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Eagle Mountain To Big Fossil Creek Diversion Tarrant, County, Texas

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Eagle Mountain To Big Fossil Creek Diversion Tarrant, County, Texas

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ARCHAEOLOGICAL SURVEY OF THE PROPOSED

***EAGLE MOUNTAIN TO BIG FOSSIL
CREEK DIVERSION***

TARRANT COUNTY, TEXAS

Texas Antiquities Permit Number 8259

Cody S. Davis, MA
Emily D. Goetschius, BA
and
Joy C. Tatem, BA

Principal Investigator: Cody S. Davis, RPA

Submitted to:

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Fort Worth, Texas 76107

Submitted by:

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Richardson, Texas 75081

Cultural Resources Report 2018-09
January 18, 2018

ARCHAEOLOGICAL SURVEY OF THE PROPOSED
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ABSTRACT

The City of Fort Worth is proposing to construct the Eagle Mountain to Big Fossil Diversion Pipeline in northern Tarrant County. Alan Plummer Associates, Inc. is handling the environmental permitting for the construction of the pipeline. AR Consultants, Inc. was contracted to conduct a cultural resource survey, which included archival research, to determine the presence of prehistoric and historic archaeological sites along the route and make recommendations about eligibility for the National Register of Historic Places (NRHP) and State Antiquities Landmark (SAL) designation. Four survey areas were identified, totaling approximately 3.1 kilometers of the approximately 9-km-long route. The westernmost survey area of the pipeline crosses Dosier Creek on the northside of Boat Club Road. The central segment out of the four survey areas is parallel to Park Drive and was investigated due to the presence of structures shown on historic maps within the 100-foot survey corridor. The longest segment in the east is parallel an intermittent tributary flowing northeast into Big Fossil Creek, while the final survey area approaches Big Fossil Creek in its floodplain. Survey of the approximately 25 acres was conducted on January 09, 2018. One site, 41TR309, was recorded and represents the remains of a historic farmstead. The site is not recommended eligible for NRHP or SAL. No other cultural resources were identified on or below the surface during the survey. Based on the results of the survey, ARC concludes that further cultural resource investigations for this project are unwarranted, and requests that the Texas Historical Commission (THC) concur with this recommendation. However, if buried cultural materials are discovered during construction, the Archeology Division of the THC should be notified. The records will be curated at the Center for Archaeological Studies at Texas State University in San Marcos.

TABLE OF CONTENTS

| | |
|---------------------------------------|-----|
| Abstract | i |
| Table of Contents | ii |
| List of Figures | ii |
| List of Tables | iii |
| Introduction..... | 1 |
| Natural Environment..... | 4 |
| Cultural History | 6 |
| Research Design and Methodology | 11 |
| Results..... | 12 |
| Recommendations..... | 25 |
| References Cited | 26 |

LIST OF FIGURES

| | |
|---|----|
| Figure 1. The Eagle Mountain to Big Fossil Diversion Pipeline route and survey areas shown on portions of the Avondale and Keller, TX 7.5’ USGS maps. | 2 |
| Figure 2. Survey area south of Park Drive shown on the 1920 soil map, and the 1955, 1968, and 1982 Avondale, TX 7.5” USGS maps. | 9 |
| Figure 3. Survey area south of Park Drive shown on 1953, 1956, 1963, and 1968 aerials. | 10 |
| Figure 4. ST locations on Avondale and Keller, TX 7.5’ USGS maps, while insets are shown on recent aerial photographs. STs 11-33 shown on Figure 6. | 13 |
| Figure 5. Location of ST3, showing large gravels on surface of plowed field. View facing west. | 14 |
| Figure 6. STs 11 through 33 shown on a recent aerial photograph..... | 15 |
| Figure 7. Shovel marking the location of ST16. View facing northeast..... | 16 |
| Figure 8. Property with restricted access from the southern boundary; ST19 was located within this area and was not excavated. View facing north..... | 16 |
| Figure 9. Construction disturbance within survey route, ST26-27 were not excavated. View is facing east..... | 17 |
| Figure 10. Location of ST28: not excavated due to sewer system and construction disturbance within survey route. View is facing east. | 17 |
| Figure 11. Plan map of 41TR309. | 20 |
| Figure 12. Looking down the centerline towards ST7 near the Atmos Facility. View is to the northeast. | 21 |
| Figure 13. Collapsed barn outside the survey corridor. View is to the southeast. | 22 |
| Figure 14. Structure with tank outside the survey corridor. View is to the southwest..... | 22 |
| Figure 15. Overview of site 41TR309 outside of the survey area. The red arrow points to the trough, while the green arrows point to a large trash scatter with possible foundation remains..... | 23 |
| Figure 16. Concrete foundation found in the survey area. View is to the north. | 23 |

LIST OF TABLES

Table 1. Cultural Chronology. 6
Table 2. Shovel Test Description Chart..... 18
Table 3. Deed Records for Site 41TR309..... 21

INTRODUCTION

The City of Fort Worth is proposing to construct the Eagle Mountain to Big Fossil Diversion Pipeline in northern Tarrant County (Figure 1). Alan Plummer Associates, Inc. is handling the environmental permitting for the construction of the pipeline. AR Consultants, Inc. (ARC) was contracted to conduct a cultural resource survey, which included archival research, to determine the presence of prehistoric and historic archaeological sites at stream crossings along the route, as well as other areas of high potential and make recommendations about eligibility for the National Register of Historic Places (NRHP) and State Antiquities Landmark (SAL) designation. Four survey areas were identified, totaling approximately 3.1 kilometers (km) of the approximately 9-km-long route. The westernmost survey area of the pipeline crosses Dosier Creek on the northside of Boat Club Road. The central segment of the four survey areas is parallel to Park Drive and was investigated due to the presence of structures shown on historic maps within the 100-foot survey corridor. The long segment in the east is parallel an intermittent tributary flowing northeast into Big Fossil Creek, while the final survey area approaches Big Fossil Creek in its floodplain.

