

AN ARCHAEOLOGICAL SURVEY OF THE PROPOSED A-15 PIPELINE  
IN CENTRAL JASPER COUNTY, TEXAS

by

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AN ARCHAEOLOGICAL SURVEY OF THE PROPOSED A-15 PIPELINE  
IN CENTRAL JASPER COUNTY, TEXAS

BVRA Project Number 01-11

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## **ABSTRACT**

An archaeological investigation of a 2908 foot pipeline (2.003 acres) in central Jasper County, Texas was performed by Brazos Valley Research Associates (BVRA) of Bryan, Texas in June of 2001. No archaeological sites were found to exist within the project area, and it is recommended that construction be allowed to proceed as planned.

## **ACKNOWLEDGMENTS**

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## INTRODUCTION

An archaeological survey of a proposed 2908 foot pipeline (2.003 acres) in central Jasper County, Texas (Figure 1) was conducted by BVRA. The proposed pipeline will lead from an existing pipeline at an abandoned well site (Station 0+00) to a well currently under construction (Station 25+28). The maximum width of the pipeline route will be 30 feet; however, the actual ground disturbance or permanent easement will only affect 10 feet; the remaining 20 feet is a temporary work area. The projected depth along the pipeline route from Station 14+60 at the pond to the well under construction at Station 25+28 is four feet. The line will be bored beneath the pond at depths of 10 to 29 feet beginning at Station 14+60 to the beginning of the line at Station 0+00.

The entire tract to be surveyed consists of pine timberland with a small section of hardwood bottomland and an area that has been clear-cut. A short segment will cross Pattons Pond (referred to on the topographic map as Belle Jim Lake) formed by a dam on Boggy Branch. The terrain along the route is hilly with elevations ranging from approximately 312 feet at the pipeline tie-in point (Station 0+00), 243 feet at Pattons Pond, and approximately 304 feet at the well site (Station 25+28). A previous investigation by Environmental and Safety Professionals, Inc. determined that one wetland area is present within the route of the proposed pipeline. This area is approximately 198 feet in length and occurs in conjunction with the crossing of Pattons Pond. The current project area is depicted on the 7.5' United States Geological Survey topographical map Jasper West (dated 1984 [Provisional Edition]) (Figure 2).

Overall, the project area is located in a region known to contain significant archaeological sites. Because of this archaeological potential, a reconnaissance survey by professional archaeologists was warranted according to Section 106 of the National Historic Preservation Act. Since this is a federally funded project (EPA), no Antiquities Permit was required. In order to satisfy this requirement, BVRA was retained by Environmental and Safety Professionals, Inc. of Kinder, Louisiana to examine the proposed pipeline route for the presence of significant archaeological sites. The project number assigned by BVRA is 01-10. The field survey was conducted on June 25, 2001.

