Cultural Resource Survey
ETC Texas Pipeline, LTD
Jackson County Plant Site
Jackson County, Texas

Report
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ABSTRACT

During the middle of July 2011, TAS Inc., archeologists Billy Turner and Teresa Nugent conducted a pedestrian survey and shovel testing of ETC Texas Pipeline, Ltd (ETC) Jackson County Plant site in northeastern Jackson County, Texas. The survey area encompassed 140 acres at the corner of County Roads 259 and 260, 4.3 miles north of Ganado. The majority of the property is agricultural rice fields, with the western 40 acres comprised of fallow wooded area. A total of 55 shovel probes was dug in the areas surveyed with the highest attention directed outside of the planted rice field. An irrigation pump and a small cluster of bricks west of the access road to the property, 500 ft north of CR 260, are modern. No other structural remains or household debris were identified. No previously recorded sites, State Archeological Landmarks, or National Register of Historic Places properties will be affected by construction so cultural resources pose no impediment to the planned development.

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INTRODUCTION

In July of 2011, TAS Inc archeologists Billy Turner and Teresa Nugent surveyed the proposed ETC Texas Pipeline Ltd (ETC) Jackson County Plant site, a 140-acre tract located 4.3 miles north of Ganado, Texas in northeast Jackson County (Fig. 1). The proposed project includes 40 acres of fallow wooded area and 100 acres of agricultural rice fields at the northeast corner of County Roads 259 and 260 (Fig. 2). At the request of Gremminger and Associates, Inc, acting as agents for ETC, the 140-acre plant site was examined for cultural resources. A total of 55 shovel tests was dug across the surveyed area. An irrigation pump and a small scatter of bricks and modern trash are considered a modern dump and not culturally important. No other historic or prehistoric remains were identified so significant cultural resources will not be adversely affected by the planned construction.

