AN ARCHAEOLOGICAL SURVEY FOR THE UPPER LEON RIVER MUNICIPAL WATER DISTRICT PROPOSED WASTEWATER TREATMENT SYSTEM IMPROVEMENTS PROJECT IN EASTERN COMANCHE COUNTY, TEXAS

Antiquities Permit 3220

by

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BVRA Project Number 03-26

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ABSTRACT

An archaeological evaluation of approximately 4 miles of proposed sewer force main and a proposed wastewater treatment plant at a 20 acre tract in eastern Comanche County, Texas was performed by Brazos Valley Research Associates (BVRA) in October 2003 for the Upper Leon River Municipal Water District (MWD) under Antiquities Permit 3220. This project will be funded by the United States Department of Agriculture, Rural Utility Services (RUS). The Principal Investigator was William E. Moore, and the Project Archaeologist was Edward P. Baxter. A survey consisting of surface inspection and shovel testing did not locate any prehistoric sites. A 20 acre tract, the site of the proposed wastewater treatment plant, is part of a former large farmstead, and this area had been used as pasture for cattle. Within this tract, a trash dump containing modern glass bottles, jars, and tin containers was found in the southeast corner. At the time of this survey a windmill and stock tank were present in the northeast part of the tract. No significant archaeological sites were found and no artifacts were collected that warrant curation. It is recommended that construction be allowed to proceed as planned with no further work by a professional archaeologist. Copies of the report are on file at the Texas Historical Commission, Archeology Division; Texas Archeological Research Laboratory; BVRA; and the Upper Leon River MWD.

ACKNOWLEDGMENTS

BVRA is appreciative of the following individuals who participated in this project. Mark McHan, Senior Project Geologist, of Enprotec, Inc. provided maps and logistical support. Gary Lacy, General Manager of the Upper Leon River MWD in Comanche, Texas, escorted the field crew to the areas to be surveyed and answered our many questions. Edward P. Baxter is thanked for his part in the field survey. Debra L. Beene at the Texas Historical Commission, Archeology Division, served as the reviewer for this project. Allegra Azulay, Records File Search Assistant at the Texas Archeological Research Laboratory (TARL) in Austin, Texas, conducted the background search for previously recorded sites in the project area. Figure 2 was prepared by Edward P. Baxter, and the remaining figures were drafted by Lili Lyddon of L.L. Technical Services in North Zulch, Texas.

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INTRODUCTION

BVRA was retained by the Upper Leon River MWD in Comanche, Texas to conduct a cultural resources survey of approximately four miles of proposed sewer force main and a proposed irrigation site of 20 acres in eastern Comanche County, Texas (Figure 1) for a total of 27 acres. The project area is depicted on the 7.5' United States Geological Survey topographic map Comanche (Figure 2). This map was prepared in 1969 (map number 3198-344).

The Upper Leon River MWD proposes to improve the water quality for residents in rural Comanche County by adding a 2 inch and 3 inch sewer force main to an existing water system, construction of a lift station, and a new wastewater treatment plant (20 acres) to accommodate residents in rural Comanche County. In addition, additional changes may be made to an existing wastewater treatment plant. A review of the proposed improvements by the Texas Historical Commission (THC), Archeology Division, resulted in the decision to have a professional archaeologist survey the water crossings and associated terraces as well as the upper and lower terraces of Proctor Lake along the route of the proposed sewer force main, the site of the proposed lift station, and the areas of proposed new disturbance at the existing wastewater treatment plant. The site of the proposed wastewater treatment plant was not selected by the THC for survey.

The project area is located in a portion of the county known to contain significant archaeological sites. Because of this archaeological potential, a cultural resource study by professional archaeologists was warranted according to Section 106 of the National Historic Preservation Act. Since the Upper Leon River MWD is considered to be a political subdivision of the State of Texas, an Antiquities Permit was required, and permit 3220 was issued to BVRA for this project. The project number assigned by BVRA is 03-26. The field survey was conducted on October 28, 2003 by William E. Moore and Edward P. Baxter.

