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Cultural Resources Survey of Forest Stewardship Area 1 For the City of Tyler Smith County, Texas

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Texas Antiquities Permit
#6569

FINAL REPORT

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ABSTRACT

Deep East Texas Archaeological Consultants (DETAC) conducted a cultural resource management survey for the City of Tyler, Texas of approximately 104.6 hectares (258.5 acres) in four tracts of Forest Stewardship Area 1 around Lake Tyler East. Timber will be thinned in the project area and hauled off the property. The pedestrian survey was conducted with a combination of visual examination in floodplains and shovel testing across upland ridges. A total of 232 shovel tests were excavated across the shovel tested areas. No new archaeological sites were recorded, but one isolated find was found in Tract 3 and a road cut was observed in Tract 4. Texas Antiquities Permit #6569 was obtained for this project, and all terms of the permit were carried out pursuant of the Texas Antiquities Code. The artifact was curated at the Anthropology Laboratory at Stephen F. Austin State University in Nacogdoches, Texas. DETAC requests concurrence with a determination of "no effect" to properties listed or eligible to the National Register of Historic Places for the proposed timber thinning operations. If any artifacts, dark greasy soils, or human bones are uncovered during the timber thinning, then all work will stop in the immediate area and both DETAC and the THC will be notified immediately.

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INTRODUCTION

In June 2013 DETAC conducted a cultural resources survey for the City of Tyler, Texas of four tracts in Forest Stewardship Area 1 (FSA 1) around Lake Tyler West (Figure 1). The survey was conducted upon request of the City of Tyler for timber thinning operations. No timber thinning will be conducted within 30 meters (m) (100 feet (ft) of the lake shore. Texas Antiquities Permit #6569 was obtained for this project, and all terms of the permit were carried out pursuant of the Texas Antiquities Code.

The four tracts, totaling 104.6 hectares (ha) (258.5 acres (ac)), spanned the Prairie Creek floodplain and adjacent ridge summits and shoulders. The archaeological survey included shovel testing on ridge summits and shoulders of each tract and a visual examination of the floodplain in timber thinning areas. Shovel testing and visual examination did not record any archaeological sites in the project area. Several agricultural terraces were observed across the survey area. A road cut was found in Tract 4 and a single lithic flake (IF-1) was found in Tract 3. Shovel testing around the road cut and isolated find were negative. Several modern trash piles were observed and noted. The artifact was curated at the Archaeological Laboratory at Stephen F. Austin State University.

The archaeological survey did not record any archaeological sites. The recovered cultural material does not suggest a substantial prehistoric or historic occupation of the surveyed tracts. The terraces and road cut suggest the area was primarily used for agricultural and sivicultural purposes over the last 100 years. No further archaeological work is recommended for the proposed timber thinning in FSA 1. DETAC requests concurrence with a determination of “no effect” to properties listed or eligible to the National Register of Historic Places (NRHP) for the proposed timber thinning operations in FSA 1.

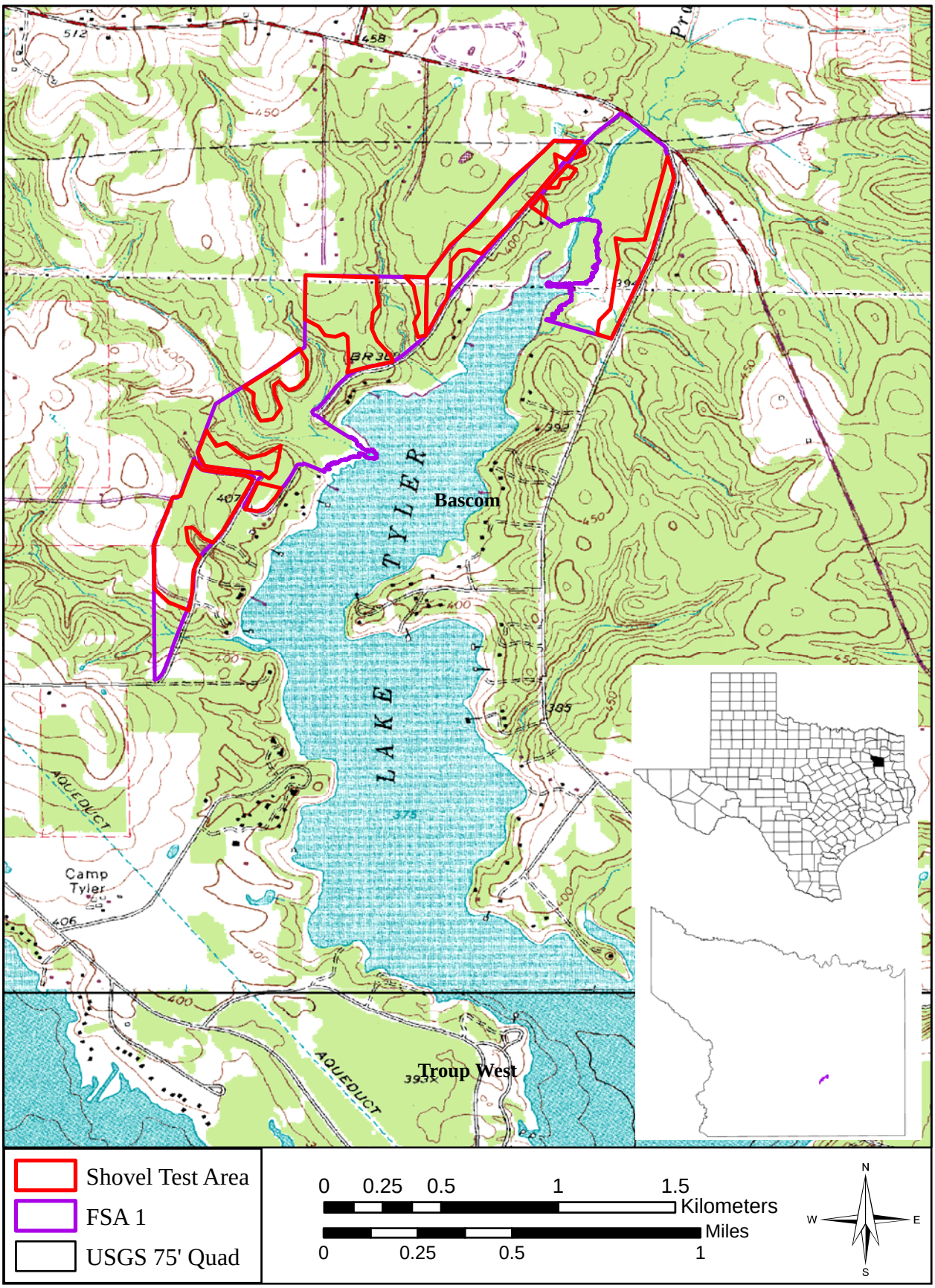

Figure 1. FSA 1 Tracts and shovel test areas on Bascom 7.5' Quad

ENVIRONMENTAL SETTING

Smith County is within the Pine Woods subdivision of the East Texas Timber Belt of the Gulf Coastal Plain Physiographic Province of North America and the Austoriparian Biotic Province of Texas. The Gulf Coastal Plain Province is characterized by low topographic relief, extensive marshy tracts, altitudes below 152 m (500 ft), and sedimentary geologic formations (Atwood 1940; Bureau of Economic Geology [BEG] 1965). The Austoriparian Biotic Province is characterized by pine and pine-oak forests on the uplands and by the abundant oak, elm and ash hardwoods in the lowlands (Blair 1950). The Pine Woods subdivision is the dissected sandy forestlands with rolling relief whose western boundary is approximately the 109 centimeters (cm) (43 inches (in)) rainfall line (Chambers 1948). The East Texas Timber Belt geographic region supports abundant pine and oak woodlands and is characterized by a gently rolling to level sandy terrain, annual rainfall in excess of 102 centimeters (cm) (40 inches (in)) and an average growing season of over 240 days (Bray 1904). Vegetation in the Pine Woods subdivision includes a variety of pine, maple, and oak trees with a wide variety of shrubs to include beauty berry, yaupon, farkle berry, and sumac. The woody vine understory includes muscadine grape, poison ivy, Virginia creeper, and saw greenbrier.

