for which official state site numbers were noted, a total of 17 (Sites 16LY5, 16LY6, 16LY10, 16LY12, 16LY13, 16LY22, 16LY24, 16LY25, 16LY26, 16LY28, 16LY29, 16LY55, 16LY61, 16LY62, 16LY63, 16SM15, and 16SM20) are situated within 1.6 km (1 mi) of the current project area and they are discussed in the section on sites below.

In January and February of 1978, a Phase I cultural resources survey and archeological inventory combining helicopter, vehicular, and pedestrian survey augmented by limited shovel and auger testing was performed by William McIntire in response to a proposed Texas-Louisiana Ethylene (TLP) project right-of-way (McIntire 1978). The exact location of the proposed corridor, as well as the length and width of the right-of-way subjected to survey, was not noted. Cultural resources inventory resulted in the identification of one previously recorded site, Site 16AC21, and one newly identified site, the O'Brien Site, within the proposed project right-of-way. No state site number was assigned to the O'Brien Site. Additional testing was rec-

ommended at both sites in order to determine their boundaries, site significance, and to develop possible mitigation procedures. Neither site is located within 1.6 km (1 mi) of the current project area.

Between October of 1997 and June of 1998, R. Christopher Goodwin & Associates, Inc. of New Orleans, Louisiana conducted a Phase I cultural resources survey and archeological inventory of the proposed TENDS Breaux Bridge System Pipeline Project right-of-way situated within portions of Vermilion, Lafayette, and St. Martin Parishes, Louisiana (Robblee et al. 1999). Survey of the proposed natural gas pipeline corridor, which measured 30.5 m (100 ft) in width by 47.5 km (29.5 mi) in length, was completed on behalf of Bridgeline Gas Distribution LLC of St. Rose, Louisiana. Pedestrian survey augmented by vehicular survey and shovel testing resulted in the identification of archeological Sites 16VM148 – 16VM151 and 16LY82 – 16LY93. In addition, four non-site cultural resources loci (V02-02, V07-01, V07-02, and LAF10-1) and four historic standing structures (22-1 – 22-4) were noted during survey.

Of these, Sites 16LY82 - 16LY84, 16LY86 – 16LY92, 16VM148, 16VM149, 16VM141, and 16VM152 contained historic period components, while the remaining three sites (16LY85, 16LY93, and 16VM150) contained both prehistoric and historic period artifacts. In addition, Robblee et al. (1999) stated that all four of the non-site cultural resource loci (V02-02, V07-01, V07-02, and LAF10-1) consisted of historic period artifacts. Of these 17 archeological sites and four non-site loci, only one (Site 16LY87) was assessed as potentially significant applying the National Register of Historic Places criteria for evaluation (36 CFR 60.4 [a-d]). This site contained *in situ* brick piers and a brick lined well within the northwestern corner of the site; however, Robblee et al. (1999) reported that the potentially intact portions of Site 16LY87 were situated outside the Area of Potential Effect and no additional testing of the site was recommended. The remaining 16 archeological sites, four non-site loci, and four historic standing structures were assessed as not significant applying the National Register of Historic Places criteria for evaluation (36 CFR 60.4 [a-d]) and no additional testing or recordation was recom-

mended. Sites 16VM148 – 16VM151 and 16LY82 – 16LY93, the non-site cultural resources loci (V02-02, V07-01, V07-02, and LAF10-1) and four standing structures (22-1 – 22-4) are not situated within 1.6 km (1 mi) of the currently proposed project area.

Parsons Engineering Science, Inc. of Fairfax, Virginia conducted Phase I cultural resources surveys and archeological inventories during March of 1998 at eight 90th Regional Support Command facilities located throughout the state of Louisiana (Parsons Engineering Science, Inc. 1998). These surveys were conducted on behalf of the Department of the Army, 90th Regional Support Command, North Little Rock, Arkansas and Detachment 1/Human Systems Center, Occupational Environmental Health Directorate, Brooks Air Force Base, San Antonio, Texas. Only one of the eight areas subjected to cultural resources survey (Lafayette Memorial USARC) was situated within the vicinity (i.e., 3.2 ha [2 mi]) of the current project area.

Parsons Engineering Science, Inc. (1998) reported that the Lafayette Memorial USARC survey area measured 1.3 ha (3.2 ac) in size and it was situated within Section 141 of Township 9S, Range 5E, Lafayette Parish, Louisiana. Pedestrian survey augmented by shovel testing resulted in the identification of Site 16LY96. The site was described as a scatter of historic period artifacts that dated from ca. 1850 to post 1880. Parsons Engineering Science, Inc. (1998) assessed Site 16LY96 as not significant applying the National Register of Historic Places criteria for evaluation (36 CFR 60.4 [a-d]) and no additional testing of the site was recommended. Site 16LY96 is situated within 1.6 km (1 mi) of the currently proposed project area and it is discussed below.

During November of 2000, R. Christopher Goodwin & Associates, Inc., conducted a Phase I remote sensing survey of the Vermilion River in Lafayette and Vermilion Parishes, Louisiana (Pelletier et al. 2001). The study area for this project consisted of nine survey blocks, each measuring approximately two miles long and consisting of 1 to 3 adjacent lines, depending on the width and depth of the river and the amount of encumbering debris. The survey area measured a total of 92,400 ft in length, with an aver-

age width of 132 ft and encompassed approximately 281.3 acres.

The marine remote sensing survey registered a total of 296 individual magnetic anomalies and 43 individual acoustic anomalies. Of these, 131 magnetic anomalies and 23 acoustic anomalies comprised 60 clusters or targets. All of the acoustic anomalies appeared to represent modern disturbances, such as bridge pilings, pipelines or cables, bulkheads, bank debris, or modern ferrous debris. Such anomalies do not represent significant archeological resources. None of the 60-magnetic/acoustic target groups represented structures that could constitute a shipwreck or other significant cultural resource. No significant cultural resources were identified within this project area. Therefore, no additional archeological studies of the Vermilion River dredging project area are warranted or recommended.

Previously Recorded Archeological Sites Located within 1.6 km (1 mi) of the Proposed Vermilion River Disposal Project Area

A total of 20 previously recorded sites (16LY2, 16LY5, 16LY6, 16LY8, 16LY12, 16LY13, 16LY24, 16LY25, 16LY28, 16LY30, 16LY50, 16LY52, 16LY61, 16LY62, 16LY65, 16LY76, 16SM15, 16SM18, 16SM20, and 16SM81) were identified within 1.6 km (1 mi) of the currently proposed project area (Table 13). Of these, 12 sites (16LY2, 16LY5, 16LY8, 16LY12, 16LY13, 16LY25, 16LY28, 16LY30, 16LY50, 16SM18, 16SM20 and 16SM81) contained only prehistoric period components, while Sites 16LY52, 16LY65, and 16LY76 were described as consisting of historic period artifacts. The remaining five sites (16LY6, 16LY24, 16LY61, 16LY62, and 16SM15) contained both prehistoric and historic period components. Of these 20 sites, only 2 sites (16LY24 and 16LY50) are located within the current Area of Potential Effect. Each site is discussed below in site number order by parish.

Lafayette Parish

Site 16LY2 was described as three prehistoric period mounds situated within Section 90 of Township 9S, Range 5E. The site originally was recorded by Doran during April of 1941;

Table 13. Previously recorded archeological sites located within 1.6 km (1 mi) of the proposed Vermilion River Dredge Disposal project area.

SITE NUMBER	USGS 7.5' QUAD	SITE DESCRIPTION	CULTURAL AFFILIATION	FIELD METHODOLOGY	NRHP ELIGIBILITY	RECORDED BY
Lafayette Parish						
16LY2	Broussard, La.	Three prehistoric period mounds and village	Undetermined prehistoric period	Pedestrian survey	Not significant	Doran 1941; Jones and Shuman 1991
16LY5	Broussard, La.	Prehistoric period artifact scatter	Poverty Point, Tchefuncte, Issaquena, Coles Creek, and Plaquemine periods	Pedestrian survey	Not significant	Gibson 1975
16LY6	Broussard, La.	Prehistoric and historic period artifact scatter	Possible Poverty Point and Tchefuncte periods; Undetermined historic period	Pedestrian survey	Not assessed	Gibson 1975
16LY8	Broussard, La.	Prehistoric period shell midden	Undetermined prehistoric period	Pedestrian survey	Not assessed	Leanpacher and Burnham 1972
16LY12	Broussard, La.	Prehistoric period artifact scatter	Late Archaic period	Pedestrian survey	Not significant	Gibson 1975
16LY13	Broussard, La.	Prehistoric period artifact scatter	Poverty Point and Tchefuncte periods	Pedestrian survey	Not assessed	Gibson 1975
16LY24	Broussard, La.	Prehistoric and historic period artifact scatter	Undetermined prehistoric and historic periods	Pedestrian survey	Not assessed	Perry and Staub 1976
16LY25	Broussard, La.	Prehistoric period artifact scatter	Undetermined prehistoric period	Pedestrian survey	Not assessed	Gibson 1975
16LY28	Broussard, La.	Prehistoric period artifact scatter	Late Troyville and early Coles Creek periods	Pedestrian survey and <i>unspecified</i> subsurface testing	Not significant	Gibson 1975
16LY30	Broussard, La.	Prehistoric period artifact scatter	Undetermined prehistoric period	Pedestrian survey	Not assessed	Gibson 1975
16LY50	Broussard, La.	Prehistoric period artifact scatter	Undetermined prehistoric period	Pedestrian survey	Not assessed	Clendenen and Broussard 1974
16LY52	Broussard, La.	Historic period artifact scatter	20 th century historic period	Pedestrian survey	Not assessed	Staub and Perry 1976
16LY61	Broussard, La.	Prehistoric and historic period artifact scatter	Tchefuncte, Marksville, Issaquena, Troyville, Coles Creek and Plaquemine periods; Undetermined historic period	Pedestrian survey and unit excavation	Not assessed	Gibson 1975
16LY62	Broussard, La.	Prehistoric and historic period artifact scatter	Archaic and Plaquemine periods; Undetermined historic period	Pedestrian survey	Not significant	Gibson 1975; McGimsey 1996
16LY65	Broussard, La.	Historic period artifact scatter	19 th – 20 th century historic period	Pedestrian survey	Not assessed	Russo, Coleman, and Shreve 1993
16LY76	Broussard, La.	Historic period artifact scatter	Undetermined historic period	Pedestrian survey	Not assessed	Gulf South Research Institute 1976
St. Martin Parish						
16SM15	Broussard, La.	Prehistoric and historic period artifact scatter	Tchefuncte period; Undetermined historic period	Pedestrian survey and unit excavation	Not assessed	Beecher, Peny, and Staub 1976
16SM18	Broussard, La.	Two prehistoric period mounds and village	Possible Tchefuncte period	Pedestrian survey	Not assessed	Doran 1941
16SM20	Broussard, La.	Prehistoric period artifact scatter	Poverty Point and Tchefuncte periods	Pedestrian survey	Not assessed	Doran 1941; McGimsey 1995
16SM81	Broussard, La.	Possible prehistoric period mound	Marksville period	Pedestrian survey and the excavation of a single soil core from the west side of mound	Potentially significant	McGimsey 1995

however, no data as to what (if any) artifacts were noted at the site was presented on the Louisiana Site Record Form. In addition, no indication as to the cultural affiliation of Site 16LY2 was reported by Doran.

Gulf South Research Institute (1976) reportedly attempted to relocate Site 16LY2 during archeological inventory of the proposed Lafayette Loop project right-of-way; however, no evidence of the site was noted within its recorded location. While Gulf South Research Institute (1976) did not assess the National Register significance of Site 16LY2, no additional testing of the reported site area was recommended.

Jones and Shuman (1991) attempted to relocate Site 16LY2 during a Phase I cultural resources survey of previously recorded prehistoric period mound sites situated within Acadia, Lafayette, and St. Landry Parishes, Louisiana. According to Jones and Shuman (1991) the recorded area of Site 16LY2 had been previously developed as a golf course, thereby destroying the site. While Site 16LY2 was not relocated by Jones and Shuman (1991), the site was assessed as not significant applying the National Register of Historic Places criteria for evaluation (36 CFR 60.4 [a-d]) and no additional testing was recommended.

Sites 16LY5 and 16LY6 were recorded by Jon Gibson during 1975. Both sites originally were identified as part of a Phase I cultural resources survey and inventory of portions of Bayou Teche, Vermilion River, and Freshwater Bayou that was completed during 1975 (Gibson 1975). Subsequently, the sites were reinvestigated during the latter portion of 1975, as part of an archeological inventory of the Lafayette Municipal Airport (Gibson 1976). Site 16LY5 was described as a surface scatter of prehistoric period artifacts situated within Section 98 of Township 9S, Range 5E. While the overall size of Site 16LY5 was not reported on the submitted form, pedestrian survey of the site area resulted in the collection of 920 prehistoric period ceramic sherds (including the types Tchefuncte Stamped, Tammany Punctated, Lake Borgne Incised, Orleans Punctated, Tchefuncte Incised, Marksville Incised, Churupa Punctated, Marksville Stamped, Mulberry Creek Cork Marked, Larto Red, Evansville Punctated, Hollyknowe

Ridge Pinched, French Fork Incised, Alligator Incised, Chevalier Stamped, Pontchartrain Check Stamped, Coles Creek Incised, Plaquemine Brushed, Mazique Incised, L'eau Noir Incised, Avoyelles Punctated, Maddox Engraved, and Leland Incised), 757 various baked clay artifacts, 162 Poverty Point objects, 44 projectile points/knives (including the types Gary, Wells, Evans, Sinner, Elam, Ellis, Delhi, Marshall, Palmillas, Clifton, and Mohriss), and numerous other lithic artifacts. It was suggested that Site 16LY5 represented Poverty Point, Tchefuncte, Issaquena, Coles Creek, and Plaquemine periods of occupation. According to data presented on the site record form, Site 16LY5 had been destroyed completely by the construction of an apartment complex, tennis courts, and a golf course. The site was assessed as not significant applying the National Register of Historic Places criteria for evaluation (36 CFR 60.4 [a-d]) and no recommendations concerning additional testing of Site 16LY5 were reported.

Site 16LY6 was identified within Section 32 of Township 9S, Range 5E and it was described as surface scatter of prehistoric and historic artifacts. Pedestrian survey of the site area resulted in the collection of 11 Tchefuncte Plain prehistoric period ceramic sherds, 73 amorphous baked clay objects, 6 projectile points/knives (including the types Gary, Kent, Pontchartrain, Dallas, and Elam), 4 unidentified projectile points/knives, 2 projectile point/knife fragments, 9 preforms, 8 flakes, and 1 historic period ceramic sherd. The overall size of Site 16LY6 was not reported. Gibson suggested that the prehistoric components present at Site 16LY6 possibly represented Poverty Point and Tchefuncte periods of occupation while no possible date of occupation was reported for the historic period component. Site 16LY6 was not assessed applying the National Register of Historic Places criteria for evaluation (36 CFR 60.4 [a-d]); however, additional testing of the site was recommended by Gibson (1976).

Site 16LY8 was identified during *unspecified* road construction within Section 94 of Township 9S, Range 5E. The site, which was recorded during May of 1972 by Robert Leapacher and Jackie Burnaham, was described as prehistoric period shell midden. While the overall size of Site 16LY8 was not noted on the State

of Louisiana Site Record Form, pedestrian survey of the site area resulted in the collection of a single *unspecified* projectile point/knife and an unreported quantity and type of prehistoric period ceramic sherds. The cultural affiliation of Site 16LY8 was listed as undetermined and the site was not assessed applying the National Register of Historic Places criteria for evaluation (36 CFR 60.4 [a-d]). No recommendations concerning additional testing of the site were noted on the site record form.

Sites 16LY12 and 16LY13 were recorded by Jon Gibson in 1975 (Gibson 1975; Gibson 1976). Both sites were identified within the confines of the Lafayette Municipal Airport in Section 32 of Township 9S, Range 5E. Site 16LY12 was described as a surface scatter of prehistoric period artifacts measuring 10 m² (107.6 ft²) in area. Pedestrian survey of the site area resulted in the collection of a single unidentified prehistoric period ceramic sherd, 1 adze, 1 bannerstone, 1 steatite vessel fragment, 1 flake, 1 piece of lithic shatter, and an unreported quantity of unidentified calcined bone fragments. It was suggested that Site 16LY12 represented a late Archaic period occupation. While Gibson (1976) did not specifically assess Site 16LY12 applying the National Register of Historic Places criteria for evaluation (36 CFR 60.4 [a-d]), additional testing of the site was recommended; however, according to data presented on the State of Louisiana Site Record Form, the site reportedly had been destroyed by runway construction at the airport. Thus, Site 16LY12 was assessed as not significant applying the National Register of Historic Places criteria for evaluation (36 CFR 60.4 [a-d]). No additional testing of the site was recommended.

Site 16LY13 also was described as a surface scatter of prehistoric period artifacts; however the overall size of the site was not noted. According to Gibson (1975 and 1976), Site 16LY13 was identified during construction of a runway at the Lafayette Municipal Airport. Pedestrian survey of the site area resulted in the collection of 10 Tchefuncte Plain prehistoric period ceramic sherds, 1 Tchefuncte Stamped prehistoric period ceramic sherd, 1 Tammany Punctated prehistoric period ceramic sherd, 1 Lake Borgne prehistoric period ceramic sherd, 38 amorphous baked clay objects, 4 unidentified

projectile points/knives fragments, 1 unidentified biface fragment, 1 gorget fragment, 1 endscraper, 115 flakes, 10 pieces of lithic shatter, 10 pieces of fire cracked rock, 2 pieces of red ochre, 34 unmodified lithics, and 1 unidentified fragment of calcined bone. It was suggested that Site 16LY13 represented Poverty Point and Tchefuncte periods of occupation; however, the site was destroyed during airport runway construction (Gibson 1976). Site 16LY13 was not assessed applying the National Register of Historic Places criteria for evaluation (36 CFR 60.4 [a-d]); however, no additional testing of the site was recommended (Gibson 1976).

Site 16LY24 was recorded during March of 1976 by Perry and Staub. The site originally was identified during a Phase I cultural resources survey and archeological inventory of Bayou Teche, Vermilion River, and Freshwater Bayou, which was completed during 1975 by the University of South Louisiana (Gibson 1975). Gibson (1975) collected a single Tchefuncte Plain prehistoric period ceramic sherd from Site 16LY24. No additional information concerning the site was reported on the submitted site form; however, Gibson (1975) did recommend that the site be monitored during proposed dredging of the Vermilion River.

Gulf South Research Institute relocated Site 16LY24 during a Phase I cultural resources survey of the proposed Lafayette Loop highway right-of-way (Gulf South Research Institute 1976). Pedestrian survey of the site area resulted in the collection of a single unidentified prehistoric period ceramic sherd, 1 historic period ceramic sherd, and an *unspecified* quantity of mussel shells. In addition, a single standing structure with an associated wooden cistern were noted in the vicinity of Site 16LY24. While the date of the historic period component identified at Site 16LY24 was undetermined, it was suggested that the prehistoric period component represented a Tchefuncte period occupation. Site 16LY24 was not assessed applying the National Register of Historic Places criteria for evaluation (36 CFR 60.4 [a-d]); however, Gulf South Research Institute (1976) recommended that additional testing of the site be conducted.

Sites 16LY25, 16LY28, and 16LY30 were recorded by Jon Gibson in 1975. Of these, Sites 16LY25 and 16LY28 were identified in 1975 by

the University of Southwestern Louisiana during a Phase I cultural resources survey and archeological inventory of Bayou Teche, Vermilion River, and Freshwater Bayou (Gibson 1975). The remaining site (16LY30) was located during an archeological inventory of the Lafayette Municipal Airport conducted during December of 1975 by Jon Gibson (Gibson 1976). In addition, Sites 16LY25 and 16LY28 also were relocated as part of this survey (Gibson 1976). Site 16LY25 was described as a single unidentified prehistoric period ceramic sherd identified within Section 28 of Township 9S, Range 5E. Pedestrian survey of the site area failed to identify any additional cultural material. The cultural affiliation of Site 16LY25 was listed as undetermined. Gibson (1975 and 1976) did not assess the National Register significance of Site 16LY25 applying the National Register of Historic Places criteria for evaluation (36 CFR 60.4 [a-d]); however, if subsurface disturbance was planned, Gibson (1976) recommended that additional testing of the site be completed.

Site 16LY28 was described as a scatter of prehistoric period artifacts identified within Section 142 of Township 9S, Range 5E. While the size of the site was not reported, pedestrian survey of the area resulted in the collection of a single French Fork Incised, *var. French Fork* prehistoric period ceramic sherd, 2 unidentified prehistoric period ceramic sherds, and 1 lithic flake (Gibson 1975 and 1976). It was suggested that Site 16LY28 represented a late Troyville and/or early Coles Creek period occupation. Gibson (1976) noted that the site had been impacted by prior runway construction at the Lafayette Municipal Airport. Site 16LY28 was assessed as not significant applying the National Register of Historic Places criteria for evaluation (36 CFR 60.4 [a-d]) and additional testing was recommended only if further construction was planned in the immediate vicinity of the site.

Site 16LY30 was identified within Section 42 of Township 10S, Range 5E. Gibson (1976) described the site as a surface scatter of prehistoric period ceramic sherds; however, the overall dimensions of the site were not reported. Pedestrian survey of the site area resulted in the collection of six unidentified prehistoric period ceramic sherds. The cultural affiliation of Site 16LY30 was listed as undetermined. In addition,

Gibson (1976) noted that a drainage ditch had been previously excavated through the site. Site 16LY30 was not assessed applying the National Register of Historic Places criteria for evaluation (36 CFR 60.4 [a-d]); however, additional testing of the site was recommended (Gibson 1976).

Site 16LY50 was recorded by Clendenen and Broussard during September of 1974. The site, situated within Section 93 of Township 9S, Range 5E, was identified during Phase I cultural resources survey and archeological inventory of the proposed Lafayette Loop highway right-of-way (Gulf South Research Institute 1976). The overall size of Site 16LY50 was not noted; however, it was described as a surface scatter of prehistoric period artifacts. Gulf South Research Institute (1976) stated that pedestrian survey of the site area resulted in the collection of *unspecified* quantities and types of prehistoric period ceramic sherds. In addition, a grinding stone fragment also was recovered. The cultural affiliation of Site 16LY50 was listed as undetermined, and the site was not assessed applying the National Register of Historic Places criteria for evaluation (36 CFR 60.4 [a-d]). Gulf South Research Institute (1976) recommended that additional testing of Site 16LY50 be conducted.

While Site 16LY52 also was identified by Gulf South Research Institute (1976) during an archeological inventory of the proposed Lafayette Loop right-of-way corridor, it was recorded by Staub and Perry during March of 1976. The site, which was described as an historic period standing structure and associated artifact scatter, was situated within Section 93 of Township 9S, Range 5E. The size of the site was not reported. Pedestrian survey resulted in the collection of 3 historic period ceramic sherds, 3 glass shards, and an *unspecified* quantity of plastic fragments. Gulf South Research Institute (1976) noted that the historic standing structure present at Site 16LY52 was utilized for hay storage; however, the authors suggested the structure originally was used as a residence. Site 16LY52 dated from the twentieth century historic period. The site was not assessed applying the National Register of Historic Places criteria for evaluation (36 CFR 60.4 [a-d]); however, but additional testing of Site 16LY52 was recommended.

Site 16LY61 was recorded in 1975 by Jon Gibson. The site was located within Section 5 of

Township 10S, Range 5E and it was identified during a Phase I cultural resources survey and archeological inventory of Bayou Teche, Vermilion River, and Freshwater Bayou completed in 1975 by the University of Southwestern Louisiana (Gibson 1975). Gibson (1975) described Site 16LY61 as a scatter of prehistoric and historic period artifacts that measured approximately 6,000 m² (64,585.6 ft²) in size. Pedestrian survey augmented by the excavation of 20 units measuring 1.5 x 1.5 m (5 x 5 ft) in size resulted in the collection of 4,207 prehistoric period ceramic sherds (including the types Tchefuncte Stamped, Tchefuncte Incised, Lake Borgne Incised, Marksville Stamped, Marksville Incised, Churupa Punctated, Rhinehart Punctated, Landon Red on Buff, Larto Red, Evansville Punctated, Alligator Incised, French Fork Incised, Mazique Incised, Salomon Brushed, Cole Creek Incised, Chevalier Stamped, Pontchartrain Check Stamped, Harrison Bayou Incised, Plaquemine Brushed, L'eau Noir Incised, Tammany Punctated, Orleans Incised, Jaketown Simple Stamped, and Maddox Engraved), 1 boatstone, 39 baked clay fragments, 3 unmodified pebbles, 11 chipped pebbles, 3 pieces of fire cracked rock, 5 pieces of lithic shatter, 20 lithic flakes, 1 flake tool, 15 preforms, 4 Scallorn projectile points/knives, 9 Alba projectile points/knives, 25 Friley projectile points/knives, 2 Catahoula projectile points/knives, 1 Livermore projectile point/knife, 1 Fresno projectile point/knife, 3 Gary projectile points/knives, 18 unidentified projectile points/knives, 4 unidentified projectile point/knife fragments, 1 lithic drill, 1 piece of sandstone, 1 limonite concretion, 7 socketed bone projectile points, 4 deer ulna awls, *unspecified* quantities of animal and human bone, 1 dog coprolite, 1 piece of brick, 3 historic period ceramic sherds, and 2 glass shards.

In addition, Gibson (1975) stated that human burials, post molds, and fire pits were noted within Site 16LY61. It was suggested that the prehistoric period occupation present at Site 16LY61 dated from the Tchefuncte, Marksville, Issaquena, Troyville, Coles Creek, and Plaquemine periods. No possible date was reported for the identified historic period component. Site 16LY61 was not assessed applying the National Register of Historic Places criteria for evaluation

(36 CFR 60.4 [a-d]); however, additional testing of the site was recommended.

Site 16LY62 also was recorded in 1975 by Jon Gibson. The site was identified within Section 42 of Township 10S, Range 5E during an archeological inventory of Bayou Teche, Vermilion River, and Freshwater Bayou conducted during 1975 (Gibson 1975). Site 16LY62 was described as a scatter of prehistoric and historic period artifacts. While the overall size of Site 16LY62 was not reported, pedestrian survey of the site area resulted in the collection of a single Plaquemine Brushed, *var. Plaquemine* prehistoric period ceramic sherd, 18 unidentified prehistoric period ceramic sherds, 1 Scallorn projectile point/knife, 1 Alba projectile point/knife, 1 Gary projectile point/knife, 2 unidentified projectile point/knife fragments, 1 preform, 11 flakes, 2 pieces of lithic shatter, 1 fragment of calcined bone, 1 modern horse tooth, and 4 historic period ceramic sherds. It was suggested that Site 16LY62 represented Archaic and Plaquemine periods of occupation. No possible date was suggested for the historic period artifacts, which were recovered from the site. Gibson (1975) did not specifically assess the significance of Site 16LY62 applying the National Register of Historic Places criteria for evaluation (36 CFR 60.4 [a-d]); however, intermittent monitoring of the site was recommended. Subsequently, Gibson (1976) reported that the site had been destroyed by the construction of a runway at the Lafayette Municipal Airport.

Site 16LY62 was revisited during March of 1996 by Chip McGimsey. While no additional data concerning the site appears to have reported on the State of Louisiana Site Update Record Form, McGimsey did confirm that the site had been destroyed by airport construction.

Site 16LY65 was recorded during February of 1993 by Mike Russo, Lisa E. Coleman, and R. Lynn Shreve. The site was described as the former location of Magnolia Plantation. Pedestrian survey of the site area, which measured 500 x 500 m (1,640.4 x 1,640.4 ft) in size, resulted in the collection an *unspecified* quantity of historic period ceramic sherds, glass shards, and brick fragments. In addition, it was noted that structures belonging to the DeLasalle Christian Brothers Retirement Monastery had been constructed on the site. It was suggested that Site

16LY65 dated from the nineteenth century. The site was not assessed applying the National Register of Historic Places criteria for evaluation (36 CFR 60.4 [a-d]); however, additional testing of the site was recommended.

Site 16LY76 was identified in 1976 by Gulf South Research Institute while conducting a Phase I cultural resources survey and archeological inventory of the proposed Lafayette Loop highway right-of-way (Gulf South Research Institute 1976). Site 16LY76 was situated within Section 93 of Township 9S, Range 5E. The site was described as a surface scatter of historic period artifacts; however, the overall size of Site 16LY76 was not noted. Pedestrian survey resulted in the collection of unreported quantities of historic ceramic sherds, glass shards, and brick. In addition, a single bone button also was recovered. While a possible date of occupation was not determined, Gulf South Research Institute (1976) suggested that Site 16LY76 represented the former location of a residential structure. Site 16LY76 was not assessed applying the National Register of Historic Places criteria for evaluation (36 CFR 60.4 [a-d]); however, archival research to determine a date of occupation for the site was recommended.

St. Martin Parish

Site 16SM15 was described as a scatter of prehistoric and historic period artifacts situated within Section 33 of Township 9S, Range 5E. The site was recorded in 1976 by Beecher, Peny, and Staub; however, it was identified previously in 1975 by the University of Southwestern Louisiana during Phase I cultural resources survey and archeological inventory of Bayou Tech, Vermilion River, and Freshwater Bayou (Gibson 1975). The site represented the remains of several prehistoric period mounds that had been destroyed. In addition, Beecher, Peny, and Staub noted that the remains of an unspecified number of historic period structures also were present at the site. The overall size of Site 16SM15 was not reported. Gibson (1975) stated that pedestrian survey resulted in the collection of 296 Tchefuncte Plain prehistoric period ceramic sherds; 1 Tchefuncte Stamped, *var. Vermilion* prehistoric period ceramic sherd; 1 Tchefuncte Incised, *var. Tchefuncte* prehistoric period ceramic sherd; 1 Tchefuncte Incised, *var.*

Pontchartrain prehistoric period ceramic sherd; 4 Lake Borgne Incised, *var. Lake Borgne* prehistoric period ceramic sherds; and 4 other pieces of baked clay.

According to data presented on the State of Louisiana Site Record Form, units also were excavated at Site 16SM15 by an unspecified party at an unknown date. While the quantity and size of these units was not reported, it was noted that an unspecified quantity and type of prehistoric period lithics (including projectile points/knives and flakes) and ceramic sherds were recovered during excavation. While it was suggested that the prehistoric period component present Site 16SM15 represented a Tchefuncte period occupation, no possible date was reported for the historic period component. Site 16SN15 was not assessed applying the National Register of Historic Places criteria for evaluation (36 CFR 60.4 [a-d]); however, additional testing of the site was recommended by Gibson (1975).

Site 16SM18 was recorded by Doran during May of 1941. The site, which was situated within Section 33 of Township 9S, Range 5E, was described as two prehistoric period mounds and an associated village located within a cultivated field. The overall size of the site was not reported; however, it was noted that one of the mounds measured 2.5 m (8 ft) in height by 12.2 m (40 ft) in diameter, while the second mound reportedly only 0.3 m (1 ft) in height by 6.1 m (20 ft) in diameter. A pedestrian survey of the site area was completed; however, no information as to what, if any, cultural materials were collected was noted on the State of Louisiana Site Record Form. Doran suggested that Site 16SM18 possibly represented a Tchefuncte period occupation. No recommendations concerning additional testing of the site were noted on the State of Louisiana Site Record Form.

In addition, it should be noted that Gulf South Research Institute (1976) suggested that Sites 16SM15 and 16SM18 actually represented portions of a single site. Although it does not appear that Gulf South Research Institute (1976) conducted a field examination of Site 16SM18, the authors recommended that additional testing of the site be completed prior to proposed construction of the Lafayette Loop highway right-of-way.

Site 16SM20 originally was recorded in 1941 by Doran, who described the site as a prehistoric period mound and village situated within Section 19 of Township 9S, Range 5E. Gibson (1975) conducted a pedestrian survey of the site area in 1975, but he was not able to relocate the mound reported by Doran; however, pedestrian survey of the site area resulted in the collection of 288 prehistoric period ceramic sherds (including the types Lake Borgne Incised, Tammany Punctated, Tchefuncte Incised, Jake-town Simple Stamped, and Pontchartrain Check Stamped), 24 complete Poverty Point objects, 126 Poverty Point object fragments, 35 pieces of baked clay, 3 unidentified projectile points/knives, 2 projectile point/knife fragments, 1 hematite plummet, 1 drill, 16 lithic flakes, 2 pieces of lithic shatter, and 1 calcined bear tooth. In addition, 2 historic period pearlware sherds also were recovered. Site 16SM20 measured 900 m² (9,687.8 ft²) in size; however, Gibson (1976) suggested that these artifacts were exposed by dredging of Ruth Canal. It was suggested that Site 16SM20 represented Poverty Point and Tchefuncte periods of occupation; however, the site was not assessed applying the National Register of Historic Places criteria for evaluation (36 CFR 60.4 [a-d]). Gibson (1975) recommended that additional testing of Site 16SM20 be conducted.

Charles McGimsey completed a State of Louisiana Site Record Update Form on August 4, 1995, reporting the results of a visit made to Site 16SM20 during the summer of 1995.

McGimsey noted that the site area was covered in dense vegetation and that spoil from dredging of Ruth Canal had been piled on the reported location of Site 16SM20. Pedestrian survey of the site area failed to identify any artifacts. McGimsey did not assess the significance of Site 16SM20 applying the National Register of Historic Places criteria for evaluation (36 CFR 60.4 [a-d]); however, additional testing of the site was recommended.

Site 16SM81 was identified within Section 19 of Township 9S, Range 5E. The site was recorded during August of 1995 by Charles McGimsey who identified the site while conducting pedestrian survey of previously recorded Site 16SM20. Site 16SM81 was described as possible prehistoric period mound that measured approximately 1 m (3.3 ft) in height by 30 m (98.4 m) in diameter. Pedestrian survey of the site area resulted in the collection of a single, possible Marksville Stamped prehistoric period ceramic sherd from an animal borrow back dirt pile. In addition, a single soil core was excavated on the northwest side of the possible mound. McGimsey suggested that Site 16SM81 represented a possible Marksville period occupation. Site 16SM81 was assessed as potentially significant applying the National Register of Historic Places criteria for evaluation (36 CFR 60.4 [a-d]); however, McGimsey noted that his evaluation was valid only if the site actually represented a prehistoric mound. Additional testing to evaluate the nature of Site 16SM81 was recommended.

CHAPTER VI

RESEARCH METHODS

Introduction

This chapter describes the research design and field methodologies used to complete the current Phase I cultural resources survey and archeological inventory of the proposed Vermilion River Dredge Disposal Area in Lafayette Parish, Louisiana (Figure 1). It also includes a discussion of the laboratory methods and the procedures utilized to process and analyze the recovered cultural material, as well as information pertaining to the curation of all records, photographs, and field notes generated as a result of this investigation.

Project Description

As part of the proposed maintenance of the Vermilion River, the U.S. Army Corps of Engineers, New Orleans District, plans to dredge material from an approximately 28.1 km (17.5 mi) long stretch of the Vermilion River near the city of Lafayette, Louisiana. The dredged material will be deposited within a single large disposal area that is encompassed by the examined study area. The objective of this investigation was to evaluate the potential impacts that the proposed U.S. Army Corps of Engineers, New Orleans District proposed dredge disposal will have on cultural resources located throughout the Area of Potential Effect. Potential disturbance to cultural resources associated with this undertaking will stem from the removal of up to 1 m (3.3 ft) of the present ground surface. This material will be stockpiled and used to cap the dredged material that will be spread throughout the disposal area. The study area encompassed 372 ac (150.5 ha) of land located along the northwestern bank of the Vermilion River (Figure 2).

Field Methodology

This Phase I cultural resources survey, assessment, and archeological inventory of the study area associated with the proposed Vermilion River Dredge Disposal Area was designed to identify all prehistoric and historic cultural resources located within or in the general vicinity of the proposed Area of Potential Effect. The survey was comprehensive in nature; planning took into account the natural environment of the study area and the history and prehistory of the region. In addition, all archeological investigations previously completed within 8 km (5 mi) of the currently proposed study area, as well as the distribution of each previously identified archeological site, historic standing structure, and/or National Register of Historic Places property located within 1.6 km (1 mi) of the study area were taken into consideration.

Fieldwork for this project consisted of pedestrian reconnaissance augmented by systematic shovel testing throughout the limits of the proposed study area associated with this undertaking. At the time of survey, a portion of the study area, designated as a crawfish pond, was covered by standing water and not available for survey; this area measured approximately 42.0 ac (17.0 ha) in size or approximately 11 percent of the study area. The current landowner, and historic research, indicated that this area has been submerged for at least the past century and it likely represents a continuation of a natural wetland that extends north from the project area (Figure 29). The remainder of the Vermilion River Dredge Disposal Study Area was divided arbitrarily into four tracts (Survey Blocks 1A through 1D) to facilitate control during the survey process (Figure 30;

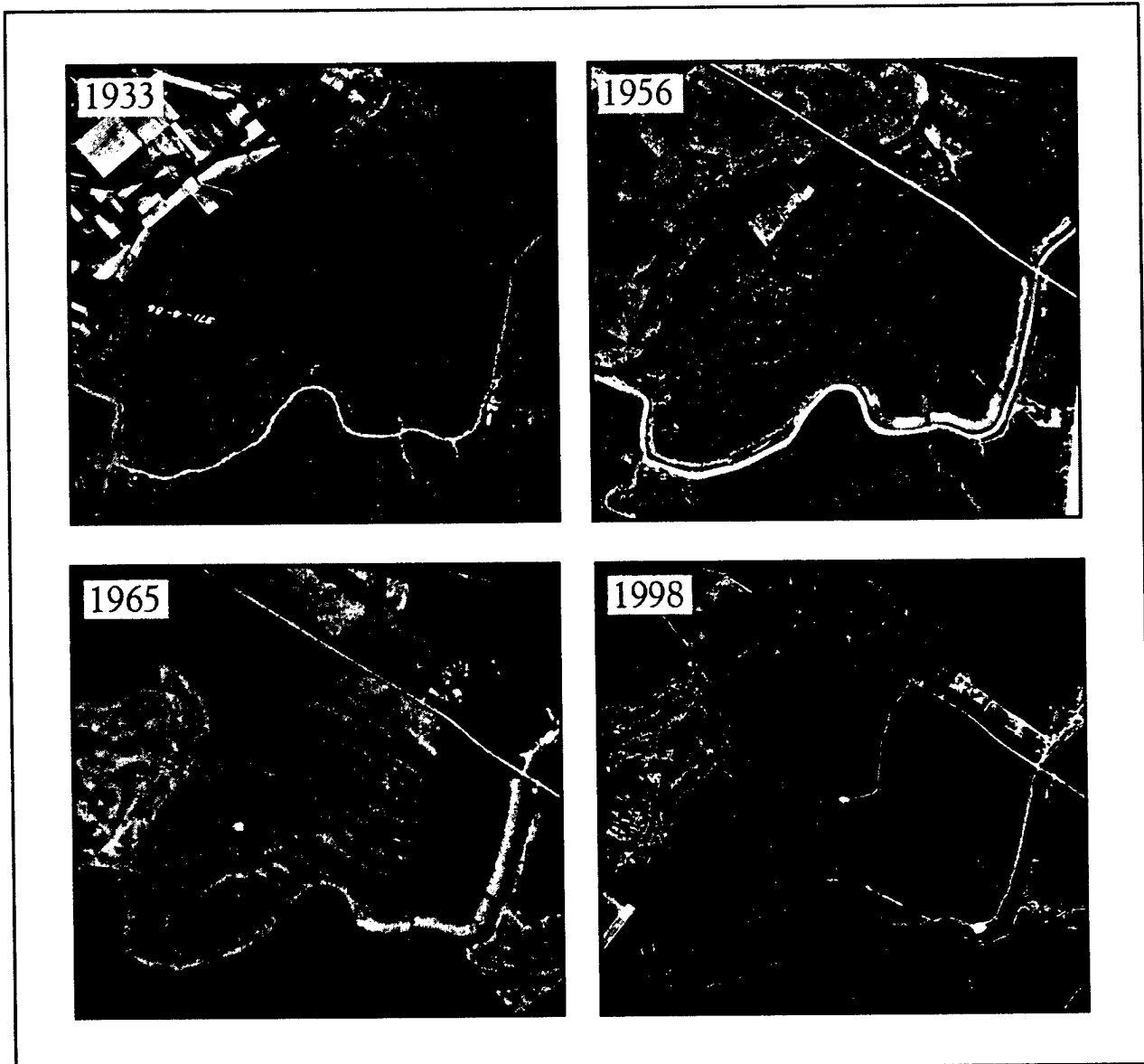


Figure 29. A sequence of aerial imagery depicting the proposed project area in 1933, 1956, 1965, and 1998.

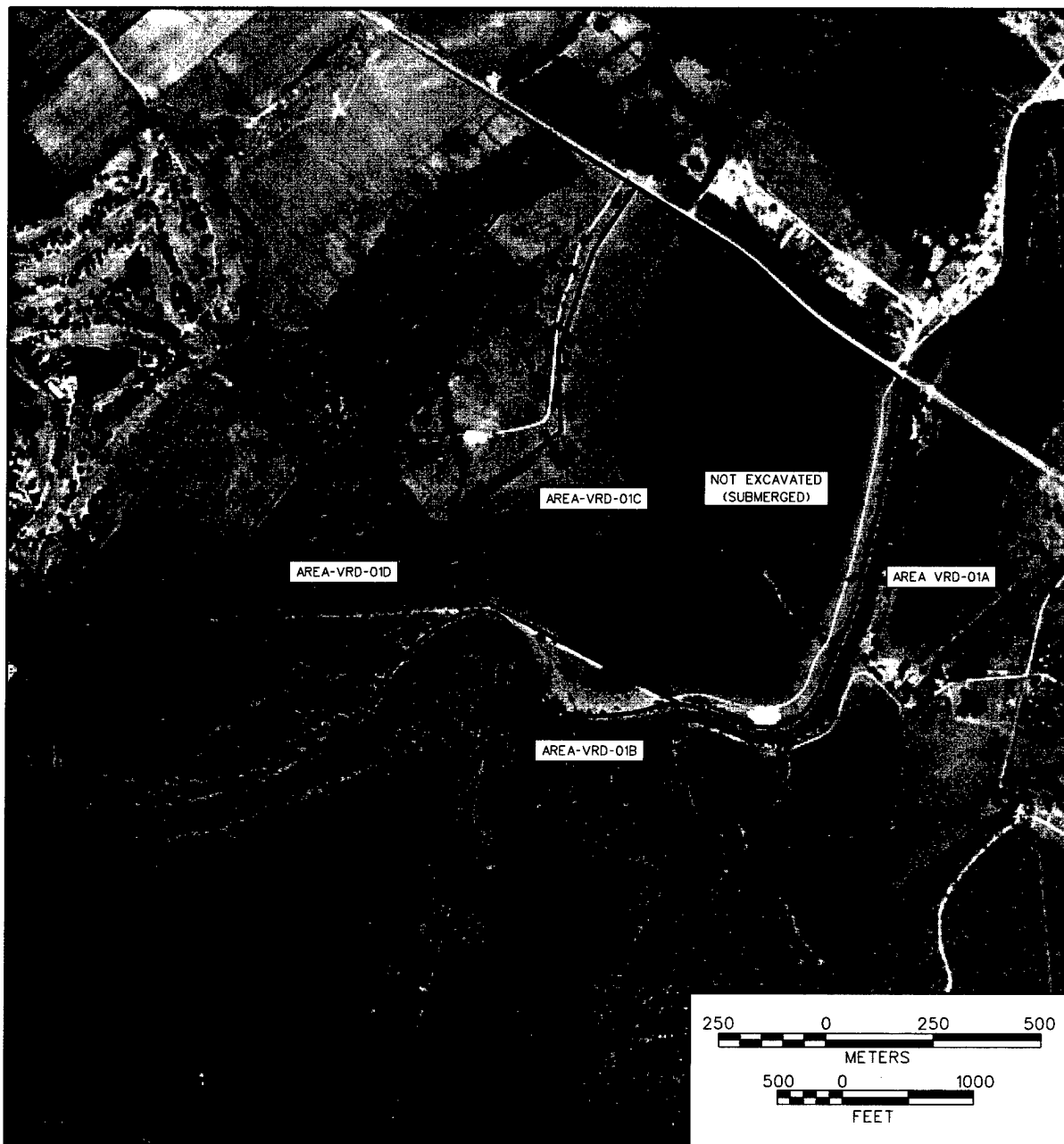


Figure 30. Map of the Vermilion River Dredge Disposal Study Area showing the location of the examined survey blocks.

Table 14). Within each survey area, transect survey was utilized to ensure complete and thorough coverage of each project item and to control the recordation and subsequent delineation of all cultural resources identified during survey (Figures 3 – 6). Each survey area corresponded to a known topographical feature. Before survey was initiated, each survey section was identified to the field crew, assigned an area number, and traversed by a one or two-person team. This crew visually reconnoitered and shovel tested each area for evidence of intact cultural deposits. The location of each survey transect and shovel test; changes in vegetation and topography; and natural, cultural, or artificial features e.g., streams, fences, ditches, roads, etc., were recorded on shovel test and transect record forms.

Shovel Testing

Because the study area is situated along the Vermilion River and because it encompassed several previously recorded archeological sites, the entire area was designated as having a moderate to high probability for containing intact cultural deposits. Consequently, shovel tests were excavated at 30 m (98.4 ft) intervals along survey transects spaced 30 m (98.4 ft) apart. Moreover, shovel tests excavated along adjacent transects were offset to provide maximum coverage throughout the proposed project area. Shovel tests were not excavated in areas covered by standing water, in areas where the slope of the landform exceeded 15 degrees, or in areas

covered by artificial levee deposits. Each excavated shovel test measured 50 cmbs (19.7 inbs) in diameter, and each extended to a minimum depth of 100 cmbs (39.4 inbs), to sterile clay or until excessive amounts of ground water hindered the excavation process. Each shovel test was excavated in 20 cm (7.9 in) arbitrary levels within natural strata, and the fill from each level was screened separately. All shovel test fill was screened through 0.635 cm (0.25 in) hardware cloth; extremely wet soils and clay were hand-sifted, troweled, and examined visually for cultural material. Soil characteristics were recorded in the field using Munsell Soil Color Charts and standard soils nomenclature, while minimal pedological characteristics recorded during survey included soil color and texture. Finally, each shovel test was backfilled immediately upon completion of the archeological recordation process.

During survey, a total of 1,289 of 1,311 (98 percent) planned shovel tests were excavated successfully throughout the project area. The planned but unexcavated shovel tests (n=22) were not completed because they fell in areas either covered by standing water (n=10), a modern trash pile (n=1), compacted gravel (n=1), or because they were located in areas that contained buried utilities (n=10). Shovel testing was not planned within those portions of the study area covered by artificial levee deposits or by the above referenced crawfish pond.

Table 14. Survey Block Summary for the Vermilion River Dredge Disposal project area.

SURVEY BLOCK	AREA		SHOVEL TESTS		SITES/LOC1 IDENTIFIED
	HECTARES	ACRES	EXCAVATED	PLANNED	
VRD-1A	9.3	23.0	84	84	Locus VRD-1A-01
VRD-1B	4.5	11.0	52	52	Sites 16LY50 and 16LY24
VRD-1C	51.0	126.0	382	382	None
VRD-1D	68.8	170.0	771	793	16LY116 and VRD-1D-02
Total	133.6	330.0	1289	1311	

Site Recordation and Delineation

All cultural resources identified during survey of the proposed Vermilion River Dredge Disposal Study Area were examined to ascertain the nature, size, depth, integrity, age, and the cultural affiliation of the identified cultural deposits. Site delineation also was used to assess the stratigraphic placement, density, and research potential of each identified site. In addition, information was gathered to assist in the subsequent assessment of whether or not a site was considered significant, potentially significant, or not significant applying the National Register of Historic Places criteria for evaluation (36 CFR 60.4 [a-d]). Archeological recordation included the following: (1) establishment of a site datum labeled N1000 E1000; (2) intensive surface reconnaissance throughout the site area; (3) the excavation of tightly spaced shovel tests along rays emanating from datum to determine both site size and configuration; (4) the excavation of auger tests and backhoe trenches to identify deeply buried cultural deposits and site stratigraphy; and (5) mapping, photographing, and obtaining Global Positioning System (GPS) coordinates for site recordation.