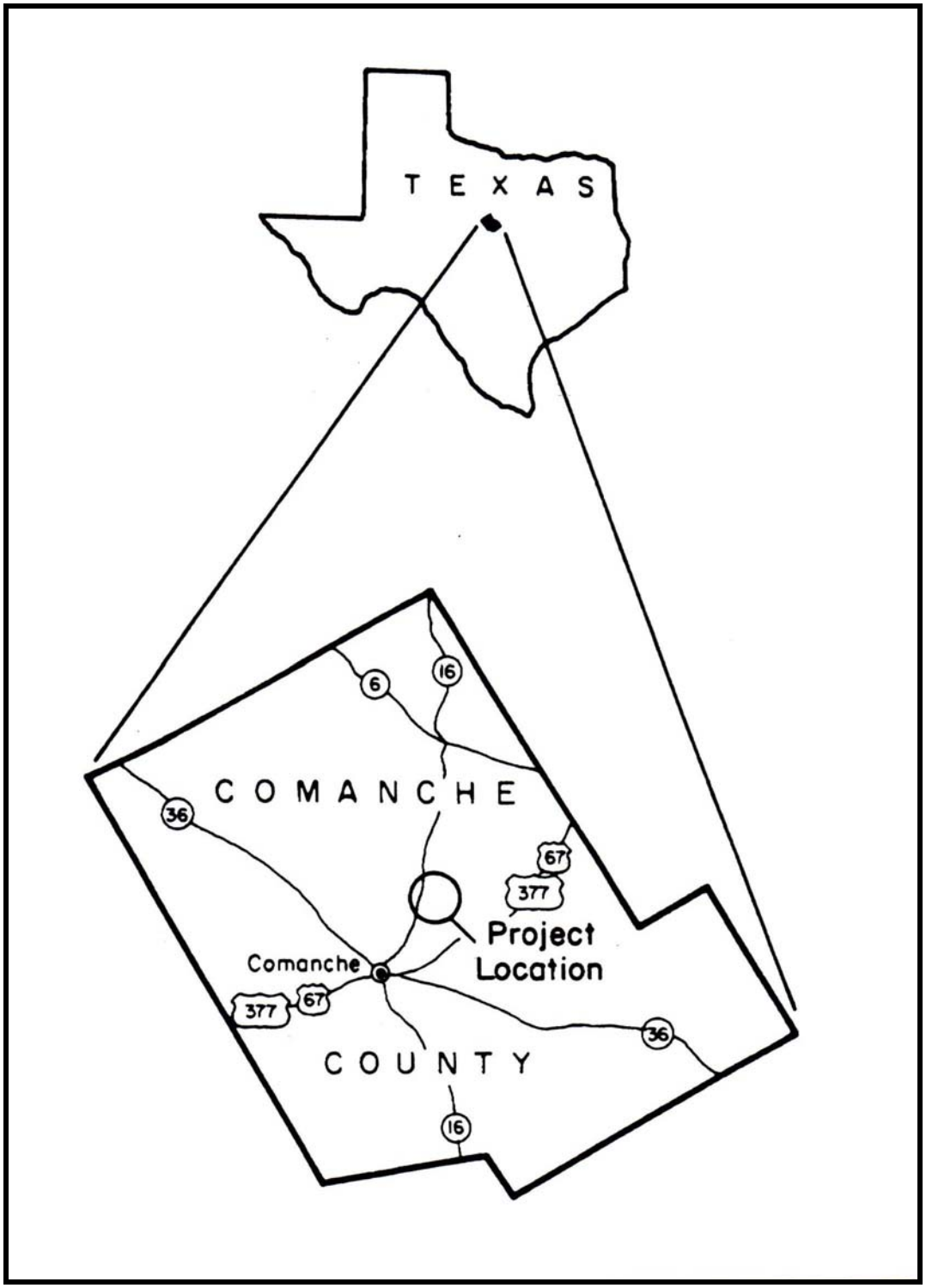

Figure 1. General Location Map

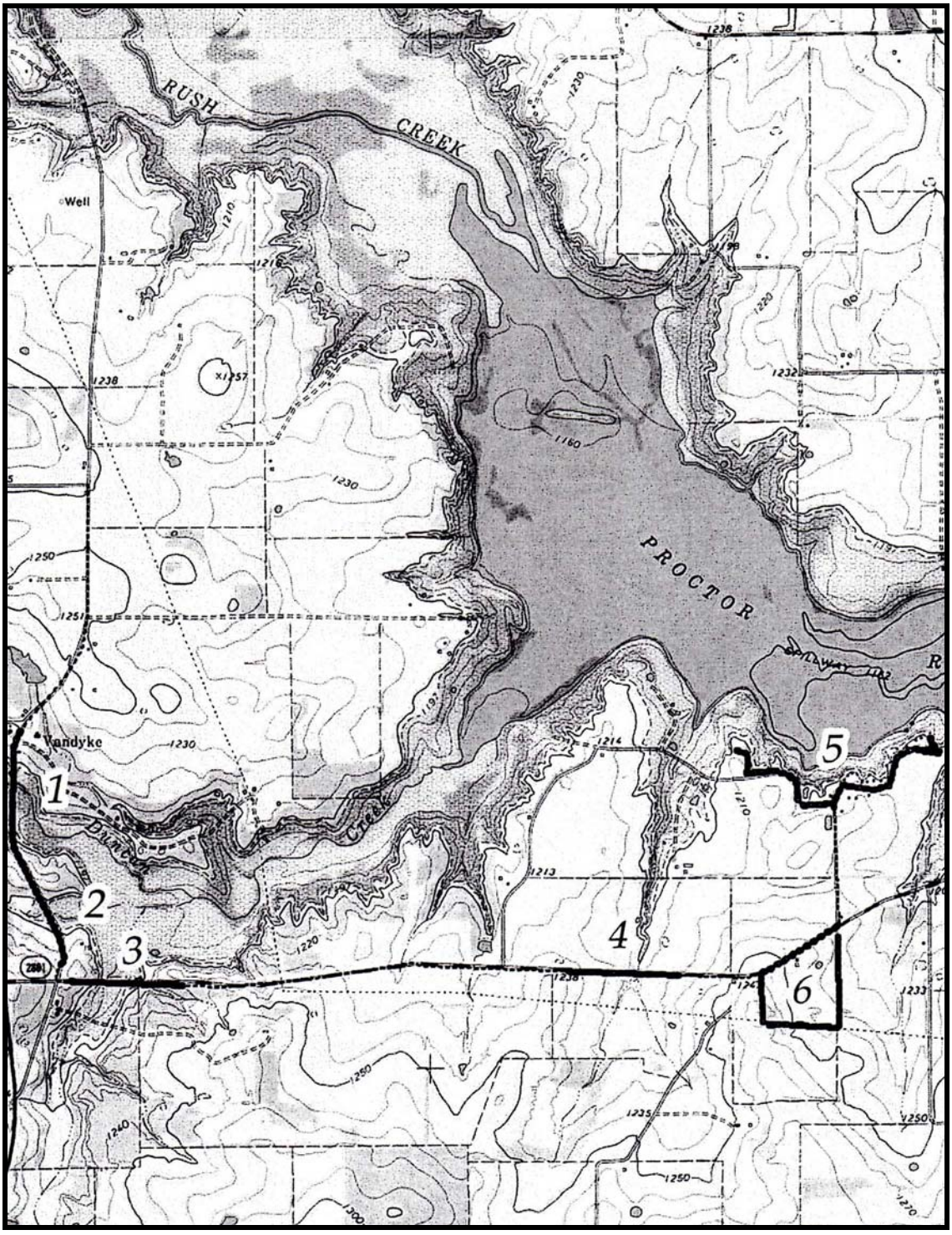

Figure 2. Areas Surveyed on Topographic Map

ARCHAEOLOGICAL BACKGROUND

Comanche County is located in the North-Central Cultural-Geographical region of Texas as defined by Biesaart et al. (1985:Figure 15). In 1985, when the statistical overview was compiled, there were 77 recorded archaeological sites in the county. At the time, this figure represented 2.88% of the region and .38% of the state. Comanche County was tied for 13th in the state with Cooke County. The vast majority of sites recorded in 1985 were identified as General Archaic (n=25). Late Prehistoric sites were second (n=8). Only two sites in the county were regarded as Paleoindian. Site condition in the county is a major problem as 76 are listed as erosion disturbed, 33 as dispersed, and 12 as potholed/surface collected. Features such as hearths (n=8) and burned rock (n=13) have been reported, and 1 burial was known in 1985 (Biesaart 1985:124). At the time of this survey, 95 sites had been recorded in Comanche County.

