

***AN ARCHAEOLOGICAL SURVEY FOR THE DOGWOOD SPRINGS
WATER SUPPLY CORPORATION
WATER SYSTEM IMPROVEMENTS PROJECT
IN ANDERSON COUNTY, TEXAS***

Antiquities Permit 4709



By

William E. Moore

***Brazos Valley Research Associates
Contract Report Number 191***

2007

AN ARCHAEOLOGICAL SURVEY FOR THE DOGWOOD SPRINGS
WATER SUPPLY CORPORATION
WATER SYSTEM IMPROVEMENTS PROJECT
IN ANDERSON COUNTY, TEXAS

BVRA Project 07-03

Principal Investigator
William E. Moore, RPA

Prepared for
Dogwood Springs Water Supply Corporation
Post Office Box 608
Frankston, Texas 75763

Prepared by
Brazos Valley Research Associates
813 Beck Street
Bryan, Texas 77803

ABSTRACT

An archaeological survey of a well and plant site in central Anderson County, Texas was performed on November 4, 2007 by Brazos Valley Research Associates (BVRA) for the Dogwood Springs Water Supply Corporation (WSC) under Antiquities Permit 4709. The project area was investigated by shovel testing. Due to extensive forest debris, a surface inspection was not possible. The footprint for the well and plant site is 100' x 100' (.23 acre), and the entire project area is on a six percent slope. Five shovel tests dug through sandy soil to depths of 80 cm to 100 cm were negative in terms of producing cultural materials, and no artifacts were collected. Therefore, it is recommended that construction be allowed to proceed as planned. Copies of the report are on file at the Texas Historical Commission (THC), Archeology Division, Texas Archeological Research Laboratory (TARL), and BVRA.

ACKNOWLEDGMENTS

I am appreciative of the assistance provided by others during this project. Hollie H. Nowlin at J. F. Fontaine & Associates, Inc. was the Project Engineer. The President of the Dogwood Springs WSC (Jim Hallman) provided maps and signed the permit application as the representative of the landowner. I am grateful to Randall Anderson and Jennifer McMillan for accompanying me to the project area and assisting with the shovel testing and mapping. Jean Hughes checked the site records at the Texas Archeological Research Laboratory (TARL) for previously recorded sites in the project area and vicinity. The figures and cover were prepared by Lili G. Lyddon and Edward P. Baxter. Nora Rogers proofread the report for errors and consistency.

CONTENTS

ABSTRACT	ii
ACKNOWLEDGMENTS	iii
INTRODUCTION.....	1
ENVIRONMENTAL SETTING	4
ARCHAEOLOGICAL BACKGROUND	7
METHODS.....	8
RESULTS AND CONCLUSIONS	11
RECOMMENDATIONS.....	12
REFERENCES CITED.....	13

APPENDIX I: Shovel Test Log

Figures

FIGURE 1. GENERAL LOCATION	2
FIGURE 2. PROJECT AREA ON TOPOGRAPHIC MAP PERT	3
FIGURE 3. VIEW OF PROJECT AREA AND SHOVEL TEST 5 (LOOKING WEST).....	5
FIGURE 4. SOILS IN THE PROJECT AREA.....	6
FIGURE 5. SHOVEL TEST 1	9
FIGURE 6. SHOVEL TESTS	10

INTRODUCTION

The Dogwood Springs WSC plans to construct a well and plant site in the Pineywoods Lake Resort Unit 1 on Lot 58 in the M. Fleming (A-295) and Nathan Hendrichs (A-388) surveys in central Anderson County, Texas (Figure 1). The existing system provides water service to properties in Pineywoods Lake Resorts, Frankston properties, and properties in Lake Frankston. The system currently serves 180 active water meters. Access to the area is provided by State Highway 155 and several county roads. The Dogwood Springs WSC currently consists of two existing wells and a distribution system that serves 180 customers. This project will meet the minimum requirements as established by the Texas Commission for Environmental Quality (TCEQ) for the existing customers and provide for moderate growth. There will be no permanent structures located within flood zones or wetland areas. The existing plant to the northwest will be demolished and replaced by the new well and plant site that will have a greater capacity. The Dogwood Springs WSC will adopt binding resolutions protecting the floodplains and wetland areas from future development. The project area is depicted on the USGS topographic map Pert (Figure 2).