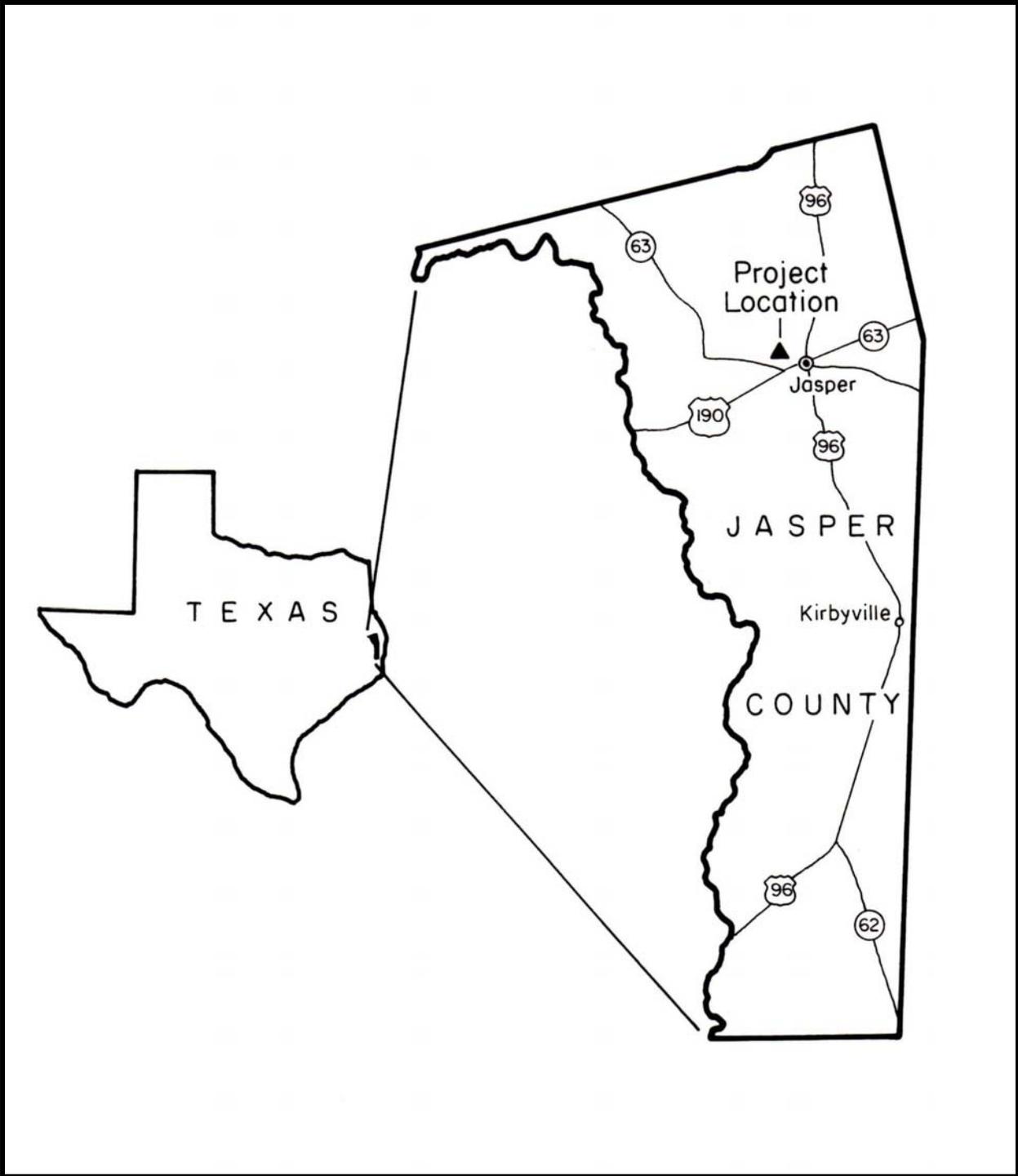


Figure 1. General Location Map

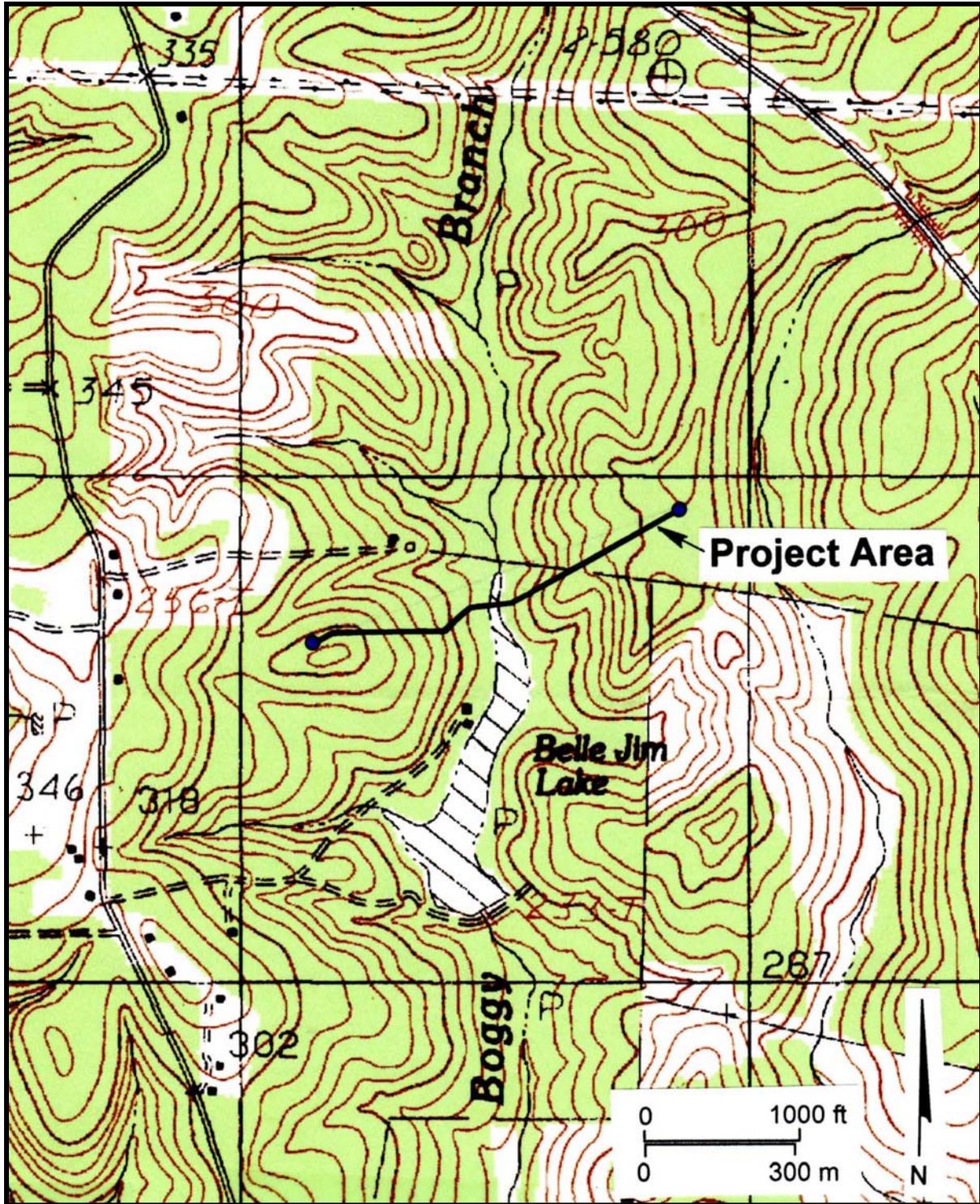


Figure 2. Project Area on Topographic Map

## ARCHAEOLOGICAL BACKGROUND

According to a recently published planning document for the Eastern Planning Region of Texas (Kenmotsu and Perttula 1993:Figure 1.1.2), Jasper County is situated within the Southeast Texas archeological study region. In 1985, according to a statistical overview prepared by the Texas Historical Commission (Biesaat et al. 1985:151), Jasper County contained 86 recorded sites. The site files at TARL revealed 149 recorded sites at the time of this survey. In 1985, 0 sites in the county had been excavated, 10 had been tested by hand, 1 had been tested by machine, and 73 had been surface collected. Twenty-three recorded prehistoric sites in the county were listed as Archaic and 54 sites were listed as Late Prehistoric (Biesaat et al. 1985:151). One site contained burials.

In the volume by (Kenmotsu and Perttula 1993:Figure 1.1.3) an evaluation was made regarding density of sites in Texas counties. At this time Jasper County was next to last with 0.001 - 0.1 sites per square mile. In 1993, Jasper County contained 99 recorded archaeological sites. Of this number, 27 were regarded as not significant, 62 were of unknown significance, 9 were probably significant, and 1 was considered to be significant according to National Register criteria (Kenmotsu and Perttula 1993:Table 2.1.1).