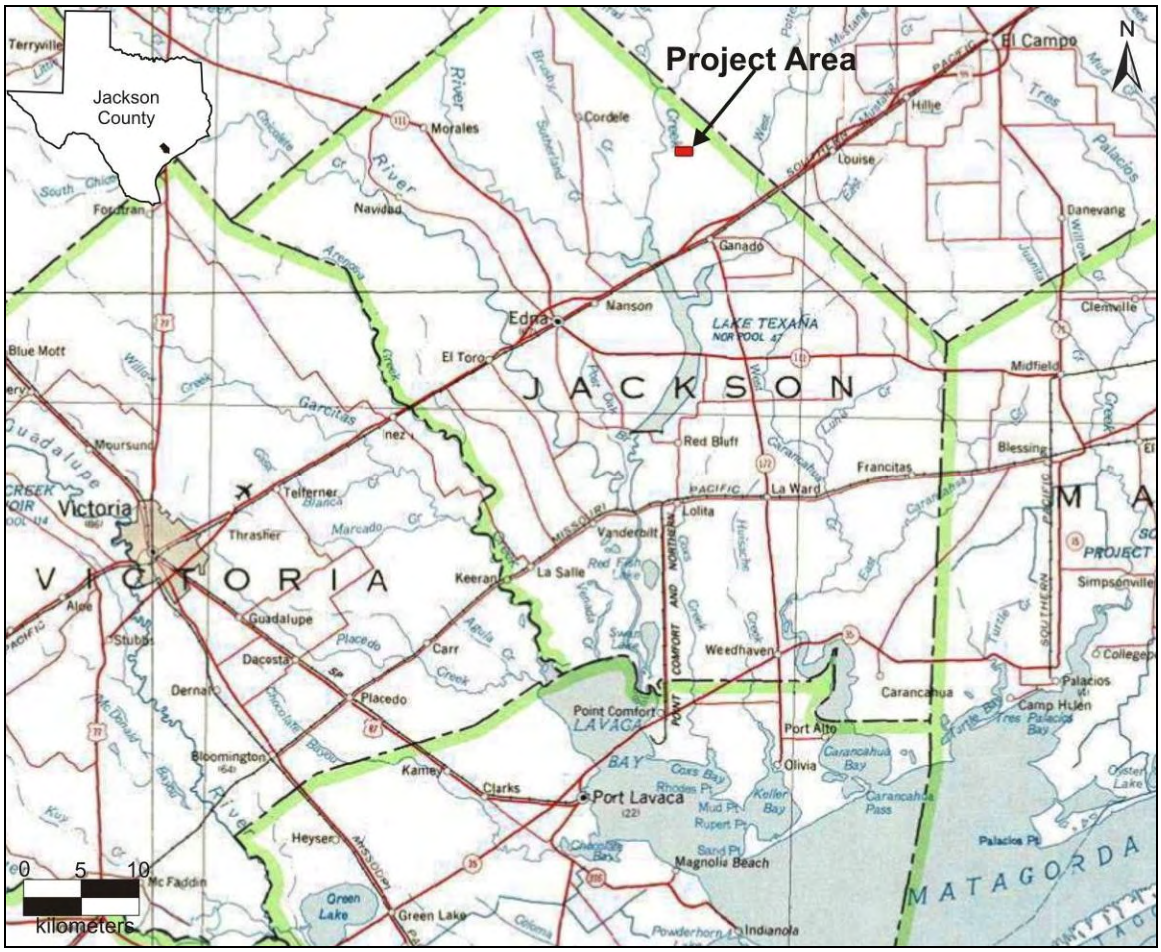

Figure 1. General location map of project area (source: National Geographic Topo).

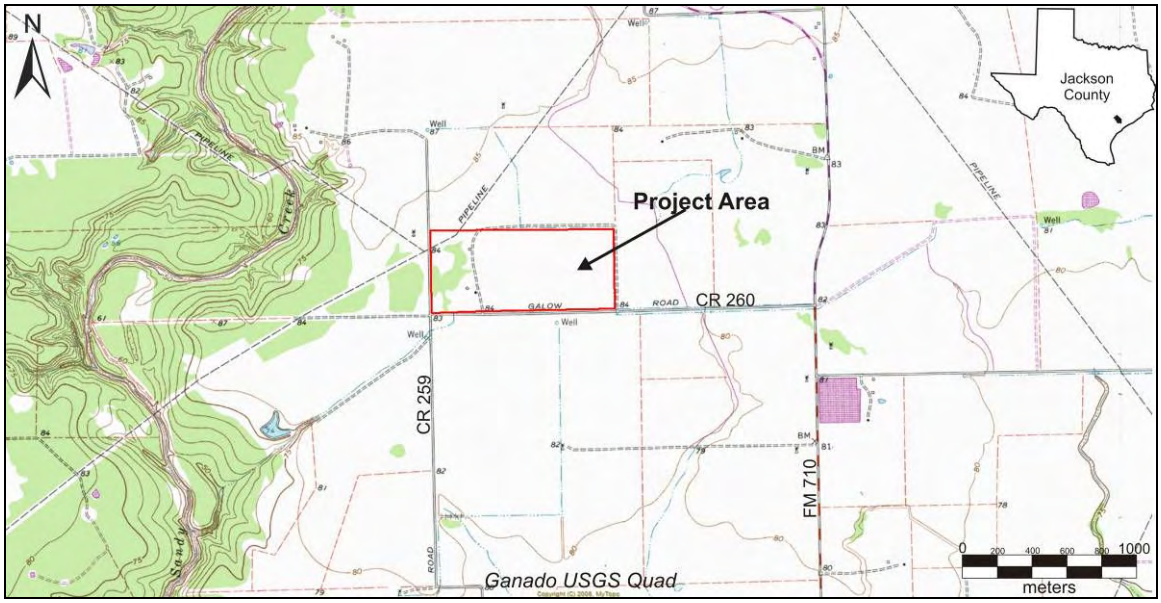

Figure 2. Project Map (source: Terrain Navigator).