Geology

The Gulf Coastal Plain was an elevated sea bottom (Hunt 1974) formed during the Cenozoic Era when cycles of transgression and regression of the ancestral Gulf of Mexico deposited sands, shales, clays and marls in sedimentary geologic formations. Transgressive deposits are generally clay and silty deposits making them more resistant to erosion. Regressive deposits are generally silty and sandy and less resistant to erosion. Resistant strata form escarpments or cuestas with rolling hills and prairies (Fisher 1965). The streams that flowed through these hills and prairies typically had floodplains 1.6 to 16.1 kilometers (km) (1 to 10 miles (mi)) wide. These floodplains generally occurred 30.5 to 45.7-m (100 to 150-ft) below the regular elevation of the land creating narrower floodplains where streams cut through the cuestas (BEG 1965, 1977; Fenneman 1938).

The geologic units in the survey areas are exclusively Eocene age Queen City Sand formation on ridge summits and back slopes with Quaternary Alluvium in the floodplain

(BEG 1967). Queen City formation is a regressive deposit with thin beds of clay, sandy clay, and ironstone concretions that weather to grayish, orange and pink sandy and clayey loam. Ferruginous ledges and rubble are common. The Quaternary alluvium is significantly younger and, because of its location on the landscape, has the only potential for containing deeply buried archaeological sites in colluvial deposited material from the adjacent slopes. Unfortunately, the mapped Quaternary Alluvium is underwater. Refining how local geology affects the proposed timber thinning relies on the information derived from the Web Soil Survey (NRCS 2013).

Soils

Soils within the project area vary according to the underlying geology and position on the landscape. The ridge summits are all Bowie fine sandy loam (BoB) and Lilbert loamy fine sand (LtC). Backslopes are almost exclusively Cuthbert fine sandy loam (CfE) which extends to the lake shore. The floodplains that are not inundated with water are described as Mantachie loam (Ma), frequently flooded. According to the soil survey (NRCS 2012), Bowie and Cuthbert series have A and E horizons of fine sandy loam between 8 and 25 cm (4 and 10 in) over a Bt horizon of sandy clay loam. Lilbert series soils have A and E horizons of loamy fine sand 60 cm (24 in) deep over a Bt horizon of sandy clay loam. Mantachie loam has an A horizon of loam and fine sandy loam over a weak B horizon of gley colored loam. Gley color soils are indicative of long term saturation. No buried soils were noted in the Mantachie series description.

CULTURAL CHRONOLOGY

The project area is in the Northeast Texas Archaeological Region (Kenmotsu and Perttula 1993). The Cultural Chronology is divided into Paleo-Indian, Archaic, Early Ceramic, Late Prehistoric, and Historic periods. Each period was delineated by a change in environment, technology, and/or population requiring adaptations to meet varying circumstances. Each period is described in reference to the cultural phases within the period, settlement patterns, subsistence, and artifacts associated with the period.

Paleo-Indian Period

The Paleo-Indian period (prior to 6000 B.C.) is the earliest generally accepted cultural period in the New World and includes populations that inhabited North America from the Late Pleistocene to the Early Holocene. The use of non-local materials and recycling lead Story and others (1990) to suggest this population was organized into small, mobile bands of hunters and gatherers that consumed a variety of plants and animals. Overall, tool types are generally carefully fashioned bifacial and unifacial tools. Paleo-Indian sites are typified by scattered *Clovis, Scottsbluff, Dalton, San Patrice*, and *Plainview* projectile points. These sites are rare in the region with only one or two documented components per county in the area. Paleo-Indian artifacts recovered in the region suggested that early occupations were principally distributed in the valleys of major stream basins (Perttula 1995). Waters (1992:151) suggests sites from the Paleo-Indian period are less frequent in active floodplains because of the changes in the landscape over the last 8000 years.

Archaic

The Archaic (6000-200 B.C.) refers to hunter-gatherers who implemented more regionally specialized approaches toward exploiting their environment. The Archaic period is represented by three divisions: the Early, Middle, and Late Archaic during which tool technology progressed from the large points that typify the Paleo-Indian period to the use of sand and grog tempered ceramics and the bow and arrow in the Early Ceramic and Late Prehistoric period. The Archaic, in general, represents a shift in subsistence as Late Archaic sites are more abundant than Early Archaic sites as populations shifted from major streams

to minor streams and natural springs (Story *et al*. 1990). This increase in site count and distribution throughout the Archaic suggests a successful adaptation to the environment lasting until the development of pottery and/or the development of the bow and arrow. Features found on sites in the Archaic include stone-lined hearths, baking pits, milling implements, and polished stones that serve as indicators of new technologies (Story *et al*. 1990:213). Cemeteries date to the Archaic period as well (Story *et al*. 1990) and become an integral part of the Late Archaic. When compared to Paleo-Indian artifacts, Archaic lithic assemblages are more functionally varied; however, tool types are generally less well made and of increasingly more local materials than the Paleo-Indian period and earlier Archaic divisions. Projectile point types associated with the Archaic period include earlier expanded stem (e.g., *Keithville, Palmer, Kirk* and *Cossatot*), corner-notched, and side notched points (e.g., *Big Sandy, Calf Creek , Johnson, Carrollton*, and *Morrill*) followed by stemmed points (e.g., *Lang, Castroville, Palmillas, Ellis, Edgewood*, and *Yarbrough*) (Story *et al*. 1990).

Woodland Period

The Woodland period (200 B.C.-A.D. 800) period (Perttula 2004:9), first introduced as the Early Ceramic (Story *et al.* 1990:293), represented an increasing utilization of the environment and technological changes. A number of characteristic innovations appear during the Woodland period along with regional differences within the same environment. In particular, there is a greater reliance on cultigens along with larger and more prolonged occupations at specific locales. The technological innovation appearing during the Early Ceramic period was the widespread production of pottery and the introduction of the bow and arrow very late in the period (Story *et al*. 1990; Thurmond 1990). Pottery was introduced from the Lower Mississippi Valley as the Fourche Maline culture in northeast Texas. Plainware ceramics north of the Sabine River are clay/grog or bone temper (*Williams Plain*; however, *Marksville Stamped, Marksville Incised, Tchefuncte Stamped, Troyville Stamped*, and *Chrupa Incised*) (Story *et al*. 1990; Thurmond 1988; Cliff and Peter 1994:23). South of the Sabine River ceramics are mostly plain sandy paste *Mossy Grove* varieties (Story 1990, Ricklis 2004:189). Recently, Black and Story (2003) described the Mill Creek culture along the Upper Sabine River basin with pottery similar to *Williams*

Plain but with incised lines and punctations. *Gary* and *Kent* projectile points are common all three cultures, but corner-notched arrow points are common north of the Sabine River (Thurmond 1990) while stemmed arrow points are common to the south (Perttula 2004:376). Populations throughout the region attempted to utilize plant resources along valley margins as sites were located along increasingly larger landforms and covered larger areas (Corbin 1998:115).

Late Prehistoric Period

In the Late Prehistoric period (A.D. 800-1680) Smith County was in the Caddoan cultural area. The Caddo culture was an indigenous development strongly influenced by the Mississippian tradition of the Lower Mississippi Valley (Story *et al*. 1990:323; Wycoff 1971). Caddo subsistence and social organization differed markedly from the Woodland period as horticulture supplemented hunting and gathering followed by a diet dominated by maize, beans, and squash. Increasingly larger aggregates of people became sedentary and constructed villages with public ceremonial areas. A stratified social structure developed corresponding to the chiefdom level as first defined by Service (1962, 1975). Extensive commercial networks were also established with hamlets and farmsteads surrounding a larger community mound center. Settlements were mainly distributed on elevated landforms adjacent to major streams, as well as along minor tributaries and spring-fed branches. The Late Prehistoric Period is divided into Formative, Early, Middle, and Late Caddoan phases. The phases indicate changes in socio-political, habitation, and material culture with increasingly smaller regional differences. Overall, the Late Prehistoric Period to the north is typified by a variety of arrowpoints, ground stone artifacts, and a variety of ceramic vessel types. Formative and Early Caddo sites include maize, and populations lived in semi-permanent hamlets and farmsteads (Perttula 1986:54-55). Middle Caddo sites include increased use of planted crops, increasingly larger settlements, more and larger mounds sites, and evidence of more social and political organization. The Late Caddo period has the greatest regional and temporal variation which is divided into archaeological phases, e.g, the earlier Whelan phase (ca. A.D. 1350-1450) is replaced by the later Titus

phase (ca A.D. 1450-1650) along the upper Cypress Creek basin and the Frankston phase (ca. A.D. 1400-1650) along the Neches and Angelina River basins (Thurmond 1990; Perttula 2004).

