

Exhibit HH. Harvey Site Phase I Cultural Resource Assessment Report



Baton Rouge Area Chamber®



Harvey Site Phase I Cultural Resources Assessment Report

PHASE I CULTURAL RESOURCES SURVEY OF 344 ACRES (139.21 HECTARES), WEST FELICIANA PARISH, LOUISIANA

Draft Report



for

Baton Rouge Area Chamber (BRAC)
564 Laurel St.
Baton Rouge, Louisiana 70801

May 2018



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



**PHASE I CULTURAL RESOURCES SURVEY
OF 344 ACRES (139.21 HECTARES),
WEST FELICIANA PARISH, LOUISIANA**

Draft Report

by

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Baton Rouge Area Chamber (BRAC)

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Baton Rouge, Louisiana 70801

May 2018

ABSTRACT

From March 12-23, 2018, Surveys Unlimited Research Associates, Inc. (SURA) carried out a Phase I cultural resources survey of 344 acres (139.21 hectares) in West Feliciana Parish, Louisiana. The project was carried out under contract to the Baton Rouge Area Chamber (BRAC), as part of their Louisiana Economic Development Certified Sites Program, and to fulfill requirements for Section 106 of the National Historic Preservation Act of 1966.

The Area of Potential Effects (APE) was sectioned into areas of high probability, low probability, and an area of previous survey. A total of 1,094 shovel tests were excavated at high probability, low probability, and subsequent delineation. Of these, 408 were within the areas of low probability, and 686 within the areas of high probability. The APE consisted mostly of wooded forests with steep ridges and slopes, while some areas consisted of low lying river cane forests. ATV trails and various cut throughs were encountered throughout the APE. Additionally, the area of previous survey is an existing pipeline running northeast-southwest through the center of the project area.

Seven sites were included in the APE, along with one standing structure. The survey located five previously unrecorded sites within the APE: 16WF195 (the Harvey Chimney Site); 16WF198 (the Harvey Sawmill Site); 16WF197 (the HP4 South Site); 16WF196 (the Old Valyria Site); and, 16WF199 (the Whispering Wood Site). Two previously recorded sites were visited within the APE: 16WF47 (the Temporary No. 7 Site) and 16WF31 (the Riddle Family Cemetery Site). A previously recorded standing structure, the Lapeze Plantation residence (63-00113), was encountered within the eastern boundary of the project area along HWY 964.

Further work is recommended at two of the previously unrecorded sites: 16WF198 (the Harvey Sawmill Site) and 16WF199 (the Whispering Wood Site), while further work is not recommended at the remaining three previously unrecorded sites: 16WF195 (the Harvey Chimney Site); 16WF197 (the HP4 South Site); and 16WF196 (the Old Valyria Site). Additionally, further work is not recommended at the previously recorded site 16WF47 (the Temporary No. 7 Site). It is recommended that a 100 ft (30.5 m) protective buffer be implemented for 16WF31 (the Riddle Family Cemetery Site) due to the potential of additional burials outside the fenced area.

16WF198 (the Harvey Sawmill Site), 16WF199 (the Whispering Wood Site) and 16WF31 (the Riddle Family Cemetery Site) are considered eligible for the National Register of Historic Places, due to the potential of further research above and beyond the scope of the Phase I survey. Additionally, the Lapeze Plantation residence is not currently listed on the National Register of Historic Places and, as it stands, is not considered eligible; however, it is recommended that construction around the residence be avoided.

ACKNOWLEDGEMENTS

The field crew consisted of Brandy Kerr, Margeaux Murray, Kobi Weaver, Julie Doucet, Karl Shuman, and Hamzah Jule. Jennie Garcia, M.A., Historic Preservationist, provided information on and evaluated the impact of this project to the Riddle Family Cemetery and the Lapeze Plantation residence. Brandy Kerr led the crew and wrote the report. Julie Doucet, M.A., R.P.A. served as principal investigator.

The authors would like to extend a special thank you to Mr. Wilbert Kelly for providing details on the history of the project area and sites encountered, and the Baton Rouge Area Chamber (BRAC) for their aid in facilitating this project.

TABLE OF CONTENTS

| | |
|---|-----|
| ABSTRACT..... | i |
| ACKNOWLEDGEMENTS | ii |
| TABLE OF CONTENTS | iii |
| LIST OF FIGURES | vi |
| LIST OF TABLES..... | ix |
| CHAPTER ONE: INTRODUCTION..... | 1 |
| CHAPTER TWO: ENVIRONMENTAL SETTING..... | 2 |
| Geology and Geomorphology | 2 |
| High Terraces Complex..... | 5 |
| Loess | 8 |
| Local Late Quaternary Terraces | 8 |
| Late Quaternary Fluvial Terraces | 11 |
| Local Stream Alluvium..... | 11 |
| Soils | 12 |
| CHAPTER THREE: PREHISTORY OF THE PROJECT AREA..... | 14 |
| Paleoindian Period (?–6,000 B.C.) | 14 |
| Archaic Period (6,000 B.C.–1,500 B.C.) | 14 |
| Neoindian Period (1,500 B.C.–A.D. 1500) | 16 |
| Poverty Point Culture (1,500 B.C.–500 B.C.) | 16 |
| Tchula Period (500 B.C.–A.D. 1)..... | 17 |
| Marksville Culture (A.D. 1–400) | 18 |
| Baytown Period (A.D. 400–700)..... | 19 |
| Coles Creek Period (A.D. 700–1200) | 19 |
| Mississippi Period (A.D. 1200–1700) | 20 |
| Protohistoric and Early Historic Cultures..... | 21 |
| CHAPTER FOUR: A BRIEF HISTORY OF THE PROJECT AREA | 23 |
| Early Exploration and Settlement..... | 23 |
| European Exploration and Settlement of the Area | 24 |
| The West Florida Rebellion | 25 |
| Louisiana under American Control..... | 25 |
| West Feliciana Parish..... | 26 |
| Antebellum Land Use and Culture | 27 |

| | |
|--|-----|
| Parish Transportation and the West Feliciana Railroad | 28 |
| The Civil War | 29 |
| Postbellum and Modern West Feliciana..... | 29 |
| CHAPTER FIVE: PREVIOUS INVESTIGATIONS | 31 |
| Projects within 1 mi (1.61 km) of Project Area | 31 |
| CHAPTER SIX: METHODOLOGY | 33 |
| Procedures..... | 33 |
| Eligibility for the National Register of Historic Places | 34 |
| Curation Statement..... | 34 |
| CHAPTER SEVEN: RESULTS OF THE SURVEY | 35 |
| Background and Archival Research..... | 35 |
| Archaeological Sites within 1 mi (1.61 km) of APE..... | 38 |
| Standing Structures within 1 mi (1.61 km) of APE | 40 |
| Fieldwork..... | 41 |
| Low Probability Sections | 42 |
| Low Prob 1..... | 42 |
| Low Prob 2..... | 44 |
| Low Prob 3..... | 46 |
| Low Prob 4..... | 48 |
| Low Prob 5..... | 50 |
| High Probability Sections..... | 52 |
| High Prob 1..... | 52 |
| High Prob 2..... | 57 |
| High Prob 3..... | 59 |
| High Prob 4..... | 61 |
| Previously Surveyed Area | 63 |
| Archaeological Sites..... | 63 |
| 16WF196 (the Old Valyria Site)..... | 64 |
| 16WF195 (the Harvey Chimney Site)..... | 69 |
| 16WF199 (the Whispering Wood Site) | 78 |
| 16WF198 (the Harvey Sawmill Site)..... | 91 |
| 16WF197 (the HP4 South Site)..... | 98 |
| 16WF31 (the Riddle Family Cemetery Site) | 103 |
| 16WF47 (The Temporary No.7 Site) | 109 |
| Standing Structure 63-00113 | 112 |

| | |
|--|-----|
| Summary of Fieldwork..... | 114 |
| CHAPTER EIGHT: CONCLUSIONS AND RECOMMENDATIONS | 116 |
| Recommendations..... | 118 |
| REFERENCES CITED..... | 119 |
| Websites | 129 |
| Oral Communication..... | 130 |
| Maps | 130 |

LIST OF FIGURES

| | |
|--|----|
| Figure 1. Portion of Port Hudson, LA 1963 7.5-Minute Topographic Map (Source: USGS). | 1 |
| Figure 2. Soils Map of APE (Source: University of California, Davis 2016/Google Earth). | 13 |
| Figure 3. Prehistoric cultural chronology (Source: Rees 2010:12). | 15 |
| Figure 4. Map of Projects, Sites, and Structures within One Mile of Project Area | 32 |
| Figure 5. Portion of Bayou Sara, LA-MS 1906 30-Minute Topographic Map (Source: USGS). ... | 35 |
| Figure 6. Portion of Port Hudson, LA 1963 7.5-Minute Topographic Map (Source: USGS). | 36 |
| Figure 7. Portion of New Roads, LA-MS 1983 30-Minute Topographic Map (Source: USGS). ... | 37 |
| Figure 8. Aerial Photograph Depicting Locations of HP, LP, and Previous Survey of the APE (Source: Google Earth). | 41 |
| Figure 9. Aerial with APE Inset, LP1 (Source: Google Earth). | 42 |
| Figure 10. Center, LP1, Facing North. | 43 |
| Figure 11. Center, LP1, Facing West. | 43 |
| Figure 12. Aerial with APE Inset, LP2 (Source: Google Earth). | 44 |
| Figure 13. Center, LP2, Facing East. | 45 |
| Figure 14. Center, LP2, Facing South. | 45 |
| Figure 15. Aerial with APE Inset, LP3 (Source: Google Earth). | 46 |
| Figure 16. Center, LP3, Facing North. | 47 |
| Figure 17. Center, LP3, Facing West. | 47 |
| Figure 18. Aerial with APE Inset, LP4 (Source: Google Earth). | 48 |
| Figure 19. Center, LP4, Facing East. | 49 |
| Figure 20. Center, LP4, Facing South. | 49 |
| Figure 21. Aerial with APE Inset, LP5 (Source: Google Earth). | 50 |
| Figure 22. Center, LP5, Facing North. | 51 |
| Figure 23. Center, LP5, Facing West. | 52 |
| Figure 24. Aerial with APE Inset, HP1 (Source: Google Earth). | 53 |
| Figure 25. Northern Boundary, HP1, Facing East. | 54 |
| Figure 26. Western Portion, HP1, Facing North. | 54 |
| Figure 27. Eastern Portion, HP1, Facing South. | 55 |
| Figure 28. Railroad Track and Logs, HP1, Facing Southwest. | 55 |
| Figure 29. Cut Through at Railroad, HP1, Facing South. | 56 |
| Figure 30. Railroad Track Eroding into Ditch, HP1, Facing Southeast. | 56 |
| Figure 31. Aerial with APE Inset, HP2 (Source: Google Earth). | 57 |
| Figure 32. Center, HP2, Facing North. | 58 |
| Figure 33. Center, HP2, Facing West. | 58 |
| Figure 34. Aerial with APE Inset, HP3 (Source: Google Earth). | 59 |
| Figure 35. Center, HP3, Facing East. | 60 |
| Figure 36. Center, HP3, Facing South. | 60 |
| Figure 37. Aerial with APE Inset, HP4 (Source: Google Earth). | 61 |
| Figure 38. Southern Portion, HP4, Facing South. | 62 |
| Figure 39. Northern Portion, HP4, Facing East. | 62 |
| Figure 40. Aerial of Previously Surveyed Area (Source: Google Earth). | 63 |
| Figure 41. Aerial of Sites within the APE (Source: Google Earth). | 64 |
| Figure 42. Aerial with APE Inset, 16WF196 (Source: Google Earth). | 65 |
| Figure 43. Sketch Map, 16WF196. | 66 |

| | |
|---|-----|
| Figure 44. Datum, 16WF196, Facing North..... | 67 |
| Figure 45. Representation of Steep Ridges Surrounding 16WF196, Facing West..... | 67 |
| Figure 46. Lithic Flakes and Scraper, Datum, 16WF196. | 68 |
| Figure 47. Baytown Plain, var. unsp. spec., +30W, 16WF196..... | 69 |
| Figure 48. Aerial with APE Inset, 16WF195 (Source: Google Earth). | 70 |
| Figure 49. Sketch Map, 16WF195..... | 71 |
| Figure 50. Front Face of Brick Chimney, 16WF195, Facing Northeast. | 72 |
| Figure 51. Rear Face of Brick Chimney, 16WF195, Facing Southwest. | 72 |
| Figure 52. Front of Brick Chimney, 16WF195, Facing Northeast..... | 73 |
| Figure 53. Southern Boundary, 16WF195, Facing East. | 73 |
| Figure 54. Concrete Pile, 16WF195, Facing Northeast. | 74 |
| Figure 55. Roofing Pile, 16WF195, Facing Northeast..... | 74 |
| Figure 56. Old Gravel Driveway, 16WF195, Facing Northwest..... | 75 |
| Figure 57. Glass Vessels, Surface, 16WF195..... | 76 |
| Figure 58. Coca-Cola® Vessel, Surface, 16WF195. | 77 |
| Figure 59. Gordon's Vessel, Surface, 16WF195. | 77 |
| Figure 60. Porcelain Dishware, Surface, 16WF195..... | 78 |
| Figure 61. Porcelain Tile and Banded Whiteware, +10W, 16WF195. | 78 |
| Figure 62. Aerial with APE Inset, 16WF199 (Source: Google Earth). | 79 |
| Figure 63. Sketch Map, 16WF199..... | 81 |
| Figure 64. Datum, 16WF199, Facing East. | 82 |
| Figure 65. Burned Soil at +20W (0-40 cmbs), 16WF199, Facing Northeast. | 82 |
| Figure 66. Historic Trash Pile, 16WF199, Facing Southwest..... | 83 |
| Figure 67. Historic Trash Pile, 16WF199, Facing Northeast. | 83 |
| Figure 68. Dug Out Hole at Historic Trash Pile, 16WF199, Facing East..... | 84 |
| Figure 69. Brick Foundation, 16WF199, Facing Northwest..... | 84 |
| Figure 70. Brick Foundation, 16WF199, Facing Northwest..... | 85 |
| Figure 71. Brick Foundation, 16WF199, Facing West. | 85 |
| Figure 72. Brick Column, 16WF199, Facing Northwest. | 86 |
| Figure 73. Partial Champagne Vessel, +30W, 16WF199. | 89 |
| Figure 74. Flow Blue Pearlware, +20W, 16WF199..... | 89 |
| Figure 75. Ironstone Vase, Historic Trash Pile, 16WF199..... | 90 |
| Figure 76. Embossed Vessel Glass, Historic Trash Pile, 16WF199..... | 90 |
| Figure 77. Ironstone with Partial Maker's Mark, Historic Trash Pile, 16WF199..... | 91 |
| Figure 78. Decal Porcelain Dishware, Historic Trash Pile, 16WF199. | 91 |
| Figure 79. Aerial with APE Inset, 16WF198 (Source: Google Earth). | 93 |
| Figure 80. Sketch Map, 16WF198..... | 94 |
| Figure 81. Center of Row 1, 16WF198, Facing East. | 95 |
| Figure 82. Row 1, Column 3, 16WF198, Facing Northeast. | 95 |
| Figure 83. Center of Rows 2 and 3, 16WF198, Facing South..... | 96 |
| Figure 84. Row 2, Column 3, 16WF198, Facing Southeast..... | 96 |
| Figure 85. Row 3, Column 5, 16WF198, Facing Southeast..... | 97 |
| Figure 86. Representation of Trash Piles, 16WF198, Facing Southwest. | 97 |
| Figure 87. Representation of Historic Machinery, 16WF198, Facing West..... | 98 |
| Figure 88. Aerial with APE Inset, 16WF197 (Source: Google Earth). | 99 |
| Figure 89. Sketch Map, 16WF197..... | 100 |
| Figure 90. Center of Surface Scatter, 16WF197, Facing West. | 101 |

| | |
|--|-----|
| Figure 91. Surface Scatter, 16WF197..... | 101 |
| Figure 92. Ironstone Sherds, 16WF197..... | 102 |
| Figure 93. Solarized Lip/Neck and Milk Glass, 16WF197..... | 103 |
| Figure 94. Aerial with Inset, 16WF31 (Source: Google Earth)..... | 104 |
| Figure 95. Sketch Map, 16WF31..... | 105 |
| Figure 96. Sketch Map, 16WF31 with Proposed 100 ft Buffer. | 105 |
| Figure 97. Center of Cemetery, 16WF31, Facing North. | 106 |
| Figure 98. Center of Cemetery, 16WF31, Facing East. | 106 |
| Figure 99. Center of Cemetery, 16WF31, Facing South..... | 107 |
| Figure 100. Center of Cemetery, 16WF31, Facing West. | 107 |
| Figure 101. Aerial with Inset, 16WF47 (Source: Google Earth). | 109 |
| Figure 102. Sketch Map, 16WF47..... | 110 |
| Figure 103. Datum, 16WF47, Facing North..... | 111 |
| Figure 104. Datum, 16WF47, Facing South. | 111 |
| Figure 105. Front of 2817 LA - 964, Jackson, LA, | 112 |
| Figure 106. Southeast Facade, "Lapeze Plantation Residence"..... | 112 |
| Figure 107. Northwest Facade, "Lapeze Plantation Residence"..... | 113 |

LIST OF TABLES

| | |
|---|-----|
| Table 1. Representative Animal Species Present in Project Area and Vicinity (Source: Jones et al. 1996)..... | 3 |
| Table 2. Stratigraphic Nomenclature, Interpretation, and Approximate Stratigraphic Correlation of the Coast-Trending Pleistocene to Late Tertiary Deposits of the Central Gulf Coastal Plain. . | 6 |
| Table 3. Comparative Differences Between Modern Soils, Having Similar Landscape and Internal Soil Drainage Characteristics, Developed in Peoria and Pre-Peoria Loesses in Louisiana (from Miller et al. 1985). | 9 |
| Table 4. Projects within 1 mi (1.61 km) of Project Area (Source: LDOA). | 31 |
| Table 5. Archaeological Sites within 1 mi (1.61 km) of APE (Source: LDOA). | 39 |
| Table 6. Standing Structures within 1 mi (1.61 km) of APE (Source: LDOA). | 40 |
| Table 7. Representative Munsell, LP1..... | 42 |
| Table 8. Representative Munsell, LP2..... | 44 |
| Table 9. Representative Munsell, LP3..... | 46 |
| Table 10. Representative Munsell, LP4..... | 48 |
| Table 11. Representative Munsell, LP5..... | 51 |
| Table 12. Representative Munsell, HP1. | 53 |
| Table 13. Representative Munsell, HP2. | 58 |
| Table 14. Representative Munsell, HP3. | 59 |
| Table 15. Representative Munsell, HP4. | 62 |
| Table 16. Representative Munsell, 16WF196..... | 68 |
| Table 17. Artifact Tally, 16WF196. | 68 |
| Table 18. Representative Munsell, 16WF195..... | 75 |
| Table 19. Artifact Tally, 16WF195. | 76 |
| Table 20. Representative Munsell, 16WF199..... | 86 |
| Table 21. Artifact Tally, 16WF199. | 87 |
| Table 22. Representative Munsell, 16WF198..... | 94 |
| Table 23. Representative Munsell, 16WF197..... | 100 |
| Table 24. Artifact Tally, 16WF197. | 102 |
| Table 25. Legal Inscriptions on Headstones, 16WF31. | 108 |
| Table 26. Representative Munsell, 16WF47..... | 110 |

CHAPTER ONE: INTRODUCTION

From March 12-23, 2018, Surveys Unlimited Research Associates, Inc. (SURA) carried out a Phase I cultural resources survey of 344 acres (139.21 hectares) in West Feliciana Parish, Louisiana. The project was carried out under contract to the Baton Rouge Area Chamber (BRAC), as part of their Louisiana Economic Development Certified Sites program, and to fulfill requirements for Section 106 of the National Historic Preservation Act of 1966. The Area of Potential Effects (APE) lies in Sections 40, 41, 42, and 43, T4S, R2W (Figure 1).

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

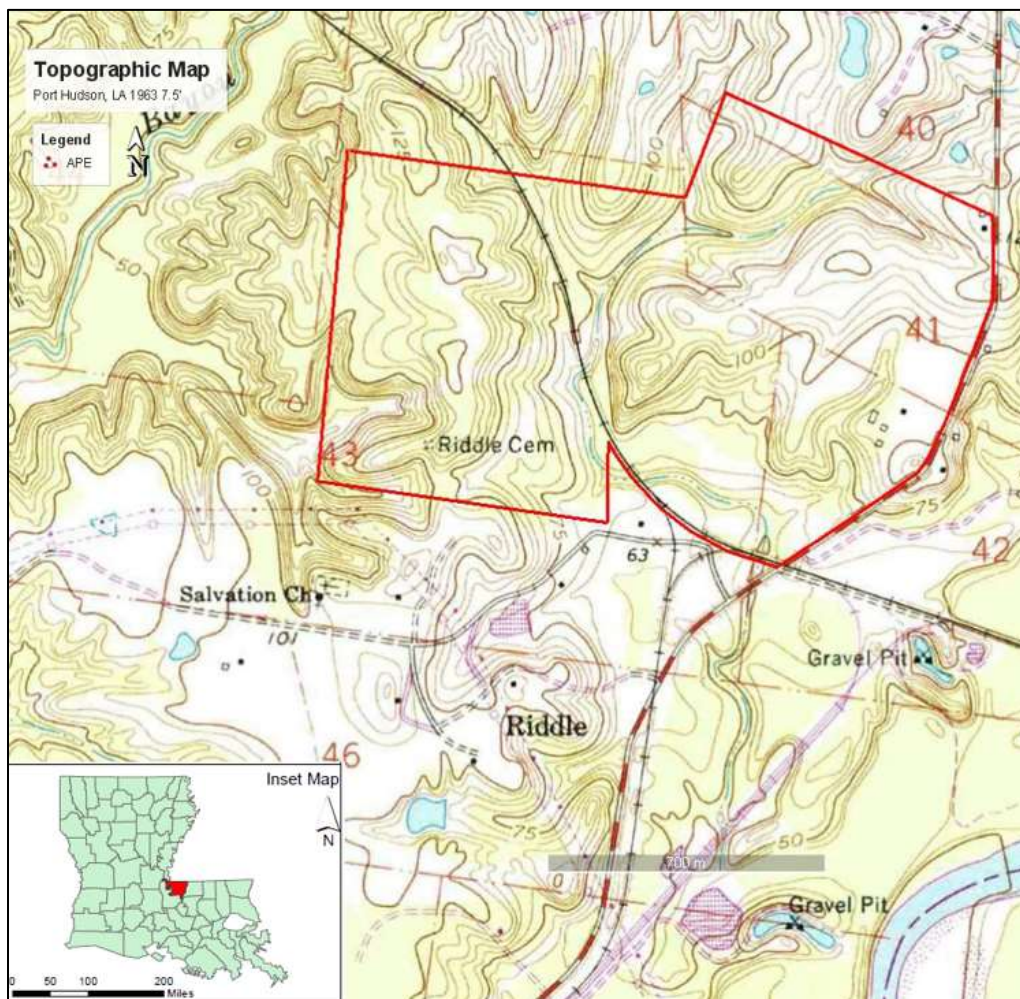


Figure 1. Portion of Port Hudson, LA 1963 7.5-Minute Topographic Map (Source: USGS).

CHAPTER TWO: ENVIRONMENTAL SETTING

Geology and Geomorphology

The dissected uplands in the Tunica Hills of West Feliciana Parish contain mixed shortleaf pine/oak-hickory forests. Examples of the common tree types are: the shortleaf pine (*Pinus echinata*), the loblolly pine (*Pinus taeda*), red oak (*Quercus falcata*), black oak (*Quercus velutina*), black hickory (*Carya texana*), sweet gum (*Liquidambar styraciflua*), and red maple (*Acer rubrum*). The understory in this type of forest contains a great many shrubs such as huckleberry (*Vaccinium arboreum*), holly (*Ilex decidua*), and poison ivy (*Rhus toxicodendron*). On the banks of the Mississippi River, willows (*Salix nigra*), and sycamores (*Platanus occidentalis*) dominate the natural vegetation. The modern disturbance of the forests in Louisiana, however, has allowed the short leaf varieties to perpetuate beyond their natural exclusion from the hardwood forest. This description of the natural setting, typical for West Feliciana Parish, is also specifically appropriate for the project area.

An understanding of a region's geomorphology, geomorphic changes and geomorphic processes is an important component for assessing the distribution and preservation potential of human settlements, areas of other human activities and associated cultural resources. Geomorphology can be used to determine the ages of fluvial deposits and reconstruct the environments people may have occupied. Knowledge of geomorphic changes may indicate the following: (1) where sites are likely to have been destroyed because of vertical and lateral erosion or recent human activities; (2) where sites may be preserved in the subsurface through burial by sediment deposition; (3) where sites may be more distant from their former position near a water boundary because of lateral accretion; and (4) where sites may be preserved at or near the surface because of minimal geomorphic changes. Geologic-physiographic units in the proposed project area include: (1) High Terraces complex, which is early Pleistocene or Pliocene in age; (2) loesses that cap the High Terraces complex; (3) late Quaternary Terraces that flank local streams; and (4) alluvium of local stream valleys.

The animal life of this region was undoubtedly diverse and abundant before extensive historic settlement. With farming and logging, however, the natural setting of the project area was significantly altered. Nevertheless, Table 1 presents a list of representative fauna that are known to inhabit the region surrounding the project area and which probably inhabited it before the onset of modern development.

Table 1. Representative Animal Species Present in Project Area and Vicinity
(Taken from Jones et al. 1996).

FISH

| Common Name | Scientific Name | Habitat |
|--------------------|--------------------------------|--|
| Spotted gar | <i>Lepisosteus oculatus</i> | Clearer waters of lakes, bayous, and oxbows with abundant vegetation |
| Longnose gar | <i>Lepisosteus osseus</i> | Larger rivers |
| Shortnose gar | <i>Lepisosteus platostomus</i> | Larger rivers |
| Alligator gar | <i>Lepisosteus spatula</i> | Large bodies of water, rivers, and lakes |
| Bowfin | <i>Amia calva</i> | Sluggish waters of bayous and borrow pits often choked with vegetation |
| Gizzard shad | <i>Dorosoma cepedianum</i> | Common in all waters of this area |
| Cypress minnow | <i>Hybognathus hayi</i> | Quiet water areas of rivers over soft bottom |
| Silvery minnow | <i>Hybognathus nuchalis</i> | Main stream of major rivers over mud, sand or gravel bottom |
| Golden shiner | <i>Notemigonus crysoleucas</i> | Common in all waters of this area |
| Emerald shiner | <i>Notropis artherinoides</i> | Large rivers |
| River shiner | <i>Notropis blennioides</i> | Large rivers |
| Smallmouth buffalo | <i>Ictiobus bubalus</i> | Oxbow lakes and backwaters of large rivers |
| Bighorn buffalo | <i>Ictiobus cyprinellus</i> | Rivers, lakes, oxbows, and bayous |
| Black buffalo | <i>Ictiobus niger</i> | Larger rivers, oxbows, and bayous |
| Blue catfish | <i>Ictalurus furcatus</i> | Larger rivers |
| Channel catfish | <i>Ictalurus punctatus</i> | Most lakes and rivers |
| Yellow bass | <i>Morone mississippiensis</i> | Moderate to small lakes |
| Blue gill | <i>Lepomis macrochirus</i> | Non-flowing, clear water with scattered weed beds |
| Largemouth bass | <i>Micropterus salmoides</i> | Non-flowing water with aquatic vegetation |
| Freshwater drum | <i>Aplodinotus grunniens</i> | Silty waters of large rivers and lakes |

AMPHIBIANS

| Common Name | Scientific Name | Habitat |
|----------------|--|--|
| American toad | <i>Bufo americanus</i> | Variety of habitats; require water, cover and insects |
| Green treefrog | <i>Hyla cinerea</i> | Swamps, lake borders, anyplace with much water |
| Gray treefrog | <i>Hyla versicolor</i> and <i>Hyla chrysoscelis</i> | Low shrubs in or near standing water |
| Bullfrog | <i>Rana catesbeiana</i> | Large bodies of water (lakes, ponds, sluggish streams) |
| Green frog | <i>Rana clamitans melanota</i> | Shallow, fresh water |

Table 1 (continued). Representative Animal Species Present in Project Area and Vicinity.

REPTILES

| Common Name | Scientific Name | Habitat |
|----------------------------|--|--|
| Snapping turtle | <i>Chelydra serpentina</i> | Permanent body of fresh water |
| Alligator snapping turtle | <i>Macrolemys temmincki</i> | Rivers and lakes |
| Three-toed box turtle | <i>Terrapene carolina triunguis</i> | Terrestrial, wooded areas or edges |
| Ground skink | <i>Leiolopisma laterale</i> | Forest floor covered with leaves |
| Five-lines skink | <i>Eumeces fasciatus</i> | In or near wooded areas with scattered debris |
| Diamondback water snake | <i>Natrix rhombifera rhombifera</i> | Most aquatic habitats |
| Yellow-bellied water snake | <i>Natrix erythrogaster flavigaster</i> | Large, permanent waterbodies |
| Eastern garter snake | <i>Thamnophis sirtalis sirtalis</i> | Virtually all semi-aquatic to terrestrial habitats |
| Speckled king snake | <i>Lampropeltis getulus holbrooki</i> | Variety of habitats including swamps |
| Southern copperhead | <i>Agkistrodon contortrix contortrix</i> | Lowlands near swamps |
| Cottonmouth | <i>Agkistrodon piscivorus</i> | Aquatic habitat-swamps, lakes and rivers |

BIRDS

| Common Name | Scientific Name | Habitat |
|-----------------------|-----------------------------------|--|
| Great blue heron | <i>Ardea herodias</i> | Shallow swamps and bayous |
| Marsh hawk | <i>Circus cyaneus</i> | Mature bottomland-pine hardwood forest |
| Black duck | <i>Anas rubripes</i> | Aquatic habitats |
| Pintail | <i>Anas acuta</i> | Aquatic habitats |
| Green-winged teal | <i>Anas carolinensis</i> | Aquatic habitats |
| Blue-winged teal | <i>Anas discors</i> | Aquatic habitats |
| Canvasback | <i>Anas valisineria</i> | Aquatic habitats |
| Gadwall | <i>Anas strepera</i> | Aquatic habitats |
| Great egret | <i>Casmerodius albus</i> | Wooded swamps |
| Snowy egret | <i>Egretta thula</i> | Wooded swamps |
| Mallard | <i>Anas platyrhynchos</i> | Shallow wooded swamps or flooded bottomlands |
| Wood duck | <i>Aix sponsa</i> | Wooded swamps and flooded bottomlands |
| Wild turkey | <i>Meleagris gallopavo</i> | Mature bottomlands or pine hardwood forest |
| Pileated woodpecker | <i>Dryocopus pileatus</i> | Conifer, mixed, and hardwood forests |
| Red-headed woodpecker | <i>Melanerpes erythrocephalus</i> | Groves, farm country |

Table 1 (continued). Representative Animal Species Present in Project Area and Vicinity.

