Exhibit GG. Port of Vinton Site Phase I Cultural Resources Assessment Report

SWLA ECONOMIC DEVELOPMENT ALLIANCE

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Port of Vinton Site Phase I Cultural Resources Assessment Report

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

DRAFT REPORT

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June 2018

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ABSTRACT

From April 30 through May 4, and on May 7 of 2018, TerraXplorations, Inc. (TerraX) of Mobile, Alabama performed a cultural resources survey for the Port of Vinton Site located south of Vinton and west of Lake Charles in Calcasieu Parish, Louisiana. The Phase I survey was performed by Matthew Sumrall, Kelsey Johnson, and Lucinda Freeman, with Paul D. Jackson and Kelsey Johnson serving as co-Principal Investigators. This is in support of the Louisiana Economic Development (LED) Site Certification process. Total acreage for this project is 157 acres (63.5 hectares). The investigation identified one archaeological site (Site 16CU98) and one historic isolated find within the project area. This mid to late twentieth century site represents a small artifact scatter that is not eligible for the National Register of Historic Places. Accordingly, no further archaeological studies are recommended for the proposed Port of Vinton project.

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CHAPTER 1
INTRODUCTION

TerraXplorations, Inc. (TerraX) of Mobile, Alabama was contracted by SWLA Economic Development Alliance of Lake Charles, Louisiana to conduct a cultural resources survey for the proposed Port of Vinton Site in Calcasieu Parish, Louisiana. The Phase I survey was performed from April 30 through May 4, and on May 7, 2018 by Kelsey Johnson, Matthew Sumrall, and Lucinda Freeman. Paul D. Jackson and Kelsey Johnson served as co-Principal Investigators. The purpose of this study was to determine if any prehistoric or historic properties exist within the limits of the project area, and if so, to document and assess each based on the National Register of Historic Places (NRHP) criteria. This is in support of the Louisiana Economic Development (LED) Site Certification process.

The project area lies south of Vinton and I-10, and west of Lake Charles (Figure 1.1). Total acreage for this project is 157 acres (63.5 hectares). The project area is found within Section 26, Township 10 South, Range 12 West as seen on the 1994 Vinton, Louisiana USGS 7.5' series topographic quadrangle (Figure 1.2).

The project area was located in a primarily grassy field with some wooded areas. Portions of the grassy field were quite wet and contained crawfish chimneys. Figures 1.3-1.10 depict the present state of the project area.

This report of our investigations is presented as follows. Chapter 2 contains information regarding the past and present environmental conditions in the project area. Chapter 3 is a cultural background and context for the project area in general. Chapter 4 details the background research for this project. Chapter 5 presents the methodology and results of fieldwork. Chapter 6 concludes the report and summarizes our findings and recommendations. Appendix A is the curation agreement. The artifact inventory can be found in Appendix B.

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

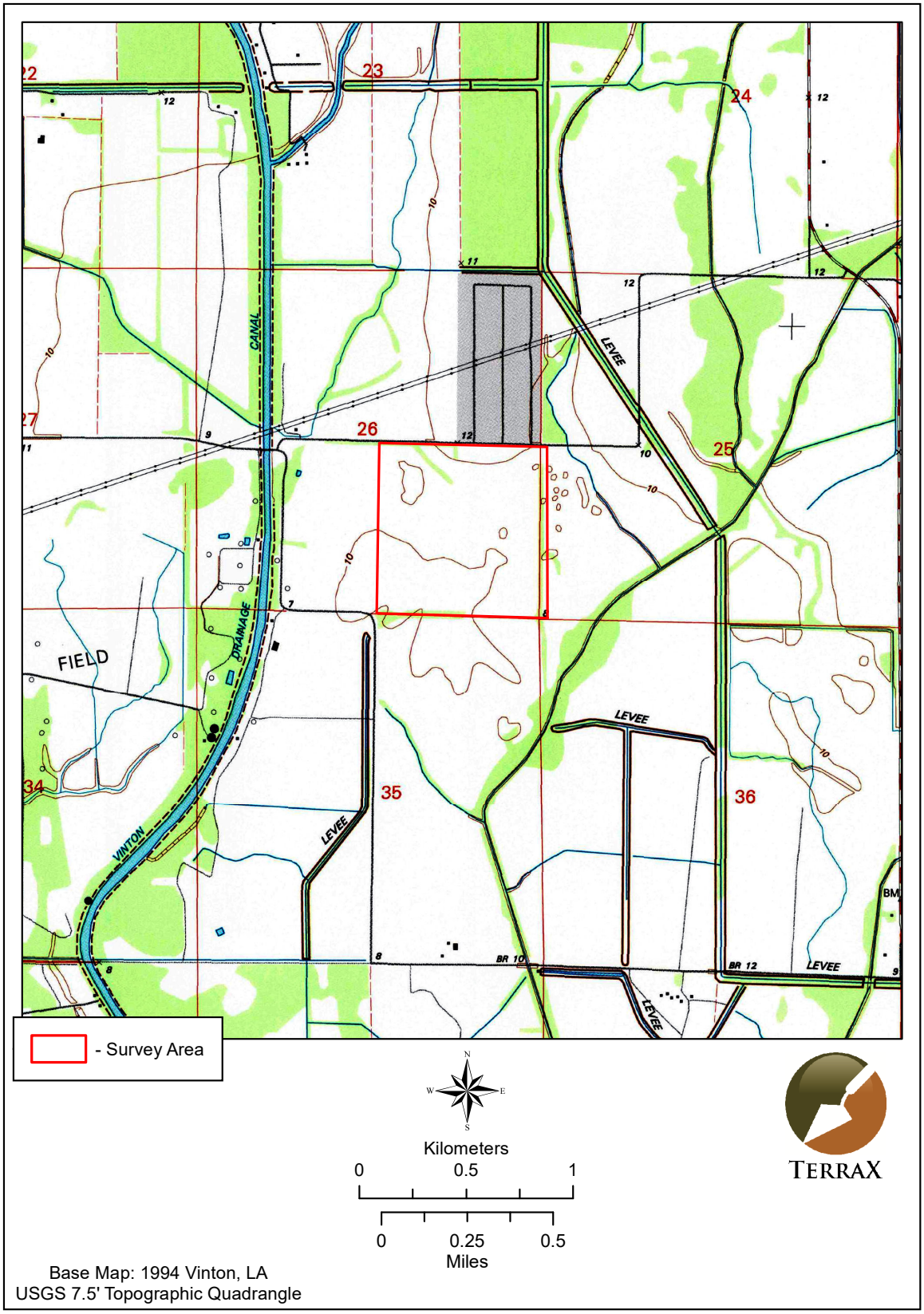

Figure 1.2. *Topographic map showing the project area.*

Figure 1.3. *View of pond on north side of project area, facing south.*

Figure 1.4. *View of vegetation at northern boundary of project area, facing north.*

Figure 1.5. *View of berm running north-south in project area, facing north.*

Figure 1.6. *View of pumping station in western portion of project area, facing southwest.*

Figure 1.7. *View of plowed field in eastern portion of project area, facing south.*

Figure 1.8. *View of collapsed shed in project area, facing north.*

Figure 1.9. *View of field from center of southern boundary of project area, facing north.*

Figure 1.10. *View of pond on south side of project area, facing northeast.*

CHAPTER 2
PROJECT AREA ENVIRONMENT

The project area is located in southwest Louisiana in Calcasieu Parish, east of the Sabine River, and is occupied by Pleistocene Terraces (Figure 2.1). The study area falls within the Western Gulf Coastal Plain ecoregion, which is composed of relatively flat areas that are historically mainly grasslands. Rice and soybeans are the principal crops grown in this region (Daigle et al. 2006).