Following consultation with and standards established by the Louisiana Department of Culture, Recreation and Tourism, Office of Cultural Development, Division of Archaeology, a cultural resources locus was awarded archeological site status if it produced either five or more artifacts or evidence of intact cultural deposits/features. Locus VRD-1D-01 and its associated structure therefore were awarded archeological site status, and it subsequently was assigned Louisiana state site number 16LY116; this newly recorded archeological site will be described in the following chapter (Chapter VII). The two remaining newly identified cultural resources loci (VRD-1D-02 and VRD-1A-01) did not merit archeological site status. In addition to the newly identified cultural resources, two previously recorded archeological sites (16LY24 and 16LY50) were relocated.

Auger Testing

A total of 137 of 137 (100 percent) auger tests were excavated successfully as a result of this Phase I cultural resources survey and archeological inventory. A total of 17 of 17

planned auger tests were completed at the base of selected shovel tests located between the levee and the Vermilion River (i.e., Survey Block 1A) to extend the maximum excavated depth an additional 100 cmbs (39.4 inbs) to a total excavated depth of 200 cmbs (78.7 inbs). In addition, augers were placed judgmentally within site boundaries and at the base of excavated delineation shovel tests. During site delineation, 20 planned auger tests were excavated successfully within the boundaries of Site 16LY24, 93 planned auger tests were excavated successfully within the boundaries of Site 16LY50, and 7 planned auger tests were excavated successfully within the boundaries of Locus VRD-1A-01. The purpose of the auger testing was to identify deeply buried cultural deposits and to further understand the stratigraphic sequence throughout the area. Cultural material, however, was identified in only three of the auger tests excavated at Site 16LY50.

All auger tests were excavated by hand with a 6.35 cm (2.5 in) diameter "Dutch" augers, and each extended to an approximate depth of 2 m (6.6 ft) below surface. Each auger test was excavated in 20 cm (7.9 in) levels within natural strata, and the fill associated with each level was screened separately through 0.64 cm (0.25 in) hardware cloth. Extremely wet soils and clay were hand-sifted, troweled, and examined visually for cultural material. Munsell Soil Color Charts were used to record soil color; texture and other identifiable characteristics also were recorded using standard soils nomenclature. Each of the auger tests was backfilled immediately upon completion of the archeological recordation process.

Backhoe Trenching

Similar to auger testing, backhoe trenching was utilized to test for the presence of deeply buried, intact cultural deposits within portions of the study area, as well as to provide an overview of the stratigraphic sequence. Backhoe trenches, measuring approximately 1 x 2 m (3.3 x 6.6 ft) in size, were excavated to a depth of 2 m (6.6 ft) below surface. These trenches were excavated in 20 cm (7.9 in) levels within natural strata. Screening of backhoe trench fill was not attempted; rather monitoring of the trench excavation and the visual examination of the resultant

spoil piles was undertaken. Once excavated, all backhoe units were profiled, with the vertical locations of all strata breaks and cultural materials plotted accordingly. Profiling proceeded from the surface of each backhoe trench; for safety reasons, personnel from R. Christopher Goodwin & Associates, Inc. did not enter any of the excavated backhoe trenches. In addition, representative profiles of all backhoe trenches were drawn and photographed. All backhoe trenches were backfilled immediately upon completion of the archeological recordation process. During this investigation, 3 backhoe trenches were excavated successfully at Site 16LY24, 8 backhoe trenches were excavated successfully at Site 16LY50, and 3 backhoe trenches were excavated successfully at Locus VRD-1A-01.

Architectural Review and Standing Structures Recordation

As part of this Phase I cultural resources survey and archeological inventory, the survey crew also was instructed to record all standing structures older than 50 years in age located within the study area. The purpose of this architectural recordation was to: (1) collect reconnaissance-level architectural survey data for each building older than 50 years in age located within the study area; (2) apply the National Register of Historic Places criteria for evaluation (36 CFR 60.4 [a-d]) to each recorded resource; and (3) apply the Advisory Council on Historic Preservation's Criteria of Effect to each historic property. Architectural investigations were undertaken in accordance with guidelines established in *National Register Bulletin 24: Guidelines for Local Surveys: A Basis for Preservation Planning* (National Park Service 1995). As a result of this survey, a single historic structure was recorded in association with newly recorded archeological Site 16LY116; it is described in greater detail in the subsequent chapter, i.e., in Chapter VII.

Laboratory Methods

All field specimen bags were cross-checked against the field notes and specimen inventories for accuracy and completeness. Following this quality-control process, recovered materials were washed by hand and sorted into basic material categories. The nature and structure of the

laboratory analyses, however, were guided by the goals of the project. The first requirement of the research was to determine whether or not a cultural resources locus had the potential to meet the legal definition of an historic property. Therefore, particular care was taken to observe and record chronologically sensitive attributes of historic/modern artifacts, and to evaluate, for example, whether or not the material was greater than 50 years in age. Beyond the issue of minimum age, the artifact analysis consisted of making and recording a series of observations for each specimen. The observations were chosen to provide the most significant and temporally diagnostic information about each specimen. All information then was entered into a relational database that was used to store, organize, and manipulate the data.

Historic/Modern Material

The analysis of historic/modern material was organized by class, functional group, type, and subtype. The first level, class, represented the material category (e.g., ceramic, glass, or metal). The second level, functional group (e.g., architecture, kitchen, or personal) was based on classifications established by South (1977). The third and fourth levels, type and subtype, described the temporally diagnostic artifact attributes identified during the analysis.

Historic ceramic, glass, and brick artifacts are some of the more commonly marked, embossed, and branded commodities. Manufacturers/brands, i.e., "maker's marks," were used where possible to refine date ranges on these types of artifacts, which often have long spans of use popularity, or which exhibit little morphological or stylistic change over time. The identification of artifacts and maker's marks was aided by consulting standard reference works, including Coates and Thomas (1990), Fike (1987), Florence (1990), Jones and Sullivan (1985), Kovel and Kovel (1986), Lord (1995), Miller (1980, 1991), Nelson (1968), Schornak (1964), South (1977), Speer (1979), Switzer (1974), Toulouse (1971, 1977) and Wilson (1981).

Prehistoric Ceramic Analysis

The prehistoric ceramic taxonomy was organized by type, variety, surface decoration,

aplastic inclusions, and vessel portion. The database was designed to allow the analyst to record established ceramic types as well as ceramic modes and attributes as necessary. The first level of the taxonomy, type, represented the established named ceramic type according to published sources such as Brown (1985), Kidder (1995), Neitzel (1983), Phillips (1970), Stepounaitis (1983), Weinstein (1987), and Williams and Brain (1983). The next level, variety, identified the named ceramic variety utilizing existing published typologies. The decoration category was used to describe the basic type of surface decoration present on the sherd, e.g., plain, brushed, engraved, ridged, or incised. The aplastic inclusion category listed the principal temper types observed in the paste of the sherd. Aplastic inclusion combinations, e.g., sand/grog, were used to denote only the presence of those inclusions, not the numerical predominance of one over the other. The vessel portion field contained the part of the ceramic vessel from which the sherd was derived. Possible values for this field included body, rim, base, neck/collar, and so forth. The "additional description" column was used to record other relevant observations.

Prehistoric Lithic Analysis

The lithic analysis protocol used was a "technological" or "functional" one designed to identify prehistoric reduction trajectories, lithic industries, and tool functions. The protocol therefore focused on recording technological characteristics of the recovered lithic artifacts. The lithic artifact database was organized by lithic material group, type, and by subtype. The first level described the raw material type of the artifact. Lithic materials were classified utilizing recognized geological descriptions and terminology (Fenton and Fenton 1940), and type specimens collected from a known source. Lithic raw materials were divided into distinct categories based on three factors: texture, color, and translucence. The second level, type, was used to define the general class of the lithic artifact being examined, e.g., unmodified flake, core, or preform, while the last level, subtype, was used to specify the morphological attributes recorded, e.g., primary cortex, extensively reduced, or corner-notched. These levels followed classifica-

tions outlined by Callahan (1979), Crabtree (1972), Servello (1983), and others. Typological identifications for temporally and regionally diagnostic tools also were included in the analysis. Such identifications were made by reference to established lithic artifact typologies, e.g., Cambron and Hulse (1975), Ensor (1981), and Suhm and Jelks (1962).

Faunal Analysis

The faunal database was organized by type and subtype. The biological class according to conventional systematics, e.g., mammal and bird, was listed under the heading "type." The subtype column lists the family, genus, or species when identifiable. When generic or specific identification was not possible, each bone was placed into a general descriptive category, e.g., large mammal, large to medium mammal, medium to small mammal, small mammal, bird, reptile, fish, etc. Skeletal elements and orientation also were identified when possible. In addition, for the purposes of recordation, thermal modification to the bone was noted as burned, charred, or ashed. The presence of cut marks, butchering, and/or sawing also was identified when possible, as was fragmentation. Vertebrate remains recovered from the sites considered in this report were examined using standard zooarcheological methods. Identifications were made using the comparative reference skeletal collections of R. Christopher Goodwin & Associates, Inc. In addition to reference specimens, guidelines and manuals used to aid identification procedures included those of Gilbert (1980), Hillson (1986), and Olsen (1968, 1979).

Curation

Following the completion and acceptance of the final report, all archeological materials, records, photographs, and field notes will be curated with:

State of Louisiana
Department of Culture, Recreation and Tourism
Office of Cultural Development
Division of Archaeology
1051 North 3rd Street, Room 405
Baton Rouge, LA 70802

RESULTS OF THE FIELD INVESTIGATION

Introduction

This chapter presents the results of the Phase I cultural resources survey and archeological inventory of the Vermilion River Dredge Disposal Area situated in Lafayette Parish, Louisiana (Figure 2). The irregularly shaped project area encompasses a 372 ac (150.5 ha) tract that is bounded roughly to the west by pasture, to the north by State Road 353, and to the east and south by the Vermilion River. Elevations throughout the study area range from 1.5 to 6.1 m (5 to 20 ft) NGVD, and it straddles portions of Sections 93, 95, 96, 97, and 98, of Township 9S, Range 5E and of Sections 4 and 5 of Township 10S, Range 5E. The results of the survey for the proposed river dredge disposal area are presented below.

Results of Field Investigations

During the Phase I cultural resources inventory of the proposed project area, the study area was partitioned arbitrarily into 4 smaller survey blocks to facilitate control during the survey process (Survey Blocks 1A-1D) (Table 14; Figures 3 – 6). As discussed in Chapter VI, a preliminary review of USGS 7.5' topographic quads and published soil surveys of Vermilion Parish, Louisiana, indicated that the project area consisted of relatively flat terrain positioned in close proximity to a perennial source of fresh water; i.e., the Vermilion River; these physiographic characteristics were favorable both for prehistoric and historic settlement. In addition, a review of previously recorded sites in the general vicinity suggested that the entire area possessed a moderate to high probability for con-

taining intact cultural deposits primarily because of its proximity to a perennial source of fresh water. Fieldwork consisted of pedestrian reconnaissance augmented by the systematic excavation of shovel tests at 30 m (98.4 ft) intervals along survey transects spaced 30 m (98.4 ft) apart within each of the examined survey blocks. During survey, 1,289 of 1,311 (98 percent) planned shovel tests were excavated successfully throughout the Area of Potential Effect. The remaining 22 shovel tests were not excavated because they fell within areas covered by standing water (n=10), a modern trash pile (n=1), compacted gravel (n=1), or because they were located in areas that contained buried utilities (n=10). As a result of this investigation, two non-site loci (VRD-1A-01 and VRD-1D-02) and a single newly identified archaeological site with an associated historic structure (16LY116) were identified. In addition, two previously recorded archeological sites were revisited (16LY24 and 16LY50). These cultural resources are described by type below.

Non-Site Cultural Resources Loci

During survey, two non-site cultural resources loci (VRD-1A-01 and VRD-1D-02) were identified (Table 15). These loci included an isolated prehistoric find (1A-01) and an isolated historic artifact (1D-02). Neither of these newly identified cultural resources loci possessed the qualities of significance as defined by the National Register of Historic Places criteria for evaluation (36 CFR 60.4 [a-d]). No additional testing of these two non-site cultural resources loci is recommended.

Table 15. Non-site loci identified during Phase I cultural resources survey and archeological inventory.

LOCUS/SITE NUMBER	USGS 7.5' QUAD	SECTION/TOWNSHIP/RANGE	SITE SIZE	DESCRIPTION	NRHP STATUS
16LY24 (VRD-1B-01)	Broussard	93/9S/5E	540 m ² (5813 ft ²)	Prehistoric ceramic sherd scatter	Not Significant
16LY50	Broussard	93/9S/5E	18,000 m ² (193,757 ft ²)	Prehistoric artifact scatter and historic isolated find	Not Significant
16LY116 (VRD-1D-01)	Broussard	95/9S/5E	m ² (ft ²)	Historic artifact scatter	Not Significant
VRD-1A-01	Broussard	93/9S/5E	25 m ² (269 ft ²)	Prehistoric isolated ceramic sherd	Not Significant
VRD-1D-02	Broussard	93 & 95/9S/5E	25 m ² (269 ft ²)	Historic isolated artifact	Not Significant

Locus VRD-1A-01

Locus VRD-1A-01, an isolated prehistoric ceramic sherd, was identified during the Phase I cultural resources investigation of Survey Block VRD-1A (Figure 2). It was identified at an elevation of 3 to 6 m (10 to 20 ft) NGVD, within the southern portion of irregularly shaped Section 93 of Township 9S, Range 5E, and approximately 15 m (49.2 ft) north of the Vermilion River. Vegetation within the vicinity of this cultural resources locus consisted of deciduous trees and pasture grasses (Figure 31).

During the initial Phase I cultural resources survey of this portion of the Area of Potential Effect, a shovel test excavated in the area yielded a single prehistoric ceramic sherd. This artifact, recovered from Locus VRD-1A-01, originated from Stratum IV, i.e., a depth of 30 to 40 cmbs (11.8 to 15.7 inbs); the sherd was characterized as a Marksville Incised ceramic sherd, which dated from A.D. 100 – 400. As part of the subsequent site delineation process, 7 of 7 (100 percent) planned shovel tests and 3 backhoe trenches were excavated (Figure 32). None of the additional shovel tests or backhoe trenches produced cultural material or evidence of intact cultural deposits.

A typical shovel test excavated within the confines of Locus VRD-1A-01 extended to 100 cm (39 in) in depth. In addition, auger tests were excavated at the base of the delineation shovel tests to extend the subsurface testing to a depth of 200 cmbs (78.7 inbs). The shovel and auger tests exhibited five strata in profile (Figure 33).

Stratum I was described as a layer of brown (10YR 4/3) clay that extended from 0 to 15 cmbs (0 to 5.9 inbs). Stratum II continued from 15 to 29 cmbs (5.9 to 11.4 inbs), and it consisted of a deposit of reddish brown (5YR 3/3) clay. Stratum II was underlain by Stratum III, a layer of gray (10YR 5/1) clay that was observed from 29 to 59 cmbs (11.4 to 23.2 inbs). Stratum IV consisted of a deposit of dark gray (10YR 4/1) clay that extended from 59 to 150 cmbs (23.2 to 59 inbs). Lastly, Stratum V consisted of a deposit of gray (10YR 5/1) clay that ranged in depth from 150 to 211 cmbs (59 to 83 inbs).

In addition to the above mentioned shovel tests, three backhoe trenches were excavated within the limits of Locus VRD-1A-01 (Figure 32). Each trench measured 2 x 1.5 m (6.6 x 4.9 ft) in size and each extended to a maximum excavated depth of 200 cmbs (78.7 inbs). Backhoe Trench BT-01 exhibited four strata in profile, while Backhoe Trenches BT-02 and BT-03 contained only three strata in profile (Figure 34). Additionally, each backhoe trench exhibited unique profiles. Within Backhoe Trench BT-01, Stratum I was noted as a layer of dark gray (10YR 4/1) silty clay mottled with yellowish red (5YR 4/6) silty clay that ranged from 0 to 42 cmbs (0 to 16.5 inbs). Stratum II consisted of a deposit of dark grayish brown (10YR 4/2) clay that reached from 42 to 104 cmbs (16.5 to 40.9 inbs). Stratum II was underlain by Stratum III, a layer of very dark grayish brown (10YR 3/2) clay mottled with red (2.5YR 4/8) clay that continued from 104 to 134 cmbs (40.9 to 52.7 inbs).



Figure 31. Overview photo of Locus VRD-1A-01, facing south, with Vermilion River in the background.

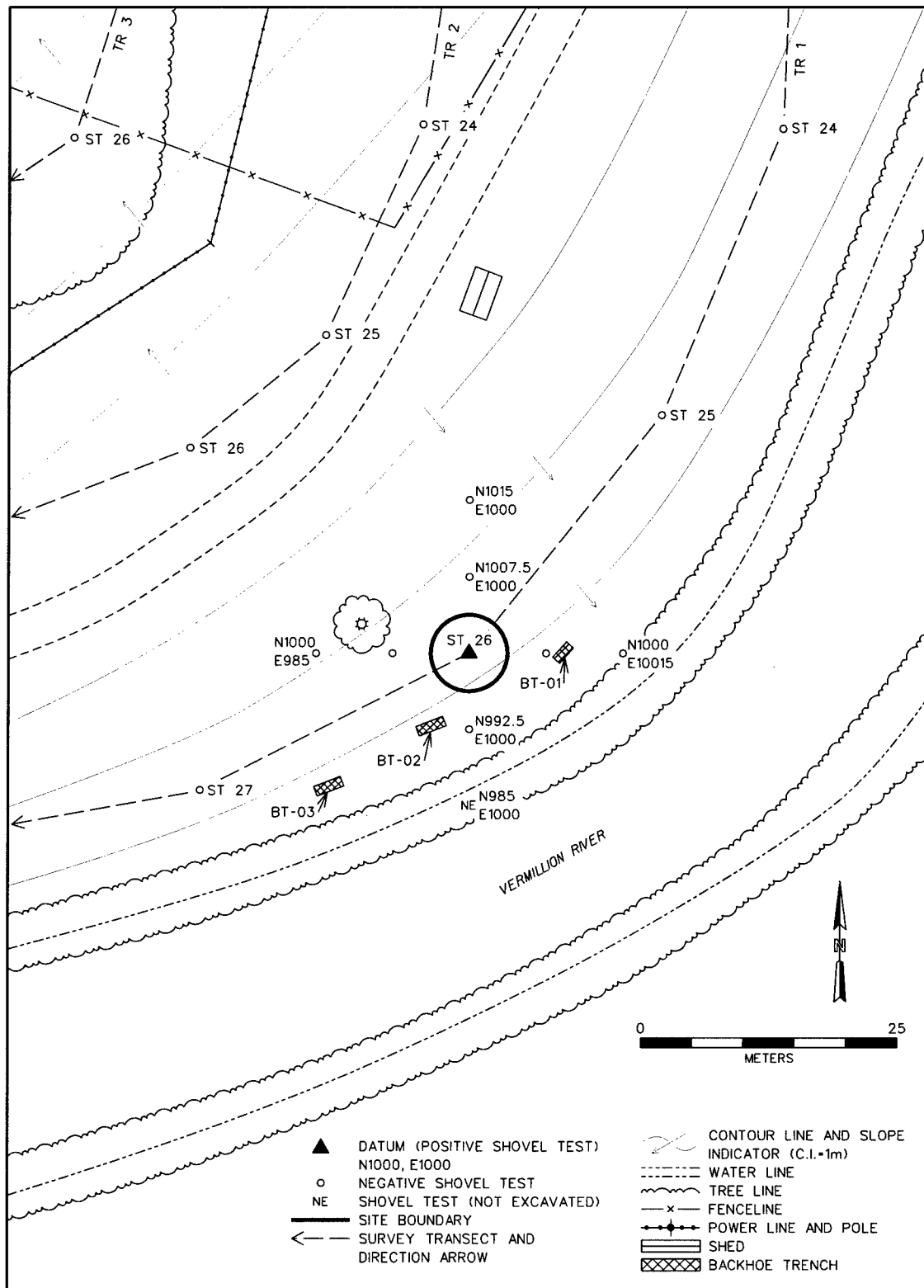


Figure 32. Plan view of Locus VRD-1A-01.

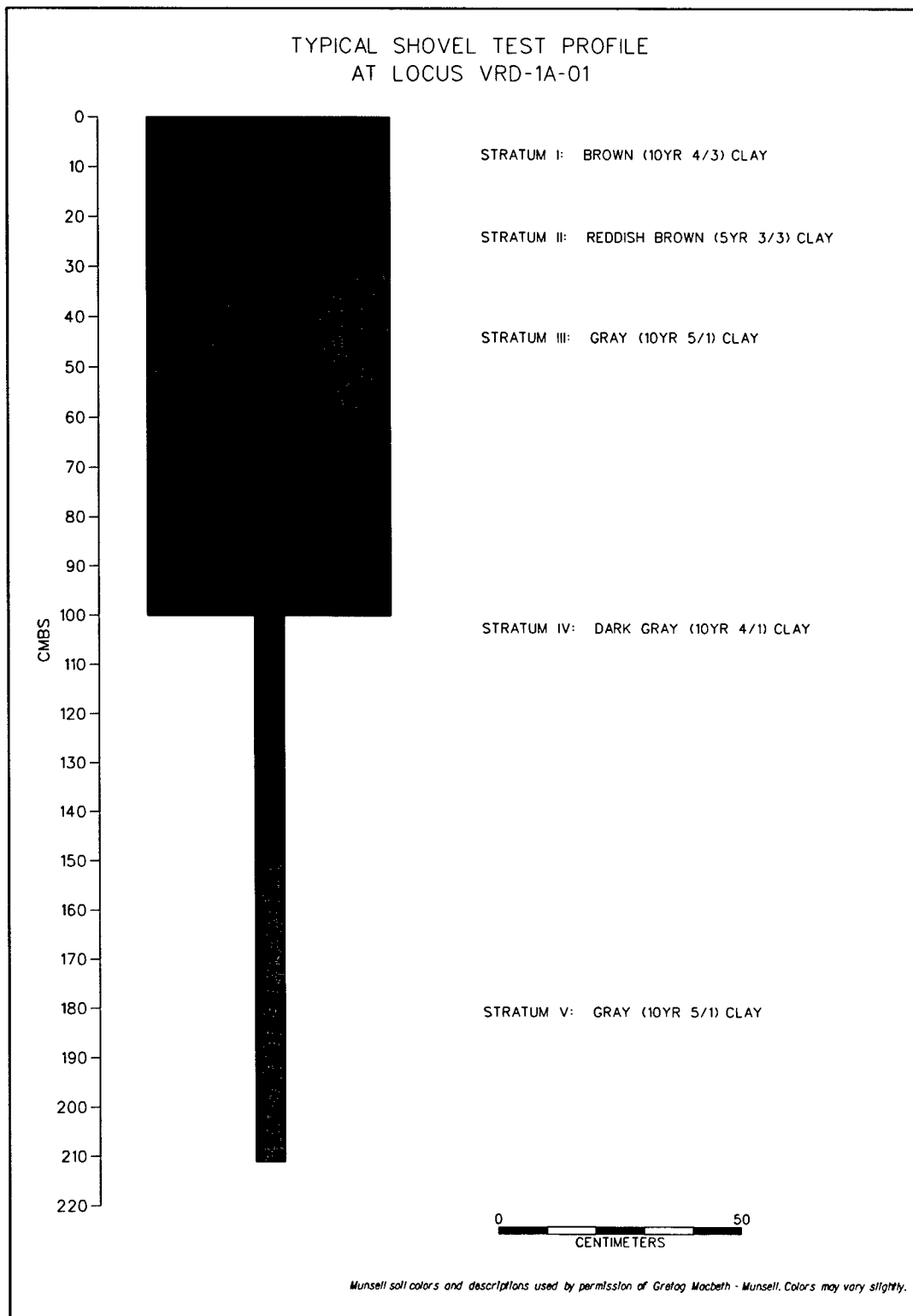


Figure 33. A typical shovel and auger test profile from Locus VRD-1A-01.

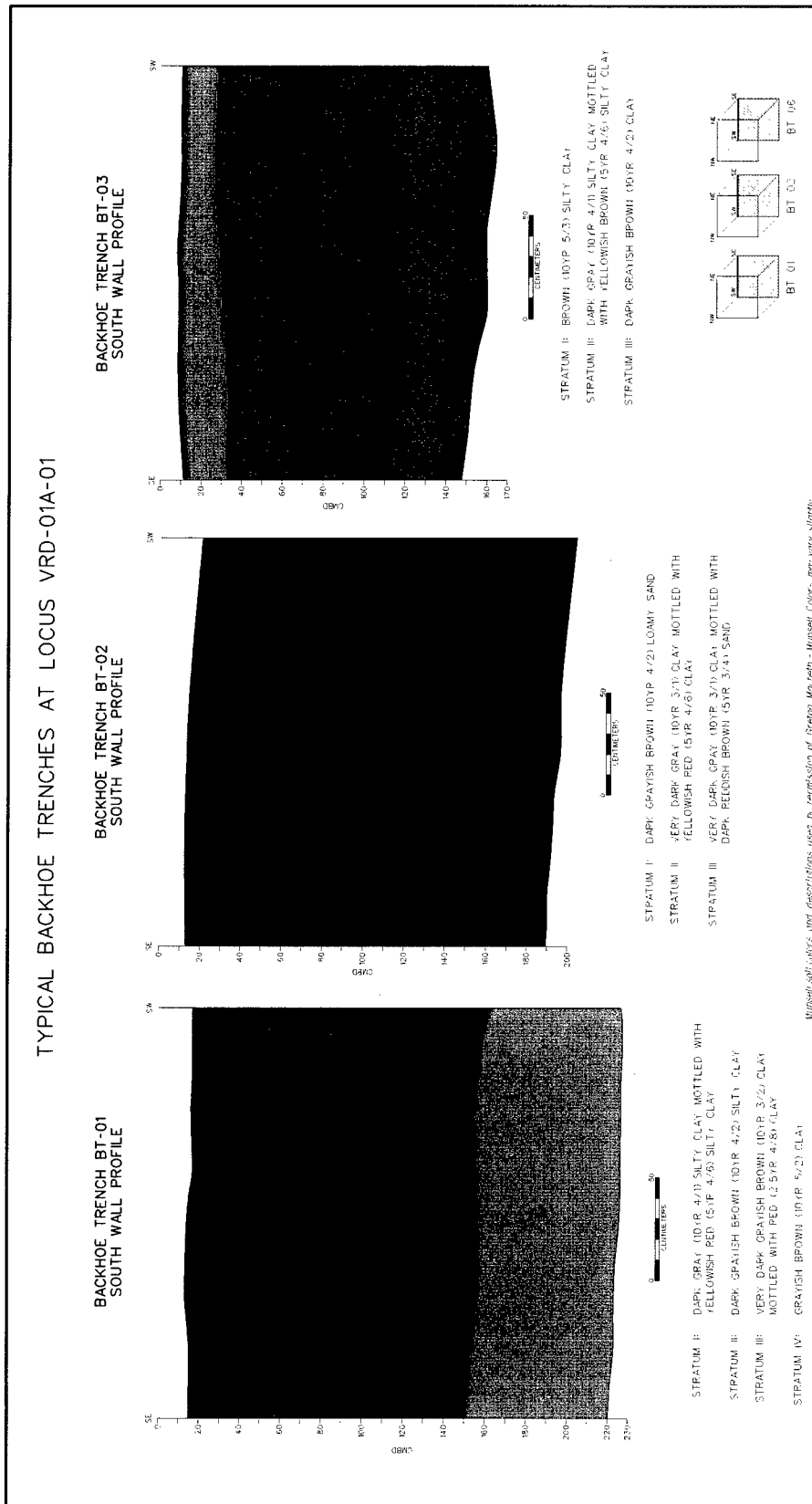


Figure 34. Backhoe trench profiles from Locus VRD-1A-01.

The basal stratum, Stratum IV, consisted of a layer of grayish brown (10YR 5/2) clay that extended from 134 to 202 cmbs (40.9 to 79.5 inbs).

Stratum I of Backhoe Trench BT-02 extended from 0 to 20 cmbs (0 to 7.8 inbs) and it consisted of a deposit of dark grayish brown (10YR 4/2) loamy sand. Stratum I was underlain by Stratum II, a layer of very dark gray (10YR 3/1) clay mottled with yellowish red (5YR 4/6) clay. Stratum II extended from 20 to 106 cmbs (7.8 to 41.7 inbs). Stratum III consisted of a deposit of very dark gray (10YR 3/1) clay mottled with dark reddish brown (5YR 3/4) sand that ranged in depth from 106 to 196 cmbs (41.7 to 77.1 inbs).

The last backhoe trench, Backhoe Trench BT-03 also exhibited three strata in profile. Stratum I, a layer of brown (10YR 5/3) silty clay, ranged in depth from 0 to 42 cmbs (0 to 16.52 inbs). Stratum II consisted of a layer of dark gray (10YR 4/1) silty clay mottled with yellowish brown (5YR 4/2) clay, extended from 42 cmbs (16.5 inbs) to an average depth of 88 cmbs (34.6 inbs). Stratum III was described as a layer of dark grayish brown (10YR 4/2) clay that reached from 88 to 160 cmbs (34.6 to 63 inbs). Excavation of this backhoe trench terminated at 160 cmbs (63 inbs) due to excessive amounts of water. Furthermore, a telephone pole was identified at approximately 40 cmbs (15.7 inbs); it crossed the trench from the north wall to the south wall as shown in Figure 35.

Archeological data collected from the vicinity of Locus VRD-1A-01 indicates that intact prehistoric cultural deposits and research potential are lacking. Locus VRD-1A-01, an isolated prehistoric ceramic sherd, does not possess the qualities of significance as defined by the National Register of Historic Places criteria for evaluation (36 CFR 60.4 [a-d]). No additional testing of Locus VRD-1A-01 is recommended.

Locus VRD-1D-02

Locus VRD-1D-02 consisted of an isolated, historic era marble that was identified during the excavation of a shovel test within Survey Block VRD-1D (Figure 2). The locus was situated at the southern boundary between irregularly shaped Sections 93 and 95 of Township 9S,



Figure 35. Photo depicting the finished wood pole identified within Backhoe Trench BT-03 at Locus VRD-1A-01, facing west.

Range 5E. Locus VRD-1D-02 measured approximately 5 x 5 m (16.4 x 16.4 ft) in area and it was located approximately 5 m (16.4 ft) west of the Vermilion River. At the time of survey, the area was used as a pasture; vegetation noted throughout the vicinity of this cultural resource consisted of deciduous trees and secondary growth (Figure 36).

A total of 25 of 25 (100 percent) planned shovel tests were excavated successfully within the vicinity of Locus VRD-1D-02 as part of the cultural resources inventory of the proposed Vermilion River Dredge Disposal Study Area; however, only one of these shovel tests produced cultural material (Figure 37). The single artifact recovered from Locus VRD-1D-02 consisted of a machine made, blue and white glass marble; it originated from Stratum I, i.e., from a depth of 0 to 10 cmbs (0 to 3.9 inbs) (Figure 38). This particular type of marble dates from post ca. 1901 (Randall 1971).

A typical shovel test excavated within the vicinity of Locus VRD-1D-02 extended to 100 cmbs (39.4 inbs) and it exhibited two strata in profile (Figure 39). Stratum I was described as a layer of brown (10YR 5/3) silty clay mottled with yellowish-red (10YR 5/6) silty clay that



Figure 36. Overview photo of Locus VRD-1D-02, facing west.

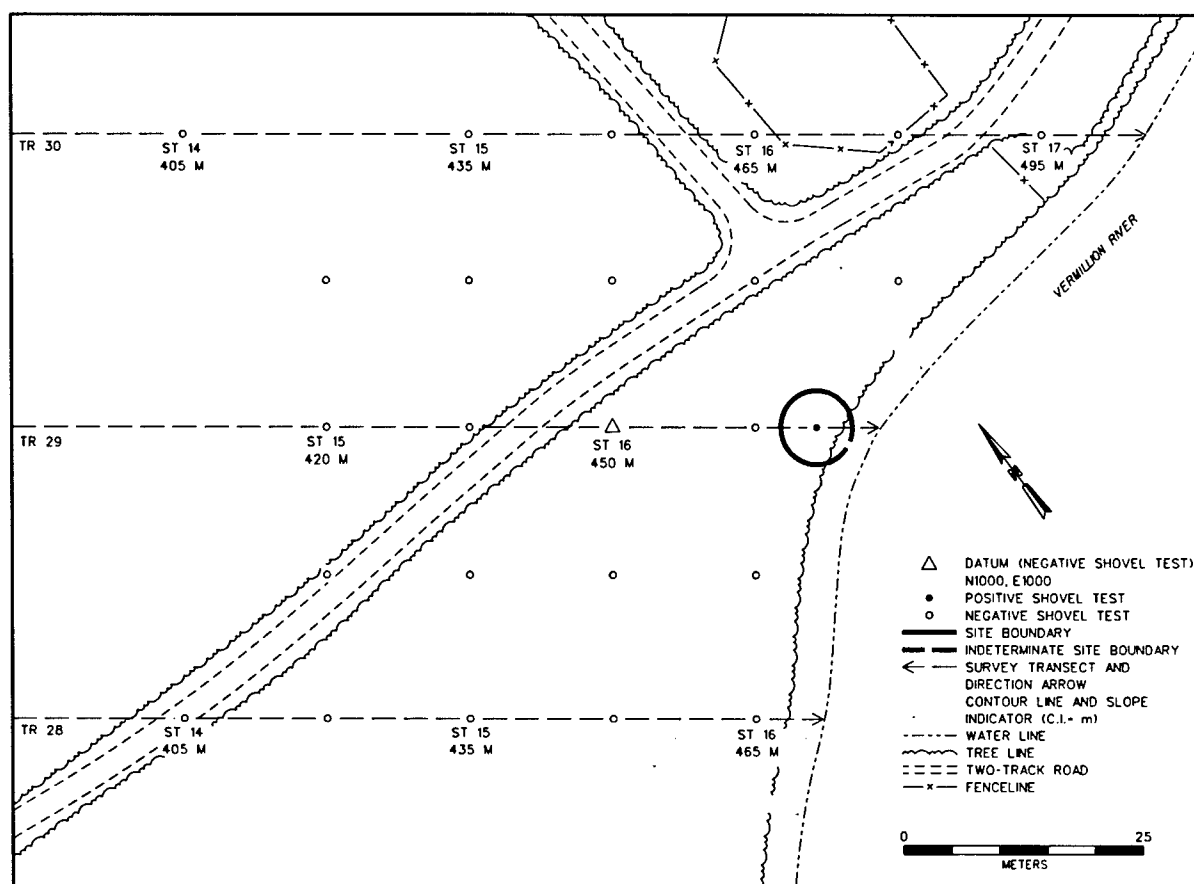


Figure 37. Plan view of Locus VRD-1D-02.



Figure 38. Machine-made glass marble (FS #23) recovered from Locus VRD-01D-02.

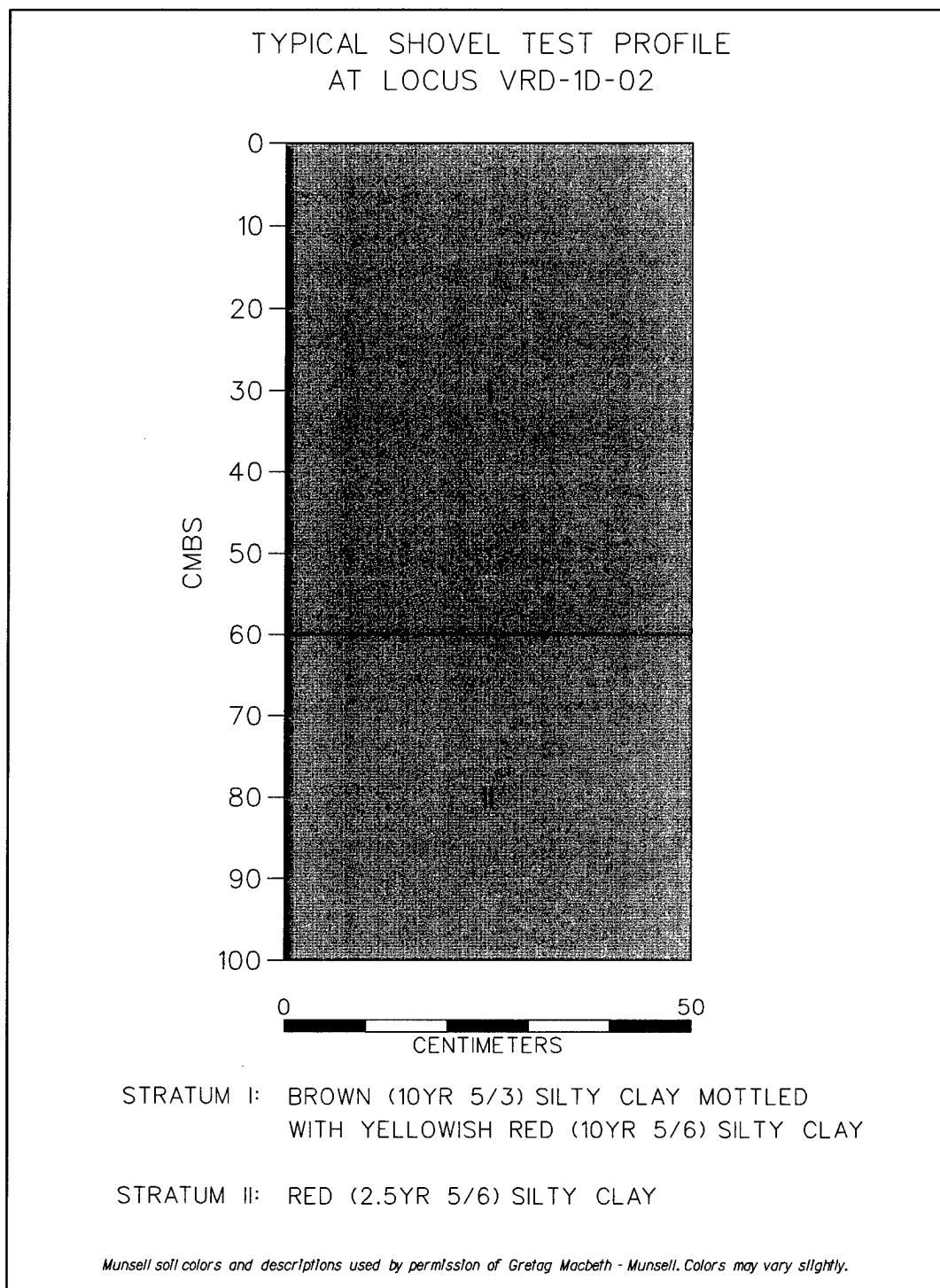


Figure 39. A typical shovel test profile from Locus VRD-1D-02.

extended from 0 to 60 cmbs (0 to 23.6 inbs). This was underlain by Stratum II, a deposit of red (2.5YR 5/6) silty clay; it ranged in depth from 60 to 100 cmbs (23.6 to 39.3 inbs).

Archeological data collected within the vicinity of Locus VRD-1D-02, an isolated historic artifact, indicates that intact cultural deposits are lacking. The lack of intact cultural deposits, the sparse artifact assemblage, and the limited research potential demonstrate that Locus VRD-1D-02 does not possess the qualities of significance as defined by the National Register of Historic Places criteria for evaluation (36 CFR 60.4 [a-d]). No additional testing of Locus VRD-1D-02 is recommended.

Archeological Sites

A single newly recorded archeological site was recorded as a result of the Phase I cultural resources survey of the proposed Vermilion River Dredge Disposal Study Area, and the locations of two previously identified archeological sites (16LY24 and 16LY50) were revisited (Table 15). Previously recorded Site 16LY24 was described previously as a multi-component prehistoric and historic cultural resource, while Site 16LY50 reportedly contained only a prehistoric component. Gibson originally identified Site 16LY24 in 1975. He described the site as a, "nonmound site of undetermined size without stained earth midden which yielded one Tchefuncte plain potsherd" (Gibson 1975:105). In 1976, Gulf South Research Institute revisited the site and they describe the site as consisting of a single prehistoric plain sherd and "a historic house with wooden cistern...located on a low hillock, which might possibly be a mound" (Gulf South Research Institute 1976:9). The "historic house" identified by Gulf South Research Institute, however, was plotted incorrectly and it was mistakenly associated with Site 16LY24. During the current investigation, a scatter of prehistoric artifacts was identified in the vicinity of the site location originally recorded by Gibson; the historic structure and artifact scatter, recorded by Gulf South Research Institute, were identified approximately 300 m (984 ft) down river from that location. After consultation with the Louisiana State Historic Preservation Office, it was determined that the structure and its associated

archeological deposits should be granted a separate site number, Site 16LY116. None of the newly or previously identified cultural resources possess the qualities of significance as defined by the National Register of Historic Places criteria for evaluation (36 CFR 60.4 [a-d]). No additional testing of Sites 16LY116, 16LY24, and 16LY50 is recommended. Each of these archeological sites is discussed in detail below.

Site 16LY116

Site 16LY116, a historic structure and an accompanying low-density historic/modern artifact surface scatter, was recorded during the Phase I cultural resources survey and archeological inventory of Area VRD-1D (Figure 2). The structure, as well as the associated archeological deposits, was previously documented by Gulf South Research Institute in 1976. At that time, they were included as part of Site 16LY24. As explained above, because of the substantial distance noted between previously recorded Site 16LY24 and the location of the structure identified during the current investigation, the structure and its associated deposits were awarded State of Louisiana Site Number 16LY116. The site is located on a small rise within Section 95 of Township 9S, Range 5E. The site is circular in shape and it measures approximately 12.5 m x 15 m (41 x 49 ft) in area. The site is located at an approximate elevation of 1.5 m (4.9 ft) NGVD. Vegetation identified in the vicinity of Site 16LY116 was recorded as deciduous trees and grass (Figure 40).

As part of this Phase I cultural resources survey and archeological inventory, a total of 9 of 9 (100 percent) planned shovel tests were excavated within the vicinity of this locus. During the subsequent site delineation process, 8 of 8 (100 percent) planned shovel tests were excavated (Figure 41). Each of the excavated shovel tests failed to produce cultural material or evidence of intact cultural deposits. In addition, the dense tree growth surrounding Site 16LY116, prevented backhoe trenches from being excavated. All of the cultural material recovered from Site 16LY116 originated from the surface of the site area, and it consisted of a single 1939 wheat penny, 2 cream ironstone sherds, and 4 pieces of glass (Figure 42).



Figure 40. Overview photo of Site 16LY116, facing southeast.

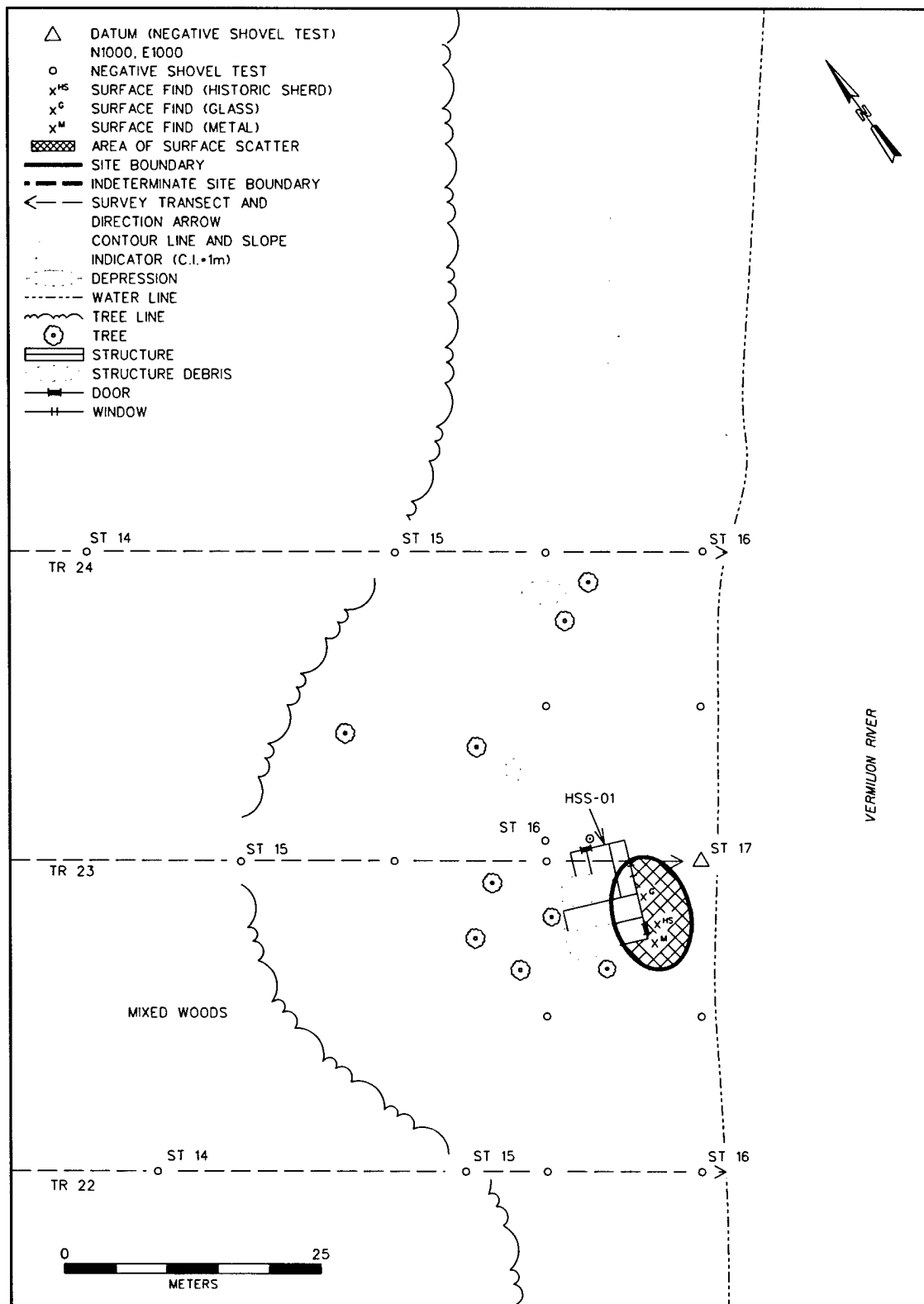


Figure 41. Plan view of Site 16LY116.

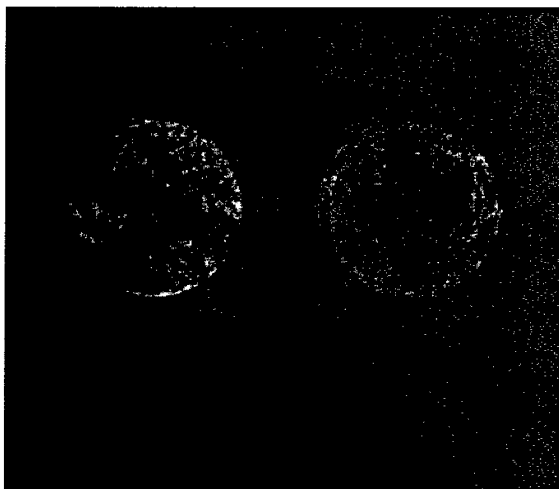


Figure 42. Wheat penny dated 1939 (FS #20) recovered from Site 16LY116.

The historic structure associated with Site 16LY116 consisted of a single story building that measured approximately 7.5 by 9 m (24.6 x 29.5 ft) in size. It was located approximately 5 m (16.4 ft) west of the Vermilion River on a small rise. The structure represents an early to mid-twentieth century vernacular building that was described as abandoned and in ruins at the time of survey. The wood frame outbuilding was supported by a concrete pier system. The exterior walls of the building were covered by stamped metal siding. Although the roof was collapsed at the time of survey, it was described as a low-pitched cross gabled roof covered by corrugated metal.