Although small area archaeological surveys (mainly negative) have been conducted in the county, two endeavors stand out as most relative to this project. These are Proctor Reservoir by The University of Texas at Austin (Jelks and Tunnell 1960) and Rush Creek Watershed by Texas A&M University (Whitsett and Shafer 1975; McNatt 1978).

In 1959, archaeologists from The University of Texas at Austin examined the area to be affected by the Proctor Reservoir as part of the nationwide Inter-Agency Archeological Salvage Project. This reservoir was formed by water from the Leon and Sabanna Rivers and Duncan and Rush creeks. This study represents an end to a long hiatus in scientific archaeological surveys and excavation in the general area (McNatt 1978:21), and is the first major study in Comanche County. In all, 40 archaeological sites were identified and recorded. Most of the sites were shallow and extensively damaged by plowing and erosion. Two sites (41CJ2 and 4CJ23) were considered to be worthy of additional work. In 1963, these sites were excavated by the Texas Archeological Salvage Project (TASP) under the supervision of LeRoy Johnson, Jr. (Prewitt 1964). Both sites were found to contain numerous milling stones in the lower levels and materials of Edwards Plateau Aspect, Central Texas Aspect, and Henrietta Focus association in the upper levels. Physical mixing and the shallowness of the cultural remains made it difficult to separate the components except to say that there is a milling stone occupation below a projectile point occupation (Prewitt 1964:185).

In 1975, members of the Anthropology Laboratory, Texas A&M University examined the site of three proposed floodwater retarding structures in northwest Comanche County. Although this study was carried out without the benefit of shovel testing (Edward P. Baxter, personal communication), 28 sites were identified and recorded. The authors state that, at the time of their work, most of the major source of knowledge regarding the archaeology of Comanche County was the previous work at Proctor Reservoir (Whitsett and Shafer 1975:5). With two exceptions, the sites found were lithic scatters.

Also present in the survey area are two small rock shelters and a burned rock midden. Diagnostic artifacts found at these sites suggest an occupation later than 1000 A.D.). Earlier artifacts might have been present at one time. However, they might have been missed due to a limited research design or lost through natural forces such as erosion. Five sites were recommended for future work. These include three open sites (41CJ48, 41CJ69, and 41CJ71), a burned rock midden (41CJ66), and a rock shelter (41CJ62).

Three of the sites recorded during the Rush Creek survey and recommended for testing were assessed by archaeologists from Texas A&M University in 1977 (McNatt 1978). Sites 41CJ69 and 41CJ71 are open campsites with thin lithic scatters on the surface and the upper 10-20 cm. Considerable disturbance was evident at both sites, and neither was recommended for further work or inclusion to the National Register of Historic Places. Site 41CJ62 is a rock shelter with an undisturbed, stratified deposit over 120 cm deep containing a variety of well preserved cultural remains. This site was recommended for further work and nomination in the National Register of Historic Places.

The above-mentioned sites and investigations indicate that archaeological sites in shallow soils are common in the region. Many of the sites are simply surface scatters and are not significant. This is illustrated by sites 41CJ69 and 41CJ71 that were not recommended for further work. The rock shelter (41CJ62) is an indication that the bluffs and overhangs were occupied and can contain stratified deposits. These sites are worthy of additional work.

METHODS

Prior to entering the field a records check for previously recorded sites in the project area and vicinity was conducted by Allegra Azulay, Records File Search Assistant at TARL. Following a review of the project area as depicted on the topographic map Comanche and a discussion with the project reviewer, it was decided that six areas should be examined during this project. These are Area 1 (creek crossing and associated upland and lower terraces); Area 2 (creek crossing and associated upland and lower terraces); Area 3 (creek crossing and associated upland and lower terraces), Area 4 (creek crossing and associated upland and lower terraces); Area 5 (upland ridge overlooking Proctor Lake); and Area 6 (uplands and gradual slopes at the 20 acre plant site). In the field it was decided prudent to examine the area between the two segments. As a result, areas 1 and 2 are contiguous. These five areas are depicted in Figure 2.