Within this ecoregion, further divisions place the project area in the Northern Humid Gulf Coastal Prairies. This region is underlain by Quaternary-age deltaic sands, silts, clays, and gravel. The historical vegetation was primarily tallgrass grasslands with gallery forests along streams. These grasses include little bluestem, big bluestem, yellow Indiangrass, brownseed paspalum, and switchgrass mixed with many other herbaceous species. Most of the coastal prairies are now cropland, pasture, crawfish aquaculture, or urban land. Soils are mostly poorly or somewhat poorly drained with silt loam or silty clay loam texture (Daigle et al. 2006).

The project area is drained by a series of canals, eventually flowing into the Gulf of Mexico. Elevations in the fairly flat project area range from about 5 to 10 ft above mean sea level. The project area consisted primarily of a grassy field with some wooded areas. It is likely the field had been plowed within the last few years, as there was a layer of grass under the topsoil in places that had not degraded yet. The field may have also been recently used to farm crawfish as there were many crawfish towers and the soils were very wet in some places. There was a berm that ran through the project area roughly north-south about midway across the project area, changing directions and running almost east-west in the southern portion until it seemed to disappear. The northern and southern boundaries of the project area were both wooded with mixed hardwoods, with the eastern and western boundaries having sparse trees. There were two small ponds in the project area, one each near the northern and southern boundaries. The northern portion had multiple pumping stations that are most likely associated with the gas pipeline running across the project area. The southern portion had multiple small fenced areas.

A review of the Web Soil Survey (2018) identified three soil types within the project area (Figure 2.2). Most (69 percent) of the project area contains Morey loam (Mr). This level, poorly drained soil is found on broad flats on the Gulf Coast Prairies. Its main usage is for cultivated crops. Almost one-quarter of the project area contains Leton silt loam (Lt), which is also level and poorly drained. It occurs on broad flats, in long narrow depressions, and along drainageways on the Gulf Coast Prairies. This soil is generally used as cropland. Mowata-Vidrine silt loams (Mt) cover a little more than 6 percent of the project area. These soils are poorly drained and somewhat poorly drained and are normally found on broad flats on the Gulf Coast Prairies. Most of this soil is used for cultivated crops (Roy and Midkiff 1988).

The climate throughout Calcasieu Parish is characterized as having long, hot and humid summers with warm winters with cool air occasionally coming from the north. Average precipitation throughout the year measures 52 inches. Average yearly temperature for the area is 53° Farenheit (F) in the winter and 81° F in the summer. Snowfall seldom occurs and rarely stays on the ground for more than a single day.