Unfortunately, there are major forces that continue to threaten the integrity of archaeological sites in Jasper County. These include population growth (City of Jasper and surrounding area), highway construction, Sam Rayburn Reservoir (formerly McGee Bend), and the lumbering industry.

Although private contract archaeology firms have played a part, most of the archaeological sites known to exist in Jasper County have been identified by surveys associated with reservoir construction and in-house projects by National Forest personnel. The earliest archaeological research in the area was performed in the late 1930s and early 1940s by researchers from The University of Texas at Austin. At that time prehistoric cemeteries and mound sites were considered to be of primary importance. From the late 1940s until the mid 1970s, most of the archaeological research in East Texas was carried out in connection with reservoir construction. In 1948, for example, Robert L. Stephenson published the results of his work at the proposed McGee Bend Reservoir in Angelina, Jasper, Nacogdoches, Sabine, and San Augustine counties (Stephenson 1948a, 1948b). At the time this was the only systematic professional major archaeological investigation in the county. Since that time several studies regarding reservoirs such as Dam "B" (Stephenson 1949), Big Cow Creek (Moir n.d.), and Rockland Lake (Prikrýl (1987) have been published.

It is beyond the scope of this report to discuss in detail the archaeological background of Jasper County, especially when numerous contract reports are available. The interested reader is referred to the statistical overview (Biesart et al. 1985), the planning document published by the Texas Historical Commission (Kenmotsu and Perttula 1993), other reports cited above, and the Abstracts in Contract Archaeology series also published by the Texas Historical Commission for more detailed information regarding the archaeology of Jasper County.

## METHODS

Prior to entering the field, a records check was conducted for BVRA by Adrienne Mraz, Research Assistant at TARL. Ms. Mraz checked the site files for previously recorded sites in the project area. In addition, information pertaining to previous archaeological work in the region was obtained from the library at BVRA. The field survey crew relied on the topographic map Jasper West and the soils book for Jasper County (Neitsch 1982). The method utilized to assess the pipeline consisted of shovel tests and a surface inspection of exposed areas.

The pipeline traverses overland in a southeast-northwest direction through thick woods and crosses Boggy Branch at the approximate center of the line. Prominent hills are present on both sides of the pipeline route; however, the major portion of the pipeline is on the slopes of these hills. The field survey crew viewed the slopes as low probability areas for prehistoric sites.

The field survey crew walked the entire route excavating shovel tests along the way. Since the project area does not exceed 30 feet (9.15 meters) in width, survey transects were not necessary. In all, 22 tests were excavated. All earth excavated through shovel testing was screened using 1/4" hardware cloth, and a shovel test log (Appendix I) was kept. Profiles of the shovel tests were sketched in the field and the tests were drawn on a project area map. The location of all shovel tests is depicted in Figure 3.

The wooded nature (trees and roots) of the project area, especially on the western end, made it difficult to dig shovel tests at regular intervals. Tests were excavated at closer intervals near the tops of the hills and on level areas and further apart on the slopes. The shovel test intervals varied from 58-200 feet.