The cultural resource investigation was required because the City of Fort Worth is an entity of the State of Texas. Texas Antiquities Permit Number 8259 was issued for the archaeological survey. Relevant legislation includes the Antiquities Code of Texas (Texas Natural Resource Code, Title 9, Chapter 191), Section 404 of the Clean Water Act, the National Historic Preservation Act of 1966, as amended (PL-96-515), the National Environmental Policy Act of 1969 (PL-90-190), the Archeological and Historical Preservation Act of 1974, as amended (PL-93-291), Executive Order No. 11593 “Protection and Enhancement of the Cultural Environment,” and Procedures for the Protection of Historic and Cultural Properties (36CFR800), Appendix C. The Archeology Division of the Texas Historical Commission will review this report as the State Agency.

This report is written in accordance with report guidelines used by the Archeology Division of the THC (Council of Texas Archeologists n.d.). The following report presents a brief description of the natural setting of the project area, followed by a discussion of the culture history and previous investigations within the study area. A chapter on the research design and methodology employed in the investigation is then followed by the results of the field investigation. The report concludes with recommendations followed by the references cited.

2 ARCHAEOLOGICAL SURVEY OF THE EAGLE MOUNTAIN TO BIG FOSSIL CREEK DIVERSION

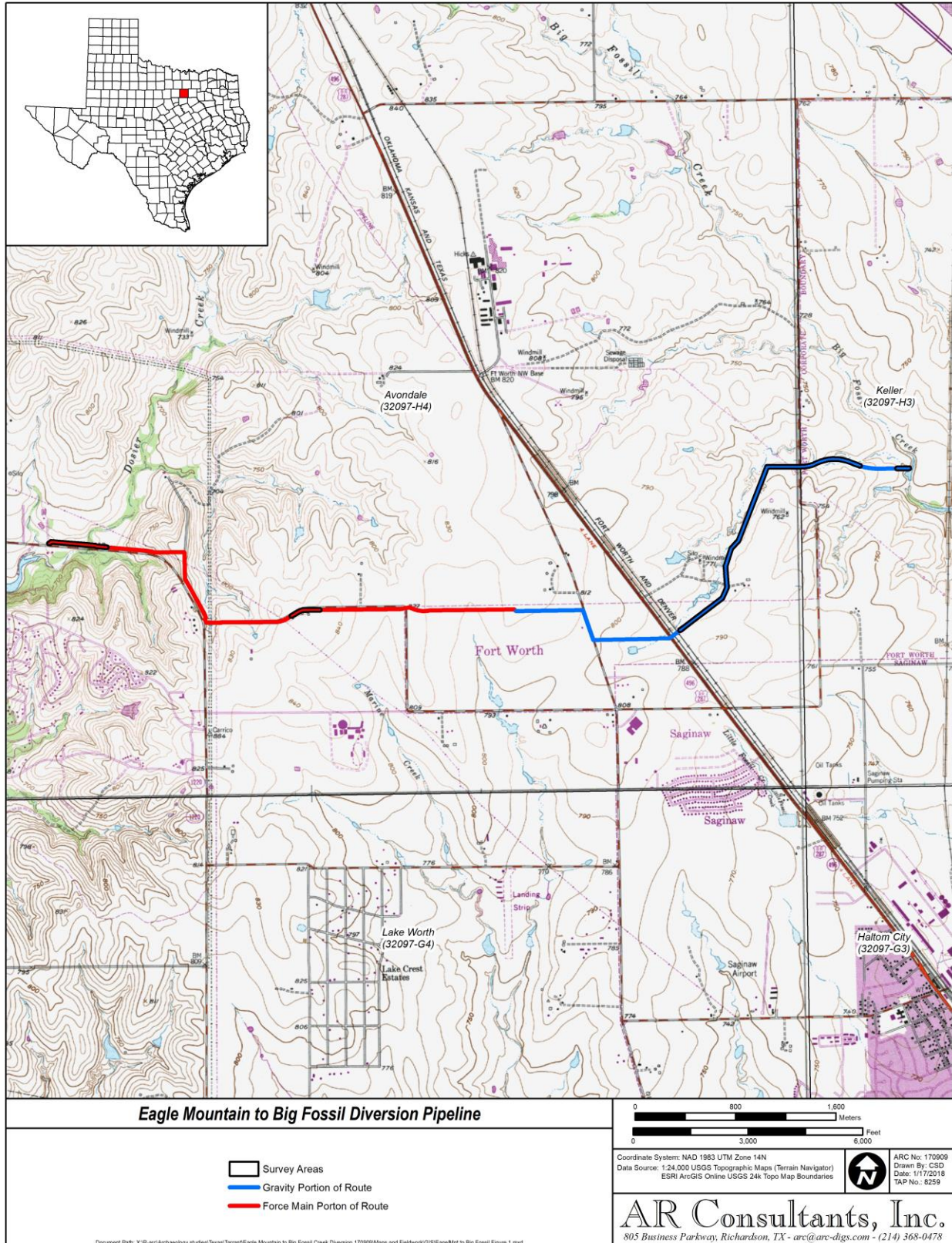


Figure 1. The Eagle Mountain to Big Fossil Diversion Pipeline route and survey areas shown on portions of the Avondale and Keller, TX 7.5' USGS maps.