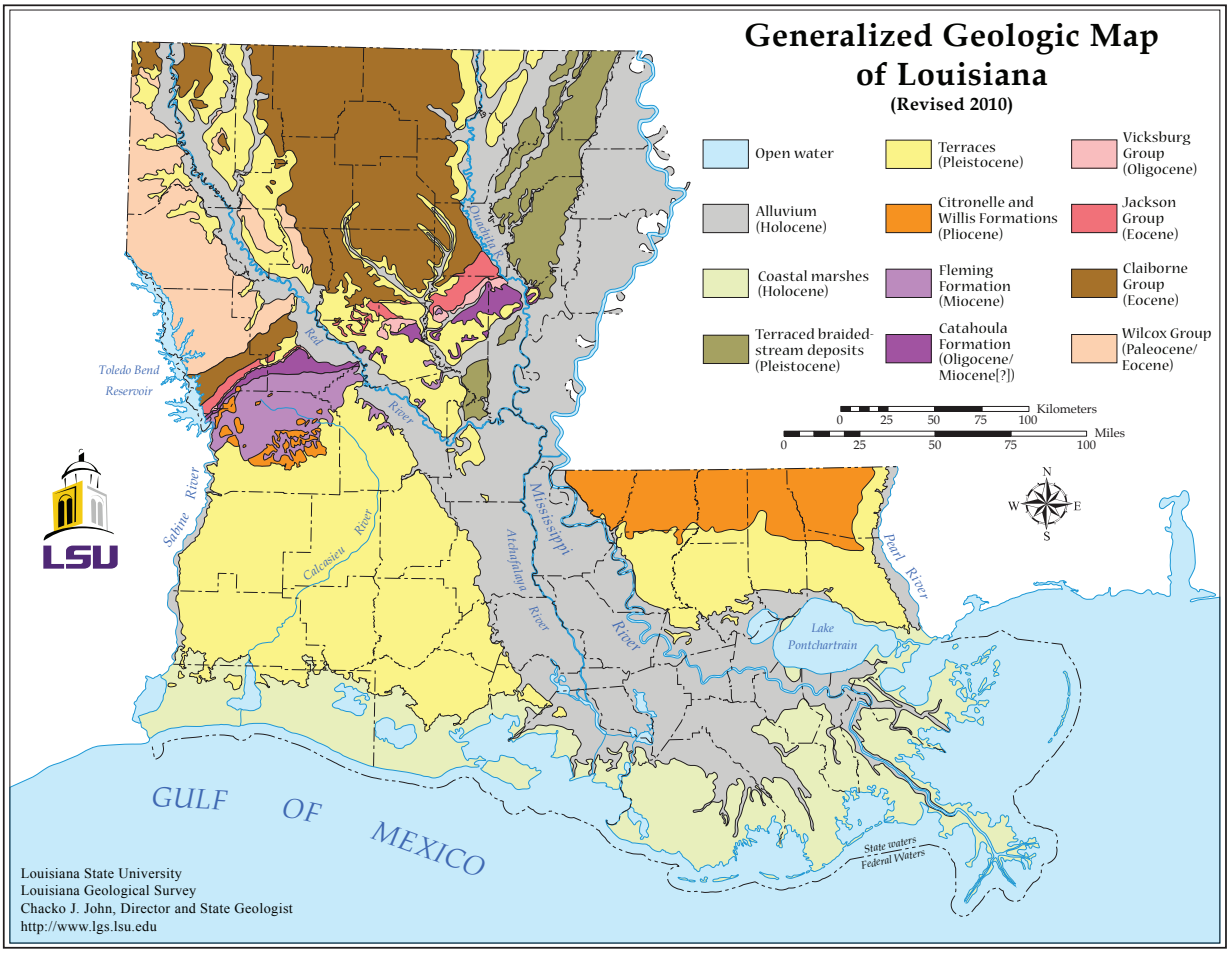

Figure 2.1. *Geologic map of Louisiana (Louisiana Geological Survey 2008).*

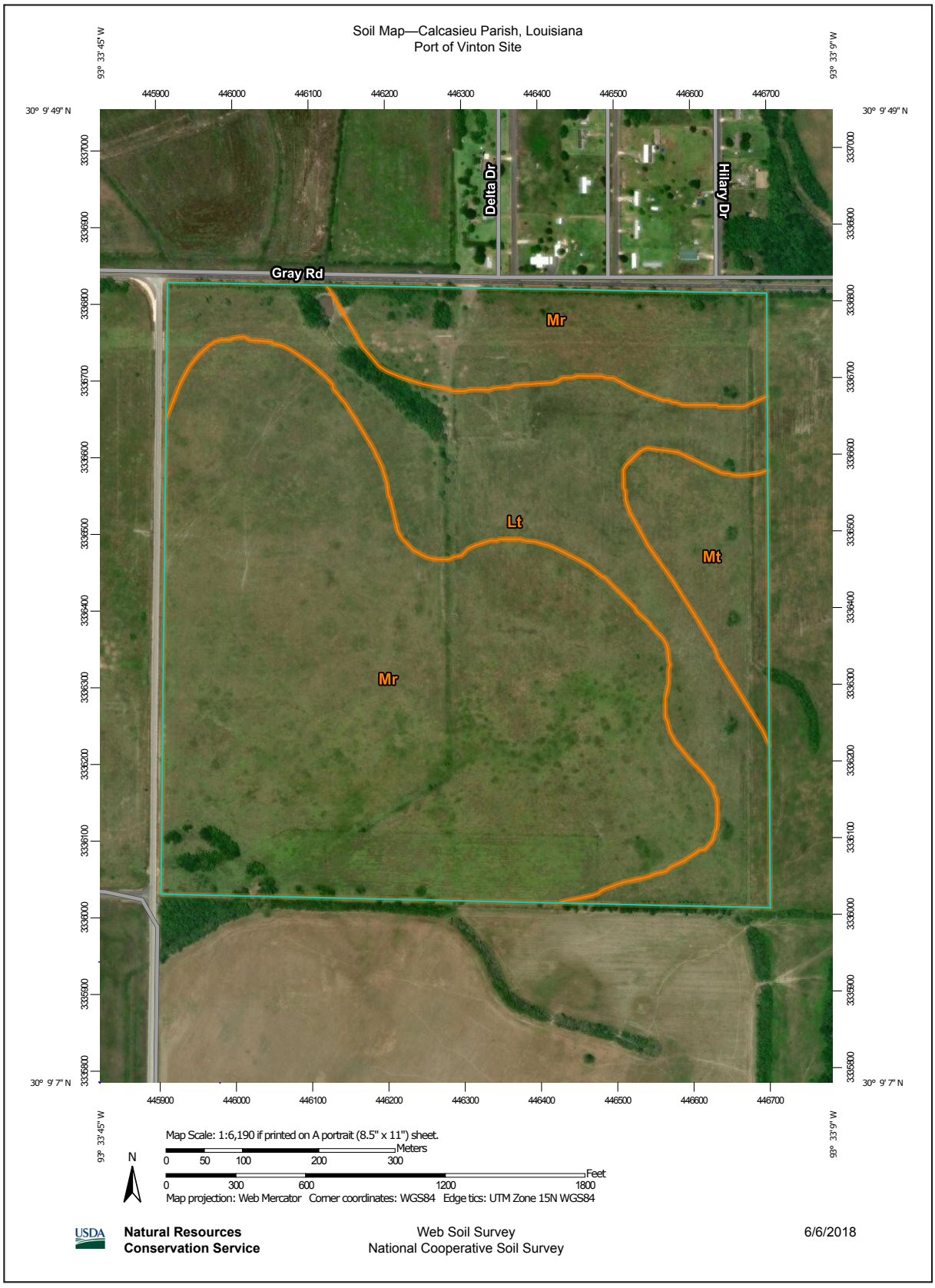

Figure 2.2. *Map depicting soil types within the project area.*

CHAPTER 3
CULTURAL HISTORY

PALEOINDIAN (10,000 TO 6000 B.C.). The earliest substantial human occupation in the Western Hemisphere is defined as the Paleoindian period. In Louisiana, and generally in the Southeast, this period has provisionally been grouped into three broad temporal categories defined as Early, Middle, and Late or transitional subperiods (Anderson 1996; O'Steen et al. 1986:9).

It was thought that the population of the Paleoindian period was highly adaptive, mobile hunter-gatherers, whose ancestors had migrated from Siberia into North America between 12,000 to 10,000 B.P. The migration is believed to have occurred during the Pleistocene Epoch, when glaciers were expanding and retreating from fluctuations in the climate from cold to warm episodes (Anderson 1996). The population movements were presumably made possible when the colder periods of the Pleistocene Epoch captured large quantities of the earth's water in glaciers. This lowered sea levels and exposed large portions of the continent; allowing human populations to follow the Pleistocene mammals across the Americas. However, new discoveries are changing this long-held belief. More recent evidence of a pre-Clovis culture has emerged, based on excavations at Meadowcroft Rockshelter in Pennsylvania, the Topper Site in South Carolina, and Cactus Hill in Virginia, that places modern humans in the New World some 2,000 years earlier than previously believed. Pre-Clovis tools include small bladelets, indicating an exploitation of a broader environment. While the controversy continues, it is widely recognized that Clovis points were in the southeastern U.S. around 12,000 B.P.

Paleoindian occupations are usually represented by the presence of a specialized type of projectile point. These points are large and feature channels or flutes that are created by the removal of a long, vertical flake from the center of one or both faces of the point (Walthall 1980). Clovis, Folsom, Quad, Dalton, Plainview, and Scottsbluff are point types indicative of this period and region (Gagliano and Gregory 1965). The size of the points reflects the hunting strategy of these early inhabitants, which focused on hunting large Pleistocene mammals. Bones of large Pleistocene vertebrates (mastodon, mammoth, ground sloth, etc), which are contemporaries of the Paleoindians, are found in alluvial and backswamp deposits (Gagliano and Gregory 1965). Paleoindian sites are rare, especially with the changing geography of much of southern Louisiana. The rising sea levels have left coastal sites underwater, and the flooding and meandering of the Mississippi River has buried other sites under layers of silt.

THE MESOINDIAN (6000 TO 2000 B.C.). The three sub-periods of the Archaic period proper are believed to roughly approximate the transition from highly mobile, camp-based collector life-ways to more sedentary and opportunistic foraging life-ways.

During the Early Archaic period it is reasonable to assume there was a trend towards a more sedentary lifeway. Considering the cultural material typically present from this time period, we find a change in the biface from the previous period to be the most evident change. Rather than the long, fluted blades from the Paleoindian period, the Early Archaic bifaces have well-documented pan-regional sequences that includes the Side-Notched Tradition, the Corner-Notched Tradition, and the Bifurcate Tradition. The spears used by the Mesoindians were different than those of the earlier period; they were shorter, had a greater variety of stone points crafted from locally available stone, and were more simply crafted (Neuman and Hawkins 1982). Bone, antler, and shell tools and ornaments were also added to the tool assemblage during this period.

NEOINDIAN (2000 B.C. TO A.D. 1600). Southeastern archaeologists generally distinguish the beginning of the Neoindian period by the introduction and regular use of stamped pottery and increased ceremonialism in ritual events and mortuary practices. During the Neoindian period, the introduction and intensification of horticulture, construction of earthworks, and elaboration of artistic expression and burial ritual are all thought to be related to a reorganization of social structure. The advent of horticulture would have meant that, at least for part of the year, groups would have had to remain sedentary in order to plant, tend, and harvest crops. Shell and earthen mounds were now regularly built throughout this area of Louisiana.

Although many technologies used during the Neoindian period were actually developed during the earlier Archaic periods, it was during the Neoindian stage that changes in social organization and economy from small dispersed bands of hunter-gathers to large, semi-permanent settlement began to take place. A much heavier reliance on horticulture followed and these changes were evidenced in the archaeological record. This period includes the Tchula/Tchefuncte, Marksville, Troyville-Coles Creek, Plaquemine, and Mississippian cultures.

The Tchula/Tchefuncte Culture is set apart from early cultures by being the first Louisiana Indians to manufacture large amounts of pottery. The early pottery was crude and often undecorated, although it could include punctation, incision, and stamped geometric designs. Podal supports are common. Lithics are similar to the preceding Late Archaic. Sites in southwestern Louisiana occur on cheniers, stream terraces, salt domes, or bayous and backwater swamps on natural levees and terrace edges above seasonal flooding (Neuman and Hawkins 1993; Gibson 1974).

The Marksville Culture is generally recognized as a part of the Pan-Southeastern Middle Woodland tradition (Jeter et al. 1989). Trade, once again, increased from an area market to an inter-regional system linked to Adena-Hopewell influences from the Upper and Middle Mississippi Valley (Weinstein and Rivet 1978). These influences were most notable in the ceramic designs and even mortuary practices. Springer (1973) suggests late Marksville may exhibit a shift from the characteristic kin ties to a settlement with differing social classes.