MAMMALS

| Common Name | Scientific Name | Habitat |
|---------------------|---------------------------------|--|
| Virginia opossum | <i>Didelphis virginiana</i> | Wooded areas |
| Eastern cottontail | <i>Sylvilagus floridanus</i> | Open grassy areas and pastures |
| Swamp rabbit | <i>Sylvilagus aquaticus</i> | Heavily wooded areas |
| Gray squirrel | <i>Sciurus carolinensis</i> | Wooded area |
| Fox squirrel | <i>Sciurus niger</i> | Open, wooded area |
| American beaver | <i>Castor canadensis</i> | Aquatic area with wood vegetation |
| Coyote | <i>Canis latrans</i> | Prairies, open woodlands |
| Red fox | <i>Vulpes fulva</i> | Open or broken mixed forest |
| Gray fox | <i>Urocyon cinereoargenteus</i> | Upland mixed forest-pasture areas |
| Striped skunk | <i>Mephitis mephitis</i> | Mixed open and wooded areas |
| Neartic river otter | <i>Lutra canadensis</i> | Most aquatic habitats |
| White-tailed deer | <i>Odocoileus virginianus</i> | Bottomland hardwood forest with openings |

NOTES: References cited are Douglas (1974), Conant (1975), Lowrey (1955 and 1974), St. Amant (1959) and Sealander (1956).

High Terraces Complex

The High Terraces complex is a name given by the Louisiana Geological Survey (Snead and McCulloh 1984) for the oldest unit found at the surface in the study area. Commonly called the Tunica Hills, it corresponds closely with the area originally delineated as the Citronelle Formation by Matson (1916), a name used throughout other geological studies of the Gulf Coastal Plain and Lower Mississippi Valley. The description on the Geologic Map of Louisiana is "a tan to orange clay, silt, and sand with a large amount of basal gravel." Surfaces are highly dissected and less continuous than the lower terraces, and are composed of terraces formerly designated as Citronelle, Williana, and the Bentley (Snead and McCulloh 1984). Most workers have considered these as one morphostratigraphic unit, although Fisk (1944) believed that portions of two terraces, the Williana and the Bentley, occur across this area. Nomenclature associated with this unit has been varied (Table 2).

At maturity, the High Terraces complex is dissected, and its general morphology is that of a cuesta. Surface elevations are generally higher than 170 ft (50 m), but the contact between this terrace and other units cannot be drawn based on elevation. Local relief is very pronounced, and slopes of this surface are generally appreciably greater than those of the lower terraces. Because of dissection and structural influence, the original geomorphic expression of the surface has been obliterated, and the depositional environment is best determined stratigraphically.

The depositional environments of these sediments have been variously interpreted as glacio-fluvial, marine, meandering or braided stream (see Table 2). The modern consensus is that the Citronelle Formation is an alluvial apron that was deposited by braided, coalescing streams.

Heavy mineral analyses by Rosen (1969) indicate that these deposits are also not derived from the Mississippi River as inferred by Fisk (1944). The deposits forming the High Terraces complex consist predominantly of coarse-grained sediments, the source of which has been variously regarded as the continental interior (Fisk 1939; Woodward and Gueno 1941); the eastern Gulf or Appalachian area (Rosen 1969; Cullinan 1969); or, more likely, a combination of these and possibly other sources.

Table 2. Stratigraphic Nomenclature, Interpretation, and Approximate Stratigraphic Correlation of the Coast-Trending Pleistocene to Late Tertiary Deposits of the Central Gulf Coastal Plain.

| Source & Locality | Nomenclature for Prairie Terraces | Nomenclature for Intermediate Terraces | Nomenclature for High Terraces | Nomenclature for Late Tertiary Deposits |
|---|---|--|---|---|
| Hilgard (1866, 1869) Mississippi western Florida parishes Louisiana | Port Hudson Formation fluvial, brackish, marine (Qpl) | | Orange Sand Formation glaciofluvial (Qepl) | Grand Gulf Group (T) |
| McGee (1891) Atlantic & Gulf coastal plains | Columbia Formation marine, continental (Q) | | Lafayette Formation marine (T) | |
| Cendenin (1896) Florida Parishes | Columbia Formation basal portion - continental (Q) upper portion - deltaic, submarine | | Lafayette Formation continental (LT Q) | |
| Harris & Veatch (1899) Louisiana, Mississippi | Port Hudson Formation | | Lafayette Formation littoral or coastal (Tpl) | |
| Mason (1916) Louisiana, Mississippi Alabama, Florida | Pensacola, Hammond, & Port Hickey Ter. coastal & fluvialite (Qpl) | St. Elmo Ter. coastal & fluvialite (Qpl) | Citronelle Formation largely nonmarine (Tpl) | |
| Doering (1935) western Texas & southern Louisiana | Beaumont Formation deltaic, meandering streams (Qpl) | Lissie Formation coalescing river-built fans possible braided (Qpl) | Willis Formation coalescing river-built fans possibly braided (Qpl) | Fleming Formation (T) |
| Fisk (1938a) western Florida Parishes Louisiana & southern Mississippi | Port Hickey Terrace deltaic, fluvial equivalents (Qtpl) | Second Terrace deltaic, fluvial equivalents (Qpl) | Higher Terraces deltaic, fluvial equivalents (Qepl) | |
| Fisk (1938b) Red River region, western Louisiana | Prairie Terrace deltaic, fluvialite (Qpl) | Montgomery Terrace deltaic, fluvial (Qpl) | Bentley Ter. & Williana Ter. deltaic, fluvialite (Qpl) | |
| Doering (1956) Gulf Coast overview | Eunice Oberlin (Qpl) (Qpl) | Lissie (Qpl) | Citronelle Formation (Qepl) | |
| Parsons (1967) western Florida Parishes Louisiana & southwestern Mississippi | Beaumont Terrace deltaic plain (Qtpl) | Intermediate Terrace deltaic plain (Qpl) | Citronelle Formation braided streams-alluvial plain, marine in subsurface (Qepl Tpl) | Pascagoula Formation (Tm-pl) |
| Durham, Moore & Parsons (1967) western Florida Parishes | Prairie Terrace | Irene Terrace | Citronelle Formation | Pascagoula Formation (Tm-pl) |
| Cullinan (1969) Washington & St. Tammany parishes, Louisiana | Prairie Formation (Qpl) | | Citronelle Formation | |
| Campbell (1971) St. Helena & Tangipahoa parishes, Louisiana | Prairie Formation (Qpl) | | Citronelle Formation | |
| Olivos (1982) Florida parishes, south Mississippi & south Louisiana | Prairie, Gulfport, & Biloxi Formation (Qpl) | Unnamed pre-Sangamon unit (Qpl) | Citronelle Formation (Tpl) | Pascagoula Formation (Tm) |
| Sneed & McCulloh, comps (1984) Louisiana | Prairie Terraces (Qpl) | Intermediate Terraces (Qpl) | High Terraces (Qpl) | |

Ter. - Tertiary Q - Quaternary T - Tertiary LT - Late Tertiary Qpl - Late Pleistocene Qpl - Pleistocene Qepl - Early Pliocene
Tpl - Pliocene Tm - Miocene

In the vicinity of the project area, the origin of these deposits is best attributed to an eastern Gulf or Appalachian provenance (Rosen 1969; Cullinan 1969).

The stratigraphic sequences and patterns observed in exposures in the general region reflect a high-energy fluvial setting with multiple channels, several of which appear to have had an appreciably greater competence than modern streams. The sand and gravel deposits commonly display medium- to large-scale planar foreset and trough cross beds, some over 6 ft (5.0 cm) thick. Graveliferous deposits occur in thick sequences where gravel may comprise over 50 percent by weight of individual beds. Rip-up clasts of finely-laminated purplish-red and whitish silt and clay are present in some exposures. Individual rip-up clasts may exceed 50 in (125 cm) in diameter (Smith and Meylan 1983) and clast zones as thick as 10 ft (3 m) have been measured (Mossa and Self 1986). Channeling and cut-and-fill features are common in many exposures. Multi-colored clayey sequences, possibly marginal flood basin or channel fill deposits, 25 ft (7 m) in thickness are exposed in deposits of the High Terraces complex. The sediments in these exposures consist of a highly variable bimodal to trimodal mixture of sand, gravel, and clay, with sand being the dominant particle and clay the least common (Self 1983). In the sand-size fraction, quartz is dominant and chert is common. Locally in southeastern Louisiana, the gravel traction is composed primarily of subrounded, rounded, and subangular chert, with quartz being the next most prevalent component. The clay fraction of some rip-up clasts was determined as primarily kaolinite and illite with small percentages of quartz (Smith and Meylan 1983). Sediments are brightly colored and reflect staining by iron oxide minerals such as hematite and limonite, and possibly oxides of titanium and manganese.

In recent years, at least three major hypotheses have been advanced to explain the occurrence, thickness, and coarseness of these high-level gravel deposits. Clendenin (1896) and Doering (1958) speculated that increased erosion and deposition were related to stream rejuvenation caused by epiorogenic uplift of the continental interior. Brown (1967), in contrast, proposed that a major river, such as an ancestral Tennessee River, flowed southwestward across Mississippi and through the northwest corner of the Florida parishes. Alt (1974) inferred the Citronelle gravels were deposited by large coalescing alluvial fans that he believed were related to an arid climate. Because none of these ideas has been fully substantiated, there is no consensus as to original deposition. However, it is likely that the coarse-grained deposits of basin divides and modern hillcrests are now gravel-defended ridges that are preserved from erosional processes (Brown 1967).

Soils developed on stable landscapes of the High Terraces complex often exhibit very thick sola and a well-developed soil structure. They are further characterized by multiple clay skins, red hues, high percentages of nodules of plinthite or ironstone, and a vermicular fabric of contrasting highly oxidized reduced sediments. The more reduced zones in the vermicular fabric are generally light gray to yellow in color and appear to follow root traces and perhaps burrows. Soils of reworked sediments on less stable landscapes of the High Terraces complex rarely exhibit the contrasting vermicular fabric and generally have less well-developed soil structure. The nature of the soils developed on the High Terraces complex is strongly controlled by the texture of the parent material and relief. The geosol developed on sediments of the High Terraces complex is readily traceable beneath the loess mantles at stable landscape positions.

The age of these deposits has been a subject of contention due to a scarcity of paleontological data and the occurrence of these gravels overlying Tertiary deposits of varying age. Pleistocene, Pliocene, and Miocene ages have been cited as times of deposition. Many workers accept a Pliocene to Pleistocene deposition for these surficial sediments in Louisiana; however, other investigations suggest that the high-level gravels of the coastal plain may be as old as the Miocene (Alt 1974; May 1981).

Loess

Loess, or wind-blown silt, borders both sides of the Mississippi Valley and rests on the High Terraces complex and even some younger Quaternary terraces. The source of the loess, as shown by mineralogical and spatial evidence, was the Mississippi River and major tributaries that possibly had a braided pattern and largely unvegetated floodplain during Pleistocene glaciations.

Loess stratigraphy has recently been used to assign minimum and relative ages to different surfaces and stratigraphic sequences. The most detailed and extensive work on loesses in the lower Mississippi alluvial valley was conducted by Miller and colleagues (Miller et al. 1985). Peoria Loess and an older Sicily Island Loess typically blankets the High and Intermediate terrace complexes near the Mississippi Valley of south Louisiana (Miller et al. 1985). In some parts of the Tunica Hills, Pre-Peoria loess appears to be missing on the High Terraces complex, but no definitive explanation has been proposed. The Prairie and Deweyville terrace complexes are veneered only by Peoria Loess. The older loess has been dated in Mississippi by thermoluminescence at 95,000 to 75,000 years B.P. (before present) (Johnson et al. 1984) and 85,000 to 76,000 B.P. (Pye 1985). Radiocarbon dates of the Peoria Loess are late Wisconsinan, between 22,000 and 20,000 B.P. in Louisiana (Otvos 1980), and thermoluminescence dates in Mississippi range between 22,000 and 9,000 B.P. (Johnson et al. 1984; Pye 1985). Loess thickness is generally a function of distance from the ancestral Mississippi River, with thicker deposits being the closest (Spicer 1969; Miller et al. 1985). The Sicily Island Loess extends east at least to the Pearl River, which forms part of the Louisiana-Mississippi boundary, and is generally more extensive than the Peoria Loess in southeastern Louisiana. Eastward about 20 to 40 mi (32.25 to 64.5 km) to the Amite River, Sicily Island Loess is greater than 3.3 ft (1 m) thick. Further eastward, loess is discontinuous, generally less than 3.3 ft (1 m) thick and mixed with underlying material. A number of field and laboratory criteria have been established to distinguish the loesses (Table 3) (Miller et al. 1985). The Sicily Island Loess is more highly weathered and commonly has hues of 7.5 YR in contrast to the predominant 10 YR hues of the Peoria Loess. The presence of *in situ* loess mantles, which can be assessed by geomorphic, sedimentologic, and pedologic criteria, indicates landscape stability.

Local Late Quaternary Terraces

At least two distinct alluvial terraces flank the modern streams of the Tunica Hills (Delcourt 1974; Delcourt and Delcourt 1977; Kress 1979; Alford et al. 1983). Of these, the higher surface

was designated as part of the Prairie Terraces complex and the lower surface was incorporated with Alluvium on the Geologic Map of Louisiana (Snead and McCulloh 1984).

Table 3. Comparative Differences Between Modern Soils, Having Similar Landscape and Internal Soil Drainage Characteristics, Developed in Peoria and Pre-Peoria Loesses in Louisiana (from Miller et al. 1985).

| SOIL CHARACTERISTIC | SOIL PARENT MATERIAL | |
|--|----------------------|------------------|
| | PEORIA LOESS | PRE-PEORIA LOESS |
| Solum thickness | least | greatest |
| Thickness of A + E horizons | least | greatest |
| Color (Hue) | least red | reddest |
| Maximum clay content in argillic | least | greatest |
| Total clay content in solum | least | greatest |
| Weatherable minerals in nonclay fraction | greatest | least |
| Amount of smectite clay | greatest | least |
| Amount of micaceous clay | greatest | least |
| Amount of kaolinite clay | least | greatest |
| Interlayering / interstratification of clay | least | greatest |
| Fe-oxide content | least | greatest |
| CEC per unit of clay | greatest | least |
| Soil pH | highest | lowest |
| pH-dependent CEC and acidity | least | greatest |
| Extractable acidity (BaCl ₂ , TEA | least | greatest |
| % A1 saturation (effective CEC basis) | least | greatest |
| % base saturation (effective, NH ₄ OAc at pH 7.0, summation of cations) | greatest | least |
| Exchangeable Ca/Mg ratio | greatest | least |
| Total and extractable P | greatest | least |

Entrenchment has been a significant geomorphic process along the downstream portions of the streams in the Florida parishes that drain into the Mississippi River. Bluffs are commonplace along the Tunica Hills streams and generally expose bank sections of greater height and relief than along other southward-flowing streams in the Florida parishes. Duncutting into the Late Tertiary (Miocene) sediments of the Pascagoula Formation is evident from the bluff exposures and the resistant ledges visible in stream bottoms at low flow. Several possible factors have caused terrace development and entrenchment in the Tunica Hills. Fisk (1938) hypothesized that entrenchment and bluff-cutting took place along Bayou Sara as the Mississippi River migrated eastward and caused the streams to increase their gradients and cut through the terrace deposits.

This possibility was considered plausible by Delcourt and Delcourt (1977), Alford et al. (1983), and Mossa and Autin (1989). Others believe that local uplift may also be accentuating the steep gradients of these streams (i.e., Fisk 1938). Furthermore, others believe that incision was caused by eustatic or regional factors spanning a long period (Otvos 1980). The sediments within the terrace sequences are believed to be associated with aggradation during marine transgressions (Fisk 1938; Delcourt and Delcourt 1977; Otvos 1980). Otvos interpreted the younger terrace as cut in response to the Woodfordian marine regression.

There has been much interest and some disagreement on the number, nature, and age of the terraces and stratigraphic units in the Tunica Hills. Fisk (1938) was the first to describe the morphostratigraphy of the terraces in the Tunica Hills. He believed that at least three terrace deposits were unconformably overlying the Miocene clayey siltstones and sands. The name Port Hickey was assigned to the lowest surface and was correlated with the fluvial-trending Prairie Terrace of central Louisiana. Wilcox Bluff was considered part of the Port Hickey sequence and was thought to be mid-Wisconsinan in age. Lower terraces were recognized but considered as merely benches notched into the Port Hickey alluvium. Across the Lower Mississippi Valley, Fisk recognized at least two older surfaces. The Second Terrace was considered to be equivalent to the Montgomery Terrace and was thought to date to the Sangamon glaciation. The Higher Terraces complex was undifferentiated but was considered equivalent to the Bentley and Williana. Fisk (1938) described the sequence at Wilcox Bluff as capped by loess or loess-like material.

Delcourt and Delcourt (1977) presented a different interpretation. They recognized two alluvial fills. The lowest terrace (Terrace 1) was considered to be Woodfordian to Holocene in age based on a scattering of radiocarbon dates ranging between 12,740 and 3,457 B.P. The silty sediments overlying Terrace 1 were interpreted as reworked rather than *in situ* loess. The surface associated with Wilcox Bluff was designated Terrace 2 and interpreted as being Sangamonian because the underlying sediments contain a distinctly warm-temperate plant assemblage.

Otvos (1978, 1980, 1981) expressed yet another viewpoint. Considering the silt on the low terrace (T1) to be *in situ* rather than reworked loess, he interpreted the fill as older and probably deposited during a Farmdalian high sea level stand. He obtained dates between 33,720 and 3,250 B.P. but rejected the younger dates as contaminated. Wilcox Bluff was considered equivalent to the low terraces and was assigned a Farmdalian age.

Alford et al. (1983) reassessed the terrace stratigraphy of the Tunica Hills by resampling and additional radiocarbon dating. They inferred that Delcourt and Delcourt (1977) were correct about the reworked condition of the loess because the silts lacked primary carbonates and contained sand stringers and occasional pebbles, indicating that the sediments were colluvial. Four organic samples collected from the low terrace (T1) yielded dates from near the base of the fill of greater than 38,000 B.P. They also believed that the samples collected by Otvos (1980, 1981) at other probable T2 sites that dated Farmdalian (30,775 to 25,965 B.P.) might be correlative and valid, and that the terrace was mid-Wisconsinan. Only Peoria Loess was interpreted as present on T2 and the loess buried a weakly developed paleosol. For these reasons, Alford et al. (1983) were reluctant to consider Wilcox Bluff Sangamonian.

Late Quaternary Fluvial Terraces

The late Quaternary fluvial terrace deposits in the Tunica Hills are noted for their copious fossil remains, including diverse and well-preserved plant assemblages, freshwater mollusks, and a variety of Pleistocene mammals. Of note among the plant fossils is the reported occurrence of typically boreal species, including white spruce (*Picea glauca*) and tamarack (*Larix laricina*). These are indicative of a cooler and possibly drier Pleistocene climate comparable to the modern Great Lakes region. Boreal and cool-temperate mammals, including bog lemming (*Synaptomys* sp.), meadow vole (*Microtus pennsylvanicus*) and extinct woodland musk ox (*Symbos cavifrons*), have also been reported in West Feliciana Parish, just south of the study area. Other extinct species include sloths and armadillos such as extinct giant armadillo (*Chlamyterium septentrionale*), extinct Pleistocene armadillo (*Dasypus bellus*), extinct ground sloth (*Megalonyx jeffersoni* and *Mylodon harlani*); rodents such as extinct giant beaver (*Castoroides ohioensis*); flesh-eating mammals such as extinct saber-tooth tiger (*Smilodon floridanus*); and other large mammals such as extinct mammoth (*Elephas* sp.), American mastodon (*Mammot americanum*), extinct eastern horse (*Equus complicatus*) and extinct tapir (*Tapirus veroensis*) (Brown 1938; Steere 1938; Richards 1938; Domning 1969; Lowery 1974; Delcourt and Delcourt 1977; Givens and Givens 1987).

Local Stream Alluvium

Alluvium was frequently mapped across the width of most valleys, including terrace deposits older than Holocene. Topographic evidence and pedologic data indicate that several terrace surfaces, which are classified by the Louisiana Geological Survey as Deweyville, Prairie, or perhaps Intermediate Terraces complex, were included in this delineation. Subdivision of the units in the smaller alluvial valleys was not feasible because of map scale.

Local streams in the project area have incised into Pleistocene deposits. The landforms deposited by such streams are proportionately smaller than the Mississippi. Since the local gradients are steep, the currents are generally swift through the headwaters and upper portion of the basin. As the creeks approach the Mississippi River, or its floodplain, velocity generally decreases. Also, flow can be bidirectional in portions of the streams, depending upon the stage of the Mississippi. The mouths of local streams generally experience backwater when stages in the Mississippi River are high, and flow toward the Mississippi when stages in the river are low. Local stream alluvium is dominated by the mineralogical suites of the area drained. In the proposed project area, geologic units principally include the High Terraces complex, which is dominated by kaolinite and has an eastern Gulf or Appalachian heavy mineral suite, and loess, which has the mineral suite of its source, the Mississippi River.

Part of the lower section exposed in the local stream bottoms is considered to be equivalent to the Miocene Pascagoula Formation in Mississippi. These sediments may have been deposited in a brackish-water deltaic (Brown et al. 1944) or a shallow marine (Cullinan 1969) setting. Other investigations suggest there are both fluvial and brackish components (Fisk 1944;

Parsons 1967; Otvos 1982). Lithologies of the lower section include greenish clays, silts and sands that have muddy pebble-sized rip-up clasts. The greenish clays and silts are typically indurated.

Soils

The majority of soils in the APE pertain to the Feliciana Silt Loam Association (Fg), with some areas pertaining to the Morganfield and Bigbee Association (MB) and a minor area of Feliciana and Natchez Silt Loam Association (FH).

The Feliciana Silt Loam Association (Fg) consists of well drained, very deep, moderately permeable soils in the Southern Mississippi Valley. These soils are used for woodlands of mixed hardwoods and pines. Cleared areas are generally used for small grains, soybeans, hay and pasture. They are on nearly level to very steep uplands and terraces having slopes ranging from 0 to 40 percent.

Morganfield soils are characteristically well drained, deep, moderately permeable, nearly level soils formed in thick silty alluvium. They are found on flood plains and upland drainageways in the Southern Mississippi Valley. Areas with these soils are almost always cleared and used for growing corn, soybeans, cotton and small grains. Some areas are used for pasture and hay crops.

Bigbee soils consist of excessively drained, very deep, rapidly permeable soils on higher positions in flood plains along stream flood plains and on natural levees, as well as higher positions in flood plains along stream channels. Slopes range from 0 to 5 percent. These soils have characteristically slow runoff and are generally used for hayland, pine tree plantations, pasture, and truck crops.

Natchez soils consist of well drained, deep soils formed in thick deposits of loess. Permeability is moderate and runoff is characteristically rapid to very rapid. These soils are strongly sloping to very steep soils on hillsides in bluff hills sections of Southern Mississippi Silty Uplands that border the alluvial plains of the Mississippi River and its tributaries. Slope ranges from 12 to 60 percent. These soils are mostly used as forest, while a small amount can be cleared and used for pasture (USDA).



Figure 2. Soils Map of APE (Source: University of California, Davis 2016/Google Earth).

CHAPTER THREE: PREHISTORY OF THE PROJECT AREA

It is unknown when humans first entered the New World. Some researchers place this event as early as 40,000 years ago, but more conservative investigators date the first Americans at no earlier than 23,000 B.P. Whatever the case, by 10,000 years ago Paleoindians were living in caves at the Straits of Magellan, so that their entry into the New World must have occurred several thousand years prior to that, as a minimum (Neuman 1984:58). Figure 3 shows the prehistoric chronology for that portion of Louisiana containing the project area.

Paleoindian Period (?–6,000 B.C.)

In Louisiana, there is evidence of Paleoindians, both from a series of surface finds of fluted points and from excavations (i.e., Webb et al. 1971). Most of these data derive from the northern half of the state; evidence from the Coastal Zone is somewhat more ambiguous. During the 1960s, Sherwood Gagliano carried out a series of investigations at Avery Island, a salt dome island in Iberia Parish (Gagliano 1964; 1967; 1970). The results of these investigations led Gagliano to conclude that Avery Island had been inhabited by a “pre-Clovis” culture associated with a bipolar tool industry. As Neuman has written, however, Gagliano has been unable to point to a single Paleoindian artifact in situ, and his bipolar industry could just as easily be Archaic in date, judging from similar assemblages found elsewhere in Archaic contexts. In fact, a radiocarbon date for split cane matting found beneath extinct animal bones is Archaic (2310 ±1–590 B.C.), a fact that suggests that some of the important material recovered by Gagliano had been contextually disturbed (Neuman 1984:63–65). Finds of Dalton, Plainview and San Patrice points at the Blackwater Bayou (16EBR33) and Palmer (16EBR26) sites indicate that Paleoindian occupations were present in this general area (Weinstein et al. 1977; LDOA n.d.).

Archaic Period (6,000 B.C.–1,500 B.C.)

This period represents a time of heavy exploitation of wild plant foods and of small game, representing adaptation to an expanding boreal environment (Weinstein and Kelley 1984:32–34). The initial part of this period, the Early Archaic (6,000–5,000 B.C.), is defined by a series of distinctive projectile points, and it has been suggested that society was organized at the band level and focused on a seasonal round of hunting and gathering. The succeeding Middle Archaic period (5,000–3,000 B.C.) was marked by widespread regional differentiation of cultures and the development of ground stone technology (Weinstein and Kelley 1992:30). This subperiod corresponds to the Hypsithermal Interval, a time of increased warmth and aridity in areas around the Great Plains. It is presently unclear what effect this may have had on the Southeast.

| Time Frame | Period | Sub-periods | | Cultures | |
|-----------------------------|---------------|------------------------------------|----------------|-----------------------------|----------------|
| A.D. 1700 | Historic | American Colonial | | Multicultural & Multiethnic | |
| A.D. 1500 | Mississippian | Late Mississippian - Protohistoric | | Mississippian | Caddo |
| A.D. 1200 | | Middle Mississippian | | Plaquemine | |
| A.D. 1000 | Woodland | Late Woodland | Coles Creek | Coles Creek | Fourche Maline |
| A.D. 700 | | | Baytown | Troyville | |
| A.D. 400 | | Middle Woodland | Marksville | Marksville | |
| A.D. 1 | | | Early Woodland | Tchula | |
| 800 B.C. | | Late Archaic | Poverty Point | Poverty Point | |
| 1700 B.C. | Archaic | | Evans | | |
| 2000 B.C. | Paleoindian | Middle Archaic | | (poorly defined) | |
| uncalibrated & not to scale | | Early Archaic | | San Patrice var. Keithville | |
| | | Late Paleoindian | | San Patrice | |
| | | Middle Paleoindian | | Clovis | |
| 10,500 B.C. | | Early Paleoindian | | Pre-Clovis | |
| 11,500 B.C. | | | | | |

Figure 3. Prehistoric cultural chronology (Source: Rees 2010:12).

The Middle Archaic in South Louisiana is represented by the Banana Bayou phase. Banana Bayou (16IB24) is a site on Avery Island. The mound yielded Williams and Pontchartrain points, crude bifaces, lithic debitage and a fairly large number of baked clay objects (Brown and Lambert-Brown 1978). Another site of some importance is 16IB101, which is located on the edge of the Prairie Terrace, overlooking the Teche channel, just south of New Iberia. This site contains a Middle Archaic component and may represent an elevated habitation locale associated with the

active Teche-Mississippi (Weinstein and Kelley 1992:33). Weinstein and Kelley (1992:30–31) suggest that in the future, components of the Banana Bayou phase may be identified in this area.

The Late Archaic subperiod (3000–1500 B.C.) was a time of pronounced population increase and the development of extensive trade networks. Three geographically distinct phases have been identified for Coastal Louisiana, but only one of these, the Pearl River Phase, is well known (Gagliano and Webb 1970; Weinstein and Kelley 1992:33). The remaining two phases are the Copell phase, derived from a preceramic cemetery (16VM102) on Pecan Island (Collins 1941), and the Bayou Blue Phase, which comes from a site (16AL1) in Allen Parish (CEI 1977; Weinstein et al. 1977). Typical diagnostic artifacts include Evans, Palmillas, Ensor, Macon, Gary and Pontchartrain points and such ground stone implements as winged atlatl weights and tubular pipes (Weinstein and Kelley 1992:33).

The only Late Archaic phase so far identified for Southeast Louisiana is the Pearl River phase, suggested by Gagliano on the basis of oyster shell middens associated with early coastal features. Artifacts indicative of this phase are Kent, Macon, Male and Palmillas projectile points and certain types of atlatl weights (Gagliano 1963). The Mizell Mound site (16ST126), just west of the West Pearl River, has been suggested by Jones and Shuman (1988:136–137) to be a possible Archaic location.

Nearer the project area, the L.S.U. Campus Mounds (16EBR6) are considered Archaic by Neuman, on the basis of early radiocarbon dates (Neuman 1988; Homburg 1988).

Neoindian Period (1,500 B.C.–A.D. 1500)

The Neoindian period saw the introduction of ceramics, the widespread use of cultigens and the importation of the bow-and-arrow. The construction of earthen mounds, while apparently practiced to some extent during the Late Archaic (Gibson 1994; Russo 1994; Saunders 1994), became highly developed during the Neoindian period and the focus of ceremonial, mortuary and political activity (Neuman 1984). A number of cultures flourished during this time span, as detailed below.

Poverty Point Culture (1,500 B.C.–500 B.C.)

This culture, named for the gigantic semi-circular earthworks in West Carroll Parish (16WC5), was widespread throughout Louisiana, Arkansas and Mississippi, and was closely related to similar cultures in Missouri, Tennessee, Alabama and Florida (Ford and Webb 1956; Neuman 1984:90). The origins of Poverty Point culture remain obscure, although Neuman suggests that both local adaptation and influences from Mesoamerica were involved (Neuman 1984:91). The material culture of Poverty Point featured baked clay balls (Poverty Point Objects), microlithic and lapidary industries and the construction of earthworks. The presence of pottery is debatable, although Clarence Webb (1982:40-42) discusses a number of cases in which ceramics

have been found at Poverty Point sites. Hunting and gathering seem to have been important in Poverty Point times, but whether agriculture was a vital subsistence activity is unclear (Neuman 1984: 110–111). Certainly, Webb (1968) sees agriculture as having had an important function at Poverty Point.