Anderson County is located in a part of Texas that contains numerous prehistoric and historic sites, many of which have been considered to possess significant research potential. This county is in the area once inhabited by the prehistoric Caddo Indians of Northeast Texas. Many of these sites contain burials and pottery vessels of exceptional quality. Vandalism of archaeological sites in this area is a serious problem, and the number of intact Caddoan sites is rapidly decreasing. The THC has requested a cultural resources survey be performed by a professional archaeologist prior to the construction of the well and plant site. In order to comply with this request, the Dogwood Springs WSC retained BVRA of Bryan, Texas to conduct this investigation. The project number assigned by BVRA is 07-03.

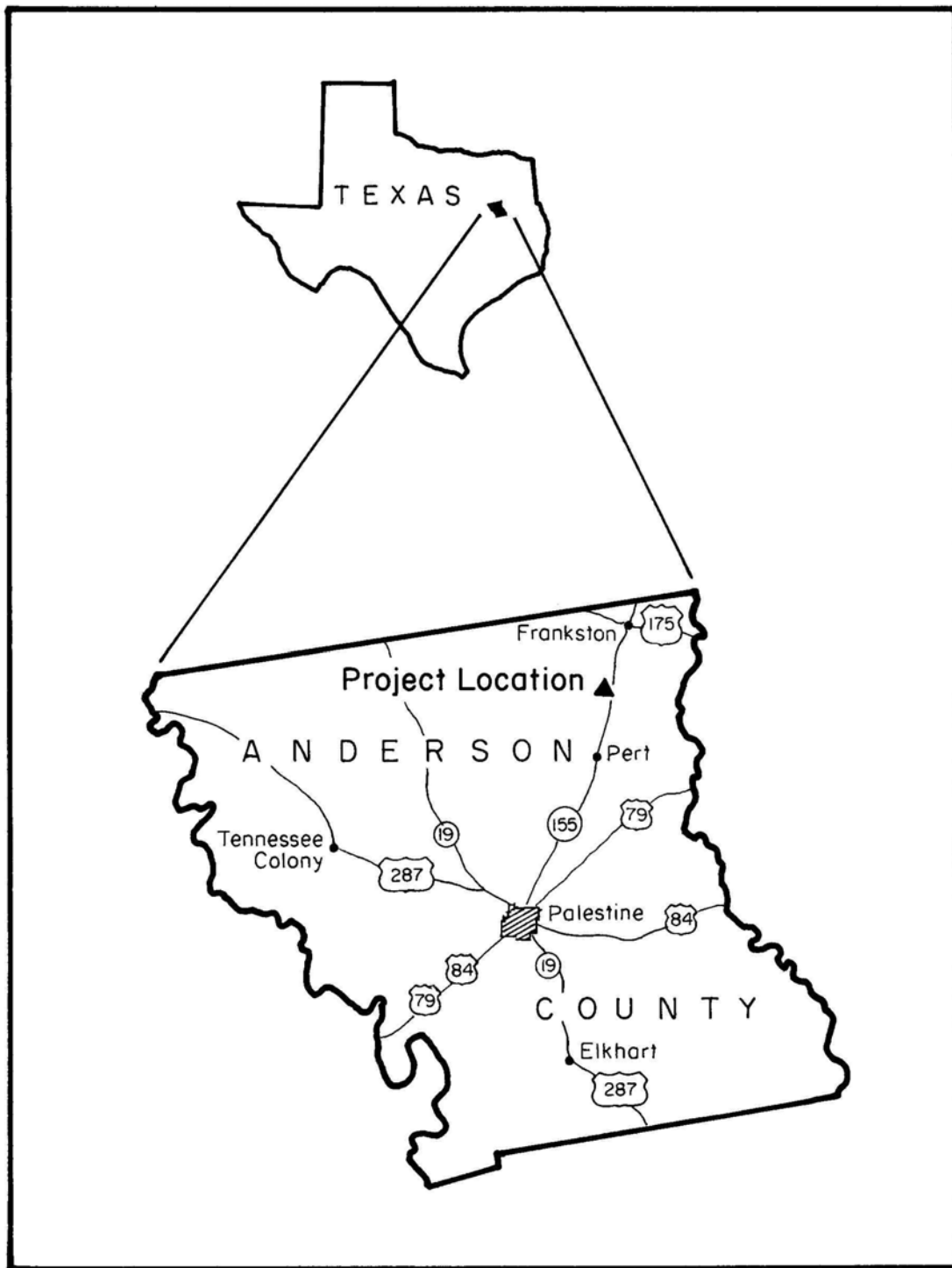
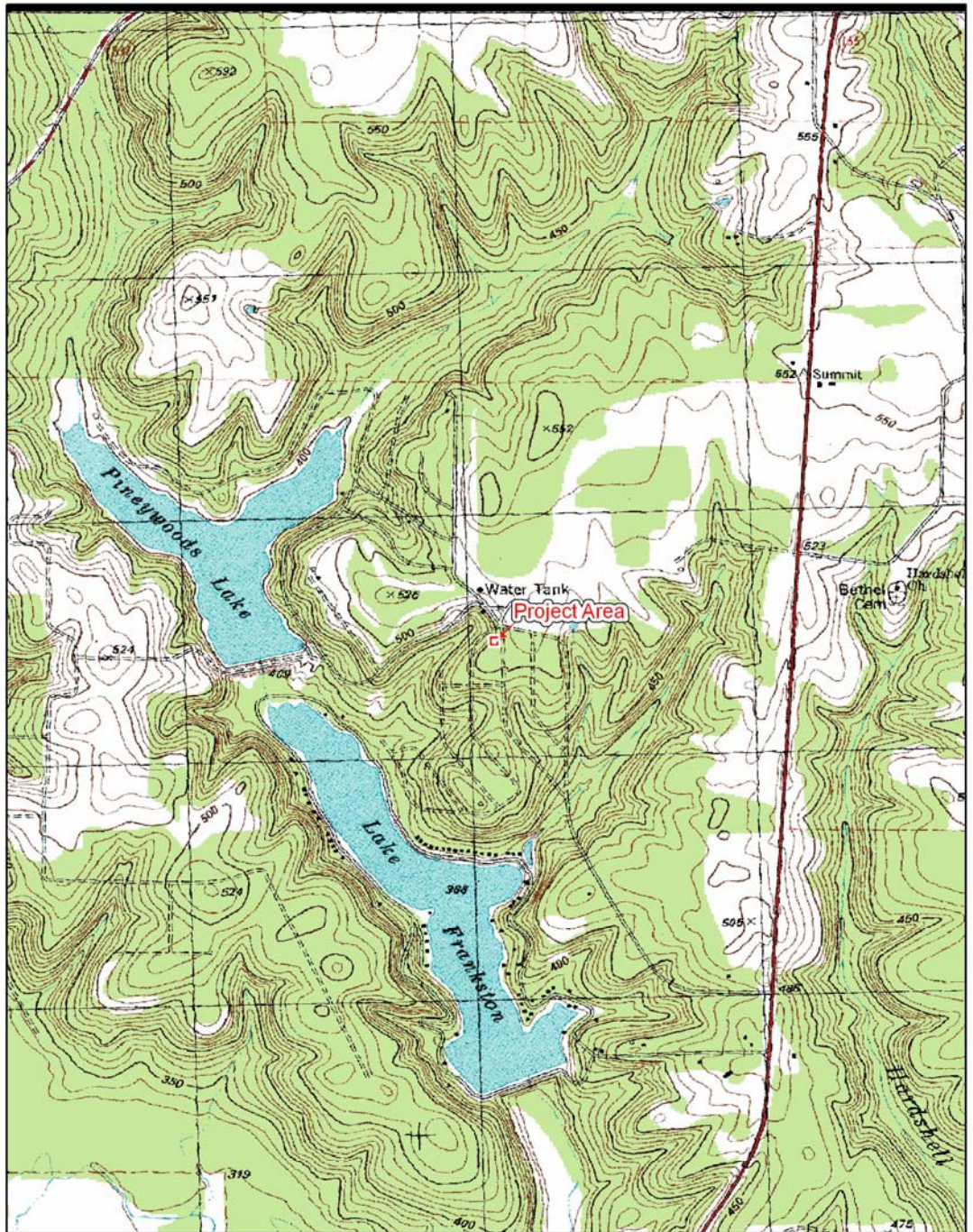


Figure 1. General Location



0 250 500 Meters

A horizontal scale bar with markings for 0, 250, and 500 meters.