A typical shovel test excavated within the confines of Site 16LY116 consisted of three strata and they extended to the depth of 100 cmbs (39.3 inbs) (Figure 43). Stratum I was described as a layer of light gray (10YR 5/1) compact loam that extended from the surface to 7 cmbs (2.7 inbs). Stratum I was underlain by Stratum II, a deposit of light grayish brown (10YR 6/2) clay that continued in depth from 7 to 30 cmbs (2.7 to 11.8 inbs). Finally, Stratum III was described as a layer of reddish brown (5YR 4/4) compact clay that originated at 30

cmbs (11.8 inbs); it terminated at a depth of 100 cmbs (39.3 inbs).

Site 16LY116 consists of a light historic/modern artifact scatter and an associated historic structure. The structure is in a ruinous condition, and it represents a typical example of a building type that is common throughout rural portions of the southeastern United States. This structure is not unique architecturally, and it does not possess any known historical associations. The archeological deposits associated with Site 16LY116 contains material that likely is associated with the use and occupation of this outbuilding. The sparse artifact assemblage and the absence of intact cultural deposits suggest that these deposits lack research potential. Neither the standing structure nor the archeological deposits designated as Site 16LY116 possess the qualities of significance as defined by the National Register of Historic Places criteria for evaluation (36 CFR 60.4 [a-d]). No additional recordation of Site 16LY116 is recommended.

Site 16LY24

Site 16LY24, a previously recorded multi-component site, was relocated within the southwestern portion of irregular shaped Section 93, of Township 9S, Range 5E along the west bank of the Vermilion River within Survey Block VRD-1B (Figure 2). The relocated site area measured approximately 12 m (39.3 ft) in width by 45 m (147.6 ft) in length, and it was positioned at an approximate elevation of 1.5 to 3 m (4.9 to 9.8 ft) NGVD. Vegetation noted in the vicinity of the site consisted of secondary growth and pasture grasses (Figure 44).

During the current investigation, 27 of 28 (96 percent) planned shovel tests were excavated successfully in the vicinity of Site 16LY24 (Figure 45). A single planned shovel test was not excavated because it was located within an existing pipeline corridor. Auger tests also were completed at the base of 20 shovel tests in an effort to identify any deeply buried cultural deposits that might exist within the area. Although none of the excavated shovel or auger tests produced cultural material, a single indeterminate mammal faunal specimen and a single prehistoric ceramic sherd were recovered from the surface of Site

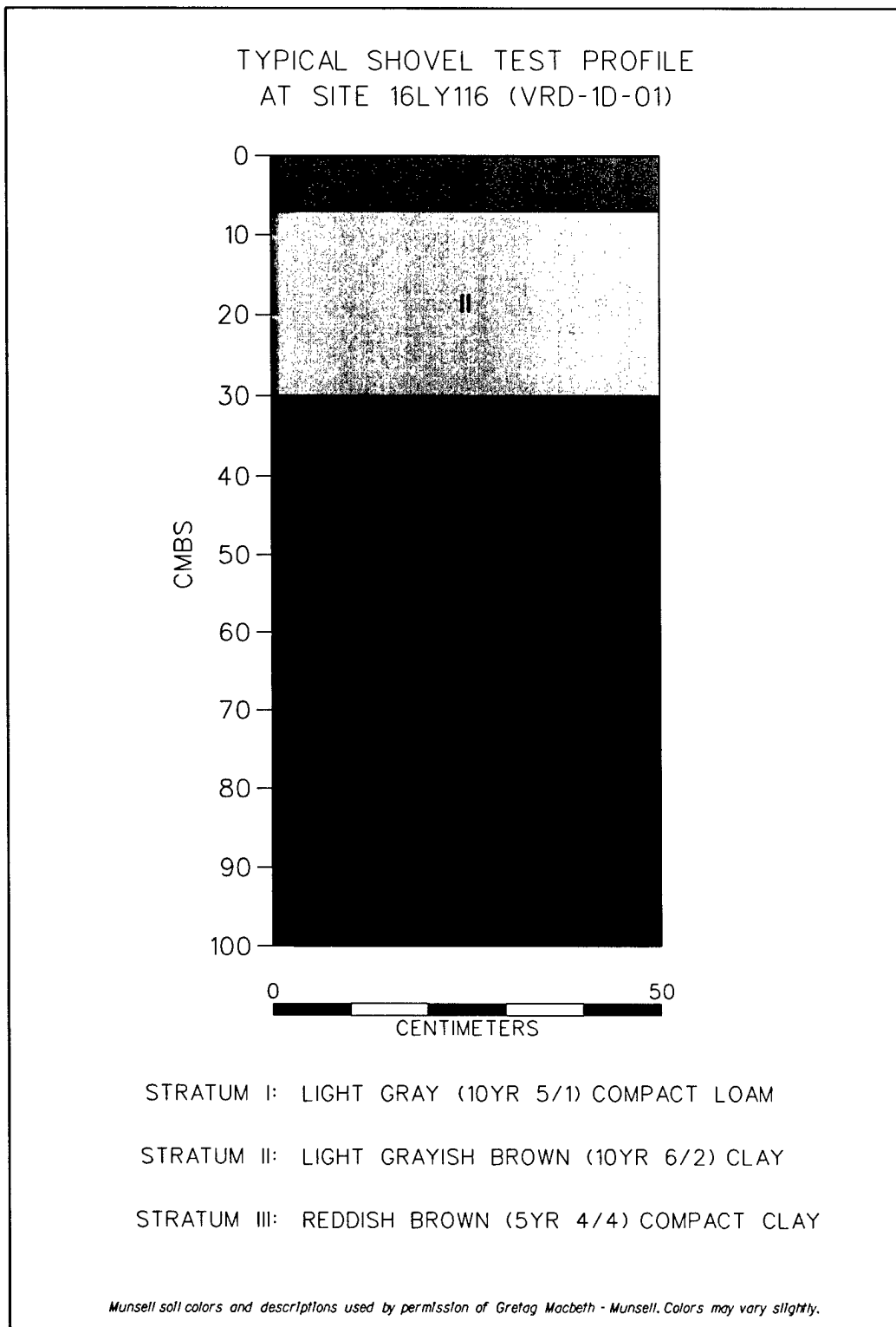


Figure 43. A typical shovel test profile from Site 16LY116.



Figure 44. Overview photo of Site 16LY24, facing east, with tree line and Vermilion River on right.

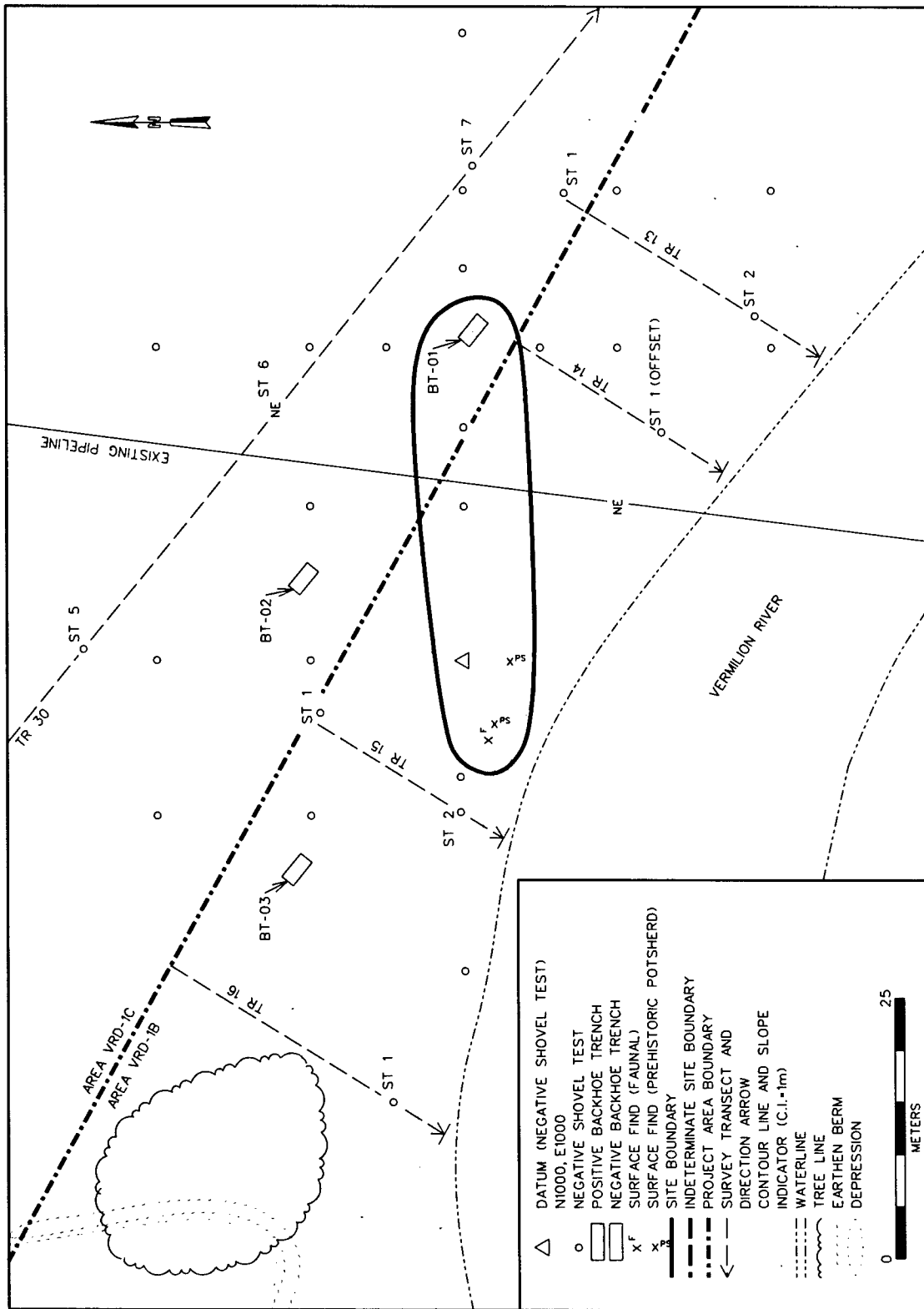


Figure 45. Plan view of Site 16LY24.

16LY24. The prehistoric ceramic sherd consisted of a very eroded Tchefuncte Plain, *var. unspecified* example that dated from ca. 500 B.C. to A.D. 100 (i.e., from the Tchefuncte Culture of the Woodland Stage) (Figure 46).

In addition to shovel and auger testing, three judgmentally placed backhoe trenches were excavated; only one of these, however, yielded artifacts from subsurface contexts. A single artifact recovered from Backhoe Trench BT-01 consisted of an eroded, grog tempered prehistoric ceramic sherd that could not be attributed to a particular cultural affiliation (Figure 46). It originated from Stratum I, from depths ranging from 10 to 20 cmbs (3.9 to 7.9 inbs). The remaining cultural material recovered from Site 16LY24 consisted of a single decorated Tchefuncte ceramic sherd that was recovered from the surface of the site and an indeterminate mammalian bone fragment that was collected from the eroding bank of the Vermilion River. The prehistoric ceramic sherd dated from ca. 500 B.C. to A.D. 100.

A typical shovel test excavated throughout the site area was excavated to a depth of 100 cm (39.4 in); auger testing extended the stratigraphic profile from the base of the shovel test to a depth of 200 cmbs (78.7 inbs). As a result, a total of three strata were observed in profile (Figure 47). Stratum I consisted of a layer of grayish brown (10YR 5/2) clay mottled with yellowish brown (10YR 5/5) clay that extended from the ground surface to 28 cmbs (11 inbs). A considerable amount of plastic debris also was recorded within Stratum I. Stratum II, a deposit of yellowish brown (5YR 5/5) clay, continued from 28 to 150 cmbs (11 to 59 inbs). Finally, Stratum III was noted as a layer of reddish brown (5YR 4/4) clay mottled with gray (10YR 5/1) clay that extended from the base of Stratum II to a maximum excavated depth of 200 cmbs (78.7 inbs).

A total of 3 backhoe trenches were excavated within Site 16LY24 (Figure 45); these trenches measured 2 x 1.5 x 2 m (6.6 x 4.9 x 6.6 ft) in size. These trenches were completed in an effort to identify the presence of deeply buried cultural deposits. Each of the three backhoe trenches excavated in the vicinity of Site 16LY24 exhibited unique stratigraphic profiles (Figure 48). Only a single trench, Backhoe

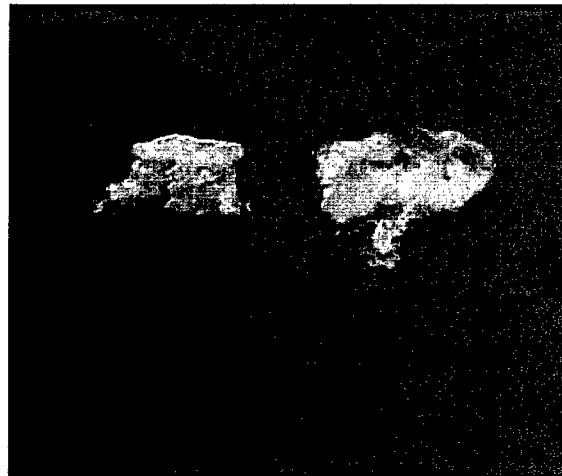


Figure 46. Selected prehistoric ceramic sherds recovered from Site 16LY24: (a) indeterminate body sherd (FS #146); and (b) Tchefuncte Plain, *var. unspecified* sherd (FS #211).

Trench BT-03, contained cultural material. A single indeterminate prehistoric ceramic sherd was recovered from Stratum I, i.e., from depths ranging from 10 to 20 cmbs (3.9 to 7.9 inbs). Backhoe Trench BT-01 was situated approximately 40 m (131.2 ft) from and parallel to the banks of the Vermilion River (Figure 45). Backhoe Trench BT-01 exhibited four strata in profile, as well as evidence of disturbance associated with the construction of a gas pipeline. Stratum I consisted of a deposit of dark gray (10YR 4/1) clay mottled with yellowish brown (10YR 5/4) clay and yellowish red (5YR 4/6) clay that extended from the surface to 98 cmbs (0 to 38.5 inbs). This was underlain by Stratum II, a layer of yellowish red (5YR 4/6) clay lens that reached from 98 to 134 cmbs (38.5 to 52.7 inbs). Stratum III, a layer of dark gray (10YR 4/1) clay, continued from 134 to 148 cmbs (52.7 to 58.2 inbs), and it contained approximately five percent gravel. Stratum IV was recorded as deposit of brown (10YR 5/3) clay mottled with black (10 YR 2/1) clay and yellowish brown (10YR 5/4) clay; it continued from 148 to 195 cmbs (58.2 to 76.7 inbs).

Backhoe Trench BT-02 was situated approximately 35 m (114.8 ft) away from the bank of the Vermilion River (Figure 45). This trench

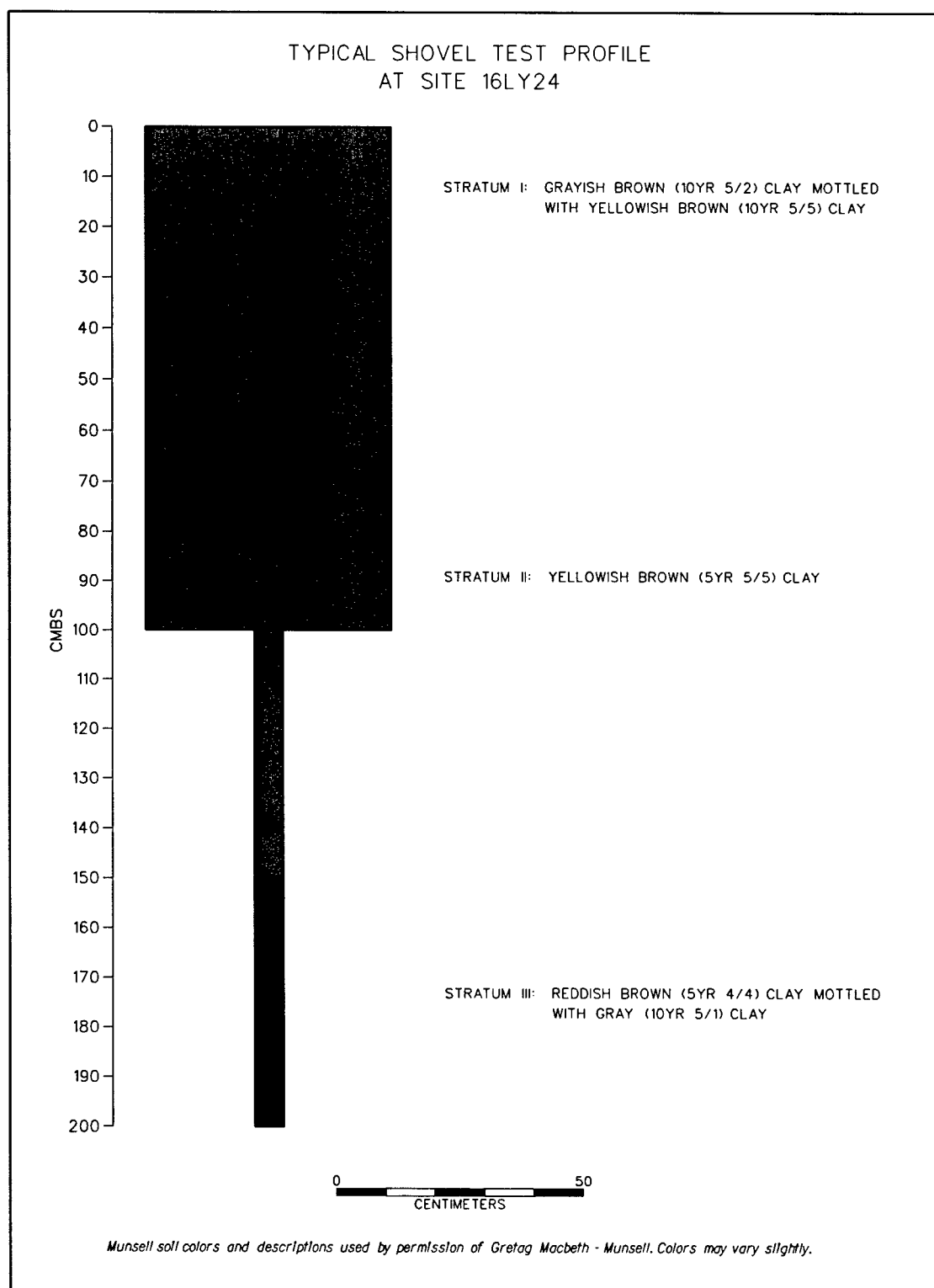


Figure 47. A typical shovel and auger test profile from Site 16LY24.

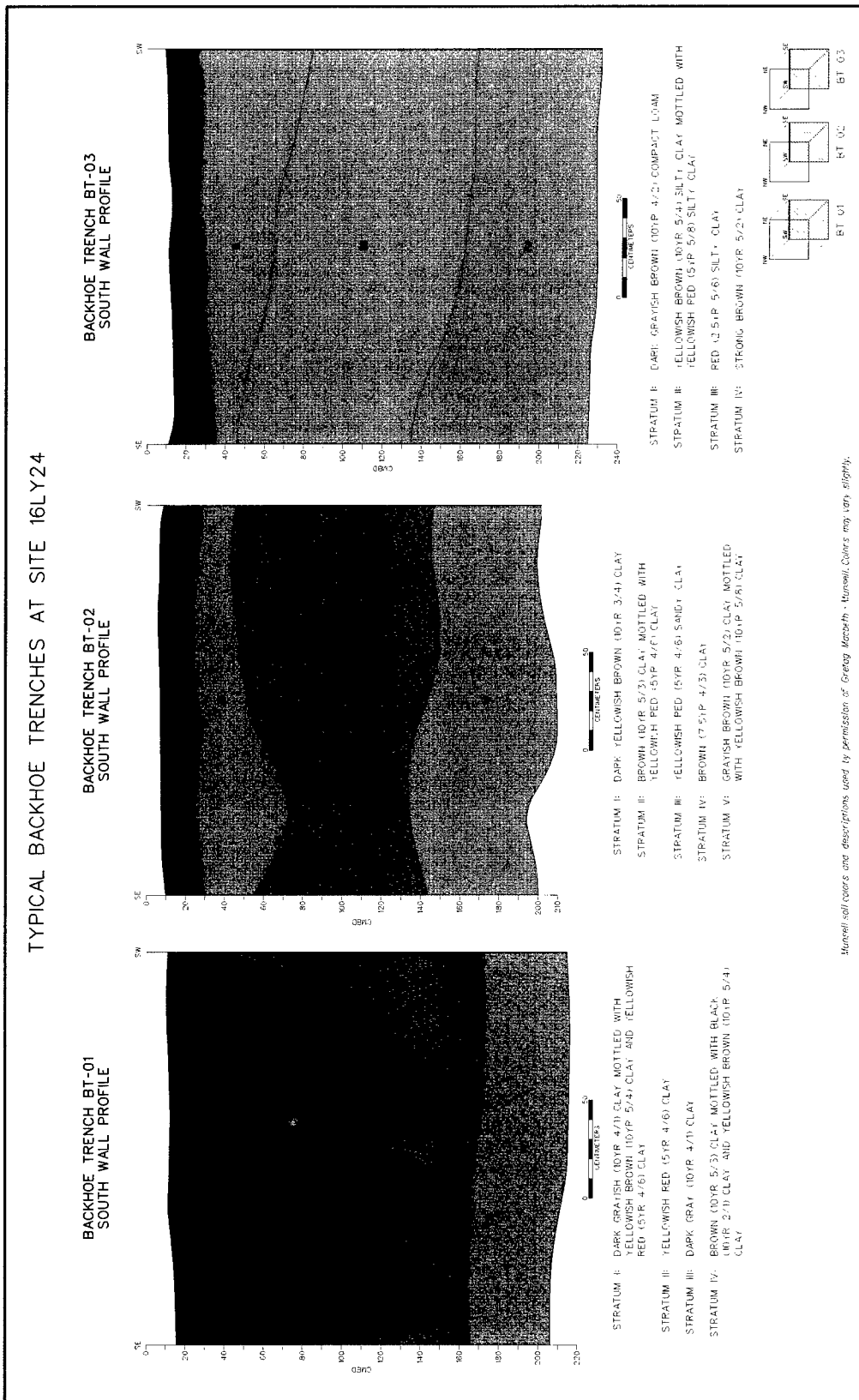


Figure 48. Backhoe trench profiles from Site 16LY24.

exhibited five strata in profile. Stratum I was a layer of dark yellowish brown (10YR 3/4) clay that extended from the surface to a depth of 15 cmbs (5.9 inbs). Stratum II consisted of a deposit of brown (10YR 5/3) clay mottled with yellowish red (5YR 4/6) clay, which extended from 15 cmbs (5.9 inbs) to an average depth of 49 cmbs (19.2 inbs). This was underlain by Stratum III, a stratum of yellowish red (5YR 4/6) sandy clay that continued from the base of Stratum II to a depth of 104 cmbs (40.9 inbs). Stratum IV, a layer of brown (7.5YR 4/3) clay, reached from 104 to 119 cmbs (40.9 to 46.8 inbs). The basal stratum, Stratum V, contained a deposit of grayish brown (10YR 5/2) clay mottled with yellowish brown (10YR 5/8) clay that extended from 104 cmbs (40.9 inbs) to a maximum excavated depth of 200 cmbs (78.7 inbs).

Backhoe Trench BT-03 was the last trench excavated within the boundaries of Site 16LY24, and it was situated approximately 20 m (65.6 ft) north of and parallel to the Vermilion River (Figure 45). This trench exhibited four strata in profile. Stratum I was described as an extremely compact deposit of dark grayish brown (10YR 4/2) loam that extended from 0 to 18 cmbs (0 to 7 inbs). Stratum II, a layer of yellowish brown (10YR 5/4) silty clay mottled with yellowish red (5YR 5/8) silty clay, continued from 18 cmbs to

53 cmbs (7 to 20.8 inbs). Stratum III reached from 53 to 150 cmbs (20.8 to 59 inbs), and it was recorded as a deposit of red (2.5YR 5/6) silty clay. Stratum III was underlain by Stratum IV, a layer of strong brown (10YR 5/2) clay that continued from 150 cmbs (59.0 inbs) to a maximum excavated depth of 217 cmbs (85.4 inbs).

Site 16LY24 represents a low density prehistoric artifact scatter located adjacent to the Vermilion River. Archeological data collected from the vicinity of Site 16LY24 indicates that intact cultural deposits are lacking. The limited artifact assemblage, the lack of intact cultural deposits, and the absence of research potential demonstrate that Site 16LY24 does not possess the qualities of significance as defined by the National Register of Historic Places criteria for evaluation (36 CFR 60.4 [a-d]). No additional archeological testing or recordation of Site 16LY24 is recommended.

Site 16LY50

Site 16LY50 is located within a bend of the Vermilion River in the southern portion of Survey Block VRD-1B (Figure 2). At the time of survey, the site area was utilized as a cow pasture (Figure 49). The site was situated at an approximate elevation of 1.5 m (5 ft) NGVD and within Section 93 of Township 9S, Range 5E.

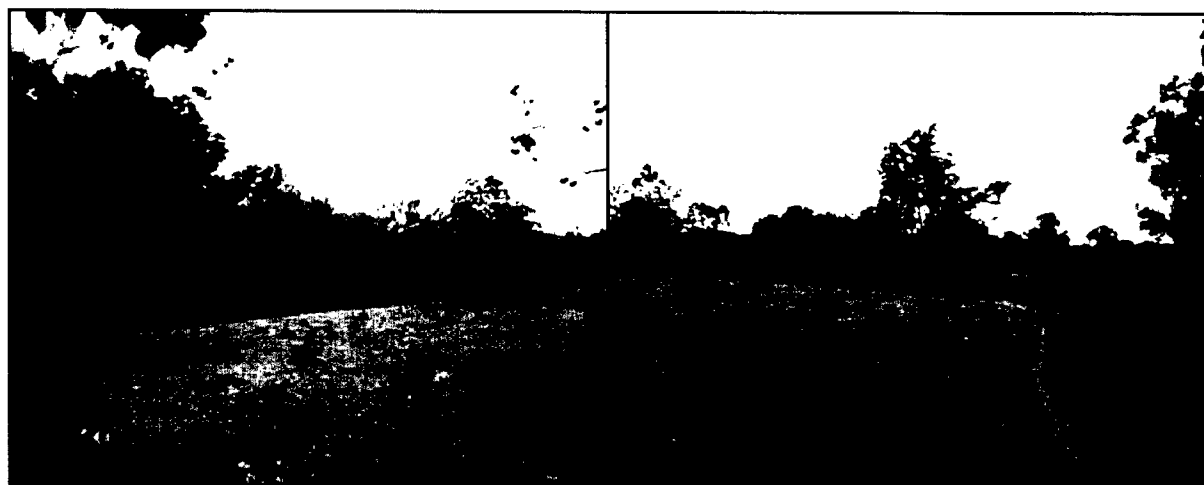


Figure 49. Overview photos of Site 16LY50, facing west on either side of the levee. The Vermilion River is located within the tree line to the left and the crawfish pond is located to the right.

Site 16LY50 was described as irregular in configuration, and it encompassed approximately 5 ac (2.3 ha) in area. Site 16LY50 previously was recorded by Gulf South Research Institute during September of 1974 as part of a pedestrian survey of the right-of-way associated with the then proposed Lafayette Loop highway. At that time, the site was described as a surface scatter of prehistoric artifacts (Gulf South Research Institute 1976). An *unspecified* quantity of prehistoric ceramic sherds and a single grinding stone fragment were collected from the site area; however, no cultural affiliation was associated with the recovered artifacts and the site was not assessed applying the National Register of Historic Places criteria for evaluation (36 CFR 60.4 [a-d]). Gulf South Research Institute, however, recommended additional testing of Site 16LY50.

During the current Phase I cultural resources survey and archeological inventory of the Site 16LY50 area, 122 of 122 (100 percent) planned shovel tests and 93 of 93 (100 percent) planned auger tests were excavated within this portion of the Area of Potential Effect (Figure 50). As a result, 55 of 122 (45 percent) shovel tests and 3 of 93 (3 percent) auger tests contained cultural material. In addition to the above-mentioned testing methods, eight judgmentally placed backhoe trenches were excavated throughout the site area to explore for deeply buried cultural deposits and to provide a better understanding of the stratigraphy of the site. Nearly all of the backhoe trenches (7 of 8 [88 percent]) produced cultural material. Despite this extensive subsurface testing, no typical stratigraphic profile or depositional pattern could be discerned for the site. As depicted in Figures 51 through 55, despite the consistency in soil texture, there was a large amount of variation in the number of strata present, as well as their depth and coloration. Because there were no uniform strata recognized across the site, the following discussion of the cultural material recovered from Site 16LY50 does not make reference to the stratum from which they were recovered, with the exception of those items originating from soil samples taken from Shovel Test N1000, E1000, which will be discussed separately below. Instead, Figure 56 illustrates the distribution of artifact types relative to the depths from which they originated. As shown in

this figure, each artifact type (i.e., historic, lithic, or prehistoric ceramic cultural material) was recovered most frequently at depths ranging from 40 to 60 cmbs (15.7 to 23.6 inbs).

Cultural material recovered from the site area included prehistoric and historic/modern artifacts, as well as faunal and botanical specimens. A total of 699 prehistoric artifacts, 38 historic/modern artifacts, 250 pieces of faunal material, a single botanical specimen, and approximately 25 g (0.8 oz) of charcoal were recovered from shovel testing, auger testing, and backhoe trenching completed throughout the site area. The prehistoric artifacts recovered from the site included both lithic and ceramic artifacts. The lithic assemblage (n=10) originated from depths ranging from 10 to 70 cmbs (3.9 to 27.6 inbs), and it consisted of 5 secondary reduction chert flakes, 2 of which were thermally altered; 1 tertiary reduction chert flake; a single chert biface; 2 unidentified chert projectile points/knives; and, a single Gary contracting stemmed, chert projectile point/knife that dated from ca. 1500 B.C. to A.D. 800 (Table 16; Figure 57).

The overwhelming majority (689 of 699 [99 percent]) of the prehistoric artifacts collected from Site 16LY50 consisted of prehistoric ceramic artifacts. These artifacts were recovered from depth that ranged from 0 to 170 cmbs (0 to 66.9 inbs); the largest portion (n=205 [30 percent]) of these artifacts was retrieved from depths ranging from 40 to 60 cmbs (15.7 to 23.6 inbs). In addition, nearly half of the entire prehistoric ceramic assemblage (n=323 [47 percent]) was recovered from Shovel Test N1000, E1000 (n=77) and Backhoe Trench BT-01 (n=246), located in the vicinity of grid coordinate N1005, E982.5. The ceramic assemblage included a single fired coil fragment, 3 pieces of daub, 31 pieces of fired clay, and 654 vessel sherds (Table 17). The majority (n=584 [89 percent]) of the prehistoric ceramic sherds that were recovered from the site area were attributed to the Tchefuncte ceramic type (Figure 58). The Tchefuncte type ceramics were classified further as a single Tchefuncte Incised, *var. Abita Springs* body sherd, a single Tchefuncte Plain, *var. Mandeville* rim sherd, 8 Tchefuncte Plain, *var. Mandeville* body sherds, 472 Tchefuncte Plain, *var. Tchefuncte* sherds, and 102 indeterminate Tchefuncte sherds. The Tchefuncte Plain,

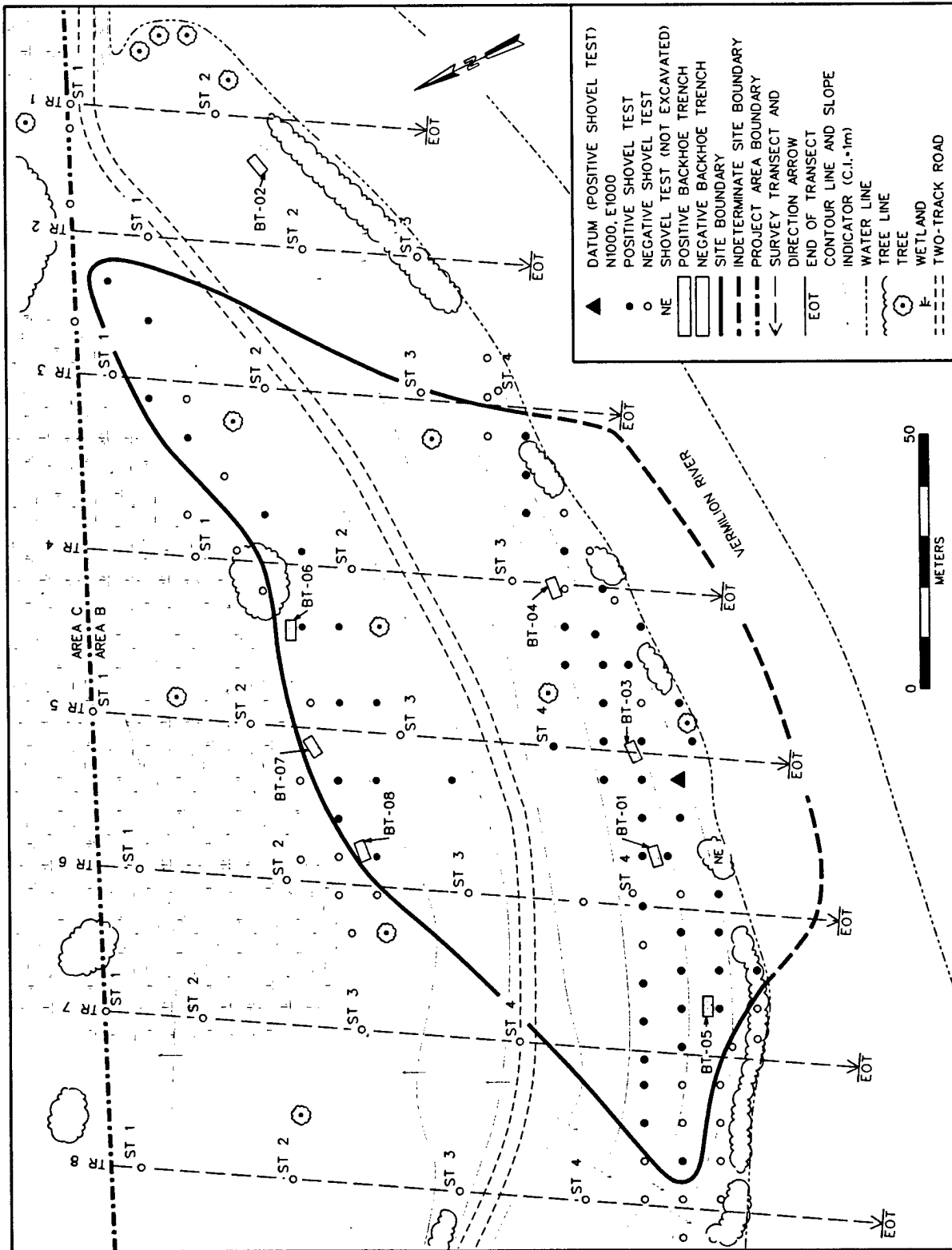
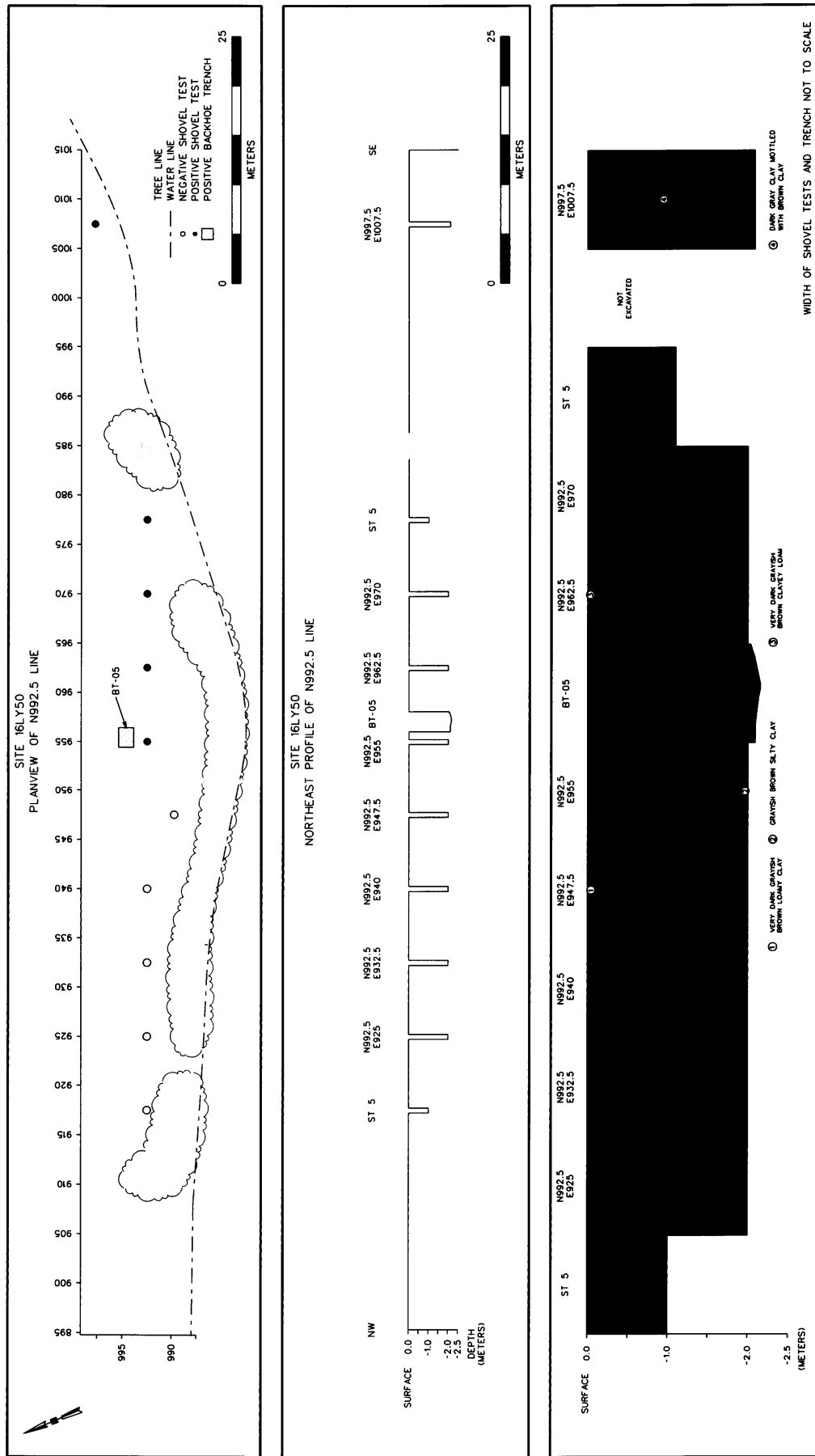


Figure 50. Plan view of Site 16LY50.



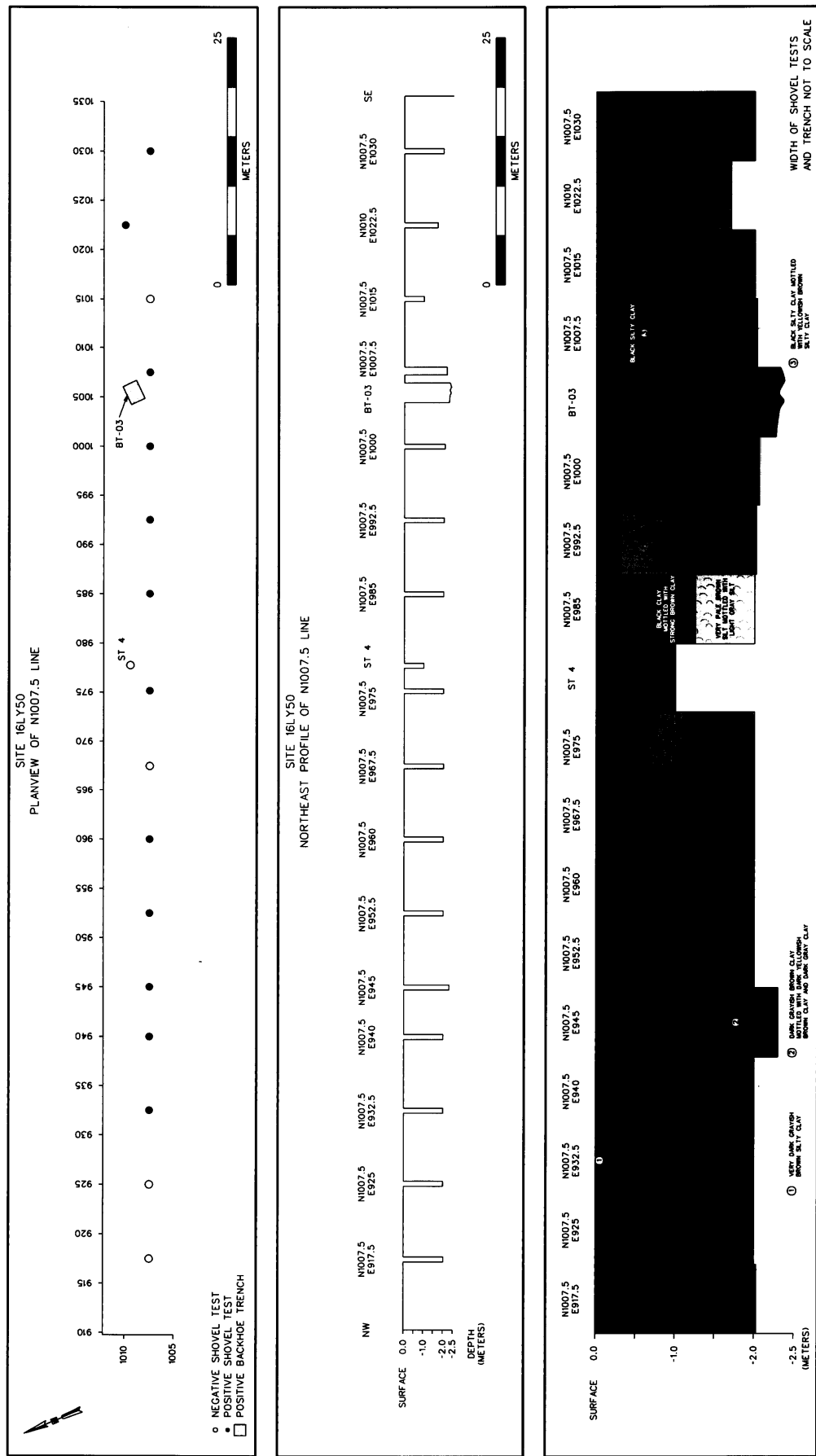
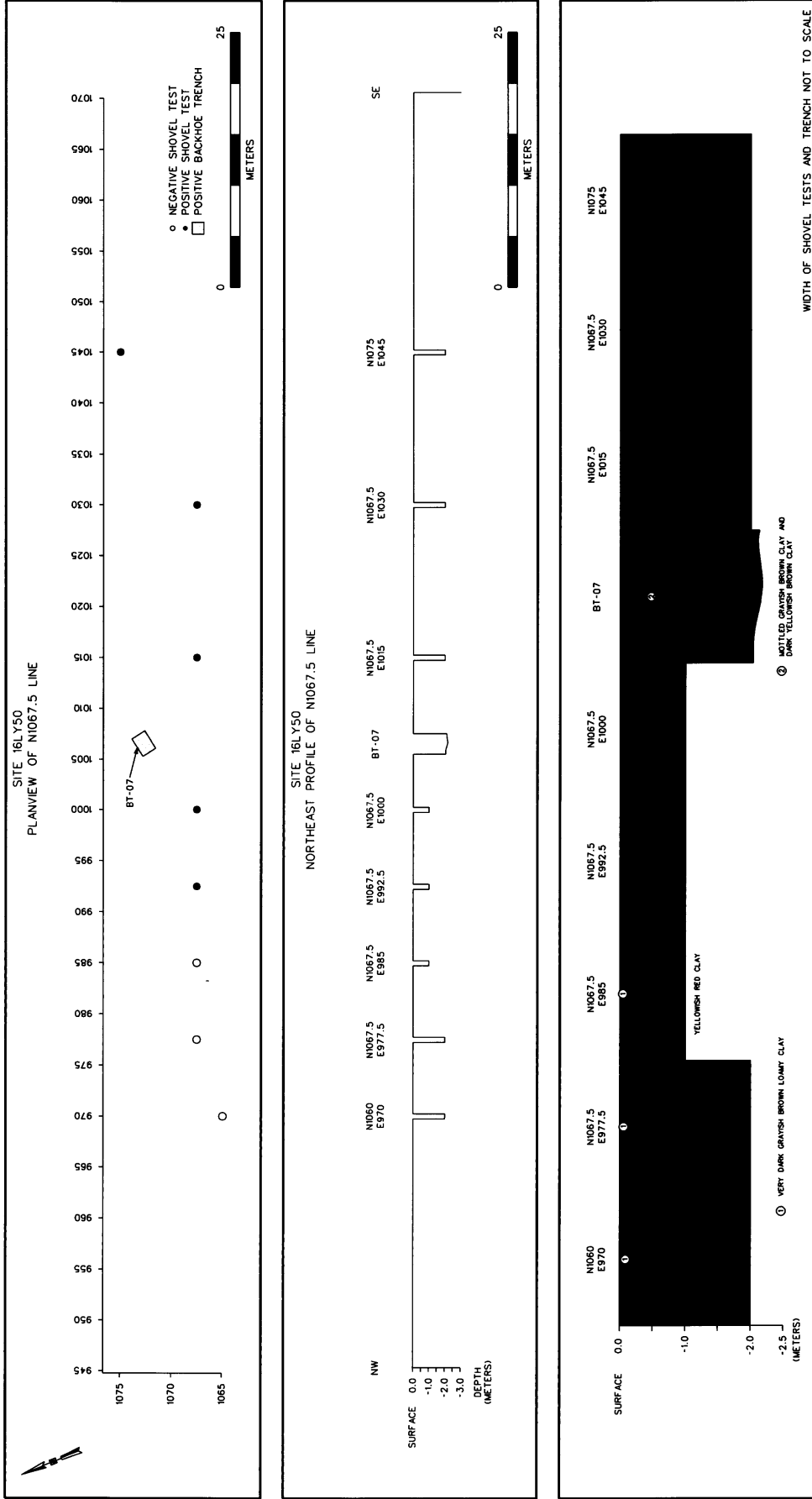


Figure 52. Representative soil profile of Site 16LY50 derived from shovel tests, auger tests, and backhoe trenches excavated along the N1007.5 axis.