Other important Poverty Point sites in the Lower Mississippi Valley are Jaketown and Teoc Creek in Mississippi; the Terral Lewis site (16MA16) and the J. W. Copes site (16MA36), both in Madison Parish, Louisiana; the Aaron site (16EC39) in East Carroll Parish; and the Cowpen Slough (16CT147) and Dragline (16CT36) sites in the Tensas Basin. A number of small shell middens on the shores of Lake Pontchartrain evidence Poverty Point traits and suggest seasonal adaptations to marsh environments (Goodwin et al. 1991:9). Writing about these locations, Goodwin and his coworkers cite Gagliano and Saucier (1963) to the effect that:

Sites located along the western shore exhibit Poverty Point traits exclusively; those along the eastern shore contain both bone tool and microlithic industries.... These sites represent two phases of Poverty Point culture: the Bayou Jasmine phase and the Garcia phase. Bayou Jasmine phase sites are located on the western shore of the lake as well as along natural levee ridges of the Mississippi River distributaries. Garcia phase sites are located along the eastern shore of Lake Pontchartrain (Goodwin et al. 1991:9).

The type location for the Garcia Phase is site 16OR34. It contained a beach deposit of *Rangia* shells along with midden material. Radiocarbon dates from Bayou Jasmine components cluster in the vicinity of 1,470 B.C., while Garcia phase components are about 1,000 years later (Gagliano 1963; Gagliano and Saucier 1963; Goodwin et al. 1991:9). Nearer the project area, one of the Monte Sano Mounds (16EBR17) yielded an unusually early radiocarbon date of 6,220 \pm 1,140 B.P, while Poverty Point objects were found during the excavation (Haag 1993). The place of this site in the Poverty Point sequence remains to be clarified.

By 800 B.C., Poverty Point culture had begun to decline and the extensive trade network that formed a pivotal part of the culture withered. A simpler, Archaic style of life centering on the hunting of small game and the gathering of wild foods seems to have been the rule, with social organization consisting of small bands of hunters and gatherers. The reasons for this decline are unknown (Neuman 1984:111–112).

Tchula Period (500 B.C.–A.D. 1)

The successors of Poverty Point culture were the Tchefuncte people, and the period in which they lived is called Tchula. The name Tchefuncte derives from the site of that name in St. Tammany Parish (16ST1) (Ford and Quimby 1945). Smith et al. (1983:163) have defined this period as being characterized by a simpler way of life than in the preceding Poverty Point period. This Tchefuncte way of life was similar to the Late Archaic, but with the introduction of a ceramic complex. The Tchefuncte people were hunter-gatherers who also apparently possessed horticulture to some degree, cultivating squash and bottle gourd (Byrd 1974). A wide variety of animals was hunted, including deer, raccoon, ducks, muskrat, otter, bear, gray fox, ocelot, and

alligator. It seems that crustaceans were not eaten. The Tchefuncte culture is especially known for its shell middens, heaps of shells from the brackish water clam, *Rangia cuneata*. These clams were evidently eaten by the human populace, although Byrd has shown that their nutritive value is minimal (Byrd 1977; Neuman 1984:118).

The lithic artifact inventory of Tchefuncte people included adzes, drills, hammerstones, knives, scrapers and projectile points. Ground stone artifacts include abraders, atlatl weights, beads, cobble hammerstones, grooved plummets, mortars and pitted stones. Baked clay objects continued to be made, but in less variety and in fewer numbers than at Poverty Point (Smith et al. 1983:163). Typically, the Tchefuncte baked clay object is biconical in shape, which contrasts with the wide variety of forms employed during Poverty Point times. Weinstein and Kelley (1992:34–35) suggest that the Tchefuncte people were mound builders, but Neuman (1984:135) writes that “the evidence to support the theory that the Tchefuncte Culture Indians were mound builders is most vague.”

Perhaps the closest Tchefuncte site to the project area is Kleinpeter (16EBR5), which, while most heavily populated during Coles Creek and Plaquemine times, had a definite Tchefuncte component (Jones et al. 1994). Other sites of the Tchula period in the vicinity of Kleinpeter are Beau Mire (16AN17), studied by Weinstein and Rivet (1978), who used it to develop the concept of the Tchula phase, and the Lee (16EBR51) and Sarah Peralta (16EBR67) sites, studied by Weinstein et al. (1985) and Perrault et al. (1994), respectively.

Marksville Culture (AD. 1–400)

This culture, named for the type site in Avoyelles Parish (16AV1), was closely allied to the Hopewell culture of the Ohio and Illinois River valleys. The Marksville people constructed domed earthen mounds in which they buried their dead leaders, usually with funerary offerings (Neuman 1984). Marksville ceramics are finely made, with characteristic broadly incised lines and rocker stamping. The bird design is a frequent motif. Marksville ceramics are, in fact, often hard to distinguish from those made by Hopewell peoples, leading to much speculation about the nature of the Marksville-Hopewell interaction. Toth (1988) felt that the main evidence for such an interaction derives from Marksville mortuary practices and the comparison of ceramic types. Other cultural practices, such as subsistence and settlement pattern, may not have been a part of whatever relationship existed between the two groups. It has been speculated that Marksville subsistence was based on hunting and the intensive gathering of wild foods, but the evidence for maize agriculture is still weak (Weinstein and Kelley 1992:35).

On the basis of his survey of sites along the Amite River, east of Baton Rouge, Weinstein identified two Marksville phases (Smithfield and Gunboat Landing) for the eastern part of Louisiana (Weinstein 1974). The Kleinpeter site (16EBR5), located on a terrace overlooking Bayou Fountain, also contains a significant late Marksville component, although there is no evidence that any of the mounds date from that period (Jones et al. 1994). Other significant Marksville sites in South Louisiana appear to be the Gibson mounds (16TR5) and Mandalay Plantation (16TR1), both in Terrebonne Parish (Weinstein and Kelley 1992:35). Nearer to the

present project area, the Noland Mound (16WF7) may be Marksville, judging from its conical shape, though a nearby midden was almost entirely Coles Creek (Jones and Shuman 1986).

Baytown Period (A.D. 400–700)

Baytown (containing the Troyville culture) is perhaps the most problematical period in Louisiana prehistory. Partly, this owes to the manner of its original definition (Gibson 1982; Belmont 1982). But it is also true that the period has been dealt with differently by different authors. Neuman, for instance, places it with Coles Creek, calling the two Troyville-Coles Creek. Some authors, on the other hand, separate it as a distinct period between Tchefuncte and Coles Creek. Weinstein and Kelley (1992:36) suggest that the development of Baytown in the Lower Mississippi Valley is associated with the appearance of Quafalorma and Woodville painted pottery, along with Mulberry Creek cordmarked, Salomon Brushed, and Alligator Incised ceramic types. The attempt to devise phases for South Louisiana has been difficult. For example, the Whitehall phase, named for a site on the Amite River (16LV19), is the only Baytown phase known for this area (Weinstein and Kelley 1992:36).

Nevertheless, Baytown components have been found at several locations in south Louisiana. These include 16EBR5, 16EBR51, 16EBR67, and 16TR5 (The Gibson Mounds), which were investigated by Weinstein et al. (1978). Another site from this time period is Richeau Field (16TR82), a low mound on the Teche-Mississippi natural levee just southwest of Gibson (Weinstein et al. 1978). A Baytown (Troyville) component has been reported by Malcolm Webb (1982) from the Indian Village site (16ST6).

Coles Creek Period (A.D. 700–1200)

Coles Creek culture represents a cultural florescence in the Lower Mississippi Valley. The settlement pattern involved hamlets and small villages, centered around one or more pyramidal earthen platform mounds. These mounds served as bases for temples and the houses of leaders. Coles Creek culture was widespread in Louisiana and Mississippi and appears to have been related to the very similar Weeden Island culture of northwest Florida (Weinstein and Kelley 1992:37).

Ceramic decoration in Coles Creek times centered around incised, stamped, and punctated designs that usually were restricted to a band around the rim of the vessel (Weinstein and Kelley 1992:37; Neuman 1984:186). Common motifs include horizontal incised lines, as in various varieties of Coles Creek Incised, and diagonal incised lines, as in Mazique Incised, vars. Mazique and King's Point. Another common type is French Fork Incised, consisting of zoned designs featuring punctations and incised decorations.

The economic basis of Coles Creek society is not clear. It has been widely assumed that maize was important to these people (e.g., Smith et al. 1983:282), but it has been impossible to

demonstrate this due to a lack of Zea mays in securely dated Coles Creek contexts (Weinstein and Kelley 1992:37). It must be inferred, therefore, that the basis of Coles Creek society was an efficient gathering economy, supplemented by hunting and limited horticulture.

South Louisiana contains an abundance of Coles Creek sites, several of which (e.g., 16IV6, 16VM9, 16AS35, 16SMY1 and 16EBR5) have been at least partially excavated. From this, three temporally distinct phases have been developed. These are the Bayou Cutler, Bayou Ramos and St. Gabriel phases. Bayou Cutler derives from the work of Kniffen (1938) and was refined by Phillips (1970), who utilized data on seventy-four sites in the lower reaches of the Lower Mississippi Valley. The Bayou Ramos phase was developed by Weinstein in St. Mary Parish at Bayou Ramos I (16SMY133) (Weinstein et al. 1978). The St. Gabriel Phase was defined at a site in Ascension Parish (16AN128) excavated by Woodiel (1993), but perhaps the most spectacular example of the St. Gabriel Phase is at Kleinpeter (16EBR5) in East Baton Rouge Parish. There, Jones et al. (1994) found the remains of a circular house in a context where radiocarbon and archaeomagnetic dates averaged A.D. 1100. In West Feliciana Parish, the Noland site (16WF7), the Lee or Solitude Mound (16WF27), and the Turner Subdivision site (16WF48) all have Coles Creek components (Shuman and Jones 1985; Jones and Shuman 1986).

Mississippi Period (A.D. 1200–1700)

The Mississippi period in the southeastern United States is a time when cultural influences from the Central Mississippi Valley increasingly affected the indigenous cultures of the region. In Louisiana, this is reflected both in the Plaquemine culture, an outgrowth of the preceding Coles Creek, and the Mississippian culture proper. Specifically, this influence is indicated by vast complexes of truncated earthen pyramids and the use of shell temper in ceramics, as well as in distinctive ceramic forms, such as effigy vessels.

Mississippian culture sites were often fortified (Stoltman 1978:725). During this period, social and political organization appears to have centered on a chiefdom, and subsistence was based on the triad of maize, beans and squash.

Mississippian culture seems to have radiated from the Cahokia mounds group in Illinois, with its influence eventually extending both down the Mississippi River and along the Gulf Coast. In Louisiana, Plaquemine culture is represented at such sites as Medora site (16WBR1), Kleinpeter (16EBR5), Bayou Goula (16IV11), Pritchards Landing (16C14), Fitzhugh (16MA1) and many others (Smith et al. 1983:197; Jones et al. 1994).

The nature of the relationship between Plaquemine and Mississippian cultures is as yet unclear. Phillips (1970), for example, considered Plaquemine culture to have evolved by about A.D. 1000 and to have thereafter been steadily influenced by the Mississippians until about A.D. 1400, when Mississippian groups actually displaced the indigenous Plaquemine peoples. Brain (1978), however, would place Coles Creek as lasting until approximately A.D. 1200, when it was

influenced so heavily by Mississippian culture that it evolved into Plaquemine, which is, in his view, a hybrid.

On the basis of information developed largely from ceramic analyses, three regional phases have been suggested for early Plaquemine culture in this general area. The first is the Medora phase, based on the work of Quimby (1951) at the Medora site (16WBR1) in West Baton Rouge Parish. The second is the Barataria phase, based largely on investigations at the Fleming site (16JE36) (Holley and DeMarcay 1977), and the third is Burk Hill, which derives from the study of Brown (1982) at the Burk Hill site (16IB100) on Cote Blanche Island. It was also during early Plaquemine times that material relating to the “Southern Cult” appears. This term is used to denote a complex of traits that first appears around A.D. 1000 and reaches its zenith about A.D. 1500. This complex is associated especially with Mississippian culture proper, but it crossed cultural boundaries in the eastern United States (Neuman 1984:276). The complex focuses on an art style involving certain specific motifs, such as the cross, the sun, a bilobed arrow, the circle, the forked eye, the open eye, the barred oval, the hand and eye, and death motifs (Neuman 1984:277).

The closest Plaquemine sites to the study area are the Solitude Mound (16WF27) and the Riddle site (16WF4), both in West Feliciana Parish. Information about the former site is slight, although it has been reported as a pyramidal platform mound with Plaquemine period ceramics in an associated midden (Jones and Shuman 1986). The latter was originally visited by Beyer (1896), who found five platform mounds on the west bank of Thompson Creek. Unfortunately, when Jones and Shuman arrived to map the site 90 years later, only one mound remained (Jones and Shuman 1986). Another site in West Feliciana Parish with a Plaquemine component is the Turner Subdivision site (16WF48) (Shuman and Jones 1985; Jones and Shuman 1986). Further to the south in East Baton Rouge Parish, the Kleinpeter site (16EBR5) has been identified as a major Plaquemine period mound site in what are now the Florida parishes of Louisiana (Jones et al. 1994).

Protohistoric and Early Historic Cultures

The arrival of Europeans set in motion a chain of major population upheavals among the native Americans. With regard to the current project area, the chief group affected was the Tunica. Apparently, at the time the de Soto expedition reached the banks of the Mississippi River, in 1541, the Tunica were living in a village in northwestern Mississippi. This village was recorded by chroniclers of the de Soto expedition as Quizquiz, a town of some importance that apparently participated in the Mississippian cultural sphere. By 1699, the inhabitants of Quizquiz had moved south to the Lower Yazoo River, where they were encountered by the French and referred to themselves as Tunica, which means “the people” (Brain et al. 1974). The settlement on the Yazoo lasted only a few years, for by 1706 the Tunica moved again, partly as the result of Chickasaw raids. This time they settled on the east bank of the Mississippi River, at what is now Louisiana State Penitentiary at Angola, opposite the mouth of the Red River (16WF2). Unfortunately, when the French defeated the Natchez in January 1731, the Natchez held the Tunica partly responsible.

The Natchez thereupon attacked the Tunicas in April of that year, killing a number of Tunica warriors and wounding others. Once more the Tunica were obliged to move, settling this time at Trudeau Landing (16WF25). During this time (1731–1763), the Tunica thrived as horse traders, obtaining animals indirectly from the Spanish settlement in New Mexico and selling them to the French (Brain 1988a). It was by virtue of their success in this commerce that the Tunica were able to acquire European trade goods, many of which formed the famous Tunica Treasure unearthed at Trudeau (16WF25).

After 1763, when the French gave up sovereignty of Colonial Louisiana, the Tunica attempted to ambush an English party near Fort Adams and, fearing retribution, fled to the Gulf Coast, where they lived with the Biloxis. After a sojourn of a few months near present-day Mobile, the Tunica returned to their old area, settling on the east bank of the Mississippi a league above the Spanish post at Pointe Coupee. The encroachment of Europeans, however, led them to abandon this location sometime after 1784 and take up residence along the Red River, in Avoyelles Parish (Brain 1988b:39–44). There they have lived for two hundred years. Recognized by the Federal government as a tribe in 1980, they now live in Marksville, Louisiana, on the Tunica-Biloxi Indian Reservation.

CHAPTER FOUR: A BRIEF HISTORY OF THE PROJECT AREA

Early Exploration and Settlement

European explorers, lured by prospects of gold, began venturing into the southeastern United States within decades of Columbus' arrival in the New World. The first to actually touch what is now Louisiana were most likely members of a mapping party under contract to Spain. In 1519, Alonso Alvarez Pineda arranged to map the entire coast of the Gulf of Mexico. His expedition sailed past the Louisiana shores and at one point camped at the mouth of a massive river, a waterway Pineda named The River of Palms. Today, some dispute exists as to whether this was the Mobile River, the Rio Grande, or the Mississippi. Another Spaniard, Alvar Nunez Cabeza de Vaca, a member of the ill-fated Panfilo de Narvaez expedition, sailed along the coast of Louisiana in 1527 on his way to Texas but did not travel into the interior (LWPA 1941:37–43; Wall 1990:11).

Initial exploration of the interior was conducted about 15 years later. In 1541, a party under Hernando de Soto began an ambitious effort to explore North America. Landing at Florida, De Soto and his men explored the modern southeastern United States, and eventually penetrated as far inland as Arkansas. After De Soto's death, his men eventually traveled down the Mississippi River to the Gulf of Mexico, claiming the passing land, including West Feliciana, for Spain. However, as no Spanish settlers moved to occupy Louisiana, this early claim was tenuous at best (LWPA 1941:37–43).

During the seventeenth century, the French, having heard of a large river lying west of the Great Lakes, began scouting major waterways in North America for a passage to the Pacific Ocean. Robert Cavellier, Sieur de La Salle, traveled down the Mississippi River from the Great Lakes region in 1682, a voyage of approximately two months. Landing south of modern New Orleans in April, he held a formal ceremony in which he claimed all lands drained by the river for France and named Louisiana in honor of French King Louis XIV (Wall 1990:15–17).

The French proved more successful in maintaining their claim to Louisiana than the Spanish, for they began serious efforts to explore Louisiana's lands and rivers within a few decades of La Salle's voyage. As early as 1699, Pierre Le Moyne, Sieur d'Iberville, led an expedition up the Mississippi River, going as far as Pointe Coupee. Iberville encountered a number of Indian tribes and learned of another access to the Mississippi River from the Bayougoulas. This passage bypassed the long and winding course to the Gulf by following Bayou Manchac, a Mississippi River distributary, eastward to Lake Maurepas and then through Pass Manchac to Lake Pontchartrain. Iberville took this new route when he returned to the Gulf. Reporting back to his camp at Biloxi, he noted that the new route had saved him several days but still required many portages (Wall 1990:15–17; McWilliams 1981:25, 64–81).

Iberville had grand plans for the colonization of Louisiana. He hoped that one day its settlements would link up with those in Canada, thus giving the French control over the central

part of North America and its network of rivers. Initial attempts to colonize, however, were slow and sporadic. Because of problems in farming and the difficulties of recruiting people to settle across the Atlantic, Louisiana's population at first grew slowly. Prior to 1710, there were only a few hundred European inhabitants (Wall 1990:2223; Butler 1924:93).

European Exploration and Settlement of the Area

Eventually, settlement was accomplished as part of a larger effort by the French. France recognized the potential of Louisiana and established settlements along the Mississippi, Red, and Ouachita rivers during the early fifteenth century in order to maintain their claim to the territory and to keep the British out. In 1712, in order to populate and protect their claim, the French government contracted with Antoine Crozat to establish trade and colonize Louisiana. A similar agreement was drawn up with John Law in 1717, under which his Company of the West was able to offer land grants to willing settlers. Under these auspices, New Orleans was founded in 1718, a fort at Baton Rouge was established in 1722, and the Felicianas were included in a large land grant. In 1729, settlement began near a small fort, "St. Reyne aux Tonicas" (Fort St. Reine), which was probably near the modern site of St. Francisville. This settlement was short-lived and has not been relocated precisely. However, it was described as being between Natchez and New Orleans, in the vicinity of the Tunica. The Tunica, at the time, were living at the bluffs near present-day Angola Penitentiary (Wall 1990:36–38; Butler 1924:93).

Still, settlement continued to languish for several decades. Prior to the 1770s, the only other European activity in the area came from French Capuchin friars who established a chapel in what is now Pointe Coupee Parish. By 1738, regular flooding forced them to place their cemetery across the river near the site of Fort St. Reine. In the 1770s, under the jurisdiction of the Bishop of Santiago de Cuba, Spanish Capuchin friars moved to the area that is now St. Francisville in West Feliciana Parish and built a monastery and a cemetery. The name St. Francisville derives from their occupation (Butler 1924:92–93).

By 1740, the French presence extended along most of the navigable waterways in Louisiana, but political events in Europe changed the course of settlement. In 1762, France, on the verge of defeat in its war with Great Britain, ceded all of Louisiana to Spain under the Treaty of Fontainebleau. But in 1763, through the Treaty of Paris, Spain relinquished to Great Britain the territory of West Florida in exchange for Havana. West Florida included the land east of the Mississippi River and west of the Apalachicola River, but north of Bayou Manchac and Lakes Maurepas and Pontchartrain. The British immediately began their own colonization efforts by conferring land grants to British officers and soldiers. The amounts of land varied according to military rank. Captains, for example, received 3,000 acres (1,212 ha), privates as little as 50 ac (22.8 ha). West Feliciana began to take on a new character as it drew increasing numbers of Spanish and English landowners (Williamson and Goodman 1939:9–28; LWPA 1941:3143; Arthur 1935:12–15; Johnson 1933:548).

During this period, relations with the Indians were problematical. The French established trade relations with both the Tunica and Natchez, but with the increase in numbers of white

settlers, friction between the whites and Indians grew. In 1729, this led to an uprising by the Natchez, which caused the destruction of the French post at Fort Rosalie (Natchez). The French governor, Perrier, responded in force, pursuing the Natchez across the Mississippi River and defeating them in the vicinity of Sicily Island, in January 1731. Remnants of this disaster were further beaten at St. Denis, near Natchitoches (Swanton 1979:159–60). In April 1731, the Natchez, perceiving that the Tunicas had sided with the French, attacked and dispersed the latter. Thereafter, the Indian influence in West Feliciana diminished to where it was virtually nonexistent by the end of the century.

In 1779, Spain declared war against Great Britain, effectively entering the American Revolution on the side of the colonists. Spain continued to control both the mouth of the Mississippi River and New Orleans, which were of great strategic importance. Spain also recaptured West Florida, prized for its strategic location between Natchez and New Orleans, and Governor Bernardo de Galvez promptly began offering land to those loyal to the Spanish crown. The Spanish were to have a lasting effect on the area. Galvez named the area Feliciana for his Creole wife, and under Spanish stewardship, settlers laid the groundwork for future plantation development. Recognizing the agricultural value of Louisiana, Spanish law mandated that landowner's clear areas for farming and build and maintain levees (Arthur 1935:12-15).

The West Florida Rebellion

The Spanish reign over West Florida proved to be short-lived. In 1800, the Treaty of San Ildefonso returned most of Louisiana to France, and, in 1803, France sold Louisiana to the United States. Although Spain retained control over West Florida, the United States and Great Britain disputed that claim to ownership (Butler 1924:94–99; Padgett 1938:1–3).

After several years of disagreement, West Florida's residents took matters into their own hands. In 1810, led by John Rhea, John H. Johnson, and William Barrow, they engineered a rebellion, cast off Spanish rule, and established the Free and Independent Republic of West Florida. For 14 days, the modern Florida parishes existed as a tiny nation, complete with a constitution and a national flag (blue, with a single white star). Fulwar Skipwith was elected governor and St. Francisville was named the capital, although the capital was later moved to Baton Rouge (Reeves 1967: ix; Butler 1924:94–99; Padgett 1938:1–3). Later that same year, the United States claimed and took possession of West Florida, which it held illegally until the Adams-Onís Treaty in 1819 awarded all of Florida to the United States.

Louisiana under American Control

Having purchased Louisiana in 1803, American President Thomas Jefferson recognized the need to scientifically explore the lands west of the Mississippi River. In the interest of exploration, settlement and natural science, Jefferson sent two expeditions into Louisiana to

report on the natural flora, fauna and physical geography of the Red and Ouachita rivers. Having sent his best naturalist-explorers on the Lewis and Clark expedition, Jefferson initially relied on his West Florida friend William Dunbar to lead a short expedition in Louisiana; Dunbar was familiar with the Mississippi River area, having established plantations near Natchez and Baton Rouge in the late eighteenth century. In the fall and winter of 1804–1805, Dunbar and Dr. George Hunter went up the Red and Ouachita rivers, but the following year a larger expedition took up the project (Flores 1984:3–45, 99).

Louisiana's capital was originally New Orleans, but voters preferred a different location. In 1825, Donaldsonville, the seat of Ascension Parish was made the capital, although it was not until 1830 that the legislature actually transferred to Donaldsonville, and they quickly moved back to the more exciting New Orleans. Baton Rouge became the state capital in 1846. The seat of state government moved around during the Civil War but was returned to Baton Rouge in 1879 (Wall 1990:125–126).

West Feliciana Parish

Louisiana was admitted to the Union in 1812, although the Florida Parishes (those that were the part of West Florida west of the Pearl River) were not added to the state for several months and remained in dispute until 1819 (Wall 1990:102–108). In 1824, after annexation, West Florida was carved into several parishes, including East and West Feliciana (Reeves 1967:ix; Butler 1924:94–99; Padgett 1938:1–3).

The seat of Feliciana Parish was originally St. Francisville but was later moved to Jackson. In 1824, the parish was split into two parishes: East Feliciana and West Feliciana, and St. Francisville became the governmental seat for West Feliciana (Hamilton 1983:9, 13; Bersuder 1952:3–4; Miller 1987:2). The town of Bayou Sara developed adjacent to the Mississippi River along the bayou of the same name, just below the bluffs where the Capuchin friars had established a monastery and where a British surveyor had marked the long-abandoned Fort St. Reine in 1765. Originally founded as a trading post by John H. Mills and Christopher Strong Stewart in 1790, Bayou Sara flourished as a port town. The town once served as the largest river port between Memphis and New Orleans. Several fires during the first half of the nineteenth century only temporarily set back growth and trade in Bayou Sara, but frequent flooding also plagued the town. Eventually, St. Francisville eclipsed Bayou Sara as the center of commerce and trade, and the town of Bayou Sara was unincorporated in 1926 (Hamilton 1983:1–8; LWPA 1941:464).

St. Francisville was established along a bluff above Bayou Sara and the Mississippi River. John H. Johnson laid out the town in the early 1800s on John Mills' 1787 Spanish land grant, and lots were first sold in 1801. The community erected a hotel, which also served as a legislative chamber for the Republic of West Florida. By 1811, the town boasted its own newspaper and even sent a war correspondent to cover the War of 1812.

As part of the United States, West Feliciana Parish emerged as a productive agricultural region. At first, considerable confusion over the status of land claims had to be resolved. Land claims based on British, French, or Spanish grants caused problems. In 1819, Louisiana landowners placed over 10,000 claims with the United States government, forcing Congress to spend a substantial amount of time enacting laws and procedures to deal with the changeover. Sorting through Spanish, British, and French land grants, through unofficial claims, and through frauds perpetrated by speculators, United States officials decided to nullify all West Florida grants made before 1804. As a result, in state land records a number of parish titles date only to 1819. Louisiana would struggle with the issue of Colonial era land grants until 1879 (Coles 1955:1–19).

Antebellum Land Use and Culture

West Feliciana developed into one of the wealthiest areas of the Antebellum South, becoming a region complete with large plantations, an educated aristocracy, gracious homes, high levels of production and commerce, and, of course, slave labor. Much of the plantation development took place in the central part of the parish, north of modern St. Francisville. Land along the Mississippi River, though fertile, was judged less desirable for habitation, with only three large plantations, Greenwood, Como and Angola, located on the Mississippi River (Frazier 1969: xii).

The initial cash crop was cotton, introduced in the 1700s, although after 1840, sugar production increased, and cotton declined. After 1840, planters also grew a variety of crops for local consumption. In 1850, over 360,000 bushels of corn were produced by parish plantations, 8,000 pounds of rice, and 400,000 gallons of molasses. Lands not being farmed were home to about \$400,000 worth of cattle, horses, hogs, work oxen, sheep, and mules (Davis 1943:7). In addition, some plantations featured groves of fruit trees and greenhouses for the production of tropical vegetation.

With high levels of cultivation, large plantations, and the Mississippi River in close proximity, the parish was as commercial as it was agricultural. Indeed, many of its plantations resembled self-contained businesses, complete with their own production and transportation systems, labor force, business hierarchy, and diversification of production. Lewis Stirling's "Wakefield," for example, produced both sugar and cotton, and also maintained a sugar house, a carriage house, seventy horses and mules, and its own fleet of seven wagons (Stirling Family Papers n.d.). Similarly, at nearby Highland Plantation, there were steam-driven cotton gins and sawmills and mechanical thrashers designed to separate foreign matter from cotton. Highland owner Bennett Barrow was an adroit business manager, securing loans to keep his operation running, buying and selling land, keeping track of the latest price trends, and upgrading his production mechanisms as necessary (Davis 1943:34–35).

An integral aspect of the antebellum plantation economy was the institution of slavery. The first slaves in West Feliciana were apparently imported from North Carolina in 1800, and by 1820 slaves comprised about 56 percent of the total population. In the 1850s, there were four times as many slaves as whites in West Feliciana Parish, and, according to one historian, two slaveholders

“owned more than 500 slaves; five owned between 200 and 500; and thirty-one owned over 100” (Frazier 1969:7–9).

The West Feliciana slave regime was in many ways similar to others around the South. Planters used white overseers and black drivers to control the population. Lewis Stirling paid his overseer about \$750 a year (Stirling Family Papers n.d.). Slaves were housed on the plantation, given medical treatment as needed and assigned a variety of tasks, such as chopping cotton, timbering and draining fields. They were generally provided time off on Sundays and at Christmas and given a nutritious, if redundant, diet. As private property, however, they were bought, sold, clothed, fed and named according to the whim of the master, and could be beaten and even killed without recourse. Bennett Barrow, master of Highland, mentioned purchasing Virginia slaves, an activity that no doubt took some African-Americans from their homes and families, and then wrote that “small boys and girls [from Virginia] may do, but grown ones are not worth as much...one creole will pick as much as two of them” (Davis 1943:39). Barrow also committed acts of brutality. He particularly disliked having his slaves run away, and on one occasion wrote that he gave “Boy Lewis...the worst Whipping I ever gave a young negro. I predict he will not runaway soon.” (Davis 1943:165).

Parish Transportation and the West Feliciana Railroad

Bayou Sara and St. Francisville were linked to the parish through an extensive network of roads, some of which served to determine property lines in antebellum land transactions. After 1829, the parish government provided for extensive improvements, including the creation of ferry lines, bridges and road systems (Davis 1943:8). Stage lines ran across the parish to Woodville and Natchez, in Mississippi, to Jackson and Clinton, in East Feliciana Parish, and south to Baton Rouge.

Because West Feliciana roads were often muddy and slow, parish residents began to talk seriously of a rail line in 1830. On March 25, 1831, they obtained a state charter for the West Feliciana Railroad, intended to run from the Mississippi River, along the “most practicable route” to Woodville, Mississippi (Dart 1984:35). Such a line would also provide Woodville planters with the advantage of a fast overland route to the Mississippi River, for the shipping of their cotton (Reeves 1967: vii; Bersuder 1952:7–8).