USGS Pert, Texas
Quadrangle 3195-344

 Project Area

Figure 2. Project Area on Topographic Map Pert

ENVIRONMENTAL SETTING

The project area is located within the West Gulf Coastal Plain physiographic province as defined by Fenneman (1946) and the Austroproarian biotic province as defined by Blair (1950:98-100). The reader is referred to Volume I (Stratigraphy) of the Geology of Texas by Sellards et al. (1932) for a more in-depth discussion of the geology of this area. Data taken from the *Texas Almanac* for 1984-1985 (Kingston and Harris 1983) state that the county receives 40.51 inches of annual rainfall. When combined with a January minimum temperature of 37 degrees Fahrenheit and a July maximum temperature of 94 degrees Fahrenheit, a growing season of 264 days results. Fauna known to be present within the project area at various times of the year include fox and gray squirrel, armadillo, raccoon, opossum, cottontail rabbits, white-tailed deer, coyote, beaver, and feral hogs. Many birds utilize the site including dove, meadowlark, killdeers, various sparrows, great blue herons, bluebirds, mockingbirds, and cardinals.

The project area is located in an upland setting with elevations at or greater than 500 feet above mean sea level. A large portion of the project area was heavily wooded with mixed hardwoods, juniper, pines, and various kinds of understory vegetation present such as vines and limited natural grasses (Figure 3). The nearest water source is a tributary of Brushy Creek that has been dammed to create Lake Frankston (680 meters to the Southwest) and Pineywoods Lake (765 meters to the Northwest).

According to the soil survey for Anderson County (Coffee 1975), the project area is located within soils of the Darco Association. The soils in the project area are described by Coffee (1975:Sheet 19) as Darco fine sand (DaD), 1 to 8 percent slopes (Coffee 1975:12). This is a gently sloping to sloping soil that occurs on the uplands in areas from ten acres to several hundred acres in size. A typical profile is fine sand from the surface to 49 inches. Below that is a sandy clay loam from 49 inches to 67 inches. Sandy loam is present from 67 inches to 80 inches. Darco soils are well drained to excessively drained. Permeability is moderately slow, and the available water capacity is low. Runoff is slow. The project area soils are depicted in Figure 4.



Figure 3. View of Project Area and Shovel Test 5 (looking west)