This cultural resource assessment consisted of an archival search, an intensive pedestrian survey augmented by shovel testing, and preparation of a report suitable for review by Texas Historical Commission as consultant to the Environmental Protection Agency. The investigations were performed in compliance with the National Historic Preservation Act of 1966 (NHPA), as amended (16 U.S.C. 470 et seq., P.L. 89-665, 80 Stat. 915), and the implementing regulations 36CFR800. They were also intended to provide information on cultural resources for an environmental impact statement, as required by the National Environmental Policy Act (NEPA) of 1969; the National Environmental Policy Act of 1974 (PL 81-190, 83 Stat. 915, 41 USC 4321, 1970); the Archaeological and Historic Preservation Act of 1974 (PL 93-291); the Secretary of the Interior's Standards and Guidelines for Archaeology and Historic Preservation (48 Fed. Reg. 44716-42, Sept. 29, 1983); the National Register Bulletin Series of the National Park Service; and the Archaeological Resources Protection Act of 1979.

ENVIRONMENTAL CONTEXT

The project area is located in the Gulf Coast Prairies and Marshes Natural Region and the Texan Biotic province (Fig. 3). The Texan province is a broad ecotonal area between the forested regions of eastern Texas and the grasslands

of western and north Texas. The area is characterized by level to gently rolling or hilly uplands that support mixed shrubs and grasses, while the alluvial valleys are often mixed deciduous hardwood forests (Blair 1950:100). Common trees are post oak, blackjack oak, eastern juniper, hackberry, and yaupon. Native grass species include little bluestem, Indiangrass, switchgrass, and Texas wintergrass. Common mammals are opossum, fox squirrel, eastern mole, Louisiana pocket gopher, fulvous harvest mouse, hispid cotton rat, eastern cotton tail and swamp rabbit, black-tailed jackrabbit, and deer mouse. The project area is a mix of mid-growth woods and agricultural rice fields (Fig. 4). The terrain is relatively flat with elevations ranging from 82-84 ft amsl (Terrain Navigator).