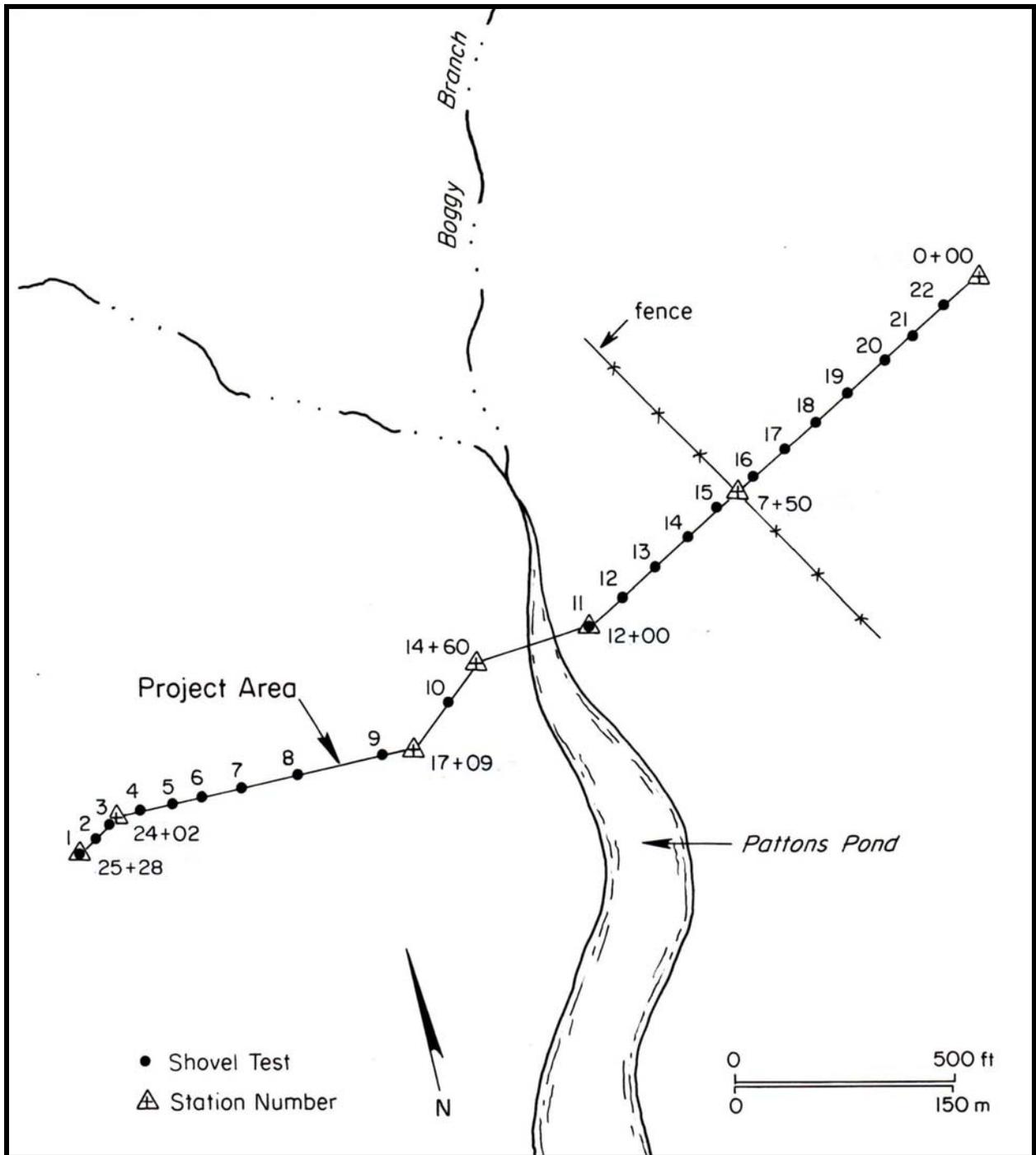


Figure 3. Project Area Map Depicting Shovel Test Locations

## RESULTS AND CONCLUSIONS

The records check at TARL revealed no previously recorded archaeological site in the project area. Significant sites in the county have been documented by professional studies such as those at McGee Bend.

The field survey followed a route that passed through thick woods along the slopes of hills and an area that has been extensively disturbed through logging activities. At the west end of the project area is a well pad that is currently under construction. In this area the soil type according to the soil survey for Jasper County is the Doucette-Boykin association, undulating (DUB) (Neitsch 1982; 21-22, Sheet 48). DUB soils are present on top of the hill and approximately halfway to the creek (Boggy Branch). Along the slope of the hill below the existing well pad, the soils consist of the Tehran-Letney association, hilly (TLE) in the center (Neitsch 1982; 43-44, Sheet 48). These soils are present at the floodplain and on both sides of the creek on the slopes. At the top of the hill at the eastern end of the project area and halfway to the creek are soils of the Letney-Tehran association, undulation (LTC) (Neitsch 1982; 30, Sheet 48). The project area superimposed on the soils map is depicted in Figure 4.