The Troyville-Coles Creek Period is most known for the distinct spatial patterns present on the sites. These typically consist of a small series of small platform mounds positioned around a central plaza (Neuman 1984). This period also saw numerous examples of complicated stamping of ceramics in Louisiana. In addition, the bow and arrow was introduced at this period. The introduction of the bow and arrow might have led to the collapse of the Troyville-Cole Creek Culture. The increase in available food led to an increase in population; these Indians reached a level the communities could no longer support. The final change that precipitated this period and could have led to the cultural collapse was change in weather patterns. Indeed, weather from around A.D. 500 to A.D. 800 was cooler and dryer. This changed the availability of food at a time when Indian societies were already stressed to provide for the growing populations. These stresses led to an increase in warfare that continued into the following period (Stoltman 1978).

The Plaquemine Culture takes its name from the Medora Site (16WBR1), which is found in the town of Plaquemine, Louisiana. This period was witness to the zenith of eastern Woodland culture in terms of organization and complexity. During this time an almost simultaneous florescence occurred over many parts of the Southeast, resulting in the development of large, hierarchical societies centered at impressive mound complexes, such as Cahokia in present-day Illinois, Spiro in Oklahoma, Moundville in Alabama, and Etowah in northwest Georgia. Differentiating the Plaquemine culture further from their earlier Troyville-Coles Creek ancestors is seen in the brushing and engraving techniques observed in their pottery (Smith et al. 1983).

The Mississippian time period is marked by the full emergence of agriculturally based stratified societies in Louisiana. Flat-topped pyramid-shaped mounds were used as house sites for the elite and large plazas were used for community ceremonies. Wooden palisades indicate that warfare between communities occurred. While hunting and gathering were still important, this was supplemented with large-scale cultivation of corn, beans, and squash (Neuman 1984). Shell-tempered vessel types include loop- or strap-handled pots, globular jars, plates, and bottles decorated by incising, engraving, and negative painting. Mississippian ceramics at Avery Island may indicate the extraction of salt by groups not otherwise living there (Brown and Lambert-Brown 1978).

EUROPEAN EXPLORATION (A.D. 1542 TO 1699). By the time Europeans made contact with the inhabitants of North America, the people living in the Southeast had developed a complex society with a trade network that brought in exotic items from across the continent (Buxton and Crutchfield 1985). Trading paths connected villages and these would later be used by European explorers and settlers to enter the area. In 1543, the remains of the De Soto expedition crossed the Red River possibly at Shreveport or just north of the Arkansas-Louisiana border on their way to Mexico. They turned around, recrossed the Red River, and headed southward toward the Gulf of Mexico (Brain 1985; Hudson 1989; Hudson et al. 1989; Newkirk and Mueller 1981).

After De Soto, the next European to enter the Louisiana region was a Frenchman named Robert Cavalier de la Salle. In 1682, his company sailed down the Mississippi River to the Gulf of Mexico and encountered native Bayougoula people in modern-day Iberville Parish (Bryant et al. 1982:31-32). La Salle attempted to return to the area two years later, but could not relocate the Mississippi River and eventually became stranded on the Texas Coast. Attempting to locate La Salle's Texas Colony, Henri de Tonti sailed the Red River to Shreveport in 1687. In 1699, Pierre Le Moyne d'Iberville arrived with the second French expedition of the area. Rather than working south along the Mississippi River, Iberville chose to follow the coast to the Mississippi River and then work north. Iberville travelled up the Mississippi River to modern-day Point Coupee Parish (Bryant et al. 1982:33-36). The following year, Sieur de Bienville visited the Natchitoches area on an expedition. Natchitoches became the first French settlement in the Red River valley in 1714. The Great Raft log jam prevented navigation north of the settlement and Natchitoches became the northern terminus for downriver trading (Newkirk and Mueller 1981).

Louis XV ceded the territory to Spain in 1762 and the population slowly increased. By the mid-eighteenth century, frontier trade was replaced by tobacco and indigo commercial agriculture. The slave trade also grew during this period creating a growing concern among white Louisianans (Newkirk and Mueller 1981).

COLONIZATION (A.D. 1700 TO 1803). In 1718, John Law, a French proprietor, was given a trade monopoly by French King Louis XV. Law formed his company to settle and develop portions of Louisiana and vigorously sold stock throughout Europe. Most of Law's initial settlements were based along the Mississippi River with trading posts positioned throughout the region. These posts were largely inhabited by European trappers and local Native Americans. Despite Law's efforts, the majority of Louisiana was not truly colonized until France ceded the territory to the Spanish in 1763 (Weinstein and Rivet 1978). When the Spanish arrived, the area was largely inhabited by Attakapa Indians, whose chief was named Calcasieu, which meant "crying eagle" (Roy and Midkiff 1988).

European settlement continued throughout the latter part of the 1700s in Louisiana. These later settlers followed earlier settler patterns of the Acadians, French, Spanish, and other Europeans and selected higher landforms fronting the bayous and rivers (Weinstein and Rivet 1978). In 1800, France regained possession of the Louisiana Territory but they did not retain it for long. On May 2, 1803 the United States signed the Louisiana Purchase treaty with France (Wall 2008).

ANTEBELLUM PERIOD (A.D. 1803 TO 1860).

Louisiana was admitted to the Union in 1812 and American settlement blossomed in the late 1820s and increased in the 1830s, as public lands became available for purchase. In 1840 "Imperial Calcasieu" was established from the western portion of St. Landry Parish (Calcasieu Parish was reduced to its current size in 1912). The first courthouse was in a small town called Marion, but around 1851 the parish seat was moved to Lake Charles. Texans moving cattle along the Old Spanish Trail en route to New Orleans encouraged growth in the parish. The proliferation of sawmills in the mid-1850s made Calcasieu Parish a thriving area (Roy and Midkiff 1988).

CIVIL WAR, RECONSTRUCTION, AND POSTBELLUM (A.D. 1861 TO PRESENT).

The Battle of Calcasieu Pass was fought on May 6, 1864, at the mouth of the Calcasieu River. The *U.S.S Wave* and the *U.S.S Granite City*, under Lt. Benjamin Loring and Lt. C. W. Lamson, received orders to proceed to Calcasieu Pass where they bombed an abandoned Confederate mud fort at the mouth of the river. Tasked with buying cattle from local farmers, the Union troops instead stole cattle and horses from several farms. Confederate forces could not let this stand. As the Union soldiers slept, their less experienced men were in charge of the guns. The local Confederate forces moved their cannons to within 1,000 yards of the gunboats and fired, penetrating the gunboat's hulls. On May 8th, *Ella Morse*, a Union Supply ship arrived unaware of the Union casualties. When she noticed that Confederates were manning the guns it was too late. The Union lost 14 cannons, the *Ella Morse*, the *U.S.S Granite City*, the *U.S.S Wave*, 450 head of cattle and horses, and many arms and provisions. That night the Confederates feasted on "captured stores of oysters, sardines, and hams" (Block 1977).