Administrative Information:

ARC Project Number: 170909
Sponsor: City of Fort Worth
Review Agency: Archeology Division of the Texas Historical Commission.
Principal Investigator: Cody S. Davis, MA
Field Dates: January 9, 2018
Field Crew: Cody Davis and Joy Tatem
Field Person Days: 2
Acres Surveyed: approximately 25 acres
Sites Investigated:
 Prehistoric: none
 Historic: 41TR309
Curation: Center for Archaeological Studies, Texas State University, San Marcos

NATURAL ENVIRONMENT

The project area is situated in the Grand Prairie subregion of the Cross Timbers ecoregion of Texas (Griffith et. al 2007). This subregion is defined as an undulating plain underlain by Lower Cretaceous limestone. Vegetation includes tall prairie in the uplands and elm, pecan, and hackberry in riparian areas. The pipeline route crosses intermittent drainages in the upper reaches of the Big Fossil Creek watershed, namely Big Fossil Creek and an unnamed intermittent tributary as well as Dosier Creek, which flows into the West Fork of the Trinity River. The river is now covered by Eagle Mountain Lake. The perineal Big Fossil Creek flows into the west fork of the Trinity River approximately 11 miles east of the pipeline crossing. This area is generally described as a medium tall grassland, dominated by little bluestem grass and Texas needlegrass (Küchler 1964:76). The project area also lies within the Texan biotic province (Blair 1950), which features relatively low biotic diversity.

The geology underlying the majority of the project area is Lower Cretaceous-aged Fort Worth Limestone and Duck Creek Formation (Bureau of Economic Geology 1988). These formations consist primarily of limestone and clay. The geology underlying the westernmost segment, which crosses Dosier Creek, is the undivided Lower Cretaceous-aged Goodland Limestone and Walnut Clay (consisting of limestone, claystone, and mudstone). The study area overlays several soil types: Aledo gravelly clay loam with 1-8 percent slopes, Bolar-Aledo complex with 3-20 percent slopes, Bolar clay loam with 3-5 percent slopes, frequently flooded Frio silty clay, Maloterre and Brackett soils with 3-20 percent slopes, Sanger clay with 1-5 percent slopes, Slidell clay with 1-3 percent slopes, Speck clay loam with 0-3 percent slopes, Purves clay with 1-3 percent slopes, San Saba clay with 0-2 percent slopes, and Sunev clay loam with 3-8 percent slopes (Ressel 1981).

The Aledo soil series is comprised of a 0-4-inch-thick A horizon of dark grayish brown gravelly clay loam over a grayish brown Ak horizon, extending to an R horizon of indurated limestone between 16-20 inches. The Bolar series is characterized by a 0-6-inch-thick Ap horizon of brown clay loam over an A horizon of dark brown clay loam and an R horizon of indurated limestone bedrock between 36 and 44 inches. The Frio series is soils with a 0-8-inch-thick A horizon of dark grayish brown silty clay over an A2 horizon of dark grayish brown clay loam and a Bk horizon of grayish brown silty clay extending to 40-80 inches. The Maloterre series is soil with a 0-8-inch-thick A1 horizon of grayish brown gravelly clay loam over limestone. The Sanger series is a soil with a 0-7-inch-thick A horizon of dark grayish brown clay over an A horizon of dark grayish brown clay and underlain by a C horizon of light yellowish brown silty clay extending to 90 inches. The Slidell series is soils with a 0-6-inch-thick Ap horizon of dark gray clay over an A horizon of very dark gray clay and underlain by grayish brown clay extending to 80 inches. The Speck series is a soil with a 0-8-inch-thick A horizon of brown clay loam over a Bt horizon of reddish brown clay. The Purves series is with an A horizon of very dark grayish brown clay underlain by brown very gravelly clay extending to 14 inches, over indurated limestone. The San Saba series is an A horizon of very dark gray clay extending to 35 inches, underlain by an R horizon of indurated fractured limestone. The Sunev series is a 0-6-inch-thick Ap horizon of dark grayish brown loam over an A horizon of dark grayish brown loam and underlain by very pale loam extending to 72 inches.

The climate in Tarrant County is subtropical, featuring hot and humid summers and dry winters punctuated by occasional surges of cold air and plummeting temperature. Average daily high temperature is 76.1 degrees Fahrenheit. Rainfall peaks in late spring, while dry weather dominates winter and summer. Average yearly rainfall is 32.1 inches, peaking in the spring months (Ressel 1981:2-3).

CULTURAL HISTORY

The following North Central Texas culture chronology is derived from several comprehensive studies (Ferring and Yates 1997; Peter and McGregor 1988; Prikryl 1990) and is presented below to provide the reader with a temporal framework for the culture history of the region.