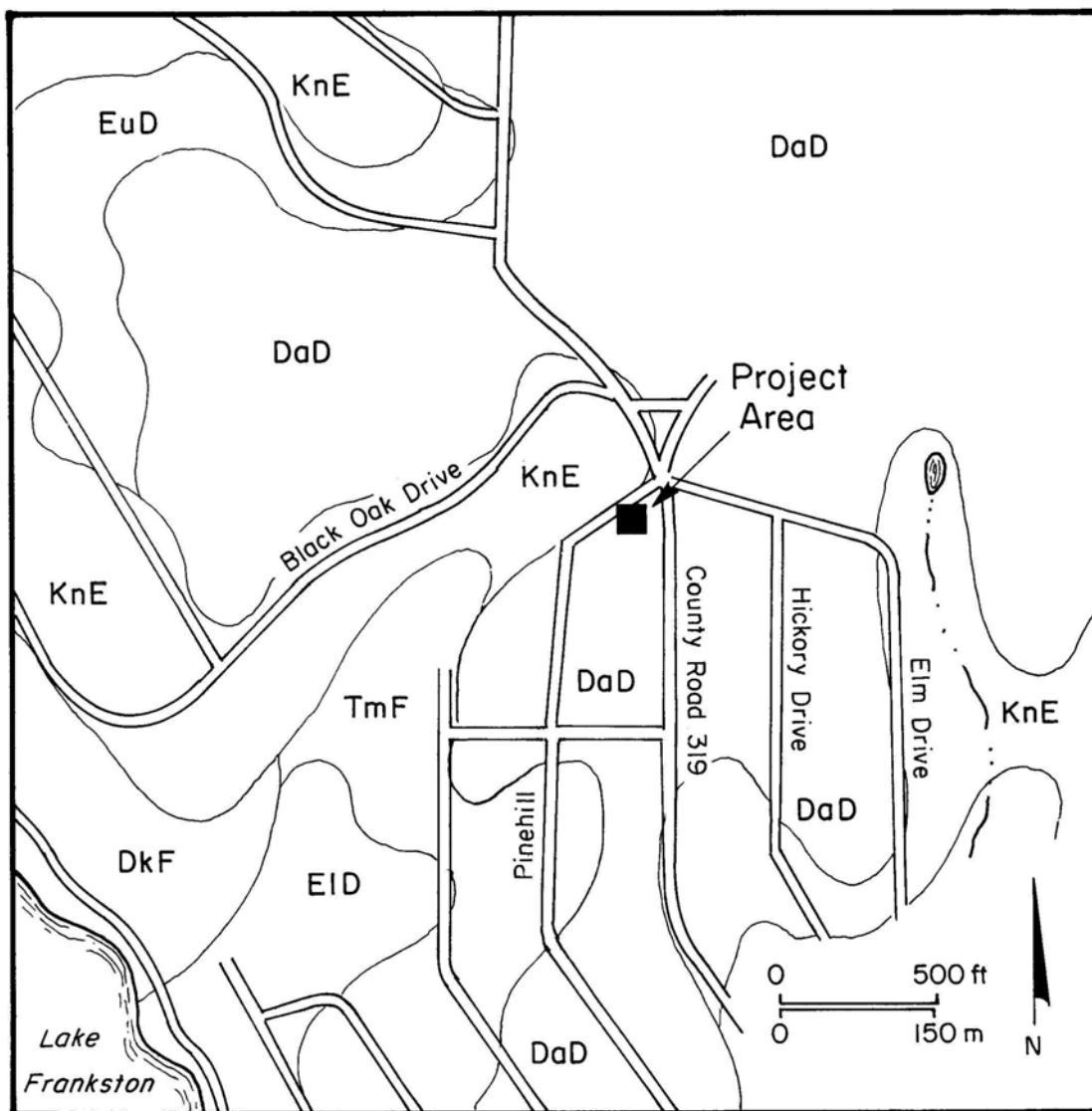


Figure 4. Soils in the Project Area

ARCHAEOLOGICAL BACKGROUND

Anderson County is located in the Northeast Texas Archeological Study Region of the Eastern Planning Region as defined by the Department of Antiquities Protection in *Archeology in the Eastern Planning Region, Texas: A Planning Document* (Kenmotsu and Perttula 1993). According to the planning document, there were 121 sites recorded in the county as of 1991 (Kenmotsu and Perttula 1993:41). In the region, Anderson County was 16th in terms of numbers of sites recorded. Of the 121 recorded sites, 12 were considered not significant, 41 were of unknown significance, 46 were probably significant, and 22 were significant. Two sites (41AN19 and 41AN51) are listed in the National Register of Historic Places. Site 41AN51, the Pace McDonald site, has been discussed in an unpublished manuscript by Thurmond (1978) on file at TARL. At the time of this survey there were over 180 recorded prehistoric and historic sites in the county.

The *Archeological Bibliography for the Northeastern Region of Texas* (Martin 1990) cites 50 references for the county. Although many of these investigations have been small area surveys, often resulting in negative findings, several major reservoir projects have been conducted. These are the Blackburn Crossing Reservoir (Johnson 1958, 1961), Palestine Reservoir (Anderson et al. 1974), Tennessee Colony Lake (Richner 1977; Richner and Lee 1976, 1977), Trinity River Basin (Richner and Bagot 1978), and the Trinity River Multiple Use Project (Sorrow 1973). Overviews of the area include works by (Lynott and Richner 1977), Woodall (1972), and Story, et al. (1990). Prehistoric occupations in the region cover all time periods from Paleoindian through Historic Caddoan, circa 9500 B.C. - A.D. 1860 (Kenmotsu and Perttula 1993:44). The reader is referred to this comprehensive and well-organized document for additional information regarding the archaeological background for Anderson County and vicinity.