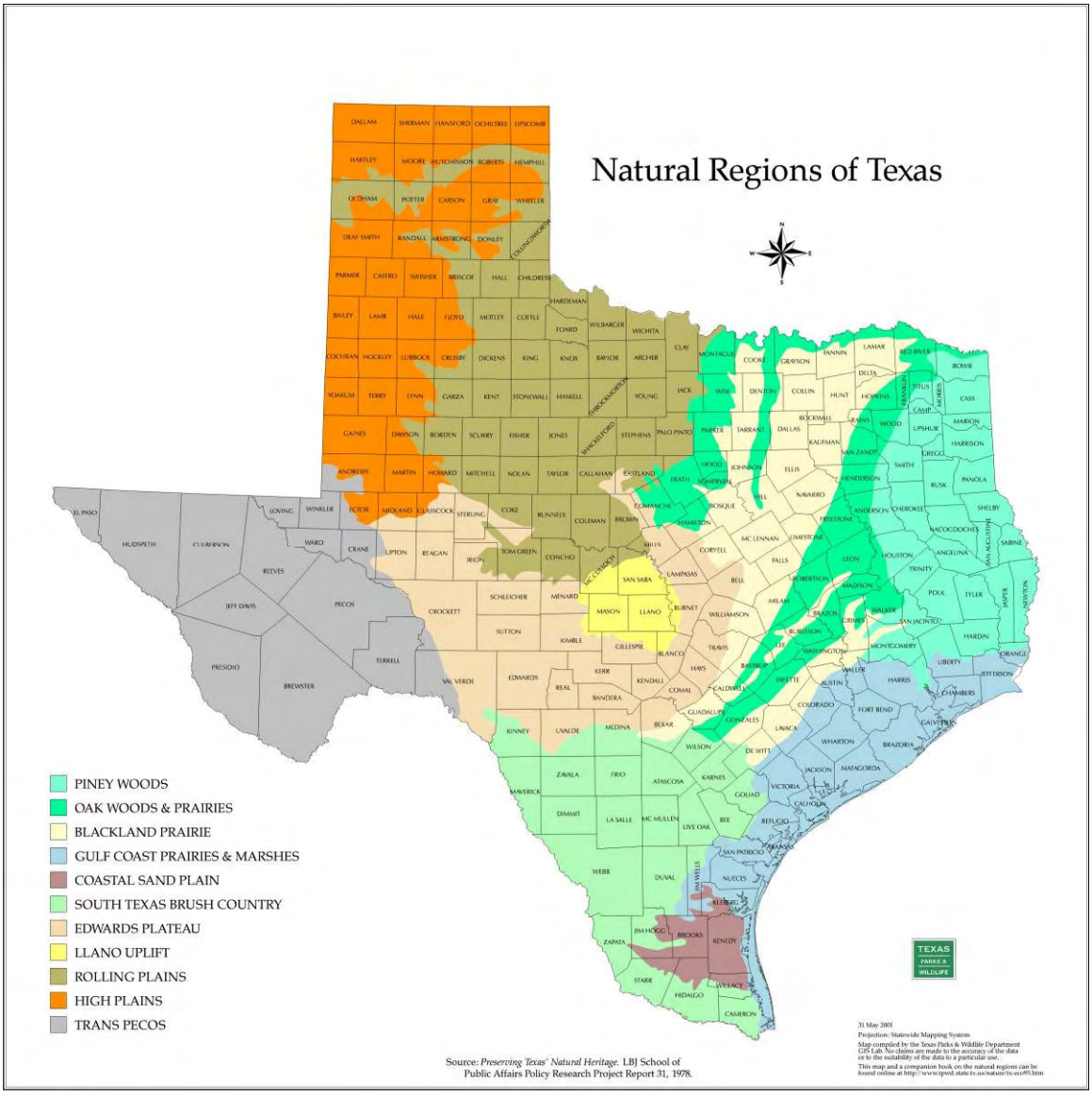

Figure 3. Natural Regions of Texas (source: Texas Parks and Wildlife).

Figure 4. Aerial of project area showing rice field and mixed woods (source: Google Earth).

Poor soil conservation practices have resulted in the depletion of top soil across much of the area with exposed surface clays across the rice field and shallow sandy loam over clay across the remainder. Many of the soils originally mapped by the NRCS had pronounced A-horizons over distinct clays. It is thus particularly noteworthy that A-horizons across much of the survey area were virtually non-existent, indicating recent disturbance and breakdown of topsoil.

The project area is within the Western Gulf Coastal Prairies and Marshes where relatively flat landforms alternate with irregular plains. The topographic variability is formed by the differences in thickness and composition of a series of sand ridges and clay swales produced by ancient marine and shore-zone processes in which the eroded older Cretaceous deposits were successively overlain by younger Mesozoic and Cenozoic marine and alluvial sediments. Soils are poorly to moderately drained with a moderate to high shrink-swell potential (McNab and Avers 1994; Spearing 1991). Soils in the project area originate in the Lissie Formation. The alluvial soils include meander belts, levees, and canals and are primarily flood-basin mud deposits. These deposits form a deltaic plain that parallels the Gulf Coast dipping beneath the Beaumont Formation which overlies deposits of the Pliocene and early Pleistocene Willis Formation (Schweitzer n. d.) The project area is flat and is made up primarily of Dacosta

sandy clay loam across the rice field and Edna fine sandy loam over clay across the wooded section to the west (NRCS/USDA) (Fig. 5).

The area is bordered on three sides by irrigation canals and the rice field is frequently inundated. While the wooded area is slightly higher, 84 ft as opposed to 83 ft across the rice fields, the soils are slightly different. The rice field is made up of sticky 10YR 3/1 very dark gray clay while the wooded area contains 10YR 5/3 brown sandy loam from 10-50 cmbs over 10YR 3/1 very dark gray clay. The trees in the wooded area are less than 50 years old and appear to have overgrown pasture or farm land.