Each creek crossing and associated terraces were visited by the field crew who conducted a surface inspection of both sides of the road and both banks of the creek (including terraces). Shovel tests were excavated in the least disturbed areas. Field notes were taken, and a digital camera was used to photograph some of these areas. Areas 2 and 4 were found to be greatly disturbed and were not shovel tested. They had been disturbed through cut and fill activities associated with road construction. A careful inspection of the eroded and scraped surface was made to look for the remnants of an archaeological site that may have been affected by the road construction. Areas 1 and 3 were less disturbed; therefore, they were shovel tested. On a high ridge overlooking Proctor Lake is Area 5. The water line will be placed in the very narrow right-of-way (ROW) in a residential area with well-maintained yards. A surface inspection revealed clay at the surface in much of this area as well as buried utilities. No shovel tests were considered necessary in Area 5. The 20 acre tract is the least disturbed area examined. This is a pasture that is currently idle. The entire area was walked and ten shovel tests were excavated on the high ground and areas closest to the creek. All earth excavated through shovel testing was screened using 1/4" hardware cloth. In all, 15 shovel tests were dug, 10 in the 20 acre tract and 5 in areas 1 and 3. Specific data for each shovel test appear in Appendix I, and the approximate locations of the tests are depicted on the topographic map in Appendix II. In the southeast corner of the 20 acre tract a small trash dump consisting of modern screw-top bottles and jars and a few tin cans was observed. These common artifacts were not collected, and the area was not recorded as a historic site.

RESULTS AND CONCLUSIONS

The TARL search revealed no previously recorded prehistoric sites within 1/2 mile of any segment of the project area. No prehistoric sites were found in the project area as a result of this survey. A small trash dump containing modern screw-top bottles and jars and a few tin cans, was found within the 20 acre tract where a waste water treatment plant is proposed. The six areas examined are discussed in detail below.

Area 1 consists of the creek crossing and associated terraces on both sides of the main channel of Duncan Creek (Figure 2), all of which were surveyed. Two shovel tests on the west side of a County Road 410 within the highway ROW revealed an exposed surface of rock and caliche. Much of the area within the ROW has been disturbed through road construction. A thorough surface inspection was conducted on both sides of the road ROW, and no cultural materials were observed. Any site in this area would be restricted to the surface and would have been destroyed during road construction. Within the small community of Vandyke there is a historic church (Zion Hills Baptist) on the west side of the road, but it is out of the project area.

Area 2 consists of the creek crossing and associated terraces on both sides of the main channel of Duncan Creek and a tributary of Duncan Creek to the (Figure 2), all of which were surveyed. The east side of County Road 410 is on a slope, and the west side has been cut away for road construction. A thorough surface inspection was conducted of the road ROW, and no cultural materials were observed. Any site in this area would be restricted to the surface and would have been destroyed during road construction. Surface visibility was estimated at 80%. Shovel testing was not necessary.

Area 3 consists of the creek crossing and associated terraces on both sides of a tributary of Duncan Creek and west of the main channel of Duncan Creek (Figure 2), all of which were surveyed. The only high ground in the vicinity if well outside the ROW. Three shovel tests (1-3) revealed shallow soils ranging from 10-30 cm before encountering clay. This is a very disturbed area. On the north side of County road 2861 (west of Duncan Creek), the high ground has been cut away for road construction. This area contains excellent surface visibility (80%); however, no cultural materials were found during a surface inspection. On the south side of County Road 2861, the ROW has been disturbed through road construction that left a deep ditch. Soils in this area are rocky and shallow. Therefore, any sites that may have been present within the ROW have most certainly been destroyed.

Area 4 consists of the creek crossing and associated terraces on both sides of a minor tributary of Duncan Creek (Figure 2), all of which were surveyed. The south side has been greatly disturbed through construction of County Road 2861. Just across the fence, the surface visibility was 100%, and no cultural materials were observed. The surface is clay and rock. Sites in this area were most certainly restricted to the surface that is either disturbed or has been removed during road construction. Deep ditches are present on both sides of the road. The high ground is not very close to the minor creek making this, in the opinion of BVRA, a low probability area.

Area 5 is an upland ridge overlooking Proctor Reservoir to the north (Figure 2). Although sites may have been present in this area at one time, they would have been disturbed through construction associated with private roads, buried utilities, and a residential area. Terraces near the creek are now inundated by the reservoir below. No evidence of cultural materials was observed on the surface. This area was very disturbed and not subjected to shovel testing.