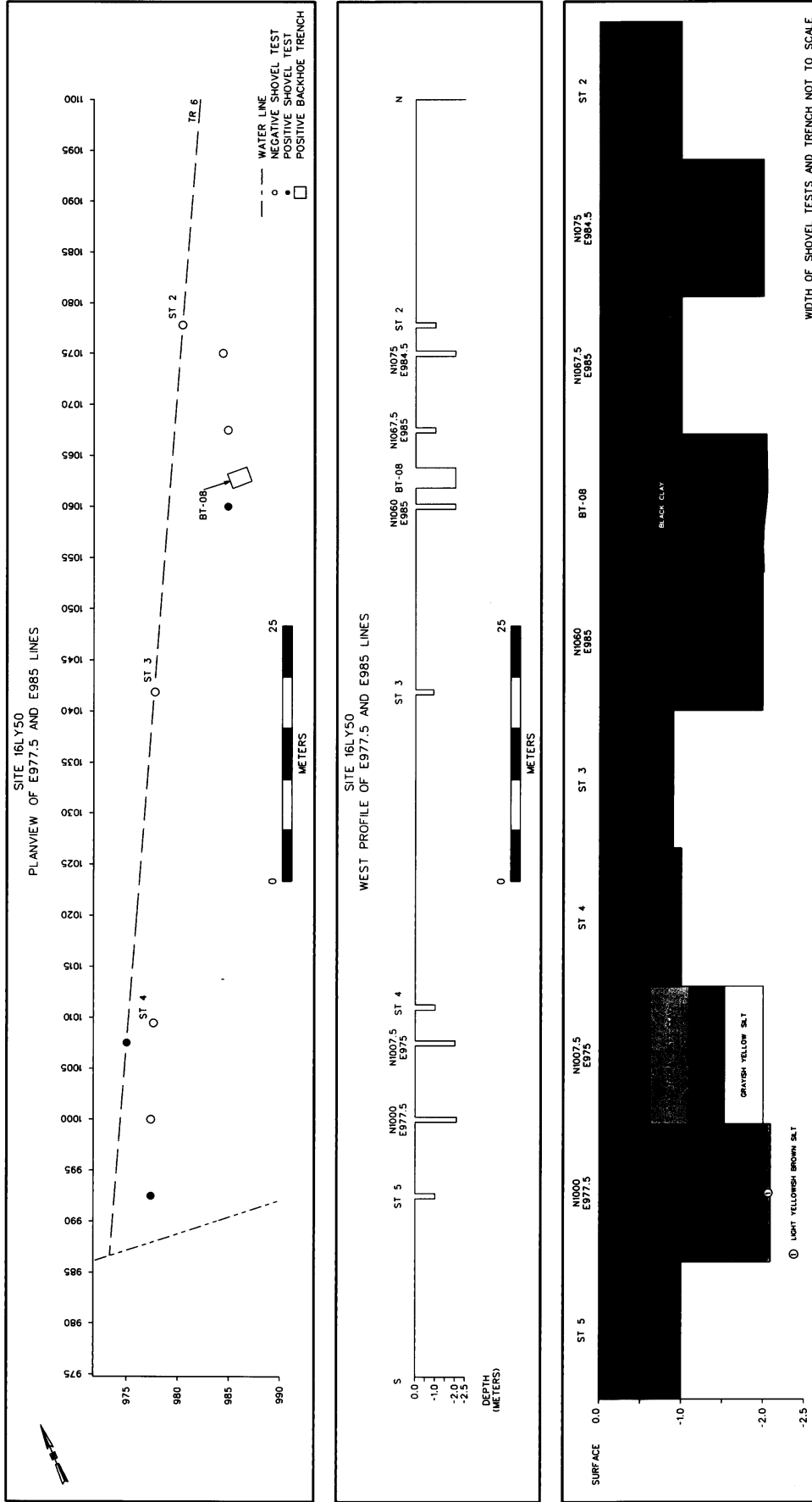
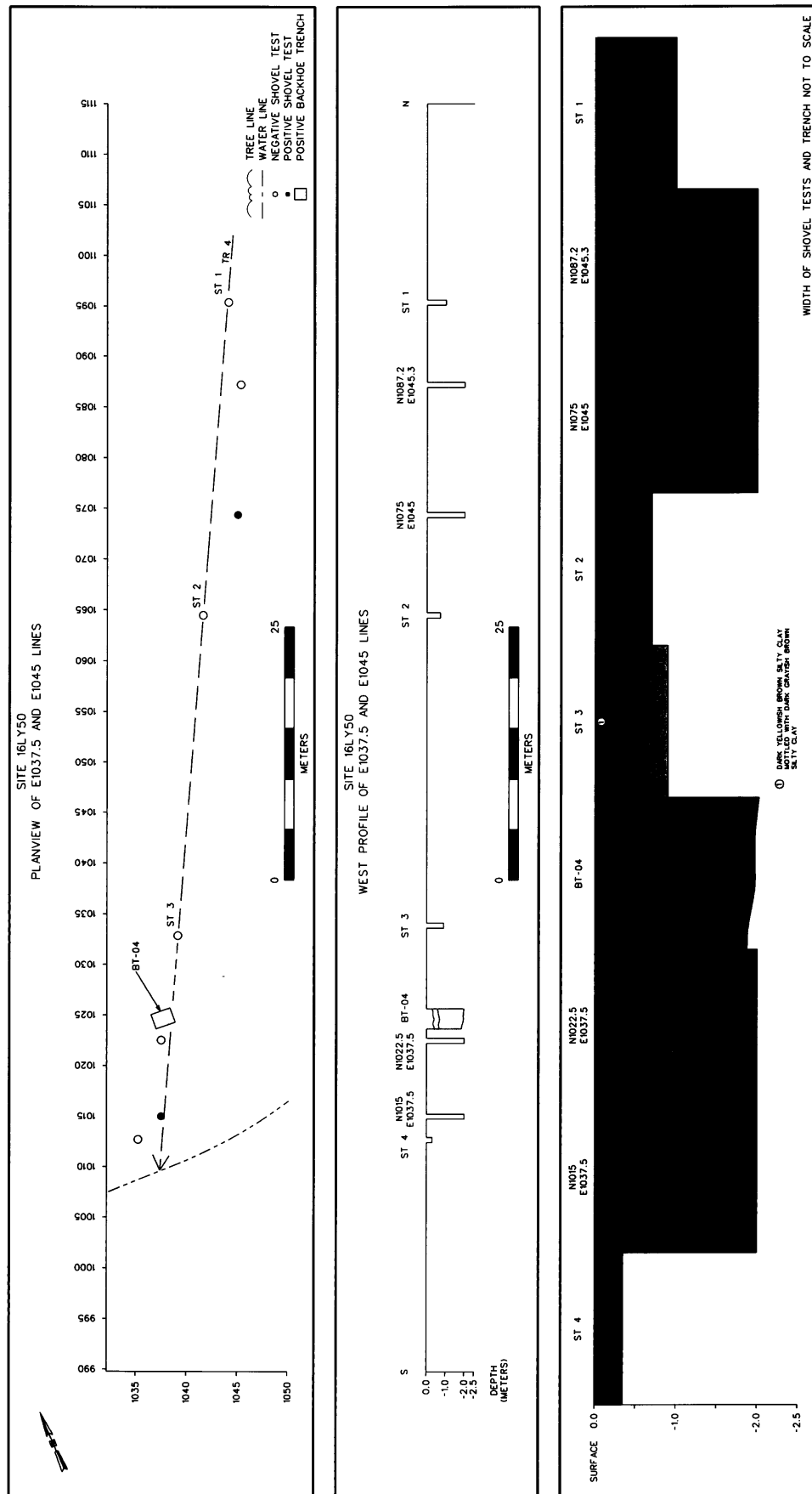


Figure 54. Representative soil profile of Site 16LY50 derived from shovel tests, auger tests, and backhoe trenches excavated along the E977.5 and E985 axes.



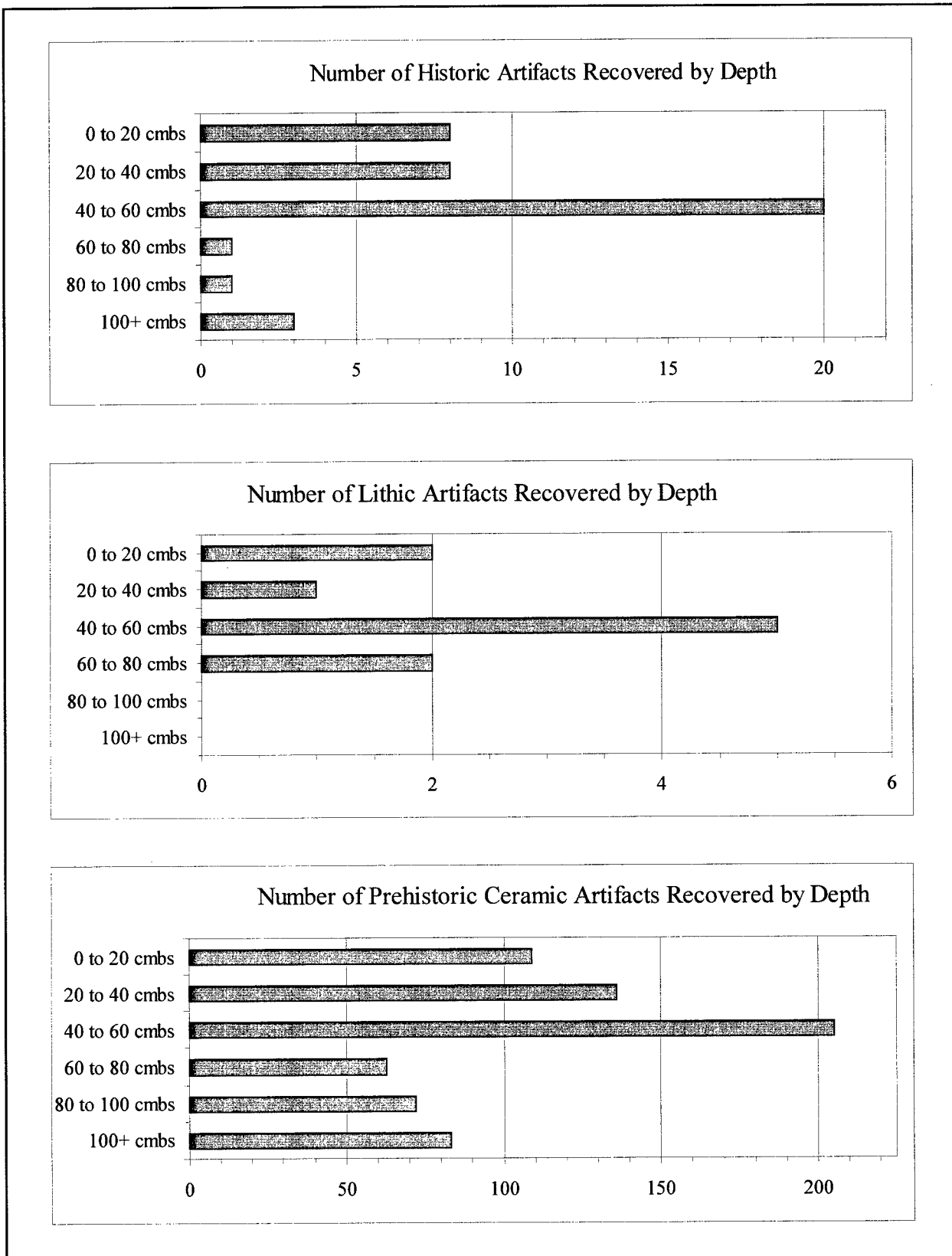


Figure 56. Bar charts depicting the depths at which historic, lithic, and prehistoric ceramic artifacts were recovered from during testing of Site 16LY50.

Table 16. Prehistoric lithic artifacts recovered from subsurface testing at Site 16LY50.

MATERIAL	TYPE	SUBTYPE	THERMAL ALTERATION	TOTAL
Chert	Biface	Final thinning stage	Absent	1
	Biface Total			1
	Flake	Secondary	Absent	3
			Present	2
		Tertiary	Absent	1
	Flake Total			6
	Projectile point/knife	Gary variety	Absent	1
		Indeterminate	Absent	1
			Present	1
	Projectile point/knife Total			3
Grand Total				10

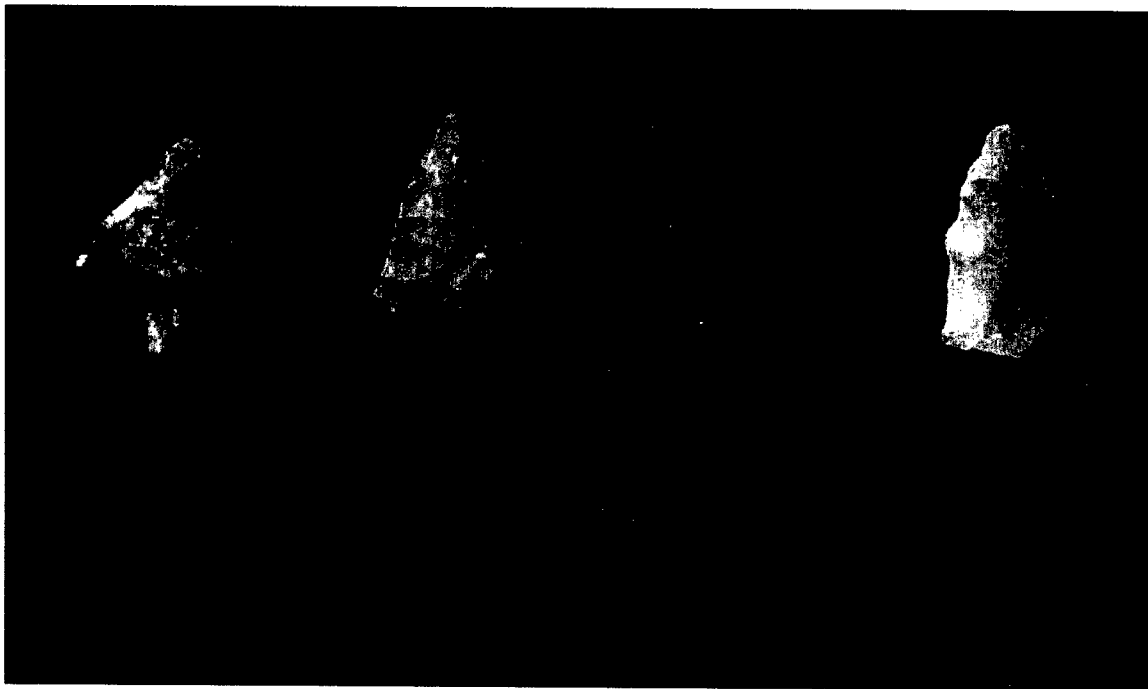


Figure 57. Selected prehistoric lithic artifacts recovered from Site 16LY50: (a) Gary projectile point/knife (FS #184); (b) indeterminate projectile point/knife (FS #107); (c) indeterminate projectile point/knife (FS #106); and (d) biface fragment (FS #93).

Table 17. Prehistoric ceramic artifacts recovered from subsurface testing at Site 16LY50.

TYPE	SUBTYPE	DECORATION	VESSEL PORTION	TOTAL
Coil	Not applicable	Not applicable	Fragment	1
Daub	Not applicable	Not applicable	Fragment	3
Fired clay	Not applicable	Not applicable	Complete	3
			Fragment	27
			Indeterminate	1
Indeterminate	Indeterminate	Indeterminate	Body	25
			Indeterminate	7
			Rim	1
		None	Body	7
			Rim	3
Baytown	Indeterminate	Indeterminate	Body	4
		None	Base	1
			Body	7
			Rim	2
Coles Creek	Indeterminate	Incised	Body	1
Lake Borgne Incised	Cross Bayou	Incised	Rim	1
		Punctated	Body	1
	Lake Borgne	Incised	Rim	1
Marksville Incised	Indeterminate	Incised	Rim	1
Mazique Incised	Manchac	Incised	Shoulder	1
Mulberry Creek Incised	Indeterminate	Cord marked	Body	1
Orleans Punctated	Orleans	Incised	Body	1
Tammany Incised	Tammany	Punctated	Body	5
Tchefuncte Incised	Abita Springs	Incised	Body	1
	Indeterminate	Indeterminate	Body	88
			Indeterminate	3
			Rim	2
		None	Body	4
			Rim	3
		Punctated	Rim	2
	Mandeville	None	Body	8
			Rim	1
	Tchefuncte	Incised	Body	1
		None	Base	10
			Body	402
			Indeterminate	11
			Rim	41
			Shoulder	6
		Stamped	Body	1
Grand Total				689

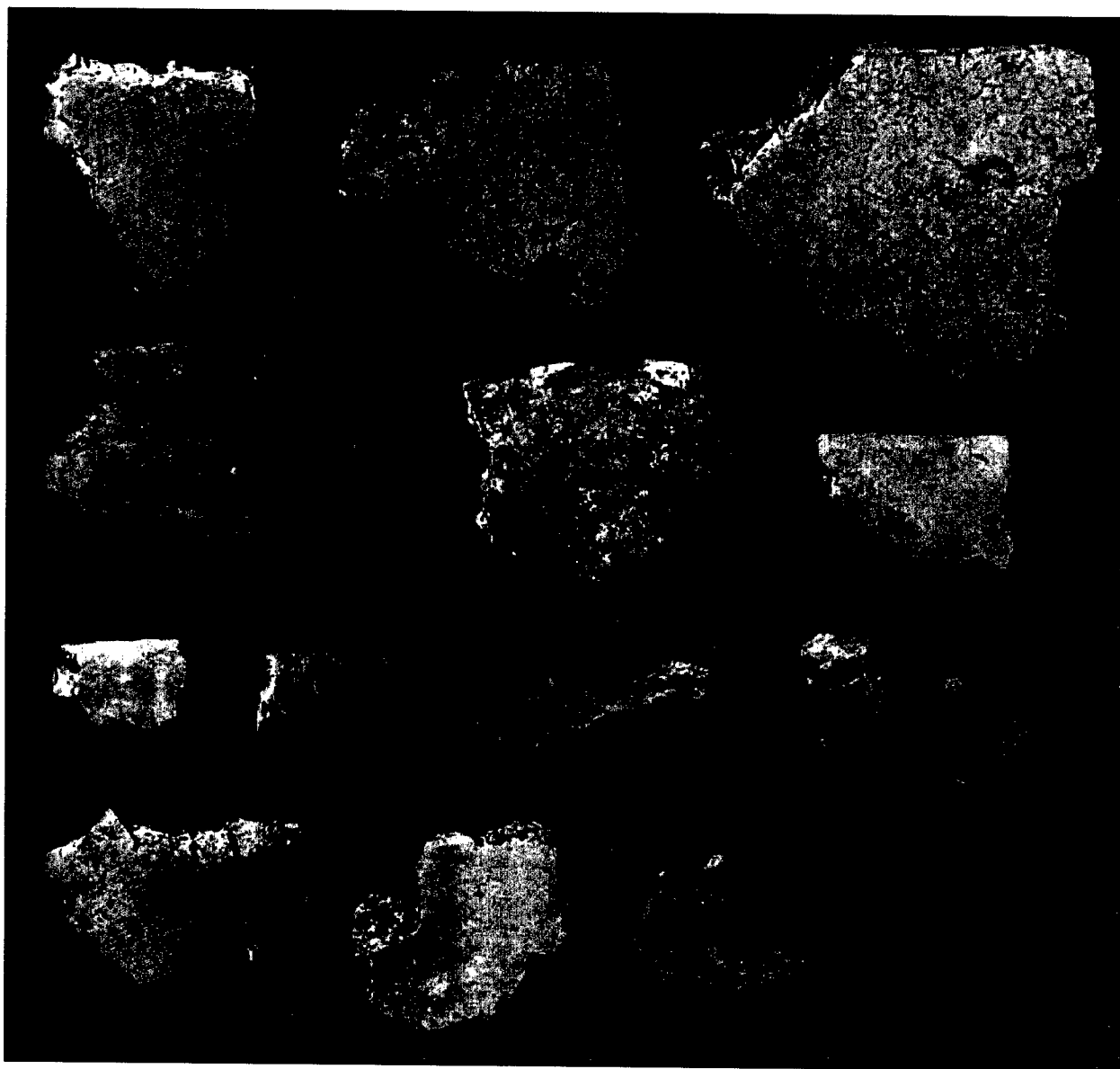


Figure 58. Selected prehistoric ceramic sherds recovered from Site 16LY50: (a-c) Tchefuncte Plain, var. *Tchefuncte* body sherds (all FS #106); (d-h) Tchefuncte Plain, var. *Tchefuncte* rim sherds (all FS #106); (i) Tchefuncte Plain, var. *Tchefuncte* body sherd with podal support (FS #187); (j) Tchefuncte Plain, var. *Tchefuncte* base and body sherd (FS #106); and (k-m) Tchefuncte Plain, var. *Tchefuncte* sherds (FS #57, #106, and #106).

var. *Tchefuncte* sherds included a single *Tchefuncte* Incised, var. *Tchefuncte* body sherd; 1 *Tchefuncte* Stamped, var. *Tchefuncte* body sherd; 402 *Tchefuncte* Plain, var. *Tchefuncte* body sherds; 41 *Tchefuncte* plain, var. *Tchefuncte* rim sherds; 10 *Tchefuncte* plain, var. *Tchefuncte* base sherds; 6 *Tchefuncte* plain, var. *Tchefuncte* shoulder sherds; and 11 *Tchefuncte* plain, var. *Tchefuncte*, which sherds represented an undetermined portion of the vessel. The varieties of the remaining 119 *Tchefuncte* type ceramic sherds could not be determined. These sherds consisted of 4 undecorated body sherds, 3 undecorated rim sherds, 2 punctated rim sherds, and 93 sherds for which the surface treatment could not be determined.

An additional 27 prehistoric ceramic sherds could be attributed to a particular ceramic type. These artifacts consisted of 5 Tammany Punctated, var. *Tammany* body sherds; a single incised Orleans Punctated, var. *Orleans* body sherd; 1 Mulberry Creek Cord Marked body sherd; 1 Mazique Incised, var. *Manchac* shoulder sherd; a single Marksville Incised rim sherd; 1 Lake Borgne Incised, var. *Lake Borgne* rim sherd; 1 punctated Lake Borgne Incised, var. *Cross Bayou* body sherd; a single Lake Borgne Incised, var. *Cross Bayou* rim sherd; 1 Coles Creek Incised body sherd; 7 Baytown Plain body sherds; 2 Baytown Plain rim sherds; a single Baytown Plain base sherd; and 4 Baytown body sherds whose surface treatment could not be determined (Figure 59). The remaining 43 ceramic sherds recovered from Site 16LY50 could not be attributed to a particular ceramic type. Ten of these unidentifiable type sherds were undecorated and the surface treatment could not be discerned for the remaining 33 sherds. The undecorated sherds included 7 body sherds and 3 rim sherds, while the sherds with an indeterminate surface treatment consisted of 25 body sherds, 1 rim sherd, and 7 sherds that could not be attributed to a particular portion of a vessel.

In addition, 38 historic/modern artifacts were identified during the initial survey and subsequent delineation of Site 16LY50 (Table 18). The historic artifacts originated from depths ranging from 0 to 120 cmbs (0 to 47.2 inbs). The historic artifacts consisted of 2 brick fragments, 2 pieces of mortar, 10 coal fragments, 2 em-

bossed clear glass shards, 8 ferrous concretions, a single mineral concretion, 1 light blue glass shard, and 15 green glass shards that refit to form a single hand blown glass bottle (Figure 60).

In addition to the artifacts described above, 250 pieces of faunal material, a single botanical specimen, and approximately 25 g (0.8 oz) of charcoal also were collected from Site 16LY50. The single botanical specimen represents the carbonized remains of a possible persimmon (*Diospyros virginiana*) seed. The faunal remains included a wide variety of vertebrates (n=95) and invertebrates (n=69), as well as 86 unidentifiable skeletal fragments (Table 19). Mammals were encountered most frequently and this material included a single rodent incisor, 49 unidentifiable mammalian skeletal elements, and 37 fragments attributed to the Family Cervidae, of which 29 could be classified further as whitetail deer (*Odocoileus virginianus*). The whitetail deer elements included a single tool, a utilized antler fragment (Figure 61). Other vertebrate species identified at Site 16LY50 included a single unidentifiable bird species, 4 skeletal fragments belonging to the turtle/tortoise family (Testudinata), 1 unidentifiable fish species, a single vertebra attributed to the Catfish family (Ictaluridae), and a single scale fragment from a member of the Gar family (Lepisosteidae). In addition to vertebrates, the site also produced an appreciable amount of invertebrate remains in the form of bivalves (n=60) and gastropods (n=9). Although all 9 gastropod shells and 36 of the bivalve shells could not be attributed to a particular family, 21 bivalves were classified further as belonging to the Unionacea family of freshwater mussels and 3 were attributed to the Ostreidae family of oysters.

As mentioned above, a dense deposit of prehistoric ceramic sherds and faunal remains were observed within Shovel Test N1000, E1000 at the time of survey. This shovel test was expanded to 50 by 50 cm (19.7 by 19.7 in) to expose the morphology and stratigraphy of a presumed cultural feature. Upon excavation, the feature appeared amorphous in shape and stratigraphically mixed with the surrounding soil matrix. It subsequently was determined that the dense deposit of materials identified within Shovel Test N1000, E1000 likely represented a

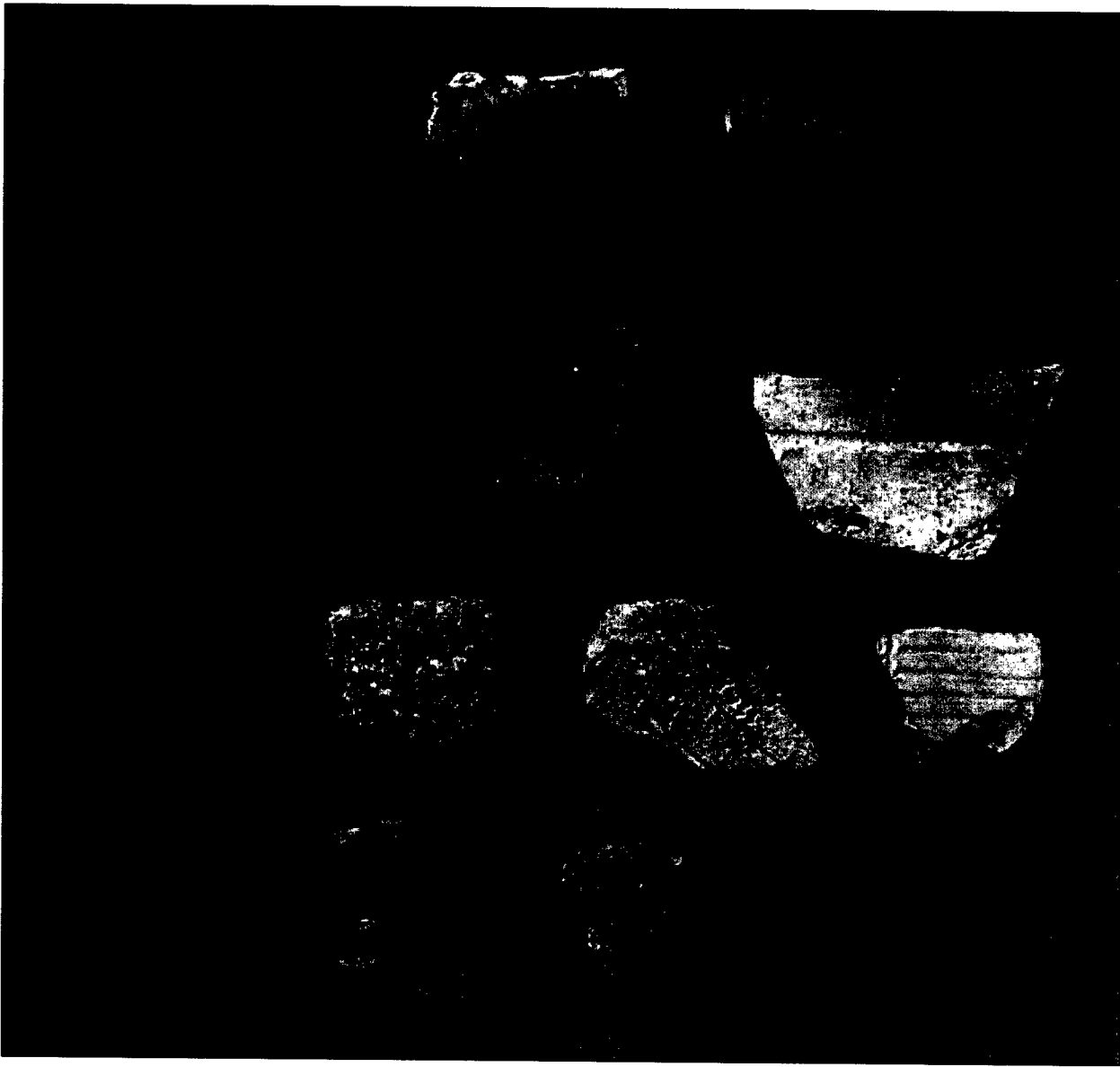


Figure 59. Selected prehistoric ceramic sherds recovered from Site 16LY50: (a and b) Lake Borgne Incised, *var. Cross Bayou* sherds (FS # 58 and #109); (c) Lake Borgne Incised, *var. Lake Borgne* sherd (FS #7); (d) Coles Creek Incised, *var. unspecified* sherd (FS #155); (e) indeterminate sherd with punctated rim (FS #108); (f) Marksville Incised, *var. unspecified* sherd (FS #110); (g and h) Baytown Plain, *var. unspecified* sherds (FS #106); (i) Mazique Incised, *var. Manchac* sherd (FS #202); (j) Tchefuncte Incised, *var. Abita Springs* sherd (FS #92); (k and l) Tammany Punctated, *var. Tammany* sherds (FS #94 and #95); and (m) Orleans Punctated, *var. Orleans* sherd (FS #33).

Table 18. Historic artifacts recovered from subsurface testing at Site 16LY50.

FUNCTION	MATERIAL	TYPE	SUBTYPE	TOTAL
Construction	Ceramic	Construction	Brick	2
		Indeterminate	Mortar	2
Domestic	Glass	Bottle	Embossed	1
			Hand blown	15
		Indeterminate	Machine made	1
		Unidentified	Embossed	1
Indeterminate	Coal	Cinder	Not applicable	10
	Metal	Concretion	Not applicable	8
	Mineral	Concretion	Not applicable	1
Grand Total				41

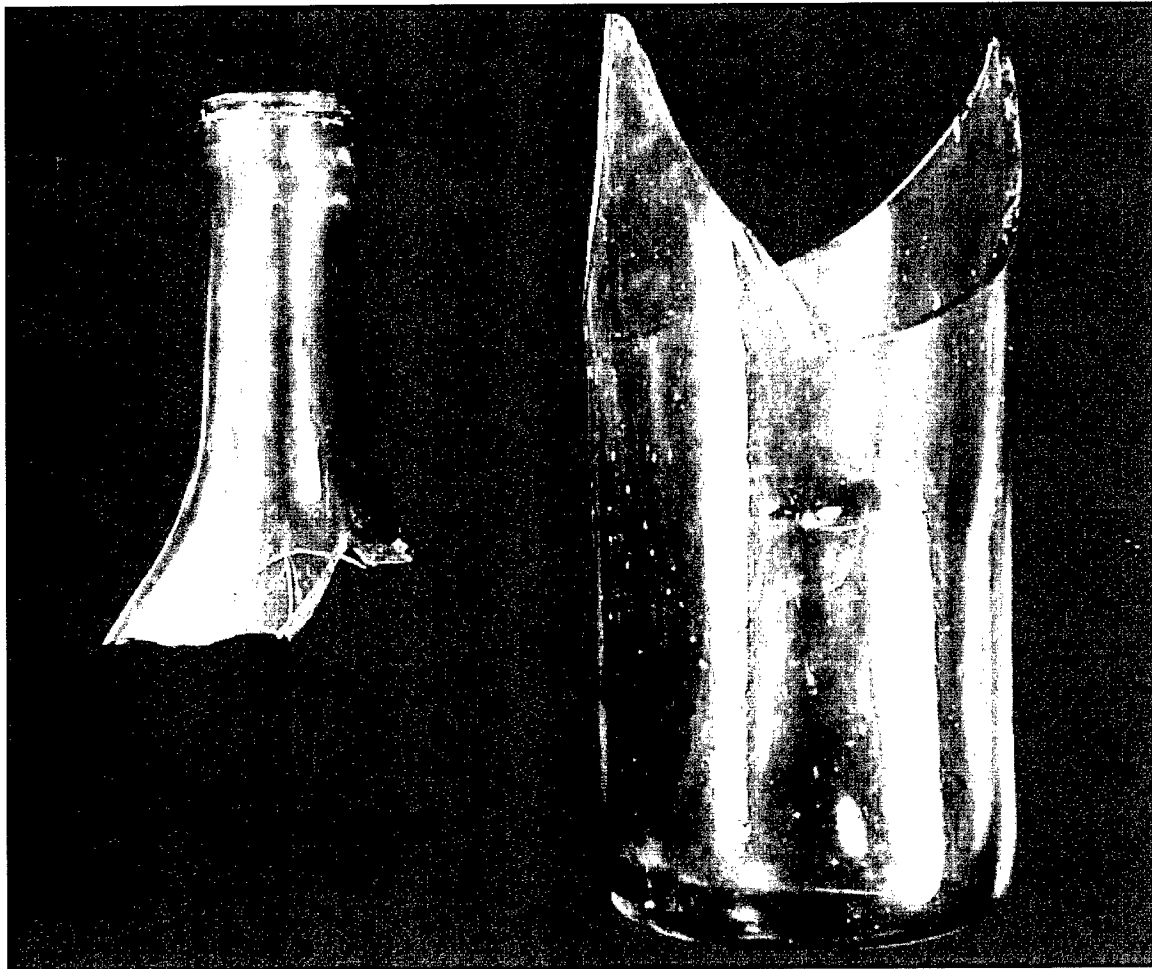


Figure 60. Selected portions of a hand-blown bottle (FS #156) recovered from Site 16LY50.

Table 19. Faunal remains recovered from subsurface testing at Site 16LY50.

CLASS	FAMILY/ORDER	GENUS AND SPECIES	ELEMENT	TOTAL
Aves	Indeterminate	Indeterminate	Humerus	1
Aves Sum				1
Bivalvia	Indeterminate	Indeterminate	Shell	36
	Ostreidae	<i>Crassostrea virginiae</i>	Shell	3
	Unionacea	Indeterminate	Shell	21
Bivalvia Sum				60
Gastropoda	Indeterminate	Indeterminate	Shell	9
Gastropoda Sum				9
Indeterminate	Indeterminate	Indeterminate	Bone	62
			Flat bone	11
			Humerus	1
			Indeterminate	1
			Long bone	8
			Shell	2
			Tooth	1
Indeterminate Sum				86
Mammalia	Cervidae	Indeterminate	Femur	1
			Humerus	1
			Metapodial	1
			Metatarsal	1
			Molar	3
			Tarsal	1
		<i>Odocoileus virginianus</i>	Antler	1
			Astragalus	1
			Calcaneous	1
			Cervicle vertebrae	1
			Femur	2
			Humerus	3
			Cnnominate	1
			Metatarsal	5
			Pedicle	1
			Phalanges	4
			Phalanx	1
			Radius	2
			Scapula	1
			Tarsal	1
			Tibia	3
			Tooth	1
	Indeterminate	Indeterminate	Bone	9
			Epiphysis	1
			Flat bone	1
			Long bone	32
			Mandible	1
			Rib	2
			Tibia	1
			Tooth	1
			Vertebra	1
	Rodentia	Indeterminate	Incisor	1
Mammalia Sum				87
Osteichthyes	Ictaluridae	Indeterminate	Spine	1
	Indeterminate	Indeterminate	Vertebra	1
	Lepisosteidae	<i>lepisosteus</i> sp.	Scale	1
Osteichthyes Sum				3
Reptilia	Testudinata	Indeterminate	Carapace	3
			Humerus	1
Reptilia Sum				4
Grand Total				250

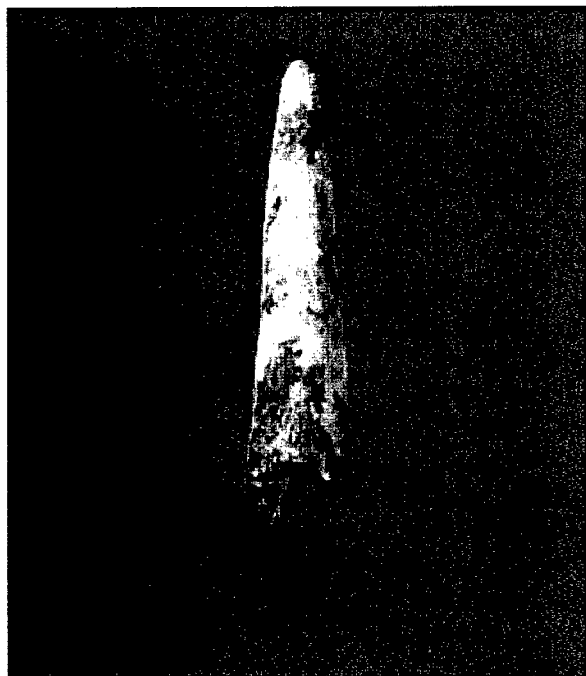


Figure 61. Distal tip of an antler (FS #37) with use wear recovered from Site 16LY50.

portion of a redeposited cultural feature; perhaps a portion of a midden. Despite this conclusion, a 6 l (1.6 gal) sample of soil was collected and floated. As a result, 28 chert flakes, 254 ceramic artifacts, 2,229 faunal remains, 2 botanical specimens and nearly 20 g (0.7 oz) of charcoal were recovered.

The chert flakes recovered from flotation consisted of 4 secondary flakes, of which 1 was thermally altered; and 24 tertiary flakes, of which 2 were thermally altered. Due to the small size of the ceramic artifacts recovered from the flotation sample, the majority of these artifacts were classified as fired clay fragments (n=63) or indeterminate vessel fragments (n=163) (Table 20). The 28 remaining ceramic artifacts were attributed to the Tchefuncte ceramic type. Of these, 17 were classified as undecorated sherds of an indeterminate variety, 7 were specified as Tchefuncte Plain, var. *Tchefuncte* body sherds, a single Tchefuncte Plain, var. *Tchefuncte* rim sherd was recorded, and 3 Tchefuncte Plain, var. *Tchefuncte* base sherds were identified.

In addition to these artifacts, a possible grape seed (*Vitis* sp.) and a possible sunflower seed (*Helianthus annuus*) were recovered during flotation, as well as 2,229 faunal specimens. The majority (n=1914 [86 percent]) of the faunal remains, however, could not be attributed to a particular class (Table 21). Of the remains that could be identified, 259 fish, 21 reptile, and 35 mammal remains were recovered. The fish remains consisted of 74 gar (*Lepisosteidae*) scales and 185 indeterminate fish bones. The reptiles were represented by 18 turtle (*Testudinata*) carapace fragments and 3 lizard/snake (*Squamata*) vertebra fragments. Although 16 of the mammalian skeletal remains could not be identified, the remaining 19 specimens consisted of a single squirrel/chipmunk (*Sciuridae*) molar, 6 rodent (*Rodentia*) teeth, 2 rodent (*Rodentia*) skeletal fragments, a single raccoon (*Procyonidae*) molar, 2 indeterminate family *Cervidae* fragments, 6 whitetail deer (*Odocoileus virginianus*) remains, and a single carnivore (*Carnivora*) premolar.

Despite the recovery of this large and diverse artifact assemblage, there is substantial evidence suggesting that the site lacks stratigraphic integrity and largely may have been redeposited to its current location. Historic records from The Report of the Chief of Engineers, U.S. Army (1957) makes mention of a project entitled "Operation and Maintenance, General." The goals of this extensive project were to dredge and maintain the Mermentau River, the Vermilion River, and Bayou Teche during the period from March of 1944 until March of 1957 (see Chapter IV). Although there are no maps or descriptions regarding the precise area of dredge deposition, aerial photos (Figure 62) of the project area taken before and subsequent to the proposed maintenance project suggest that the stretch of the Vermilion River that currently encompasses Site 16LY50 may have been utilized. A photo dating from 1956 depicts a cleared area in the vicinity of Site 16LY50 that on previous aerials (dated 1933) appeared forested. The change in vegetation likely represents the deposition of dredge material in the site area. In addition, the Vermilion River Channel appears wider, as if the banks had been cut back, in the 1956 aerial photograph. The inconsistency of the stratigraphic profiles encountered at the site also

Table 20. Prehistoric ceramic artifacts recovered from a soil sample at Site 16LY50 (N1000, E1000).

TYPE	SUBTYPE	DECORATION	PORTION	TOTAL
Fired clay	Not Applicable	None	Fragment	63
Indeterminate	Indeterminate	Indeterminate	Body	1
			Indeterminate	161
			Rim	1
Tchefuncte	Indeterminate	Indeterminate	Body	2
			Indeterminate	15
	Tchefuncte	None	Base	3
			Body	7
			Rim	1
				254
Grand Total				254

Table 21. Faunal remains recovered from a soil sample at Site 16LY50 (N1000, E1000).

CLASS	FAMILY / ORDER	GENUS AND SP	ELEMENT	TOTAL
Indeterminate	Indeterminate	Indeterminate	Bone	1850
			Long bone	62
			Tooth	1
			Vertebra	1
Indeterminate Sum				1914
Mammalia	Carnivora	Indeterminate	Premolar	1
	Cervidae	<i>Odocoileus virginianus</i>	Atlas vertebra	1
			Phalanges	1
			Mandible	1
			Metatarsal	1
			Molar	2
			Premolar	1
			Tarsal	1
			Indeterminate	Indeterminate
	Femur	1		
	Long bone	6		
	Phalanges	3		
	Radius	1		
	Rib	1		
	Vertebra	2		
	Procyonidae	<i>Procyon lotor</i>	Molar	1
	Rodentia	Indeterminate	Astragalus	1
			Calcaneous	1
			Incisor	5
			Molar	1
	Sciuridae	Indeterminate	Molar	1
	Mammalia Sum			
Osteichthyes	Indeterminate	Indeterminate	Bone	3
			Pectoral spine	3
			Quadrate	1
			Scale	15
			Spine	48
			Vertebra	115
	Lepisostedae	<i>Iepisosteus spatula</i>	Scale	74
Osteichthyes Sum				259
Reptilia	Squamata	Indeterminate	Vertebra	3
	Testudinata	Indeterminate	Carapace	18
Reptilia Sum				21
Grand Total				2229

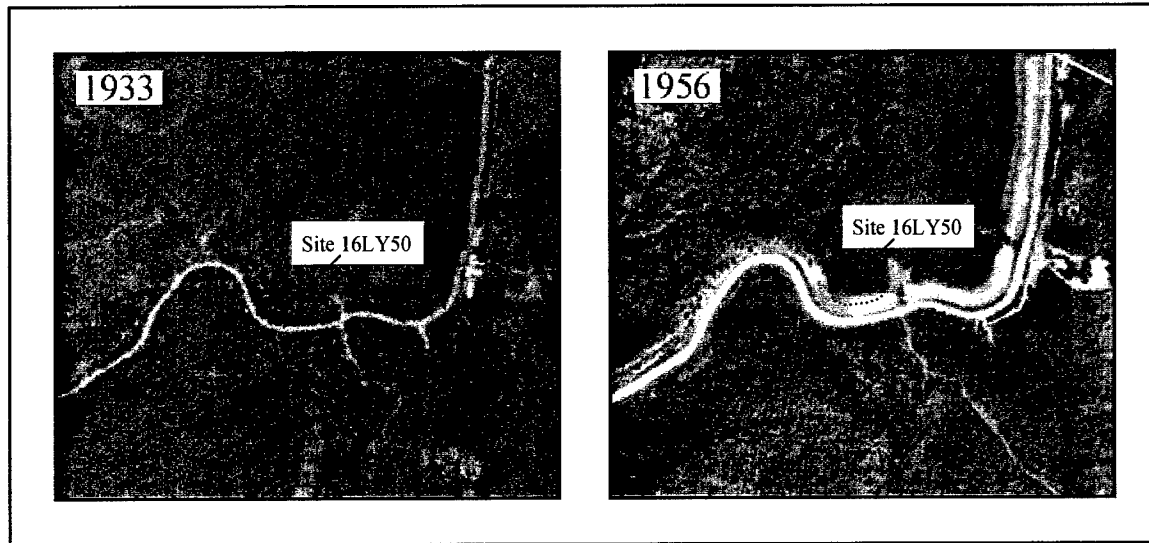


Figure 62. Aerial Images depicting the location of Site 16LY50 prior and subsequent to dredge and maintenance operations along the Vermilion River.

support this conclusion. Furthermore, historic cultural material were encountered both within and stratigraphically below levels that contained prehistoric artifacts further strengthening the argument that the site area represents a site of redeposited cultural material. Finally, nearly 10 percent (64 of 689) of the prehistoric ceramic assemblage was described as eroded, suggesting that the artifacts were not identified in situ, but that they had been subjected to post depositional processes, e.g., the riverworn material recovered from the site (Figure 62).

The absence of stratigraphic integrity at Site 16LY50 limits its research potential. While the site primarily can be attributed to the Tchefuncte culture, artifacts from other prehistoric cultures (i.e., Marksville and Coles Creek) as well as the historic era have been recovered from the same contexts. As a result, the potential for this site to add to the archeological knowledge of the Tchefuncte culture in southern Louisiana, as outlined by the research goals presented in *Louisiana's Comprehensive Archaeological Plan* (Smith et al. 1983), is minimal. The absence of stratigraphic integrity and research potential demonstrate that Site 16LY50 does not possess the qualities of significance as defined

by the National Register of Historic Places criteria for evaluation (36 CFR 60.4 [a-d]). No additional testing of this site is recommended.

Summary

In summary, two non-site loci (VRD-1A-01 and VRD-1D-02) and a single newly recorded archeological site (16LY116) were identified as a result of the Phase I cultural resources survey and archeological inventory of the Vermilion River Dredge Disposal Area (Table 15). In addition, two previously recorded sites (16LY24 and 16LY50) were revisited. Despite intensive pedestrian survey and shovel testing of the entire Area of Potential Effect, no evidence of intact cultural deposits or research potential was identified at any of the non-site cultural resources loci or the examined archeological sites. None of the newly recorded non-site cultural resources loci or archeological sites possessed the qualities of significance as defined by the National Register of Historic Places criteria for evaluation (36 CFR 60.4 a-d). No additional testing of these sites and loci is recommended. No additional testing of the proposed Vermilion River Dredge Disposal Area is recommended.

CHAPTER VIII

SUMMARY AND RECOMMENDATIONS

This report detailed the results of a Phase I cultural resources survey and archeological inventory of the proposed Vermilion River Dredge Disposal Area in Lafayette Parish, Louisiana. This investigation was undertaken on behalf of the U.S. Army Corps of Engineers, New Orleans District, by R. Christopher Goodwin & Associates, Inc., from March through April of 2002. The irregularly shaped project area encompassed a 150.5 ha (372 ac) tract located along the north west bank of the Vermilion River and within portions of Sections 93, 95, 96, 97, and 98, of Township 9S, Range 5E and Sections 4 and 5 of Township 10S, Range 5E. Fieldwork consisted of pedestrian survey augmented by the systematic excavation of shovel tests throughout the examined portions of the study area. Shovel testing was conducted at 30 m (98 ft) intervals along survey transects spaced 30 m (98.4 ft) apart. Additional shovel testing, auger testing, and backhoe trenching were completed as part of the site delineation process. This investigation also included an architectural survey to identify and to record all standing structures older than 50 years in age situated within project area.

This investigation resulted in the identification of two non-site cultural resources loci (VRD-1A-01 and VRD-1D-02) and a single newly identified archeological site with an associated historic structure (16LY116). In addition, the locations of two previously recorded archeological sites (16LY24 and 16LY50) were revisited during the cultural resources survey of the proposed project area. This report resulted in a review of the condition, nature, and location of these cultural resources, as well as a detailed

assessment of each of these sites. The two non-site cultural resources loci consisted an isolated prehistoric ceramic sherd (VRD-1A-01) and an isolated historic artifact (VRD-1D-02). The single newly recorded archeological site (16LY116) consisted of a historic artifact scatter and an associated historic structure. Each of these newly recorded cultural resources produced only sparse artifact assemblages and they lacked both intact cultural deposits and research potential. In addition, the structure associated with Site 16LY116 was in ruins; it was not unique to the area, nor did it possess unusual architectural characteristics or important known historical associations. Therefore, Loci VRD-1A-01, VRD-1D-02, and Site 16LY116 were assessed as not significant applying the National Register of Historic Places criteria for evaluation (36 CFR 60.4 [a-d]). No additional testing or recordation of Loci VRD-1A-01, VRD-1D-02, and Site 16LY116 is recommended.

The two previously recorded archeological sites revisited during survey included two prehistoric sites (16LY24 and 16LY50). Site 16LY24 originally was identified in 1975 during a Phase I cultural resources survey and archeological inventory of Bayou Teche, Vermilion River, and Freshwater Bayou by Jon Gibson. As part of that investigation, Gibson collected a single Tchefuncte Plain prehistoric period ceramic sherd from the site area. During the current investigation, a scatter of prehistoric ceramic sherds and an isolated faunal specimen were collected from the Site 16LY24 area. Because Site 16LY24 produced only a sparse artifact assemblage and intact cultural deposits do not appear to be present, the site lacks research

potential. Site 16LY24 does not possess the qualities of significance as defined by the National Register of Historic Places criteria for evaluation (36 CFR 60.4 [a-d]). No additional testing of Site 16LY24 is recommended.