Table 1. Cultural Chronology.

| Period | Dates |
|--|------------------------------|
| Anglo-American Settlement | A.D. 1800 to present |
| Protohistoric [Historic Native American] | A.D. 1600 to A.D. 1850 |
| Late Prehistoric | A.D. 700 to A.D. 1600 |
| Archaic | 7000 B.C. to A.D. 700 |
| Paleoindian | ca. 11,000 B.C. to 7000 B.C. |

Prehistoric Native American settlement in North Central Texas began at least 10,000 years ago as attested to by the presence of distinctively shaped dart points and radiocarbon-dated cultural deposits at the Lewisville site (Crook and Harris 1957) and the Aubrey Clovis site (Ferring and Yates 2001). Moreover, artifact collectors report the presence of Clovis, Folsom, Scottsbluff, and other Paleoindian point types on the surface of sites in the region (Skinner et al. 1978); though, to date, no Clovis points have been reported from Tarrant County (Bever and Meltzer 2007). The presence of exotic lithic resources indicates that these early people traveled to a territory where higher quality lithics were available or that the people were involved in a system of raw material exchange. These early people hunted now-extinct large game, but certainly also foraged off the land.

The subsequent Archaic period lasted from as early as 7000 B.C. to as late as A.D. 700 (Prikryl 1990). Archaic populations lived throughout North Central Texas but particularly along the stream valleys where they were able to hunt and gather foods and resources. Dart points, grinding stones, fire-cracked rock, and scrapers are commonly found at Archaic sites. The earliest Archaic populations continued using exotic chert for dart points, but as time passed, there was a shift toward the use of local lithics, Uvalde Gravels, for chipped stone tools. Large Archaic sites are generally located on terraces or ridges that overlook the Trinity River and its various tributaries. Smaller lithic scatters have been recorded in the uplands throughout the area. Few Archaic sites in the region have been thoroughly studied.

It has been suggested that the climate was drier during the Late Prehistoric, and bison-hunting appears to have become the dominant subsistence strategy at this time. There is a marked Plains influence on lithic tool assemblages found in North Central Texas dating to this period, as exemplified by specific styles of projectile points, scrapers, knives, and drills (Prikryl 1990:80). The presence of bison-scapula hoes and a bison tibia digging stick found at Lewisville Lake indicates the appearance of, or at least an increase in horticulture during this period (Barber 1969:18-19). This concept is supported by the presence of sites along sandy terraces instead of the floodplain where earlier Late Prehistoric sites are found.

At the end of the Late Prehistoric period, there appears to have been a general abandonment of the North Central Texas area based on an absence of sites with trade goods that might have been

obtained from French, Spanish, or English traders (Skinner 1988). This interpretation is tied to a perceived general drying trend and attempts to factor in negative information generated by professional and avocational archaeologists who have conducted numerous site surveys throughout the region. There is very little evidence of protohistoric Native American occupation anywhere in Tarrant County, although historic accounts indicate that groups were present in the early 1800s. There is tantalizing evidence found on the Trinity River in adjacent Dallas County of a possible visit by Spanish explorer Hernando de Soto (Bruseth 1992). Artifacts found consist of a chain-mail gauntlet, a halberd, and a spur. More recent research, however, seems to indicate that Anglo-American settlers in the early 1800s were the first non-natives to settle in North Central Texas.

Beginning in the 1830s and continuing into the 1840s, the aboriginal inhabitants continued to play a role in the history of the region. Garrett (1972:24) states, “Indian hostilities almost depopulated North Texas (of Anglo dwellers) after 1839. It dwindled to less than half.” Hostilities continued until the State of Texas and ten Native American tribes signed the Treaty of 1843. This treaty provided the impetus for settlement of several North Central Texas counties.

Previous Investigations

Review of the Texas Archeological Sites Atlas (TASA) revealed six cultural resource investigations and seven recorded archaeological sites within one mile of the project area (TASA 2018). Investigations include a 2002 survey for the Fort Worth District of the US Army Corps of Engineers, and surveys in 2013, 2015, and 2016 for the City of Fort Worth, all conducted by ARC. Additional linear surveys were conducted in 1985 to the far southwest, and in 1987 to the far east end of the project area, however limited information was available with TASA (2018). The 2002 survey was for the proposed construction of the Chapel Hill Development, located in the uplands east of Eagle Mountain Lake (Trask and Skinner 2002). Intensive pedestrian survey did not reveal any prehistoric sites; however, a unique historic concrete airplane was recorded (41TR197). This site was used as a bombing target by Army Air Corps Cadets trained at Hicks Field during World War I, and was recommended eligible for listing in the NRHP. Site 41TR197 is located approximately 1.9 miles north of the west end of the current study area. The 2015 survey was conducted for the Northside II Pipeline route between US 287/81 and Saginaw Boulevard (Hall 2015). The THC requested that an archaeological survey be conducted at the six stream crossings along the route. No prehistoric or historic archaeological sites were discovered as predicted by the lack of permanent water, protective topography, knappable gravels, and limited plant and animal resources in the area. The eastern most portion of this route parallels the Eagle Mountain to Big Fossil Diversion pipeline route. The 2013 and 2016 surveys were conducted in response to proposed improvements to the Northwest Community Park (Davis et al. 2015; Rutherford 2016). Over the course of these surveys, ARC recorded or partially recorded six 20th century sites including a structural complex (41TR254), house (41TR255), dam and spillway (41TR256), rock chimney (41TR257), culvert (41TR258), and farmstead (41TR259). Each were recommended not eligible for listing in the NRHP or as SALs.