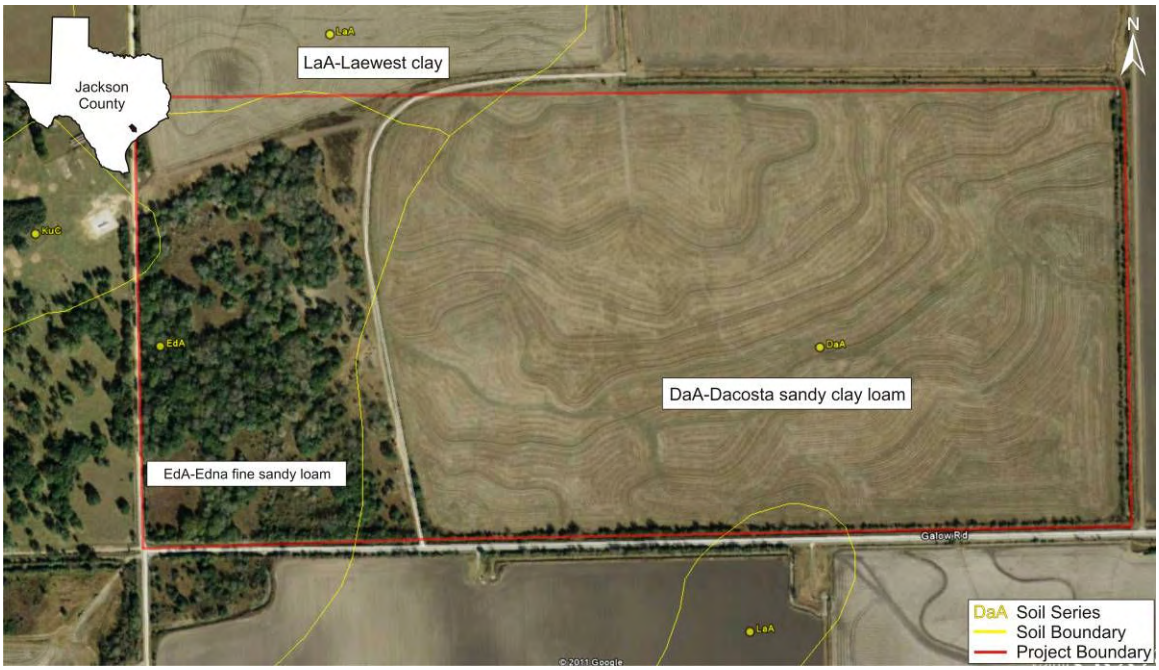

Figure 5. Mapped soils across the project area (source: Google Earth).

CULTURAL CONTEXT

The prehistoric inhabitants of the Gulf Coastal Plains and Marshes were nomadic hunter-gathers who migrated seasonally exploiting various resources. Interaction with groups from nearby regions is evident in shared cultural traits and technologies, such as the dispersal of point types and ceramic styles across neighboring areas. Open camp sites are the most common archeological site type. These can be shallow or deeply buried and are usually characterized by clustered cultural material including burned rocks, lithic debris, hearths or middens. The sites are typically small and are located along riparian areas

adjacent to streams or rivers. These strips frequently represent single, thin occupational deposits that rarely overlap.

The general chronology proposed by Story (Story et al. 1990) is adequate for this project since no materials relevant to the reconstruction of the region's culture history were found. The general quadripartite system used throughout Texas is modified to accommodate the shift to an agricultural economy and sedentism. The Paleoindian period, from 9500 to 7000 B.C., is poorly represented in this area as no sites of this period have been recorded near the project area. The long Archaic period, from 7000 B.C-700 A.D., was the domain of people who practiced a hunting and gathering economy that reached its peak in the Late Prehistoric period (700-1600 A.D.) with the adoption of ceramic technology and the bow and arrow (Turner and Hester 1993). The Historic Period (ca A.D. 1600 - Present) marked a decline in native populations and an increase in Anglo settlement.