Historic

Although the Spanish had a presence in east Texas since the late seventeenth century, the area that would become Smith County was not inhabited by Anglo settlers until American traders moved into the Neches Saline area in the late 1820's. The area was not heavily settled until the Cherokee were removed in 1839. Smith County was officially formed on 11 April 1846 with Tyler as the County Seat. Cotton was the primary trade commodity, but corn, fruit, and vegetables sustained the growing population. Throughout the 1850's the county continued to grow as more farmers planted cotton with slave labor. The county had a diverse economy with sawmills, gristmills, and three distilleries. Smith County voted for secession and hosted two Confederate Camps (Camp Clough and Camp Ford) (Thoms 2000) north and east of Tyler respectively along with a transportation depot, ordinance plant, and stockade. Race relations were strained in Smith County into the 1870's as the black population was constantly harassed. The Houston & Great Northern Railway reached Tyler in 1873 (Zlatkovich 1981:8). Three years later 33 km (21 mi) of railway connected towns across the county. Cotton sales increased dramatically and livestock sales followed. Tyler grew with new industries and colleges over the next 20 years. Agriculture across the county expanded to include the sale of what had been subsistence vegetables and fruits. However, cotton still dominated the market despite the Great Depression and boll weevil infestations in the 1930's. After the depression, industry steadily grew as oil exploration, a renewed military industry (with WWII), and the lumber industry returned Smith County to prosperity (McCroskey 2012).

PREVIOUS INVESTIGATIONS

The archaeological regional overview documents of primary importance are D.A. Story's (1990) and J.A. Guy's (1990) discussions of the Gulf Coastal Plain. Additionally, the Texas Historical Commission (THC), Department of Antiquities Protection developed a document for the east Texas portion of the Texas State Plan (Kenmotsu and Perttula 1993). This THC document include several historic contexts each of which deal with a particular facet of northeast Texas prehistory. This state plan synthesize the state of archaeological research in the region and identifie problems and objectives to be addressed in future research and cultural resources management. Several weak areas in archaeological knowledge of the region were identified in these recent studies. Chronology, settlement patterns, subsistence, and historic continuities were some of the general research directions that all of these recent syntheses emphasize as important for developing future archaeological research designs. More recently, Perttula (2004:370-408) includes the most up to date descriptions of the region for the Caddo Cultural Area which extends from the Red River to Angelina County in Texas.

Large-scale investigations (e.g., research within specific drainage systems and extensive excavations on large sites) were conducted across the region providing most of the prehistoric and historic cultural information. Substantial investigations began in the 1930s with University of Texas surveys along major stream valleys. Later, large survey areas included surveys and site excavations for reservoirs (e.g., Story 1965; Jelks 1958; and Anderson 1971). These and other large area surveys over the next forty years document a majority of the archaeological sites recorded and provide the basis for predicting site locations across the landscape. The abundance of site data lead to studies of individual basins (e.g., Thurmond's 1990 study of the Cypress Creek basin) and excavations of specific sites (e.g., Thom's 2004 excavations at Camp Ford). Small-scale investigations include numerous well and pipeline surveys for utilities, private interests and TxDot scattered across the county.

The Texas Archaeological Site Atlas (THC 2013) was consulted for the locations of known archaeological sites, National Register of Historic Places (NRHP) properties, and State Archaeological Landmarks (SAL). No Cultural Resource Management surveys or academic archaeology was conducted within 1.6 km (1 mi) of the project area. The

only documented archaeological work was the recording of site 41SM337 as a Caddoan lithic and ceramic artifact scatter by an advocational archaeologist in the 1950's. The site form shown on the Site Atlas was completed in 2005 (Walters); no revisit was conducted in 2005. The closest documented archaeological survey was for a segment of the Loop 49 toll way around Tyler, Texas by PBS&J (Pemberton *et al*. 2008) roughly 5 km (3 mi) west of the current project area. The PBS&J survey documented three historic period archaeological sites in the 4 km (2.5 mi) long survey. None of the sites were recommended for further investigation.

Archaeological work around both Lake Tyler West and Lake Tyler East is limited to pedestrian surveys around Lake Tyler East. The closest archaeological survey around Lake Tyler East was the DETAC pedestrian survey of Forest Stewardship Areas 5 (Galan 2013) along the northwest portion of the lake; no archaeological sites were recorded during the survey of the FSA. Nineteen archaeological sites (18 prehistoric and 1 historic) were recorded around Lake Tyler East during several surveys for oil/gas exploration or by advocational archeologists. All but five of the nineteen sites were recorded around the southern half of the lake.

The results of the previous investigations shows there are no previous investigations or documented archaeological sites around Lake Tyler West. Most of the documented archaeological work was conducted around the southern two-thirds of Lake Tyler East. This research found prehistoric sites are most likely found on prominent landforms overlooking the lake. Artifacts can be recovered from the surface along the shore line and in shovel tests between the surface and the Bt horizon. Isolated finds (e.g., Perttula and Nelson 2005a) were not recorded as sites. The only site that was recommended for avoidance and further work was a multi-component site with Caddoan ceramics (e.g., Perttula and Nelson 2005b). The prehistoric lithic scatters were not avoided by proposed construction (e.g., Perttula and Nelson 2005b; 2005c; 2005d, and 2005e).

RESEARCH DESIGN AND METHODOLOGY

DETAC performed these investigations in accordance with the procedural rules of the Texas Antiquities Code, the CTA Guidelines for Professional Performance (2005a), and the ethical codes of conduct described by the Texas Archaeological Society and the Register of Professional Archaeologists. No new roads will be constructed, but logging vehicles and equipment will move freely among remaining trees disturbing the ground surface. No thinning will be conducted within 30 m (100 ft) of the lake shore.

Research began with a literature review for material pertinent to the project area. The literature review included: reading archaeological and historical publications on the Texas Archaeological Site Atlas (THC 2013); reviewing any information concerning historical, geomorphological, and archaeological information at the Stephen F. Austin State University Library in Nacogdoches, Texas; and obtaining digital data from the Texas Natural Resources Information System (TNRIS 2013).

To aid in the survey, high and low probability areas were determined by combining the previous site information with topographic and soils data. Previous investigations in the area documented archaeological sites from the Archaic and Late prehistoric periods on prominent landforms overlooking the lake. Research shows that artifacts can be recovered from the surface along the shore line and in shovel tests between the surface and the Bt horizon. Most previously recorded sites were lithic scatters with several artifacts recovered in over half of the excavated shovel tests in a site area. Based on this information, high probability areas were prominent landforms overlooking the lake. Expected sites should contain numerous artifacts in several shovel tests.

The pedestrian survey was conducted using a visual assessment and shovel testing. The visual assessment was a continuous effort between shovel tests and in floodplains. The visual assessment of the floodplain focused on finding elevated areas not visible on the topographic maps. Overturned trees, burrowing animal disturbances, lake shores, and unimproved roads were also examined for artifacts on the surface. Shovel tests were excavated at 30 m (100 ft) intervals or less in high probability areas and in accordance with the THC's guidelines for cultural resources surveys. Upon finding an artifact, archaeologists excavated shovel tests at 10 m (33 ft) intervals in the cardinal directions until two consecutive negative shovel tests or the landform (e.g., steep slope) determined the site

boundary. Shovel tests were approximately 30 cm (12 in) square. Shovel testing included excavating in 10 cm (4 in) increments to the Bt horizon or to 90+ cm. All excavated matrix was screened through 0.64 cm (0.25 in) hardwire cloth. The depth, soil texture, color, and any artifacts from each shovel test were recorded as part of a GPS position with 1 to 3 m (3 to 10 ft) accuracy.