The following historic maps were reviewed to help identify possible historic site locations: the 1894 Fort Worth, TX 125k USGS topographic map, the 1895 Sam Street’s Map of Tarrant County, the 1920 Tarrant County Soil Map, and the 1936 and 1958 General Highway maps (GHM) of Tarrant County. No structures or features besides roads, railroad, and drainages are

depicted in the study area until 1920, when the area begins to show a sparse scattering of structures. One structure appears near the survey area along the intermittent tributary in the east. This structure is not present on the 1958 map. Four structures were noted within the project area on 1955 Avondale, TX 7.5' USGS topographic map (Figure 2). These structures were on the south side of Park Drive within the proposed 100-foot-wide survey corridor. These structures were shown on the subsequent 1968, 1972, and 1982 Avondale 7.5' maps. A fifth structure was added between 1972 and 1982. Historic aerials corroborate these topo maps and provide a bit more detail. The 1953 aerial shows six to eight structures on the property, but the resolution is not good enough to confirm until the higher resolution obtained in 1956 (Figure 3). This aerial confirms eight structures were present. The farmstead remained the same through 1963, but by 1968, at least two of the northernmost structures had been removed. By 1979, only two of the structures remained, which does not match the photorevised 1982 Avondale 7.5' map. The two structures remained through 1990, but by 1995 only one remained. Google Earth aerial photos suggest this structure was still standing as late as 2005. The remainder of the route shown on recent aerial photographs demonstrates that most of the pipeline route follows along country roads and through modern residential developments.

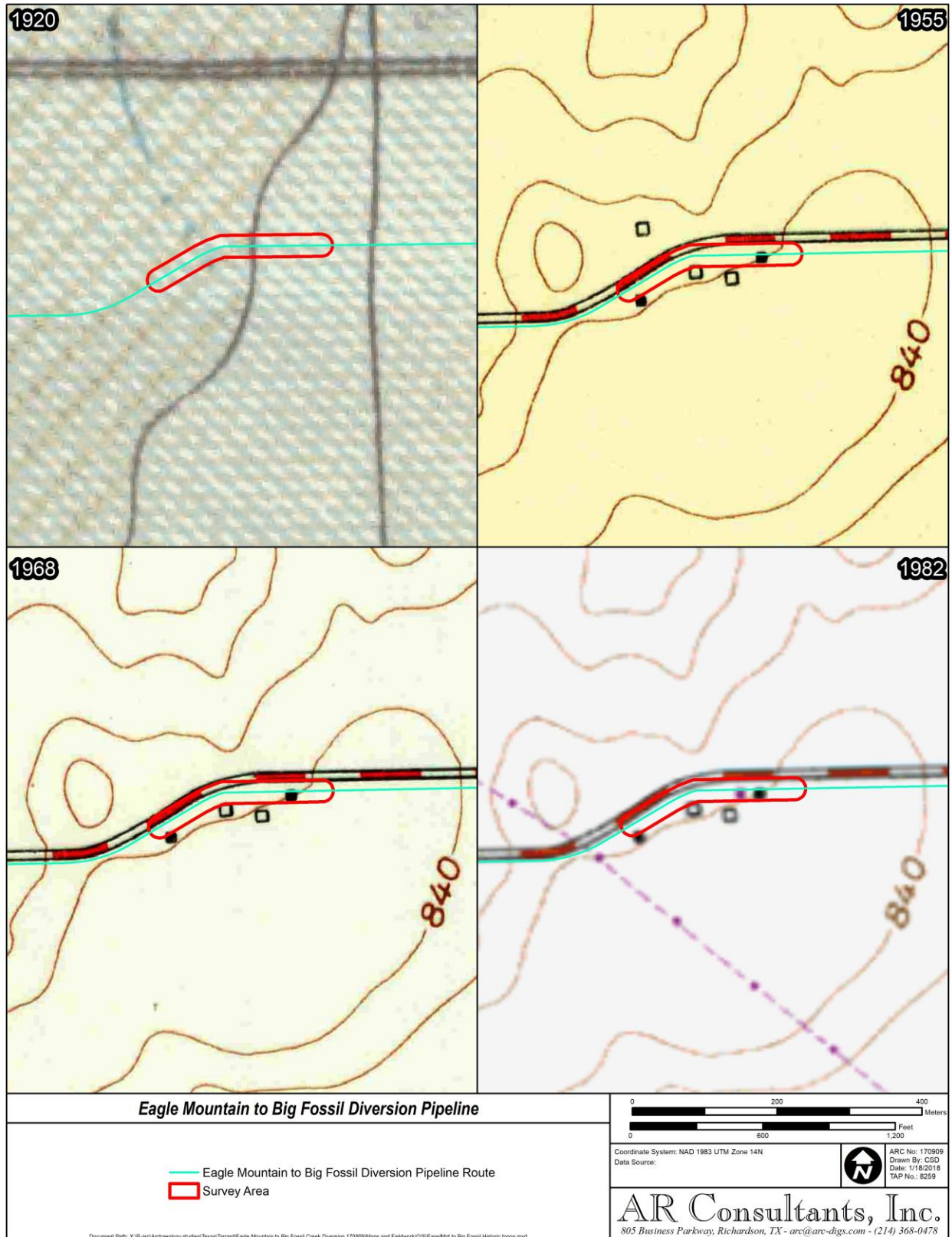


Figure 2. Survey area south of Park Drive shown on the 1920 soil map, and the 1955, 1968, and 1982 Avondale, TX 7.5" USGS maps.