Numerous prehistoric sites have been recorded along Caddo Creek in Anderson and Henderson counties and along Caney Branch in Anderson County. Several of these sites were investigated in the 1930s under the direction of A. M. Woolsey and A. T. Jackson of The University of Texas at Austin. Although collections were sometimes curated, site forms and formal reports may not exist. Most of these sites have been described as Caddoan, and some contain burials with grave goods. According to the few site forms that are present, the preferred location for sites appears to be terraces adjacent to streams. Archaic hunting sites were recorded during the Lake Palestine survey in 1960s and early 1970s (Anderson 1971). Sites found during this study were predominantly associated with "streamside locations near relatively fertile soils" (Anderson 1971:iii). The nearest recorded archaeological site to the project area is 41AN42, approximately 574.12 meters to the northeast. Very little information is available for this prehistoric site that is described on the site card as a "midden mound." No site form exists for this site.

METHODS

Prior to entering the field a records check for previously recorded sites in or near the project area was conducted by Jean Hughes at TARL. Two important reports were reviewed during the planning stages of this project. These are a planning document by the Department of Antiquities Protection (Kenmotsu and Perttula 1993) and an archeological bibliography for the Northeastern Region of Texas (Martin 1990). The interested reader is referred to these sources for additional information regarding the prehistory of this area.

The field investigation was conducted on November 4, 2007. The project area was investigated through shovel testing. There was too much forest debris to make a surface inspection possible except for obvious historic features. The field crew consisted of the Principal Investigator and two assistants Randal Anderson and Jennifer McMillan. The President of the Dogwood Springs WSC (Jim Hallman) met us at the project area and showed us where the well is proposed. We dug our first shovel test in this location to a depth of 100 cm through sandy soil (Figure 4). The remaining four tests were dug to the southeast, northeast, west, and southwest of the first test, and they were also negative. The distance from the first shovel test at the well site (center hole) to the remaining four tests was measured using a 50-meter metric tape, and the orientation of the tests was determined using a Brunton compass. This information was recorded on a shovel test log, which appears in this report as Appendix I. The location of each test was plotted on a field map (Figure 5). This project was also documented through field notes and a digital camera.