Jackson County is located in an area that has been the site of human habitation for several thousand years. Continuous human occupation has been documented in the Guadalupe River basin from the late Paleo-Indian period through the early historic period (Baumgartner and Vollentine n.d.). Group interactions were increasing evident over time and changes were underway with projectile points such as the Darl bridging the gap between larger dart points and smaller arrow points (Texas Beyond History). The earliest inhabitants of the area were the Karankawa Indians who occupied the areas along Matagorda Bay. Lipan Apache and Tonkawa tribes moved into the region in later times (Hardin n.d.).

Some sources suggest that the earliest Europeans to set foot in the area may have been survivors of Pánfilo Narváez's expedition of 1528, most notably Álvar Núñez Cabeza de Vaca. The earliest documented exploration of the region, however, was led by the Frenchman René Robert Cavelier, Sieur de La Salle, who in 1685 landed on the coast and reportedly named the Lavaca River Les Veches ("the cattle") because of the number of buffalo he saw grazing on its banks (Long n.d.). After San Fernando de Béxar and La Bahía became the focus of Spanish mission activity, the area around present Jackson County was largely

neglected (Hardin n.d.) Jackson County was originally settled by six families of Stephen F. Austin's Old Three Hundred. Many of the early colonists came from Alabama and the municipality became known as the "Alabama Settlement" (Hardin n.d.). Although there were no major attacks on the settlers by local Indians, there were frequent night raids for supplies. The raids became so frequent in 1832 that a military skirmish resulted along the banks of Sandy Creek (Hardin n.d.). Jackson County was formed from the Alabama Settlement in 1836.

Regional Cultural Resources

Jackson County has over 230 recorded archeological sites of which only one has been designated a State Archeological Landmark. The Navidad River Wreck (41JK9) is a mid 19th-century shipwreck in the Navidad River, 3 miles northeast of Vanderbilt (Atlas). This site is also listed on the National Register of Historic Places as is the Texana Presbyterian Church in Edna, Texas. Both National Register sites are greater than ten miles distance from the Jackson Plant and neither would be affected by the Plant's construction or operation.

There are no recorded archeological sites within 1 mile of the project area. The closest is 41JK34 which is plotted 4.2 miles to the south near Ganado. No more specific information had been entered into the Texas Historical Commission's archeological database (Atlas). That site will not be affected by the proposed project.

METHODS

Prior to field work, the county site files and maps on the Texas Historical Commission's (THC) Archaeological Site Atlas were searched for previously recorded site locations and references to archeological surveys undertaken in the vicinity of the proposed pipeline. Pedestrian survey of 140 acres (0.219 sq miles) was augmented by with 55 shovel tests dug in areas that contained topsoil. Transects were spaced approximately 50 m apart with shovel tests placed at approximate 100 meter (m) intervals with the distance between probes shortened in high probability areas. "High probability" was defined as areas with the highest potential for cultural material. The shovel tests, typically 30 centimeter (cm) in

diameter, were excavated to a depth of one meter where testable soils were encountered, with most ending in the 30-50 cmbs range. Dense alluvial clays truncated shovel tests. Shovel probe matrix was sifted through ¼-inch wire mesh screen. Shovel test locations were recorded with hand held GPS units and transferred to topographic maps (Appendix).

SURVEY RESULTS

Dominant local land use is rice farming which entails clearing, plowing, and planting. Terracing, berm and irrigation ditch construction have also had a major impact. The lack of topsoil across much of the survey area suggests significant manipulation and erosion which has resulted in exposed clays. Burn and push piles were also evident. Maintained agricultural fields suggest repeated alteration of the area. Shovel tests confirmed this as wood and leaf litter were scattered throughout the soil profile or exposed clay at the surface.

A modern irrigation pump, a small scatter of bricks and assorted modern trash and a collapsed storage shed occupy an area approximately 25 m square west of the rice field and access road (Fig. 6). The irrigation pump is recent and appears to have been in working order within the past five years (Fig. 7).