Construction began in 1831 but soon encountered a variety of difficulties. Crews had difficulty digging through the West Feliciana soil. In 1836, the steamboat *Choctaw*, carrying 3,100 bars of English iron imported specifically for the line, sank to the bottom of the Mississippi River. Planters, though generally agreeable to the project, nonetheless made a number of demands on the contractor. Ruffin Stirling, for example, insisted that the railroad make and maintain two wagon crossings as it passed through his plantation, the Myrtles (Dart 1984:48). Others worried about the interaction of railroad and livestock, forcing the railroad to design a new form of track protector—the pit cattle guard—to allay their concerns (Dart 1984:48). Once in operation, the railroad was expensive, slow, and ran on an unpredictable schedule. A number of area planters, including Bennett Barrow, seemed to have ignored it completely. Still, it has some historic

significance. According to Elizabeth Kilbourne Dart, it remained the “oldest standard-gauge line in the nation until it was abandoned in 1978” (Dart 1984:29). Much of it roughly paralleled the modern course of U.S. Highway 61.

The Civil War

The Civil War brought an end to the plantation culture of the antebellum era. In West Feliciana, the conflict curtailed shipping, reduced manpower, and brought a major battle to within close proximity of the region. The town of Port Hudson, a site targeted by both Union and Confederate forces due to its tremendous strategic value, lay just across the southern boundary of West Feliciana Parish. The terminus of a railroad that linked the Mississippi River with Clinton, Louisiana, it provided access to the Louisiana interior. Port Hudson also lay on the Mississippi, south of the mouth of the Red River, and thus could exert some control over travel on several waterways.

Recognizing Port Hudson’s importance, the Union sent Admiral David G. Farragut and General Nathaniel P. Banks to blockade Port Hudson and starve out its garrison. Banks and the Union army assaulted Port Hudson from May to July of 1863. The vastly outnumbered Confederate soldiers, under the command of General Franklin Gardner, held back Union soldiers for almost two months and surrendered only after the fall of Vicksburg. According to historian Lawrence Hewitt, one of the most significant features of the battle was the first use of black soldiers in combat for the Union cause, which led to the eventual enlistment of nearly 180,000 black soldiers into the Union Army (Hewitt 1987:x–xiv; Spedale 1986: xv)

During the war, Union troops also marched through West Feliciana, stealing, burning, and confiscating plantation homes for their officers. Some of the destruction was carried out in proximity to areas within the proposed project. For example, troops marched past Afton Villa plantation but spared it from destruction after they mistook its ornate gates for those of a cemetery (Seebold 1971:269). Nearby Catalpa Plantation was not so fortunate. Catalpa was renowned for its gardens, with pink conch shells lining its walks and glass greenhouses that sheltered a variety of tropical plants. Passing soldiers smashed the shells, destroyed the greenhouses and tore down fences, allowing livestock to roam freely (Seebold 1971:287; Hamilton 1983:23).

Postbellum and Modern West Feliciana

By war’s end, much of the wealth and productivity of West Feliciana had melted away. Planters, accustomed to carrying a certain amount of debt before the war, found themselves in extreme economic hardship as the Confederate economy collapsed and defeat rendered its money worthless. Land values plummeted, undermined by wartime damage to fields, crops, and levees. Some Louisiana plantations were sold for less than a third of their value. Historian Roger Shugg paints a dreary picture of postwar Louisiana, a picture that might easily describe areas of West Feliciana. “Almost everywhere,” he said, “the countryside was a scene of desolation. Many

plantation houses had been burned, and all were shabby and in disrepair...the fences had tumbled down; wagons and plows stood rusting in the rain” (Shugg 1939:193). Keeping with patterns historians commonly associate with the New South, planters and their descendants divided their plantations into lots, sold them off piecemeal to both black and white purchasers, and found new vocations for themselves as farmers or as storekeepers, merchants or entrepreneurs.

By the end of the nineteenth century, the West Feliciana economy had further declined due, in the words of one author, to “the boll weevil, lack of cheap labor and soil depletion from too many years of one-crop agriculture” (Hamilton 1983:3). Bayou Sara, though still busy after the war, declined along with the production of cotton. In the early 1900s, after repeated floods and fires, its residents relocated to St. Francisville, in some cases dragging their houses and stores up to the bluffs. Today, all that remains of this port is the landing (Hamilton 1983:8).

West Feliciana Parish today thrives on a mixed economy. Many of the lands once involved in cotton production now produce a variety of crops or are home to large herds of livestock. Many surviving plantation homes draw a large number of tourists yearly, while residents have also benefited from occasional gas and oil explorations, from the expansion of Angola prison, and from the construction of the Riverbend nuclear power plant (Miller 1987:2). West Feliciana also increasingly draws residents from other parishes as citizens seek to escape the noise and bustle of urban life (Hamilton 1983:5). When the twentieth century ended, the parish boasted 15,111 inhabitants, up 17 percent from the 12,915 recorded in 1990 (Calhoun 2008:199). By 2006, the A.D. 2000 number was estimated to have increased by 424 persons (Calhoun 2008:199).

CHAPTER FIVE: PREVIOUS INVESTIGATIONS

Projects within 1 mi (1.61 km) of Project Area

There are seven projects recorded within one mile of the APE, with one falling within the boundary of the project area (22-0988). These projects are summarized in Table 4. Figure 4 depicts the projects, sites, and structures within 1 mi (1.61 km) of the APE.

Table 4. Projects within 1 mi (1.61 km) of Project Area (Source: LDOA).

| Report No. | Report Title | Contractor | Author(s) | Type of Survey | Date |
|------------|---|---|---|------------------------------|------|
| 22-2061 | <i>A Preliminary Investigation of Cultural Resources on the Danos Property, West Feliciana Parish, Louisiana</i> | SURA, Inc. | Shuman, Malcolm K. & Dennis Jones | Assessment or Reconnaissance | 1986 |
| 22-0988 | <i>Cultural Resources Investigations of the Proposed Transcontinental Gas Pipeline Corporation Main Line Expansion, East and West Feliciana Parishes, Louisiana</i> | New World Research, Inc. | Phillips, John C., L. Janice Campbell, Carol S. Weed, & Robert W. Carr | Phase I | 1984 |
| 22-2018 | <i>Ploup to Vaughn Creek, A Cultural Resources Survey for the Proposed St. Francisville Bridge, (State Project No. 700-28-0022), Pointe Coupee and West Feliciana Parishes, Louisiana</i> | Coastal Environments, Inc. | Hahn, Thurston H.G. III, Jerame Cramer, Tara M. Bond, Richard Mahoney, Carey Coxe, Wayne Coco, Julie Doucet, & Richard A. Weinstein | Phase I | 2003 |
| 22-1171 | <i>Archaeological Atlas and Report of Prehistoric Indian Mounds in Louisiana: Vol. 1- East Baton Rouge, East Feliciana and West Feliciana</i> | Louisiana State University | Jones, Dennis and Malcolm K. Shuman | Assessment or Reconnaissance | 1986 |
| 22-2127 | <i>Fort Butler and Other Projects: Regional Archaeology in Southeast Louisiana</i> | Louisiana State University | Hays, Christopher | Assessment or Reconnaissance | 1997 |
| 22-2913 | <i>Diggin' in the 50s, 60s, and 70s: Archaeology in Southwestern Louisiana</i> | None | McGimsey, Chip & Katie Jackson | Assessment or Reconnaissance | 2005 |
| 22-2399 | <i>Phase I Cultural Resources Survey and Archaeological Inventory of the Proposed Thompson Creek Energy Center, West Feliciana Parish, Louisiana</i> | R. Christopher Goodwin & Associates, Inc. | VandenBosch, Jon C., Susan Barrett Smith, Karl Huebchen, & William P. Athens | Phase I | 2001 |

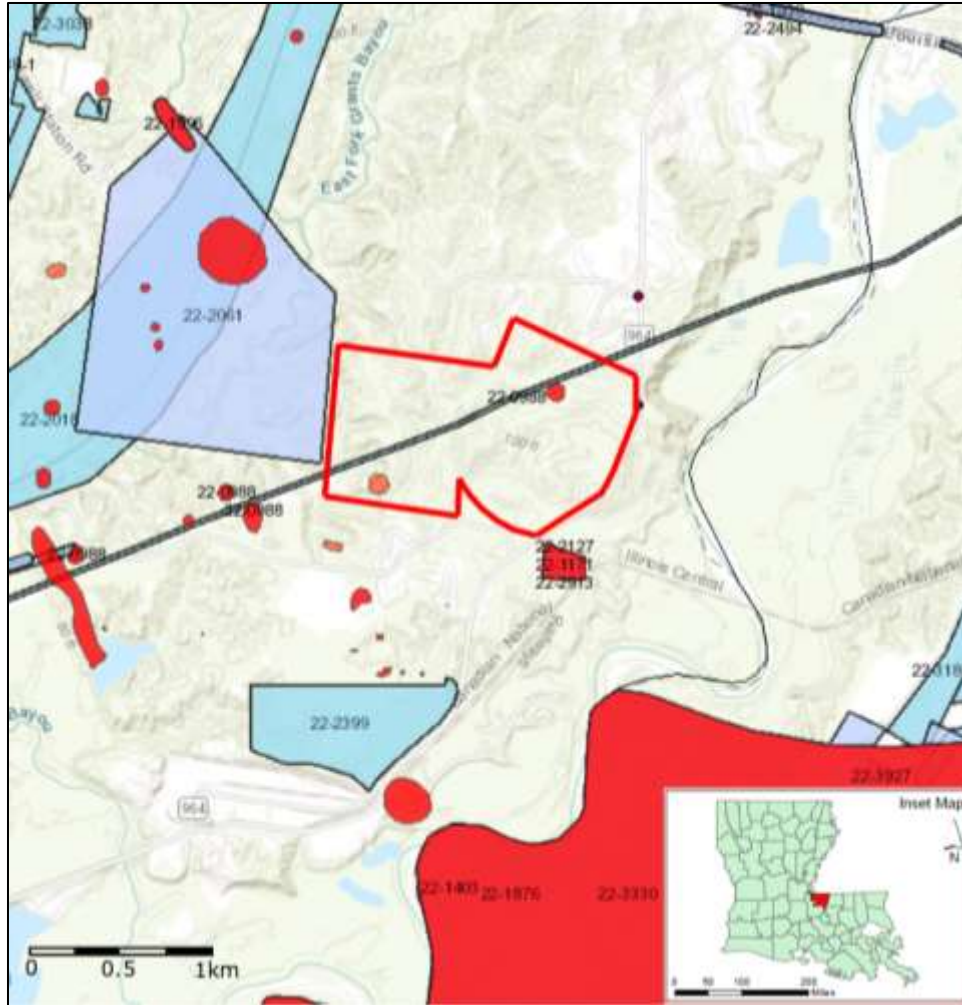


Figure 4. Map of Projects, Sites, and Structures within One Mile of Project Area (APE Outlined in Red) (Source: LDOA).

CHAPTER SIX: METHODOLOGY

Procedures

Methodology for the survey included archival research and fieldwork. Initially, historic maps and aerial photographs at the United States Geological Survey (USGS) were consulted to determine any structures or roads that might have existed on the property in the early and mid-twentieth century. In addition, the site files and report library of the Louisiana Division of Archaeology were examined to determine archaeological sites reported for this area by previous investigators. The Fort Polk (Anderson and Smith 2003) and Kisatchie (Johanson 2011) models, which were developed for dissected terrain with pine forests, were consulted to determine survey protocol. The survey areas were divided into High Probability (HP) and Low Probability (LP) zones, with the former being “areas of non-frequently flooded soils located within 100-m of frequently flooded soils,” (Johanson 2011;155) and the latter (LP) being all other areas. High probability transects were spaced 98.4 ft (30 m) apart with a shovel test dug every 98.4 ft (30 m). Low Probability transects were spaced 164.0 ft (50 m) apart with a shovel test dug every 164.0 ft (50 m).

No shovel tests were excavated in areas of excessive slope, standing water, where there is obvious surface disturbance (i.e., areas where the topsoil has been removed), nor within the existing Riddle Family Cemetery (16WF31). All archaeological sites were defined using standard site definition methodology; that is, shovel tests will be excavated along a grid oriented to the cardinal directions (or, in cases where the topography renders this not feasible, oriented to grid north) and excavation of shovel tests will continue until two successive shovel tests or a natural barrier (e.g., a water course or a steep hillside or an area of disturbance) are negative. Shovel tests intervals were 32.8 ft (10 m), except that in the case of sites 164.0 ft (50 m) or more in lateral extent, shovel tests were excavated at 65.6 ft (20 m) intervals. Sites were mapped using tape and compass and photographed.

All shovel tests were excavated to 50 cm or clay, whichever came first. Material recovered from the shovel tests was screened using .25-inch hardware cloth. When archaeological sites are discovered, they are defined using the protocol described in the Louisiana Division of Archaeology Guidelines.

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

Eligibility for the National Register of Historic Places

According to the National Register of Historic Places Bulletin 15 (1997:2), “The quality of significance in American history, architecture, archaeology, engineering, and culture is present in districts, sites, buildings, structures, and objects that possess integrity of location, design, setting, materials, workmanship, feeling, and association are potentially eligible for the National Register of Historic Places.” To evaluate this significance, four criteria have been developed. Eligible properties...

- “A. ... are associated with events that have made a significant contribution to the broad patterns of our history; or
- B. ... are associated with the lives of persons significant in our past; or
- C. ... embody the distinctive characteristics of a type, period, or method of construction or that represent the work of a master, or that possess high artistic values, or that represent a significant and distinguishable entity whose components may lack individual distinction; or...
- D. ... have yielded, or may be likely to yield, information important in history or prehistory” (NRHP 1997:2).

Curation Statement

Artifacts are returned to the SURA laboratory, washed, analyzed and catalogued and will be deposited with the Louisiana Division of Archaeology, along with associated documents, at:

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

CHAPTER SEVEN: RESULTS OF THE SURVEY

Background and Archival Research

A review of historic topographic maps from the USGS shows several structures have come and gone near or inside the APE boundary over the last 112 years. Beginning in 1906, several structures can be seen within the boundary of the APE as well as the surrounding areas. A road can be seen running through the western portion of the APE and the Illinois Central Railroad falls within the center of the APE. According to Mr. Wilbert Kelly, who has stayed at a fishing camp within the APE along HWY 964 since 1977, the road depicted was once a wagon trail (Figure 5).

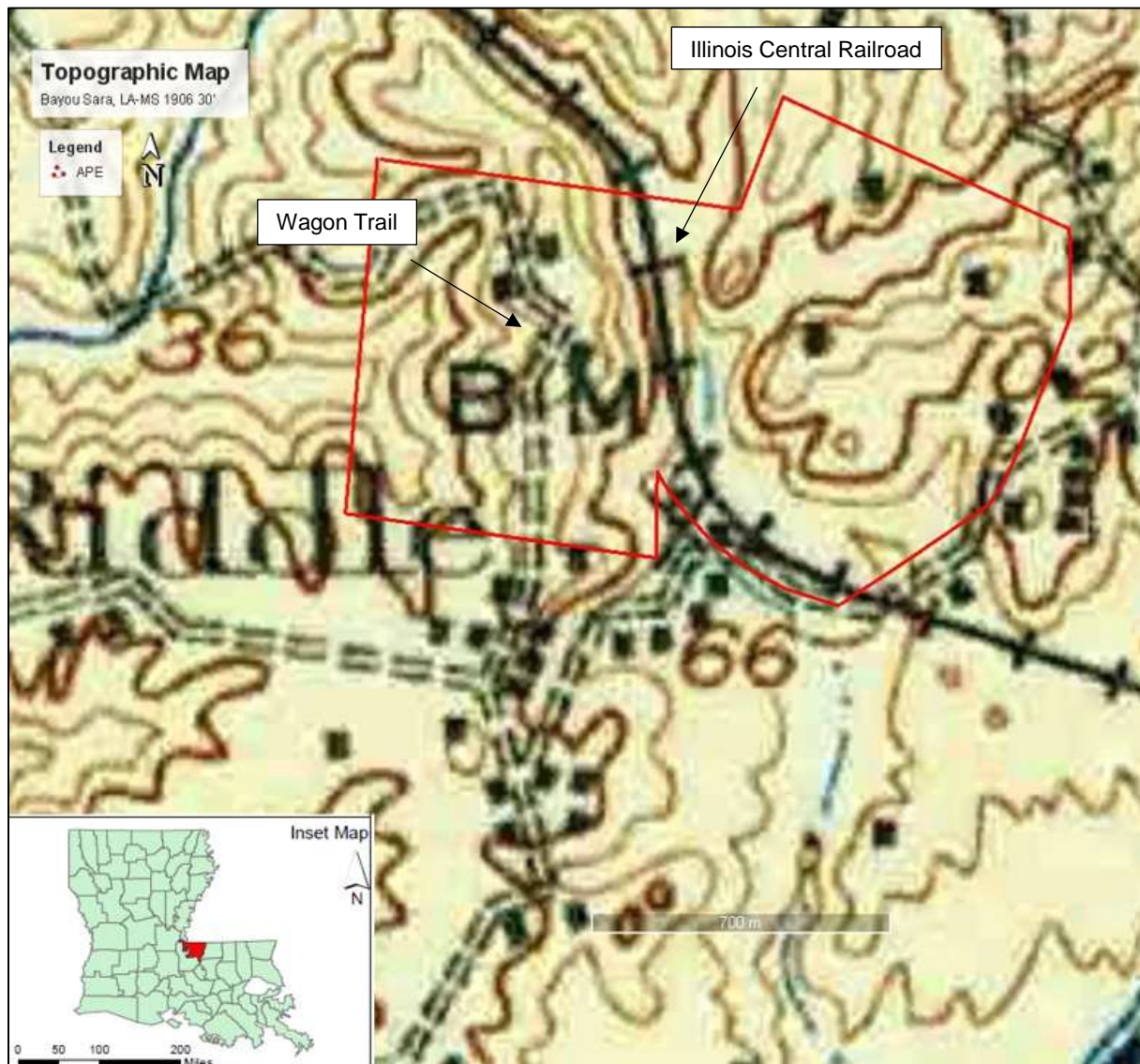


Figure 5. Portion of Bayou Sara, LA-MS 1906 30-Minute Topographic Map (Source: USGS).

By 1963, the Illinois Central Railroad can still be seen within the APE, along with a few structures within the eastern portion of the project area, along HWY 964 (Figure 6).

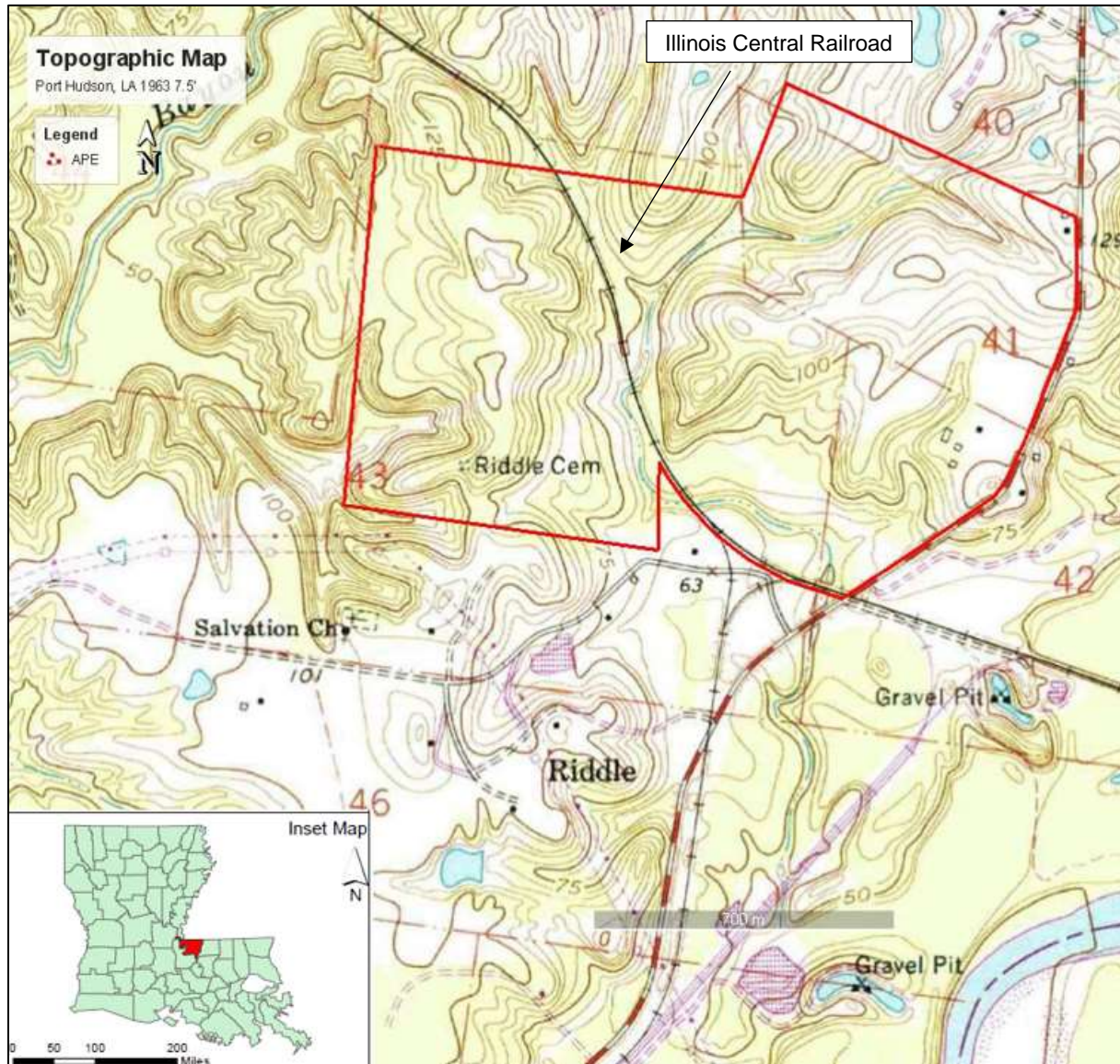


Figure 6. Portion of Port Hudson, LA 1963 7.5-Minute Topographic Map (Source: USGS).

Twenty years later, in 1983, the Illinois Central Railroad is the lone development within the APE (Figure 7).

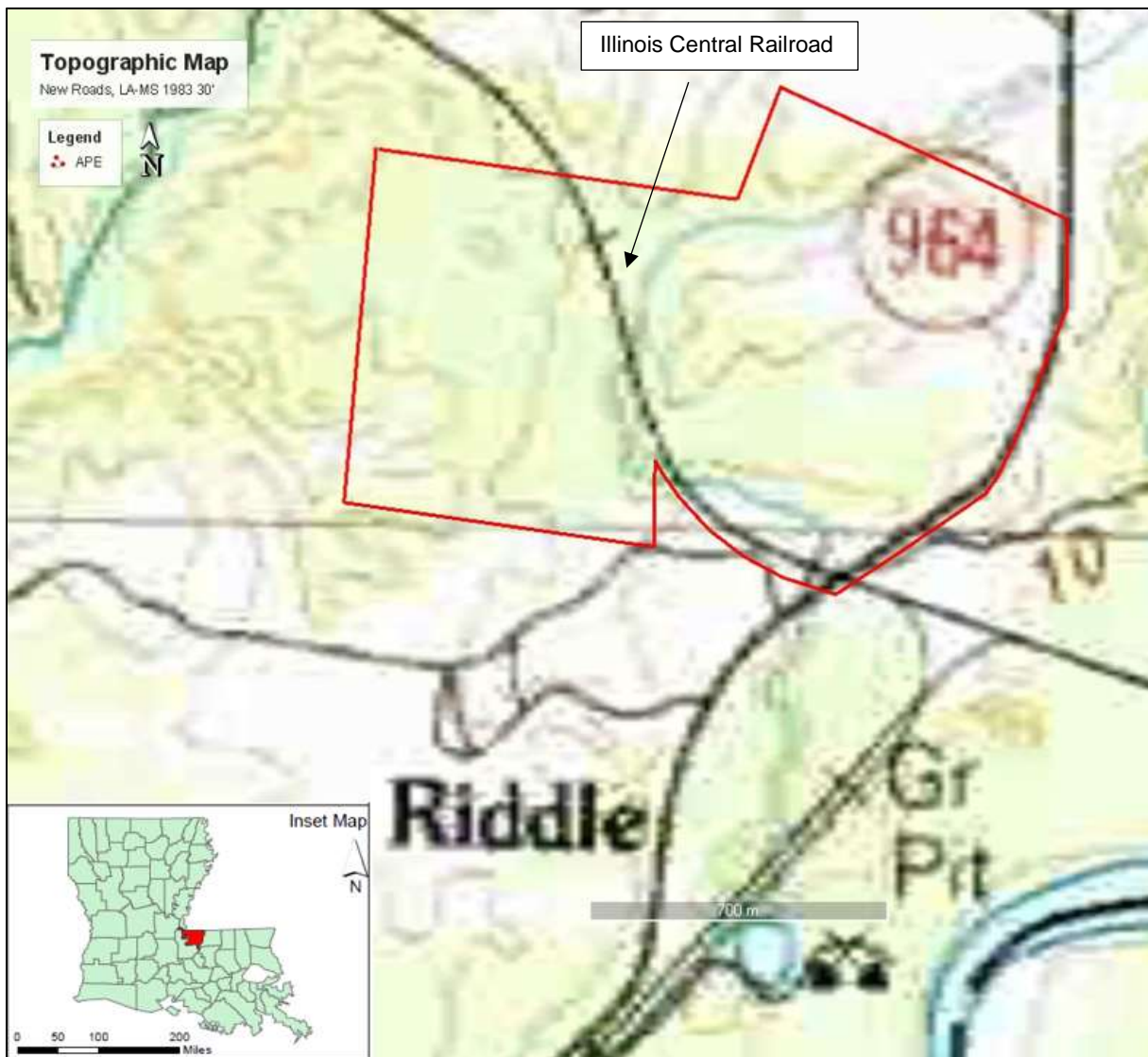


Figure 7. Portion of New Roads, LA-MS 1983 30-Minute Topographic Map (Source: USGS).

Archaeological Sites within 1 mi (1.61 km) of APE

There are twenty-three previously recorded archaeological sites within 1 mi (1.61 km) of the APE, with two, 16WF31 and 16WF47, within the boundary of the APE (Table 5). One of the sites within the APE, 16WF31, is a cemetery. The Riddle Family Cemetery Site, 16WF31, has historic components spanning the Civil War & Aftermath and Industrial & Modern periods. The other site, 16WF47, was visited and shovel tests were excavated, yet it did not yield cultural materials likely due to disturbance from the pipeline built within the northern portion of the site.

Table 5. Archaeological Sites within 1 mi (1.61 km) of APE (Source: LDOA).

| Site No. | Name | Component(s) | Culture(s) | Function | NRHP Status | Last Visited |
|----------|------------------------------|-----------------------|---|---|-------------|--------------|
| 16WF155 | 2002-B | Prehistoric | Prehistoric, Unknown | Prehistoric, Unknown | Ineligible | 2002 |
| 16WF191 | Salvation Church Cemetery | Historic | Civil War & Aftermath, Industrial & Modern | Cemetery/Mortuary | Unevaluated | 2017 |
| 16WF4 | Riddle Place/Mounds | Prehistoric, Historic | Archaic, Unknown, Middle Archaic, Coles Creek, Plaquemine | Prehistoric Hamlet/Village, Ceremonial Center | Unevaluated | 2005 |
| 16WF41 | Temporary No. 5 | Prehistoric | Middle Archaic, Baytown, Coles Creek | Camp | Ineligible | 1984 |
| 16WF42 | Temporary No. 2 | Prehistoric | Woodland, Unknown | Prehistoric Hamlet/Village | Ineligible | 1984 |
| 16WF44 | None Given | Prehistoric | Late Archaic, Baytown, Coles Creek | Camp | Ineligible | 1984 |
| 16WF45 | Temporary No. 4 | Prehistoric | Neo-Indian, Woodland | Specialized Activity | Ineligible | 1984 |
| 16WF53 | None Given | Prehistoric | Troyville-Coles Creek | Occasional Camping | Unevaluated | 1986 |
| 16WF52 | Alice Site | Historic | War & Aftermath, Industrial & Modern (c. 1875-1925) | House Site | Unevaluated | 1994 |
| 16WF61 | Cottonmouth Mound | Prehistoric | Baytown | Ceremonial Center | Eligible | 1994 |
| 16WF85 | The Cistern Pit Site | Historic | Industrial & Modern (c. 1890-1930) | House Site | Unevaluated | 1994 |
| 16WF152 | Site 4 | Prehistoric | Woodland | Unknown | Ineligible | 2001 |
| 16WF43 | Temporary No. 6, W.F. Parish | Prehistoric | Prehistoric, Unknown | Prehistoric, Unknown | Ineligible | 2017 |
| 16WF193 | WFIP-2 | Prehistoric | Prehistoric, Unknown | Prehistoric, Unknown | Unevaluated | 2017 |
| 16WF149 | Site #1 | Historic | Industrial & Modern | Possible Dump | Ineligible | 2017 |
| 16WF150 | Site #3 | Historic | Industrial & Modern | Possible Dump | Ineligible | 2017 |
| 16WF151 | Site #3 | Historic | Historic, Unknown, Industrial & Modern | Residence | Ineligible | 2017 |
| 16WF153 | Site #6 | Prehistoric, Historic | Woodland, Unknown; Historic, Unknown | Unknown | Ineligible | 2017 |
| 16WF194 | WFIP-3 | Prehistoric | Prehistoric, Unknown, Woodland | Unknown | Unevaluated | 2017 |
| 16WF154 | Site #6 | Prehistoric, Historic | Prehistoric, Unknown; Industrial & modern | Unknown | Ineligible | 2017 |
| 16WF47 | Temporary No. 7, W.F. Parish | Historic | Modern 20 th Century | Unknown | Ineligible | 1984 |
| 16WF31 | Riddle Family Cemetery | Historic | Historic, Late 19 th -Early 20 th Century | Cemetery | Unevaluated | 1978 |

Standing Structures within 1 mi (1.61 km) of APE

There are two previously recorded historic standing structures located within 1 mi (1.61 km) of the APE, one of which falls within the boundary of the survey area (63-00113). They are summarized in Table 6.

Table 6. Standing Structures within 1 mi (1.61 km) of APE (Source: LDOA).

| LHRI No. | Name | Address | Function | Style | Condition | NRHP Status | Date Visited |
|----------|-----------------------------|---|-----------|-----------------------------|--------------|-------------|--------------|
| 63-00113 | Lapeze Plantation Residence | 2817 LA-964 Jackson, LA 70748 | Residence | Louisiana Planter's Cottage | Deteriorated | Not Listed | 1987 |
| 63-00115 | None Given | E. Side of LA 964, approx. 0.1 mi South of U.S. 61 Intersection | Residence | Vernacular | Good | Not Listed | 1987 |

Fieldwork

Field survey was carried out from March 12-23, 2018. The APE was sectioned into HP, LP, and previously surveyed areas (Figure 8). A total of 1,094 shovel tests were excavated at HP, LP, and subsequent delineation. Of these, 408 were within the areas of LP, and 686 within the areas of HP. Five previously unrecorded sites were encountered, and two previously recorded sites were revisited. Each section of the APE, as well as each site within the project area will be discussed in more detail below.