DUB soils are deep sandy soils on broad ridge tops and side slopes above drainage ways on uplands. Slopes range from 1 to 8 percent. These soils are well drained, runoff is slow, and permeability is moderate. The available water capacity is medium in the Doucette soils and low in the Boykin soils. LTC soils are deep, sandy soils on uplands on broad ridges and side slopes above drainage ways. Slopes range from 1 to 8 percent. They occupy most of the highest land forms in the area. Slopes are less than 1 percent. Letney soils are well drained, and Tehran soils are somewhat excessively drained. Permeability of the soils is moderately rapid. Runoff is slow. The available water capacity is medium for Letney soils and low for Tehran soils. TLE soils are deep sandy soils on ridge tops and side slopes above drainage ways on uplands. Slopes range from 8 to 20 percent. Tehran soils are somewhat excessively drained, and Letney soils are well drained. Permeability of Tehran and Letney soils is moderately rapid. Runoff is slow. The available water capacity is low for Tehran soils and medium for Letney soils.

No archaeological sites were found along the 2908 foot project area route. It is suggested here that the side slopes of the two upland hills nearby are low probability areas for prehistoric sites. The more level upland hilltops are viewed as areas of greater probability; however, these landforms are out of the project area.

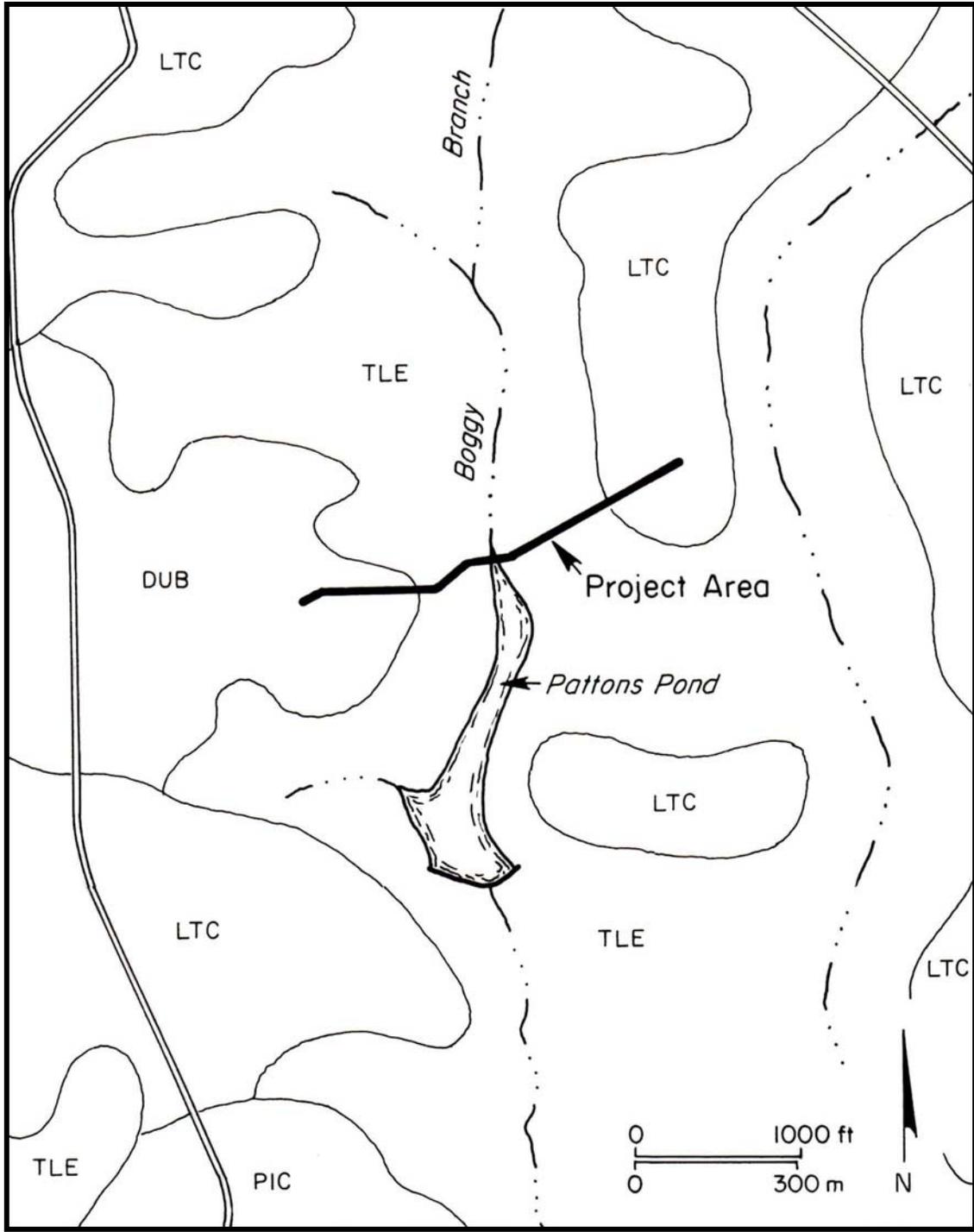


Figure 4. Project Area Soils

## **RECOMMENDATIONS**

BVRA recommends that Environmental and Safety Professionals, Inc. be allowed to proceed with construction of the water line as planned. It is the opinion of BVRA that no significant archaeological sites were missed during the examination of the 2908 foot proposed pipeline