Site 16LY50, a previously recorded surface scatter of prehistoric artifacts, originally was identified in 1974 by Gulf South Research Institute. Although the site was not assessed applying the National Register of Historic Places criteria for evaluation (36 CFR 60.4 [a-d]), Gulf South Research Institute (1976) recommended that additional testing of Site 16LY50 be conducted. The current survey and delineation of Site 16LY50 suggested that this site contains a moderately dense deposit of artifacts ranging in date from approximately 500 B.C. to A.D. 800 (i.e., Tchefuncte through Troyville/Coles Creek time periods). Based on the data recovered during this investigation, it appears as though the cultural materials recovered have been displaced from their original context. In particular, evidence of

dredge disposal and levee construction is apparent at the site by the inverted and inconsistent stratigraphic profiles identified throughout the soil column. The lack of such stratigraphic integrity precludes the isolation of discrete temporal or functional depositional contexts. The lack of intact cultural deposits at Site 16LY50 prevents it from yielding important information regarding prehistoric lifeways or the prehistoric chronology of the region.

The absence of stratigraphic integrity and research potential demonstrate that Site 16LY50 does not possess the qualities of significance as defined by the National Register of Historic Places criteria for evaluation (36 CFR 60.4 [a-d]). No additional testing of this site is recommended.

In summary, no potentially significant cultural resources were identified during the current investigation of the proposed Vermilion River Dredge Disposal Area in Lafayette Parish, Louisiana. Thus, no additional testing of the proposed Area of Potential Effect is recommended.

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APPENDIX I

**ARTIFACTS RECOVERED
DURING INVESTIGATION**

Table 1. Botanical material recovered from the Vermilion River Dredge Disposal Project Area.

FS#	County/Parish	Site/ Locus	Trench	Shovel Test	North	East	Additional Provenience	Strat	Level	Top EI	Bot EI	Material	Type	Subtype	Count	Comments	Weight
052	Lafayette Parish, LA	16LY50		delineation	1007.5	1007.5		I	2	10 cmbs	20 cmbs	charcoal	indeterminate	indeterminate	1		0.09
060	Lafayette Parish, LA	16LY50		delineation	1015	1007.5		II	8	70 cmbs	80 cmbs	charcoal	indeterminate	indeterminate	1	modern- incompletely carbonized	0.49
070	Lafayette Parish, LA	16LY50		delineation	1007.5	985		II	3	25 cmbs	35 cmbs	charcoal	indeterminate	indeterminate	4		0.23
079	Lafayette Parish, LA	16LY50		delineation	1010	1022.5		I	1	0 cmbs	10 cmbs	charcoal	indeterminate	indeterminate	1	3 pieces that refit	0.48
090	Lafayette Parish, LA	16LY50		delineation	1015	1037.5		II	7	60 cmbs	70 cmbs	charcoal	indeterminate	indeterminate	1		0.11
098	Lafayette Parish, LA	16LY50		delineation	1045	1000		IV	8	70 cmbs	80 cmbs	charcoal	indeterminate	indeterminate	14	embedded in mud; weight includes matrix	27.15
147	Lafayette Parish, LA	16LY50	BT-03				Backdirt Pile					charcoal	indeterminate	indeterminate	1	modern- incompletely carbonized	0.45
182	Lafayette Parish, LA	16LY50			1000	1000	Soil Sample; exp. to 50x50 cm square	I		55 cmbs	80 cmbs	charcoal	indeterminate	indeterminate	300+	from flotation sample	15.72
182	Lafayette Parish, LA	16LY50			1000	1000	Soil Sample; exp. to 50x50 cm square	I		55 cmbs	80 cmbs	charcoal	indeterminate	indeterminate	20+	from light fraction flotation; some modern, incompletely carbonized	4.12
182	Lafayette Parish, LA	16LY50			1000	1000	Soil Sample; exp. to 50x50 cm square	I		55 cmbs	80 cmbs	charcoal	indeterminate	indeterminate	100+	from flotation sample	15.72
182	Lafayette Parish, LA	16LY50			1000	1000	Soil Sample; exp. to 50x50 cm square	I		55 cmbs	80 cmbs	seed	fruit	Vitis spp.	1	grape, charred	0.08
182	Lafayette Parish, LA	16LY50			1000	1000	Soil Sample; exp. to 50x50 cm square	I		55 cmbs	80 cmbs	seed	flower	Helianthus annuus	1	charred sunflower	0.02

Table 2. Faunal material recovered from the Vermilion River Dredge Disposal Project Area.

FS#	County/Parish	Area	Site/ Locus	Trench	Transect	Shovel Test	North	East	Additional Provenience	Strat	Level	Top El	Bot El	Element	% Complete	Modifications	Class	Family / Order	Genus and sp	CT	Comments
002	Lafayette Parish, LA	1B	16LY50		5	4			@ 90 meters	II	2	5 cmbs	15 cmbs	longbone	10	none	mammalia	indeterminate	indeterminate	1	medium to large animal
004	Lafayette Parish, LA	1B	16LY50		5	4			@ 90 meters	III	5-6	32 cmbs	52 cmbs	shell	25	none	bivalvia	indeterminate	indeterminate	3	undifferentiated bivalve
004	Lafayette Parish, LA	1B	16LY50		5	4			@ 90 meters	III	5-6	32 cmbs	52 cmbs	shell	50-100	none	gastropoda	indeterminate	indeterminate	5	freshwater snails
008	Lafayette Parish, LA	1B	16LY50		5	4			@ 90 meters	V	12	102 cmbs	112 cmbs	humerus	70	shovel damage	mammalia	Cervidae	odocoileus virginianus	1	distal portion and shaft
011	Lafayette Parish, LA	1B	16LY50		5	5			@ 120 meters	II	5	36 cmbs	43 cmbs	longbone	indeterminate	none	mammalia	indeterminate	indeterminate	6	weathered mid-shaft fragments
011	Lafayette Parish, LA	1B	16LY50		5	5			@ 120 meters	II	5	36 cmbs	43 cmbs	flat bone	indeterminate	none	indeterminate	indeterminate	indeterminate	1	small
012	Lafayette Parish, LA	1B	16LY50		5	5			@ 120 meters	IV	7	52 cmbs	55 cmbs	longbone	indeterminate	none	mammalia	indeterminate	indeterminate	2	shaft fragments
012	Lafayette Parish, LA	1B	16LY50		5	5			@ 120 meters	IV	7	52 cmbs	55 cmbs	flat bone	indeterminate	none	indeterminate	indeterminate	indeterminate	1	possible epiphysis for vertebrae
014	Lafayette Parish, LA	1B	16LY50		6	5			@ 126 meters	I	4	30 cmbs	40 cmbs	longbone	indeterminate	none	mammalia	indeterminate	indeterminate	1	shaft fragments
014	Lafayette Parish, LA	1B	16LY50		6	5			@ 126 meters	I	4	30 cmbs	40 cmbs	humerus	15	plow cut	mammalia	Cervidae	indeterminate	1	probably plow cut, only distal articular surface remains
016	Lafayette Parish, LA	1B	16LY50		6	5			@ 126 meters	II	6	50 cmbs	60 cmbs	longbone	indeterminate	none	mammalia	indeterminate	indeterminate	1	shaft fragments, probably from spiral fracture
017	Lafayette Parish, LA	1B	16LY50		6	5			@ 126 meters	II	7	60 cmbs	70 cmbs	phalanx	100	none	mammalia	Cervidae	odocoileus virginianus	1	
017	Lafayette Parish, LA	1B	16LY50		6	5			@ 126 meters	II	7	60 cmbs	70 cmbs	longbone	indeterminate	none	mammalia	indeterminate	indeterminate	2	midshaft fragments
017	Lafayette Parish, LA	1B	16LY50		6	5			@ 126 meters	II	7	60 cmbs	70 cmbs	tarsal	10	spiral fracture	mammalia	Cervidae	indeterminate	1	probable white tail deer
017	Lafayette Parish, LA	1B	16LY50		6	5			@ 126 meters	II	7	60 cmbs	70 cmbs	rib	10	none	mammalia	indeterminate	indeterminate	1	distal fragment
018	Lafayette Parish, LA	1B	16LY50		7	5			@ 120 meters	III	6	50 cmbs	60 cmbs	longbone	indeterminate	none	indeterminate	indeterminate	indeterminate	1	midshaft fragments
025	Lafayette Parish, LA		16LY50			delineation	1015	1000		I	4	30 cmbs	40 cmbs	longbone	indeterminate	none	indeterminate	indeterminate	indeterminate	1	probable large mammalian, midshaft fragment
026	Lafayette Parish, LA		16LY50			delineation	1015	1000		II	6	50 cmbs	60 cmbs	indeterminate	indeterminate	none	indeterminate	indeterminate	indeterminate	1	curved bone fragment
030	Lafayette Parish, LA		16LY50			delineation	1000	970		II	2	10 cmbs	20 cmbs	shell	indeterminate	none	bivalvia	indeterminate	indeterminate	7	probable oyster, small fragments

Table 2. Faunal material recovered from the Vermilion River Dredge Disposal Project Area.

FS#	County/Parish	Area	Site/Locus	Trench	Transsect	Shovel Test	North	East	Additional Provenience	Strat	Level	Top El	Bot El	Element	% Complete	Modifications	Class	Family / Order	Genus and sp	CT	Comments
030	Lafayette Parish, LA		16LY50			delineation	1000	970		II	2	10 cmts	20 cmts	bone	indeterminate	cut ends	mammalia	indeterminate	indeterminate	1	midshaft of longbone like, but striated, small; probable metal cutmarks
031	Lafayette Parish, LA		16LY50			delineation	1000	970		II	3	20 cmts	30 cmts	longbone	indeterminate	none	mammalia	indeterminate	indeterminate	1	small midshaft fragment
033	Lafayette Parish, LA		16LY50			delineation	1000	970		III	5	40 cmts	50 cmts	longbone	indeterminate	none	indeterminate	indeterminate	indeterminate	2	very small bone fragments
033	Lafayette Parish, LA		16LY50			delineation	1000	970		III	5	40 cmts	50 cmts	tooth	indeterminate	none	indeterminate	indeterminate	indeterminate	1	bit of root and body
034	Lafayette Parish, LA		16LY50			delineation	1000	970		III	6	50 cmts	60 cmts	metatarsal	15	spiral fracture	mammalia	Cervidae	odocoileus virginianus	1	proximal fragment
034	Lafayette Parish, LA		16LY50			delineation	1000	970		III	6	50 cmts	60 cmts	rooth	indeterminate	none	mammalia	indeterminate	indeterminate	1	small, probable deer
035	Lafayette Parish, LA		16LY50			delineation	1000	970		III	8	70 cmts	80 cmts	longbone	indeterminate	cut ends	mammalia	indeterminate	indeterminate	1	probably from metal tool
035	Lafayette Parish, LA		16LY50			delineation	1000	970		III	8	70 cmts	80 cmts	bone	indeterminate	none	indeterminate	indeterminate	indeterminate	1	very small bone fragments
036	Lafayette Parish, LA		16LY50			delineation	1002.5	985		I	2	10 cmts	20 cmts	bone	indeterminate	burned	indeterminate	indeterminate	indeterminate	1	blackened; MISSING 3/27/03
037	Lafayette Parish, LA		16LY50			delineation	1002.5	985		II	3	20 cmts	30 cmts	antler	indeterminate	use wear at tip	mammalia	Cervidae	odocoileus virginianus	1	distal tip, probably utilized
043	Lafayette Parish, LA		16LY50			delineation	997.5	1007.5		I	4	30 cmts	40 cmts	tibia	25	stone tool cut marks; spiral fractures at both ends	mammalia	Cervidae	odocoileus virginianus	1	cut marks on shaft, just above distal epiphysis
048	Lafayette Parish, LA		16LY50			delineation	1007.5	1000		I	5	40 cmts	50 cmts	shell	indeterminate	none	bivalvia	indeterminate	indeterminate	4	pearlescent; probable oyster
050	Lafayette Parish, LA		16LY50			delineation	1000	977.5		II	4	30 cmts	40 cmts	shell	indeterminate	none	bivalvia	indeterminate	indeterminate	3	probable oyster
059	Lafayette Parish, LA		16LY50			delineation	1015	1007.5		I	5	40 cmts	50 cmts	flat bone	indeterminate	none	indeterminate	indeterminate	indeterminate	1	flat bone; possible cranial segment
061	Lafayette Parish, LA		16LY50			delineation	1015	1015		I	3	20 cmts	30 cmts	shell	100	none	bivalvia	Unionacea	indeterminate	1	mussel; still closed
062	Lafayette Parish, LA		16LY50			delineation	1015	1015		I	5	40 cmts	50 cmts	pedicle	90	none	mammalia	Cervidae	odocoileus virginianus	1	seasonal indicator: late winter to early summer
066	Lafayette Parish, LA		16LY50			delineation	1000	992.5		I	1	0 cmts	10 cmts	bone	indeterminate	none	indeterminate	indeterminate	indeterminate	1	very small; probable longbone fragment
068	Lafayette Parish, LA		16LY50			delineation	1000	992.5		I	3	20 cmts	30 cmts	humerus	30	spiral fracture	mammalia	Cervidae	odocoileus virginianus	1	
068	Lafayette Parish, LA		16LY50			delineation	1000	992.5		I	3	20 cmts	30 cmts	humerus	10	none	indeterminate	indeterminate	indeterminate	1	proximal epiphysis only
068	Lafayette Parish, LA		16LY50			delineation	1000	992.5		I	3	20 cmts	30 cmts	flat bone	indeterminate	none	indeterminate	indeterminate	indeterminate	3	probably cranial; small fragments of flat bone
070	Lafayette Parish, LA		16LY50			delineation	1007.5	985		II	3	25 cmts	35 cmts	tibia	20	percussion mark	mammalia	Cervidae	odocoileus virginianus	1	only articular proximal surface

Table 2. Faunal material recovered from the Vermilion River Dredge Disposal Project Area.

FS#	County/Parish	Area	Site/ Locus	Trench	Transect	Shovel Test	North	East	Additional Provenience	Strat	Level	Top EI	Bot EI	Element	% Complete	Modifications	Class	Family / Order	Genus and sp	CT	Comments	
070	Lafayette Parish, LA		16LY50			delineation	1007.5	985			II	3	25 cmbs	35 cmbs	astragalus	90	stone tool cut marks	mammalia	Cervidae	odocoileus virginianus	1	one articular surface removed by single blow, "manganese rosettes" on cut surface; more than disarticulation, probably means they were processing the bones for food as well, maybe for soup-like cooking
075	Lafayette Parish, LA		16LY50			delineation	1007.5	992.5		I	2	10 cmbs	20 cmbs	vertebra	90	none	osteichthyes	indeterminate	indeterminate	indeterminate	1	large, maybe catfish
076	Lafayette Parish, LA		16LY50			delineation	1007.5	992.5		II	3	20 cmbs	30 cmbs	bone	indeterminate	none	indeterminate	indeterminate	indeterminate	indeterminate	1	very small fragment
080	Lafayette Parish, LA		16LY50			delineation	1010	1022.5		I	3	20 cmbs	30 cmbs	molar	80	none	mammalia	Cervidae	indeterminate	indeterminate	1	probable white tail deer
083	Lafayette Parish, LA		16LY50			delineation	1007.5	962.5		II	5	40 cmbs	50 cmbs	tibia	25	spiral fracture	mammalia	Cervidae	odocoileus virginianus	1	distal portion, fracture at shaft	
084	Lafayette Parish, LA		16LY50			delineation	1007.4	947		I	1	0 cmbs	10 cmbs	shell	25	none	bivalvia	Ostridae	crassostrea virginia	2	oyster	
087	Lafayette Parish, LA		16LY50			delineation	1007.4	947		II	4	30 cmbs	40 cmbs	longbone	indeterminate	none	indeterminate	indeterminate	indeterminate	indeterminate	1	very small; white discoloration
093	Lafayette Parish, LA		16LY50			delineation	1045	1000		II	2	10 cmbs	20 cmbs	shell	indeterminate	none	indeterminate	indeterminate	indeterminate	indeterminate	2	small fragments
093	Lafayette Parish, LA		16LY50			delineation	1045	1000		II	2	10 cmbs	20 cmbs	scale	50	none	osteichthyes	Lepisosteidae	lepisosteus sp	1	gar scale	
094	Lafayette Parish, LA		16LY50			delineation	1045	1000		II	3	20 cmbs	30 cmbs	bone	indeterminate	none	indeterminate	indeterminate	indeterminate	indeterminate	1	small articular surface
095	Lafayette Parish, LA		16LY50			delineation	1045	1000		III	4	30 cmbs	40 cmbs	flr bone	indeterminate	none	indeterminate	indeterminate	indeterminate	indeterminate	1	probably cranial
099	Lafayette Parish, LA		16LY50			delineation	1045	1000		V	13	120 cmbs	130 cmbs	shell	indeterminate	none	gastropoda	indeterminate	indeterminate	indeterminate	5	snails; one almost complete, four small pieces
100	Lafayette Parish, LA		16LY50			delineation	1045	1000		VII	17	160 cmbs	170 cmbs	bone	indeterminate	none	indeterminate	indeterminate	indeterminate	indeterminate	13	small fragments; probably longbone
103	Lafayette Parish, LA		16LY50	BT-01						I	2	10 cmbs	20 cmbs	shell	indeterminate	none	bivalvia	indeterminate	indeterminate	indeterminate	5	small fragments; mussel or oyster
103	Lafayette Parish, LA		16LY50	BT-01						I	2	10 cmbs	20 cmbs	bone	indeterminate	none	indeterminate	indeterminate	indeterminate	indeterminate	2	small fragments
103	Lafayette Parish, LA		16LY50	BT-01						I	2	10 cmbs	20 cmbs	shell	50	none	bivalvia	Unionacea	indeterminate	indeterminate	2	chalky; mollusks
106	Lafayette Parish, LA		16LY50	BT-01						I	6	50 cmbs	60 cmbs	humerus	50	none	aves	indeterminate	indeterminate	indeterminate	1	large bird, heron or egret; 3 pieces that refit
106	Lafayette Parish, LA		16LY50	BT-01						I	6	50 cmbs	60 cmbs	bone	indeterminate	none	indeterminate	indeterminate	indeterminate	indeterminate	2	small fragments
106	Lafayette Parish, LA		16LY50	BT-01						I	6	50 cmbs	60 cmbs	spine	40	none	osteichthyes	Ictaluridae	indeterminate	indeterminate	1	catfish spine, base
106	Lafayette Parish, LA		16LY50	BT-01						I	6	50 cmbs	60 cmbs	bone	indeterminate	none	indeterminate	indeterminate	indeterminate	indeterminate	1	very small; shiny, possible gar scale
107	Lafayette Parish, LA		16LY50	BT-01						I	7	60 cmbs	70 cmbs	tarsal	20	plow cut	mammalia	Cervidae	odocoileus virginianus	1	distal portion	
107	Lafayette Parish, LA		16LY50	BT-01						I	7	60 cmbs	70 cmbs	bone	indeterminate	none	mammalia	indeterminate	indeterminate	indeterminate	1	
107	Lafayette Parish, LA		16LY50	BT-01						I	7	60 cmbs	70 cmbs	bone	indeterminate	none	mammalia	indeterminate	indeterminate	indeterminate	6	small fragments

Table 2. Faunal material recovered from the Vermilion River Dredge Disposal Project Area.

FS#	County/Parish	Area	Site/Locus	Trench	Transect	Shovel Test	North	East	Additional Provenience	Strat	Level	Top El	Bot El	Element	% Complete	Modifications	Class	Family / Order	Genus and sp	CT	Comments
108	Lafayette Parish, LA		16LY50	BT-01						I	9	80 cms	90 cms	bone	indeterminate	none	mammalia	indeterminate	indeterminate	2	small fragments
108	Lafayette Parish, LA		16LY50	BT-01						I	9	80 cms	90 cms	vertebra	25	none	mammalia	indeterminate	indeterminate	1	body only; probable deer
109	Lafayette Parish, LA		16LY50	BT-01						I	10	90 cms	100 cms	epiphysis	75	none	mammalia	indeterminate	indeterminate	1	humerus or femur to med to large animal
111	Lafayette Parish, LA		16LY50			delineation	1000	1015		I	1	0 cms	10 cms	longbone	indeterminate	none	indeterminate	indeterminate	indeterminate	1	small shaft fragment
111	Lafayette Parish, LA		16LY50			delineation	1000	1015		I	1	0 cms	10 cms	carapace	indeterminate	none	reptilia	Testudinata	indeterminate	1	turtle shell, small fragment
113	Lafayette Parish, LA		16LY50			delineation	1007.5	932.5		II	7	60 cms	70 cms	shell	50	none	bivalvia	Unionacea	indeterminate	4	mussels
117	Lafayette Parish, LA		16LY50			delineation	992.5	962.5		IV	13	110 cms	120 cms	shell	indeterminate	none	bivalvia	indeterminate	indeterminate	1	mussel or oyster
120	Lafayette Parish, LA		16LY50			delineation	1007.5	1030		I	1	0 cms	10 cms	bone	indeterminate	none	indeterminate	indeterminate	indeterminate	1	very small fragment
122	Lafayette Parish, LA		16LY50			delineation	1007.5	1030		I	3	20 cms	30 cms	carapace	indeterminate	none	reptilia	Testudinata	indeterminate	2	turtle shell
125	Lafayette Parish, LA		16LY50			delineation	1022.5	1030		I	1	0 cms	10 cms	metatarsal	15	spiral fracture	mammalia	Cervidae	odocoileus virginianus	1	unfused distal end, missing epiphysis
130	Lafayette Parish, LA		16LY50			delineation	1030	1052.5		I	3	20 cms	30 cms	longbone	indeterminate	none	indeterminate	indeterminate	indeterminate	1	very thin; maybe bird
137	Lafayette Parish, LA		16LY50			delineation	1060	1000		I	2	10 cms	15 cms	bone	indeterminate	none	indeterminate	indeterminate	indeterminate	1	small fragment, probably longbone
139	Lafayette Parish, LA		16LY50			delineation	1060	1000		II	5	30 cms	40 cms	shell	95	none	bivalvia	Unionacea	indeterminate	2	mussels; perhaps fit together
139	Lafayette Parish, LA		16LY50			delineation	1060	1000		II	5	30 cms	40 cms	bone	indeterminate	none	indeterminate	indeterminate	indeterminate	1	small fragment
140	Lafayette Parish, LA		16LY50			delineation	1060	1000		II	6	40 cms	50 cms	rib	indeterminate	spiral fracture	mammalia	indeterminate	indeterminate	1	body; probable deer
143	Lafayette Parish, LA		16LY50			delineation	1060	1000		II	10	80 cms	90 cms	flat bone	indeterminate	none	indeterminate	indeterminate	indeterminate	1	2 that refit; angled
147	Lafayette Parish, LA		16LY50	BT-03					Backdirt Pile					shell	indeterminate	none	bivalvia	Unionacea	indeterminate	3	mussel
148	Lafayette Parish, LA		16LY50	BT-03						I	3	20 cms	30 cms	shell	indeterminate	none	bivalvia	Unionacea	indeterminate	2	mussel
149	Lafayette Parish, LA		16LY50	BT-03						I	4	30 cms	40 cms	femur	25	carnivore tooth marks	mammalia	Cervidae	odocoileus virginianus	1	5 pieces that refit; distal end
150	Lafayette Parish, LA		16LY50	BT-04						I	5	40 cms	50 cms	innominate	50	spiral fracture	mammalia	Cervidae	odocoileus virginianus	1	5 pieces that refit; acetabular surface
153	Lafayette Parish, LA		16LY50	BT-05						I	1	0 cms	10 cms	cervical	35	none	mammalia	Cervidae	odocoileus virginianus	1	missing body
154	Lafayette Parish, LA		16LY50	BT-05						I	2	10 cms	20 cms	bone	indeterminate	none	indeterminate	indeterminate	indeterminate	1	small fragment of articular surface
154	Lafayette Parish, LA		16LY50	BT-05						I	2	10 cms	20 cms	bone	indeterminate	none	indeterminate	indeterminate	indeterminate	1	small fragment
154	Lafayette Parish, LA		16LY50	BT-05						I	2	10 cms	20 cms	shell	25	none	bivalvia	Ostreidae	crassostrea virginica	1	oyster
154	Lafayette Parish, LA		16LY50	BT-05						I	2	10 cms	20 cms	shell	indeterminate	none	bivalvia	indeterminate	indeterminate	13	mussel or oyster
155	Lafayette Parish, LA		16LY50	BT-05						I	5	40 cms	50 cms	longbone	indeterminate	none	mammalia	indeterminate	indeterminate	5	4 small pieces refit, large mammal
155	Lafayette Parish, LA		16LY50	BT-05						I	5	40 cms	50 cms	flat bone	indeterminate	none	indeterminate	indeterminate	indeterminate	1	probable pelvis or scapula
160	Lafayette Parish, LA		16LY50			delineation	1074.4	1045		I	1	0 cms	10 cms	shell	100	none	bivalvia	Unionacea	indeterminate	1	mussel, still closed, both halves of shell; missing darker outer skin

Table 2. Faunal material recovered from the Vermilion River Dredge Disposal Project Area.

FS#	County/Parish	Area	Site/ Locus	Trench	Transect	Shovel Test	North	East	Additional Provenience	Strat	Level	Top EI	Bot EI	Element	% Complete	Modifications	Class	Family / Order	Genus and sp	CT	Comments
161	Lafayette Parish, LA		16LY50			delineation	1074.4	1045		I	2	10 cmbs	20 cmbs	femur	20	none	mammalia	Cervidae	indeterminate	1	unfused proximal end; missing epiphysis and much of extreme proximal surface
164	Lafayette Parish, LA		16LY50			delineation	1060	985		I	3	20 cmbs	30 cmbs	longbone	indeterminate	none	mammalia	indeterminate	indeterminate	1	4 pieces that refit; recent breaks; splintered
167	Lafayette Parish, LA		16LY50			delineation	1067.5	1000		I	2	10 cmbs	20 cmbs	longbone	indeterminate	none	indeterminate	indeterminate	indeterminate	1	small shaft fragment
167	Lafayette Parish, LA		16LY50			delineation	1067.5	1000		I	2	10 cmbs	20 cmbs	metatarsal	15	none	mammalia	Cervidae	indeterminate	1	bit of proximal articular surface
176	Lafayette Parish, LA		16LY50			delineation	1067.5	1015		II	2	10 cmbs	20 cmbs	bone	indeterminate	none	indeterminate	indeterminate	indeterminate	1	splinter, maybe from longbone
177	Lafayette Parish, LA		16LY50			delineation	1067.5	1015		II	3	20 cmbs	30 cmbs	femur	25	spiral fracture	mammalia	Cervidae	odocoileus virginianus	1	right distal portion
177	Lafayette Parish, LA		16LY50			delineation	1067.5	1015		II	3	20 cmbs	30 cmbs	flat bone	indeterminate	none	mammalia	indeterminate	indeterminate	1	probably from pelvis of white tail deer
179	Lafayette Parish, LA		16LY50			delineation	1067.5	1015		II	5	40 cmbs	50 cmbs	shell	indeterminate	none	bivalvia	Unionacea	indeterminate	2	mussel, missing outermost dark skin
182	Lafayette Parish, LA		16LY50				1000	1000	Soil Sample; exp. to 50x50 cm square	I		55 cmbs	80 cmbs	mandible	40	none	mammalia	Cervidae	odocoileus virginianus	1	includes one 1st molar; from flotation sample
182	Lafayette Parish, LA		16LY50				1000	1000	Soil Sample; exp. to 50x50 cm square	I		55 cmbs	80 cmbs	longbone	indeterminate	none	mammalia	indeterminate	indeterminate	6	shaft fragments; from flotation sample
182	Lafayette Parish, LA		16LY50				1000	1000	Soil Sample; exp. to 50x50 cm square	I		55 cmbs	80 cmbs	vertebra	25	none	mammalia	Cervidae	indeterminate	1	3 pieces that refit; from flotation sample
182	Lafayette Parish, LA		16LY50				1000	1000	Soil Sample; exp. to 50x50 cm square	I		55 cmbs	80 cmbs	phalanges	20	none	mammalia	Cervidae	indeterminate	1	unfused epiphysis; from flotation sample
182	Lafayette Parish, LA		16LY50				1000	1000	Soil Sample; exp. to 50x50 cm square	I		55 cmbs	80 cmbs	molar	90	none	mammalia	Cervidae	odocoileus virginianus	2	from flotation sample
182	Lafayette Parish, LA		16LY50				1000	1000	Soil Sample; exp. to 50x50 cm square	I		55 cmbs	80 cmbs	incisor	indeterminate	none	mammalia	Rodentia	indeterminate	4	long and curved; from flotation sample
182	Lafayette Parish, LA		16LY50				1000	1000	Soil Sample; exp. to 50x50 cm square	I		55 cmbs	80 cmbs	premolar	90	none	mammalia	Cervidae	odocoileus virginianus	1	from flotation sample
182	Lafayette Parish, LA		16LY50				1000	1000	Soil Sample; exp. to 50x50 cm square	I		55 cmbs	80 cmbs	molar	100	none	mammalia	Procyonidae	procyon lotor	1	from flotation sample
182	Lafayette Parish, LA		16LY50				1000	1000	Soil Sample; exp. to 50x50 cm square	I		55 cmbs	80 cmbs	incisor	80	none	mammalia	Rodentia	indeterminate	1	from flotation sample
182	Lafayette Parish, LA		16LY50				1000	1000	Soil Sample; exp. to 50x50 cm square	I		55 cmbs	80 cmbs	molar	95	none	mammalia	Sciuridae	indeterminate	1	small mammal, probable squirrel; from flotation sample
182	Lafayette Parish, LA		16LY50				1000	1000	Soil Sample; exp. to 50x50 cm square	I		55 cmbs	80 cmbs	femur	50	none	mammalia	indeterminate	indeterminate	1	distal end; from flotation sample
182	Lafayette Parish, LA		16LY50				1000	1000	Soil Sample; exp. to 50x50 cm square	I		55 cmbs	80 cmbs	calcaneus	100	none	mammalia	Rodentia	indeterminate	1	from flotation sample

Table 2. Faunal material recovered from the Vermilion River Dredge Disposal Project Area.

FS#	County/Parish	Area	Site/ Locus	Trench	Transect	Shovel Test	North	East	Additional Provenience	Strat	Level	Top El	Bot El	Element	% Complete	Modifications	Class	Family / Order	Genus and sp	CT	Comments
182	Lafayette Parish, LA		16LY50				1000	1000	Soil Sample, exp. to 50x50 cm square	I		55 cmbs	80 cmbs	premolar	100	none	mammalia	Carnivora	indeterminate	1	small mammal; from flotation sample
182	Lafayette Parish, LA		16LY50				1000	1000	Soil Sample, exp. to 50x50 cm square	I		55 cmbs	80 cmbs	carapace	indeterminate	none	reptilia	Testudinata	indeterminate	2	from flotation sample
182	Lafayette Parish, LA		16LY50				1000	1000	Soil Sample, exp. to 50x50 cm square	I		55 cmbs	80 cmbs	vertebra	indeterminate	none	reptilia	Squamata	indeterminate	3	from flotation sample
182	Lafayette Parish, LA		16LY50				1000	1000	Soil Sample, exp. to 50x50 cm square	I		55 cmbs	80 cmbs	phalanges	90	none	mammalia	indeterminate	indeterminate	1	small mammal; from flotation sample
182	Lafayette Parish, LA		16LY50				1000	1000	Soil Sample, exp. to 50x50 cm square	I		55 cmbs	80 cmbs	rib	50	none	mammalia	indeterminate	indeterminate	1	small mammal; from flotation sample
182	Lafayette Parish, LA		16LY50				1000	1000	Soil Sample, exp. to 50x50 cm square	I		55 cmbs	80 cmbs	vertebra	indeterminate	none	osteichthyes	indeterminate	indeterminate	115	from flotation sample
182	Lafayette Parish, LA		16LY50				1000	1000	Soil Sample, exp. to 50x50 cm square	I		55 cmbs	80 cmbs	scale	indeterminate	none	osteichthyes	indeterminate	indeterminate	15	generic fish scales; from flotation sample
182	Lafayette Parish, LA		16LY50				1000	1000	Soil Sample, exp. to 50x50 cm square	I		55 cmbs	80 cmbs	bone	indeterminate	none	mammalia	indeterminate	indeterminate	2	small mammal, probable rodent; from flotation sample
182	Lafayette Parish, LA		16LY50				1000	1000	Soil Sample, exp. to 50x50 cm square	I		55 cmbs	80 cmbs	scoria	indeterminate	none	osteichthyes	indeterminate	indeterminate	48	fragmentary fish spines, probably catfish, varied sizes; from flotation sample
182	Lafayette Parish, LA		16LY50				1000	1000	Soil Sample, exp. to 50x50 cm square	I		55 cmbs	80 cmbs	scale	indeterminate	none	osteichthyes	Lepisosteidae	lepisosteus spatula	74	gar scales
182	Lafayette Parish, LA		16LY50				1000	1000	Soil Sample, exp. to 50x50 cm square	I		55 cmbs	80 cmbs	longbone	indeterminate	none	indeterminate	indeterminate	indeterminate	62	small animal; shaft fragments; from flotation sample
182	Lafayette Parish, LA		16LY50				1000	1000	Soil Sample, exp. to 50x50 cm square	I		55 cmbs	80 cmbs	bone	indeterminate	none	indeterminate	indeterminate	indeterminate	1850	approximate count; from flotation sample
182	Lafayette Parish, LA		16LY50				1000	1000	Soil Sample, exp. to 50x50 cm square	I		55 cmbs	80 cmbs	carapace	indeterminate	none	reptilia	Testudinata	indeterminate	16	turtle shell; from flotation sample
182	Lafayette Parish, LA		16LY50				1000	1000	Soil Sample, exp. to 50x50 cm square	I		55 cmbs	80 cmbs	molar	100	none	mammalia	Rodentia	indeterminate	1	3rd molar, includes part of jaw; from flotation sample
182	Lafayette Parish, LA		16LY50				1000	1000	Soil Sample, exp. to 50x50 cm square	I		55 cmbs	80 cmbs	tarsal	90	none	mammalia	Cervidae	odocoileus virginianus	1	right; from flotation sample
182	Lafayette Parish, LA		16LY50				1000	1000	Soil Sample, exp. to 50x50 cm square	I		55 cmbs	80 cmbs	vertebra	indeterminate	none	mammalia	indeterminate	indeterminate	1	from flotation sample
182	Lafayette Parish, LA		16LY50				1000	1000	Soil Sample, exp. to 50x50 cm square	I		55 cmbs	80 cmbs	vertebra	indeterminate	none	mammalia	indeterminate	indeterminate	1	small mammal; from flotation sample
182	Lafayette Parish, LA		16LY50				1000	1000	Soil Sample, exp. to 50x50 cm square	I		55 cmbs	80 cmbs	radius	50	none	mammalia	indeterminate	indeterminate	1	small mammal; from flotation sample

Table 2. Faunal material recovered from the Vermilion River Dredge Disposal Project Area.

FS#	County/Parish	Area	Site/Locus	Trench	Transect	Shovel Test	North	East	Additional Provenience	Strat	Level	Top EI	Bot EI	Element	% Complete	Modifications	Class	Family / Order	Genus and sp	CT	Comments
182	Lafayette Parish, LA		16LY50				1000	1000	Soil Sample, exp. to 50x50 cm square	I		55 cmbs	80 cmbs	astragalus	100	none	mammalia	Rodentia	indeterminate	1	very small; from flotation sample
182	Lafayette Parish, LA		16LY50				1000	1000	Soil Sample, exp. to 50x50 cm square	I		55 cmbs	80 cmbs	phalanges	100	none	mammalia	indeterminate	indeterminate	2	small mammal; from flotation sample
182	Lafayette Parish, LA		16LY50				1000	1000	Soil Sample, exp. to 50x50 cm square	I		55 cmbs	80 cmbs	quadrate	indeterminate	none	osteichthyes	indeterminate	indeterminate	1	from flotation sample
182	Lafayette Parish, LA		16LY50				1000	1000	Soil Sample, exp. to 50x50 cm square	I		55 cmbs	80 cmbs	tooth	indeterminate	none	indeterminate	indeterminate	indeterminate	1	in 2 pieces (one root); calcite crystals inside canal; from flotation sample
182	Lafayette Parish, LA		16LY50				1000	1000	Soil Sample, exp. to 50x50 cm square	I		55 cmbs	80 cmbs	vertebra	indeterminate	none	indeterminate	indeterminate	indeterminate	1	small animal, 3 pieces; from flotation sample
182	Lafayette Parish, LA		16LY50				1000	1000	Soil Sample, exp. to 50x50 cm square	I		55 cmbs	80 cmbs	bone	indeterminate	none	osteichthyes	indeterminate	indeterminate	3	from flotation sample
182	Lafayette Parish, LA		16LY50				1000	1000	Soil Sample, exp. to 50x50 cm square	I		55 cmbs	80 cmbs	pectoral spine	indeterminate	none	osteichthyes	indeterminate	indeterminate	3	from flotation sample
182	Lafayette Parish, LA		16LY50				1000	1000	Soil Sample, exp. to 50x50 cm square	I		55 cmbs	80 cmbs	metatarsal	10	none	mammalia	Cervidae	odocoileus virginianus	1	small shaft fragment with indentation; from flotation sample
182	Lafayette Parish, LA		16LY50				1000	1000	expanded into 50x50 cm	I	4	30 cmbs	40 cmbs	molar	90	none	mammalia	Cervidae	indeterminate	1	probable white tail deer
185	Lafayette Parish, LA		16LY50			delineation	1000	1000	expanded into 50x50 cm	I	5	40 cmbs	50 cmbs	molar	90	none	mammalia	Cervidae	indeterminate	1	probable white tail deer
185	Lafayette Parish, LA		16LY50			delineation	1000	1000	expanded into 50x50 cm	I	5	40 cmbs	50 cmbs	longbone	40	none	mammalia	indeterminate	indeterminate	1	medium sized; shaft only; probable rabbit
185	Lafayette Parish, LA		16LY50			delineation	1000	1000	expanded into 50x50 cm	I	5	40 cmbs	50 cmbs	bone	indeterminate	none	indeterminate	indeterminate	indeterminate	12	splinters; both flat and longbone
185	Lafayette Parish, LA		16LY50			delineation	1000	1000	expanded into 50x50 cm	I	5	40 cmbs	50 cmbs	longbone	indeterminate	none	mammalia	indeterminate	indeterminate	3	shaft fragments
185	Lafayette Parish, LA		16LY50			delineation	1000	1000	expanded into 50x50 cm	I	5	40 cmbs	50 cmbs	longbone	indeterminate	none	mammalia	indeterminate	indeterminate	1	articular surface
185	Lafayette Parish, LA		16LY50			delineation	1000	1000	expanded into 50x50 cm	I	5	40 cmbs	50 cmbs	radius	15	none	mammalia	Cervidae	odocoileus virginianus	1	proximal articular surface
185	Lafayette Parish, LA		16LY50			delineation	1000	1000	expanded into 50x50 cm	I	5	40 cmbs	50 cmbs	longbone	indeterminate	indeterminate	mammalia	indeterminate	indeterminate	1	split; bifurcated end
185	Lafayette Parish, LA		16LY50			delineation	1000	1000	expanded into 50x50 cm	I	5	40 cmbs	50 cmbs	longbone	indeterminate	none	mammalia	indeterminate	indeterminate	1	articular surface
185	Lafayette Parish, LA		16LY50			delineation	1000	1000	expanded into 50x50 cm	I	5	40 cmbs	50 cmbs	tooth	50	none	mammalia	Cervidae	odocoileus virginianus	1	split
185	Lafayette Parish, LA		16LY50			delineation	1000	1000	expanded into 50x50 cm	I	5	40 cmbs	50 cmbs	incisor	indeterminate	none	mammalia	Rodentia	indeterminate	1	small
185	Lafayette Parish, LA		16LY50			delineation	1000	1000	expanded into 50x50 cm	I	5	40 cmbs	50 cmbs	bone	indeterminate	none	indeterminate	indeterminate	indeterminate	1	heavily bleached
187	Lafayette Parish, LA		16LY50			delineation	1000	1000	expanded into 50x50 cm	I	6	50 cmbs	60 cmbs	bone	indeterminate	none	indeterminate	indeterminate	indeterminate	4	splinters
187	Lafayette Parish, LA		16LY50			delineation	1000	1000	expanded into 50x50 cm	I	6	50 cmbs	60 cmbs	calcaraneous	100	none	mammalia	Cervidae	odocoileus virginianus	1	
187	Lafayette Parish, LA		16LY50			delineation	1000	1000	expanded into 50x50 cm	I	6	50 cmbs	60 cmbs	metatarsal	50	spiral fracture	mammalia	Cervidae	odocoileus virginianus	1	

Table 2. Faunal material recovered from the Vermilion River Dredge Disposal Project Area.

FS#	County/Parish	Area	Site/Locus	Trench	Transsect	Shovel Test	North	East	Additional Provenience	Strat	Level	Top El	Bot El	Element	% Complete	Modifications	Class	Family / Order	Genus and sp	CT	Comments
187	Lafayette Parish, LA		16LY50			delineation	1000	1000	expanded into 50x50 cm	I	6	50 cmbs	60 cmbs	x' langes	75	none	mammalia	Cervidae	odocoileus virginianus	3	one missing only distal end; one distal portion; one missing both distal portion and shaft
187	Lafayette Parish, LA		16LY50			delineation	1000	1000	expanded into 50x50 cm	I	6	50 cmbs	60 cmbs	metatarsal	35	percussion mark	mammalia	Cervidae	odocoileus virginianus	1	deliberately split
187	Lafayette Parish, LA		16LY50			delineation	1000	1000	expanded into 50x50 cm	I	6	50 cmbs	60 cmbs	metapodial	indeterminate	none	mammalia	Cervidae	indeterminate	1	half of articular surface
187	Lafayette Parish, LA		16LY50			delineation	1000	1000	expanded into 50x50 cm	I	6	50 cmbs	60 cmbs	mandible	10	none	mammalia	indeterminate	indeterminate	1	part of alveolus
187	Lafayette Parish, LA		16LY50			delineation	1000	1000	expanded into 50x50 cm	I	6	50 cmbs	60 cmbs	humerus	50	none	reptilia	Testudinata	indeterminate	1	proximal half
188	Lafayette Parish, LA		16LY50			delineation	1000	1000	expanded into 50x50 cm	I	9	80 cmbs	90 cmbs	bone	indeterminate	none	indeterminate	indeterminate	indeterminate	16	small splinters
188	Lafayette Parish, LA		16LY50			delineation	1000	1000	expanded into 50x50 cm	I	9	80 cmbs	90 cmbs	longbone	indeterminate	none	mammalia	indeterminate	indeterminate	2	large mammal; splinter
188	Lafayette Parish, LA		16LY50			delineation	1000	1000	expanded into 50x50 cm	I	9	80 cmbs	90 cmbs	longbone	indeterminate	none	mammalia	indeterminate	indeterminate	1	articular surface
188	Lafayette Parish, LA		16LY50			delineation	1000	1000	expanded into 50x50 cm	I	9	80 cmbs	90 cmbs	humerus	25	spiral fracture	mammalia	Cervidae	odocoileus virginianus	1	distal portion
189	Lafayette Parish, LA		16LY50			delineation	985	985		I	1	0 cmbs	10 cmbs	metatarsal	25	percussion mark	mammalia	Cervidae	odocoileus virginianus	1	deliberately split
191	Lafayette Parish, LA		16LY50			delineation	985	985		I	6	50 cmbs	60 cmbs	metatarsal	50	none	mammalia	Cervidae	odocoileus virginianus	1	missing distal end
191	Lafayette Parish, LA		16LY50			delineation	985	985		I	6	50 cmbs	60 cmbs	longbone	indeterminate	none	mammalia	indeterminate	indeterminate	1	splinter; large mammal
192	Lafayette Parish, LA		16LY50			delineation	992.5	970		I	3	20 cmbs	30 cmbs	flat bone	indeterminate	none	indeterminate	indeterminate	indeterminate	1	epiphysis?
204	Lafayette Parish, LA		16LY50	BT-06						I	4	30 cmbs	40 cmbs	radius	20	none	mammalia	Cervidae	odocoileus virginianus	1	distal portion
207	Lafayette Parish, LA		16LY50	BT-08						I	4	30 cmbs	40 cmbs	shell	50	none	bivalvia	Unionacea	indeterminate	1	mussel
208	Lafayette Parish, LA		16LY50	BT-08						II	5	40 cmbs	50 cmbs	shell	indeterminate	none	bivalvia	Unionacea	indeterminate	3	mussel
208	Lafayette Parish, LA		16LY50	BT-08						II	5	40 cmbs	50 cmbs	scapula	25	none	mammalia	Cervidae	odocoileus virginianus	1	articular end
210	Lafayette Parish, LA		16LY50			delineation	1030	1060		I	2	10 cmbs	20 cmbs	fibula	indeterminate	none	mammalia	indeterminate	indeterminate	1	unfused; missing epiphysis
212	Lafayette Parish, LA		16LY24				997	992.5	Surface Collection					bone	indeterminate	none	mammalia	indeterminate	indeterminate	1	light colored, probably modern

Table 3. Lithic material recovered from the Vermilion River Dredge Disposal Project Area.

FS#	County/Parish	Site/ Locus	Trench	Shovel Test	North	East	Additional Provenience	Strat	Level	Top EI	Bot EI	Material	Class	Type	Subtype	CT	TA	Comments	Possible Affiliation	Possible Date	% Surface Cortex	Size grade in Inches
033	Lafayette Parish, LA	16LY50		delineation	1000	970		III	5	40 cmbs	50 cmbs	chert	debitage	flake	tertiary	1	N		indeterminate	indeterminate	0	0.25
040	Lafayette Parish, LA	16LY50		delineation	1002.5	985		III	7	60 cmbs	70 cmbs	chert	debitage	flake	secondary	1	Y		indeterminate	indeterminate	0	0.25
093	Lafayette Parish, LA	16LY50		delineation	1045	1000		II	2	10 cmbs	20 cmbs	chert	debitage	flake	secondary	1	N		indeterminate	indeterminate	0	0.25
106	Lafayette Parish, LA	16LY50	BT-01					I	6	50 cmbs	60 cmbs	chert	debitage	flake	secondary	1	N		indeterminate	indeterminate	0	0.25
106	Lafayette Parish, LA	16LY50	BT-01					I	6	50 cmbs	60 cmbs	chert	debitage	flake	secondary	1	Y		indeterminate	indeterminate	0	0.25
182	Lafayette Parish, LA	16LY50			1000	1000	Soil Sample, exp. to 50x50 cm square	I		55 cmbs	80 cmbs	chert	debitage	flake	secondary	3	N	flotation sample	indeterminate	indeterminate	0	0.5
182	Lafayette Parish, LA	16LY50			1000	1000	Soil Sample, exp. to 50x50 cm square	I		55 cmbs	80 cmbs	chert	debitage	flake	secondary	1	Y	heat damaged; flotation sample	indeterminate	indeterminate	0	0.25
182	Lafayette Parish, LA	16LY50			1000	1000	Soil Sample, exp. to 50x50 cm square	I		55 cmbs	80 cmbs	chert	debitage	flake	tertiary	22	N	flotation sample	indeterminate	indeterminate	0	0.125
182	Lafayette Parish, LA	16LY50			1000	1000	Soil Sample, exp. to 50x50 cm square	I		55 cmbs	80 cmbs	chert	debitage	flake	tertiary	2	Y	flotation sample	indeterminate	indeterminate	0	0.125
185	Lafayette Parish, LA	16LY50		delineation	1000	1000	expanded into 50x50 cm	I	5	40 cmbs	50 cmbs	chert	debitage	flake	secondary	1	N		indeterminate	indeterminate	0	0.25

Table 4. Tools recovered from the Vermilion River Dredge Disposal Project Area.