DETAC prepared all artifacts, analysis, maps, and field notes along with photographs for curation at the Stephen F. Austin State University Anthropology Laboratory. Copies of the draft report were provided to the THC for review following CTA Guidelines for Cultural Resources Management Reports (2005b). Upon completion of consultation, a final report was prepared incorporating any comments provided by the THC. Final digital and hard copies of the report will be provided to the THC for inclusion in the Texas Archaeological Site Atlas.

RESULTS

Field Investigations were conducted between 10 and 28 June 2013. Shovel testing and visual examination of the project area included walking transects across the property, making notes on surface disturbance, and shovel testing at low and high probability intervals. Forest Stewardship Area 1 (FSA 1) included four tracts (1, 2, 3, and 4) at the north end of Lake Tyler West. Tract 1 spans the Prairie Creek floodplain. Tracts 2, 3, and 4 are on the west side of the lake along the summits of upland ridges and along minor tributary floodplains. Topography, vegetation, soils, and pedestrian survey results are described for each tract.

Tract 1

Tract 1 included 25 ha. (63 ac) spanning the Prairie Creek floodplain at the north end of Lake Tyler West. The western boundary is defined by Northwest Road; the eastern boundary is Eastside Road; the northern boundary is Old Omen Road; and the southern boundary is private property with no fence or other property demarcations (Figure 2). A powerline right-of-way bisects the tract from east to west. No previous investigations were conducted within a mile of the tract; however, site 41SM337 was recorded by an advocational archaeologist roughly 250 m (820 ft) north of the tract. The site was reported as a Caddoan lithic and ceramic artifact scatter in the 1950's. Walters (2005) completed a site form but did not revisit the site. The similar landform and proximity of the site suggests similar kinds of sites are possible on in the tract.

Vegetation in Tract 1 is dominated by mixed hardwood and pine forest with a moderate understory of bushes, shrubs, and vines. Ground cover is leaf litter. Vegetation along the lake shore and the powerline right-of-way is dense bushes, briars, and small trees. No shore line was visible; instead, the edge of the lake was a marsh with tall grasses and ferns. Soils in Tract 1 were described as Cuthbert fine sandy loam along the uplands with Lilbert loamy fine sand and Mantachie loam in the floodplain. Shovel testing found the distribution of the soils was different than the mapped soils.

The visual inspection focused on finding artifacts on the ground surface and elevated areas not visible on the topographic maps in the floodplain. The floodplain

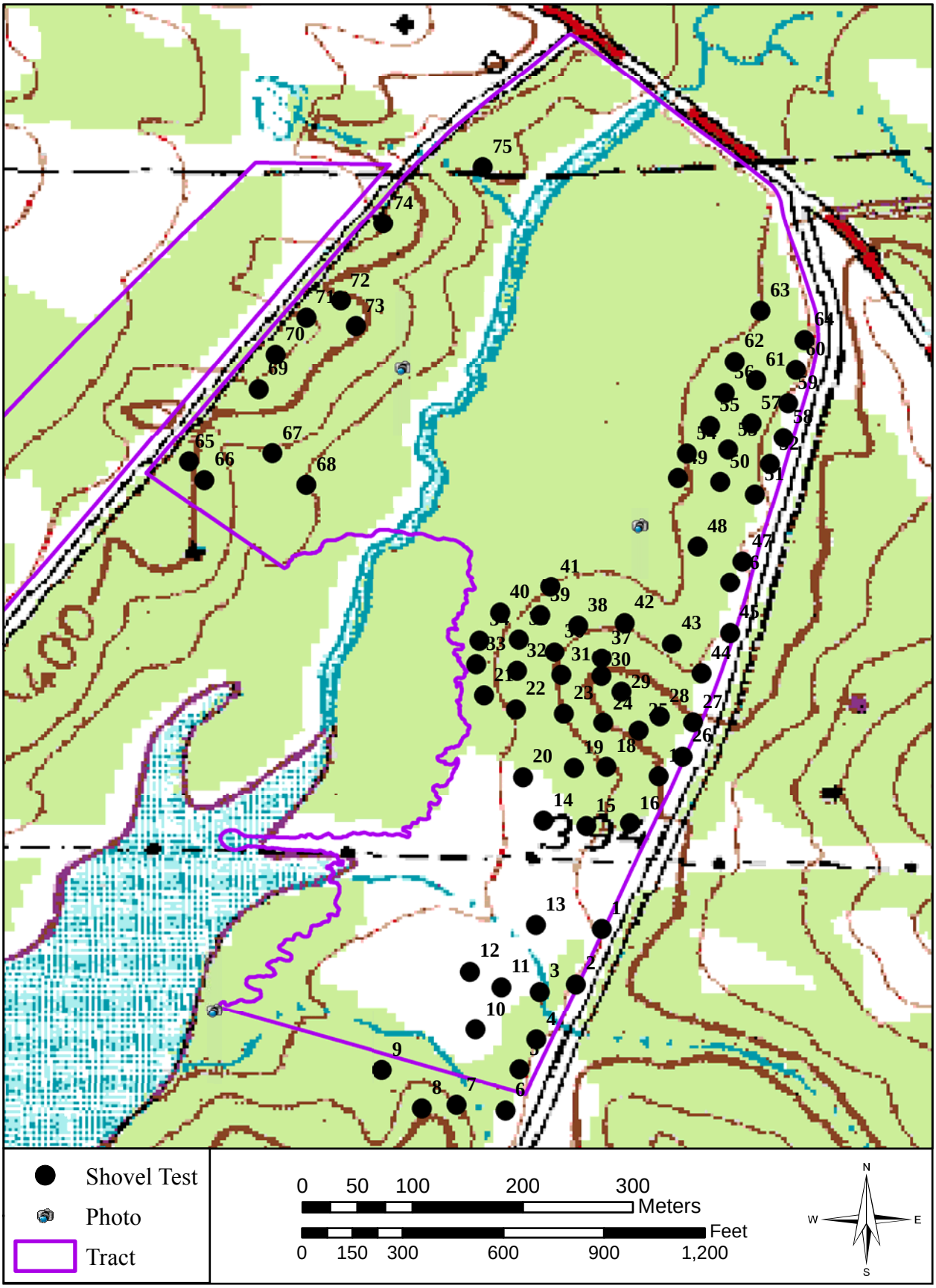

Figure 2. FSA 1 Tract 1 shovel test

Upland shovel test profile

Floodplain

Four-wheeler trail in floodplain

Floodplain shovel test profile

Toe slope - Marsh transition

Figure 3. FSA 1 Tract 1 photos

inspection extended between shovel tests with gray mottled soils on the toe slopes of the uplands and the shore line. The visual inspection found the forested portions of the floodplain were flat with several crawdad casts and a four-wheeler trail passing through the tract. There were few defined drainage channels; instead, water discharged from storm drains along the roads upslope formed narrow washes which removed leaf litter on the silty and clayey soils. Surface inspection did not find any artifacts or cultural features (Figure 3).

Shovel testing began on the higher elevations and progressed down slope until soils became gray and mottled from long-term saturation. Elevated areas were shovel tested at 30 m intervals while sloped areas were shovel tested at 50 m intervals. A total of 75 shovel tests were excavated across the tract (Figure 2 and Appendix A).

Shovel tests east of the floodplain were excavated along Eastside Road with additional tests excavated westward until floodplain soils were encountered. A ridge and a wide toe slope with deep sandy soil were found using this method. Both the ridge and the toe slope were tested at 30 m (100 ft) intervals while the remaining area was tested at 50 m (164 ft) intervals except along the powerline right-of-way where no timber thinning will occur. Shovel tests along the ridge and the toe slope found deep sandy loam. Many tests were excavated to 60 cm (24 in) or deeper on the ridge summit and toe slope. Shallower tests were recorded along the slopes of each landform. No artifacts were found in the visual inspection or the shovel testing efforts.