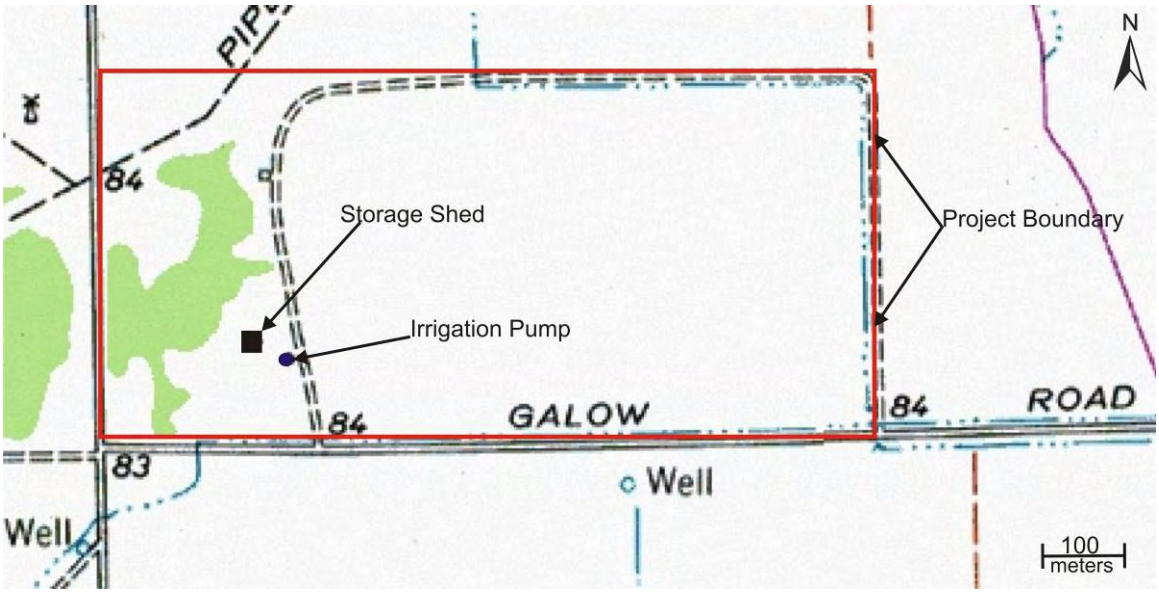

Figure 6. Shed and pump location map (source: Terrain Navigator).

The bricks were red with "Ferris" inscribed into them (Fig. 8). Ferris Press Brick Company was incorporated in April, 1901 in Ferris, Texas, north of Waxahachie, and by the 1920's was producing 350,000 bricks each day with a

capacity to produce 500,000. Bricks were shipped via both rail and wagon. The community of Ferris had six brick companies which consolidated in 1923 to form the Ferris Brick Company which was taken over by the Acme Brick company in 1935 (Dunn 2003).

Figure 7. Modern irrigation pump.

Figure 8. Ferris Brick.

The storage shed is located 40 m northwest of the irrigation pump and measured approximately 8 m by 10 m (see Fig. 6). The roof and sides have collapsed (Fig. 9). The structure was constructed of corrugated metal and milled lumber with modern nails. The floor was earthen and it appears to have housed farm equipment.

Additionally, some metal drums as well as modern plastic bottles and trash were strewn across the property. This debris is modern. None of the modern material is historically significant and no prehistoric sites were found. Therefore, cultural resources pose no impediment to the planned construction.

Figure 9. Collapsed storage shed.

CONCLUSIONS

At the request of Gremminger and Associates, Inc, acting as agents for ETC, a 140-acre (0.219 sq miles) tract was examined for cultural resources. A total of 55 shovel probes was dug with special attention given to the wooded area to the west. The rice field offered excellent surface visibility and the absence of top soil

exposing surface clay negated the need to dig shovel tests across this area. An irrigation pump, scattered brick, trash and debris as well as a collapsed storage shed were noted. All of this material is modern. Construction of the ETC Jackson Plant will not adversely affect significant cultural resources.