FS#	County/ Parish	Site/ Locus	Trench	Shovel Test	North	East	Additional Provenience	Strat	Level	Top El (Bot El)	Material	Tool Type	Identification	Temporal Period	Age	TA	Length	Width at Ears	Width between Ears	Width / Width at base	Thickness	Size grade in inches	Additional Description
093	Lafayette Parish, LA	16LY50		delineation	1045	1000		II	2	10 cmbs	20 cmbs	chert	biface	final thinning stage	indeterminate	N	32.81			16.16	9.15	0.5	possible broken ppk or preform; bifacially worked both lateral edges on dorsal and ventral faces; snap fracture across width at wider end, probable distal end.
106	Lafayette Parish, LA	16LY50	BT-01					I	6	50 cmbs	60 cmbs	chert	ppk	indeterminate	indeterminate	Y	31.44	indeterminate	indeterminate	19.63	7.86	0.5	convex sides; snap fracture across width of distal end; missing base; one ear remains, possible barbed
107	Lafayette Parish, LA	16LY50	BT-01					I	7	60 cmbs	70 cmbs	chert	ppk	indeterminate	indeterminate	N	34.13	19.51	17.07	10.71	7.94	0.5	straight sides; small; straight base, reworked
184	Lafayette Parish, LA	16LY50		delineation	1000	1000	expanded into 50x50 cm	I	4	30 cmbs	40 cmbs	chert	ppk	Gary variety	Late archaic to Middle Woodland	2000 BC- AD 800	N	27.51	23.56	11.21	8.65	0.5	Possible Pontchartrain or Maybon type Gary varieties; contracting, rounded stem; heavily reworked; asymmetric sides; one edge convex; one edge concave

Table 5. Ceramic material recovered from the Vermilion River Dredge Disposal Project Area.

FSW	County/ Parish	Area	Site/ Locus	Trench	Transect	Shovel Test	North	East	Additional Provenience	Strat	Level	Top El	Bot El	Aplastic Inclusions	Decoration	Type	Subtype	Portion	CT	Comments	Possible Affiliation	Possible Date	Reference
005	Lafayette Parish, LA	IB	16LY50		5	4			@ 90 meters	IV	7	52 cmbs	62 cmbs	none	none	Tchefuncte	Tchefuncte	body	1		Tchefuncte/Tchula	500 BC- AD 100	Phillips 1970
006	Lafayette Parish, LA	IB	16LY50		5	4			@ 90 meters	V	9	72 cmbs	82 cmbs	none	none	Tchefuncte	Tchefuncte	body	1		Tchefuncte/Tchula	500 BC- AD 100	Phillips 1970
007	Lafayette Parish, LA	IB	16LY50		5	4			@ 90 meters	V	10	82 cmbs	92 cmbs	none	incised	Lake Borgne	Lake Borgne	rim	1	folded rim linear punctuation, drag and jab technique	Tchefuncte/Tchula	500 BC- AD 100	Weinstein and Rivet 1974
009	Lafayette Parish, LA	IB	16LY50		5	5			@ 120 meters	I	1	0 cmbs	10 cmbs	none	none	Tchefuncte	Tchefuncte	body	1	small	Tchefuncte/Tchula	500 BC- AD 100	Phillips 1970
010	Lafayette Parish, LA	IB	16LY50		5	5			@ 120 meters	I	3	20 cmbs	30 cmbs			daub	N/A	fragment	1		indeterminate	indeterminate	
011	Lafayette Parish, LA	IB	16LY50		5	5			@ 120 meters	II	5	36 cmbs	43 cmbs	none	none	Tchefuncte	Tchefuncte	body	3		Tchefuncte/Tchula	500 BC- AD 100	Phillips 1970
011	Lafayette Parish, LA	IB	16LY50		5	5			@ 120 meters	II	5	36 cmbs	43 cmbs	none	none	Tchefuncte	Tchefuncte	body	1	mostly grog, some angular gaps from degraded shell and small amounts of sand	Tchefuncte/Tchula	500 BC- AD 100	Phillips 1970
012	Lafayette Parish, LA	IB	16LY50		5	5			@ 120 meters	IV	7	52 cmbs	55 cmbs	none	none	Tchefuncte	Tchefuncte	body	5		Tchefuncte/Tchula	500 BC- AD 100	Phillips 1970
013	Lafayette Parish, LA	IB	16LY50		6	5			@ 126 meters	I	3	20 cmbs	30 cmbs	none	none	Tchefuncte	Tchefuncte	body	2		Tchefuncte/Tchula	500 BC- AD 100	Phillips 1970
015	Lafayette Parish, LA	IB	16LY50		6	5			@ 126 meters	I	5	40 cmbs	50 cmbs	none	none	Tchefuncte	Tchefuncte	body	1	broken on coils	Tchefuncte/Tchula	500 BC- AD 100	Phillips 1970
016	Lafayette Parish, LA	IB	16LY50		6	5			@ 126 meters	II	6	50 cmbs	60 cmbs	none	none	Tchefuncte	Tchefuncte	body	3		Tchefuncte/Tchula	500 BC- AD 100	Phillips 1970
019	Lafayette Parish, LA	IA	1A-01		1	26			@ 750 meters	IV	6	30 cmbs	40 cmbs	grog	incised	Marksville Incised	Marksville	body	1		Marksville	AD 100- 700	Phillips 1970
024	Lafayette Parish, LA		16LY50			delineation	1015	1000		I	2	10 cmbs	20 cmbs	none	none	Tchefuncte	Tchefuncte	rim	1	straight rim, large bowl slightly sandy	Tchefuncte/Tchula	500 BC- AD 100	Phillips 1970
025	Lafayette Parish, LA		16LY50			delineation	1015	1000		I	4	30 cmbs	40 cmbs	none	none	Tchefuncte	Tchefuncte	body	3	blackened, slight curvature; laminated paste	Tchefuncte/Tchula	500 BC- AD 100	Phillips 1970
027	Lafayette Parish, LA		16LY50			delineation	1015	1000		II	7	60 cmbs	70 cmbs	none	none	Tchefuncte	Tchefuncte	body	1	chalky; slight curvature	Tchefuncte/Tchula	500 BC- AD 100	Phillips 1970
028	Lafayette Parish, LA		16LY50			delineation	996.5	996.5		III	7	60 cmbs	70 cmbs	none	indeterminate	Tchefuncte	indeterminate	body	5	small fragments	Tchefuncte/Tchula	500 BC- AD 100	Phillips 1970
029	Lafayette Parish, LA		16LY50			delineation	996.5	996.5		IV	14	130 cmbs	140 cmbs	none	none	Tchefuncte	Tchefuncte	body	1	smoothing striations on interior; coiled technique	Tchefuncte/Tchula	500 BC- AD 100	Phillips 1970
031	Lafayette Parish, LA		16LY50			delineation	1000	970		II	3	20 cmbs	30 cmbs	none	none	Tchefuncte	Tchefuncte	body	3	coiled technique	Tchefuncte/Tchula	500 BC- AD 100	Phillips 1970
032	Lafayette Parish, LA		16LY50			delineation	1000	970		II	4	30 cmbs	40 cmbs	none	none	Tchefuncte	Tchefuncte	body	4	1 very small	Tchefuncte/Tchula	500 BC- AD 100	Phillips 1970
033	Lafayette Parish, LA		16LY50			delineation	1000	970		III	5	40 cmbs	50 cmbs	none	incised	Orleans Punctated	Orleans	body	1	initially, id'd as Weeden Island. Weinstein and Rivet put it at the upper levels of Tchula period	Tchefuncte/Tchula	500 BC- AD 100	Weinstein and Rivet 1974
033	Lafayette Parish, LA		16LY50			delineation	1000	970		III	5	40 cmbs	50 cmbs	none	indeterminate	indeterminate	indeterminate	body	6	probable Tchefuncte, too small	indeterminate	indeterminate	
033	Lafayette Parish, LA		16LY50			delineation	1000	970		III	5	40 cmbs	50 cmbs	none	none	Tchefuncte	Tchefuncte	shoulder	1	grey, laminated paste	Tchefuncte/Tchula	500 BC- AD 100	Phillips 1970

Table 5. Ceramic material recovered from the Vermilion River Dredge Disposal Project Area.

FS#	County/ Parish	Area	Site/ Locus	Trench	Transect	Shovel Test	North	East	Additional Provenience	Strat	Level	Top E1	Bot E1	Aplastic Inclusions	Decoration	Type	Subtype	Portion	CT	Comments	Possible Affiliation	Possible Date	Reference
033	Lafayette Parish, LA		16LY50			delineation	1000	970		III	5	40 cmbs	50 cmbs	none	none	Tchefuncte	Tchefuncte	body	3	thick	Tchefuncte/Tchula	500 BC- AD 100	Phillips 1970
034	Lafayette Parish, LA		16LY50			delineation	1000	970		III	6	50 cmbs	60 cmbs	none	none	Tchefuncte	Tchefuncte	body	1	laminated paste	Tchefuncte/Tchula	500 BC- AD 100	Phillips 1970
034	Lafayette Parish, LA		16LY50			delineation	1000	970		III	6	50 cmbs	60 cmbs	none	indeterminate	indeterminate	indeterminate	indeterminate	3	probable Tchefuncte, too small	indeterminate	indeterminate	
034	Lafayette Parish, LA		16LY50			delineation	1000	970		III	6	50 cmbs	60 cmbs	none	none	Tchefuncte	Tchefuncte	base	1	probable semi-amular	Tchefuncte/Tchula	500 BC- AD 100	Phillips 1970
035	Lafayette Parish, LA		16LY50			delineation	1000	970		III	8	70 cmbs	80 cmbs	none	none	Tchefuncte	Tchefuncte	body	3	red inclusions, probably ochre	Tchefuncte/Tchula	500 BC- AD 100	Phillips 1970
036	Lafayette Parish, LA		16LY50			delineation	1002.5	985		I	2	10 cmbs	20 cmbs	none	none	Tchefuncte	Mandeville	body	1	sandy and light colored	Tchefuncte/Tchula	500 BC- AD 100	Weinstein and Rivet 1974
037	Lafayette Parish, LA		16LY50			delineation	1002.5	985		II	3	20 cmbs	30 cmbs	none	none	fred clay	N/A	indeterminate	6	orange, possible cooking ball	indeterminate	indeterminate	
037	Lafayette Parish, LA		16LY50			delineation	1002.5	985		II	3	20 cmbs	30 cmbs	none	none	Tchefuncte	Tchefuncte	body	1		Tchefuncte/Tchula	500 BC- AD 100	Phillips 1970
038	Lafayette Parish, LA		16LY50			delineation	1002.5	985		II	4	30 cmbs	40 cmbs	none	none	Tchefuncte	Tchefuncte	rim	1	straight rim, slightly thickened	Tchefuncte/Tchula	500 BC- AD 100	Phillips 1970
038	Lafayette Parish, LA		16LY50			delineation	1002.5	985		II	4	30 cmbs	40 cmbs	none	none	Tchefuncte	Tchefuncte	body	1	polished	Tchefuncte/Tchula	500 BC- AD 100	Phillips 1970
039	Lafayette Parish, LA		16LY50			delineation	1002.5	985		II	5	40 cmbs	50 cmbs	none	none	Tchefuncte	Tchefuncte	body	1		Tchefuncte/Tchula	500 BC- AD 100	Phillips 1970
041	Lafayette Parish, LA		16LY50			delineation	1002.5	985		III	8	70 cmbs	80 cmbs	none	indeterminate	Tchefuncte	indeterminate	body	1	small and eroded, laminated paste	Tchefuncte/Tchula	500 BC- AD 100	Phillips 1970
042	Lafayette Parish, LA		16LY50			delineation	997.5	1007.5		I	3	20 cmbs	30 cmbs	none	none	Tchefuncte	Tchefuncte	body	1		Tchefuncte/Tchula	500 BC- AD 100	Phillips 1970
043	Lafayette Parish, LA		16LY50			delineation	997.5	1007.5		I	4	30 cmbs	40 cmbs	none	none	Tchefuncte	Tchefuncte	body	1		Tchefuncte/Tchula	500 BC- AD 100	Phillips 1970
044	Lafayette Parish, LA		16LY50			delineation	997.5	1007.5		II	6	50 cmbs	60 cmbs	none	none	Tchefuncte	Tchefuncte	rim	1	straight rim	Tchefuncte/Tchula	500 BC- AD 100	Phillips 1970
045	Lafayette Parish, LA		16LY50			delineation	997.5	1007.5		II	8	70 cmbs	80 cmbs	none	none	Tchefuncte	Tchefuncte	body	1	polished	Tchefuncte/Tchula	500 BC- AD 100	Phillips 1970
046	Lafayette Parish, LA		16LY50			delineation	1007.5	1000		I	2	10 cmbs	20 cmbs	none	none	Tchefuncte	Tchefuncte	body	1	curvature	Tchefuncte/Tchula	500 BC- AD 100	Phillips 1970
047	Lafayette Parish, LA		16LY50			delineation	1007.5	1000		I	3	20 cmbs	30 cmbs	none	none	Tchefuncte	Tchefuncte	body	2	larger pieces	Tchefuncte/Tchula	500 BC- AD 100	Phillips 1970
047	Lafayette Parish, LA		16LY50			delineation	1007.5	1000		I	3	20 cmbs	30 cmbs	none	none	Tchefuncte	Tchefuncte	rim	1	straight rim	Tchefuncte/Tchula	500 BC- AD 100	Phillips 1970
048	Lafayette Parish, LA		16LY50			delineation	1007.5	1000		I	5	40 cmbs	50 cmbs	none	none	Tchefuncte	Tchefuncte	rim	2	refit, bone stuck to interior	Tchefuncte/Tchula	500 BC- AD 100	Phillips 1970
048	Lafayette Parish, LA		16LY50			delineation	1007.5	1000		I	5	40 cmbs	50 cmbs	none	none	Tchefuncte	Tchefuncte	body	2	small pieces of bone on interior	Tchefuncte/Tchula	500 BC- AD 100	Phillips 1970
049	Lafayette Parish, LA		16LY50			delineation	1007.5	1000		I	6	50 cmbs	60 cmbs	none	none	Tchefuncte	Tchefuncte	body	1	polished	Tchefuncte/Tchula	500 BC- AD 100	Phillips 1970
051	Lafayette Parish, LA		16LY50			delineation	1007.5	1007.5		I	1	0 cmbs	10 cmbs	none	none	Tchefuncte	Tchefuncte	body	1	crazing	Tchefuncte/Tchula	500 BC- AD 100	Phillips 1970
053	Lafayette Parish, LA		16LY50			delineation	1007.5	1007.5		I	3	20 cmbs	30 cmbs	none	none	Tchefuncte	Tchefuncte	body	3	paste is layered in appearance	Tchefuncte/Tchula	500 BC- AD 100	Phillips 1970
054	Lafayette Parish, LA		16LY50			delineation	1007.5	1007.5		II	6	50 cmbs	60 cmbs	none	none	Tchefuncte	Tchefuncte	body	1		Tchefuncte/Tchula	500 BC- AD 100	Phillips 1970
055	Lafayette Parish, LA		16LY50			delineation	1015	1007.5		I	1	0 cmbs	10 cmbs	none	none	hefuncte	hefuncte	body	1	small and pitted	Tchefuncte/Tchula	500 BC- AD 100	Phillips 1970
055	Lafayette Parish, LA		16LY50			delineation	1015	1007.5		I	1	0 cmbs	10 cmbs	none	none	Tchefuncte	Tchefuncte	rim	1	straight	Tchefuncte/Tchula	500 BC- AD 100	Phillips 1970
056	Lafayette Parish, LA		16LY50			delineation	1015	1007.5		I	2	10 cmbs	20 cmbs	none	none	Tchefuncte	Tchefuncte	body	3	some sand, but still laminated paste	Tchefuncte/Tchula	500 BC- AD 100	Phillips 1970

Table 5. Ceramic material recovered from the Vermilion River Dredge Disposal Project Area.

FS#	County/ Parish	Area	Site/ Locus	Trench	Transect	Shovel Test	North	East	Additional Provenience	Strat	Level	Top EI	Bot EI	Aplastic Inclusions	Decoration	Type	Subtype	Portion	CT	Comments	Possible Affiliation	Possible Date	Reference
057	Lafayette Parish, LA		16LY50			delineation	1015	1007.5		I	3	20 cmbs	30 cmbs	none	none	Tchefuncte	Tchefuncte	body	2	small	Tchefuncte/Tchula	500 BC- AD 100	Phillips 1970
057	Lafayette Parish, LA		16LY50			delineation	1015	1007.5		I	3	20 cmbs	30 cmbs	none	none	Tchefuncte	Tchefuncte	body	1	drill hole	Tchefuncte/Tchula	500 BC- AD 100	Phillips 1970
058	Lafayette Parish, LA		16LY50			delineation	1015	1007.5		I	4	30 cmbs	40 cmbs	none	none	Tchefuncte	Tchefuncte	rim	1	coiled, straight rim	Tchefuncte/Tchula	500 BC- AD 100	Phillips 1970
058	Lafayette Parish, LA		16LY50			delineation	1015	1007.5		I	4	30 cmbs	40 cmbs	none	incised	Lake Borgne	Cross Bayou	rim	1	or Tammany	Tchefuncte/Tchula	500 BC- AD 100	Weinstein and Rivet 1974
060	Lafayette Parish, LA		16LY50			delineation	1015	1007.5		II	8	70 cmbs	80 cmbs	none	none	fired clay	N/A	fragment	1	one flat side; daub?	indeterminate	indeterminate	
060	Lafayette Parish, LA		16LY50			delineation	1015	1007.5		II	8	70 cmbs	80 cmbs	none	none	Tchefuncte	Tchefuncte	body	2	small	Tchefuncte/Tchula	500 BC- AD 100	Phillips 1970
060	Lafayette Parish, LA		16LY50			delineation	1015	1007.5		II	8	70 cmbs	80 cmbs	none	none	Tchefuncte	indeterminate	rim	1	Baytown-type angled rim; unknown vessel type with Tchefuncte paste	Tchefuncte/Tchula	500 BC- AD 100	Phillips 1970
063	Lafayette Parish, LA		16LY50			delineation	1005	1000		III	6	50 cmbs	60 cmbs	none	indeterminate	Tchefuncte	indeterminate	body	5	very small fragments	Tchefuncte/Tchula	500 BC- AD 100	Phillips 1970
063	Lafayette Parish, LA		16LY50			delineation	1005	1000		III	6	50 cmbs	60 cmbs	none	none	fired clay	N/A	fragment	1	small fragment	indeterminate	indeterminate	
064	Lafayette Parish, LA		16LY50			delineation	1000	1005		III	7	60 cmbs	70 cmbs	none	none	fired clay	N/A	fragment	1	small	indeterminate	indeterminate	
064	Lafayette Parish, LA		16LY50			delineation	1000	1005		III	7	60 cmbs	70 cmbs	none	indeterminate	Tchefuncte	indeterminate	body	4	very small fragments	Tchefuncte/Tchula	500 BC- AD 100	Phillips 1970
065	Lafayette Parish, LA		16LY50			delineation	1000	1005		IV	9	80 cmbs	90 cmbs	none	none	Tchefuncte	Tchefuncte	body	1	blackened	Tchefuncte/Tchula	500 BC- AD 100	Phillips 1970
067	Lafayette Parish, LA		16LY50			delineation	1000	992.5		I	2	10 cmbs	20 cmbs	none	none	Tchefuncte	Tchefuncte	body	2	one grey, one broken on coil	Tchefuncte/Tchula	500 BC- AD 100	Phillips 1970
068	Lafayette Parish, LA		16LY50			delineation	1000	992.5		I	3	20 cmbs	30 cmbs	none	none	fired clay	N/A	fragment	1	orange	indeterminate	indeterminate	
068	Lafayette Parish, LA		16LY50			delineation	1000	992.5		I	3	20 cmbs	30 cmbs	none	none	daub	N/A	fragment	1	burned; organic inclusions	indeterminate	indeterminate	
069	Lafayette Parish, LA		16LY50			delineation	1000	992.5		II	6	45 cmbs	53 cmbs	none	indeterminate	Tchefuncte	indeterminate	body	1	small, probable plain ware	Tchefuncte/Tchula	500 BC- AD 100	Phillips 1970
071	Lafayette Parish, LA		16LY50			delineation	1007.5	985		III	5	45 cmbs	55 cmbs	none	none	Tchefuncte	Tchefuncte	shoulder	1	curving, light orange paste, but still laminated	Tchefuncte/Tchula	500 BC- AD 100	Phillips 1970
072	Lafayette Parish, LA		16LY50			delineation	1007.5	985		IV	8	70 cmbs	80 cmbs	none	none	Tchefuncte	Tchefuncte	body	7	two are a bit sandy	Tchefuncte/Tchula	500 BC- AD 100	Phillips 1970
073	Lafayette Parish, LA		16LY50			delineation	1007.5	985		IV	9	80 cmbs	90 cmbs	none	none	Tchefuncte	Tchefuncte	rim	1	thickened, slightly angled, though not as much as FS# 60	Tchefuncte/Tchula	500 BC- AD 100	Phillips 1970
073	Lafayette Parish, LA		16LY50			delineation	1007.5	985		IV	9	80 cmbs	90 cmbs	none	indeterminate	Tchefuncte	indeterminate	body	2	very small fragments	Tchefuncte/Tchula	500 BC- AD 100	Phillips 1970
073	Lafayette Parish, LA		16LY50			delineation	1007.5	985		IV	9	80 cmbs	90 cmbs	none	none	Tchefuncte	Mandeville	rim	1	straight, light colored and sandy, but still contoured in the breaks with inclusions of clay and red ochre	Tchefuncte/Tchula	500 BC- AD 100	Weinstein and Rivet 1974
074	Lafayette Parish, LA		16LY50			delineation	1007.5	985		IV	10	90 cmbs	100 cmbs	none	none	Tchefuncte	Tchefuncte	body	1	thickened; either rim or base	Tchefuncte/Tchula	500 BC- AD 100	Phillips 1970
074	Lafayette Parish, LA		16LY50			delineation	1007.5	985		IV	10	90 cmbs	100 cmbs	none	none	Tchefuncte	Tchefuncte	indeterminate	1		Tchefuncte/Tchula	500 BC- AD 100	Phillips 1970
075	Lafayette Parish, LA		16LY50			delineation	1007.5	992.5		I	2	10 cmbs	20 cmbs	none	none	Tchefuncte	Tchefuncte	body	3		Tchefuncte/Tchula	500 BC- AD 100	Phillips 1970

Table 5. Ceramic material recovered from the Vermilion River Dredge Disposal Project Area.

FS#	County/ Parish	Area	Site/ Locus	Trench	Transect	Shovel Test	North	East	Additional Provenience	Strat	Level	Top E1	Bot E1	Aplastic Inclusions	Decoration	Type	Subtype	Portion	CT	Comments	Possible Affiliation	Possible Date	Reference
076	Lafayette Parish, LA		16LY50			delineation	1007.5	992.5		II	3	20 cmbs	30 cmbs	none	indeterminate	Tchefuncte	indeterminate	rim	2	very small fragments	Tchefuncte/Tchula	500 BC - AD 100	Phillips 1970
076	Lafayette Parish, LA		16LY50			delineation	1007.5	992.5		II	3	20 cmbs	30 cmbs	none	none	Tchefuncte	Tchefuncte	body	3	light brown and grey; 2 refit	Tchefuncte/Tchula	500 BC - AD 100	Phillips 1970
077	Lafayette Parish, LA		16LY50			delineation	1007.5	992.5		III	4	30 cmbs	40 cmbs	none	none	Tchefuncte	Tchefuncte	body	1	buff and grey	Tchefuncte/Tchula	500 BC - AD 100	Phillips 1970
078	Lafayette Parish, LA		16LY50			delineation	1007.5	977.5		I	3	20 cmbs	30 cmbs	none	none	Tchefuncte	Tchefuncte	shoulder	1	thick and curving	Tchefuncte/Tchula	500 BC - AD 100	Phillips 1970
078	Lafayette Parish, LA		16LY50			delineation	1007.5	977.5		I	3	20 cmbs	30 cmbs	none	none	fired clay	N/A	fragment	1	lumpy and orange	indeterminate	indeterminate	
079	Lafayette Parish, LA		16LY50			delineation	1010	1022.5		I	1	0 cmbs	10 cmbs	none	none	fired clay	N/A	fragment	1	orange	indeterminate	indeterminate	
079	Lafayette Parish, LA		16LY50			delineation	1010	1022.5		I	1	0 cmbs	10 cmbs	none	none	Tchefuncte	Tchefuncte	body	1	striations from cleaning	Tchefuncte/Tchula	500 BC - AD 100	Phillips 1970
079	Lafayette Parish, LA		16LY50			delineation	1010	1022.5		I	1	0 cmbs	10 cmbs	grog	none	Baytown	indeterminate	rim	1	extremely excurvate, similar to finds from Lake George	Troyville/Coles Creek	AD 700-800	Phillips 1970
080	Lafayette Parish, LA		16LY50			delineation	1010	1022.5		I	3	20 cmbs	30 cmbs	none	none	Tchefuncte	Tchefuncte	body	7		Tchefuncte/Tchula	500 BC - AD 100	Phillips 1970
080	Lafayette Parish, LA		16LY50			delineation	1010	1022.5		I	3	20 cmbs	30 cmbs	none	none	Tchefuncte	Tchefuncte	shoulder	1	thickened at one end; laminated	Tchefuncte/Tchula	500 BC - AD 100	Phillips 1970
081	Lafayette Parish, LA		16LY50			delineation	1010	1022.5		II	6	50 cmbs	60 cmbs	none	none	Tchefuncte	Tchefuncte	body	2		Tchefuncte/Tchula	500 BC - AD 100	Phillips 1970
082	Lafayette Parish, LA		16LY50			delineation	1007.5	962.5		II	3	20 cmbs	30 cmbs	none	none	Tchefuncte	Tchefuncte	body	1	grey paste	Tchefuncte/Tchula	500 BC - AD 100	Phillips 1970
085	Lafayette Parish, LA		16LY50			delineation	1007.4	947		I	2	10 cmbs	20 cmbs	none	none	Tchefuncte	Tchefuncte	body	1	grey and brown	Tchefuncte/Tchula	500 BC - AD 100	Phillips 1970
087	Lafayette Parish, LA		16LY50			delineation	1007.4	947		II	4	30 cmbs	40 cmbs	none	none	fired clay	N/A	fragment	1	light orange	indeterminate	indeterminate	
088	Lafayette Parish, LA		16LY50			delineation	1015	1037.5		I	3	20 cmbs	30 cmbs	none	none	Tchefuncte	Mandeville	body	1	buff colored, sandy texture	Tchefuncte/Tchula	500 BC - AD 100	Weinstein and Rivet 1974
089	Lafayette Parish, LA		16LY50			delineation	1015	1037.5		II	5	40 cmbs	50 cmbs	none	none	Tchefuncte	Tchefuncte	indetermina te	1	shoulder or base; thickened at one end; laminated; dark grey	Tchefuncte/Tchula	500 BC - AD 100	Phillips 1970
090	Lafayette Parish, LA		16LY50			delineation	1015	1037.5		II	7	60 cmbs	70 cmbs	none	none	Tchefuncte	Tchefuncte	body	1	eroded	Tchefuncte/Tchula	500 BC - AD 100	Phillips 1970
091	Lafayette Parish, LA		16LY50			delineation	1015	1037.5		II	8	70 cmbs	80 cmbs	none	none	Tchefuncte	Tchefuncte	indetermina te	1	very thick, probably base	Tchefuncte/Tchula	500 BC - AD 100	Phillips 1970
092	Lafayette Parish, LA		16LY50			delineation	1045	1000		I	1	0 cmbs	10 cmbs	indeterminate	indeterminate	indeterminate	indeterminate	body	2	very small, probably Tchefuncte	indeterminate	indeterminate	
092	Lafayette Parish, LA		16LY50			delineation	1045	1000		I	1	0 cmbs	10 cmbs	none	none	fired clay	N/A	fragment	1	orange	indeterminate	indeterminate	
092	Lafayette Parish, LA		16LY50			delineation	1045	1000		I	1	0 cmbs	10 cmbs	none	incised	Tchefuncte	Abita Springs	body	1	linear incisions, on a Mandeville paste	Tchefuncte/Tchula	500 BC - AD 100	Weinstein and Rivet 1974
093	Lafayette Parish, LA		16LY50			delineation	1045	1000		II	2	10 cmbs	20 cmbs	grog	indeterminate	i. leterninate	indeterminate	body	1	lighter clay; inclusions	post Tchula, to Troyville/Coles Creek	AD 100- 700	Phillips 1970
093	Lafayette Parish, LA		16LY50			delineation	1045	1000		II	2	10 cmbs	20 cmbs	none	none	Tchefuncte	Tchefuncte	body	2	one sandy, one very small	Tchefuncte/Tchula	500 BC - AD 100	Phillips 1970
093	Lafayette Parish, LA		16LY50			delineation	1045	1000		II	2	10 cmbs	20 cmbs	none	none	fired clay	N/A	fragment	2	one orange, one yellow	indeterminate	indeterminate	
093	Lafayette Parish, LA		16LY50			delineation	1045	1000		II	2	10 cmbs	20 cmbs	grog	indeterminate	indeterminate	indeterminate	rim	1	2 pieces that refit	post Tchula, to Troyville/Coles Creek	AD 100- 700	Phillips 1970

Table 5. Ceramic material recovered from the Vermilion River Dredge Disposal Project Area.

FS#	County/ Parish	Area	Site/ Locus	Trench	Transect	Shovel Test	North	East	Additional Provenience	Strat	Level	Top EI	Bot EI	Aplastic Inclusions	Decoration	Type	Subtype	Portion	CT	Comments	Possible Affiliation	Possible Date	Reference
094	Lafayette Parish, LA		16LY50			delineation	1045	1000		II	3	20 cmbs	30 cmbs	none	none	Tchefuncte	Tchefuncte	indeterminate	1	base or rim; one side thickened	Tchefuncte/Tchula	500 BC- AD 100	Phillips 1970
094	Lafayette Parish, LA		16LY50			delineation	1045	1000		II	3	20 cmbs	30 cmbs	none	none	Tchefuncte	Tchefuncte	body	1	laminated paste	Tchefuncte/Tchula	500 BC- AD 100	Phillips 1970
094	Lafayette Parish, LA		16LY50			delineation	1045	1000		II	3	20 cmbs	30 cmbs	none	indeterminate	Tchefuncte	indeterminate	body	8	very small fragments	Tchefuncte/Tchula	500 BC- AD 100	Phillips 1970
094	Lafayette Parish, LA		16LY50			delineation	1045	1000		II	3	20 cmbs	30 cmbs	none	punctated	Tammany	Tammany	body	4	finger nail punctations; Weinstein and Rivet call it a late Tchula decoration	Tchefuncte/Tchula	500 BC- AD 100	Phillips 1970
094	Lafayette Parish, LA		16LY50			delineation	1045	1000		II	3	20 cmbs	30 cmbs	none	none	fired clay	N/A	fragment	1	orange	indeterminate	indeterminate	
095	Lafayette Parish, LA		16LY50			delineation	1045	1000		III	4	30 cmbs	40 cmbs	none	none	Tchefuncte	Tchefuncte	body	1	laminated paste	Tchefuncte/Tchula	500 BC- AD 100	Phillips 1970
095	Lafayette Parish, LA		16LY50			delineation	1045	1000		III	4	30 cmbs	40 cmbs	none	punctated	Tammany	Tammany	body	1	finger nail punctations; Weinstein and Rivet call it a late Tchula decoration	Tchefuncte/Tchula	500 BC- AD 100	Phillips 1970
095	Lafayette Parish, LA		16LY50			delineation	1045	1000		III	4	30 cmbs	40 cmbs	none	none	fired clay	N/A	fragment	1	orange	indeterminate	indeterminate	
096	Lafayette Parish, LA		16LY50			delineation	1045	1000		IV	5	40 cmbs	50 cmbs	none	none	Tchefuncte	Tchefuncte	body	1	two that refit, brown and dark grey	Tchefuncte/Tchula	500 BC- AD 100	Phillips 1970
097	Lafayette Parish, LA		16LY50			delineation	1045	1000		IV	7	60 cmbs	70 cmbs	none	none	Tchefuncte	Tchefuncte	body	1	dark grey	Tchefuncte/Tchula	500 BC- AD 100	Phillips 1970
100	Lafayette Parish, LA		16LY50			delineation	1045	1000		VII	17	160 cmbs	170 cmbs	none	incised	Tchefuncte	Tchefuncte	body	1	possibly zone incised with linear incisions; one area left blank	Tchefuncte/Tchula	500 BC- AD 100	Phillips 1970
101	Lafayette Parish, LA		16LY50			delineation	1016.5	1028.5		I	4	30 cmbs	40 cmbs	none	none	Tchefuncte	Tchefuncte	body	1	red inclusions, probably ochre	Tchefuncte/Tchula	500 BC- AD 100	Phillips 1970
102	Lafayette Parish, LA		16LY50	BT-01					Backdirt Pile					none	none	Tchefuncte	Tchefuncte	body	1	dark grey / brown; broken on coil	Tchefuncte/Tchula	500 BC- AD 100	Phillips 1970
103	Lafayette Parish, LA		16LY50	BT-01						I	2	10 cmbs	20 cmbs	none	none	fired clay	N/A	fragment	1	orange	indeterminate	indeterminate	
103	Lafayette Parish, LA		16LY50	BT-01						I	2	10 cmbs	20 cmbs	none	none	Tchefuncte	Tchefuncte	body	2	smoothing striations on interior of one	Tchefuncte/Tchula	500 BC- AD 100	Phillips 1970
104	Lafayette Parish, LA		16LY50	BT-01						I	3	30 cmbs	40 cmbs	none	none	fired clay	N/A	complete	1	wedge shaped, looks squeezed in the hand	indeterminate	indeterminate	
104	Lafayette Parish, LA		16LY50	BT-01						I	3	30 cmbs	40 cmbs	grog	none	indeterminate	indeterminate	rim	1	folded, inaccurate, small	post Tchula, to Troyville/Coles Creek	AD 100- 700	Phillips 1970
104	Lafayette Parish, LA		16LY50	BT-01						I	3	30 cmbs	40 cmbs	none	none	Tchefuncte	Tchefuncte	body	15	one is fingernail impressed	Tchefuncte/Tchula	500 BC- AD 100	Phillips 1970
104	Lafayette Parish, LA		16LY50	BT-01						I	3	30 cmbs	40 cmbs	none	none	Tchefuncte	Tchefuncte	base	1	teal leg bowl	Tchefuncte/Tchula	500 BC- AD 100	Phillips 1970
105	Lafayette Parish, LA		16LY50	BT-01						I	4	40 cmbs	50 cmbs	none	none	Tchefuncte	Tchefuncte	body	8	cracked surface, laminated paste	Tchefuncte/Tchula	500 BC- AD 100	Phillips 1970
105	Lafayette Parish, LA		16LY50	BT-01						I	4	40 cmbs	50 cmbs	grog	none	Baytown	indeterminate	rim	1	straight, wide, somewhat flattened; dark brown	Troyville/Coles Creek	AD 700-800	Phillips 1970

Table 5. Ceramic material recovered from the Vermilion River Dredge Disposal Project Area.

FS#	County/ Parish	Area	Site/ Locus	Trench	Transect	Shovel Test	North	East	Additional Provenience	Strat	Level	Top EI	Bot EI	Aplastic Inclusions	Decoration	Type	Subtype	Portion	CT	Comments	Possible Affiliation	Possible Date	Reference
105	Lafayette Parish, LA		16LY50	BT-01						1	4	40 cmbs	50 cmbs	none	none	Tchefuncte	Tchefuncte	base	1	wedge feet	Tchefuncte/Tchula	500 BC- AD 100	Phillips 1970
105	Lafayette Parish, LA		16LY50	BT-01						1	4	40 cmbs	50 cmbs	grog	indeterminate	Baytown	indeterminate	body	1	small, wrm brown	Troyville/Coles Creek	AD 700-800	Phillips 1970
105	Lafayette Parish, LA		16LY50	BT-01						1	4	40 cmbs	50 cmbs	none	none	fr. 3rd clay	N/A	complete	2	ball shaped	indeterminate	indeterminate	
105	Lafayette Parish, LA		16LY50	BT-01						1	4	40 cmbs	50 cmbs	none	none	daub	N/A	fragment	1	burned, organic inclusions	indeterminate	indeterminate	
105	Lafayette Parish, LA		16LY50	BT-01						1	6	50 cmbs	60 cmbs	none	none	coil	N/A	fragment	1	probably from pot making	indeterminate	indeterminate	
106	Lafayette Parish, LA		16LY50	BT-01						1	6	50 cmbs	60 cmbs	sand	indeterminate	indeterminate	indeterminate	body	2	eroded, small fragments, poss. Mississippian	indeterminate	indeterminate	
106	Lafayette Parish, LA		16LY50	BT-01						1	6	50 cmbs	60 cmbs	grog	none	Baytown	indeterminate	body	3	large clay particles	Troyville/Coles Creek	AD 700-800	Phillips 1970
106	Lafayette Parish, LA		16LY50	BT-01						1	6	50 cmbs	60 cmbs	none	cord marked	Mulberry Creek	indeterminate	body	1	dark brown, polished?	Marksville to Coles Creek	AD 100- 800	Phillips 1970
106	Lafayette Parish, LA		16LY50	BT-01						1	6	50 cmbs	60 cmbs	none	none	Tchefuncte	Tchefuncte	rim	6	straight	Tchefuncte/Tchula	500 BC- AD 100	Phillips 1970
106	Lafayette Parish, LA		16LY50	BT-01						1	6	50 cmbs	60 cmbs	none	none	Tchefuncte	Tchefuncte	body	2	drill hole	Tchefuncte/Tchula	500 BC- AD 100	Phillips 1970
106	Lafayette Parish, LA		16LY50	BT-01						1	6	50 cmbs	60 cmbs	none	none	Tchefuncte	Tchefuncte	base	3	thickened	Tchefuncte/Tchula	500 BC- AD 100	Phillips 1970
106	Lafayette Parish, LA		16LY50	BT-01						1	6	50 cmbs	60 cmbs	none	none	Tchefuncte	Tchefuncte	body	22	coil technique, laminated paste	Tchefuncte/Tchula	500 BC- AD 100	Phillips 1970
106	Lafayette Parish, LA		16LY50	BT-01						1	6	50 cmbs	60 cmbs	none	indeterminate	Tchefuncte	indeterminate	body	16	small fragments	Tchefuncte/Tchula	500 BC- AD 100	Phillips 1970
106	Lafayette Parish, LA		16LY50	BT-01						1	7	60 cmbs	70 cmbs	none	none	Tchefuncte	Tchefuncte	rim	1	straight	Tchefuncte/Tchula	500 BC- AD 100	Phillips 1970
107	Lafayette Parish, LA		16LY50	BT-01						1	7	60 cmbs	70 cmbs	none	none	Tchefuncte	indeterminate	body	3	eroded	Tchefuncte/Tchula	500 BC- AD 100	Phillips 1970
107	Lafayette Parish, LA		16LY50	BT-01						1	7	60 cmbs	70 cmbs	none	none	Tchefuncte	Tchefuncte	body	1	drill hole	Tchefuncte/Tchula	500 BC- AD 100	Phillips 1970
107	Lafayette Parish, LA		16LY50	BT-01						1	7	60 cmbs	70 cmbs	none	none	Tchefuncte	Tchefuncte	body	9	smoothing striations	Tchefuncte/Tchula	500 BC- AD 100	Phillips 1970
107	Lafayette Parish, LA		16LY50	BT-01						1	7	60 cmbs	70 cmbs	none	none	fired clay	N/A	fragment	2		indeterminate	indeterminate	
107	Lafayette Parish, LA		16LY50	BT-01						1	9	80 cmbs	90 cmbs	none	none	indeterminate	indeterminate	rim	1	eroded, probably Tchefuncte	Tchefuncte/Tchula	500 BC- AD 100	Phillips 1970; MISSING 3/27/03
108	Lafayette Parish, LA		16LY50	BT-01						1	9	80 cmbs	90 cmbs	none	none	Tchefuncte	Tchefuncte	body	23		Tchefuncte/Tchula	500 BC- AD 100	Phillips 1970
108	Lafayette Parish, LA		16LY50	BT-01						1	9	80 cmbs	90 cmbs	grog	indeterminate	Baytown	indeterminate	body	2	hard paste, warm brown	Troyville/Coles Creek	AD 700-800	Phillips 1970
108	Lafayette Parish, LA		16LY50	BT-01						1	9	80 cmbs	90 cmbs	none	none	Tchefuncte	indeterminate	rim	1	notched, open bowl shape, shallow	Tchefuncte/Tchula	500 BC- AD 100	Phillips 1970
108	Lafayette Parish, LA		16LY50	BT-01						1	9	80 cmbs	90 cmbs	grog	none	Baytown	indeterminate	base	1	warm brown color, large pieces of grog temper	Marksville	AD 100- 700	Phillips 1970
108	Lafayette Parish, LA		16LY50	BT-01						1	9	80 cmbs	90 cmbs	indeterminate	indeterminate	indeterminate	indeterminate	body	1	small piece	indeterminate	indeterminate	
108	Lafayette Parish, LA		16LY50	BT-01						1	9	80 cmbs	90 cmbs	none	none	Tchefuncte	Tchefuncte	rim	2	straight	Tchefuncte/Tchula	500 BC- AD 100	Phillips 1970
109	Lafayette Parish, LA		16LY50	BT-01						1	10	90 cmbs	100 cmbs	none	indeterminate	indeterminate	indeterminate	body	1	very eroded	indeterminate	indeterminate	
109	Lafayette Parish, LA		16LY50	BT-01						1	10	90 cmbs	100 cmbs	none	none	Tchefuncte	Tchefuncte	body	1	drill hole	Tchefuncte/Tchula	500 BC- AD 100	Phillips 1970

Table 5. Ceramic material recovered from the Vermilion River Dredge Disposal Project Area.

FS#	County/ Parish	Area	Site/ Locus	Trench	Transect	Shovel Test	North	East	Additional Provenience	Strat	Level	Top EI	Bot EI	Aplastic Inclusions	Decoration	Type	Subtype	Portion	CT	Comments	Possible Affiliation	Possible Date	Reference
109	Lafayette Parish, LA		16LY50	BT-01						I	10	90 cmbs	100 cmbs	none	none	Tchefuncte	Tchefuncte	indeterminate	2	reddish, ochre inclusions; shoulder or base	Tchefuncte/Tchula	500 BC- AD 100	Phillips 1970
109	Lafayette Parish, LA		16LY50	BT-01						I	10	90 cmbs	100 cmbs	none	indeterminate	Tchefuncte	indeterminate	body	1	reddish, small	Tchefuncte/Tchula	500 BC- AD 100	Phillips 1970
109	Lafayette Parish, LA		16LY50	BT-01						I	10	90 cmbs	100 cmbs	none	none	Tchefuncte	Mandeville	body	1	sandy, light colored	Tchefuncte/Tchula	500 BC- AD 100	Weinstein and Rivet 1978
109	Lafayette Parish, LA		16LY50	BT-01						I	10	90 cmbs	100 cmbs	none	none	Tchefuncte	Tchefuncte	indeterminate	1	thickened, shoulder or base piece	Tchefuncte/Tchula	500 BC- AD 100	Phillips 1970
109	Lafayette Parish, LA		16LY50	BT-01						I	10	90 cmbs	100 cmbs	grog	none	indeterminate	indeterminate	rim	1	straight	post Tchula, to Troyville/Coles Creek	AD 100- 800	Phillips 1970
109	Lafayette Parish, LA		16LY50	BT-01						I	10	90 cmbs	100 cmbs	grog	none	indeterminate	indeterminate	body	1	grey and rough	post Tchula, to Troyville/Coles Creek	AD 100- 800	Phillips 1970
109	Lafayette Parish, LA		16LY50	BT-01						I	10	90 cmbs	100 cmbs	none	none	Tchefuncte	Tchefuncte	body	15	laminated, contorted paste	Tchefuncte/Tchula	500 BC- AD 100	Phillips 1970; 5 MISSING 327/03
109	Lafayette Parish, LA		16LY50	BT-01						I	10	90 cmbs	100 cmbs	none	indeterminate	indeterminate	indeterminate	body	1	dark laminated; small; poss. Deep and wide Curved incision	indeterminate	indeterminate	
109	Lafayette Parish, LA		16LY50	BT-01						I	10	90 cmbs	100 cmbs	grog	none	if, ytown	indeterminate	body	3	dark brown and smoother	Troyville/Coles Creek	AD 700-800	Phillips 1970
109	Lafayette Parish, LA		16LY50	BT-01						I	10	90 cmbs	100 cmbs	none	punctated	Lake Borgne	Cross Bayou	body	1	small, wedge shaped angled punctations; late Tchula marker	Tchefuncte/Tchula	500 BC- AD 100	Weinstein and Rivet 1978
110	Lafayette Parish, LA		16LY50	BT-01						I	11	110 cmbs	110 cmbs	none	none	Tchefuncte	Tchefuncte	body	64	laminated and chalky	Tchefuncte/Tchula	500 BC- AD 100	Phillips 1970
110	Lafayette Parish, LA		16LY50	BT-01						I	11	110 cmbs	110 cmbs	none	none	Tchefuncte	Tchefuncte	base	3	thickened	Tchefuncte/Tchula	500 BC- AD 100	Phillips 1970
110	Lafayette Parish, LA		16LY50	BT-01						I	11	110 cmbs	110 cmbs	none	none	Tchefuncte	Tchefuncte	rim	3	straight	Tchefuncte/Tchula	500 BC- AD 100	Phillips 1970
110	Lafayette Parish, LA		16LY50	BT-01						I	11	110 cmbs	110 cmbs	none	indeterminate	indeterminate	indeterminate	body	4	small and eroded	Tchefuncte/Tchula	500 BC- AD 100	Phillips 1970
110	Lafayette Parish, LA		16LY50	BT-01						I	11	110 cmbs	110 cmbs	none	none	Tchefuncte	Tchefuncte	body	2	deep smoothing strations on interior	Tchefuncte/Tchula	500 BC- AD 100	Phillips 1970
110	Lafayette Parish, LA		16LY50	BT-01						I	11	110 cmbs	110 cmbs	none	none	Tchefuncte	Mandeville	body	1	light colored, sandy with laminated paste	Tchefuncte/Tchula	500 BC- AD 100	Phillips 1970
111	Lafayette Parish, LA		16LY50	BT-01				1015		I	11	110 cmbs	110 cmbs	grog	incised	Mandeville Incised	indeterminate	rim	1	curved, U-shaped incisions	Mandeville	AD 100- 700	Phillips 1970
111	Lafayette Parish, LA		16LY50	BT-01				1015		I	11	110 cmbs	110 cmbs	none	none	Tchefuncte	Tchefuncte	shoulder	1	deep smoothing strations	Tchefuncte/Tchula	500 BC- AD 100	Phillips 1970
111	Lafayette Parish, LA		16LY50	BT-01				1015		I	11	110 cmbs	110 cmbs	none	none	Tchefuncte	Tchefuncte	body	3	chalky and laminated	Tchefuncte/Tchula	500 BC- AD 100	Phillips 1970
111	Lafayette Parish, LA		16LY50	BT-01				1015		I	11	110 cmbs	110 cmbs	none	none	Tchefuncte	Tchefuncte	rim	1	straight, slightly incurved	Tchefuncte/Tchula	500 BC- AD 100	Phillips 1970
111	Lafayette Parish, LA		16LY50	BT-01				1015		II	4	22 cmbs	32 cmbs	grog	none	indeterminate	indeterminate	body	1	may be Coles Creek	post Tchula, to Troyville/Coles Creek	AD 100- 800	Phillips 1970
112	Lafayette Parish, LA		16LY50	BT-01				1015		II	7	60 cmbs	70 cmbs	indeterminate	indeterminate	indeterminate	indeterminate	indeterminate	1	lost in field	indeterminate	indeterminate	
113	Lafayette Parish, LA		16LY50	BT-01				1022.5		I	11	110 cmbs	110 cmbs	none	none	Tchefuncte	Tchefuncte	body	2	eroded, but laminated, paste	Tchefuncte/Tchula	500 BC- AD 100	Phillips 1970
114	Lafayette Parish, LA		16LY50	BT-01				1022.5		I	11	110 cmbs	110 cmbs	none	none	Tchefuncte	Tchefuncte	body	2	eroded, but laminated, paste	Tchefuncte/Tchula	500 BC- AD 100	Phillips 1970

Table 5. Ceramic material recovered from the Vermilion River Dredge Disposal Project Area.