Figure 5. Shovel Test 1

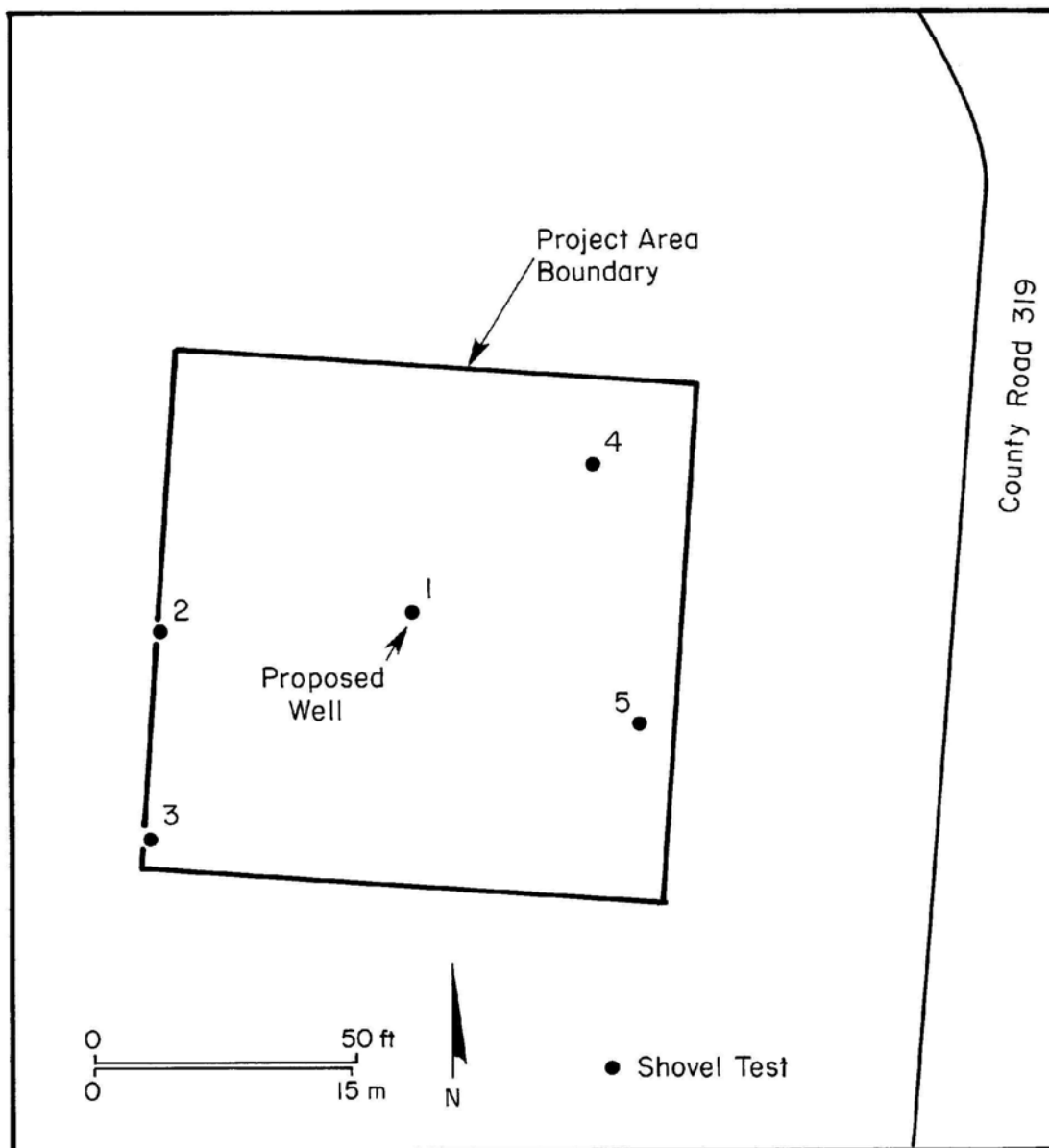


Figure 6. Shovel Tests

RESULTS AND CONCLUSIONS

Literature Review

The records check at TARL revealed that no professional investigations have been conducted in the project area. Most of the sites recorded in Anderson County were probably located during the Lake Palestine survey (Anderson 1971) and a survey of the Trinity River basin (Richner and Bagot 1978). Both endeavors were conducted by Southern Methodist University. According to Carolyn Spock (personal communication, June 10, 1994), there was a surge of site recording for the county during 1979 (62 sites), 1980 (62 sites), and 1981 (79 sites). Most of these are believed to represent TARL numbers being assigned to previously recorded sites by Southern Methodist University from the Lake Palestine and Trinity River Basin projects. Today, there are more than 180 sites in Anderson County.

Field Survey

Five shovel tests in the 2/3-acre project area were dug through sandy soil. Four tests were terminated at 100 cm, and one test was terminated at 80 cm when clay was encountered. No artifacts were found in any of the five tests, which were dug randomly across the project area. Several pieces of sandstone were recovered in Shovel Test 3, and three small fragments of unidentified material were recovered in shovel tests 1 and 4. Analysis of these materials by William A. Dickens revealed that they did not contain enough attributes for him to identify them as cultural. According to Jim Hallman (personal communication), it is unlikely that a house or other structure has ever stood in this area. He also believes that, due to the slope of the tract, it has probably never been cultivated. Although artifacts associated with prehistoric and historic sites can exist virtually anywhere on the landscape, even on a slope, it is my opinion that the most likely setting for a site is to the southeast at the top of the landform. At the time of this visit, there was a residence in this location.

RECOMMENDATIONS

No archaeological sites were found during the survey of the proposed well and plant site. It is, therefore, recommended that construction be allowed to proceed as planned by the Dogwood Springs WSC without further consultation with the THC. Should the construction plans change to include a greater area that can be viewed as a likely setting for a prehistoric site, the THC must be notified in case additional survey by a professional archaeologist is warranted. Also, if cultural materials are unearthed during construction, all work in the area of the find must stop until the situation can be evaluated by the THC. This study conformed to the Minimum Survey Standards as defined by the Archaeology Division of the THC.

REFERENCES CITED

Anderson, Keith M.