Area 6 consists of uplands and gradual slopes that run east/southeast toward a minor tributary of Duncan Creek. Fifteen shovel tests revealed shallow soils overlying clay at 20-30 cm or deep sandy soils (clay not encountered). This area is part of a once large farmstead belonging to Ogden Fritts (Gary Lacy, personal communication), and the 20 acre tract was used solely as pasture for cattle. The house site was originally located on the north side of the road. Within this tract three features were observed. They are a windmill and stock tank in the northeast corner and a small trash dump in the southeast corner. The trash dump contained approximately 15 modern (20th century) clear glass bottles and jars, several tin cans and other containers, and a few pieces of unidentified metal. It is located in a small gully area and is restricted to the surface. One shovel test was excavated within the boundaries of the modern dump, and no artifacts were found. This dump is not viewed by BVRA as significant.

According to the soil survey for Comanche County (Moore et al. 1977:Sheet 33), Area 6 is located in two soil types. These are Chaney loamy sand, 1 to 5 percent slopes, eroded (ChC2) and Patilo-Nimrod complex, 0 to 5 percent slopes (PaC). ChC2 soils are described by Moore et al. (1977:14) as deep, moderately well drained, gently sloping, sandy soils on uplands. The surface layer of these soils is sometimes thinned to a depth of about less than six inches due to aeolian and fluvial erosion. The surface layer is a brown, slightly acid loamy sand about three inches thick, and the subsoil is a yellowish-red, slightly acid sandy clay to a depth of 17 inches. Other sandy clays extend to 42 inches, and the underlying material is a light brownish-gray clay to a depth of 60 inches or more.

PaC soils are defined by Moore et al. (1977:28) as deep, moderately well drained sandy soils on uplands. The majority of the soil in this complex is Patilo that has a surface

layer of brown, neutral fine sand about four inches thick. The subsurface layer is slightly acid fine sand that extends to a depth of 44 inches. The subsoil is a mottled light gray, yellow, and red medium acid sandy clay loam to a depth of 50 inches.

In general, the project area contained few intact areas. Much of the water line route had been disturbed through road construction, and the soils were generally shallow and rocky. The 20 acre water treatment plant site was the only large area of relatively undisturbed soils. It was also noted that no raw materials (rocks) large enough for lithic tool manufacture or the creation of burned rock middens were observed anywhere within the six areas examined.

RECOMMENDATIONS

It is recommended that the Upper Leon River MWD be allowed to proceed with construction as planned. It is always possible that areas containing cultural resources are missed during any archaeological survey. Should any evidence of an archaeological site be encountered during construction of the proposed water line, work in the area of the find should cease until assessed by a professional archaeologist in consultation with the Texas Historical Commission and the Upper Leon River MWD.