Figure 8. Aerial Photograph Depicting Locations of HP, LP, and Previous Survey of the APE (Source: Google Earth).

Low Probability Sections

The APE consisted of five sections of LP survey. Each is discussed in detail below.

Low Prob 1

Low Prob 1 is located in the southwestern corner of the APE. The area consisted of open slopes and powerlines. A total of thirteen shovel tests were excavated. No sites were encountered within Low Prob 1. An aerial depicting the beginning and ending shovel tests can be seen in Figure 9. A Munsell of the soils encountered is represented in Table 7. Figures 10 and 11 provide a representation of the topography.

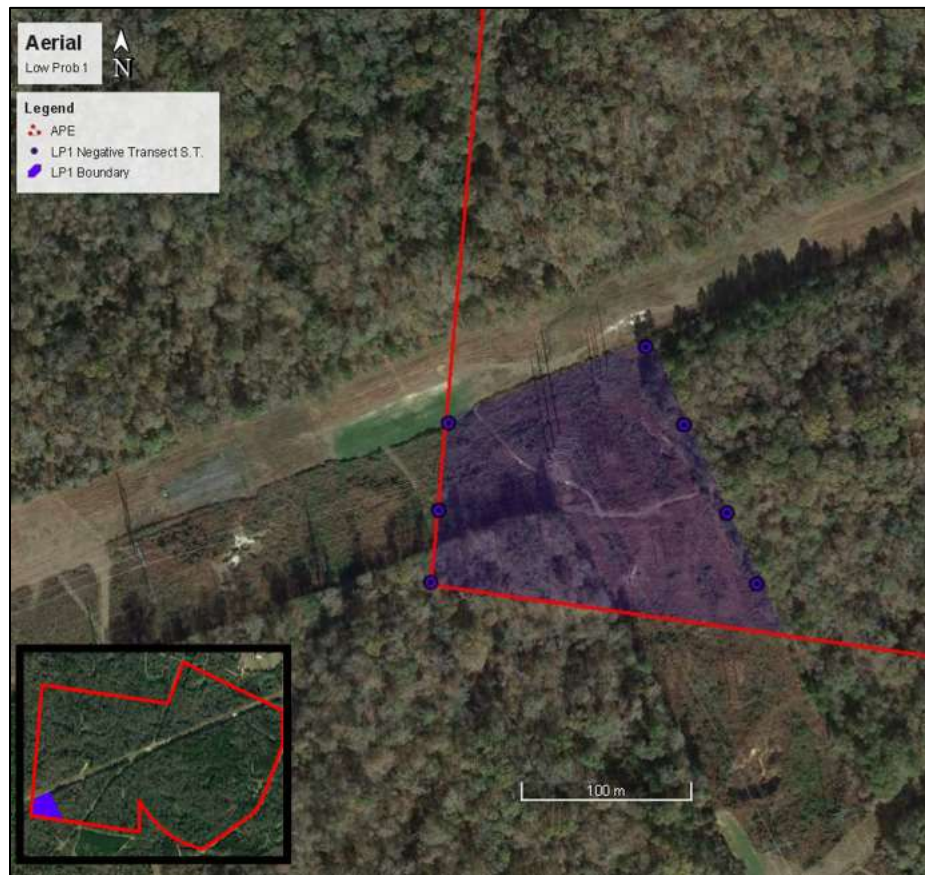


Figure 9. Aerial with APE Inset, LP1 (Source: Google Earth).

Table 7. Representative Munsell, LP1.

| Location | Depth | Munsell | Description |
|----------|------------|------------|------------------|
| T1ST2 | 0-10 cmbs | 10 YR 4/3 | Silty Sand |
| | 11-50 cmbs | 7.5 YR 5/6 | Silty Sandy Clay |



Figure 10. Center, LP1, Facing North.



Figure 11. Center, LP1, Facing West.

Low Prob 2

Low Prob 2 is located in the western portion of the APE, just north of the pipeline. The area consisted of wooded forests with ridges and slopes. A total of fifty shovel tests were excavated. No sites were encountered within Low Prob 2. An aerial depicting the beginning and ending shovel tests can be seen in Figure 12. A Munsell of the soils encountered is represented in Table 8. Figures 13 and 14 provide a representation of the topography.



Figure 12. Aerial with APE Inset, LP2 (Source: Google Earth).

Table 8. Representative Munsell, LP2.

| Location | Depth | Munsell | Description |
|----------|-----------|------------|-------------|
| T11ST3 | 0-3 cmbs | 10 YR 3/3 | Silt |
| | 4-50 cmbs | 7.5 YR 4/4 | Silty Clay |



Figure 13. Center, LP2, Facing East.



Figure 14. Center, LP2, Facing South.

Low Prob 3

Low Prob 3 is located in the southwestern portion of the APE, just south of the pipeline. The area consisted of wooded forests with ridges and slopes. A total of forty-three shovel tests were excavated. No sites were encountered within Low Prob 3. An aerial depicting the beginning and ending shovel tests can be seen in Figure 15. Figures 16 and 17 provide a representation of the topography. A Munsell of the soils encountered is represented in Table 9.

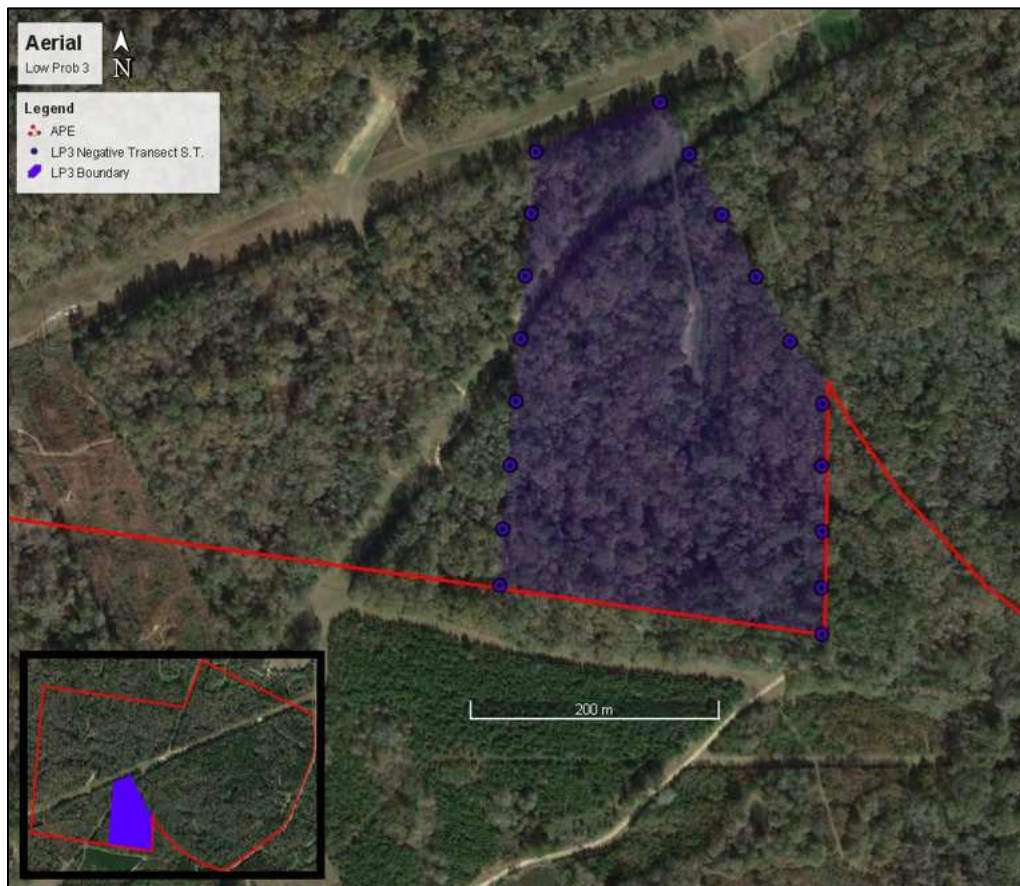


Figure 15. Aerial with APE Inset, LP3 (Source: Google Earth).

Table 9. Representative Munsell, LP3.

| Location | Depth | Munsell | Description |
|----------|------------|-----------|-------------|
| T20ST4 | 0-10 cmbs | 10 YR 3/3 | Silt |
| | 11-50 cmbs | 10 YR 5/4 | Silty Clay |



Figure 16. Center, LP3, Facing North.



Figure 17. Center, LP3, Facing West.

Low Prob 4

Low Prob 4 is located in the northeastern portion of the APE, just north of the pipeline. The area consisted of wooded forests with ridges and slopes. A total of 111 shovel tests were excavated. No sites were encountered within Low Prob 4. An aerial depicting the beginning and ending shovel tests can be seen in Figure 18. A Munsell of the soils encountered is represented in Table 10. Figures 19 and 20 provide a representation of the topography.

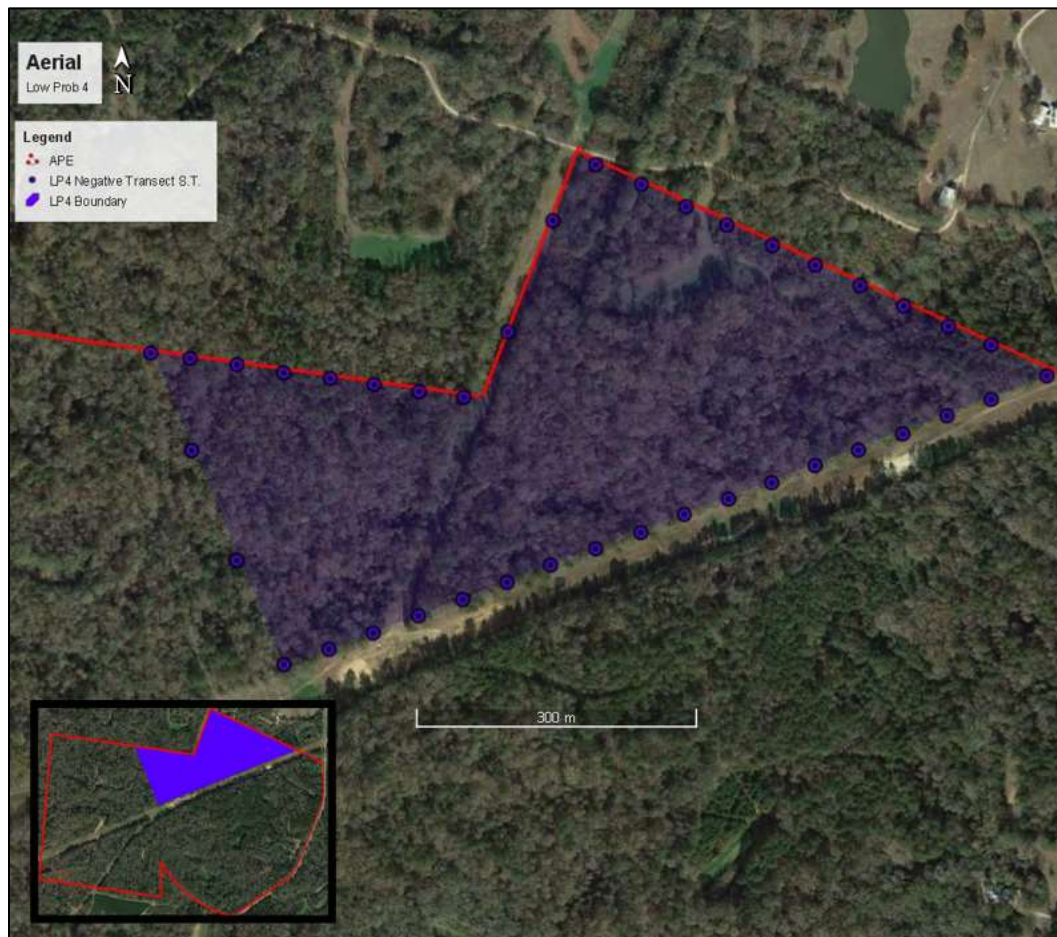


Figure 18. Aerial with APE Inset, LP4 (Source: Google Earth).

Table 10. Representative Munsell, LP4.

| Location | Depth | Munsell | Description |
|----------|-----------|-----------|------------------|
| T35ST5 | 0-20 cmbs | 10 YR 3/3 | Sandy Silty Loam |
| | 21-5 cmbs | 10 YR 4/6 | Silty Clay |



Figure 19. Center, LP4, Facing East.



Figure 20. Center, LP4, Facing South.

Low Prob 5

Low Prob 5 is located in the southeastern portion of the APE, south of the pipeline. The area consisted of wooded forests with slopes and ridges. A total of 186 transect shovel tests were excavated. Five delineation shovel tests were excavated at previously recorded site 16WF47 located within LP5 and will be discussed in further detail within the Archaeological Sites portion of this report. An aerial depicting the beginning and ending shovel tests can be seen in Figure 21. A Munsell of the soils encountered is represented in Table 11. Figures 22 and 23 provide a representation of the topography.

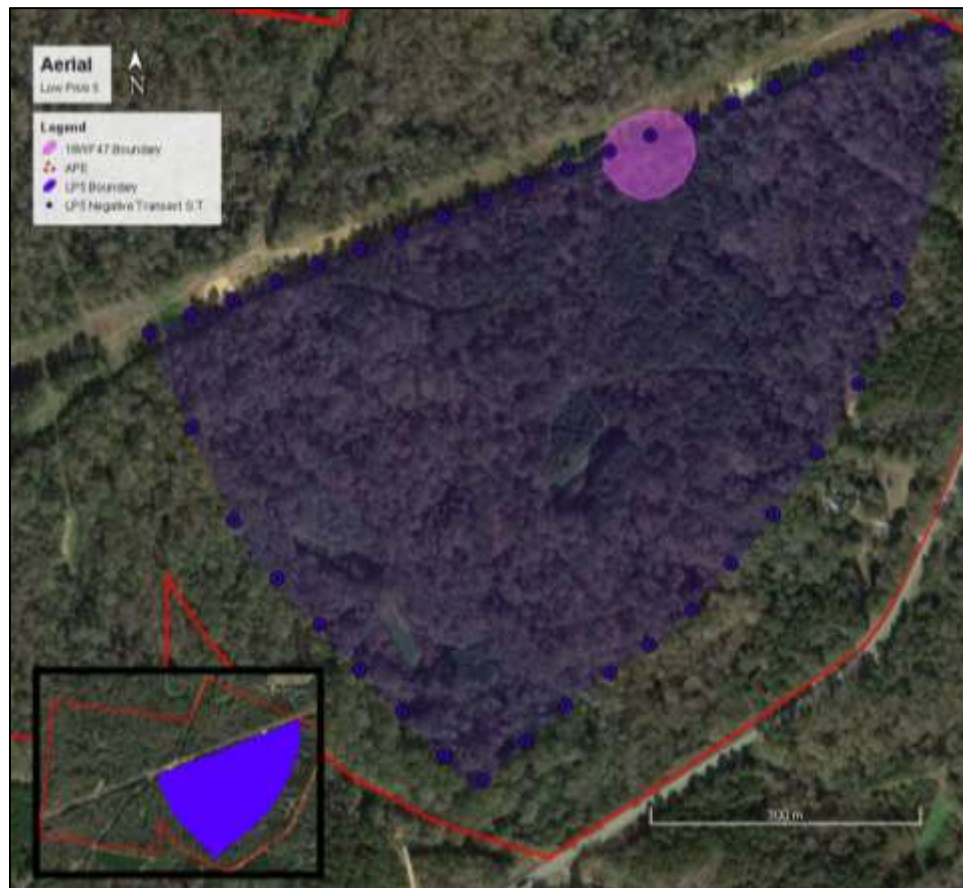


Figure 21. Aerial with APE Inset, LP5 (Source: Google Earth).

Table 11. Representative Munsell, LP5.

| Location | Depth | Munsell | Description |
|---------------------------|------------|------------|-------------------|
| T54ST4 (Northern Portion) | 0-7 cmbs | 10 YR 2/2 | Silty Loam |
| | 8-15 cmbs | 10 YR 3/3 | Sandy Silty Loam |
| | 16-35 cmbs | 10 YR 4/6 | Sandy Clayey Silt |
| | 36-50 cmbs | 10 YR 5/8 | Silty Clay |
| T58ST2 (Southern Portion) | 0-5 cmbs | 10 YR 3/2 | Silty Loam |
| | 6-15 cmbs | 10 YR 3/4 | Sandy Silty Loam |
| | 16-40 cmbs | 10 YR 4/6 | Sandy Clayey Silt |
| | 41-50 cmbs | 7.5 YR 5/6 | Sandy Silty Clay |



Figure 22. Center, LP5, Facing North.



Figure 23. Center, LP5, Facing West.

High Probability Sections

The APE consisted of four sections surveyed at a HP protocol. Each will be discussed in detail below.

High Prob 1

High Prob 1 is located in the northwestern corner of the APE. The area consisted of wooded forests with steep ridges and slopes. A total of 245 transect shovel tests were excavated. One site was identified in HP1 – 16WF199 (the Whispering Wood Site). Once identified, an additional thirty-six delineation shovel tests were excavated at 16WF199. The site will be discussed in further detail in the Archaeological Sites section.

An aerial depicting the beginning and ending shovel tests, plus the sites recorded, can be seen in Figure 24. A Munsell of the soils encountered is represented in Table 12. Figures 25-27 provide a representation of the topography.

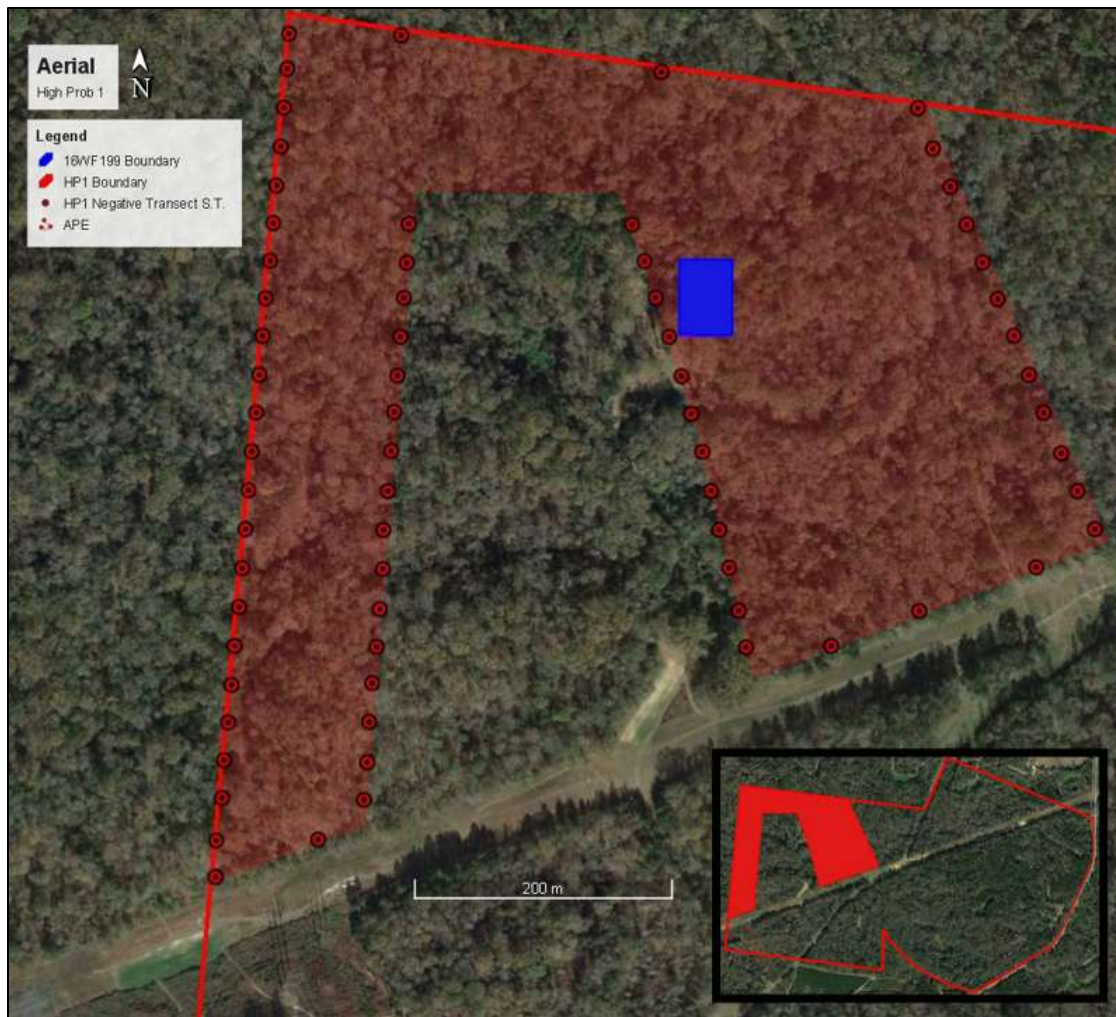


Figure 24. Aerial with APE Inset, HP1 (Source: Google Earth).

Table 12. Representative Munsell, HP1.

| Location | Depth | Munsell | Description |
|--------------------------|------------|-----------|-------------------|
| T33ST6 (Western Portion) | 0-50 cmbs | 10 YR 3/3 | Sandy Clayey Silt |
| T26ST6 (Eastern Portion) | 0-10 cmbs | 10 YR 3/2 | Silty Loam |
| | 11-40 cmbs | 10 YR 4/4 | Sandy Clayey Silt |
| | 41-50 cmbs | 10 YR 4/6 | Sandy Silty Clay |



Figure 25. Northern Boundary, HP1, Facing East.



Figure 26. Western Portion, HP1, Facing North.



Figure 27. Eastern Portion, HP1, Facing South.

The topographic maps of the area show a railroad, Illinois Central Railroad, running through the eastern portion of HP1. Although the tracks have eroded into the ditches along either side, the original path of the railroad has remained and now serves as an ATV trail. The remnants of the railroad are depicted in Figures 28-30.



Figure 28. Railroad Track and Logs, HP1, Facing Southwest.



Figure 29. Cut Through at Railroad, HP1, Facing South.



Figure 30. Railroad Track Eroding into Ditch, HP1, Facing Southeast.

High Prob 2

High Prob 2 is located in the southwestern portion of the APE, just south of the pipeline. The area consisted of wooded forests with steep ridges and slopes. A total of ninety-seven transect shovel tests were excavated. One previously recorded site was revisited – 16W31 (the Riddle Family Cemetery Site) and one unrecorded site was identified in HP2 – 16WF196 (the Old Valyria Site). Once identified, an additional nineteen delineation shovel tests were excavated at 16WF196. Both sites will be discussed in further detail in the Archaeological Sites section.

An aerial depicting the beginning and ending shovel tests, plus the sites recorded, can be seen in Figure 31. A Munsell of the soils encountered is represented in Table 13. Figures 32 and 33 provide a representation of the topography.

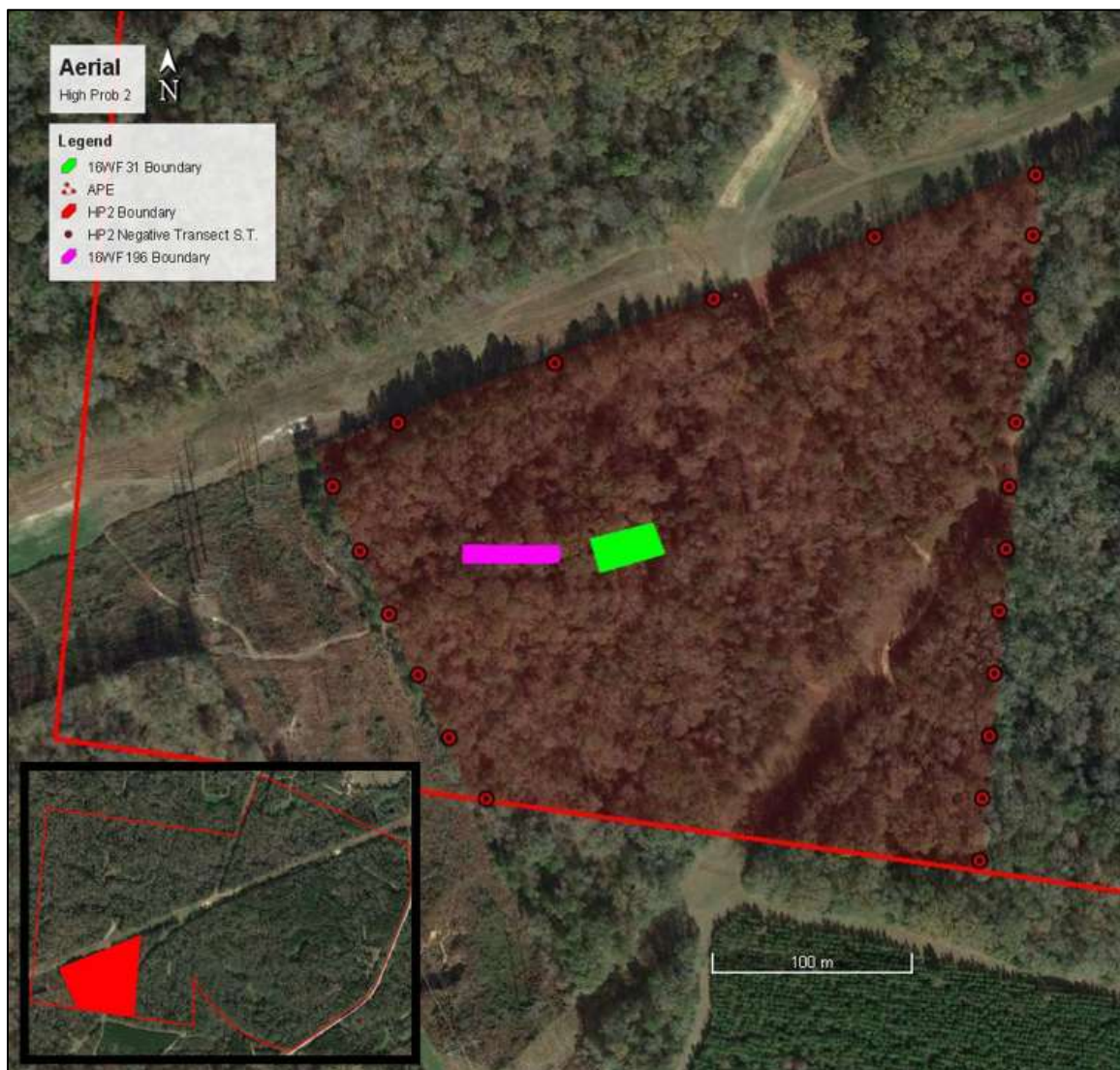


Figure 31. Aerial with APE Inset, HP2 (Source: Google Earth).

Table 13. Representative Munsell, HP2.

| Location | Depth | Munsell | Description |
|----------|------------|-----------|-------------|
| T45ST10 | 0-5 cmbs | 10 YR 2/1 | Silty Loam |
| | 6-45 cmbs | 10 YR 4/6 | Sandy Silt |
| | 46-50 cmbs | 10 YR 5/6 | Sandy Silt |



Figure 32. Center, HP2, Facing North.



Figure 33. Center, HP2, Facing West.

High Prob 3

High Prob 3 is located in the southern portion of the APE. The area consisted of wooded forests with steep ridges and slopes. A total of ninety transect shovel tests were excavated. No sites were encountered in HP3.

An aerial depicting the beginning and ending shovel tests can be seen in Figure 34. A Munsell of the soils encountered is represented in Table 14. Figures 35 and 36 provide a representation of the topography.

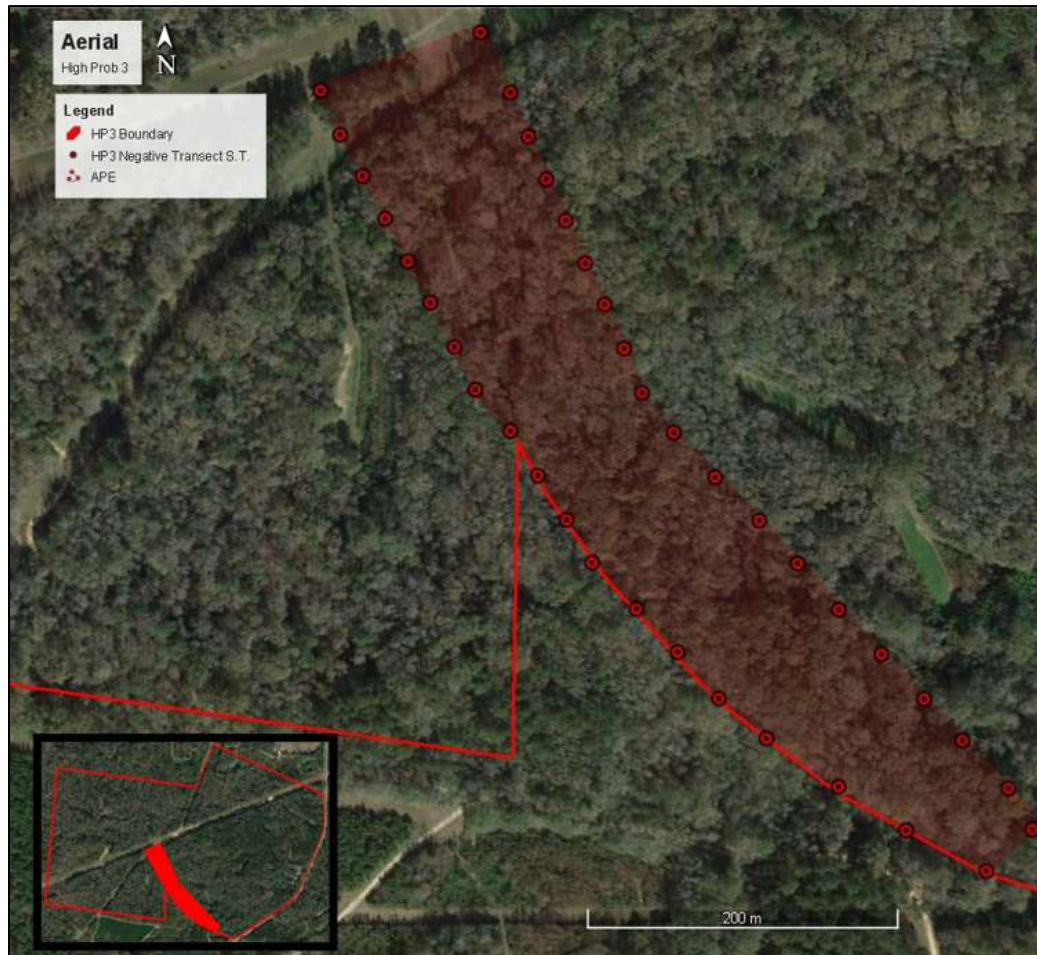


Figure 34. Aerial with APE Inset, HP3 (Source: Google Earth).