FS#	County/ Parish	Area	Site/ Locus	Trench	Transect	Shovel Test	North	East	Additional Provenience	Strat	Level	Top EI	Bot EI	Aplastic Inclusions	Decoration	Type	Subtype	Portion	CT	Comments	Possible Affiliation	Possible Date	Reference
114	Lafayette Parish, LA		16LY50			delineation	1022.5	1022.5		I	1	0 cmbs	10 cmbs	none	indeterminate	helfuncte	indeterminate	body	1	small, drill hole	Tcheffuncte/Tchula	500 BC- AD 100	Phillips 1970
115	Lafayette Parish, LA		16LY50			delineation	1022.5	1022.5		II	2	10 cmbs	20 cmbs	none	none	Tcheffuncte	Tcheffuncte	rim	1	straight	Tcheffuncte/Tchula	500 BC- AD 100	Phillips 1970
115	Lafayette Parish, LA		16LY50			delineation	1022.5	1022.5		II	2	10 cmbs	20 cmbs	none	none	Tcheffuncte	Tcheffuncte	body	1	contorted breaks	Tcheffuncte/Tchula	500 BC- AD 100	Phillips 1970
116	Lafayette Parish, LA		16LY50			delineation	992.5	962.5		I	1	0 cmbs	7 cmbs	none	indeterminate	Tcheffuncte	indeterminate	body	3	laminated paste, very small	Tcheffuncte/Tchula	500 BC- AD 100	Phillips 1970
117	Lafayette Parish, LA		16LY50			delineation	992.5	962.5		IV	13	110 cmbs	120 cmbs	none	indeterminate	Tcheffuncte	indeterminate	body	1	laminated, but eroded	Tcheffuncte/Tchula	500 BC- AD 100	Phillips 1970
117	Lafayette Parish, LA		16LY50			delineation	992.5	962.5		IV	13	110 cmbs	120 cmbs	none	none	fired clay	N/A	fragment	2	fit together, small round ball	indeterminate	indeterminate	
118	Lafayette Parish, LA		16LY50			delineation	1007.5	940		I	1	0 cmbs	10 cmbs	none	none	Tcheffuncte	Tcheffuncte	body	1	laminated, dark grey	Tcheffuncte/Tchula	500 BC- AD 100	Phillips 1970
119	Lafayette Parish, LA		16LY50			delineation	992.5	955		II	3	20 cmbs	30 cmbs	grog	none	indeterminate	indeterminate	body	1	possible eroded limestone temper as well	post Tchula	post AD 100	Phillips 1970
120	Lafayette Parish, LA		16LY50			delineation	1007.5	1030		I	1	0 cmbs	10 cmbs	none	none	Tcheffuncte	Tcheffuncte	body	1	not as laminated paste	Tcheffuncte/Tchula	500 BC- AD 100	Phillips 1970
121	Lafayette Parish, LA		16LY50			delineation	1007.5	1030		I	2	10 cmbs	20 cmbs	none	none	Tcheffuncte	Tcheffuncte	body	1	eroded, thick	Tcheffuncte/Tchula	500 BC- AD 100	Phillips 1970
121	Lafayette Parish, LA		16LY50			delineation	1007.5	1030		I	2	10 cmbs	20 cmbs	clay	none	Tcheffuncte	Tcheffuncte	body	1	light grey and light orange, reddish inclusions, clay particles, unsure if deliberate tempering or not	Tcheffuncte/Tchula	500 BC- AD 100	Phillips 1970
123	Lafayette Parish, LA		16LY50			delineation	1007.5	1030		II	4	30 cmbs	40 cmbs	none	none	fired clay	N/A	fragment	1	light orange	indeterminate	indeterminate	
123	Lafayette Parish, LA		16LY50			delineation	1007.5	1030		II	4	30 cmbs	40 cmbs	none	none	Tcheffuncte	Tcheffuncte	body	3	small	Tcheffuncte/Tchula	500 BC- AD 100	Phillips 1970
124	Lafayette Parish, LA		16LY50			delineation	1007.5	1030		II	5	40 cmbs	50 cmbs	none	indeterminate	Tcheffuncte	indeterminate	body	3	small fragments	Tcheffuncte/Tchula	500 BC- AD 100	Phillips 1970
124	Lafayette Parish, LA		16LY50			delineation	1007.5	1030		II	5	40 cmbs	50 cmbs	none	none	Tcheffuncte	Tcheffuncte	body	1	buff	Tcheffuncte/Tchula	500 BC- AD 100	Phillips 1970
125	Lafayette Parish, LA		16LY50			delineation	1022.5	1030		I	1	0 cmbs	10 cmbs	grog	indeterminate	Baytown	indeterminate	body	1	small, dark, thin; probably Coles Creek	Troyville/Coles Creek	Ad 700-800	Phillips 1970
125	Lafayette Parish, LA		16LY50			delineation	1022.5	1030		I	1	0 cmbs	10 cmbs	none	none	helfuncte	Tcheffuncte	body	1	laminated paste	Tcheffuncte/Tchula	500 BC- AD 100	Phillips 1970
126	Lafayette Parish, LA		16LY50			delineation	1022.5	1030		I	4	30 cmbs	40 cmbs	none	none	Tcheffuncte	Tcheffuncte	body	1	laminated paste	Tcheffuncte/Tchula	500 BC- AD 100	Phillips 1970
126	Lafayette Parish, LA		16LY50			delineation	1022.5	1030		I	4	30 cmbs	40 cmbs	none	indeterminate	Tcheffuncte	indeterminate	body	3	small, but laminated paste	Tcheffuncte/Tchula	500 BC- AD 100	Phillips 1970
126	Lafayette Parish, LA		16LY50			delineation	1022.5	1030		I	4	30 cmbs	40 cmbs	none	stamped	Tcheffuncte	Tcheffuncte	body	1	eroded	Tcheffuncte/Tchula	500 BC- AD 100	Phillips 1970
127	Lafayette Parish, LA		16LY50			delineation	1022.5	1030		II	5	40 cmbs	50 cmbs	none	none	Tcheffuncte	Tcheffuncte	body	2	laminated and chalky	Tcheffuncte/Tchula	500 BC- AD 100	Phillips 1970
128	Lafayette Parish, LA		16LY50			delineation	1022.5	1030		II	6	50 cmbs	60 cmbs	none	none	Tcheffuncte	Tcheffuncte	body	1	buff and dark grey	Tcheffuncte/Tchula	500 BC- AD 100	Phillips 1970
129	Lafayette Parish, LA		16LY50			delineation	1030	1052.5		I	2	10 cmbs	20 cmbs	indeterminate	indeterminate	indeterminate	indeterminate	body	3	very small, probably Tchelfuncte	Tcheffuncte/Tchula	500 BC- AD 100	Phillips 1970
129	Lafayette Parish, LA		16LY50			delineation	1030	1052.5		I	2	10 cmbs	20 cmbs	none	indeterminate	Tcheffuncte	indeterminate	body	1	small clay inclusions	Tcheffuncte/Tchula	500 BC- AD 100	Phillips 1970
130	Lafayette Parish, LA		16LY50			delineation	1030	1052.5		I	3	20 cmbs	30 cmbs	none	none	Tcheffuncte	Tcheffuncte	body	1		Tcheffuncte/Tchula	500 BC- AD 100	Phillips 1970

Table 5. Ceramic material recovered from the Vermilion River Dredge Disposal Project Area.

FS#	County/ Parish	Area	Site/ Locus	Trench	Transect	Shovel Test	North	East	Additional Provenience	Strat	Level	Top E1	Bot E1	Aplastic Inclusions	Decoration	Type	Subtype	Portion	CT	Comments	Possible Affiliation	Possible Date	Reference
131	Lafayette Parish, LA		16LY50			delineation	1030	1052.5		I	5	40 cmbs	50 cmbs	none	none	Tchefuncte	Tchefuncte	body	1	dark grey specks; laminated paste	Tchefuncte/Tchula	500 BC- AD 100	Phillips 1970
132	Lafayette Parish, LA		16LY50			delineation	1030	1067.5		I	2	10 cmbs	20 cmbs	none	none	Tchefuncte	Tchefuncte	body	1	variable in color at site; dark grey and brown	Tchefuncte/Tchula	500 BC- AD 100	Phillips 1970
133	Lafayette Parish, LA		16LY50			delineation	1030	1067.5		I	4	30 cmbs	40 cmbs	none	none	Tchefuncte	Tchefuncte	body	1	crazing on surface; buff, laminated paste	Tchefuncte/Tchula	500 BC- AD 100	Phillips 1970
134	Lafayette Parish, LA		16LY50			delineation	1030	1067.5		I	5	40 cmbs	50 cmbs	none	none	Tchefuncte	Tchefuncte	body	1	somewhat sandy	Tchefuncte/Tchula	500 BC- AD 100	Phillips 1970
135	Lafayette Parish, LA		16LY50			delineation	1022.5	1045		I	3	20 cmbs	30 cmbs	none	none	Tchefuncte	Tchefuncte	body	1	polished; laminated paste	Tchefuncte/Tchula	500 BC- AD 100	Phillips 1970
136	Lafayette Parish, LA		16LY50			delineation	1060	1090		I	1	0 cmbs	10 cmbs	none	none	Tchefuncte	Tchefuncte	body	2	dark grey and brown	Tchefuncte/Tchula	500 BC- AD 100	Phillips 1970
137	Lafayette Parish, LA		16LY50			delineation	1060	1090		I	2	10 cmbs	15 cmbs	none	none	Tchefuncte	Tchefuncte	body	2		Tchefuncte/Tchula	500 BC- AD 100	Phillips 1970
138	Lafayette Parish, LA		16LY50			delineation	1060	1090		II	4	20 cmbs	30 cmbs	none	none	Tchefuncte	Tchefuncte	body	1	eroded	Tchefuncte/Tchula	500 BC- AD 100	Phillips 1970
139	Lafayette Parish, LA		16LY50			delineation	1060	1090		II	5	30 cmbs	40 cmbs	none	none	Tchefuncte	Tchefuncte	body	2	small, but laminated paste	Tchefuncte/Tchula	500 BC- AD 100	Phillips 1970
140	Lafayette Parish, LA		16LY50			delineation	1060	1090		II	6	40 cmbs	50 cmbs	none	none	Tchefuncte	Tchefuncte	rim	1	straight	Tchefuncte/Tchula	500 BC- AD 100	Phillips 1970
140	Lafayette Parish, LA		16LY50			delineation	1060	1090		II	6	40 cmbs	50 cmbs	clay	none	Tchefuncte	Tchefuncte	body	1	contorted breaks; unsure if clay temper is deliberate	Tchefuncte/Tchula	500 BC- AD 100	Phillips 1970
141	Lafayette Parish, LA		16LY50			delineation	1060	1090		II	8	60 cmbs	70 cmbs	grog	none	Baytown	indeterminate	body	1	dark grey with light clay temper; or Marksville plain?	Troyville/Coles Creek	AD 700-800	Phillips 1970
142	Lafayette Parish, LA		16LY50			delineation	1060	1090		II	9	70 cmbs	80 cmbs	none	none	Tchefuncte	Tchefuncte	body	3	1 small sherd	Tchefuncte/Tchula	500 BC- AD 100	Phillips 1970
144	Lafayette Parish, LA		16LY50			delineation	1060	1090		II	11	90 cmbs	100 cmbs	none	none	Tchefuncte	Tchefuncte	body	1	crazing on surface; light colored inclusions	Tchefuncte/Tchula	500 BC- AD 100	Phillips 1970
145	Lafayette Parish, LA		16LY50			delineation	1060	1015		I	1	0 cmbs	10 cmbs	none	none	Tchefuncte	Tchefuncte	body	3	laminated paste	Tchefuncte/Tchula	500 BC- AD 100	Phillips 1970
145	Lafayette Parish, LA		16LY50			delineation	1060	1015		I	1	0 cmbs	10 cmbs	indeterminate	indeterminate	indeterminate	indeterminate	body	1	eroded grey paste; possible grog inclusions	Tchefuncte/Tchula	500 BC- AD 100	Phillips 1970
145	Lafayette Parish, LA		16LY50			delineation	1060	1015		I	1	0 cmbs	10 cmbs	none	none	Tchefuncte	indeterminate	indeterminate	1	eroded; curved	Tchefuncte/Tchula	500 BC- AD 100	Phillips 1970
146	Lafayette Parish, LA		16LY24	BT-01						I	2	10 cmbs	20 cmbs	grog	none	indeterminate	indeterminate	body	1	eroded	post Tchula, to Troyville/Coles Creek	AD 100- 800	Phillips 1970
148	Lafayette Parish, LA		16LY50	BT-03						I	3	20 cmbs	30 cmbs	none	none	Tchefuncte	Tchefuncte	body	3	laminated and chalky	Tchefuncte/Tchula	500 BC- AD 100	Phillips 1970
148	Lafayette Parish, LA		16LY50	BT-03						I	3	20 cmbs	30 cmbs	none	none	Tchefuncte	Tchefuncte	rim	1	straight; clay inclusions	Tchefuncte/Tchula	500 BC- AD 100	Phillips 1970
149	Lafayette Parish, LA		16LY50	BT-03						I	4	30 cmbs	40 cmbs	none	none	Tchefuncte	Tchefuncte	body	4	laminated paste; variety of colors	Tchefuncte/Tchula	500 BC- AD 100	Phillips 1970
149	Lafayette Parish, LA		16LY50	BT-03						I	4	30 cmbs	40 cmbs	none	none	Tchefuncte	Mandeville	body	1	sandy; but laminated paste	Tchefuncte/Tchula	500 BC- AD 100	Weinstein and Rivet 1979
149	Lafayette Parish, LA		16LY50	BT-03						I	4	30 cmbs	40 cmbs	none	none	Tchefuncte	indeterminate	rim	1	notched rim; may be from scalloped edge	Tchefuncte/Tchula	500 BC- AD 100	Phillips 1970
150	Lafayette Parish, LA		16LY50	BT-04						I	5	40 cmbs	50 cmbs	none	none	Tchefuncte	Tchefuncte	body	2	red inclusions; possible ochre	Tchefuncte/Tchula	500 BC- AD 100	Phillips 1970

Table 5. Ceramic material recovered from the Vermilion River Dredge Disposal Project Area.

FS#	County/ Parish	Area	Site/ Locus	Trench	Transect	Shovel Test	North	East	Additional Provenience	Strat	Level	Top EI	Bot EI	Aplastic Inclusions	Decoration	Type	Subtype	Portion	CT	Comments	Possible Affiliation	Possible Date	Reference
151	Lafayette Parish, LA		16LY50	BT-04						1	6	50 cmbs	60 cmbs	none	none	Tchefuncte	Tchefuncte	body	1	broken on coil	Tchefuncte/Tchula	500 BC - AD 100	Phillips 1970
152	Lafayette Parish, LA		16LY50	BT-04					Backdirt Pile					none	none	Tchefuncte	Mandeville	body	1	light colored, sandy with laminated paste	Tchefuncte/Tchula	500 BC - AD 100	Phillips 1970
152	Lafayette Parish, LA		16LY50	BT-04					Backdirt Pile					none	none	Tchefuncte	Tchefuncte	rim	1	straight, contorted breaks	Tchefuncte/Tchula	500 BC - AD 100	Phillips 1970
153	Lafayette Parish, LA		16LY50	BT-05						1	1	0 cmbs	10 cmbs	none	none	Tchefuncte	indeterminate	body	1	very small, but laminated	Tchefuncte/Tchula	500 BC - AD 100	Phillips 1970
153	Lafayette Parish, LA		16LY50	BT-05						1	1	0 cmbs	10 cmbs	none	none	Tchefuncte	Tchefuncte	body	4	crazing on surface; laminated paste	Tchefuncte/Tchula	500 BC - AD 100	Phillips 1970
153	Lafayette Parish, LA		16LY50	BT-05						1	1	0 cmbs	10 cmbs	none	indeterminate	indeterminate	indeterminate	indetermina te	3	very small, red core; laminated paste	indeterminate	indeterminate	
153	Lafayette Parish, LA		16LY50	BT-05						1	1	0 cmbs	10 cmbs	none	none	fired clay	N/A	fragment	1	very small	indeterminate	indeterminate	
153	Lafayette Parish, LA		16LY50	BT-05						1	2	10 cmbs	20 cmbs	none	none	Tchefuncte	Tchefuncte	rim	1	straight	Tchefuncte/Tchula	500 BC - AD 100	Phillips 1970
154	Lafayette Parish, LA		16LY50	BT-05						1	2	10 cmbs	20 cmbs	none	none	Tchefuncte	Tchefuncte	indetermina te	1	thickened; basal?	Tchefuncte/Tchula	500 BC - AD 100	Phillips 1970
154	Lafayette Parish, LA		16LY50	BT-05						1	2	10 cmbs	20 cmbs	none	none	Tchefuncte	Tchefuncte	body	4	buff to dark grey; laminated paste	Tchefuncte/Tchula	500 BC - AD 100	Phillips 1970
154	Lafayette Parish, LA		16LY50	BT-05						1	2	10 cmbs	20 cmbs	none	none	fired clay	N/A	fragment	2	light orange	indeterminate	indeterminate	
154	Lafayette Parish, LA		16LY50	BT-05						1	2	10 cmbs	20 cmbs	grog	none	indeterminate	indeterminate	body	3	small fragments; dark with light clay temper	indeterminate	indeterminate	
154	Lafayette Parish, LA		16LY50	BT-05						1	2	10 cmbs	20 cmbs	none	none	indeterminate	indeterminate	body	1	reddish brown; hard	indeterminate	indeterminate	
155	Lafayette Parish, LA		16LY50	BT-05						1	5	40 cmbs	80 cmbs	grog	incised	Coles Creek	indeterminate	body	1	deep, linear overhanging incisions; not typical; parallel, not chevron-type, with one angled crescent incision	Troyville/Coles Creek AD 700-800		Phillips 1970
155	Lafayette Parish, LA		16LY50	BT-05						1	5	40 cmbs	50 cmbs	none	punctated	Tchefuncte	indeterminate	rim	1	notched rim	Tchefuncte/Tchula	500 BC - AD 100	Phillips 1970
155	Lafayette Parish, LA		16LY50	BT-05						1	5	40 cmbs	50 cmbs	none	none	Tchefuncte	Tchefuncte	body	1	reddish and grey; laminated paste	Tchefuncte/Tchula	500 BC - AD 100	Phillips 1970
157	Lafayette Parish, LA		16LY50	BT-05						II	7	60 cmbs	70 cmbs	none	none	Tchefuncte	Tchefuncte	body	1	laminated paste	Tchefuncte/Tchula	400 BC - AD 100	Phillips 1970
158	Lafayette Parish, LA		16LY50	BT-05						II	9	80 cmbs	90 cmbs	none	indeterminate	Tchefuncte	indeterminate	indetermina te	1	small and eroded, but laminated and soft	Tchefuncte/Tchula	500 BC - AD 100	Phillips 1970
159	Lafayette Parish, LA		16LY50			delineation	1096.7	1067.4		1	7	60 cmbs	70 cmbs	none	none	Tchefuncte	Tchefuncte	body	1	crazing on surface; small reddish inclusions	Tchefuncte/Tchula	500 BC - AD 100	Phillips 1970
160	Lafayette Parish, LA		16LY50			delineation	1074.4	1045		1	1	0 cmbs	10 cmbs	none	none	Tchefuncte	Tchefuncte	rim	1	straight, irregular	Tchefuncte/Tchula	500 BC - AD 100	Phillips 1970
162	Lafayette Parish, LA		16LY50			delineation	1060	985		1	1	0 cmbs	10 cmbs	none	none	Tchefuncte	Tchefuncte	body	1	grey and brown	Tchefuncte/Tchula	500 BC - AD 100	Phillips 1970
163	Lafayette Parish, LA		16LY50			delineation	1060	985		1	2	10 cmbs	20 cmbs	none	none	Tchefuncte	Tchefuncte	body	1	reddish on one side, buff still laminated and contorted	Tchefuncte/Tchula	500 BC - AD 100	Phillips 1970
164	Lafayette Parish, LA		16LY50			delineation	1060	985		1	3	20 cmbs	30 cmbs	none	none	Tchefuncte	Tchefuncte	body	1	potlided; laminated paste	Tchefuncte/Tchula	500 BC - AD 100	Phillips 1970

Table 5. Ceramic material recovered from the Vermilion River Dredge Disposal Project Area.

Table 5. Ceramic material recovered from the Vermilion River Dredge Disposal Project Area.																								
FS#	County/ Parish	Area	Site/ Locus	Trench	Transect	Shovel Test	North	East	Additional Provenience	Strat	Level	Top El	Bot El	Aplastic Inclusions	Decoration	Type	Subtype	Portion	CT	Comments	Possible Affiliation	Possible Date	Reference	
165	Lafayette Parish, LA		16LY50			delineation	1067.5	992.5		I	1	0 cmbs	10 cmbs	none	none	Tchefuncte	Tchefuncte	body	1	dark grey	Tchefuncte/Tchula	500 BC- AD 100	Phillips 1970	
166	Lafayette Parish, LA		16LY50			delineation	1067.5	1000		I	1	0 cmbs	10 cmbs	grog	indeterminate	indeterminate	indeterminate	body	1		Post Tchula, to Troyville/Coles Creek	AD 100- 800	Phillips 1970	
166	Lafayette Parish, LA		16LY50			delineation	1067.5	1000		I	1	0 cmbs	10 cmbs	none	none	Tchefuncte	Tchefuncte	body	2	dark grey and reddish inclusions; light grey paste on two	Tchefuncte/Tchula	500 BC- AD 100	Phillips 1970	
167	Lafayette Parish, LA		16LY50			delineation	1067.5	1000		I	2	10 cmbs	20 cmbs	none	indeterminate	Tchefuncte	indeterminate	body	1	small; light grey and buff	Tchefuncte/Tchula	500 BC- AD 100	Phillips 1970	
168	Lafayette Parish, LA		16LY50			delineation	1067.5	1000		I	3	20 cmbs	30 cmbs	none	none	Tchefuncte	Tchefuncte	body	1		Tchefuncte/Tchula	500 BC- AD 100	Phillips 1970	
169	Lafayette Parish, LA		16LY50			delineation	1067.5	1000		I	4	30 cmbs	40 cmbs	none	none	Tchefuncte	Tchefuncte	body	2	surface crazing; reddish inclusions	Tchefuncte/Tchula	500 BC- AD 100	Phillips 1970	
170	Lafayette Parish, LA		16LY50			delineation	1074.4	1030.1		I	7	60 cmbs	70 cmbs	none	none	Tchefuncte	Tchefuncte	body	1	light grey	Tchefuncte/Tchula	500 BC- AD 100	Phillips 1970	
171	Lafayette Parish, LA		16LY50			delineation	1067.5	1030		I	1	0 cmbs	10 cmbs	none	none	Tchefuncte	Tchefuncte	rim	1	straight; thinner than usual	Tchefuncte/Tchula	500 BC- AD 100	Phillips 1970	
172	Lafayette Parish, LA		16LY50			delineation	1067.5	1030		II	3	20 cmbs	30 cmbs	none	none	Tchefuncte	Tchefuncte	rim	1	thickened	Tchefuncte/Tchula	500 BC- AD 100	Phillips 1970	
173	Lafayette Parish, LA		16LY50			delineation	1067.5	1030		II	7	60 cmbs	70 cmbs	none	none	Tchefuncte	Tchefuncte	indeterminate	1	broken on coil; curved	Tchefuncte/Tchula	500 BC- AD 100	Phillips 1970	
174	Lafayette Parish, LA		16LY50			delineation	1081.6	1052.4		I	1	0 cmbs	10 cmbs	none	indeterminate	Tchefuncte	indeterminate	body	1	small	Tchefuncte/Tchula	500 BC- AD 100	Phillips 1970	
174	Lafayette Parish, LA		16LY50			delineation	1081.6	1052.4		I	1	0 cmbs	10 cmbs	none	none	Tchefuncte	Tchefuncte	rim	1	straight	Tchefuncte/Tchula	500 BC- AD 100	Phillips 1970	
175	Lafayette Parish, LA		16LY50			delineation	1067.5	1015		I	1	0 cmbs	10 cmbs	none	none	Tchefuncte	Tchefuncte	body	2		Tchefuncte/Tchula	500 BC- AD 100	Phillips 1970	
176	Lafayette Parish, LA		16LY50			delineation	1067.5	1015		II	2	10 cmbs	20 cmbs	none	none	Tchefuncte	Tchefuncte	body	2	contorted breaks; laminated paste	Tchefuncte/Tchula	500 BC- AD 100	Phillips 1970	
177	Lafayette Parish, LA		16LY50			delineation	1067.5	1015		II	3	20 cmbs	30 cmbs	none	indeterminate	Tchefuncte	indeterminate	body	1	small, but laminated paste	Tchefuncte/Tchula	500 BC- AD 100	Phillips 1970	
177	Lafayette Parish, LA		16LY50			delineation	1067.5	1015		II	3	20 cmbs	30 cmbs	none	none	Tchefuncte	Tchefuncte	rim	1	straight and thickened; laminated paste	Tchefuncte/Tchula	500 BC- AD 100	Phillips 1970	
178	Lafayette Parish, LA		16LY50			delineation	1067.5	1015		II	4	30 cmbs	40 cmbs	none	none	Tchefuncte	Tchefuncte	body	3	somewhat sandy	Tchefuncte/Tchula	500 BC- AD 100	Phillips 1970	
179	Lafayette Parish, LA		16LY50			delineation	1067.5	1015		II	5	40 cmbs	50 cmbs	none	none	Tchefuncte	Tchefuncte	body	1	broken on coil	Tchefuncte/Tchula	500 BC- AD 100	Phillips 1970	
180	Lafayette Parish, LA		16LY50			delineation	1067.5	1015		II	6	50 cmbs	60 cmbs	none	none	Tchefuncte	Tchefuncte	shoulder	1	slight curvature	Tchefuncte/Tchula	500 BC- AD 100	Phillips 1970	
181	Lafayette Parish, LA		16LY50			delineation	1067.5	1015		II	7	60 cmbs	70 cmbs	none	none	Tchefuncte	Tchefuncte	body	1	inclusions, but still laminated	Tchefuncte/Tchula	500 BC- AD 100	Phillips 1970	
181	Lafayette Parish, LA		16LY50			delineation	1067.5	1015		II	7	60 cmbs	70 cmbs	none	none	Tchefuncte	Tchefuncte	body	2		Tchefuncte/Tchula	500 BC- AD 100	Phillips 1970	
182	Lafayette Parish, LA		16LY50				1000	1000	Soil Sample; exp to 50x50 cm square	I			55 cmbs	80 cmbs	none	indeterminate	Tchefuncte	indeterminate	body	1	exterior heavily eroded; from flotation sample	Tchefuncte/Tchula	500 BC- AD 100	Phillips 1970
182	Lafayette Parish, LA		16LY50				1000	1000	Soil Sample; exp to 50x50 cm square	I			55 cmbs	80 cmbs	none	indeterminate	indeterminate	rim	1	straight; connected to small bowl sherd above from flotation sample	indeterminate	indeterminate	indeterminate	
182	Lafayette Parish, LA		16LY50				1000	1000	Soil Sample; exp to 50x50 cm square	I			55 cmbs	80 cmbs	indeterminate	indeterminate	indeterminate	indeterminate	indeterminate	114	very small fragments from fine flotation	indeterminate	indeterminate	

Table 5. Ceramic material recovered from the Vermilion River Dredge Disposal Project Area.

FS#	County/ Parish	Area	Site/ Locus	Trench	Transect	Shovel Test	North	East	Additional Provenience	Strat	Level	Top EI	Bot EI	Aplastic Inclusions	Decoration	Type	Subtype	Portion	CT	Comments	Possible Affiliation	Possible Date	Reference
182	Lafayette Parish, LA		16LY50				1000	1000	Soil Sample: exp to 50x50 cm square	I		55 cmbs	80 cmbs	none	indeterminate	indeterminate	indeterminate	body	1	very curved; Tchefuncte like, but thin, smooth, and shape is a small bowl, unusual for Tchefuncte; from floatation sample	indeterminate		
182	Lafayette Parish, LA		16LY50				1000	1000	Soil Sample: exp to 50x50 cm square	I		55 cmbs	80 cmbs	none	indeterminate	Tchefuncte	indeterminate	body	1	buff exterior, very dark paste; from floatation sample	Tchefuncte/Tchula	500 BC - AD 100	Phillips 1970
182	Lafayette Parish, LA		16LY50				1000	1000	Soil Sample: exp to 50x50 cm square	I		55 cmbs	80 cmbs	indeterminate	indeterminate	indeterminate	indeterminate	indeterminate	47	small fragments from floatation sample	indeterminate	indeterminate	
182	Lafayette Parish, LA		16LY50				1000	1000	Soil Sample: exp to 50x50 cm square	I		55 cmbs	80 cmbs	none	indeterminate	Tchefuncte	indeterminate	indeterminate	15	small and eroded; but laminated and soft; from floatation sample	Tchefuncte/Tchula	500 BC - AD 100	Phillips 1970
182	Lafayette Parish, LA		16LY50				1000	1000	Soil Sample: exp to 50x50 cm square	I		55 cmbs	80 cmbs	none	none	Tchefuncte	Tchefuncte	base	1	large side piece; round thickening on exterior for leg; from floatation sample	Tchefuncte/Tchula	500 BC - AD 100	Phillips 1970
182	Lafayette Parish, LA		16LY50				1000	1000	Soil Sample: exp to 50x50 cm square	I		55 cmbs	80 cmbs	none	none	Tchefuncte	Tchefuncte	rim	1	straight, laminated paste; from floatation sample	Tchefuncte/Tchula	500 BC - AD 100	Phillips 1970
182	Lafayette Parish, LA		16LY50				1000	1000	Soil Sample: exp to 50x50 cm square	I		55 cmbs	80 cmbs	none	none	Tchefuncte	Tchefuncte	base	2	small, but thickened and up-curving; from floatation sample	Tchefuncte/Tchula	500 BC - AD 100	Phillips 1970
182	Lafayette Parish, LA		16LY50				1000	1000	Soil Sample: exp to 50x50 cm square	I		55 cmbs	80 cmbs	none	none	Tchefuncte	Tchefuncte	body	7	from floatation sample	Tchefuncte/Tchula	500 BC - AD 100	Phillips 1970
182	Lafayette Parish, LA		16LY50				1000	1000	Soil Sample: exp to 50x50 cm square	I		55 cmbs	80 cmbs	none	none	finer clay	N/A	fragment	63	very small fragments; from floatation sample	indeterminate	indeterminate	
183	Lafayette Parish, LA		16LY50			delineation	1000	1000	expanded to 50x50 cm square	I	3	20 cmbs	30 cmbs	none	none	Tchefuncte	Tchefuncte	rim	1	small, straight	Tchefuncte/Tchula	500 BC - AD 100	Phillips 1970
183	Lafayette Parish, LA		16LY50			delineation	1000	1000	expanded to 50x50 cm square	I	3	20 cmbs	30 cmbs	none	none	Tchefuncte	Tchefuncte	body	1		Tchefuncte/Tchula	500 BC - AD 100	Phillips 1970
184	Lafayette Parish, LA		16LY50			delineation	1000	1000	expanded into 50x50 cm	I	4	30 cmbs	40 cmbs	none	none	Tchefuncte	Tchefuncte	body	2	some curvature	Tchefuncte/Tchula	500 BC - AD 100	Phillips 1970
185	Lafayette Parish, LA		16LY50			delineation	1000	1000	expanded into 50x50 cm	I	5	40 cmbs	50 cmbs	none	indeterminate	Tchefuncte	indeterminate	body	24	small and eroded; but laminated and soft	Tchefuncte/Tchula	500 BC - AD 100	Phillips 1970
185	Lafayette Parish, LA		16LY50			delineation	1000	1000	expanded into 50x50 cm	I	5	40 cmbs	50 cmbs	none	none	Tchefuncte	Tchefuncte	rim	4	straight; broken on coil	Tchefuncte/Tchula	500 BC - AD 100	Phillips 1970
185	Lafayette Parish, LA		16LY50			delineation	1000	1000	expanded into 50x50 cm	I	5	40 cmbs	50 cmbs	none	none	Tchefuncte	Tchefuncte	body	28	surface crazing; some sandiness	Tchefuncte/Tchula	500 BC - AD 100	Phillips 1970
185	Lafayette Parish, LA		16LY50			delineation	1000	1000	expanded into 50x50 cm	I	5	40 cmbs	50 cmbs	none	none	finer clay	N/A	fragment	4	small pieces	indeterminate	indeterminate	
187	Lafayette Parish, LA		16LY50			delineation	1000	1000	originally TR5 ST5, expanded into 50x50 cm	I	6	50 cmbs	60 cmbs	none	none	Tchefuncte	Tchefuncte	body	8		Tchefuncte/Tchula	500 BC - AD 100	Phillips 1970

Table 5. Ceramic material recovered from the Vermilion River Dredge Disposal Project Area.

FS#	County/ Parish	Area	Site/ Locus	Trench	Transect	Shovel Test	North	East	Additional Provenience	Strat	Level	Top EI	Bot EI	Aplastic Inclusions	Decoration	Type	Subtype	Portion	CT	Comments	Possible Affiliation	Possible Date	Reference	
187	Lafayette Parish, LA		16LY50			delineation	1000	1000	originally TR5 ST5, expanded into 50x50 cm	I	6	50 cmbs	60 cmbs	none	none	Tchefuncte	Tchefuncte	base	1	wedge foot	Tchefuncte/Tchula	500 BC- AD 100	Phillips 1970	
187	Lafayette Parish, LA		16LY50			delineation	1000	1000	originally TR5 ST5, expanded into 50x50 cm	I	6	50 cmbs	60 cmbs	none	indeterminate	Tchefuncte	indeterminate	indeterminate	1	curved and eroded	Tchefuncte/Tchula	500 BC- AD 100	Phillips 1970	
187	Lafayette Parish, LA		16LY50			delineation	1000	1000	originally TR5 ST5, expanded into 50x50 cm	I	6	50 cmbs	60 cmbs	none	none	fired clay	N/A	fragment	1	small lump	indeterminate	indeterminate		
188	Lafayette Parish, LA		16LY50			delineation	1000	1000	expanded into 50x50 cm	I	9	80 cmbs	90 cmbs	none	none	Tchefuncte	Tchefuncte	body	2		Tchefuncte/Tchula	500 BC- AD 100	Phillips 1970	
189	Lafayette Parish, LA		16LY50			delineation	985	962.5		I	1	0 cmbs	10 cmbs	none	indeterminate	Tchefuncte	indeterminate	body	1	eroded	Tchefuncte/Tchula	500 BC- AD 100	Phillips 1970	
190	Lafayette Parish, LA		16LY50			delineation	985	962.5		I	4	30 cmbs	40 cmbs	none	none	Tchefuncte	Tchefuncte	body	1	thinner than normal	Tchefuncte/Tchula	500 BC- AD 100	Phillips 1970	
190	Lafayette Parish, LA		16LY50			delineation	985	962.5		I	4	30 cmbs	40 cmbs	none	none	Tchefuncte	Tchefuncte	rim	1	straight	Tchefuncte/Tchula	500 BC- AD 100	Phillips 1970	
193	Lafayette Parish, LA		16LY50			delineation	992.5	970		I	5	40 cmbs	50 cmbs	none	indeterminate	Tchefuncte	indeterminate	body	2	small and eroded, but laminated and soft	Tchefuncte/Tchula	500 BC- AD 100	Phillips 1970	
194	Lafayette Parish, LA		16LY50			delineation	1000	925		II	7	60 cmbs	70 cmbs	none	none	Tchefuncte	Tchefuncte	body	3	clay inclusions	Tchefuncte/Tchula	500 BC- AD 100	Phillips 1970	
195	Lafayette Parish, LA		16LY50			delineation	1000	955		I	1	0 cmbs	10 cmbs	none	none	Tchefuncte	Tchefuncte	body	2	cracking on surface	Tchefuncte/Tchula	500 BC- AD 100	Phillips 1970	
196	Lafayette Parish, LA		16LY50			delineation	1000	962.5		I	1	0 cmbs	10 cmbs	none	none	Tchefuncte	indeterminate	rim	1	laminated Tchefuncte paste with typical Coles Creek flattened rim	Tchefuncte/Tchula	500 BC- AD 100	Phillips 1970	
197	Lafayette Parish, LA		16LY50			delineation	1015	1022.5		II	5	40 cmbs	50 cmbs	indeterminate	indeterminate	indeterminate	indeterminate	body	1	heavily eroded and reddish	indeterminate	indeterminate		
198	Lafayette Parish, LA		16LY50			delineation	1112.3	1097.4		I	1	0 cmbs	10 cmbs	none	none	Tchefuncte	Tchefuncte	rim	1	Tchefuncte paste with slightly flaring rim	Tchefuncte/Tchula	500 BC- AD 100	Phillips 1970	
199	Lafayette Parish, LA		16LY50			delineation	1104.3	1075		I	6	50 cmbs	60 cmbs	none	none	Tchefuncte	Tchefuncte	indeterminate	2	curving and thickened	Tchefuncte/Tchula	500 BC- AD 100	Phillips 1970	
200	Lafayette Parish, LA		16LY50			delineation	1104.3	1089.8		I	7	60 cmbs	70 cmbs	none	none	Tchefuncte	Tchefuncte	body	1		Tchefuncte/Tchula	500 BC- AD 100	Phillips 1970	
201	Lafayette Parish, LA		16LY50			delineation	1007.5	952.5		I	2	10 cmbs	20 cmbs	none	none	fired clay	N/A	fragment	1	odd shape	indeterminate	indeterminate		Smith et al 1983; Phillips 1970
202	Lafayette Parish, LA		16LY50			delineation	1007.5	952.5		II	4	30 cmbs	40 cmbs	grog	incised	Mazique	Manchac	shoulder	1	late period marker	Tchefuncte/Tchula	500 BC- AD 100	Phillips 1970	
203	Lafayette Parish, LA		16LY50	BT-06						I	3	20 cmbs	30 cmbs	none	none	Tchefuncte	Tchefuncte	rim	1	straight	Tchefuncte/Tchula	500 BC- AD 100	Phillips 1970	
204	Lafayette Parish, LA		16LY50	BT-06						I	4	30 cmbs	40 cmbs	none	none	Tchefuncte	Tchefuncte	body	3	cracking on surface; laminated paste	Tchefuncte/Tchula	500 BC- AD 100	Phillips 1970	
205	Lafayette Parish, LA		16LY50	BT-07						I	1	0 cmbs	10 cmbs	none	none	Tchefuncte	Tchefuncte	body	2		Tchefuncte/Tchula	500 BC- AD 100	Phillips 1970	
206	Lafayette Parish, LA		16LY50	BT-07						I	4	30 cmbs	40 cmbs	none	indeterminate	Tchefuncte	indeterminate	body	1	eroded	Tchefuncte/Tchula	500 BC- AD 100	Phillips 1970	
206	Lafayette Parish, LA		16LY50	BT-07						I	4	30 cmbs	40 cmbs	none	none	Tchefuncte	Tchefuncte	body	2	large pieces	Tchefuncte/Tchula	500 BC- AD 100	Phillips 1970	
207	Lafayette Parish, LA		16LY50	BT-08						I	4	30 cmbs	40 cmbs	none	none	Tchefuncte	Tchefuncte	rim	1	straight	Tchefuncte/Tchula	500 BC- AD 100	Phillips 1970	

Table 5. Ceramic material recovered from the Vermilion River Dredge Disposal Project Area.

FS#	County/ Parish	Area	Site/ Locus	Trench	Transect	Shovel Test	North	East	Additional Provenience	Strat	Level	Top EI	Bot EI	Aplastic Inclusions	Decoration	Type	Subtype	Portion	CT	Comments	Possible Affiliation	Possible Date	Reference
207	Lafayette Parish, LA		16LY50	BT-08						I	4	30 cmbs	40 cmbs	none	none	Tchefuncte	Tchefuncte	body	1	1 large clay inclusion	Tchefuncte/Tchula	500 BC- AD 100	Phillips 1970
208	Lafayette Parish, LA		16LY50	BT-08						II	5	40 cmbs	50 cmbs	none	none	Tchefuncte	Tchefuncte	body	3		Tchefuncte/Tchula	500 BC- AD 100	Phillips 1970
208	Lafayette Parish, LA		16LY50	BT-08						II	5	40 cmbs	50 cmbs	none	none	Tchefuncte	Mandeville	body	1	light and sandy, but laminated	Tchefuncte/Tchula	500 BC- AD 100	Phillips 1970
209	Lafayette Parish, LA		16LY50	BT-08					Backdirt Pile					none	none	Tchefuncte	Tchefuncte	body	1	laminated paste	Tchefuncte/Tchula	500 BC- AD 100	Phillips 1970
210	Lafayette Parish, LA		16LY50			delineation	1030	1060		I	2	10 cmbs	20 cmbs	grog	indeterminate	indeterminate	indeterminate	body	1	small	post Tchula, to Troyville/Coles Creek	AD 100- 800	Phillips 1970
211	Lafayette Parish, LA		16LY24				997	994	Surface Collection					none	indeterminate	Tchefuncte	indeterminate	body	1	very eroded	Tchefuncte/Tchula	500 BC- AD 100	Phillips 1970

Table 6. Historic material recovered from the Vermilion River Dredge Disposal Project Area.

FS#	County/ Parish	Area	Site/Locus	Trench	Transect	Shovel Test	North	East	Additional Provenience	Strat	Level	Top El	Bot El	Material	Function	Type	Subtype	Additional Description	Portion	CT	Comments	Possible Affiliation	Possible Date	References
001	Lafayette Parish, LA	IB	16LY50		5	4			@ 90 meters	I	1	0 cmts	5 cmts	glass	domestic	unidentified	embossed	clear	body	1		historic to modern	indeterminate	
003	Lafayette Parish, LA	IB	16LY50		5	4			@ 90 meters	II	3	15 cmts	25 cmts	glass	domestic	bottle	embossed	clear	body	1	too small; "p"	historic to modern	indeterminate	
020	Lafayette Parish, LA	VRD-01D	16LY116						Surface Collection 8 m W of TR 23 ST17 @ 480 m					metal	personal	coin	wheat penny		complete	1		historic	1939	
021	Lafayette Parish, LA	VRD-01D	16LY116						Surface Collection 6 m W of TR 23 ST17 @ 480 m					ceramic	personal	ironstone	glazed	cream	rim	1	very smooth	historic to modern	post 1901	
021	Lafayette Parish, LA	VRD-01D	16LY116						Surface Collection 6 m W of TR 23 ST17 @ 480 m					ceramic	personal	ironstone	glazed	cream	base	1	associated with ceramic rim above	historic to modern	post 1901	
022	Lafayette Parish, LA	VRD-01D	16LY116						Surface Collection 8 m NW of TR 23 ST17 @ 480 m					glass	construction	flat	window	aqua	body	1	3.27 mm thick	historic to modern	indeterminate	
022	Lafayette Parish, LA	VRD-01D	16LY116						Surface Collection 8 m NW of TR 23 ST17 @ 480 m					glass	domestic	bottle	unidentified	aqua	body	5	scalloped	historic to modern	indeterminate	
022	Lafayette Parish, LA	VRD-01D	16LY116						Surface Collection 8 m NW of TR 23 ST17 @ 480 m					glass	domestic	bottle	machine made unidentified	aqua	base	1	probably related to glass above	historic to modern	indeterminate	
022	Lafayette Parish, LA	VRD-01D	16LY116						Surface Collection 8 m NW of TR 23 ST17 @ 480 m					glass	construction	flat	unidentified	clear	body	1	3.19 mm thick	historic to modern	indeterminate	
023	Lafayette Parish, LA	VRD-01D	VRD-01D-02		29	17			@ 480 meters	I	1	0 cmts	10 cmts	glass	personal	marble	machine made unidentified	blue/white	complete	1		historic to modern	post 1901	Randall 1971
031	Lafayette Parish, LA		16LY50			delineation	1000	970		II	3	20 cmts	30 cmts	ceramic	construction	indeterminate	mortar	gray/white	fragment	1		historic to modern	indeterminate	
032	Lafayette Parish, LA		16LY50			delineation	1000	970		II	4	30 cmts	40 cmts	ceramic	construction	construction	brick	probable handmade	orange	2	refit together	historic to modern	indeterminate	
032	Lafayette Parish, LA		16LY50			delineation	1000	970		II	4	30 cmts	40 cmts	ceramic	construction	indeterminate	mortar	lt brown/cream	fragment	1	small	historic to modern	indeterminate	
086	Lafayette Parish, LA		16LY50			delineation	1007.4	947		II	3	20 cmts	30 cmts	coal	indeterminate	cinder	N/A	black	fragment	1		historic	indeterminate	
106	Lafayette Parish, LA		16LY50	BT-01						I	6	50 cmts	60 cmts	metal	indeterminate	concretion	N/A	N/A	fragment	5	possible rusting metal embedded in clay	historic to modern	indeterminate	
109	Lafayette Parish, LA		16LY50	BT-01						I	10	90 cmts	100 cmts	metal	indeterminate	concretion	N/A	N/A	fragment	1	possible rusting metal embedded in clay	historic to modern	indeterminate	

Table 6. Historic material recovered from the Vermilion River Dredge Disposal Project Area.

FS#	County/ Parish	Area	Site/Locus	Trench	Transect	Shovel Test	North	East	Additional Provenience	Strat	Level	Top El	Bot El	Material	Function	Type	Subtype	Additional Description	Portion	CT	Comments	Possible Affiliation	Possible Date	References
110	Lafayette Parish, LA		16LY50	BT-01						I	11	100 cmbs	110 cmbs	metal	indeterminate	concretion	N/A	N/A	fragment	2	possible rusting metal embedded in clay	historic to modern	indeterminate	
117	Lafayette Parish, LA		16LY50			delineation	992.5	962.5		IV	13	110 cmbs	120 cmbs	coal	indeterminate	cinder	N/A	black	fragment	1		historic	indeterminate	
126	Lafayette Parish, LA		16LY50			delineation	1022.5	1030		I	4	30 cmbs	40 cmbs	coal	indeterminate	cinder	N/A	black	fragment	1		historic	indeterminate	
141	Lafayette Parish, LA		16LY50			delineation	1060	1000		II	8	60 cmbs	70 cmbs	mineral	indeterminate	concretion	N/A	N/A	fragment	1	odd shape	historic to modern	indeterminate	
148	Lafayette Parish, LA		16LY50	BT-03						I	3	20 cmbs	30 cmbs	coal	indeterminate	cinder	N/A	black	fragment	1	from stove?	historic to modern	indeterminate	
154	Lafayette Parish, LA		16LY50	BT-05						I	2	10 cmbs	20 cmbs	coal	indeterminate	cinder	N/A	black and grey	fragment	5	from stove?	historic to modern	indeterminate	
156	Lafayette Parish, LA		16LY50	BT-05						II	6	40 cmbs	60 cmbs	glass	domestic	bottle	hand blown	wine	complete	1	broken, pieces refit no mold seams, bubbles	historic	pre 1880	
174	Lafayette Parish, LA		16LY50			delineation	1081.6	1052.4		I	1	0 cmbs	10 cmbs	glass	domestic	indeterminate	machine made	very light blue	base	1	Ovens scar	historic	1904-1969	
175	Lafayette Parish, LA		16LY50			delineation	1067.5	1015		I	1	0 cmbs	10 cmbs	coal	indeterminate	cinder	N/A	black and porous	fragment	1	from stove?	historic to modern	indeterminate	

APPENDIX II

STATE OF LOUISIANA ARCHEOLOGICAL SITE AND SITE UPDATE FORMS

STATE OF LOUISIANA
SITE RECORD FORM

LOCATIONAL DATA

SITE NAME: _____

STATE SURVEY NO.: 16LY116

OTHER SITE DESIGNATIONS: VRD-1D-01

SITE LOCATION AND APPROACH: Along Northwestern bank of Vermilion River, approximately 450m (.28mi) downstream from the mouth of Coulee Crow.

PARISH: Lafayette

—IRR— $\frac{1}{4}$ of the —IRR— $\frac{1}{4}$ of Section 95 Township 9S Range 5E

USGS QUADRANGLE: Broussard, LA 7.5 minute

UTM COORDINATES: Zone 15 N 3342680, E 599343

GEOGRAPHICAL COORDINATES: 30° 12' 41" N -91° 58' 4"E

PHYSICAL SETTING

LANDFORM: natural levee

GEOMORPHIC PROCESSES: erosion

ELEVATION AND RELIEF: 5-15ft (1.5-4.6m) AMSL

NEAREST WATER: Vermilion River situated approximately 4m (13 ft) to the southeast

POSITION WITH RESPECT TO TERRAIN: The site is located on a remnant portion of a natural levee situated adjacent to the Vermilion River.