Figure 3. Survey area south of Park Drive shown on 1953, 1956, 1963, and 1968 aerials.

RESEARCH DESIGN AND METHODOLOGY

Research Design

Two hypotheses were formulated regarding the archaeological potential of the project area. First, it was hypothesized that prehistoric archaeological sites would not be encountered in the project area unless in close proximity to drainages. Water is typically only present in these ephemeral drainages after precipitation and then it rapidly runs off the rolling terrain into the various drainages. The project area is in a degrading geologic environment. Therefore, any prehistoric remains which may have been present would have been on the surface prior to plowing and there could be evidence of them still visible on the surface. Furthermore, the low rolling terrain would not provide protection against inclement weather. Additionally, there are no knappable materials reported in the area. Lastly, the plant and animal populations that inhabit this area would have provided little food.

The second hypothesis is that there was potential of historic sites being within the project area at mapped structure locations. Available historic maps show structures within the proposed survey corridor on the south side of Park Drive as well as along the survey area that parallels the ephemeral drainage to Big Fossil Creek. These areas have been distinctly rural and used as farmland until relatively recently. Historic trash scatters are common along drainages and roads and may be old enough to be recorded as sites.

Methodology

Survey was conducted in accordance with the standards set forth by the THC (n.d.). Field personnel walked the entire tract in transects no wider than 30m. Shovel tests were excavated throughout the tract averaging three per acre, where the slope was less than 20 percent and the ground visibility less than 30 percent. Shovel tests (STs) averaged 30cm in diameter, implementing the use of an auger when necessary. All loamy soils were screened through ¼" wire mesh screens. The clay fill was inspected visually and broken into smaller chunks in order to determine if cultural materials were present. ST soil matrices were described on the basis of composition, texture, and color. The Munsell Soil Color Chart (2010) was used to identify soil colors. Field personnel made notes about the ground exposure, drainages, soil types, and disturbed areas where subsoil was exposed. Photographs were taken during the survey using a 16-megapixel, GPS-equipped, digital camera. ST and project boundary locations were marked with a handheld GPS receiver.

RESULTS

This chapter is divided into three sections. The first describes the study area's setting along with results of the pedestrian survey; the second describes the historic site recorded (41TR309) during the survey. Conclusions derived from the survey close the chapter. While STs are described generally throughout the survey results, they are detailed in Table 2 at the end of the survey results section.

Survey Results

The survey investigated four pipeline segments along the route and included a total of 35 STs (Figure 4). All general project shovel tests were devoid of cultural material and nothing was observed on the surface in all but the survey area south of Park Drive where site 41TR309 was recorded. The westernmost segment parallels Boat Club Road on the north side for 467 meters. STs 1-6 were excavated within this segment. STs 1 and 2 were located overlooking the floodplain on the edge of the upland ridge, where bedrock was exposed on the surface. ST1 soils were mottled brown/pale brown/yellowish brown gravelly clay extending to 40 cmbs, while ST2 revealed 20 cm of gravelly brown loam underlain by 30 cm of mottled yellowish brown/light brownish gray gravelly clay. The general environment in this location was lightly wooded fields and grasses resulting in 40- to 50-percent ground visibility. STs 3-6 were located in plowed agricultural fields, within the floodplain; large gravel was visible on the surface (Figure 5). No knappable gravels were observed. This segment intersects Dosier Creek, which runs between ST 4 and 5. STs 3-6 revealed similar soils, with 30-40 cm of very dark grayish brown/brown gravelly loam underlain by very pale brown/light brownish gray gravelly mottled clay. ST3 also contained some calcium carbonate and terminated at limestone bedrock at 40 cmbs. STs 7-10 were excavated in association with site 41TR309 and they consisted of brown gravelly loam on top of gravel layer likely to be decomposing bedrock.

The two easternmost segments are located east of N. Saginaw Boulevard and proceed northeast toward Big Fossil Creek. The longest surveyed segment totals 2.3 km in length and contains STs 11-33 (Figure 6); the easternmost segment is the shortest with a length of 96 meters and contains STs 34-35. The longer segment begins just east of the railroad tracks, proceeding northeast through pastures and behind residential houses (Figure 7). One property along this segment had denied access, therefore the survey crew was not able to excavate ST19 (Figure 8). The route then proceeds east once it reaches Wagley Robertson Rd, crossing through approximately 300 meters of construction disturbance that closely paralleled the Northside II route (Hall 2015). This resulted in ST26-27 being skipped (Figure 9). The location of ST28 was also affected by this construction disturbance in addition to a sewer system, resulting in this ST also being skipped (Figure 10). The general environment of these segments was ankle- to knee-high grasses resulting in 20- to 40-percent ground visibility with scattered trees, the easternmost areas being moderately wooded.