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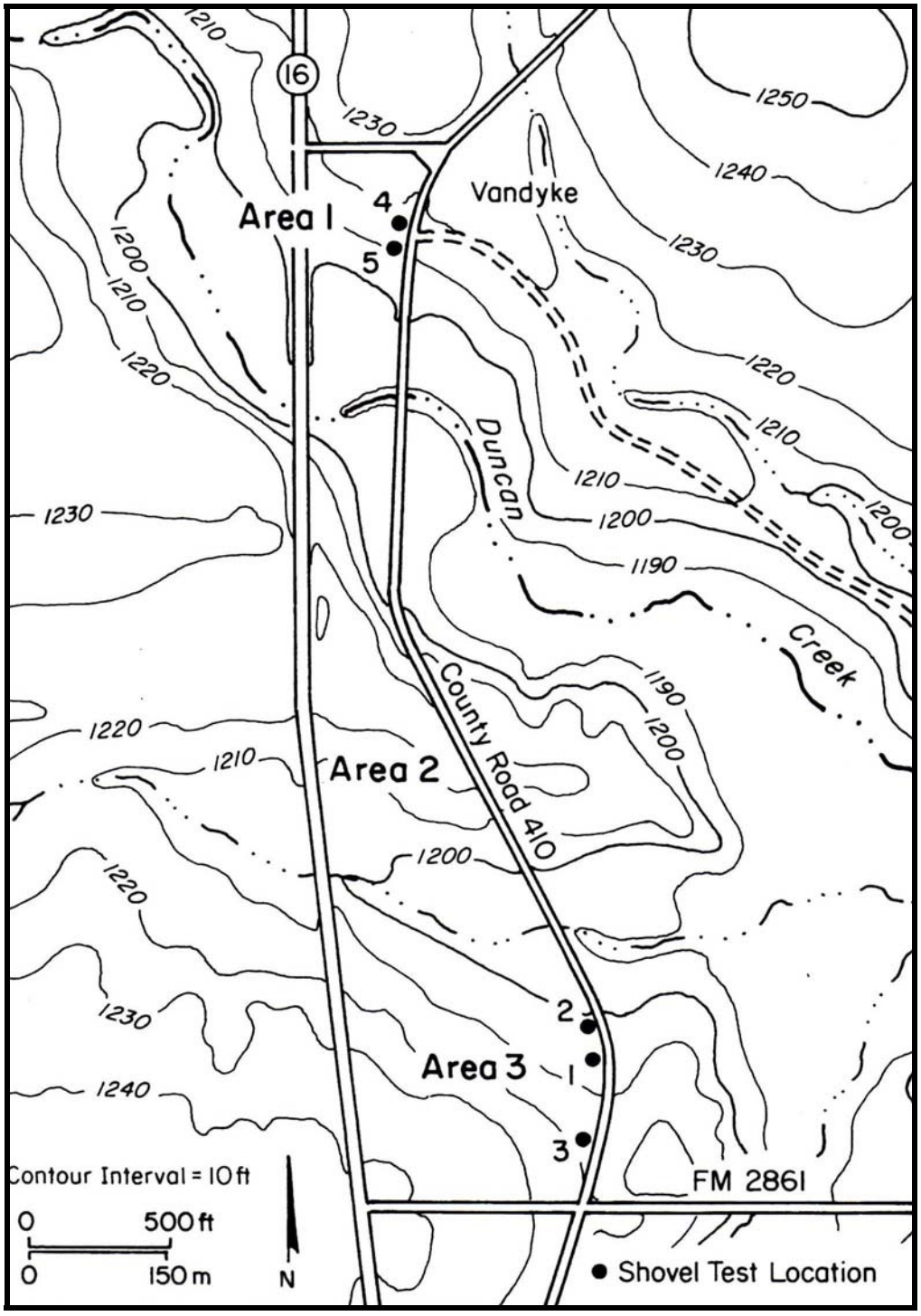
APPENDIX I: SHOVEL TEST LOG

Test	Area	Depth	Description
04	1	10 cm	West side of County Road 410 in right-of-way on a slope overlooking the main channel of Duncan Creek. Dug through clay and caliche. Negative.
05	1	10 cm	West side of County Road 410) in right-of-way on a slope overlooking the main channel of Duncan Creek. Dug through clay and caliche. Negative.
01	3	50 cm	West side of County Road 410 road in right-of-way on a slope south of a tributary of Duncan Creek. Dug through sand over clay. Negative.
02	3	30 cm	West side of County Road 410 in right-of-way in a floodplain south of a tributary of Duncan Creek. Dug through clay loam over clay. Negative.
03	3	10 cm	West side of County Road 410 in right-of-way in a disturbed area (surface had been scraped). Dug through clay. Negative.
06	6	80 cm	North-central part of 20 acre tract on one of the high points. Dug through sand without encountering clay. Negative.
07	6	20 cm	North-central part of 20 acre tract on one of the high points. Dug through clay loam over clay. Negative.
08	6	20 cm	Northeast corner of 20 acre tract on slope overlooking a tributary of Duncan Creek to the east. Dug through clay loam over clay. Negative.
09	6	30 cm	Northeast corner of 20 acre tract on slope overlooking a tributary of Duncan Creek to the east. Dug through clay loam over clay. Negative.
10	6	30 cm	Northeast part of 20 acre tract on slope overlooking a tributary of Duncan Creek to the east. Dug through clay loam over clay. Negative.