Following the establishment of rice milling facilities in 1891, rice became a major crop in the area. This was followed by commercial sulphur production in 1894 (Roy and Midkiff 1988). By the end of the nineteenth century, river travel was replaced by land roads and railroads. Settlement along the railroad continued to grow into the twentieth century and towns and villages began to emerge as a result. Cotton was soon joined by timber as one of the state's leading exports. During the early twentieth century, Louisiana led the nation in timber production (Newkirk and Mueller 1981). A devastating fire in 1910 destoyed about 30 blocks of Lake Charles, including the courthouse, city hall, and the Catholic Church. A proclamation by Governor Sanders in 1911 subdivided the parish of Old Imperial Calcasieu into Allen, Beauregard, Calcasieu, and Jefferson Davis parishes. The deep water ship channel in the Port of Lake Charles in 1926 led to rapid growth and urban development. Unfortunately, salt water was now able to move north, forever changing the ecology of the shoreline (Cormier 2007). Industries in the parish include oil and natural gas exploration, mining and refining, petrochemicals and other chemicals, lumber and wood processing, retail merchandising, raw and calcinated coke, construction, utilities, synthetic rubber, aluminum, and garment manufacturing. Crops now include more soybeans than rice, along with wheat and sorghum (Roy and Midkiff 1988).

CHAPTER 4
PREVIOUS RESEARCH

LITERATURE AND DOCUMENT SEARCH

Background research was conducted prior to the survey to identify previously recorded historic and prehistoric properties within a one-mile radius of the proposed Port of Vinton project located in Calcasieu Parish, Louisiana. This search included an online query of the Louisiana Site Files (Louisiana Division of Archaeology [LDOA] 2018). A one-mile (1.6 km) radius search was conducted around the proposed project area for previously recorded archaeological sites and previous cultural resources surveys. An examination of the Historic Standing Structure Survey Files at the State Library in Baton Rouge, Louisiana was performed to ascertain whether any historic resources have been recorded within or near the project area. Lastly, a query into the National Register of Historic Places (NRHP) (National Park Service 2018) was conducted.

A search of the LDOA Cultural Resources Viewer (LDOA 2018) listed no recorded sites within a mile of the proposed project area. Background research revealed three previously conducted cultural resources survey within a mile of the study area (Figure 4.1).

LDOA# 22-3027. *Phase I Cultural Resources Survey, Hackberry Storage Facility Cameron & Calcasieu Parishes, Louisiana.* Earth Search, Inc. performed this archaeological study in 2003. The cultural resources investigation included 14.5 miles or right-of-way. No sites were found as a result of the survey (Apollonio et al. 2003).

LDOA# 22-3643. *A Cultural Resources Archival Review and Assessment of a Proposed Cameron Communications, LLC DBA LBH, Inc. Fiber Optic Cable Installation Project in the Moss Bluff, Vinton and Oakdale Communities and Along U.S. Highway 171 in Allen, Beauregard, Calcasieu, and Jefferson Davis Parishes, Louisiana.* Barr and Associates conducted this archival review in 2010. No fieldwork was performed (Barr and Bastian 2010).

LDOA # 22-3760. *Phase I Cultural Resources Investigation - Louisiana Portion of the Proposed Air Products and Chemicals, Inc., Gulf Coast Connection Project, Calcasieu, Jefferson Davis, Acadia, St. Landry, Lafayette, St. Martin, Iberville, and West Baton Rouge Parishes, Louisiana.* URS conducted this survey of 2,744 acres and recorded 25 sites, none eligible for the NRHP (Handly et al. 2018).

No structures appear within the project area on the 1932 Orange 15' series topographic map nor on the 1947 and 1954 Vinton 7.5' series topographic maps. The 1955 Orange 15' and the 1960 Vinton 7.5' maps do depict one or two structures in the southwest portion of the project area. These maps also illustrate a canal surrounded by berms running north-south through the project area in the location of the current berm. The canal has evidently been filled since 1960. No NRHP listed properties or historic resources are located within a mile of the project area.

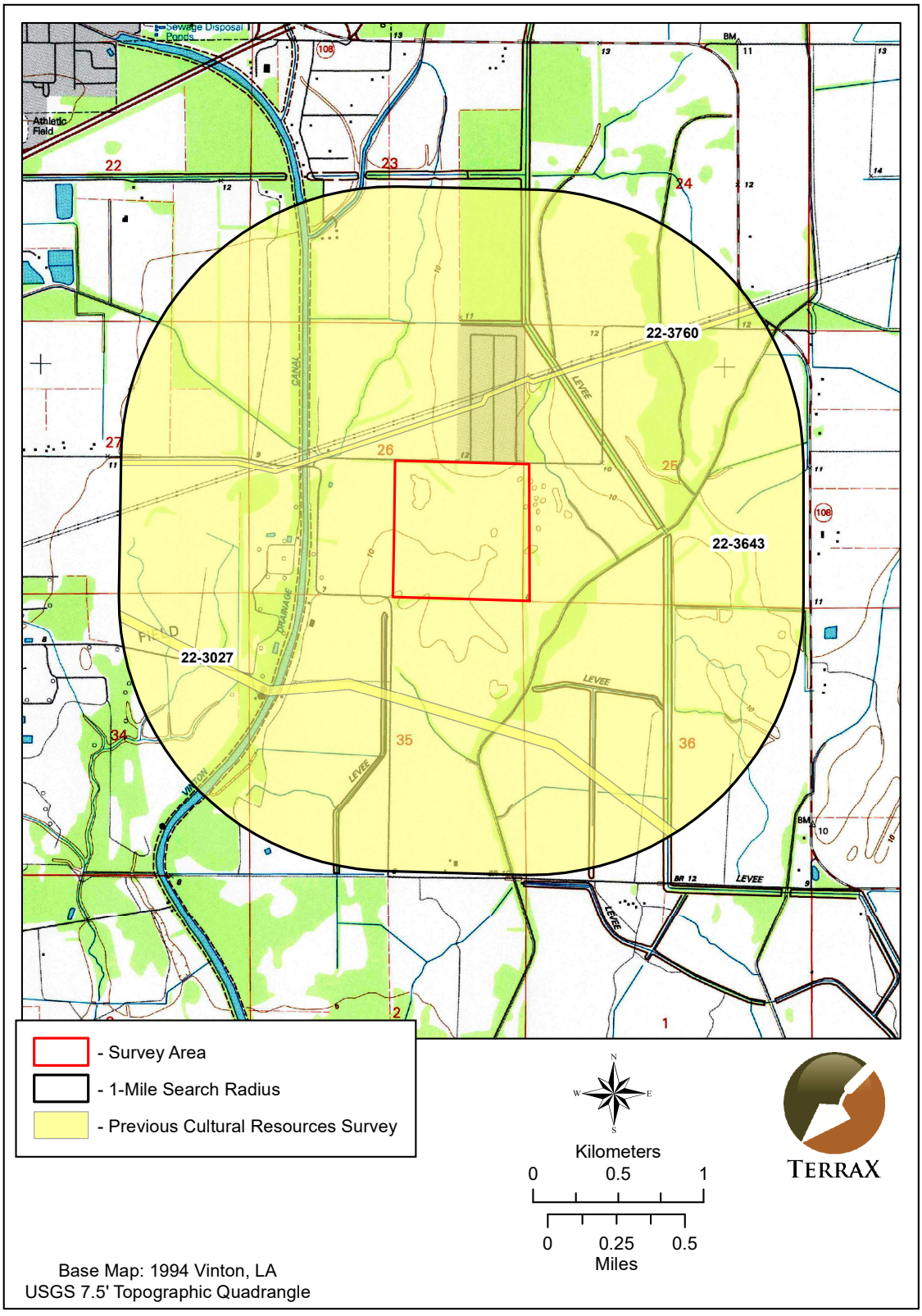

Figure 4.1. *Map showing previous surveys within a one-mile radius of the project area.*

CHAPTER 5
METHODOLOGY AND FIELD RESULTS

FIELD METHODS

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

Subsurface testing was performed along 30-m interval transects comprised of shovel tests spaced 30 m apart. Standard shovel tests consist of 30 centimeter (cm) diameter cylindrical holes excavated to the top of the sterile subsoil layer. Soils from each test are screened through 1/4-inch (0.64 cm) hardware cloth for the purpose of recovering any cultural material that may exist at that location. When cultural material is encountered, the material is sorted by provenience and placed into bags labeled with the pertinent excavation information before being transported to TerraX's laboratory. Any archaeological site identified during transecting was further examined in order to better define its horizontal and vertical limits. Delineations were conducted by placing additional shovel tests around positive tests. These additional tests were placed at 10 m intervals off of the original positive tests or cultural features in cardinal directions within the project area. This testing was conducted until two negative shovel tests were encountered in each direction or until delineations extended beyond the project boundary. A hand held Garmin GPS unit was used to record the site center and a sketch map was drawn by compass and pace and plotted to scale. Digital photographs were taken for any site recorded as well as for the survey area.