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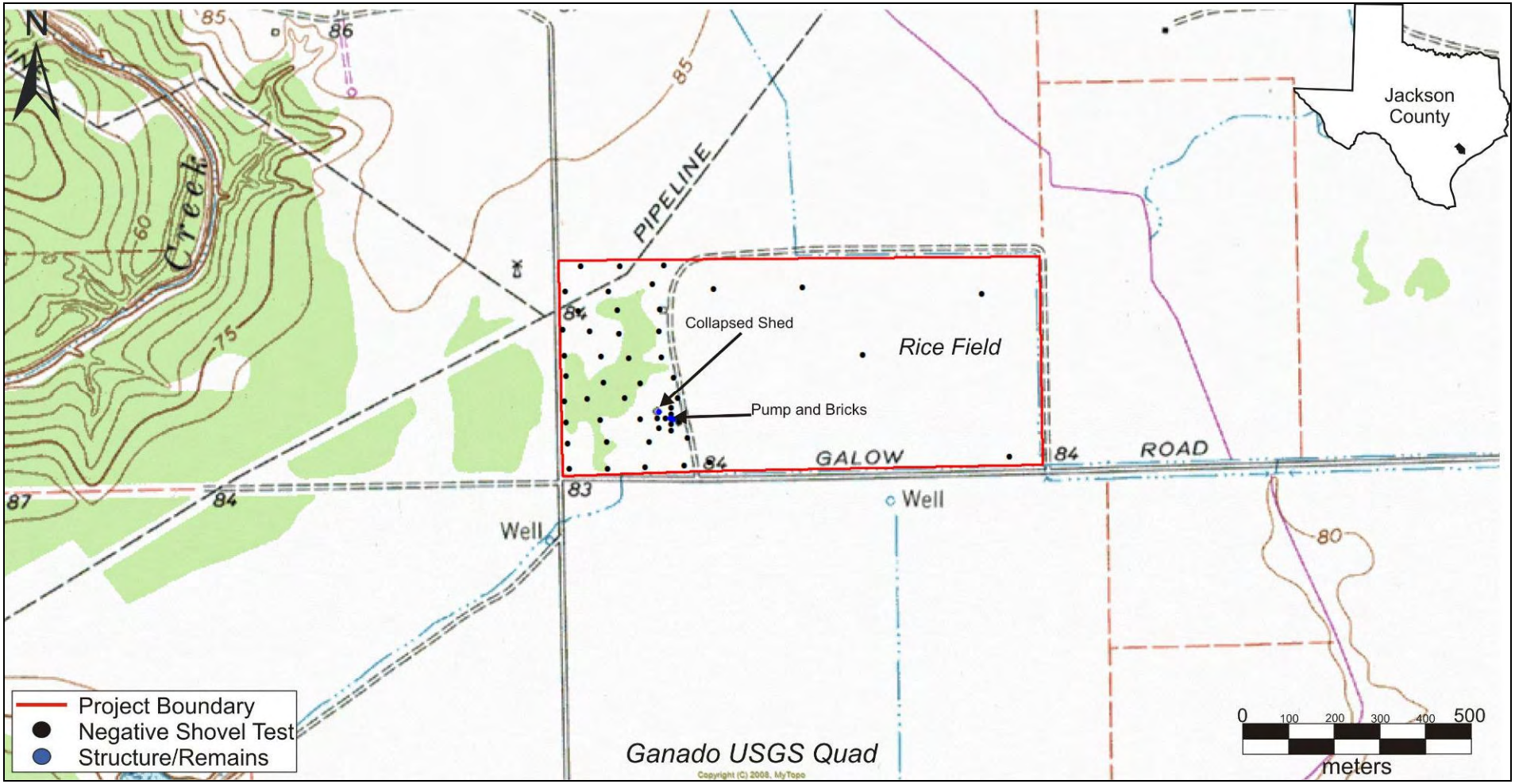
APPENDIX



Map 1. Shovel test locations (source: Terrain Navigator).