Table 14. Representative Munsell, HP3.

| Location | Depth | Munsell | Description |
|----------|------------|-----------|-------------|
| T57ST1 | 0-15 cmbs | 10 YR 3/1 | Silty Loam |
| | 16-50 cmbs | 10 YR 4/3 | Clayey Silt |



Figure 35. Center, HP3, Facing East.



Figure 36. Center, HP3, Facing South.

High Prob 4

High Prob 4 is located within the western boundary of the APE, along HWY 964. The southern portion of HP4 consisted of low lying areas of river cane, while the northern portion consisted of wooded forests with a few slopes and ridges. A total of 172 transect shovel tests were excavated. Three sites were identified in HP4 – 16WF195 (the Harvey Chimney Site), 16WF198 (the Harvey Sawmill Site), and 16WF197 (the HP4 South Site).

Once identified, an additional eight delineation shovel tests were excavated at 16WF195 (the Harvey Chimney Site). Thirteen delineation shovel tests were excavated at 16WF198 (the Harvey Sawmill Site), and six delineation shovel tests were excavated at 16WF197 (the HP4 South Site). These sites will be discussed in further detail in the Archaeological Sites section.

A standing structure (63-00113) was encountered within HP4. It is currently being utilized as a fishing camp by Mr. Wilbert Kelly. The structure and its history and significance will be further discussed in the Standing Structures section.

An aerial depicting the beginning and ending shovel tests, plus the sites recorded, can be seen in Figure 37. A Munsell of the soils encountered is represented in Table 15. Figures 38 and 39 provide a representation of the topography.

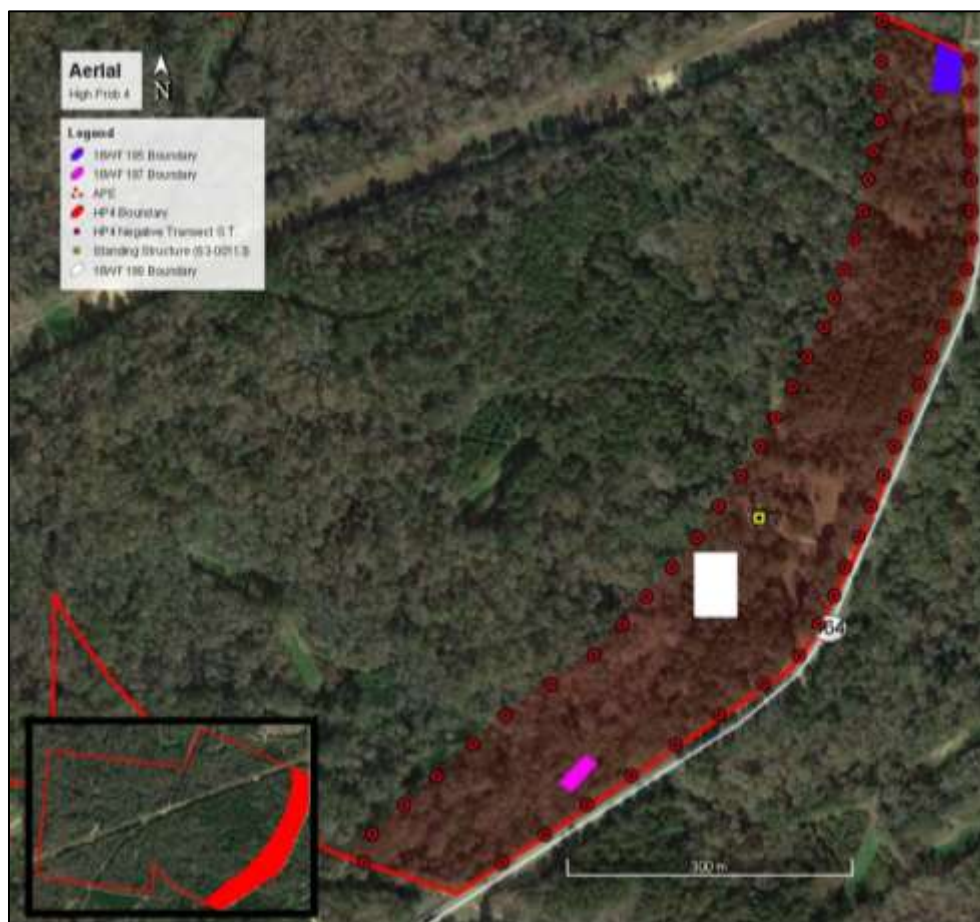


Figure 37. Aerial with APE Inset, HP4 (Source: Google Earth).

Table 15. Representative Munsell, HP4.

| Location | Depth | Munsell | Description |
|----------|------------|-----------|-------------|
| T25ST4 | 0-8 cmbs | 10 YR 3/2 | Silty Loam |
| | 9-30 cmbs | 10 YR 4/4 | Clayey Silt |
| | 31-50 cmbs | 10 YR 4/6 | Clayey Sil |



Figure 38. Southern Portion, HP4, Facing South.



Figure 39. Northern Portion, HP4, Facing East.

Previously Surveyed Area

A previous survey (22-0988) was carried out in 1984 by New World Research, Inc. for a proposed pipeline which currently runs northeast to southwest through the center of the APE. Figure 40 is an aerial depicting the location of the previous survey within the APE.



Figure 40. Aerial of Previously Surveyed Area (Source: Google Earth).

Archaeological Sites

During the Phase I survey, five previously unrecorded sites were identified – 16WF196 (the Od Valyria Site), 16WF195 (the Harvey Chimney Site), 16WF199 (the Whispering Wood Site), 16WF198 (the Henry Sawmill Site), and 16WF197 (the HP4 South Site). Prior to field survey, the Louisiana Division of Archaeology database was consulted, which depicted two previously recorded sites within the APE – 16WF31 (the Riddle Family Cemetery Site) and 16WF47 (the Temporary No. 7 Site). These pre-existing sites were revisited during the Phase I survey. Each site will be discussed below. Figure 41 depicts the location of each site within the boundary of the APE.

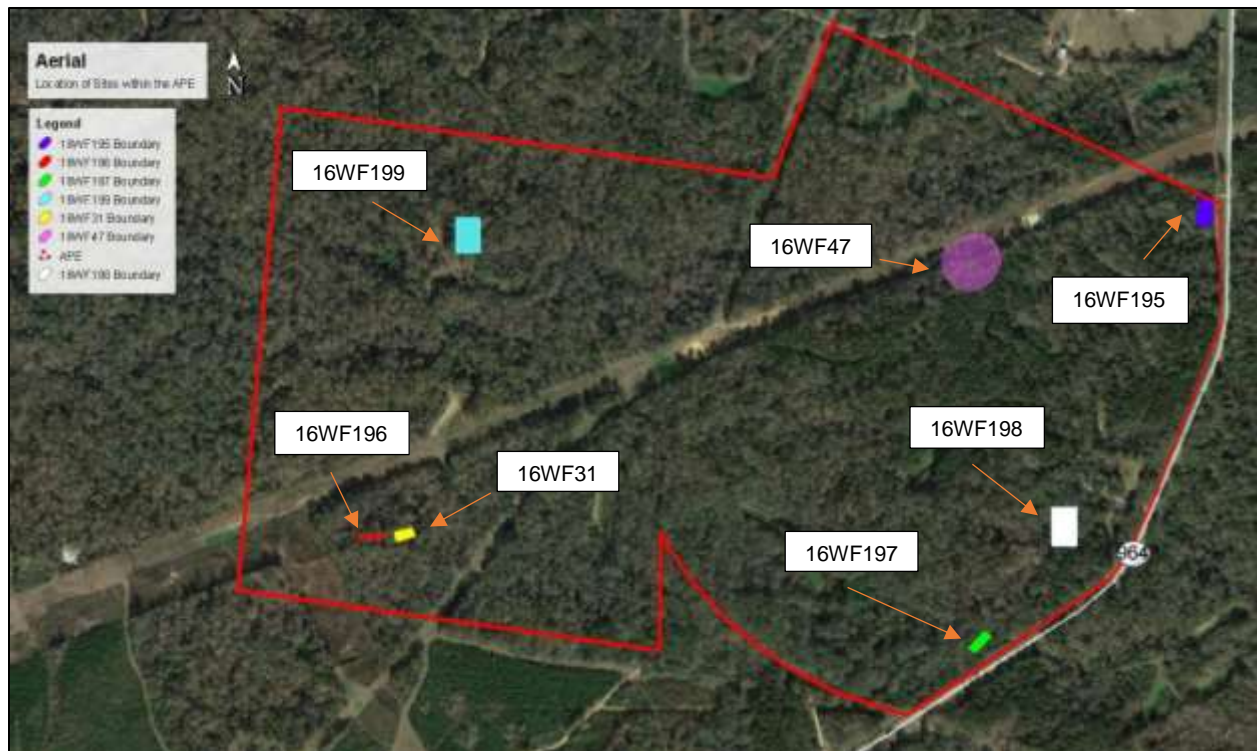


Figure 41. Aerial of Sites within the APE (Source: Google Earth).

16WF196 (the Old Valyria Site)

This site, covering 0.10 ac (0.04 ha), consisted of subsurface prehistoric scatter within a wooded forest of higher elevation, surrounded by steep ridges and slopes in HP2. Of the nineteen delineation shovel tests excavated, two were positive for prehistoric materials. The datum of the site is located at 661380E 3400384N. Figure 42 shows a detailed aerial image of the site, Figure 43 presents a sketch map of the site, and Figure 44 shows a view from datum. Figure 45 depicts one of the many steep ridges encountered surrounding the site. Table 16 describes the representative soil profile, and Table 17 is a list of the recovered artifacts preceding a brief explanation. The boundary UTM's are provided below.

NW Corner: 661342E 3400387N
 NE Corner: 661391E 3400387N
 SW Corner: 661342E 3400379N
 SE Corner: 661391E 3400379N

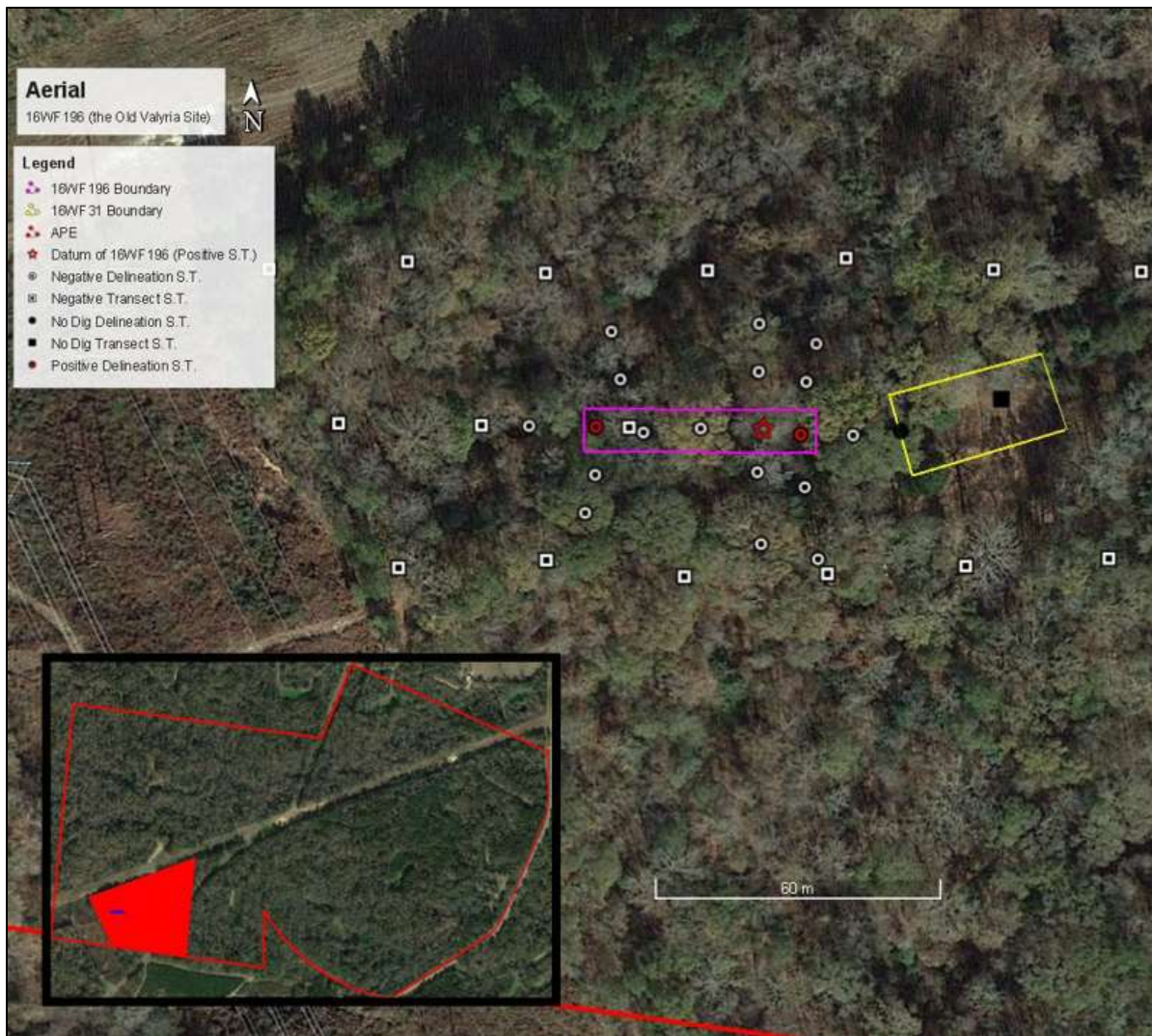


Figure 42. Aerial with APE Inset, 16WF196 (Source: Google Earth).

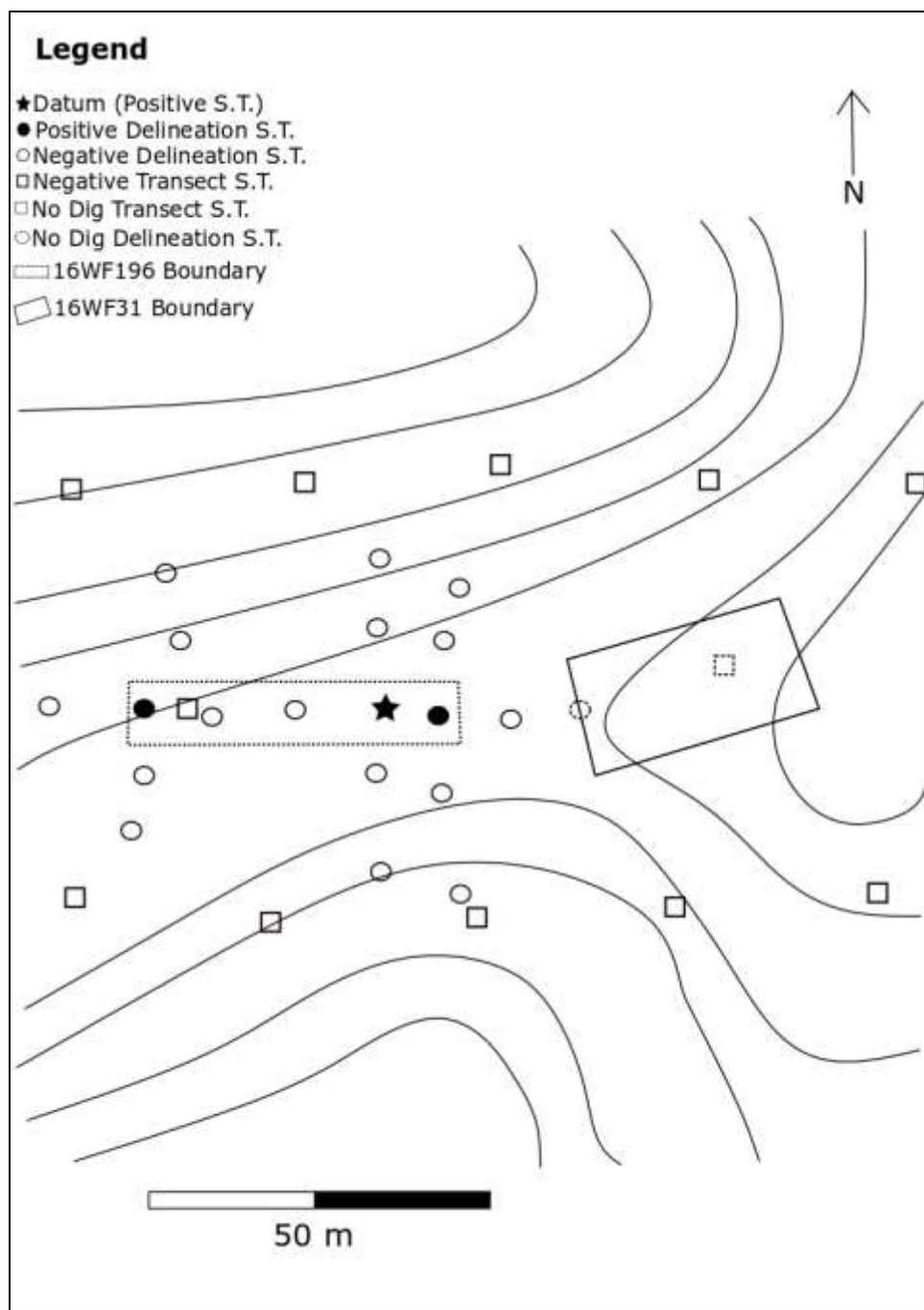


Figure 43. Sketch Map, 16WF196.



Figure 44. Datum, 16WF196, Facing North.



Figure 45. Representation of Steep Ridges Surrounding 16WF196, Facing West.

Table 16. Representative Munsell, 16WF196.

| Location | Depth | Munsell | Description |
|----------|------------|------------|-------------|
| Datum | 0-10 cmbs | 10 YR 3/2 | Silt |
| | 11-35 cmbs | 10 YR 5/4 | Silt |
| | 36-50 cmbs | 7.5 YR 4/4 | Silty Clay |

Table 17. Artifact Tally, 16WF196.

| | Datum | +10E | +30W | TOTAL |
|---------------------|----------|----------|----------|-----------|
| Ceramics | | | | |
| Aboriginal | | | | |
| Baytown Plain | | | | |
| <i>Var. Unspec.</i> | | | 1 | 1 |
| | | | | |
| Lithics | | | | |
| Flake | | | | |
| Secondary | 5 | 2 | | 7 |
| Tertiary | 2 | 1 | | 3 |
| Scraper | 1 | | | 1 |
| TOTAL | 8 | 3 | 1 | 12 |

Few artifacts were encountered, the majority of which consisted of lithics in the form of flakes, along with one scraper (Figure 46). One sherd of Baytown Plain, *var. unspec.* pottery was collected (Figure 47). Based on the minimal number of artifacts encountered (n=12) within the site boundary, 16WF196 is considered ineligible to the NRHP under criterion D.



Figure 46. Lithic Flakes and Scraper, Datum, 16WF196.



Figure 47. Baytown Plain, *var. unspec.*, +30W, 16WF196.

16WF195 (the Harvey Chimney Site)

This site, covering 0.32 ac (0.13 ha), consisted of surface and subsurface historic scatter as well as historic ruins within a new pine forest area in the northern portion of HP4. Of the eighteen delineation shovel tests excavated, two were positive for historic cultural materials. A brick chimney was located within the center of the site (Figures 50-52). Figure 53 shows a view from datum. Old roofing and concrete piles (Figures 54 and 55) were encountered south of the chimney within the surface scatter boundary, as well as what appeared to be an old gravel driveway (Figures 56).

According to Mr. Wilbert Kelly, who has used the house approximately 0.31 mi (500 m) southwest as a fishing camp since 1977, a house once stood within the site boundary in the early 1900s. Approximately twenty years ago, the roof collapsed, and the remainder of the structure was subsequently demolished (Wilbert Kelly, oral communication 2018).

The datum of the site is located at 662798E 3400960N. Figure 48 shows a detailed aerial image of the site, Figure 49 presents a sketch map of the site. Table 18 describes the representative soil profile, and Table 19 is a list of the recovered artifacts preceding a brief explanation.

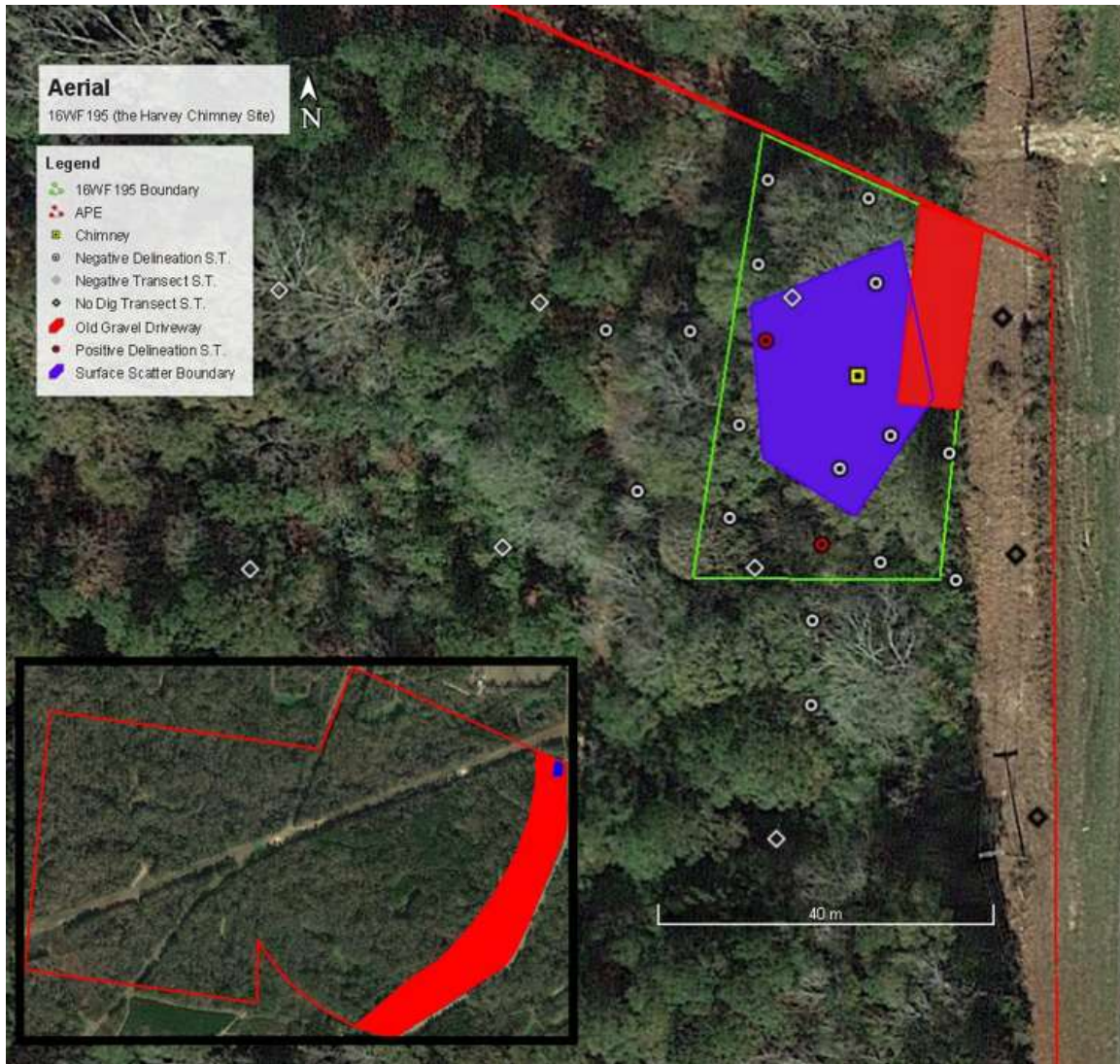


Figure 48. Aerial with APE Inset, 16WF195 (Source: Google Earth).

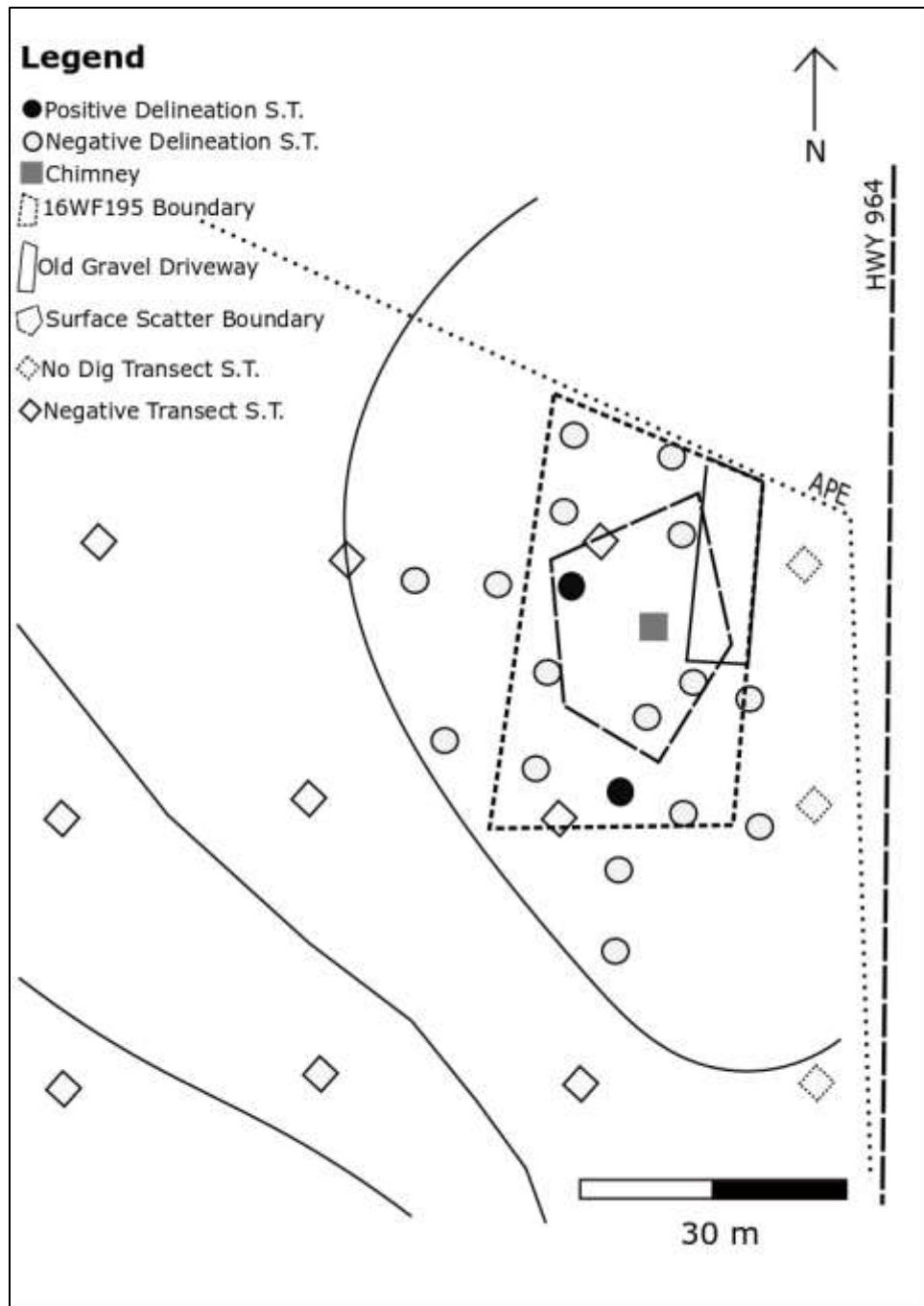


Figure 49. Sketch Map, 16WF195.



Figure 50. Front Face of Brick Chimney, 16WF195, Facing Northeast.



Figure 51. Rear Face of Brick Chimney, 16WF195, Facing Southwest.



Figure 52. Front of Brick Chimney, 16WF195, Facing Northeast.



Figure 53. Southern Boundary, 16WF195, Facing East.



Figure 54. Concrete Pile, 16WF195, Facing Northeast.



Figure 55. Roofing Pile, 16WF195, Facing Northeast.



Figure 56. Old Gravel Driveway, 16WF195, Facing Northwest.

Table 18. Representative Munsell, 16WF195.

| Location | Depth | Munsell | Description |
|----------|------------|------------|-------------|
| +10W | 0-7 cmbs | 10 YR 3/2 | Silt |
| | 8-20 cmbs | 10 YR 4/4 | Silt |
| | 21-50 cmbs | 7.5 YR 4/6 | Silty Clay |

Table 19. Artifact Tally, 16WF195.

| | +10W | +20W | Surface | TOTAL |
|------------------|------|------|---------|-------|
| Ceramic | | | | |
| Ironstone | | | | |
| Plain | | 1 | 1 | 2 |
| Whiteware | | | | |
| Banded | 1 | | | 1 |
| Porcelain | | | | |
| Plain | | | | |
| Tile | 1 | | | 1 |
| Dishware | | | 1 | 1 |
| | | | | |
| Glass | | | | |
| Curved | | 2 | 1 | 3 |
| Vessel | | | 13 | 13 |
| Milk | 1 | | | 1 |
| | | | | |
| Metal | | | | |
| Misc. | | 4 | | 4 |
| | | | | |
| TOTAL | 3 | 7 | 16 | 26 |

Most artifacts collected were whole glass vessels on the surface. These vessels included a Gordon's Gin bottle, Coca-Cola® bottles, and a Vicks® VapoRub™ bottle. These, along with the porcelain dishware and sherd of porcelain tile encountered, corroborate Mr. Kelly's account of a house previously located within the site boundary dating to the mid-1900s.

Although a historic brick chimney was encountered, along with a moderate amount of materials (n=26), the majority of which were located on the surface, 16WF195 is considered ineligible to the NRHP under criterion D, as further work would not yield information above what is already known.



Figure 57. Glass Vessels, Surface, 16WF195.



Figure 58. Coca-Cola® Vessel, Surface, 16WF195.



Figure 59. Gordon's Vessel, Surface, 16WF195.



Figure 60. Porcelain Dishware, Surface, 16WF195.

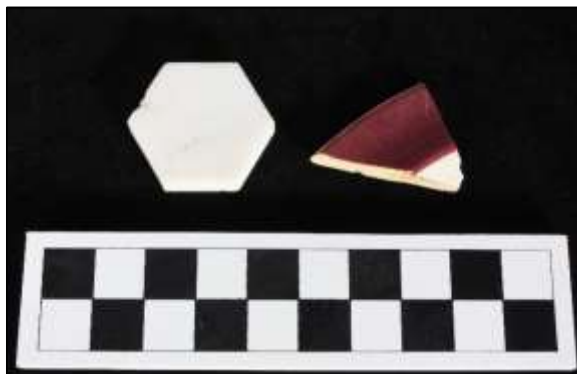


Figure 61. Porcelain Tile and Banded Whiteware, +10W, 16WF195.