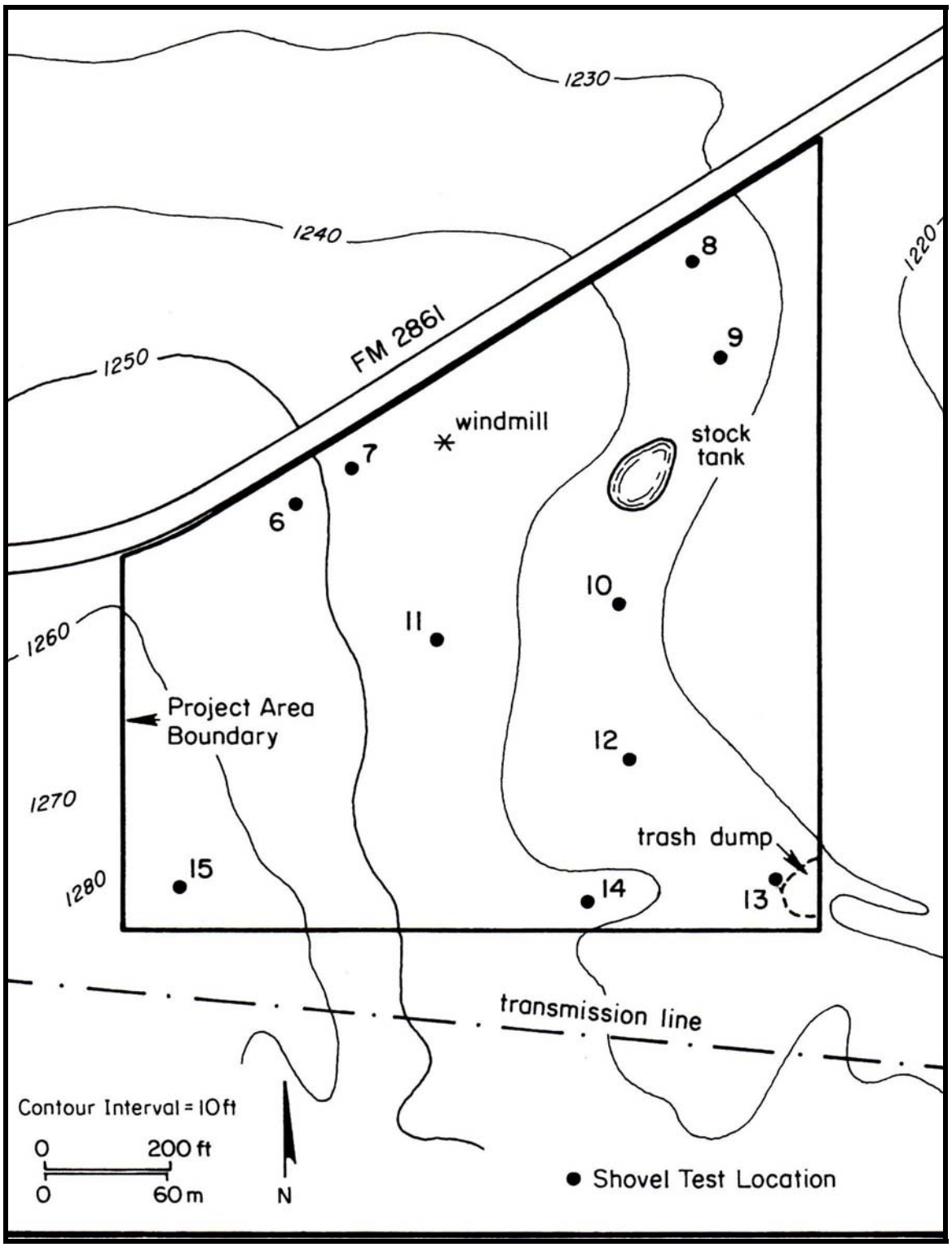
Test	Area	Depth	Description
11	6	80 cm	Center of 20 acre tract on slope overlooking a tributary of Duncan Creek to the east. Dug through sand without encountering clay. Negative.
12	6	80 cm	Southeast part of 20 acre tract on slope overlooking a tributary of Duncan Creek to the east. Dug through sand without encountering clay. Negative.
13	6	80 cm	Southeast corner of 20 acre tract adjacent to historic trash dump. Dug through sand without encountering clay. Negative.
14	6	80 cm	Southeast part of 20 acre tract on one of the high points. Dug through sand without encountering clay. Negative.
15	6	80 cm	West edge of 20 acre tract on one of the high points. Dug through sand without encountering clay. Negative.

APPENDIX II

SHOVEL TESTS ON TOPOGRAPHIC MAPS



Areas 1 and 3. Shovel Test Locations



Area 6. Shovel Test Locations