Shovel tests west of the floodplain focused on three isolated ridge summits. Tests were attempted along the toe slopes, but shallow soils and steeper slopes terminated at saturated soils along the lake shore. Shovel tests on the ridge summit varied from 10 to 80 cm (4 to 32 in) deep. No artifacts were found in the visual inspection or the shovel testing efforts.

Tract 2

Tract 2 included 9.1 ha. (22.5 ac) along the shoulder of an upland ridge west of NW-Road. The northern and western boundaries are private property and the southwestern boundary is adjacent to Tract 3 (Figure 4). Like Tract 1, there are no

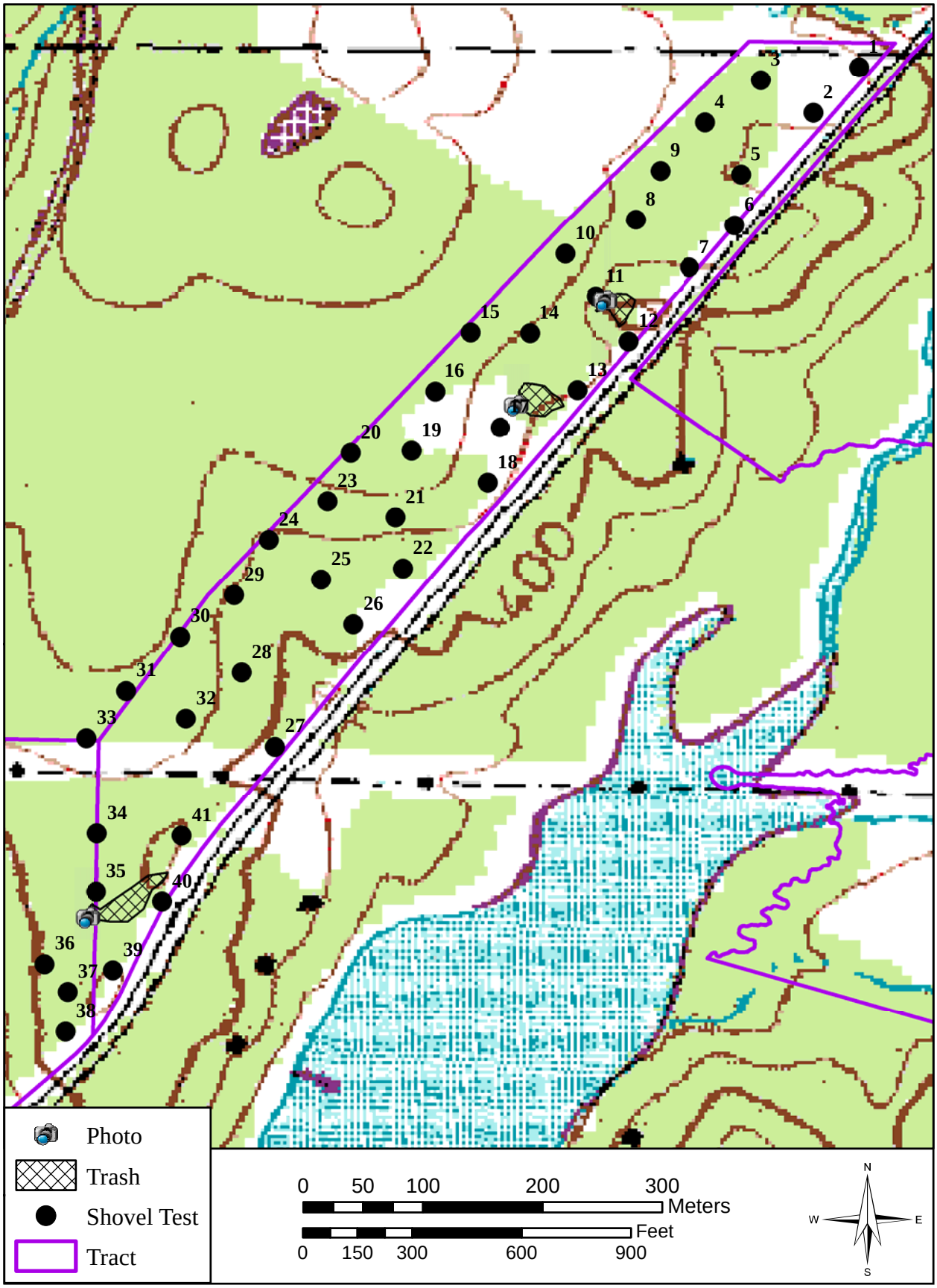

Figure 4. FSA 1 Tract 2 shovel test

Shovel test profile

Modern trash in headward drainage

Modern trash in excavated pit

Modern trash near southern portion of tract

Figure 5. FSA 1 Tract 2 photos

previous investigations within a mile of the tract. Site 41SM337 is located roughly 450 m (1,476 ft) northeast of the tract. Vegetation in Tract 2 is dominated by mixed hardwood and pine forest with a light to moderate understory of bushes, shrubs, and vines. Ground cover is leaf litter. Soils in the tract are mostly Bowie fine sandy loam with isolated areas of Lilbert loamy fine sand upslope and Cuthbert fine sandy loam downslope.

The visual inspection found headward erosion formed several deep gullies along the eastern boundary of the tract. Modern trash was observed in one of the erosional areas. Modern trash was also found in an excavated pit near the center of the tract and a third trash pile was found near the southern portion of the tract. Most of the trash was old tires and various household items from the second half of the twentieth century. Agricultural terracing was present near the southern portion of the tract north of the power line right-of-way (Figure 5). Surface inspection did not find any artifacts or cultural features.

A total of 41 shovel tests were excavated across the tract. Three of the tests were following the summit of a finger into Tract 3. Shovel tests were excavated across the tract at 50 m (164 ft) intervals except for the southern tip of the tract and adjacent Tract 3 where tests were excavated at 30 m (100 ft) intervals (Figure 4 and Appendix A). Most of the shovel tests were excavated to 60 cm (24 in) or deeper. No cultural material was found in the shovel testing effort of Tract 2.

Tract 3

Tract 3 was a 36.95 ha. (91.23 ac) area that spans three upland ridge summits overlooking three intermittent streams. There are no previous investigations within a mile of the tract. Roughly 14.45 ha. (35.71 ac) along ridge summits and shoulders were selected for shovel testing. The western, eastern, and northern boundaries were private property lines and the southern boundary was Tract 4. A small portion of eastern boundary is along the lake shore. Vegetation varied across the tract. The upland ridges contained mixed hardwood and pine forest with moderate understory of various bushes. The lowlands contain mixed hardwood and pine trees with a dense understory of various bushes. Soils on the ridge summit are Bowie fine sandy loam and the backslope soils are Cuthbert fine sandy loam. Floodplain soils were Manatchie loam.