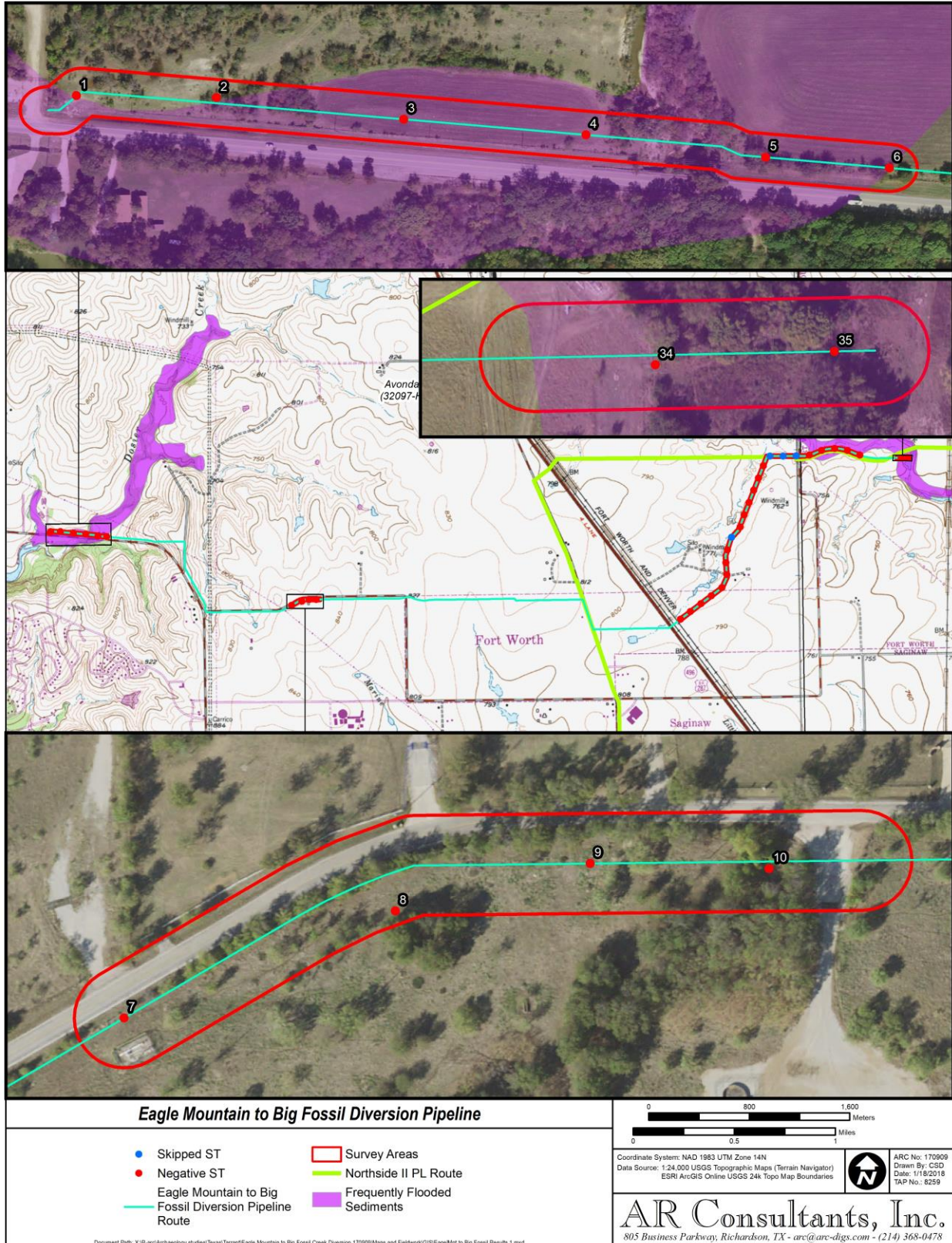


Figure 4. ST locations on Avondale and Keller, TX 7.5' USGS maps, while insets are shown on recent aerial photographs. STs 11-33 shown on Figure 6.

STs 11-16 revealed similar soil profiles, with a 10- to 30-cm-thick A horizon of very dark brown loamy clay with 10 to 40 percent large gravel, on top of impenetrable rocks/bedrock. STs 17, 21, 23-25, and 32-33 also exposed analogous soils profiles with a 15- to 20-cm-thick A horizon of very dark brown loamy clay underlain by a mottled very dark brown to grayish/yellowish brown clay; STs 32-33 contained calcium carbonate. STs 20, 29, 31, and 34 revealed 20-45 cm of this mottled clay, and ST20 was on top of impenetrable rocks/bedrock. ST22 exposed 35 cm of dark grayish brown silty loam with 30 percent sandstone flecks. STs 18 and 30 soil profiles revealed 30-40 cm of very dark brown/black loamy clay on top of very dark gray clay subsoil. ST35 revealed 60 cm of very dark grayish brown clay loam with gravel, underlain by 60 cm of mottled very dark grayish brown/brownish yellow clay and gravel, was above black clay and gravel/shale/limestone extending to 150 cmbs, which was too gravelly to continue to dig.



Figure 5. Location of ST3, showing large gravels on surface of plowed field. View facing west.



Figure 6. STs 11 through 33 shown on a recent aerial photograph.



Figure 7. Shovel marking the location of ST16. View facing northeast.



Figure 8. Property with restricted access from the southern boundary; ST19 was located within this area and was not excavated. View facing north.