- 1971 *Archaeological Resources of Lake Palestine, Texas*. Report submitted by Southern Methodist University to the National Park Service

Anderson, Keith M., Kathleen Gilmore, Olin F. McCormick, III, and E. Pierre Morenon

- 1974 *Archaeological Investigations at Lake Palestine Texas*. Southern Methodist University, Institute for the Study of Earth and Man, Department of Anthropology, Contributions in Anthropology Number 11.

Blair, W. Frank

- 1950 The Biotic Provinces of Texas. *The Texas Journal of Science* 2(1):93-117.

Fenneman, Nevin M.

- 1946 Physical Divisions of the United States Map. United States Geological Survey, Washington, D.C.

Johnson, LeRoy, Jr.

- 1958 Appraisal of the Archeological Resources of Blackburn Crossing Reservoir, Anderson, Cherokee, Henderson, and Smith Counties, Texas. Archeological Salvage Program, National Park Service, Austin Office.
- 1961 An Archeological Survey of Blackburn Crossing Reservoir on the Upper Neches River. *Bulletin of the Texas Archeological Society* 31:213-238.

Kenmotsu, Nancy Adele, and Timothy K. Perttula

- 1993 Archeology in the Eastern Planning Region, Texas: A Planning Document. Department of Antiquities Protection, Cultural Resources Management Report 3. Texas Historical Commission.

Kingston, Michael T., and Ruth Harris (Editors)

- 1983 1984-1985 Texas Almanac and State Industrial Guide. Dallas .

Lynott, Mark J., and Jeffrey J. Richner

- 1977 An Archaeological Overview of East-Central Texas. Manuscript prepared by Southern Methodist University on file at the Texas Historical Commission in Austin, Texas.

- Martin, William A.
 1990 *Archeological Bibliography for the Northeastern Region of Texas*. Department of Planning and Review, Cultural Resource Management Report 1 and Office of the State Archeologist Special Report 32.
- Richner, Jeffrey J.
 1977 *Archeological and Ethnohistorical Survey at Tennessee Colony Lake*. Archaeology Research Program, Southern Methodist University. Dallas.
- Richner, Jeffrey J., and Joe T. Bagot (Assemblers)
 1978 *A Reconnaissance Survey of the Trinity River Basin, 1976-1977*. Archaeology Research Program, Southern Methodist University, Research Report 113.
- Richner, Jeffrey J., and Reed Lee
 1976 *Cultural Resources at Tennessee Colony Lake*. Archaeology Research Program, Southern Methodist University.
- 1977 *Archeological and Ethnohistorical Survey at Tennessee Colony Lake, 1975*. Archaeology Research Program, Southern Methodist University.
- Sellards, E. H., W. S. Adkins, and F. B. Plummer
 1932 *The Geology of Texas, Volume I, Stratigraphy*. The University of Texas, Bureau of Economic Geology, Bulletin 3232.
- Sorrow, William M.
 1973 *Preliminary Archeological Reconnaissance of the Selected Area to be Affected by the Trinity River Multiple Purpose Project, Texas*. Texas Archeological Salvage Project, Research Report 17. The University of Texas at Austin.
- Story, Dee Ann, Janice A. Guy, Barbara A. Burnett, Marthy Doty Freeman, Jerome C. Rose, D. Gentry Steele, Ben W. Olive, and Karl G. Reinhard
 1990 *The Archeology and Bioarcheology of the Gulf Coastal Plain*. Arkansas Survey, Research Series Number 38. Fayetteville.
- Thurmond, J. Peter
 1978 *The Pace McDonald Site: A Caddoan Mound Center in Anderson County, Texas*. Unpublished manuscript on file at the Texas Archeological Research Laboratory in Austin, Texas.

Woodall, J. Ned

1972 Prehistoric Social Boundaries: An Archeological Model and Test.
Bulletin of the Texas Archeological Society 43:101-120.

APPENDIX I

SHOVEL TEST LOG*

Shovel Test	Depth (cm)	Soil	Comments
1	100	sandy loam	many roots
2	80	sandy loam	terminated at orange clay
3	100	sandy loam	sandstone fragments
4	100	sandy loam	many roots
5	100	sandy loam	many roots

*All tests were negative