LABORATORY METHODS AND COLLECTION CURATION

All cultural materials recovered during field projects are delivered to TerraX's laboratory in Tuscaloosa, Alabama for processing. Here, materials are sorted by provenience, cleaned, and analyzed. Along with the cultural material, all project records, photographs, and maps produced while conducting the investigation are transported for curation at the Troy University Archaeological Research Center, Troy, Alabama (Appendix A).

RESULTS OF FIELD INVESTIGATION

This Phase I investigation included the placement of 729 shovel tests along 27 transects (Figure 5.1). Of these, 724 were negative, two were positive, and three were unable to be excavated due to ponds. The typical shovel test was composed of 10 cm of light gray (10YR 7/2) silty loam over dark gray (10YR 4/1) silty clay.

The investigation of the subject property led to the discovery of one archaeological site and one isolated find (Figure 5.2). The isolated find consists of a fragment of milk glass found between 5 and 15 cmbs in ST 6-17. Delineation tests placed in cardinal directions around Isolated Find 1 at 10-m intervals revealed no additional cultural material (Figure 5.3). The find exists within a level grassy field (Figure 5.4).

Site 16CU98, measuring approximately 80-x-25 m, is represented by four positive shovel tests, a large diffuse surface scatter, and the remains of a collapsed shed (Figure 5.5). The site is located in a level grassy field with some nearby wooded areas (Figure 5.6). It is likely the field had been plowed within the last few years, as there was a layer of grass under the topsoil in places that had not degraded yet. The field may have also been recently used to farm crawfish as there were many crawfish towers and the soils were very wet in some places. Delineation shovel tests were placed at 10-m intervals in cardinal directions from each positive test and the surface scatter to search for any associated artifacts. A typical shovel test in the site area consisted of 0 to 50 cm of grayish brown (10YR 4/2) silty loam over dark gray (10YR 3/1) silty clay.