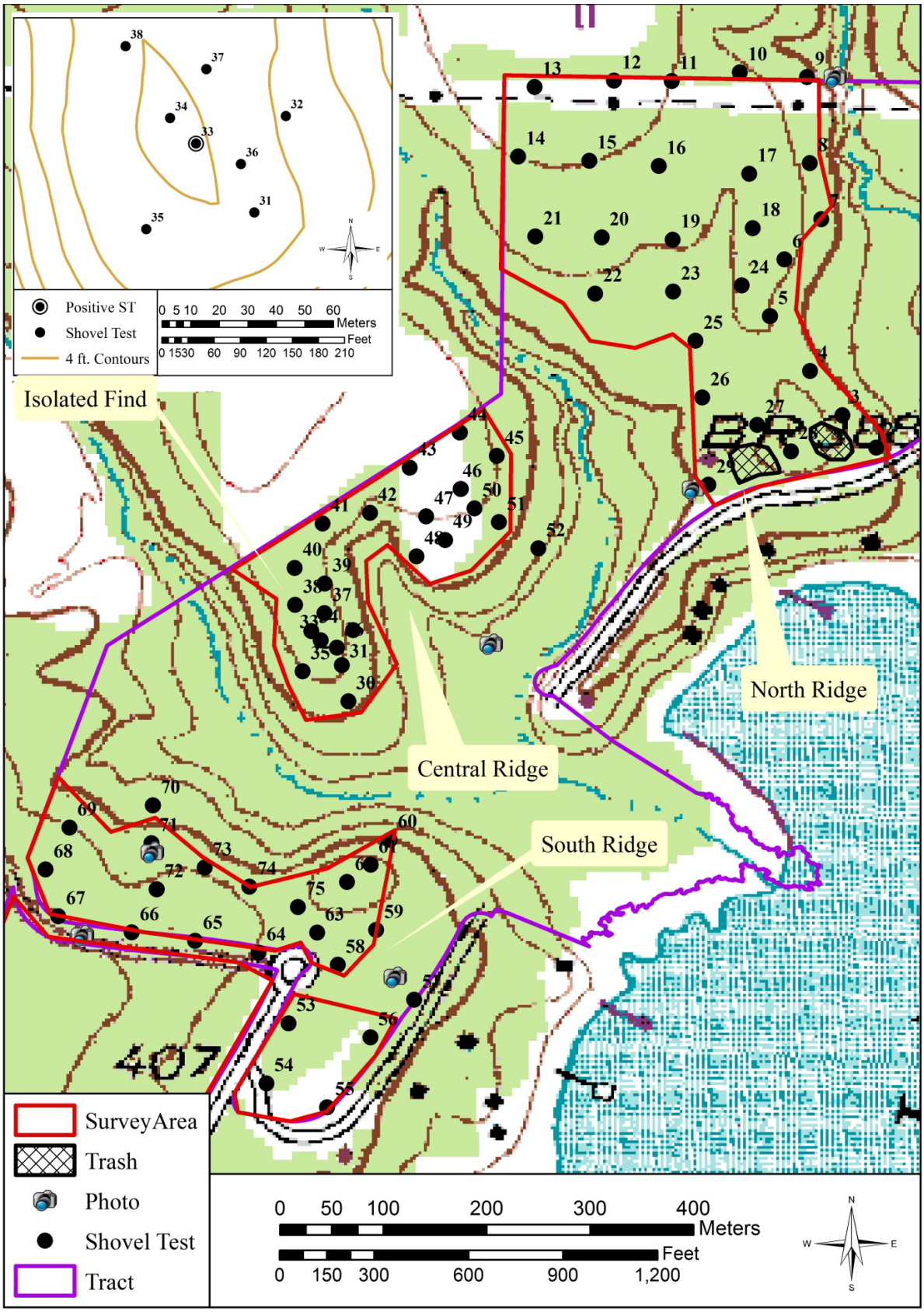

Figure 6. FSA 1 Tract 3 Shovel Tests

The pedestrian survey included a visual examination of the floodplain and shovel testing on the ridge summits. The visual examination of the floodplain found recent colluvial and alluvial sandy deposits along the margins of several un-mapped drainage channels. No elevated areas were observed in the floodplain. Vegetation was mature pine and hardwood trees with a dense understory. A total of 74 shovel tests were excavated on the ridge shoulders and summits (Figure 6 and Appendix A) for an average of two shovel tests for every acre in the shovel tested areas. The shovel testing areas were divided into a Northern ridge, a Central Ridge, and a Southern ridge. Each ridge is described separately.

The Northern ridge is wide with gradual sloped shoulders and steep backslopes. A trail crosses the ridge near the southern half and a powerline right-of-way crosses the ridge along the northern edge (Figure 7). Several push piles, pits, and modern trash were observed along the southern portion of the ridge adjacent to the southern boundary. Shovel testing focused on the ridge summit and shoulders. Twenty-eight tests (ST 2 – 29) were excavated across the ridge (Figure 6). Tests found deep (80 cm average) light brown and light yellowish brown sandy loam. Tests north of a powerline right-of-way along the northern boundary of the ridge were roughly 50 cm deep in light reddish brown gravelly sandy loam. No artifacts or cultural features were observed in the area.

The Central ridge includes two fingers overlooking the junction of two drainages. The summits are narrow and eroded, the back slopes are steep, and the toe slopes are concave with drainage channels at the base of the ridge. Shovel testing focused on the ridge summit and shoulders. Twenty-three tests (ST 30 – 52) were excavated across the ridge (Figure 6). Tests averaged 50 to 60 cm (20 to 24 in) deep in light brown sandy loam. A single tertiary chert flake 15 mm in size was found on the summit of one finger. Excavation of seven more tests on the summit did not find any additional artifacts (Figure 6 insert).

The Southern ridge includes two survey areas divided by a deep gully not visible on the topographic map (Figure 7). Several headward drainages were observed along the backslope and shoulder of the ridge. Shovel tests 53 through 75 (22 tests) focused on the less eroded portions of the ridge shoulder and summit. Tests found deep (70 cm) soils between areas of erosion and shallower (40 cm) soils closer to the ridge summit. No artifacts or cultural features were observed in the area.

Shovel test profile

Trail on Northern ridge

Stream channel in floodplain

Gully on Southern ridge

Figure 7. FSA 1 Tract 3 photos

Tract 4

Tract 4 was a 13.6 ha. (33.5 ac) area along the summit of an upland ridge between a private property boundary to the west and a road to the east. An intermittent drainage crossed the southern portion of the tract. There are no previous investigations within a mile of the tract. Vegetation included mature pine trees with a moderate understory of various bushes and shrubs and areas of dense understory with briars. Ground cover was leaflitter. Soils in the tract include Bowie fine sandy loam on the ridge summit with Cuthbert fine sandy loam on the backslopes and Mantachie loam along the stream channel in the southern corner of the tract.

The visual inspection found agricultural terracing on the ridge shoulders and back slopes. A linear road cut was found near the northern boundary. The road cut is roughly 95 m (310 ft) long, 6 m (20 ft) wide and 1.5 m (5 ft) deep with a flat bottom "U"-shape profile. The road feature is highly eroded at either end with a narrow "V"-shaped profile (Figures 8 and 9). The southern portion of the tract is dominated by steep slopes and a narrow drainage channel; no shovel tests were excavated in the southern portion of the tract.

Shovel tests focused on the 10 ha. (26 ac.) area on the ridge shoulder overlooking the drainage and between agricultural terraces on the ridge shoulder. No tests were excavated south of the drainage because of the steep slope. A total of 43 shovel tests (ST 1-43) were excavated across the shovel test area (Figure 8 and Appendix A) for an average of 1.7 shovel tests for every acre. Shovel tests were a light brown sandy loam 30-50 cm (12-20 in) deep over red sandy clay. The uniform soil depth, agricultural terracing, and road cut suggest the tract was highly modified in the past.