16WF199 (the Whispering Wood Site)

This site, covering 0.57 ac (0.23 ha) and located in HP1, consisted of surface and subsurface historic scatter as well as historic ruins within a wooded area of higher elevation, just west of the remnants of an old railroad track (Illinois Central Railroad) previously discussed in the High Prob 1 section. Brick scatter was noted throughout the majority of the site boundary. Additionally, a road can be seen west of the site on the 1906 Bayou Sara, LA-MS 30-minute topographic map. Mr. Kelly informed the crew that this was once an old wagon trail; however, it was not encountered during the survey.

Of the thirty-six delineation shovel tests excavated, six were positive for historic cultural materials. Burned soil was noted at +20W and +30W (Figure 65). A historic trash pile was noted

approximately 98.4 ft (30 m) southwest of datum and consisted mostly of broken bottles and dishware (Figure 66-68). A brick foundation approximately 32.8 ft (10 m) southwest of datum (Figures 69-71) and a brick column was encountered approximately 65.6 ft (20 m) southwest of datum (Figure 72).

According to Mr. Wilbert Kelly, the ruins were once a historic house dating from the early 1900s. He further added that a few years ago hunters used a metal detector within the boundary of the site to dig up artifacts. These hunters, presumably, took the choice items and left the remainder in a trash pile, which, subsequently, was the same pile encountered by the crew during delineation (Wilbert Kelly, oral communication 2018).

The datum of the site is located at 661545E 3400898N. Figure 62 shows a detailed aerial image of the site, Figure 63 presents a sketch map of the site, and Figure 64 shows a view from datum. Table 20 describes the representative soil profile, and Table 21 is a list of the recovered artifacts preceding a brief explanation. The UTM's of the site boundary are presented below:

NW Corner: 661508E 3400927N
NE Corner: 661548E 3400928N
SW Corner: 661509E 3400870N
SE Corner: 661550E 3400870N

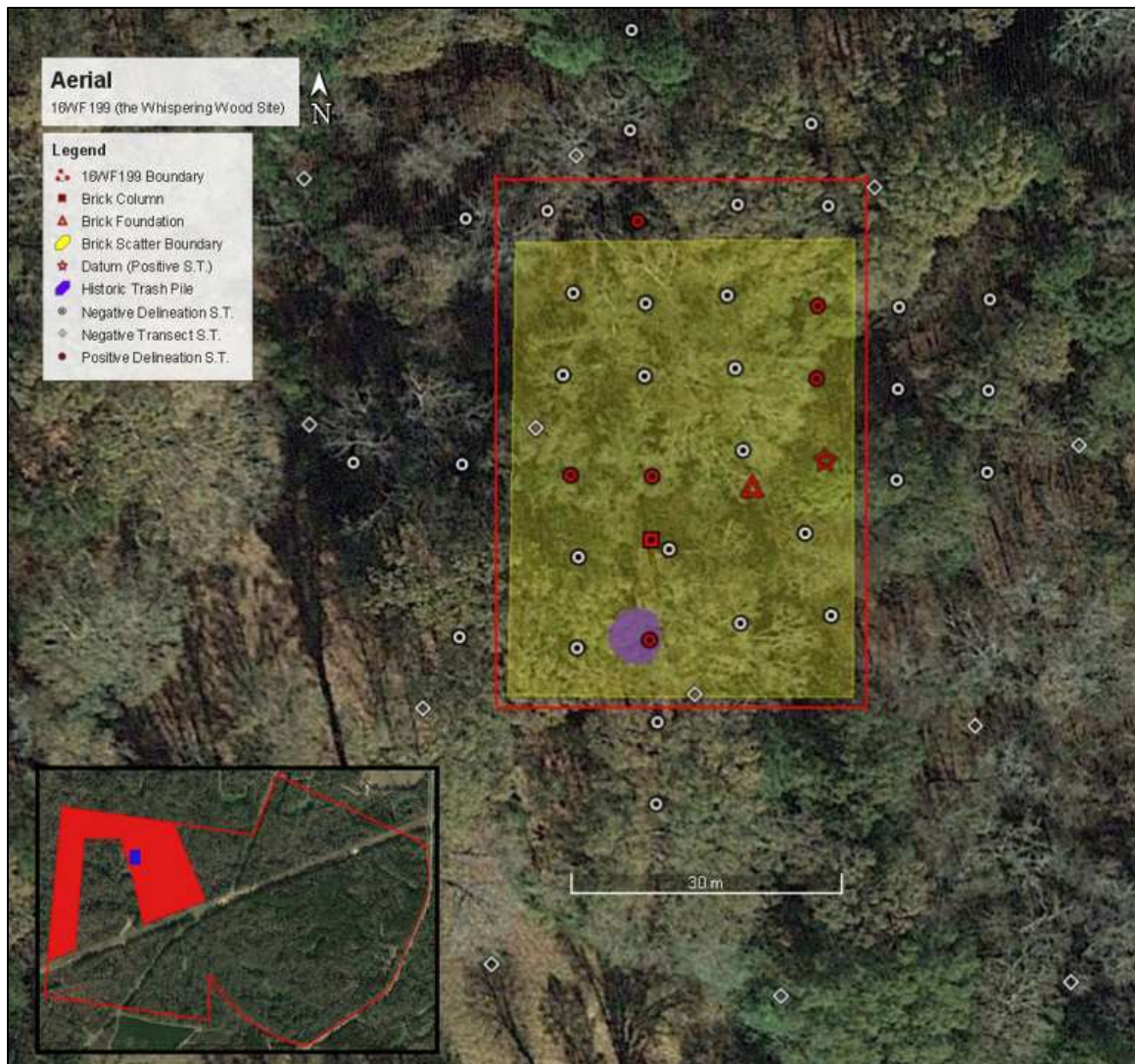


Figure 62. Aerial with APE Inset, 16WF199 (Source: Google Earth).

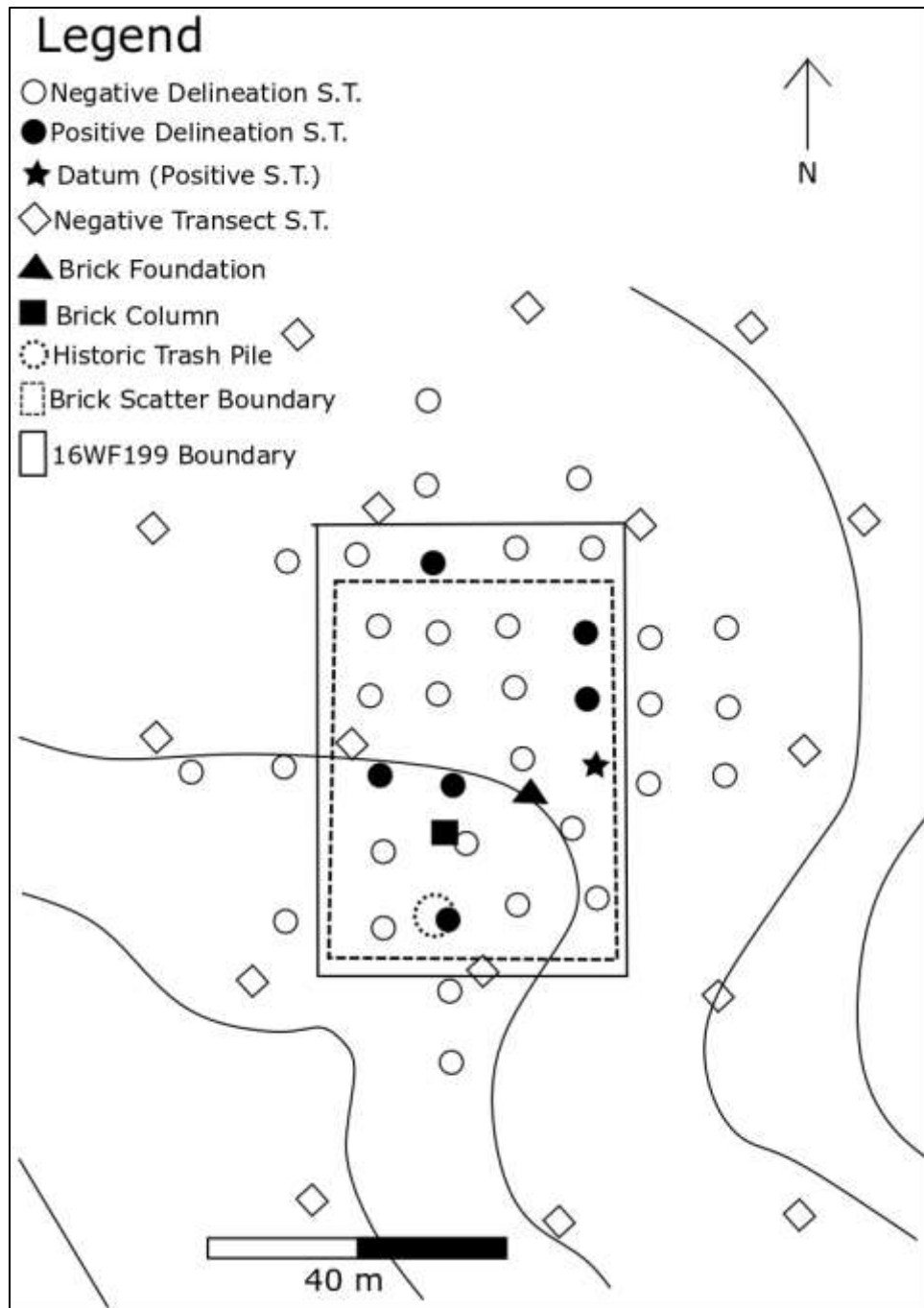


Figure 63. Sketch Map, 16WF199.



Figure 64. Datum, 16WF199, Facing East.



Figure 65. Burned Soil at +20W (0-40 cmbs), 16WF199, Facing Northeast.



Figure 66. Historic Trash Pile, 16WF199, Facing Southwest.



Figure 67. Historic Trash Pile, 16WF199, Facing Northeast.



Figure 68. Dug Out Hole at Historic Trash Pile, 16WF199, Facing East.



Figure 69. Brick Foundation, 16WF199, Facing Northwest.



Figure 70. Brick Foundation, 16WF199, Facing Northwest.



Figure 71. Brick Foundation, 16WF199, Facing West.



Figure 72. Brick Column, 16WF199, Facing Northwest.

Table 20. Representative Munsell, 16WF199.

| Location | Depth | Munsell | Description |
|----------|------------|-----------|-------------------------|
| Datum | 0-8 cmbs | 10 YR 3/3 | Silty Loam |
| | 9-50 cmbs | 10 YR 4/6 | Sandy Silt |
| +20W | 0-40 cmbs | 10 YR 2/1 | Burned Silty Sandy Loam |
| | 41-50 cmbs | 10 YR 4/6 | Silty Clay |

Table 21. Artifact Tally, 16WF199.

| | Datum | +10N | +20W | +30W | +20W+20S | +30N+20W | Historic Trash Pile | TOTAL |
|------------------------------|-------|------|------|------|----------|----------|------------------------|-------|
| Ceramic | | | | | | | | |
| Ironstone | | | | | | | | |
| Plain | 2 | 1 | 3 | | 2 | 1 | 2 | 11 |
| Maker's Mark | | | | | | | 1 | 1 |
| Shell Edged | | | | | | | 1 | 1 |
| Transfer Printed | | | | | | | 1 | 1 |
| Whiteware | | | | | | | | |
| Plain | 1 | | 1 | | 2 | | | 4 |
| Transfer Printed | 1 | | | | | | | 1 |
| Hand-Painted | | | 1 | | | | | 1 |
| Blue Shell Edged | | | | | 1 | | | 1 |
| Porcelain | | | | | | | | |
| Plain | 1 | 1 | | | 1 | 1 | 4 | 8 |
| Decal | | | 1 | | | | 2 | 3 |
| Hand-Painted | | | 1 | | | | | 1 |
| Pearlware | | | | | | | | |
| Flow Blue | | | 1 | | | | | 1 |
| Stoneware | | | | | | | | |
| Salt Glazed | | | | | | | 2 | 2 |
| Manganese Glazed | | | | | | | 1 | 1 |
| Bristol Glazed | | | | | | | 1 | 1 |
| Earthenware | | | | | | | | |
| Salt Glazed | | | 1 | | | | | 1 |
| Glass | | | | | | | | |
| Curved | 2 | | | 1 | 2 | | 19 | 24 |
| Vessel | | | | 1 | | | 2 | 3 |
| Metal | | | | | | | | |
| Iron | | | | | | | | |
| Nail | | | | | | | | |
| Cut | 1 | | 4 | | | | | 5 |
| Wire | | | 1 | | | | | 1 |
| Misc. | | | | | | 2 | | 2 |
| Wood | | | | | | | | |
| Unworked | | | | | | | | |
| Charcoal | | | 1 | | | | | 1 |
| Construction Material | | | | | | | | |
| Brick | | | | | | 1 | | 1 |
| TOTAL | 8 | 2 | 15 | 2 | 8 | 5 | 36 | 76 |

A total of seventy-six artifacts were collected at 16WF199, many of which were ceramics (n=39). Of these ceramics, the most common encountered were ironstone, whiteware, and porcelain. Various stonewares were also collected (n=4), along with one sherd of flow blue pearlware (Figure 74) and one sherd of salt-glazed earthenware. After ceramics, glass was the most common material collected (n=27). Figures 73 and 76 depict the various types of glass encountered. Five cut nails and a single wire nail were noted, as well.

Ironstone was the most common ceramic collected (n=14), making up 35.9% of all ceramics. Most of these were plain sherds; however, one sherd of Maker's Mark Ironstone, one sherd of blue shell edged ironstone, and one sherd of transfer printed ironstone were recorded. The Maker's Mark was unable to be identified (Figure 77). The various decorations of ironstone collected date from 1813-20th century (Kovel and Kovel 2004; Campbell 2006). Figure 75 depicts part of an ironstone vase.

The second most frequent collected type of ceramic was porcelain, mainly sherds of dishware from the historic trash pile (Figure 78). Various decorated whitewares, including transfer printed, hand-painted, and blue shell edged were also found. The porcelain dishware dates from 1738-present (Kovel and Kovel 2004). The variously decorated whitewares date from the mid-1800s to the early 1900s (Hahn & Castille 1988; Hume 1970; Rickard 2006).

Charcoal was noted within shovel tests +20W and +30W, which fall near both the brick column and the brick foundation. These ruins help explain the substantial amount of brick scatter throughout the site. The materials collected suggest a period of occupation from the Civil War & Aftermath to the Industrial & Modern periods, which corroborates Mr. Kelly's oral history regarding the dating of the residence once within the site boundary.

Due to its location between an old railroad and an old wagon trail, plus the substantial materials encountered along with the historic ruins, 16WF199 is considered eligible to the NRHP under criterion D and further work is recommended.



Figure 73. Partial Champagne Vessel, +30W, 16WF199.



Figure 74. Flow Blue Pearlware, +20W, 16WF199.



Figure 75. Ironstone Vase, Historic Trash Pile, 16WF199.



Figure 76. Embossed Vessel Glass, Historic Trash Pile, 16WF199.



Figure 77. Ironstone with Partial Maker's Mark, Historic Trash Pile, 16WF199.



Figure 78. Decal Porcelain Dishware, Historic Trash Pile, 16WF199.

16WF198 (the Harvey Sawmill Site)

This site, covering 0.71 ac (0.07 ha), consisted solely of historic ruins surrounded by historic machinery and trash within a forested area of river cane in HP4. 16WF198 (the Harvey Sawmill Site) contained three rows of brick columns (Rows 1, 2, and 3).

Row 1 consisted of seven columns, with an eighth just south of Columns 1 and 2 (Figure 81). Each column ranged from 38.1 cm to 62.2 cm in width, 16.5 cm to 53.3 cm in height, and 44.5 cm to 62.2 cm in length (Figures 82). Each column was spaced between 160 cm to 190.5 cm apart. Six delineation shovel tests were excavated surrounding Row 1, in judgemental areas

where surface scatter did not impede testing. Although Row 1 contained historic machinery and trash, all shovel tests were negative for cultural materials.

Rows 2 and 3 were encountered approximately 98.4 ft (30 m) south of Row 1 (Figure 83). Row 2 is approximately 11.5 ft (3.5 m) northwest of Row 3. Row 2 consisted of eight columns with a ninth about 100.3 cm southwest of Columns 1 and 2. Column 6 was in ruins; however, the remaining columns were in relatively good condition. The width of each column ranged from 30.5 cm to 74.9 cm, the height from 22.9 cm to 64.8 cm, and the length from 53.3 cm to 132.1 cm (Figures 84 and 85). Seven delineation shovel tests were excavated in the area surrounding Rows 2 and 3. Like Row 1, the area surrounding Rows 2 and 3 contained a significant amount of historic machinery and trash (Figures 86 and 87). Shovel tests were placed at locations around the substantial machinery and trash and spaced anywhere from 32.8 ft (10 m) to 65.6ft (20 m) apart. All seven shovel tests were negative for cultural materials.

Mr. Wilbert Kelly informed the crew that this area was a sawmill in the early 1900s. Years later, the sawmill was torn down and trash piles accumulated within the area. The datum of the site is located at 662560E 3400421N. Figure 79 shows a detailed aerial image of the site and Figure 80 presents a sketch map of the site. Table 23 describes the representative soil profile, and Table 24 is a list of the recovered artifacts preceding a brief explanation. The UTM's of the site boundary are presented below:

NW Corner: 662538E 3400449N
NE Corner: 662582E 3400450N
SW Corner: 662540E 3400383N
SE Corner: 662584E 3400384N

Further work is recommended at 16WF198, as continued research and archaeological survey would provide important knowledge into the industrial work once carried out within the area. Historic ruins and ample machinery suggest the site is eligible to the NRHP under Criterion D.



Figure 79. Aerial with APE Inset, 16WF198 (Source: Google Earth).

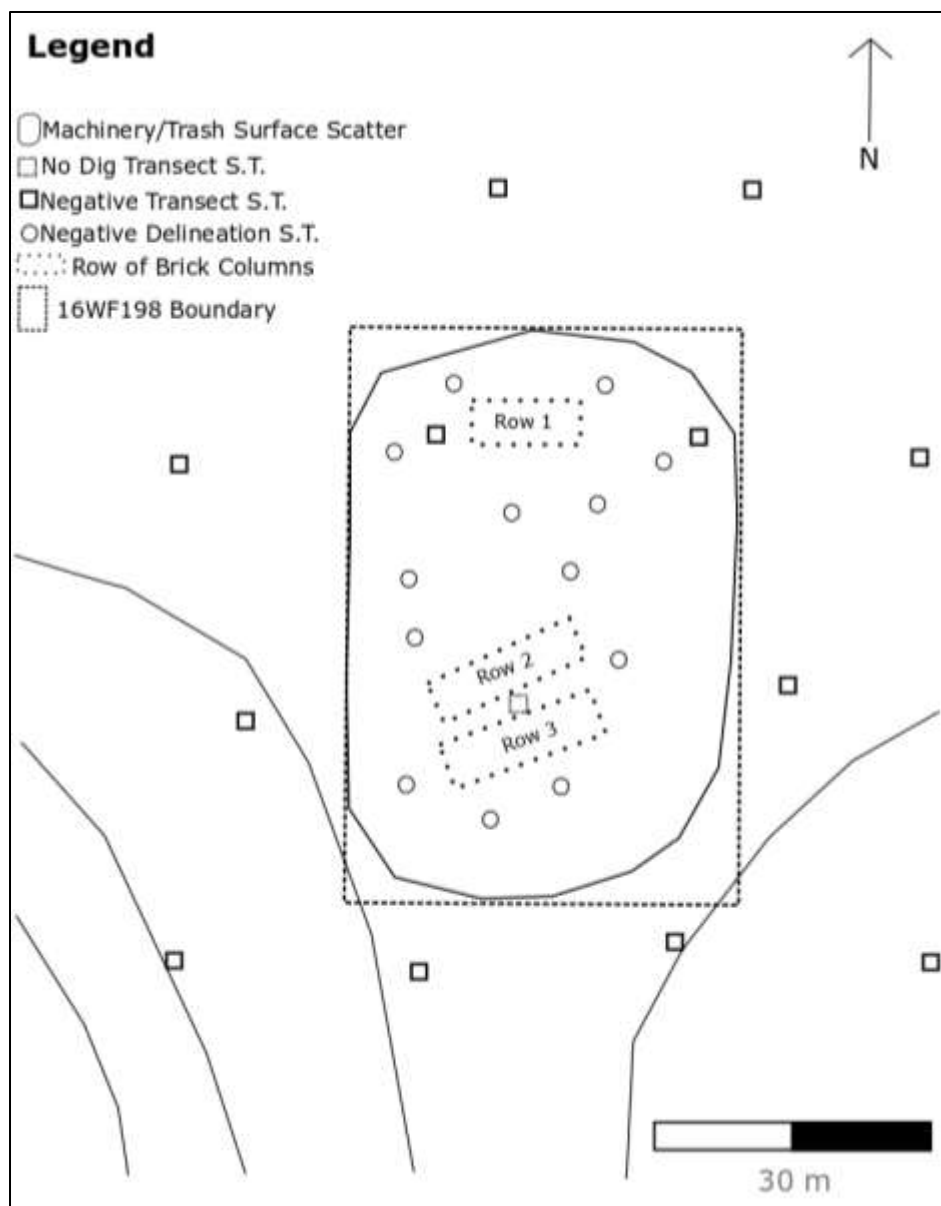


Figure 80. Sketch Map, 16WF198.

Table 22. Representative Munsell, 16WF198.

| Location | Depth | Munsell | Description |
|-------------------|------------|------------|-------------|
| +10 m NW of Row 2 | 0-4 cmbs | 10 YR 3/2 | Silt |
| | 5-10 cmbs | 10 YR 4/2 | Sandy Silt |
| | 11-50 cmbs | 7.5 YR 4/4 | Silty Clay |



Figure 81. Center of Row 1, 16WF198, Facing East.



Figure 82. Row 1, Column 3, 16WF198, Facing Northeast.



Figure 83. Center of Rows 2 and 3, 16WF198, Facing South.



Figure 84. Row 2, Column 3, 16WF198, Facing Southeast.



Figure 85. Row 3, Column 5, 16WF198, Facing Southeast.



Figure 86. Representation of Trash Piles, 16WF198, Facing Southwest.



Figure 87. Representation of Historic Machinery, 16WF198, Facing West.

16WF197 (the HP4 South Site)

This site, covering 0.57 ac (0.23 ha), consisted solely of surface scatter along an ATV trail within the southern portion of HP4 in an area of lower elevation, surrounded by river cane forests and marshes. All materials encountered were on the surface of the ATV trail (Figure 91).

Six delineation shovel tests were excavated along the ATV trail, all of which were negative for cultural materials. The datum of the site is located at 662415E 3400219N. Figure 88 shows a detailed aerial image of the site, Figure 89 presents a sketch map of the site, and Figure 90 shows a view from datum. Table 23 describes the representative soil profile, and Table 24 is a list of the recovered artifacts preceding a brief explanation. The UTM's of the site boundary are presented below:

NW Corner: 662400E 3400207N
NE Corner: 662427E 3400236N
SW Corner: 662412E 3400199N
SE Corner: 662438E 3400228N

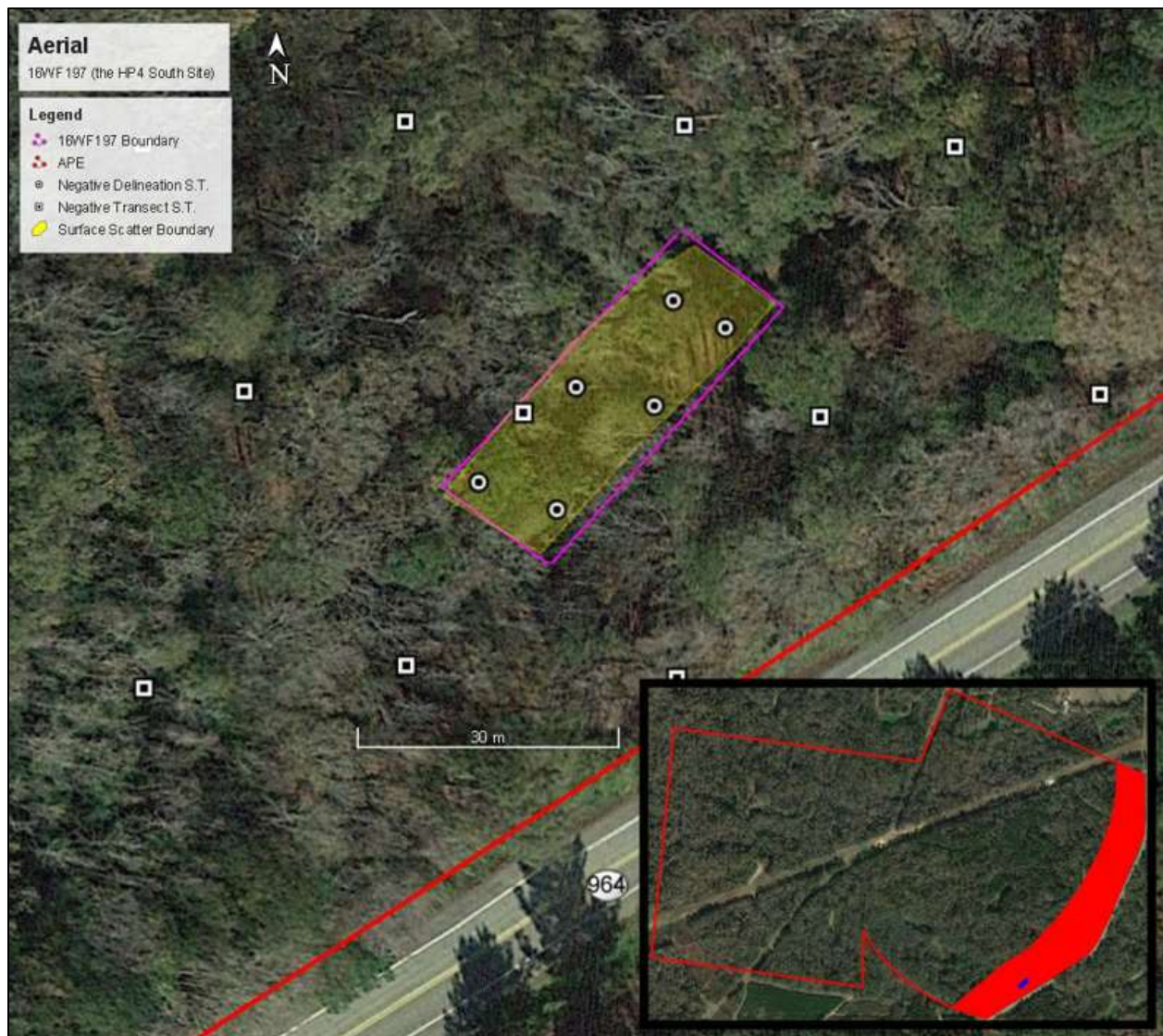


Figure 88. Aerial with APE Inset, 16WF197 (Source: Google Earth).

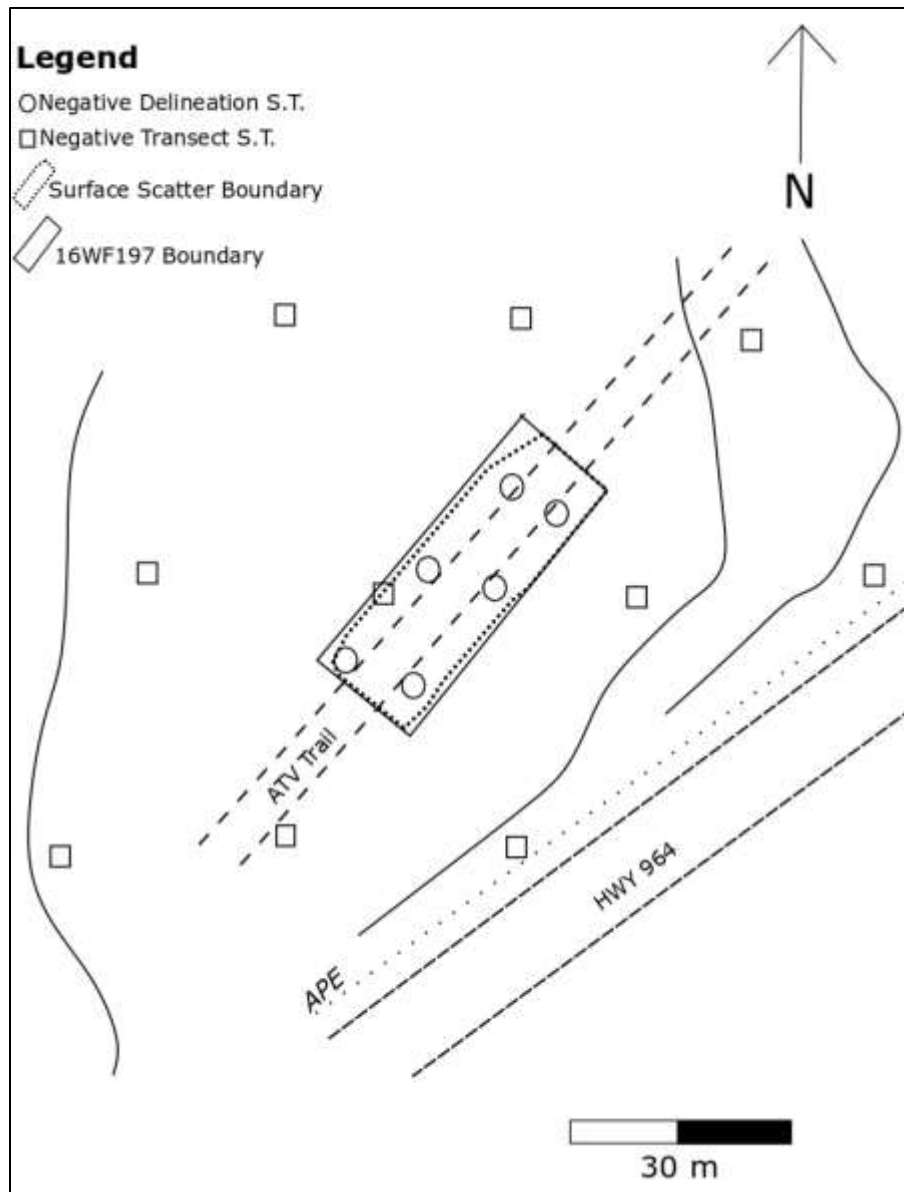


Figure 89. Sketch Map, 16WF197.

Table 23. Representative Munsell, 16WF197.

| Location | Depth | Munsell | Description |
|--|-----------|-----------|-------------|
| Representation of 16WF197 (the HP4 South Site) | 0-6 cmbs | 10 YR 3/2 | Silt |
| | 7-50 cmbs | 10 YR 3/3 | Sandy Silt |



Figure 90. Center of Surface Scatter, 16WF197, Facing West.