SOIL CHARACTERISTICS: The Fausse and Sharkey associations are clayey throughout and they are very poorly drained with a high water table throughout much of the year. They typically occupy swamp areas within the alluvial plain. Fausse soils generally are slightly acidic, while Frost soils typically are mildly alkaline. These soils are described as various shades of gray in color throughout. With flood control measures, these soils are well suited as pastures and possibly croplands.

FLORAL COMMUNITIES: Occasional hardwoods; pasture grasses

FAUNAL COMMUNITIES: rabbit, raccoon, white tail deer, squirrel, nutria, muskrat, mink, otter, bobwhite quail, dove, wood duck, American woodcock, glossy ibis, golden eagle, bald eagle, tern, alligator, snake, toad, frog, salamander, lizard, skink

NEAREST KNOWN SITE: 16LY24

SITE DESCRIPTION

SITE DESCRIPTION: The site represents the remains of a 20th century structure and a low density historic artifact scatter located adjacent to the Vermilion River.

SITE SIZE: approximately 15 x 15m (49.2 x 49.2 ft)

CONFIGURATION: circular

DENSITY OF CULTURAL MATERIALS: low artifact density

DEPTH OF DEPOSIT/STRATIGRAPHY: All of the cultural material recovered originated from the surface of the site area in the vicinity of a collapsed historic structure. A typical shovel test excavated within the confines of the site area consisted of three strata and extended to the depth of 100 cmbs (39.3 inbs) (Figure 7.14). Stratum I was described as a layer of light gray (10YR 5/1) compact loam that extended from the surface to 7 cmbs (2.7 inbs). Stratum I was underlain by Stratum II, a deposit of light grayish brown (10YR 6/2) clay that reached in depth from 7 to 30 cmbs (2.7 to 11.8 inbs). Finally, Stratum III was described as a layer of reddish brown (5YR 4/4) compact clay originating at 30 cmbs (11.8 inbs) and terminating at 100 cmbs (39.3 inbs).

FEATURES: Collapsed historic structure. The structure represents an early to mid-twentieth century vernacular building that was described as abandoned and in ruins at the time of survey. The wood frame outbuilding was supported by a concrete pier system. The exterior walls of the building were covered by stamped metal siding.

DATING/CULTURAL AFFILIATION: Historic: mid 20th century

PRESENT CONDITION/PRESERVATION: No intact deposits identified; condition is poor

PRESENT USE: Cattle pasture

PRESENT AND FUTURE IMPACTS: Present and future impacts include erosion and dredge disposal

COLLECTIONS

SURVEY/EXCAVATION METHOD: Pedestrian survey augmented by shovel testing (n=17).

DESCRIPTION OF MATERIAL: wheat penny d.1939 (n=1), historic ceramics (n=2), glass shards (n=4)

SITE EVALUATION

RESEARCH POTENTIAL: The sparse artifact assemblage and lack of intact cultural deposits demonstrate that this site does not possess research potential. Furthermore, there are numerous types of this site/structure that are in good or better condition.

STATE OR NATIONAL REGISTER ELIGIBILITY: not significant

RECOMMENDATIONS: No additional testing of the site is recommended.

RECORDS

OWNER/TENANT AND ADDRESS: Richard D. Chappuis, Jr.
Wk: 700 St. John Street
Post Office Box 3527
Lafayette, Louisiana 70502-3527

INFORMANTS: none

PREVIOUS INVESTIGATIONS: 22-119,22-105

COLLECTIONS AND AVAILABILITY: To be curated with the Louisiana Department of Culture, Recreation, and Tourism, Office of Cultural Development, Division of Archeology, Baton Rouge, Louisiana upon completion of the project.

PHOTOGRAPHS AND MAPS: To be curated with the Louisiana Department of Culture, Recreation, and Tourism, Office of Cultural Development, Division of Archeology, Baton Rouge, Louisiana upon completion of the project.

REFERENCES: Gulf South Research Institute 1976. Environmental effect assessment of the Lafayette Loop, chapter 5: History and archeology (supplement to environmental effect assessment of Lafayette Loop). Unpublished report on file at the Division of Archeology and Historic Preservation, Baton Rouge, LA

NOTE: This report identified a historic structure as being part of Site 16LY24, however it was situated approximately 300 m (984 ft) west of the site's location originally recorded by Gibson. The current investigation relocated Site 16LY24 in the location recorded by Gibson; it also identified the structure identified by GSRI and an associated artifact scatter. This site form is to give the structure and associated deposits their own site number.

RECORDED BY: Catherine Labadia, M.A.
Project Manager
R. Christopher Goodwin & Associates, Inc.
309 Suite A Jefferson Highway
New Orleans, LA 70121
Tel. (504) 837-1940

Date: September 14, 2002

CAD CODING SHEET

Landform (1 Entry)

kn Knoll
rid Ridge
bn Bench
pm Pimple Mound

sd Saltdome
swa Swamp
bsw Backswamp
msh Marsh

bea Beach
udw Underwater
nal Natural Levee
chr Chenier

nrs Nat. Relic Scar
bat Batture
ot Other, see form

Soil Area (1 Entry)

cp Coastal Plain
cmr Coastal Marsh

fw Flatwoods
mtl Miss. Terrace,
Loessial Hills

ral Recent Alluvium

cpr Coastal Prairies

Soil Series Number 24 Sharkey Clay

Cultural Features (4 Entries)

sar Single Artifact
md1 Mound/Earthwork
md2 Mounds/Earthwork
her Hist. Earthwork
ote Other Earthwork
sw Shipwreck

psc Prehistoric Scatter
hsc Historic Scatter
hst Hist. Sheet Midden
shm Shell Midden
erm Earth Midden

ls Lithic Scatter
bu Burials
ss Standing Structures
du Dump
hr Historic ruins

Remarks (C.F.) _____

Cultural Affiliation (7 Entries)

pu Prehis. (Unk.)
hu Historic (Unk.)
ph Pre./Hist. (Unk.)
pal Paleo-Indian
mi Meso-Indian/Archaic
ni Neo-Indian (Unk.)
po Poverty Point

tc Tchefuncte
mar Marksville
is Issaquena
ba Baytown
tro Troyville
cc Coles Creek
pq Plaquemine

ms Mississippian
cad Caddo
hi Hist. Indian Contact
ex Hist. Explr. 1541-1803
ant Antebellum 1803-1860
war War & Aftm 1860-1890
in Indust. & Modern 1890-

Remarks (C.A.) _____

Site Function (3 Entries)

pu Prehist. (Unk.)
hu Historic (Unk.)
ch Chipping Station
cam Camp
el Extraction Locale
ha Preh. Hamlet/Vill.
cer Ceremonial Center

fa Farm/Rural res.
wt Watercraft P&H
pt Plantation
hs Hist. Town/Vill.
ur Urban
cr Cemetery (Mort.)
ht Hist. Transport.

ci Commercial/Service Cen.
it Institut. (Rel. & Ed.)
gv Governmental
id Industrial
du Dump
ml Military

Remarks (S.F.) _____

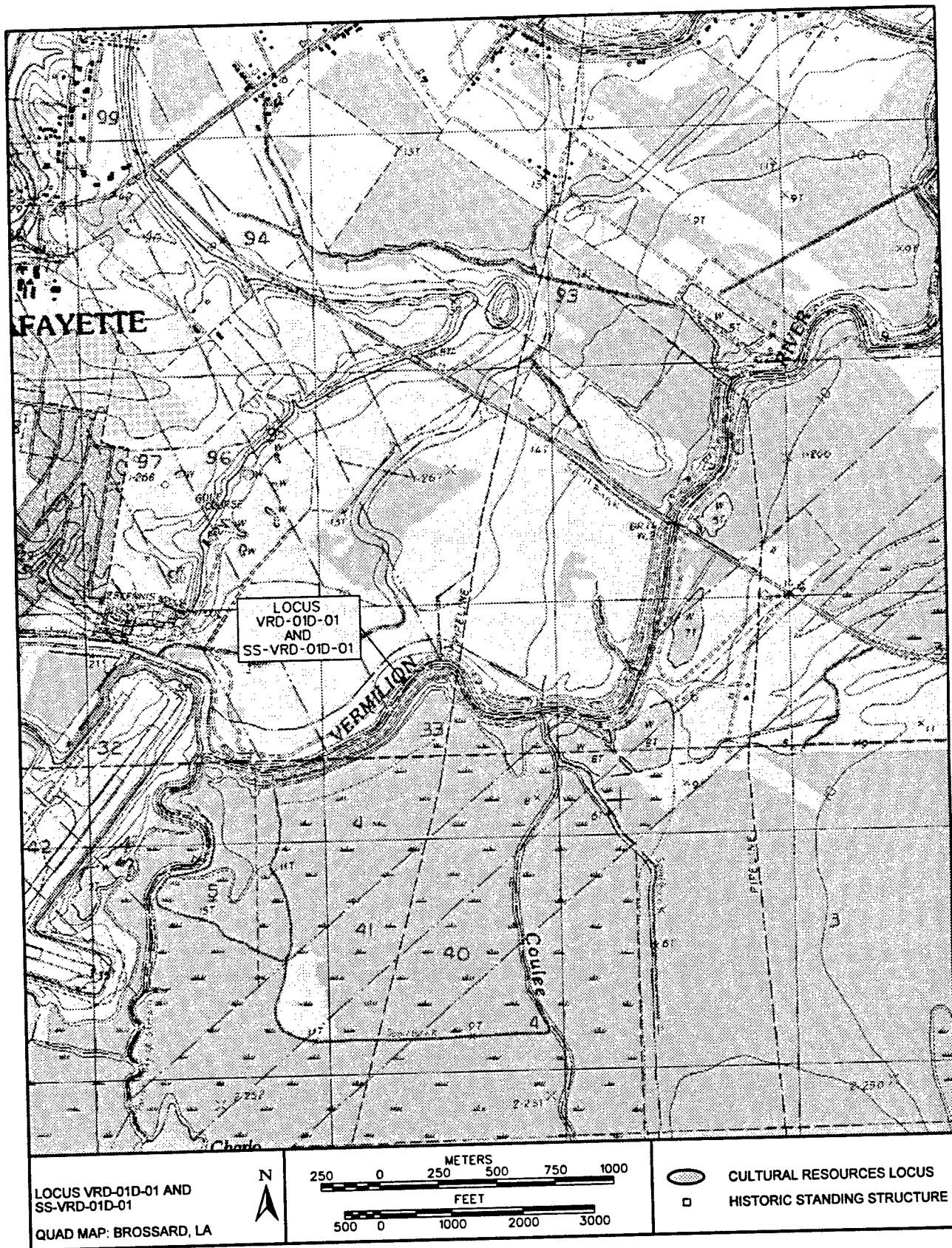
Description of Material (6 Entries)**cra** Ceramics, Aborig.**hc** Ceramics, Hist.**cs** Chipped Stone**pp** Projectile Pts.**gs** Ground Stone**she** Shell**ppo** PPO's**gl** Glass**me** Metal**cmt** Construct. Material
(Brick, Wattle & Daub)**wb** Worked Bone**ub** Unmodified Bone (Fauna)**fl** Flora**wo** Wood**Method of Investigation at Site****gra** Grab Surface Col.**sv** Systematic Col.**sht** Shovel Testing

(3 Entries)

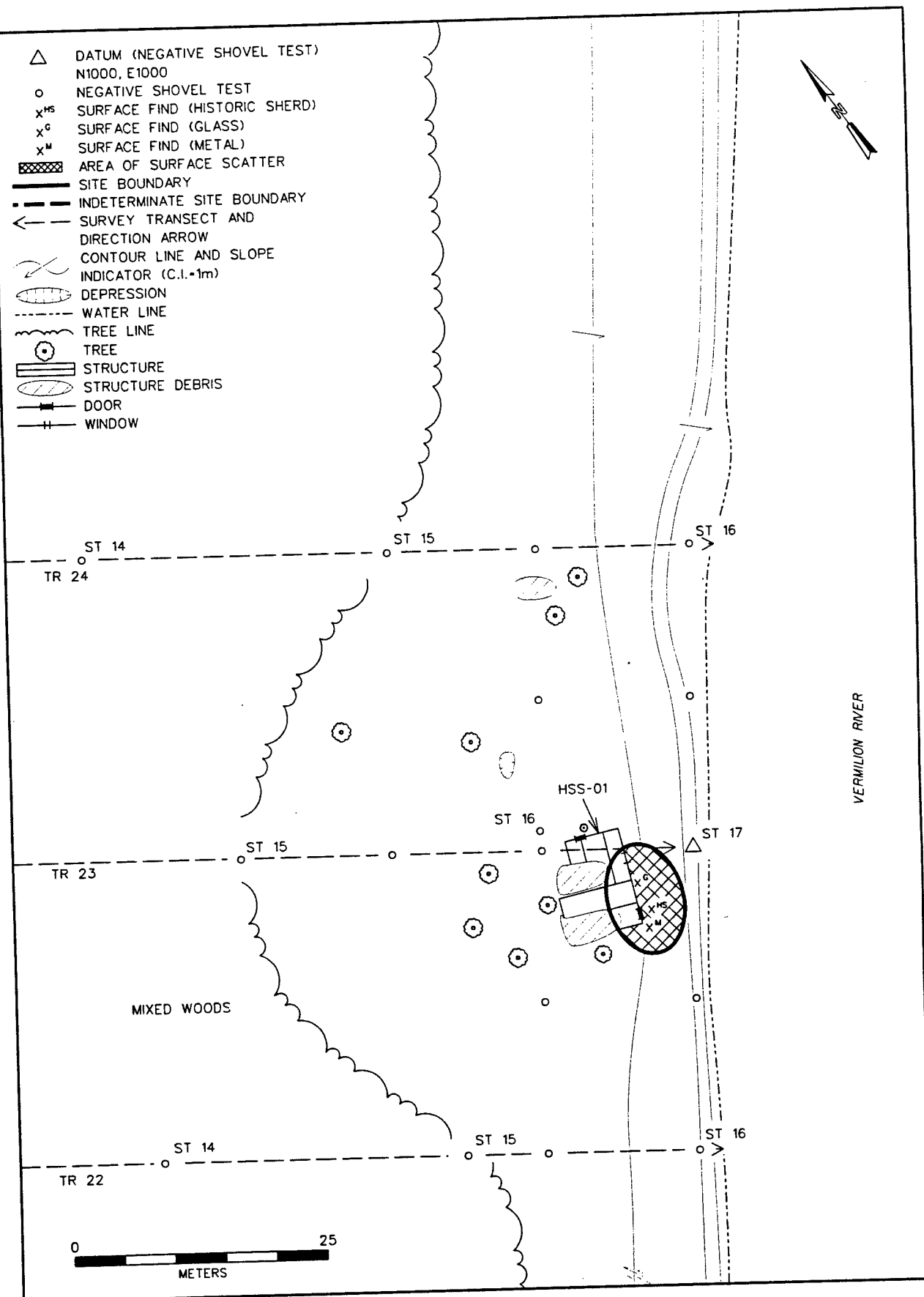
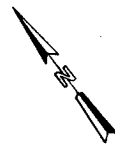
au Auger Testing**tu** Test Units**exc** Excavation**rs** Remote Sensing**dv** Diver Investigation**Disturbance Agent/Present Use (3 Entries)****unk** Unknown**pd** Potted**nn** None**ag** Agricltr (Plowing)**ti** Timber Industry**nat** Natural**di** Urban Develop.**ot** Other, see site form**cw** Construction, Water**cto** Construction, Other**uw** Underwater**Disturbance Degree (1 Entry)****unk** Unknown**nn** None**mp** Minor Impact**mj** Major Impact**dt** Destroyed**iu** Inundated**National Register Status (1 Entry)****unk** Unknown**ne** Not Eligible**ld** Listed**de** Declared Elig.**ps** Potent. Signif.**nd** National Landmark**References (4 Entries)**1) Gulf South Research Institute 1976

2) _____ 3) _____

4) _____



- △ DATUM (NEGATIVE SHOVEL TEST)
N1000, E1000
- NEGATIVE SHOVEL TEST
- x^{HS} SURFACE FIND (HISTORIC SHERD)
- x^G SURFACE FIND (GLASS)
- x^M SURFACE FIND (METAL)
- ▨ AREA OF SURFACE SCATTER
- SITE BOUNDARY
- - - INDETERMINATE SITE BOUNDARY
- ← SURVEY TRANSECT AND
DIRECTION ARROW
- ~ CONTOUR LINE AND SLOPE
INDICATOR (C.I.=1m)
- ⬭ DEPRESSION
- - - WATER LINE
- ~ TREE LINE
- ⊙ TREE
- ▭ STRUCTURE
- ▨ STRUCTURE DEBRIS
- DOOR
- WINDOW



STATE OF LOUISIANA
SITE UPDATE RECORD FORM

LOCATIONAL DATA

SITE NAME: Pipeline

STATE SURVEY NO.: 16LY24

OTHER SITE DESIGNATIONS: VRD-1B-02

SITE LOCATION AND APPROACH: Along NW bank of Vermilion river 450m(.28mi) downstream from the mouth of Coulee Crow.

PARISH: Lafayette

~~IRR~~ ¼ of the ~~IRR~~ ¼ of Section 93 Township 9S Range 5E

USGS QUADRANGLE: Broussard, LA 7.5 minute

UTM COORDINATES: Zone 15 N 3342800 E 599500

GEOGRAPHICAL COORDINATES: 30° 12' 45" N 91° 57' 58" E

PHYSICAL SETTING

LANDFORM: artificial levee

GEOMORPHIC PROCESSES: erosion

ELEVATION AND RELIEF: 5-15ft (1.5-4.6m) AMSL

NEAREST WATER: Vermilion River 2m (6.6ft) south

POSITION WITH RESPECT TO TERRAIN: The site is located on an artificial levee situated adjacent to the Vermilion River.

SOIL CHARACTERISTICS: The Fausse and Sharkey associations are clayey throughout and they are very poorly drained with a high water table throughout much of the year. They typically occupy swamp areas within the alluvial plain. Fausse soils generally are slightly acidic, while Frost soils typically are mildly alkaline. These soils are described as various shades of gray in color throughout. With flood control measures, these soils are well suited as pastures and possibly croplands.

FLORAL COMMUNITIES: Occasional hardwoods; pasture grasses

FAUNAL COMMUNITIES: rabbit, raccoon, white tail deer, squirrel, nutria, muskrat, mink, otter, bobwhite, quail, dove, wood duck, American woodcock, glossy ibis, golden eagle, bald eagle, tern, alligator, snake, toad, frog, salamander, lizard, skink

NEAREST KNOWN SITE: 16LY50

SITE DESCRIPTION

SITE DESCRIPTION: Site 16LY24 represents a low density prehistoric artifact scatter located adjacent to the Vermilion River. A single prehistoric ceramic was attributed to the Tchefuncte culture.

SITE SIZE: approximately 12 x45m (39 x 148 ft)

CONFIGURATION: ovoid

DENSITY OF CULTURAL MATERIALS: low artifact density; 2 prehistoric ceramic sherds and a single unmodified mammalian faunal remain

DEPTH OF DEPOSIT/STRATIGRAPHY: Cultural material recovered from the surface and up to 10cmbs (3.9 inbs). A typical shovel test excavated throughout the site area was excavated to a maximum depth of 100 cm (39.4 in); auger testing extended the stratigraphic profile from the base of the shovel test to 200 cmbs (78.7 inbs). As a result, a total of three strata were observed in profile. Stratum I consisted of a layer of grayish brown (10YR 5/2) clay mottled with yellowish brown (10YR 5/5) clay that extended from the ground surface to 28 cmbs (11 inbs). A considerable amount of plastic debris also was recorded within Stratum I. Stratum II, a deposit of yellowish brown (5YR 5/5) clay, continued from 28 to 150 cmbs (11 to 59 inbs). Finally, Stratum III was noted as a layer of reddish brown (5YR 4/4) clay mottled with gray (10YR 5/1) clay that reached from the base of Stratum II to a maximum excavated depth of 200 cmbs (78.7 inbs).

FEATURES: None identified.

DATING/CULTURAL AFFILIATION: Tchefuncte Culture of the Woodland Stage; 500 B.C. to A.D. 100

PRESENT CONDITION/PRESERVATION: no intact deposits identified; condition is poor

PRESENT USE: Cattle pasture

PRESENT AND FUTURE IMPACTS: Present and future impacts include erosion and dredge disposal

COLLECTIONS

SURVEY/EXCAVATION METHOD: Pedestrian survey augmented by shovel testing (n=27), auger testing (n=27) and backhoe trenching (n=3).

DESCRIPTION OF MATERIAL: unmodified bone (n=1), aboriginal ceramics (n=2)

SITE EVALUATION

RESEARCH POTENTIAL: The sparse artifact assemblage and lack of intact cultural deposits demonstrate that this site does not possess research potential.

STATE OR NATIONAL REGISTER ELIGIBILITY: not significant

RECOMMENDATIONS: No additional testing of Site 16LY24 is recommended.

RECORDS

OWNER/TENANT AND ADDRESS: Richard D. Chappuis, Jr.
Wk: 700 St. John Street
Post Office Box 3527
Lafayette, Louisiana 70502-3527

INFORMANTS: none

PREVIOUS INVESTIGATIONS: 22-119, 22-105

COLLECTIONS AND AVAILABILITY: To be curated with the Louisiana Department of Culture, Recreation, and Tourism, Office of Cultural Development, Division of Archeology, Baton Rouge, Louisiana upon completion of the project.

PHOTOGRAPHS AND MAPS: To be curated with the Louisiana Department of Culture, Recreation, and Tourism, Office of Cultural Development, Division of Archeology, Baton Rouge, Louisiana upon completion of the project.

REFERENCES: Gulf South Research Institute 1976, Environmental effect assessment of the Lafayette Loop, chapter 5: History and archeology (supplement to environmental effect assessment of Lafayette Loop). Unpublished report on file at the Division of Archeology and Historic Preservation, Baton Rouge, LA

NOTE: This report identifies a historic structure as being part of Site 16LY24, however it was situated approximately 300 m (984 ft) west of the site's location originally recorded by Gibson. The current investigation relocated Site 16LY24 in the location recorded by Gibson; it also identified the structure identified by GSRI, but it was given a new site number (Site 16LY—).

Gibson, Jon L., 1976, Archaeological survey of Bayou Teche, Vermillion River, and the Freshwater bayou, south central Louisiana. University of Southwestern Louisiana, Center for Archaeological Studies, Report No. 2. Unpublished report on file with the Division of Archeology and Historic Preservation, Baton Rouge, LA

RECORDED BY: Catherine Labadia, M.A.
Project Manager
R. Christopher Goodwin & Associates, Inc.
309 Suite A Jefferson Highway
New Orleans, LA 70121
Tel. (504) 837-1940

Date: September 14, 2002

CAD CODING SHEET

Landform (1 Entry)

kn Knoll
rid Ridge
bn Bench
pm Pimple Mound

sd Saltdome
swa Swamp
bsw Backswamp
msh Marsh

bea Beach
udw Underwater
nal Natural Levee
chr Chenier

nrs Nat. Relic Scar
bat Batture
ot Other see form

Soil Area (1 Entry)

cp Coastal Plain
cmr Coastal Marsh

fw Flatwoods
mtl Miss. Terrace,
Loessial Hills

ral Recent Alluvium

cpr Coastal Prairies

Soil Series Number 24 Sharkey Clay

Cultural Features (4 Entries)

sar Single Artifact
md1 Mound/Earthwork
md2 Mounds/Earthwork
her Hist. Earthwork
ote Other Earthwork
sw Shipwreck

psc Prehistoric Scatter
hsc Historic Scatter
hst Hist. Sheet Midden
shm Shell Midden
erm Earth Midden

ls Lithic Scatter
bu Burials
ss Standing Structures
du Dump
hr Historic ruins

Remarks (C.F.) _____

Cultural Affiliation (7 Entries)

pu Prehis. (Unk.)
hu Historic (Unk.)
ph Pre./Hist. (Unk.)
pal Paleo-Indian
mi Meso-Indian/Archaic
ni Neo-Indian (Unk.)
po Poverty Point

tc Tchefuncte
mar Marksville
is Issaquena
ba Baytown
tro Troyville
cc Coles Creek
pq Plaquemine

ms Mississippian
cad Caddo
hi Hist. Indian Contact
ex Hist. Explr. 1541-1803
ant Antebellum 1803-1860
war War & Aftm 1860-1890
in Indust. & Modern 1890-

Remarks (C.A.) _____

Site Function (3 Entries)

pu Prehist. (Unk.)
hu Historic (Unk.)
ch Chipping Station
cam Camp
el Extraction Locale
ha Preh. Hamlet/Vill.
cer Ceremonial Center

fa Farm/Rural res.
wt Watercraft P&H
pt Plantation
hs Hist. Town/Vill.
ur Urban
cr Cemetery (Mort.)
ht Hist. Transport.

ci Commercial/Service Cen.
it Institut. (Rel. & Ed.)
gv Governmental
id Industrial
du Dump
ml Military

Remarks (S.F.) _____

Description of Material (6 Entries)**cra** Ceramics, Aborig.**hc** Ceramics, Hist.**cs** Chipped Stone**pp** Projectile Pts.**gs** Ground Stone**she** Shell**ppo** PPO's**gl** Glass**me** Metal**cmt** Construct. Material
(Brick, Wattle & Daub)**wb** Worked Bone**ub** Unmodified Bone (Fauna)**fl** Flora**wo** Wood**Method of Investigation at Site****gra** Grab Surface Col.**sv** Systematic Col.**sht** Shovel Testing

(3 Entries)

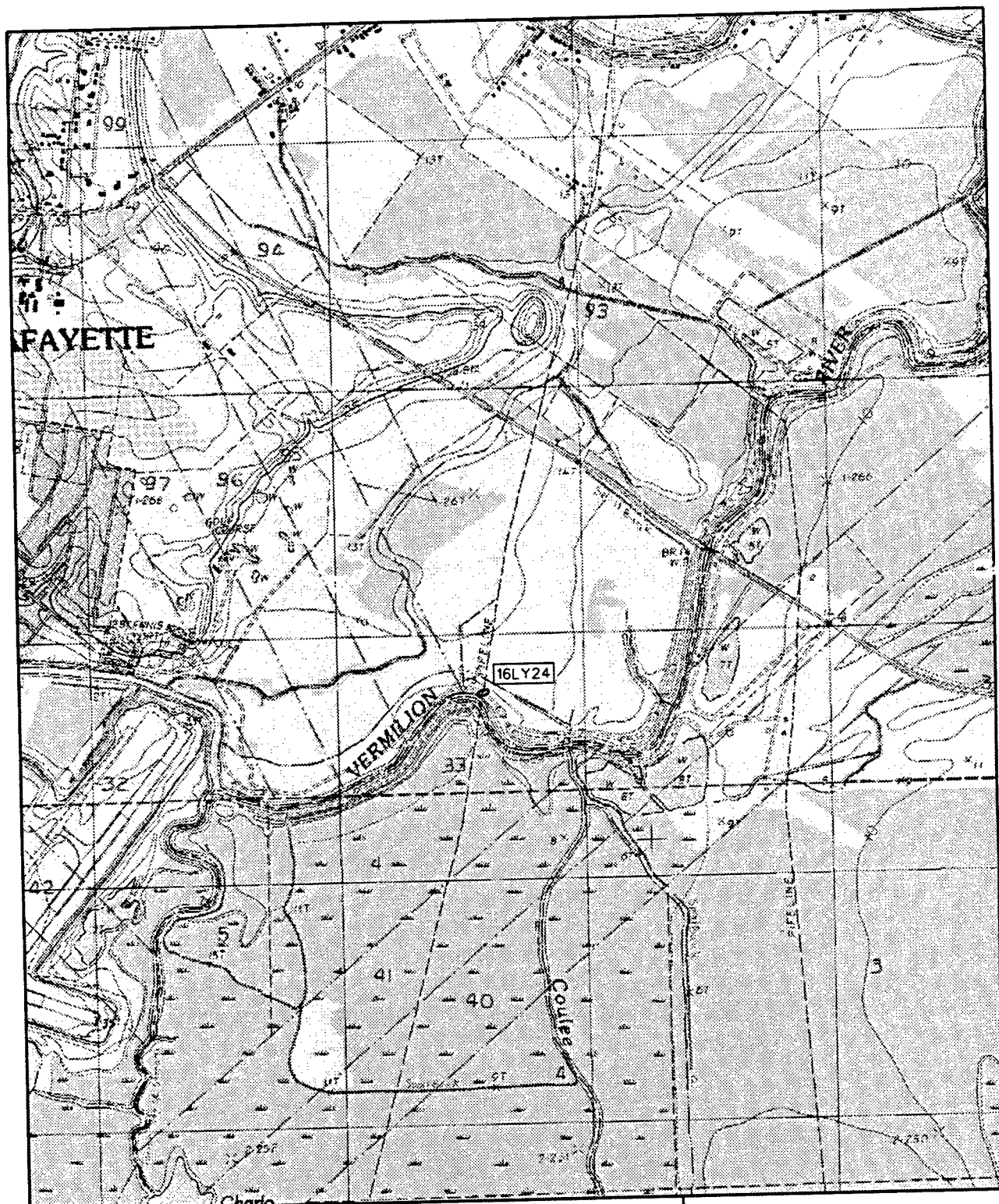
au Auger Testing**tu** Test Units**exc** Excavation**rs** Remote Sensing**dv** Diver Investigation**Disturbance Agent/Present Use (3 Entries)****unk** Unknown**pd** Potted**nn** None**ag** Agricltr (Plowing)**ti** Timber Industry**nat** Natural**di** Urban Develop.**ot** Other, see site form**cw** Construction, Water**cto** Construction, Other**uw** Underwater**Disturbance Degree (1 Entry)****unk** Unknown**nn** None**mp** Minor Impact**mj** Major Impact**dt** Destroyed**iu** Inundated**National Register Status (1 Entry)****unk** Unknown**ne** Not Eligible**ld** Listed**de** Declared Elig.**ps** Potent. Signif.**nd** National Landmark**References (4 Entries)**

1) Gibson 1975

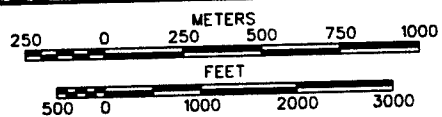
2) Gulf South Research Institute 1976

3) _____

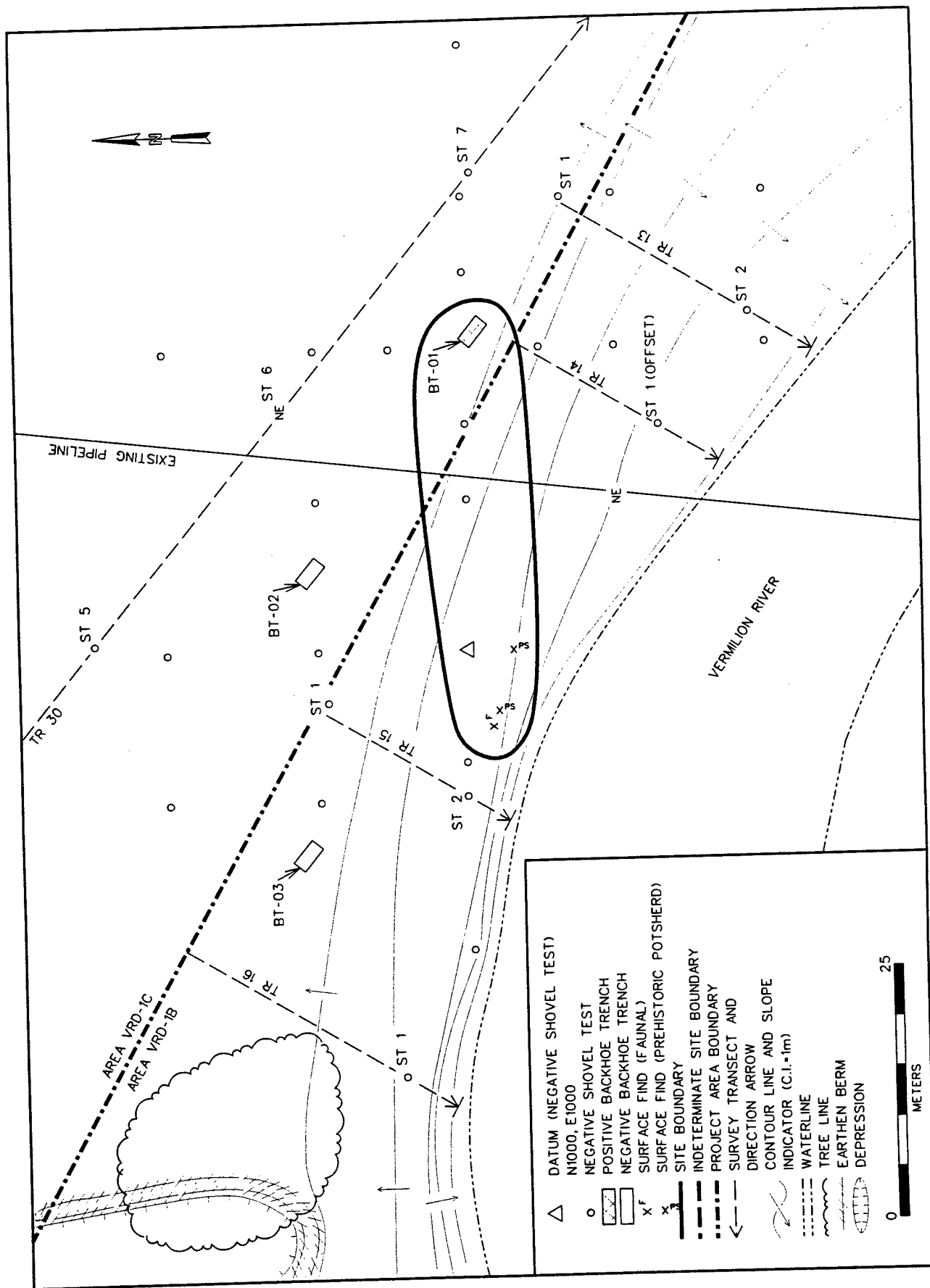
4) _____



SITE 16LY24
QUAD MAP: BROSSARD, LA



○ SITE 16LY24



LEGEND

△ DATUM (NEGATIVE SHOVEL TEST)
 ○ N1000, E1000
 [Hatched Box] NEGATIVE SHOVEL TEST
 [Cross-hatched Box] POSITIVE BACKHOE TRENCH
 [Empty Box] NEGATIVE BACKHOE TRENCH
 X^F SURFACE FIND (FAUNAL)
 X^{PS} SURFACE FIND (PREHISTORIC POTSHERD)

— SITE BOUNDARY
 - - - INDETERMINATE SITE BOUNDARY
 ···· PROJECT AREA BOUNDARY
 --- SURVEY TRANSECT AND
 <--- DIRECTION ARROW
 --- CONTOUR LINE AND SLOPE
 --- INDICATOR (C.I.-1m)
 --- WATERLINE
 --- TREE LINE
 --- EARTHEN BERM
 --- DEPRESSION

0 25 METERS

STATE OF LOUISIANA
SITE UPDATE RECORD FORM

LOCATIONAL DATA

SITE NAME: Chappuis

STATE SURVEY NO.: 16LY50

OTHER SITE DESIGNATIONS: VRD-1B-01

SITE LOCATION AND APPROACH: Along the northern bank of the Vermilion river 200m(.13mi) downstream of Coulee Crow.

PARISH: Lafayette

~~IRR~~ $\frac{1}{4}$ of the ~~IRR~~ $\frac{1}{4}$ of Section 93 Township 9S Range 5E

USGS QUADRANGLE: Broussard, LA 7.5 minute

UTM COORDINATES: Zone 15 N 3342600 E599760

GEOGRAPHICAL COORDINATES: 30°12'38" N 91°57'48" E

PHYSICAL SETTING

LANDFORM: artificial levee

GEOMORPHIC PROCESSES: erosion

ELEVATION AND RELIEF: 5-15ft (1.5 -4.6m) AMSL

NEAREST WATER: Vermilion River situated 1m (3 ft) south

POSITION WITH RESPECT TO TERRAIN: The site is situated on an artificial levee along the Vermilion River.

SOIL CHARACTERISTICS: The Fausse and Sharkey associations are clayey throughout and they are very poorly drained with a high water table throughout much of the year. They typically occupy swamp areas within the alluvial plain. Fausse soils generally are slightly acidic, while Frost soils typically are mildly alkaline. These soils are described as various shades of gray in color throughout. With flood control measures, these soils are well suited as pastures and possibly croplands.

FLORAL COMMUNITIES: Occasional hardwoods; pasture grasses

FAUNAL COMMUNITIES: rabbit, raccoon, white tail deer, squirrel, nutria, muskrat, mink, otter, bobwhite quail, dove, wood duck, American woodcock, glossy ibis, golden eagle, bald eagle, tern, alligator, snake, toad, frog, salamander, lizard, skink

NEAREST KNOWN SITE: 16LY24

SITE DESCRIPTION

SITE DESCRIPTION: Site 16L Y50 represents a redeposited prehistoric site with an artifact assemblage that primarily dates from the Tchefuncte Culture of the Woodland Stage: 500 B.C. to A.D. 100. Additional prehistoric cultures were represented, as well as historic period intrusions.

SITE SIZE: approximately 135 x 175m (443 x 574 ft)

CONFIGURATION: irregular

DENSITY OF CULTURAL MATERIALS: moderate to high artifact density

DEPTH OF DEPOSIT/STRATIGRAPHY: Cultural material was recovered from depths ranging from 0 to 170 cmbs (0 to 67 inbs), however, artifacts were recovered most frequently at depths ranging from 40 to 60 cmbs (15.7 to 23.6 inbs). No standard stratigraphic profile was recorded for Site 16L Y50. Despite the consistency in soil texture, there was a large amount of variation in the number of strata present, as well as their depth and coloration.

FEATURES: None identified

DATING/CULTURAL AFFILIATION: Tchefuncte, Marksville, Coles Creek, 20th century

PRESENT CONDITION/PRESERVATION: poor

PRESENT USE: Cattle pasture

PRESENT AND FUTURE IMPACTS: erosion and dredge deposition

COLLECTIONS

SURVEY/EXCAVATION METHOD: Pedestrian survey augmented by shovel testing (n=122), auger testing (n=5) and backhoe trenching (n=8).

DESCRIPTION OF MATERIAL: A total of 699 prehistoric artifacts (lithic and ceramic), 38 historic/modern artifacts, 250 pieces of faunal material, a single botanical specimen, and approximately 25 g (0.8 oz) of charcoal were recovered from shovel testing, auger testing, and backhoe trenching completed throughout the site area. In addition, 28 chert flakes, 254 ceramic artifacts, 2,229 faunal remains, 2 botanical specimens and nearly 20 g (0.7 oz) of charcoal were recovered from flotation of a soil sample gathered from a redeposited portion of a midden.

SITE EVALUATION

RESEARCH POTENTIAL: Despite the recovery of this large and diverse artifact assemblage, there is substantial evidence suggesting that the site lacks stratigraphic integrity and largely may have been redeposited to its current location. The absence of stratigraphic integrity at Site 16L Y50 limits its research potential.

STATE OR NATIONAL REGISTER ELIGIBILITY: not significant

RECOMMENDATIONS: No additional testing of Site 16L Y50 is recommended.

RECORDS

OWNER/TENANT AND ADDRESS: Richard D. Chappuis, Jr.
Wk: 700 St. John Street
Post Office Box 3527
Lafayette, Louisiana 70502-3527

INFORMANTS: none

PREVIOUS INVESTIGATIONS: 22-119

COLLECTIONS AND AVAILABILITY: To be curated with the Louisiana Department of Culture, Recreation, and Tourism, Office of Cultural Development, Division of Archeology, Baton Rouge, Louisiana upon completion of the project.

PHOTOGRAPHS AND MAPS: To be curated with the Louisiana Department of Culture, Recreation, and Tourism, Office of Cultural Development, Division of Archeology, baton Rouge, Louisiana upon completion of the project.

REFERENCES: Clendenen Broussard, 1976, Environmental effect assessment of the Lafayette Loop, chapter 5: History and archeology (supplement to environmental effect assessment of Lafayette Loop). Unpublished report on file at the Division of Archeology and Historic Preservation, Baton Rouge, LA

RECORDED BY: Catherine Labadia, M.A.
Project Manager
R. Christopher Goodwin & Associates, Inc.
309 Suite A Jefferson Highway
New Orleans, LA 70121
Tel (504) 837-1940

Date: September 14, 2002

CAD CODING SHEET

Landform (1 Entry)

kn Knoll
rid Ridge
bn Bench
pm Pimple Mound

sd Saldome
swa Swamp
bsw Backswamp
msh Marsh

bea Beach
udw Underwater
nal Natural Levee
chr Chenier

nrs Nat. Relic Scar
bat Batture
ot Other see form

Soil Area (1 Entry)

cp Coastal Plain
cmr Coastal Marsh

fw Flatwoods
mtl Miss. Terrace,
Loessial Hills

ral Recent Alluvium

cpr Coastal Prairies

Soil Series Number 24 Sharkey Clay

Cultural Features (4 Entries)

sar Single Artifact
md1 Mound/Earthwork
md2 Mounds/Earthwork
her Hist. Earthwork
ote Other Earthwork
sw Shipwreck

psc Prehistoric Scatter
hsc Historic Scatter
hst Hist. Sheet Midden
shm Shell Midden
erm Earth Midden

ls Lithic Scatter
bu Burials
ss Standing Structures
du Dump
hr Historic ruins

Remarks (C.F.) _____

Cultural Affiliation (7 Entries)

pu Prehis. (Unk.)
hu Historic (Unk.)
ph Pre./Hist. (Unk.)
pal Paleo-Indian
mi Meso-Indian/Archaic
ni Neo-Indian (Unk.)
po Poverty Point

tc Tchefuncte
mar Marksville
is Issaquena
ba Baytown
tro Troyville
cc Coles Creek
pq Plaquemine

ms Mississippian
cad Caddo
hi Hist. Indian Contact
ex Hist. Explr. 1541-1803
ant Antebellum 1803-1860
war War & Aftm 1860-1890
in Indust. & Modern 1890-

Remarks (C.A.) _____

Site Function (3 Entries)

pu Prehist. (Unk.)
hu Historic (Unk.)
ch Chipping Station
cam Camp
el Extraction Locale
ha Preh. Hamlet/Vill.
cer Ceremonial Center

fa Farm/Rural res.
wt Watercraft P&H
pt Plantation
hs Hist. Town/Vill.
ur Urban
cr Cemetery (Mort.)
ht Hist. Transport.

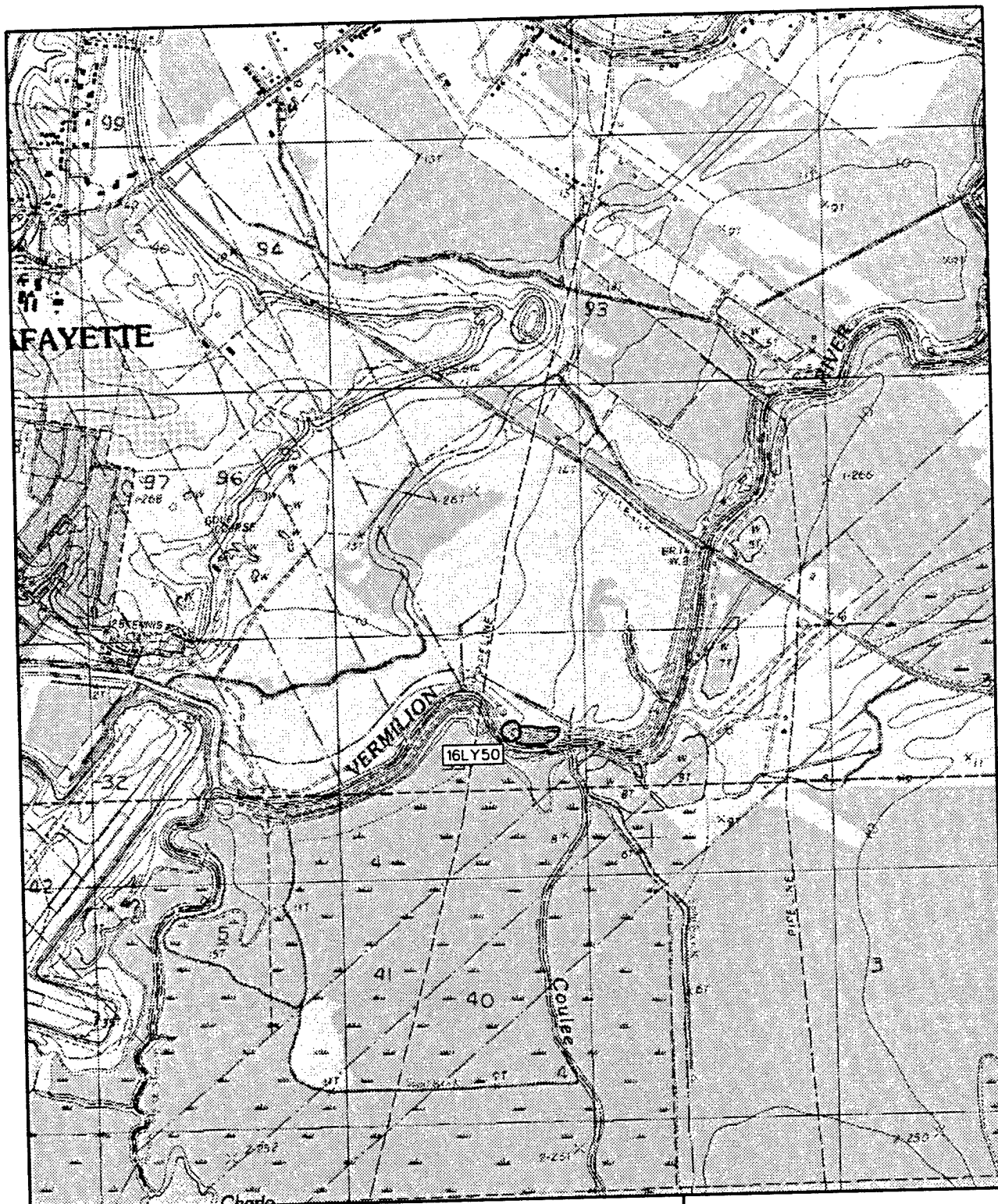
ci Commercial/Service Cen.
it Institut. (Rel. & Ed.)
gv Governmental
id Industrial
du Dump
ml Military

Remarks (S.F.) _____

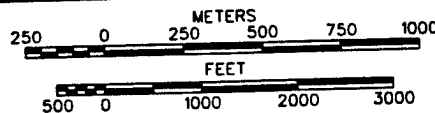
Description of Material (6 Entries)**cra** Ceramics Aborig.**hc** Ceramics Hist.**cs** Chipped Stone**pp** Projectile Pts.**gs** Ground Stone**she** Shell**ppo** PPO's**gl** Glass**me** Metal**cmt** Construct. Material
(Brick, Wattle & Daub)**wb** Worked Bone**ub** Unmodified Bone (Fauna)**fl** Flora**wo** Wood**Method of Investigation at Site****gra** Grab Surface Col.**sv** Systematic Col.**sht** Shovel Testing

(3 Entries)

au Auger Testing**tu** Test Units**exc** Excavation**rs** Remote Sensing**dv** Diver Investigation**Disturbance Agent/Present Use (3 Entries)****unk** Unknown**pd** Potted**nn** None**ag** Agricultr (Plowing)**ti** Timber Industry**nat** Natural**di** Urban Develop.**ot** Other, see site form**cw** Construction, Water**cto** Construction, Other**uw** Underwater**Disturbance Degree (1 Entry)****unk** Unknown**nn** None**mp** Minor Impact**mj** Major Impact**dt** Destroyed**iu** Inundated**National Register Status (1 Entry)****unk** Unknown**ne** Not Eligible**ld** Listed**de** Declared Elig.**ps** Potent. Signif.**nd** National Landmark**References (4 Entries)**1) Gulf South Research Institute 1976 2) _____ 3) _____ 4) _____



SITE 16LY50
QUAD MAP: BROSSARD, LA



- 16LY50 PREVIOUS SITE BOUNDARY
- ADDITION TO 16LY50 SITE BOUNDARY