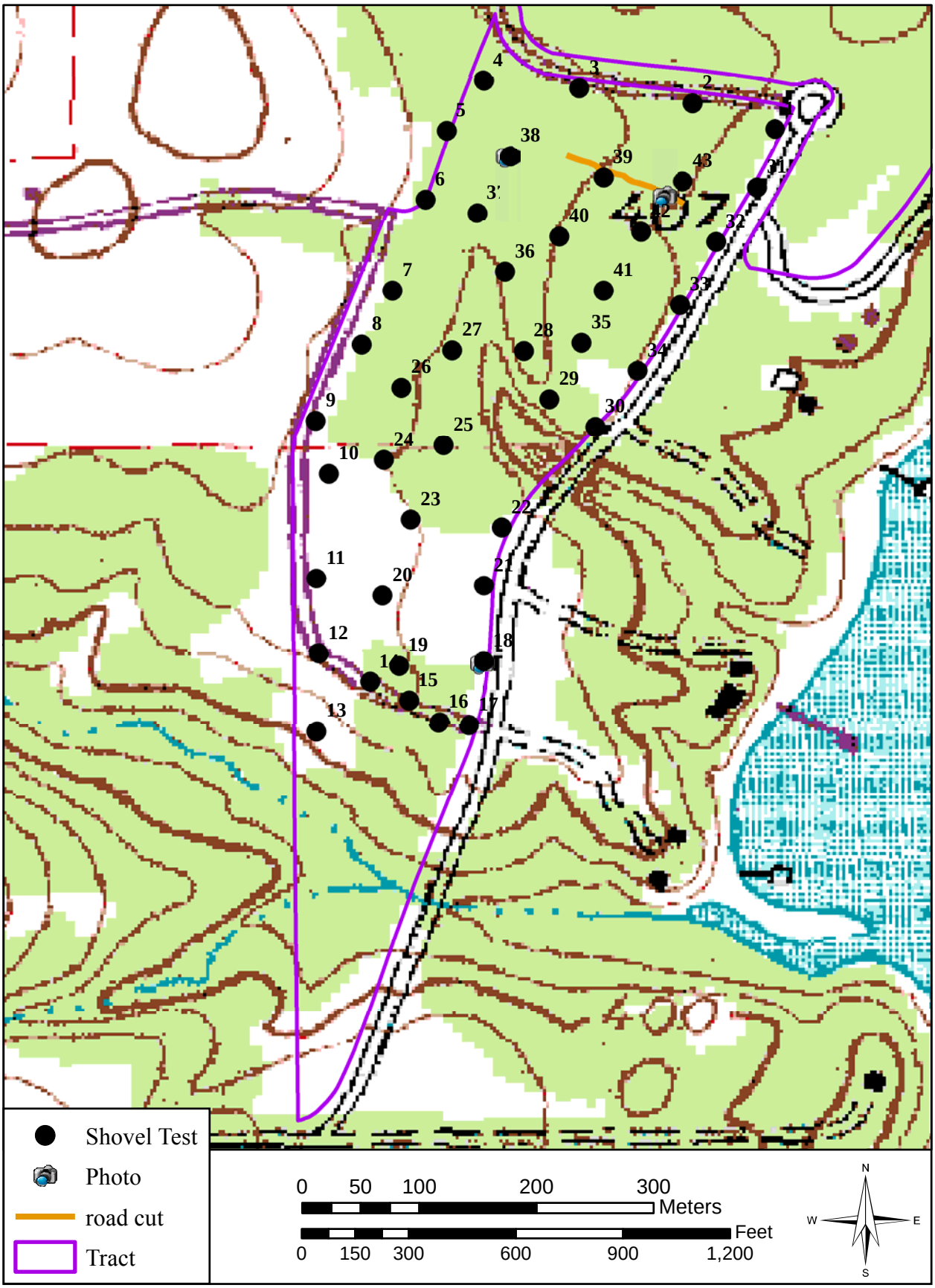

Figure 8. FSA 1 Tract 4 shovel test

Draiange between agricultural terraces

Shovel test profile

Dense vegitation area

Road cut looking east

Figure 9. FSA 1 Tract 4 photos

SUMMARY AND RECOMMENDATIONS

The City of Tyler is thinning timber in Forest Stewardship Area 1 at the north end of Lake Tyler West in Smith County, Texas. DETAC acquired Texas Antiquities Permit #6569 and all terms of the permit were carried out pursuant of the Texas Antiquities Code.

These tracts included ridge summits and shoulders overlooking the lake and a portion of the Prairie Creek floodplain. The archaeological survey included shovel testing of the upland portions of the tracts and a visual examination of the floodplain. All timber thinning will be more than 30 m (100 ft) from the lake shore.

Shovel testing and visual examination did not record any archaeological sites in the project area, but a lithic flake (IF-1) was found on the summit of an eroded ridge in Tract 3 and a road cut was found in Tract 4. Several modern trash piles and agricultural terraces were observed across the project area. Shovel testing around the isolated find and road cut were negative. The flake was curated at the Archaeological Laboratory at Stephen F. Austin State University. No cultural material was found in Tracts 1, 2, and 4.

The archaeological survey did not record any archaeological sites. The recovered isolated find does not suggest a substantial prehistoric or historic occupation. The historic use of the surveyed tracts was limited to agriculture and siviculture over the past 100 years. No further archaeological work is recommended for the proposed timber thinning in FSA 1. DETAC requests concurrence with a determination of “no effect” to properties listed or eligible to the NRHP for the proposed timber thinning operations in FSA 1. If any artifacts, bones, or dark greasy soils are found, then work should stop in the immediate area and both the THC and DETAC should be contacted immediately.

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APPENDIX A
SHOVEL TEST DATA

FSA 1 Shovel Test Data

Tract 1				
STNo	Depth	Color	Texture	Notes
1	50	Reddish brown	Sandy loam	
2	90	Light yellowish brown	Sandy loam	
3	50	Reddish brown	Sandy loam	
4	50	Gray/yellowsh brown	Sandy loam	
5	90	Yellowsh brown	Sandy loam	
6	50	Gray/reddish brown	Loamy sand	
7	90	Yellowsh brown	Loamy sand	
8	50	Yellowsh brown	Loamy sand	
9	60	Gray/yellowsh brown	Loamy sand	Photo
10	40	Gray/yellowsh brown	Clay loam	
11	60	Gray/reddish brown	sandy loam	
12	50	Gray/reddish brown	sandy clay loam	
13	50	Gray/reddish brown	sandy clay loam	
14	40	Gray/reddish brown	sandy clay loam	
15	60	Light brown	sandy loam	
16	90	Light brown	sandy loam	
17	40	Light brown	sandy loam	
18	50	Light yellowish brown	sandy loam	
19	70	Light yellowish brown	sandy loam	
20	40	Gray/yellowish brown	sandy loam	
21	90	Light brown	sandy loam	
22	60	Light brown	sandy loam	
23	70	Yellowish brown	sandy loam	Slope
24	90	Yellowish brown	sandy loam	Shoulder
25	80	Light brown	sandy loam	Sumit
26	90	Light brown	sandy loam	Sumit
27	30	Light brown	sandy loam	Sumit
28	30	Light brown	sandy loam	Photo
29	30	Light brown	sandy loam	Sumit
30	20	Dark brown	sandy loam	Sumit
31	90	Light brown	sandy loam	Slope
32	90	Light brown	sandy loam	
33	80	Light brown	sandy loam	
34	90	Brown	sandy loam	
35	90	Light brown	sandy loam	
36	90	Light brown	sandy loam	
37	20	Light brown	sandy loam	Slope
38	30	Light brown	sandy loam	

Tract 1				
STNo	Depth	Color	Texture	Notes
39	90	Light brown	sandy loam	
40	90	Light brown	sandy loam	
41	90	Light brown	sandy loam	
42	50	Yellowish brown/light brown	sandy loam	Saturated
43	40	Yellowish brown	sandy loam	Toeslope
44	70	Light brown	sandy loam	Toeslope
45	50	Brown	sandy loam	
46	60	Light brown/yellowish brown	sandy loam	Saturated
47	80	Light brown	sandy loam	
48	50	Light brown/yellowish brown	sandy loam	
49	40	Light brown/yellowish brown	sandy loam	
50	50	Yellowish brown	sandy loam	
51	70	Light brown	sandy loam	
52	80	Light brown	sandy loam	
53	50	Yellowish brown	sandy loam	
54	60	Brown/Yellowish brown	sandy loam	Water 20m West
55	70	Light brown	sandy loam	Water 20m West
56	70	Light brown	sandy loam	Water 20m West
57	70	Light brown	sandy loam	
58	70	Light brown	sandy loam	
59	70	Light brown	sandy loam	
60	10	Red	clay loam	
61	60	Light brown	Sandy loam	
62	20	Gray/reddish brown	Sandy loam	
63	20	Gray/reddish brown	Sandy loam	
64	30	Reddish brown	Sandy loam	
65	80	Light reddish brown	Sandy loam	Sumit
66	80	Light reddish brown	Sandy loam	Slope
67	60	Light reddish brown	Sandy loam	Toe slope
68	30	Light brown/reddish brown	Sandy loam	
69	70	Light brown	Sandy loam	
70	20	Light reddish brown	Sandy loam	
71	10	Light reddish brown	Sandy loam	
72	60	Light reddish brown	Sandy loam	
73	40	Light reddish brown	Sandy loam	
74	70	Light reddish brown	Sandy loam	
75	30	Light brown/reddish brown	Sandy loam	