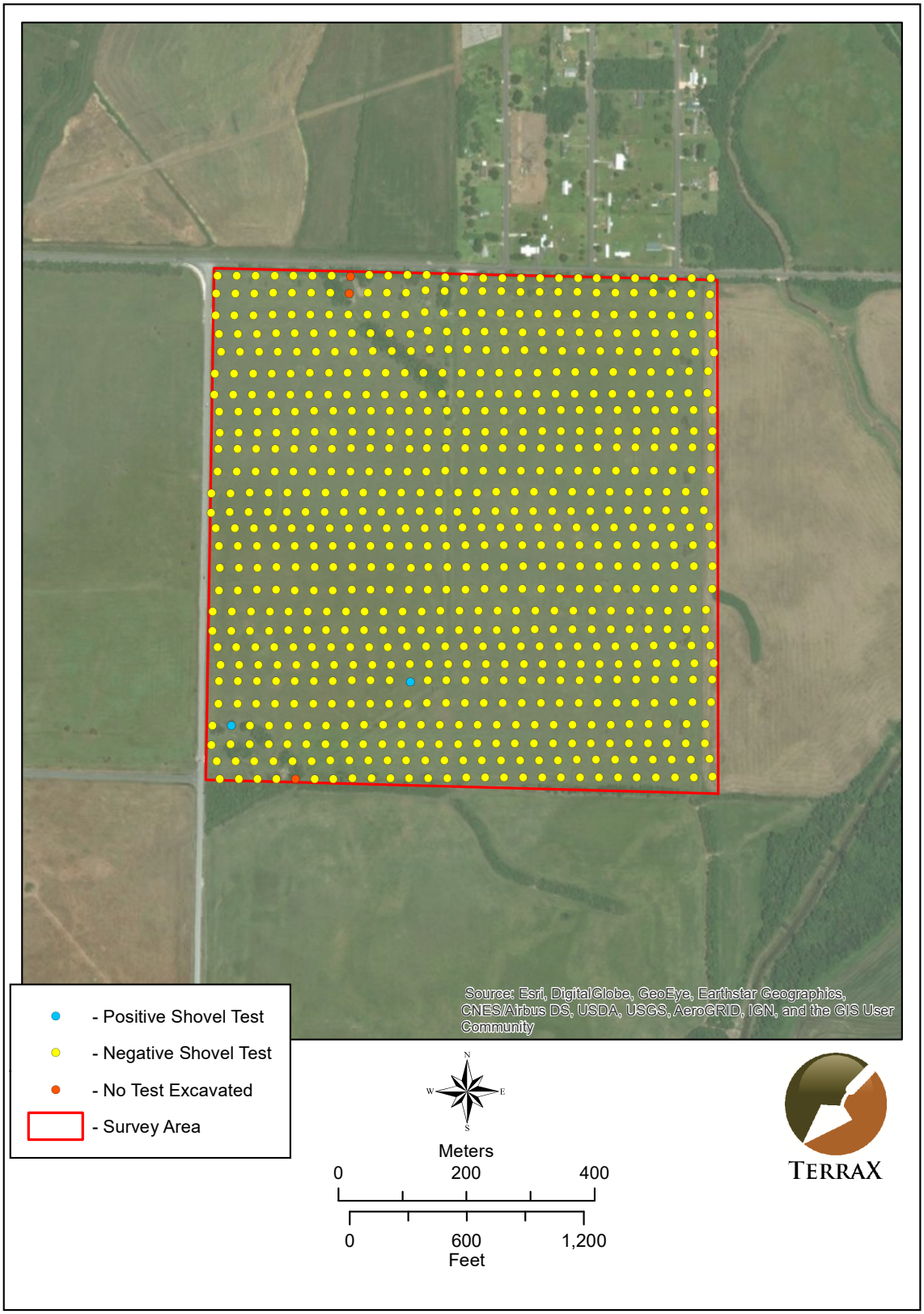

Figure 5.1. *Aerial image showing shovel tests within the project area..*

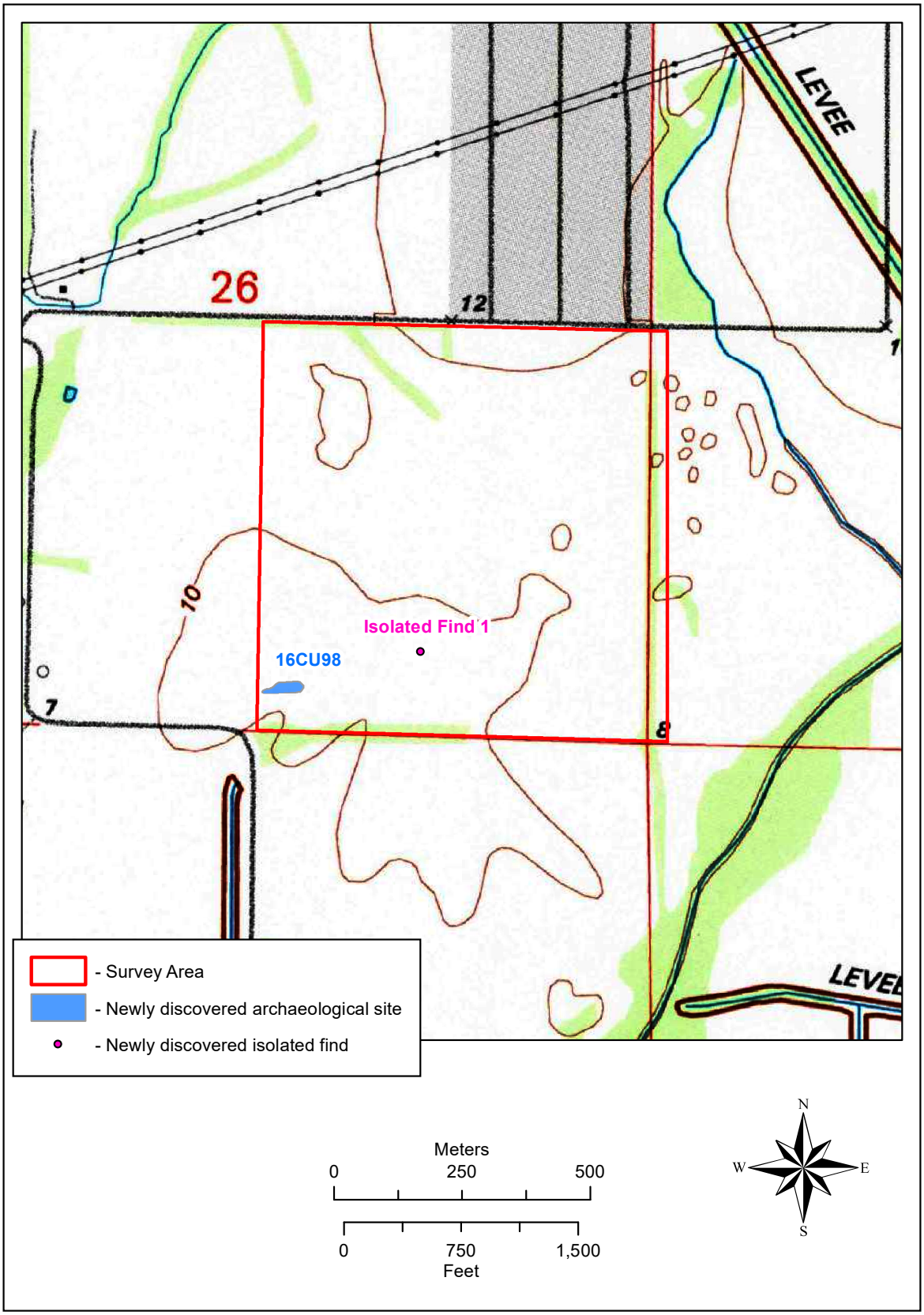

Figure 5.2. *Map showing the location of Site 16CU98 and Isolated Find 1 within the project area.*