route. Should, however, cultural materials be exposed during the construction of the pipeline in areas other than mentioned above, all work should cease until the situation can be evaluated by the Texas Historical Commission in consultation with Environmental and Safety Professionals, Inc. and BVRA.

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## APPENDIX I: SHOVEL TEST LOG

Test	Station Number	Depth	Description
01	25+28	100 cm	light tan fine sandy loam*
02	24+68	90 cm	light tan fine sandy loam*
03	24+10	90 cm	light tan fine sandy loam*
04	23+50	95 cm	light tan fine sandy loam with numerous gravels*
05	22+90	60 cm	dark yellow fine sandy loam over red clay
06	22+00	50 cm	dark yellow fine sandy loam over red clay
07	21+00	40 cm	light yellow sand over yellow clay
08	19+80	50 cm	light yellow sand over yellow clay
09	17+80	50 cm	light yellow sand over yellow clay
10	15+80	40 cm	light yellow sand over yellow clay
11	12+00	90 cm	light yellow sand*
12	11+00	30 cm	light red fine sandy loam over red clay
13	10+00	50 cm	light red fine sandy loam over red clay
14	9+00	90 cm	light yellow fine sandy loam*
15	8+00	90 cm	light yellow fine sandy loam*
16	7+00	20 cm	dark yellow sand over red clay
17	6+00	85 cm	dark yellow sand over red clay
18	5+00	80 cm	dark yellow sand over red clay
19	4+00	90 cm	dark gray fine sandy loam to 30 cm and dark yellow fine sandy loam to 90 cm*

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Test	Station Number	Depth	Description
20	3+00	90 cm	dark gray fine sandy loam to 30 cm and dark yellow fine sandy loam to 90 cm*
21	2+00	90 cm	dark gray fine sandy loam to 30 cm and dark yellow fine sandy loam to 90 cm*
22	1+00	80 cm	dark gray fine sandy loam to 30 cm and dark yellow fine sandy loam to 80 cm*

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\* not dug to clay