Tract 2				
STNo	Depth	Color	Texture	Notes
1	90	Light brown	Sandy loam	
2	90	Light brown	Sandy loam	
3	30	Light brown	Sandy loam	
4	60	Light brown	Sandy loam	
5	80	Light brown	Sandy loam	
6	80	Light brown	Sandy loam	
7	40	Light brown	Sandy loam	
8	80	Light brown	Sandy loam	
9	80	Light brown	Sandy loam	
10	50	Light brown	Sandy loam	Photo
11	30	Light brown	Sandy loam	
12	80	Light brown	Sandy loam	
13	30	Light brown	Sandy loam	
14	60	Light yellowish brown	Sandy loam	
15	50	Light yellowish brown	Sandy loam	
16	80	Light yellowish brown	Sandy loam	
17	60	Light yellowish brown	Gravelly sandy loam	
18	70	Yellowish brown	Sandy loam	
19	50	Yellowish brown	Sandy loam	
20	60	Light brown	Sandy loam	
21	70	Light yellowish brown	Sandy loam	
22	70	Light brown	Sandy loam	
23	70	Light brown	Sandy loam	
24	80	Yellowish brown	Sandy loam	
25	90	Yellowish brown	Sandy loam	
26	60	Yellowish brown	Sandy loam	
27	60	Light yellowish brown	Sandy loam	
28	70	Yellowish brown	Sandy loam	
29	50	Light brown	Sandy loam	
30	80	Yellowish brown	Sandy loam	

Tract 2				
STNo	Depth	Color	Texture	Notes
31	70	Yellowish brown	Sandy loam	
32	70	Yellowish brown	Sandy loam	
33	60	Yellowish brown	Sandy loam	
34	40	Light brown	Sandy loam	
35	90	Yellowish rown	Sandy loam	
36	80	Yellowish rown	Sandy loam	Track 3 boundary
37	90	Yellowish rown	Sandy loam	Track 3 boundary
38	90	Yellowish rown	Sandy loam	Track 3 boundary
39	80	Yellowish rown	Sandy loam	
40	60	Yellowish rown	Sandy loam	
41	80	Reddish brown	Sandy loam	

Tract 3				
STNo	Depth	Color	Texture	Notes
2	80	Light brown	Sandy loam	
3	80	Light brown	Sandy loam	
4	70	Light brown	Sandy loam	
5	80	Light brown	Sandy loam	
6	80	Light brown	Sandy loam	
7	80	Light brown	Sandy loam	
8	80	Light brown	Sandy loam	
9	80	Light reddish brown	Gravelly sandy loam	
10	40	Light brown	Gravelly sandy loam	
11	50	Light brown	Gravelly sandy loam	
12	50	Light brown	Gravelly sandy loam	
13	80	Light brown	Sandy loam	
14	80	Light brown	Sandy loam	
15	80	Light brown	Sandy loam	
16	80	Light brown	Sandy loam	
17	60	Yellowish brown	Sandy loam	

FSA 1 Shovel Test Data

Tract 3				
STNo	Depth	Color	Texture	Notes
18	80	Light brown	Sandy loam	
19	80	Light brown	Sandy loam	
20	60	Light brown	Sandy loam	Photo
21	70	Light brown	Sandy loam	
22	40	Light brown	Sandy loam	
23	40	Light brown	Sandy loam	
24	80	Light yellowish brown	Sandy loam	
25	80	Light yellowish brown	Sandy loam	
26	50	Light yellowish brown	Sandy loam	
27	70	Light brown	Sandy loam	
28	30	Light brown	Sandy loam	Disturbed
29	70	Light brown	Sandy loam	Disturbed
30	30	Light brown	Sandy loam	
31	70	Light brown	Sandy loam	
32	50	Light brown	Sandy loam	
33	70	Light brown	Sandy loam	Flake Lv5
34	80	Light brown	Sandy loam	
35	80	Light brown	Sandy loam	
36	70	Light brown	Sandy loam	
37	50	Light brown	Sandy loam	Photo
38	60	Light brown	Sandy loam	
39	60	Light brown	Sandy loam	
40	60	Light brown	Sandy loam	
41	50	Light brown	Sandy loam	
42	50	Light brown	Sandy loam	
43	60	Light brown	Sandy loam	
44	70	Light brown	Sandy loam	
45	60	Light brown	Sandy loam	
46	30	Light brown	Sandy loam	

Tract 3				
STNo	Depth	Color	Texture	Notes
47	60	Light brown	Sandy loam	
48	50	Light reddish brown	Gravelly sandy loam	
49	40	Light brown	Sandy loam	
50	60	Light brown	Sandy loam	
51	80	Light brown	Sandy loam	
52	40	Light brown	Sandy loam	
53	60	Light reddish brown	Sandy loam	
54	10	Light yellowish brown	Sandy loam	
55	70	Reddish brown	Sandy loam	
56	40	Light brown	Sandy loam	
57	70	Light brown	Sandy loam	
58	70	Light brown	Sandy loam	
59	70	Light brown	Sandy loam	
60	30	Light brown	Sandy loam	Photo
61	70	Light brown	Sandy loam	
62	70	Light brown	Sandy loam	
63	60	Light brown	Sandy loam	
64	30	Light brown	Sandy loam	
65	20	Light brown	Sandy loam	
66	30	Light brown	Sandy loam	
67	40	Yellowish brown	Sandy loam	
68	60	Light brown	Sandy loam	
69	50	Light brown	Sandy loam	
70	70	Light brown	Gravelly sandy loam	
71	60	Light brown	Gravelly sandy loam	Trash
72	40	Yellowish brown	Gravelly sandy loam	
73	60	Yellowish brown	Sandy loam	
74	70	Yellowish brown	Sandy loam	
75	40	Light brown	Sandy loam	

Tract 4				
STNo	Depth	Color	Texture	Notes
1	20	Light brown	Sandy loam	
2	20	Light brown	Sandy loam	
3	40	Light brown	Sandy loam	
4	50	Light brown	Sandy loam	
5	30	Light brown	Sandy loam	
6	30	Light brown	Sandy loam	
7	30	Light brown	Sandy loam	
8	40	Light brown	Sandy loam	
9	40	Light brown	Sandy loam	
10	30	Light brown	Sandy loam	
11	20	Light brown	Sandy loam	
12	40	Light brown	Sandy loam	
13	10	Light brown	Sandy loam	
14	50	Light brown	Sandy loam	
15	30	Light brown	Sandy loam	
16	50	Light brown	Sandy loam	
17	40	Light brown	Sandy loam	
18	40	Light brown	Sandy loam	
19	50	Light brown	Sandy loam	
20	40	Light brown	Sandy loam	
21	50	Light brown	Sandy loam	
22	30	Light brown	Sandy loam	Photo

Tract 4				
STNo	Depth	Color	Texture	Notes
23	30	Light brown	Sandy loam	
24	20	Light brown	Sandy loam	
25	10	Light brown	Sandy loam	
26	30	Light brown	Sandy loam	
27	30	Light brown	Sandy loam	
28	20	Light brown	Sandy loam	
29	50	Light brown	Sandy loam	
30	40	Light brown	Sandy loam	
31	30	Light brown	Sandy loam	
32	30	Light brown	Sandy loam	
33	30	Light brown	Sandy loam	
34	30	Light brown	Sandy loam	
35	30	Light brown	Sandy loam	
36	50	Light brown	Sandy loam	Trash 30 m diameter
37	30	Light brown	Sandy loam	
38	20	Light brown	Sandy loam	
39	20	Light brown	Sandy loam	
40	20	Light brown	Sandy loam	
41	40	Light brown	Sandy loam	
42	30	Light brown	Sandy loam	
43	40	Light brown	Sandy loam	

APPENDIX B
PREVIOUSLY RECORDED
ARCHAEOLOGICAL SITES AND SURVEYS