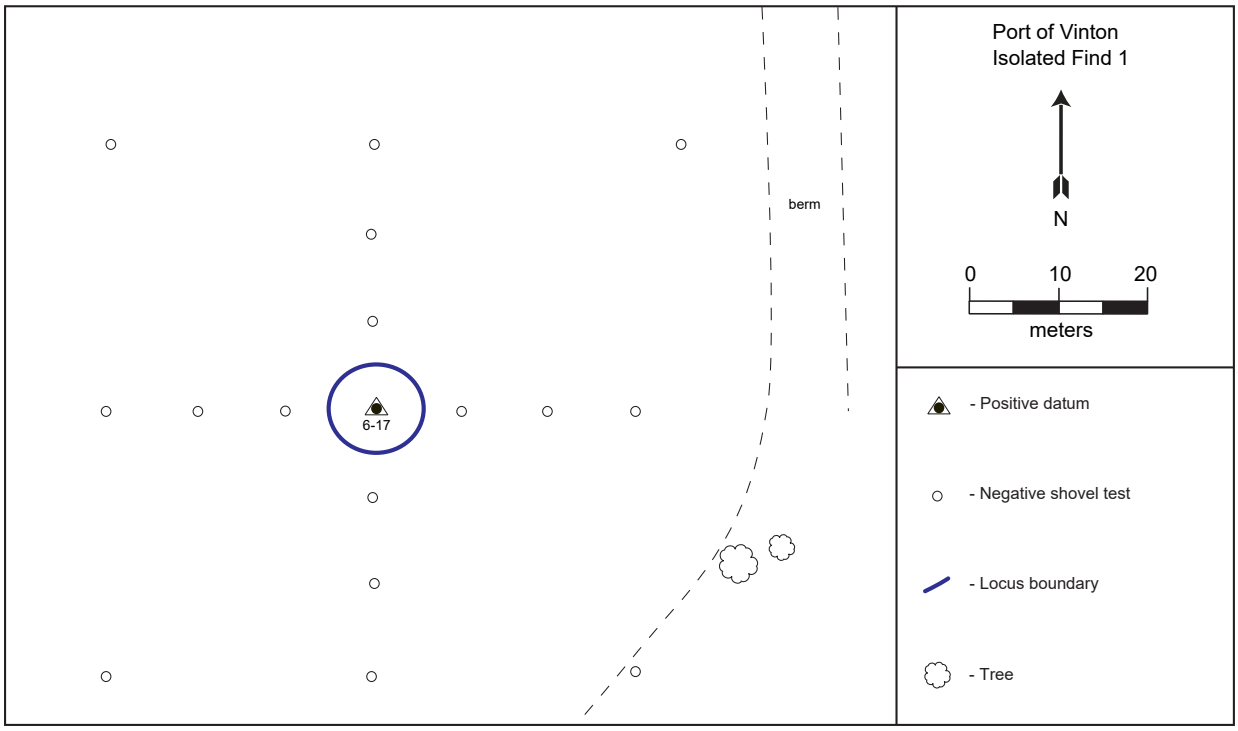

Figure 5.3. *Isolated Find 1 sketch map.*

Figure 5.4. *View from datum of Isolated Find 1, facing east.*

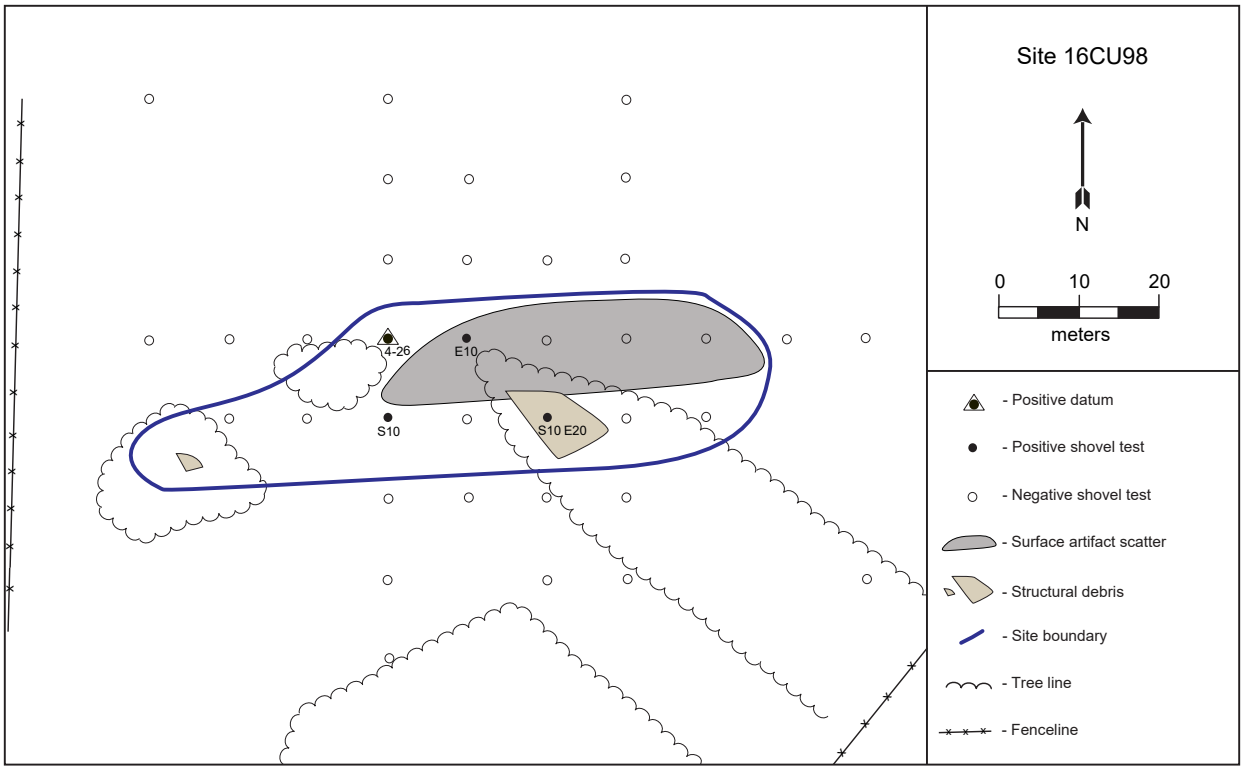

Figure 5.5. *Site 16CU98 sketch map.*

Figure 5.6. *View from datum of 16CU98, facing east.*

This site contained primarily broken glass, with small amounts of ceramics (see Appendix B). Artifacts recovered include container glass (10 colorless, 2 cobalt blue, 2 milk, 3 amber), undecorated whiteware (n=1), decal whiteware (n=1), burned stoneware (n=2), window glass (n=1), wire nail (n=1), a fiberboard fragment, a *Rangia cuneata* shell, and undifferentiated ferrous metal (n=13). Any glass with diagnostic attributes was machine-made. Only one decorated ceramic was recovered – decal whiteware, which dates from around 1890 to present. A collapsed wooden shed with metal roof is located within the site boundaries (Figure 5.7). Of the 39 artifacts recovered, only 17 were found subsurface with the remainder found on the surface. All the subsurface material was found within the top 30 cm of soil. The artifacts appear to date to the twentieth century. Historic maps indicate the presence of one structure and an outbuilding/shed. A structure appears on the 1955 Orange 15' series topo map and two open (unfilled squares) structures appear on the 1960 Vinton 7.5' series topo map. No structures appear on the 1932 Orange or the 1947 or 1954 Vinton maps, nor the current 1994 Vinton topo map so they were likely built around 1954-55 and razed before 1994. Other than the collapsed shed, no surface or subsurface features were present. There has been some disturbance to the site due to agricultural activities. Due to sparse subsurface artifacts and lack of features, Site 16CU98 appears to lack research potential and no further work is recommended.

Figure 5.7. *View of collapsed shed remains at Site 16CU98, facing north.*

CHAPTER 6
SUMMARY AND RECOMMENDATIONS

TerraX, under contract with SWLA Economic Development Alliance of Lake Charles, Louisiana performed the Phase I cultural resources survey for the proposed Port of Vinton Site located south of Vinton and west of Lake Charles in Calcasieu Parish, Louisiana in compliance with federal and state regulations. The Phase I survey was performed from April 30 through May 4, and on May 7 of 2018. The investigation identified one archaeological site, 16CU98, and one historic isolated find. Site 16CU98 represents a small mid to late twentieth century artifact scatter and collapsed shed. A structure appears on historic maps from 1955 and 1960, but is not depicted on earlier maps. Most of the artifacts were found on the surface with few recovered from subsurface contexts. Due to the paucity of artifacts and lack of features, Site 16CU98 appears to lack research potential. Accordingly, no further archaeological studies are recommended for the proposed Port of Vinton project.

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APPENDIX A
CURATION AGREEMENT

TROY UNIVERSITY

Archaeological
Research Center

Date: September 30, 2017

Paul Jackson
TerraXplorations
3130 East University Blvd
Tuscaloosa Al 34504.

Dear Paul,

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

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

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

Sincerely,

Jason Mann
Director
Archeological Research Center
Troy University

APPENDIX B
ARTIFACT INVENTORY

Artifact Inventory List

Site	Location	Type	Count	Weight (g)	Accession #
16CU98					
	TR 4 ST 26/Surface				***Bag: 2***
		glass (amber embossed base ["..AT. ..217.3"])	1	34.0	2018.07805
		glass (colorless container with large mouth external thread finish)	1	8.0	2018.07804
		glass (colorless container)	1		2018.07824
		relief molded, 3 pink decal bands whiteware rim	1	11.1	2018.07803
		undecorated burned stoneware	1	17.7	2018.07802
		Location Totals	*5*	*70.8*	
	TR 4 ST 26/I,II/10-30 CMBD				***Bag: 3***
		glass (colorless base)	1	4.2	2018.0786
		undifferentiated ferrous metal	7	8.1	2018.07807
		Location Totals	*8*	*12.3*	
	E 10/Surface				***Bag: 4***
		glass (cobalt blue bottleneck fragment with small mouth external thread finish)	1	1.9	2018.07813
		glass (colorless bottleneck fragment with small mouth external thread finish)	1	5.8	2018.07812
		glass (colorless decorative container)	2		2018.07811
		glass (colorless melted container)	1	5.2	2018.07810
		glass (window)	1	3.3	2018.07809
		undecorated burned stoneware	1	12.4	2018.07808
		Location Totals	*7*	*28.6*	
	TR 4 ST 25/Surface				***Bag: 5***
		fiber board fragment	1	4.4	2018.07817
		glass (cobalt blue container)	1	0.9	2018.07814
		glass (colorless container)	1	1.0	2018.07815
		Rangia cuneata shell	1	2.3	2018.07816
		undifferentiated ferrous metal	1	39.0	2018.07818
		Location Totals	*5*	*47.6*	
	E 3 N 4 from TR 4 ST 25/Surface				***Bag: 6***
		undecorated relief molded whiteware rim and base	1	8.8	2018.07819
		Location Totals	*1*	*8.8*	
	Between TR 4 ST 24 and TR 4 ST 25/Surface				***Bag: 7***
		glass (amber base [with stippling])	1	59.9	2018.07820
		glass (amber bottleneck fragment)	1	22.2	2018.07821
		Location Totals	*2*	*82.1*	
	E 20/Surface				***Bag: 8***
		glass (colorless decorative base)	1	28.3	2018.07822
		Location Totals	*1*	*28.3*	
	E 10/I/5-20 CMBD				***Bag: 9***
		glass (colorless embossed container ["HOUL.."])	1	3.7	2018.07825
		undifferentiated ferrous metal	1	11.6	2018.07823
		Location Totals	*2*	*15.3*	
	S 10 E 20/I/0-25 CMBD				***Bag: 10***
		glass (milk decorative container)	1	1.0	2018.07827

Site	Location	Type	Count	Weight (g)	Accession #
		glass (milk decorative rim)	1	10.2	2018.07826
		Location Totals	*2*	*11.2*	
	S 10/I/0-28 CMBD				***Bag: 11***
		ferrous metal wire nail	1	6.3	2018.07829
		undifferentiated ferrous metal	4	37.1	2018.07828
		Location Totals	*5*	*43.4*	
Site Totals			*38*	*348.4*	
Isolated Find 1					
	TR 6 ST 17/I/5-15 CMBD				***Bag: 1***
		glass (milk decorative base)	1	5.8	2018.07801
		Location Totals	*1*	*5.8*	
Site Totals			*1*	*5.8*	
Project Totals			*39*	*354.2*	