Figure 91. Surface Scatter, 16WF197.

Table 24. Artifact Tally, 16WF197.

| | Surface | TOTAL |
|------------------|---------|-------|
| Ceramic | | |
| Ironstone | | |
| Plain | 10 | 10 |
| Whiteware | | |
| Plain | 4 | 4 |
| Porcelain | | |
| Plain | 2 | 2 |
| Stoneware | | |
| Salt Glazed | 2 | 2 |
| Manganese Glazed | 1 | 1 |
| | | |
| Glass | | |
| Curved | 3 | 3 |
| Milk | 1 | 1 |
| | | |
| TOTAL | 23 | 23 |

A total of twenty-three artifacts were collected on the surface along an existing ATV trail. The majority of materials were ceramics (n=19). Of these, plain ironstone was the most common, dating from 1913-20th century (Kovel and Kovel 2004; Campbell 2006). Figure 92 depicts the various sherds of ironstone collected and Figure 93 shows the glass shards encountered. Although these materials are diagnostic in nature, the location of distribution along an existing trail puts them out of any concrete historic context. It is for this reason the authors consider 16WF197 ineligible to the NRHP under Criterion D.



Figure 92. Ironstone Sherds, 16WF197.



Figure 93. Solarized Lip/Neck and Milk Glass, 16WF197.

16WF31 (the Riddle Family Cemetery Site)

This site, covering 0.14 ac (0.06 ha), was used as a historic cemetery. The cemetery is situated within a forested area of higher elevation, surrounded by various slopes and ridges. The Riddle Family Cemetery Site (16WF31) spans the Civil war & Aftermath and Industrial & Modern periods. The majority of the headstones are in relatively good condition, with the most recent (2015) in pristine condition. A total of nineteen headstones were recorded, with three outside the fenced area, just northeast.

Shovel tests were not excavated here for fear of disturbing unmarked burials. As such, the methodology for the cemetery consisted of visual inspection, pedestrian survey, and recordation. Magnetometry and remote sensing survey for determining unmarked graves was beyond the scope of the initial survey.

The center of the site is located at 661425E 3400388N. Figure 94 shows a detailed aerial image of the site, Figure 95 presents a sketch map of the site, Figure 96 presents a sketch map with the proposed 100 ft (30.5 m) buffer, and Figures 97-100 show various views from the center of the cemetery. Table 25 is a listing of the legal inscriptions of interred individuals. The UTM's of the site boundary are presented below:

NW Corner: 661407E 3400391N
NE Corner: 661437E 3400399N
SW Corner: 661411E 3400375N
SE Corner: 661443E 3400384N

The site has the potential to offer further knowledge of the people and families who once resided within the area and their impact on the history of West Feliciana Parish. Therefore, 16WF31 is considered eligible for nomination in the NRHP under Criterion D. SURA suggests a 100 ft (30.5 m) protective buffer around the site perimeter, in the event unmarked graves exist outside the fenced area.



Figure 94. Aerial with Inset, 16WF31 (Source: Google Earth).

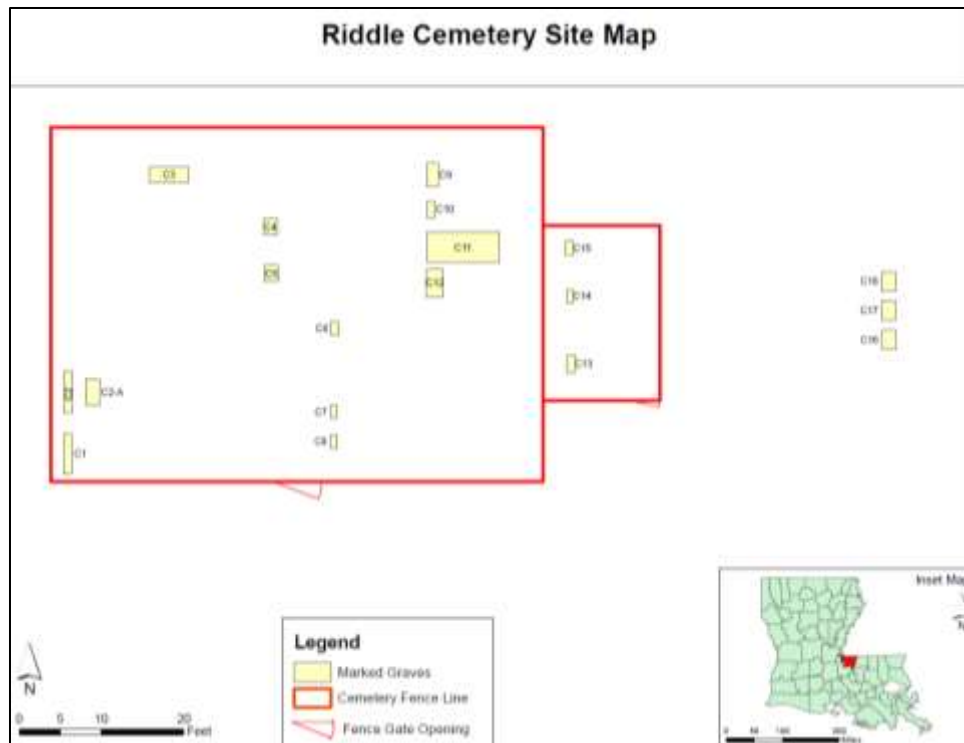


Figure 95. Sketch Map, 16WF31.

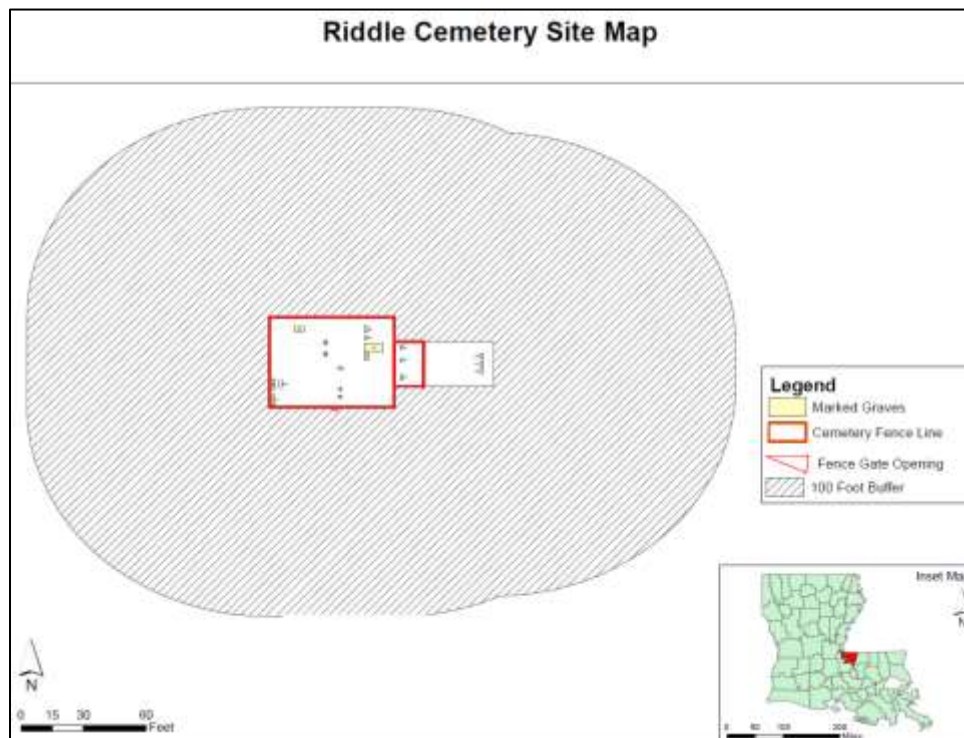


Figure 96. Sketch Map, 16WF31 with Proposed 100 ft Buffer.



Figure 97. Center of Cemetery, 16WF31, Facing North.



Figure 98. Center of Cemetery, 16WF31, Facing East.



Figure 99. Center of Cemetery, 16WF31, Facing South.



Figure 100. Center of Cemetery, 16WF31, Facing West.

Table 25. Legal Inscriptions on Headstones, 16WF31.

| FID | Shape * | Marker_ID | Name | Date | Comment |
|-----|---------|-----------|---------------------------------|-------------------------------|---|
| 0 | Polygon | C17 | Annie Catherine Dedon | 12/27/1875-09/06/1940 | |
| 1 | Polygon | C18 | Elizabeth Dedon | 02/04/1868-01/01/1893 | |
| 2 | Polygon | C16 | David Burris Dedon | 10/31/1859 - 04/21/1947 | |
| 3 | Polygon | C15 | Samuel Alexander | 06/01/1916 - 06/03/1916 | |
| 4 | Polygon | C14 | Ruth Wildblood | 06/28/1902 - 04/20/1910 | |
| 5 | Polygon | C13 | Wilhelmina Smith | 04/15/1881-01/25/1920 | |
| 6 | Polygon | C2-A | LLoyd George | 01/27/1923 - 01/13/1983 | Appears to be a 2nd headstone for grave C2. |
| 7 | Polygon | C12 | Louis Leopold JR | 05/29/1941-06/17/2015 | |
| 8 | Polygon | C10 | Martha Riddle Lapeze | 02/23/1889 - 04/29/1963 | |
| 9 | Polygon | C9 | John Willy Lapeze | 12/10/1877 - 02/09/1958 | |
| 10 | Polygon | C11 | Elroy Lapeze Marion | 09/01/1908 - 12/06/2000 | |
| 11 | Polygon | C6 | Infant Girl | 10/19/1912 - 10/22/1912 | |
| 12 | Polygon | C7 | J.F. Williams | 05/04/1883 - 02/02/1937 | |
| 13 | Polygon | C8 | Ruth Riddle Williams | 06/13/1894 - 12/03/1938 | |
| 14 | Polygon | C5 | N.B. Riddle | 11/01/1843 - 06/26/1910 | |
| 15 | Polygon | C4 | Mary A. Brannon | 04/10/1863 - 06/03/1927 | |
| 16 | Polygon | C3 | Margaret Riddle Johnson | 05/1841 - 02/02/1907 | |
| 17 | Polygon | C2 | Lloyd George Riddle & Marion M. | George- 01/27/1923-01/13/1983 | Marion - 04/08/1925 - 01/08/2001 |
| 18 | Polygon | C1 | Daniel R. Riddle | 09/16/1959 - 04/02/1983 | |

16WF47 (The Temporary No.7 Site)

This site was originally recorded in 1984 by Wade Carr. The southern portion of the site was located within wooded, pine forest in an area of higher elevation, while the northern portion fell along the existing, sloping pipeline.

According to the original site form, the UTMs given as the center of the site are inaccurate; therefore, a shovel test was placed as datum within the center of the drawn boundaries depicted on the SHPO database. An additional four shovel tests were excavated at 65.6 ft (20 m) in each cardinal direction from datum. All shovel tests were negative for cultural materials.

The datum of the site is located at 661510E 3400320N. Figure 101 shows a detailed aerial image of the site, Figure 102 presents a sketch map of the site, and Figures 103 and 104 show a view from datum. Table 26 describes the representative soil profile.

Due to the lack of materials encountered, along with the disturbance caused by construction of the pipeline along the northern boundary, 16WF47 is considered ineligible for the NRHP under Criterion D.

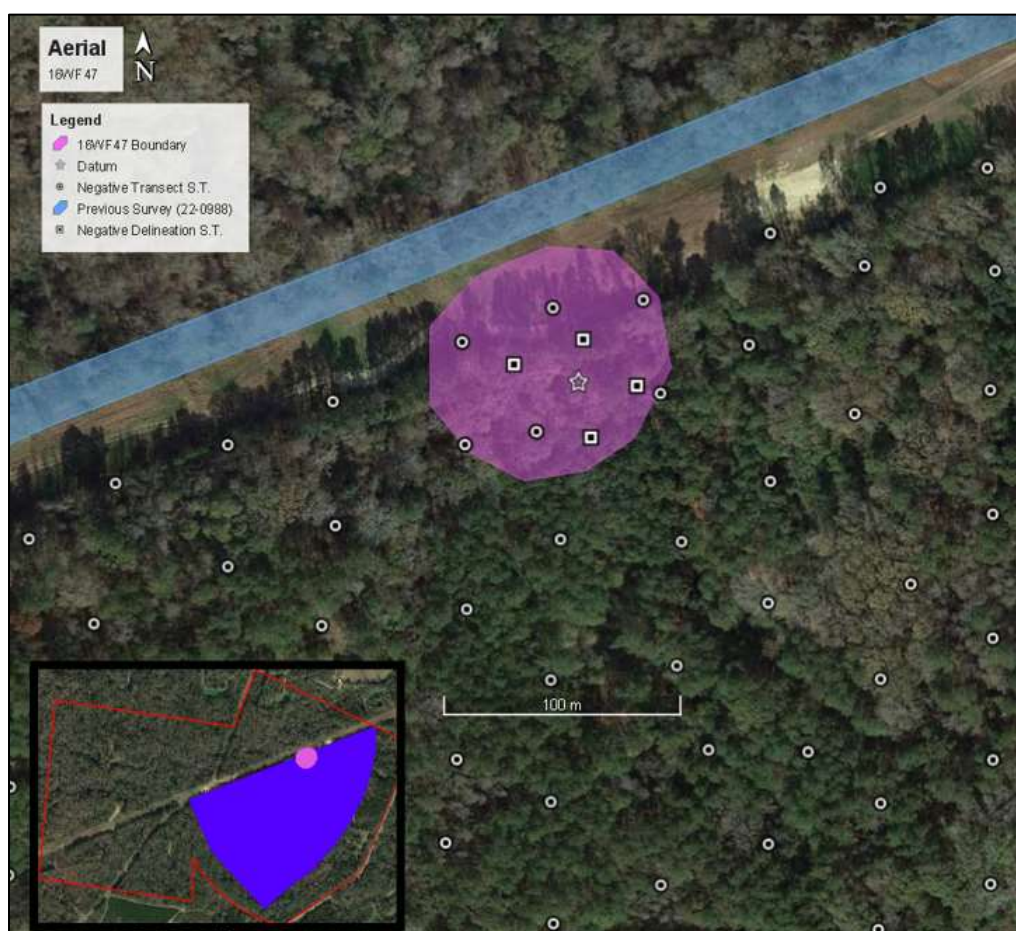


Figure 101. Aerial with Inset, 16WF47 (Source: Google Earth).

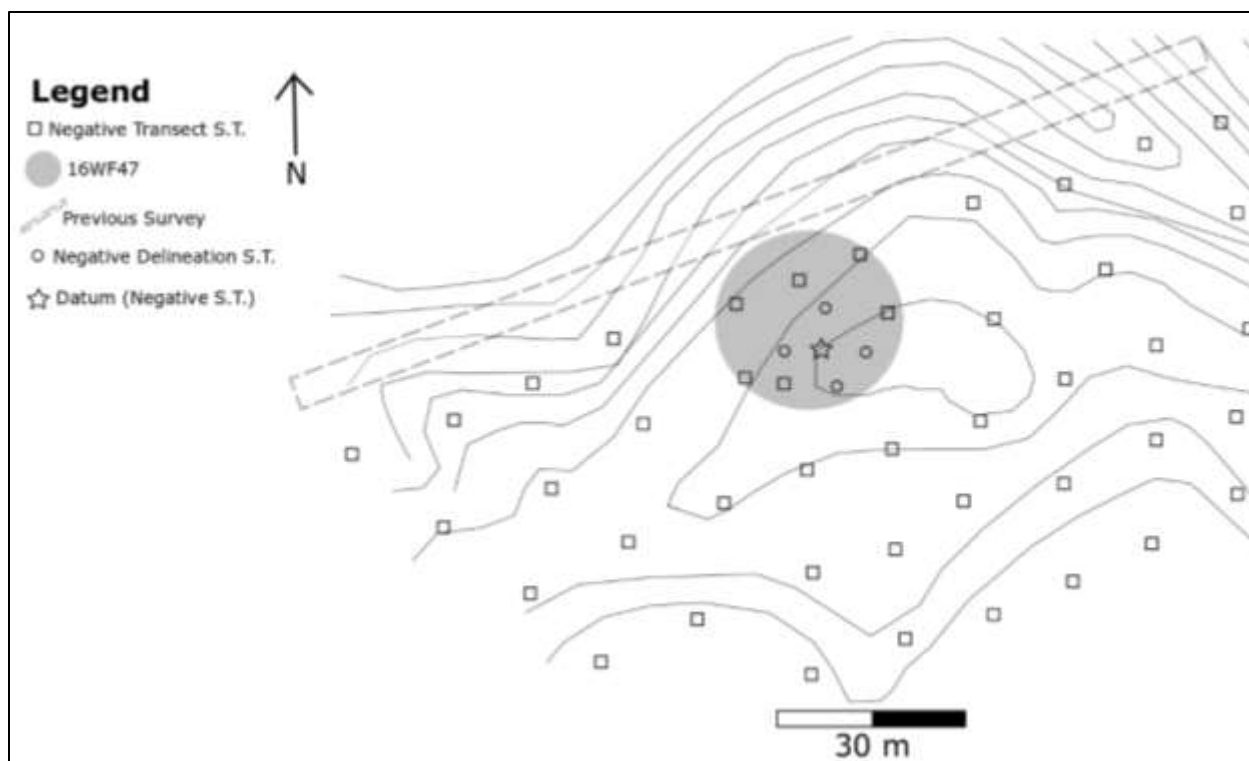


Figure 102. Sketch Map, 16WF47.

Table 26. Representative Munsell, 16WF47.

| Location | Depth | Munsell | Description |
|----------|------------|------------|-------------|
| Datum | 0-10 cmbs | 10 YR 3/2 | Silt |
| | 11-35 cmbs | 10 YR 4/4 | Silt |
| | 36-50 cmbs | 7.5 YR 4/4 | Silty Clay |



Figure 103. Datum, 16WF47, Facing North.



Figure 104. Datum, 16WF47, Facing South.



Figure 105. Front of 2817 LA - 964, Jackson, LA,
"Lapeze Plantation Residence".



Figure 106. Southeast Facade, "Lapeze Plantation Residence".



Figure 107. Northwest Facade, "Lapeze Plantation Residence".

Located at 2817 LA Hwy 964 is the Lapeze Plantation residence. This building was originally surveyed in 1987. At the time of the 1987 survey, the Lapeze residence was described as a late 19th century Louisiana planter's cottage with a one and a half story rectangular house with perpendicular gables. The interior was described as symmetrical with two rooms on each side and rooms on the upper story with a kitchen addition. It also had a full-length front gallery that was most likely built as an addition. Other additions noted in the 1987 survey was a gable end addition with a five-bay east façade.

Since the 1987 survey the Lapeze Plantation residence has changed considerably. It has been significantly altered by encasing much of the original building in new additions. A back addition has been added to the gable end addition covering the entire original back facade. The front porch has been closed on both sides leaving the original entry way as a point of entrance. Several of the original six-over-six windows recorded in 1987 remain and newer windows have been used on the additions. Located on each side of the gables on the original house are two brick chimneys. Supporting piers have been used on the newer additions. Figures 105-107 depict the structure in its present condition.

It is currently being utilized by Mr. Wilbert Kelly as a fishing camp. It is recommended that work around the Lapeze Plantation residence is avoided. Even though the building is not listed on the National Register of Historic Places and has been altered with new additions, this house is an example of Louisiana's planters past. If there are efforts to carefully restore the Lapeze Plantation residence it could aid in the retelling of Louisiana history and add to the cultural landscape of West Feliciana Parish. As it stands, the residence is considered ineligible for listing in the NRHP.

Summary of Fieldwork

From March 12-23, 2018, field work was carried out in West Feliciana Parish. The APE was divided into sections of high probability, low probability, and an area of previous survey. The project area consisted mostly of wooded forests with steep ridges and slopes. Some areas consisted of low lying marsh in forests of river cane.

A total of 1,094 shovel tests were excavated at high probability, low probability and subsequent delineation. Of these, 408 were within the areas of LP, and 686 within the areas of HP. Five previously unrecorded sites were encountered, and two previously recorded sites were revisited. During the survey, seven archaeological sites were defined, two of which were previously recorded- 16WF47 and 16WF31, the latter being a cemetery. The remaining five sites were recorded during the survey.

16WF196 (the Old Valyria Site) was located within a wooded forest surrounded by steep ridges and slopes. The artifacts collected were prehistoric in nature (n=12); however, given the relatively small amount within the site boundary, plus the surrounding steeping slopes impeding continued delineation, the authors suggest 16WF196 is ineligible for listing in the NRHP under Criterion D.

16WF197 (the HP4 South Site) was encountered along an ATV trail within a forested area of river cane. The site consisted of solely historic surface collection along the existing ATV trail (n=23). Though the materials are diagnostic, their presence along a trail suggests they are out of context due to continued disturbance, thus, 16WF197 is considered ineligible for listing in the NRHP under Criterion D.

16WF195 (the Harvey Chimney Site) was recorded in a wooded area of new pine growth. It yielded historic artifact scatter (n=16) along with subsurface materials (n=10), as well as a brick chimney. Roofing, concrete piles, and what appeared to be an old gravel driveway were consistent with Mr. Kelly's account of demolition of the house associated with the site. Though a feature was present, its lack of diagnostic value due to demolition of the primary structure suggests the site is ineligible for listing in the NRHP under Criterion D.

Previously recorded site 16WF47 (the Temporary No. 7 Site) yielded no materials upon visitation. The southern portion of the site was within a wooded forest, while the northern portion fell along an existing pipeline. The lack of artifacts or features, along with the disturbance inflicted upon the northern portion of the site to construct the existing pipeline, suggest it is ineligible for listing in the NRHP under Criterion D.

16WF198 (the Harvey Sawmill Site) was encountered within a forested area of river cane within HP4. Historic ruins in the form of three rows of brick columns were encountered. Historic machinery and trash were scattered throughout the site. According to Mr. Kelly, this area was a sawmill in the early 1900s. It is suggested this site is eligible for inclusion in the NRHP under Criterion D, as it could provide knowledge of industrial work carried out in West Feliciana Parish in the early 1900s.

16WF199 (the Whispering Wood Site) was recorded within a wooded area of higher elevation, situated between the remnants of the old Illinois Central Railroad and an old wagon trail. The site yielded historic ruins, historic artifact scatter, and subsurface materials. The historic artifact scatter (n=36) was retrieved from a trash pile left behind by hunters, who used a radar to locate materials, dug them up, and left the unwanted items. Based on its proximity to both an old railroad and an old wagon trail, plus the substantial materials and ruins encountered, it is recommended the site is eligible for inclusion in the NRHP under Criterion D.

16WF31 (the Riddle Family Cemetery Site) was located within a forested area of higher elevation, surrounded by various slopes and ridges. A total of nineteen headstones were encountered, with three located outside the fence. The majority of the headstones were in good condition, with the most recent dating to 2015. It is recommended the site is eligible for listing in the NRHP under Criterion D and a 100 ft (30.5 m) protective buffer be implemented.

The Lapeze Plantation residence is located just off HWY 964. It is not currently listed on the NRHP. However, it is recommended work around the residence be avoided. It is not considered eligible for listing in the NRHP under Criterion D due to the various alterations that have taken place over the years.

CHAPTER EIGHT: CONCLUSIONS AND RECOMMENDATIONS

From March 12-23, 2018, Surveys Unlimited Research Associates, Inc. (SURA) carried out a Phase I cultural resources survey of 344 acres (139.21 hectares) in West Feliciana Parish, Louisiana. The project was carried out under contract to the Baton Rouge Area Chamber (BRAC), as part of their Louisiana Development Certified Sites Program, and to fulfill requirements for Section 106 of the National Historic Preservation Act of 1966.

The APE was sectioned into areas of high probability, low probability and an area of previous survey. A total of 1,094 shovel tests were excavated at high probability, low probability and subsequent delineation. Of these, 408 were within the areas of LP, and 686 within the areas of HP. The APE consisted mostly of wooded areas with steep ridges and slopes. Some areas consisted of low lying marshy areas of river cane forests. ATV trails and various cut throughs were encountered throughout the APE. Additionally, the area of previous survey is currently an existing pipeline running northeast-southwest through the center of the project area.

Seven archaeological sites were defined within the APE. Five of them were previously unrecorded – 16WF195, 16WF196, 16WF197, 16WF198, and 16WF199. Two previously recorded sites, 16WF47 and 16WF31, were visited during the survey. The authors suggest three of the sites are eligible for the NRHP, while the remaining four are not. A structure, the Lapeze Plantation, was encountered within the boundary of the APE, along HWY 964. Mr. Wilbert Kelly, who is currently utilizing the Lapeze Plantation as a fishing camp, provided detailed histories regarding the survey area and sites encountered.

According to the National Register of Historic Places Bulletin 16 (NPS 1991:1, 36):

The quality of significance in American history, architecture, archaeology, engineering, and culture is present in districts, sites, buildings, structures, and objects that possess integrity of location, design, setting, materials, workmanship, feeling, and association are potentially eligible for the National Register of Historic Places. In order to evaluate this significance, four criteria have been developed:

- “A. That are associated with events that have made a significant contribution to the broad patterns of our history; or
- B. That are associated with the lives of persons significant in our past; or
- C. That embody the distinctive characteristics of a type, period, or method of construction or that represent the work of a master, or that possess high artistic values, or that represent a significant and distinguishable entity whose components may lack individual distinction; or
- D. That have yielded, or may be likely to yield, information important in history or prehistory.” (NRHP 1997:2).”

Archaeological sites are usually assessed under Criterion D.

16WF196 (the Old Valyria Site) consisted of twelve artifacts, all of which were prehistoric in nature, possibly of the Baytown association. Once a positive transect shovel test was established, nineteen subsequent delineation shovel tests were excavated, two of which were positive for prehistoric materials. Due to the relatively small number of artifacts recovered within the site boundary, as well as a lack of features and the multiple surrounding ridges impeding further delineation, the authors suggest the site is ineligible for nomination to the NRHP under Criterion D.

16WF197 (the HP4 South Site) consisted of twenty-three historic artifacts, all along the surface of an existing ATV trail, dating to the Industrial & Modern period. Six delineation shovel tests were implemented within the area of surface scatter, all of which were negative for cultural materials. Due to the lack of context from continued disturbance associated with these materials, the site is not considered eligible for listing in the NRHP under Criterion D.

Previously recorded site 16WF47 (the Temporary No. 7 Site) was visited during the initial survey and five delineation shovel tests were excavated, none of which yielded any cultural materials. Furthermore, the northern portion of the site underwent significant disturbance during construction of the existing pipeline and is, therefore, not considered eligible for listing in the NRHP under Criterion D.

16WF195 (the Harvey Chimney Site) yielded historic artifact scatter (n=16) along with subsurface materials (n=10), as well as a brick chimney, suggesting a period of occupation during the Industrial & Modern period. Roofing, concrete piles, and what appeared to be an old gravel driveway were consistent with Mr. Kelly's account of demolition of the house associated with the site. Though a feature was present, its lack of diagnostic value due to demolition of the primary structure suggests the site is ineligible for listing in the NRHP under Criterion D.

16WF199 (the Whispering Wood Site) was encountered within a wooded forest, just west of the remnants of an old, eroded railroad track (previously the Illinois Central Railroad). The site is situated on an area of higher elevation, surrounded by slopes and ridges. A total of seventy-six artifacts were collected, the majority of which were from an historic trash pile (n=36). The site is historic in nature and indicative of occupation from the Civil War & Aftermath to the Industrial & Modern periods. A brick column and brick foundation were recorded at the site, which, according to Mr. Kelly, are all that remains of the house that once occupied the area, which he dates to the early 1900s. Due to the substantial brick scatter and materials encountered, coupled with the historic ruins and the proximity to an old railroad and wagon trail, the authors suggest the site is eligible for listing in the NRHP under Criterion D and further work would yield a better understanding of its historical significance.

16WF198 (the Harvey Sawmill Site) was encountered within a wooded forest of river cane, just west of the Lapeze Plantation residence. According to Mr. Kelly, the site was once a sawmill from the early 1900s. Although no artifacts were encountered with the subsequent thirteen delineation shovel tests, substantial historic trash and machinery covered the site. Rows of brick columns (Row 1, 2, & 3) were recorded. It is the authors' opinion that further research and archaeological survey would provide important knowledge into the industrial work once carried

out within the area. Historic ruins and ample machinery suggest the site is eligible for listing in the NRHP under Criterion D.

The final site within the project area was the previously recorded 16WF31 (the Riddle Family Cemetery Site). The site consists of sixteen headstones within a fenced-in area, plus three just outside the fence. Dating on the headstones ranges from the Civil War & Aftermath to the Industrial & Modern periods, with one as recent as 2015. To take into account the possibility of unmarked graves outside the existing fence, SURA suggests a 100 ft (30.5 m) protective buffer around the site perimeter. The site has not been evaluated for NRHP eligibility under Criterion D, but it is the authors' opinion that the site be considered eligible for nomination.

One structure was encountered within the project area. It is currently being utilized by Mr. Wilber Kelly, who provided oral histories of the various sites, as a fishing camp. It is recommended that work around the Lapeze Plantation residence is avoided. Even though the building is not listed on the NRHP and has been altered with new additions, this house is informative of Louisiana's planter's past. If there are efforts to carefully restore the Lapeze Plantation residence it could aid in the retelling of Louisiana history and add to the cultural landscape of West Feliciana Parish. As it stands, the residence is considered ineligible for listing in the NRHP under Criterion D.

Recommendations

Of the seven sites encountered during the survey, three are considered eligible for inclusion in the NRHP. Due to its proximity to the old Illinois Central Railroad plus the substantial materials encountered, it is recommended further work be carried out at 16WF199 (the Whispering Wood Site) to gain a better understanding of the historic ruins and materials, along with the possible connection to the nearby railroad and wagon trail.

In addition, it is recommended further work be carried out at 16WF198 (the Harvey Sawmill Site) to gain a better understanding of industrial work which took place in West Feliciana Parish in the early 1900s. Based on the potential for knowledge above and beyond what is currently known of the site, it is considered eligible for listing in the NRHP under Criterion D.

The authors recommended 16WF31 (the Riddle Family Cemetery Site) is eligible for listing in the NRHP under Criterion D. The site has the potential to offer further knowledge of the people and families who once resided within the area and their impact on the history of West Feliciana Parish. SURA suggests a 100 ft (30.5 m) protective buffer around the site perimeter, in the event unmarked graves exist outside the fence.

Finally, although it is not currently listed on the NRHP, it is recommended work around the residence be avoided. As it stands, it is not considered eligible for listing in the NRHP under Criterion D due to the various alterations that have taken place over the years.

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Oral Communication

Mr. Wilbert Kelly, March 21, 2018

Maps

Bayou Sara, LA-MS (1906) 30-Minute Topographic map. U.S. Geological Survey.
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