Figure 9. Construction disturbance within survey route, ST26-27 were not excavated. View is facing east.



Figure 10. Location of ST28: not excavated due to sewer system and construction disturbance within survey route. View is facing east.

Table 2. Shovel Test Description Chart.

| ST | Depth (cmts) | Description | General Project or Site Number | Comments /Artifacts |
|----|----------------------|---|--------------------------------|---------------------|
| 1 | 0-40 | Brown (10YR5/3) clay mottled w/20% very pale brown (10YR7/3) and yellowish brown (10YR5/8) clay, gravelly | General Project | None |
| 2 | 0-20 20-50 | Brown (10YR4/3) loam, gravelly Yellowish brown (10YR5/4) clay mottled w/50% light brownish gray (10YR6/2) clay, gravelly | General Project | None |
| 3 | 0-30 30-40 40+ | Very dark grayish brown (10YR3/2) loam w/gravel Very pale brown (10YR8/4) clay mottled w/30% light brownish gray (10YR6/2) clay and CaCO ₃ Limestone bedrock | General Project | None |
| 4 | 0-40 40-50 | Very dark grayish brown (10YR3/2) loam w/gravel Very pale brown (10YR8/4) clay mottled w/30% light brownish gray (10YR6/2) clay and large limestone gravel | General Project | None |
| 5 | 0-30 30-40 | Very dark grayish brown (10YR3/2) loam w/gravel Very pale brown (10YR8/4) clay mottled w/30% light brownish gray (10YR6/2) clay and gravel | General Project | None |
| 6 | 0-40 40-50 | Brown (10YR4/3) loam, gravelly Very pale brown (10YR8/4) clay mottled w/30% light brownish gray (10YR6/2) clay and gravel | General Project | None |
| 7 | 0-60 | Brown (10YR4/3) clay loam, gravelly | 41TR309 | None |
| 8 | 0-40 40+ | Brown (10YR4/3) clay loam, gravelly Gravel | 41TR309 | None |
| 9 | 0-40 40+ | Brown (10YR4/3) clay loam, gravelly Gravel | 41TR309 | None |
| 10 | 0-30 30+ | Brown (10YR4/3) clay loam, gravelly Gravel | 41TR309 | None |
| 11 | 0-30 30+ | Very dark brown (10YR2/2) loamy clay w/40% large gravel (>10 mm) Impenetrable rocks | General Project | None |
| 12 | 0-30 30+ | Very dark brown (10YR2/2) loamy clay w/10% large gravel (>10 mm) Impenetrable rocks | General Project | None |
| 13 | 0-30 30+ | Very dark brown (10YR2/2) loamy clay w/20% large gravel (>10 mm) Impenetrable rocks | General Project | None |
| 14 | 0-20 20+ | Very dark brown (10YR2/2) loamy clay w/20% large gravel (>10 mm) Impenetrable rocks | General Project | None |
| 15 | 0-30 30+ | Very dark brown (10YR2/2) loamy clay w/20% large gravel (>10 mm) Impenetrable rocks | General Project | None |
| 16 | 0-10 10+ | Very dark brown (10YR2/2) loamy clay w/40% large gravel (>10 mm) Impenetrable rocks | General Project | None |
| 17 | 0-40 40-50 | Very dark brown (10YR2/2) loamy clay Very dark brown (10YR2/2) clay mottled w/10% very | General Project | None |

| ST | Depth (cmbs) | Description | General Project or Site Number | Comments /Artifacts |
|----|---------------------------|--|--------------------------------|-------------------------|
| | | dark grayish brown (10YR3/2) clay | | |
| 18 | 0-40 40-50 | Very dark brown (10YR2/2) loamy clay Very dark gray (10YR3/1) clay | General Project | None |
| 20 | 0-45 45+ | Very dark gray (10YR3/1) clay loam mottled w/20% light yellowish brown (10YR6/4) clay loam Impenetrable rocks | General Project | None |
| 21 | 0-30 30-55 | Very dark brown (10YR2/2) loamy clay Very dark brown (10YR2/2) loamy clay mottled w/20% brown (10YR4/3) loamy clay | General Project | None |
| 22 | 0-35 | Dark grayish brown (10YR4/2) silty loam w/30% flecks of sandstone (>1mm) | General Project | None |
| 23 | 0-20 20-40 | Black (10YR2/1) loamy clay, compact Very dark gray (10YR3/1) clay mottled w/50% very dark grayish brown (10YR3/2) clay, compact | General Project | None |
| 24 | 0-20 20-25 | Very dark brown (10YR2/2) loamy clay Very dark gray (10YR3/1) clay mottled w/50% very dark grayish brown (10YR3/2) clay, compact | General Project | None |
| 25 | 0-15 15-25 | Very dark brown (10YR2/2) loamy clay Very dark gray (10YR3/1) clay mottled w/50% very dark grayish brown (10YR3/2) clay, compact | General Project | None |
| 29 | 0-20 | Dark grayish brown (10YR4/2) clay mottled w/30% light yellowish brown (10YR6/4) clay and 10% yellowish brown (10YR5/8) clay w/CaCO ₃ | General Project | Disturbed |
| 30 | 0-30 30-40 | Black (10YR2/1) loamy clay Very dark gray (10YR3/1) clay | General Project | None |
| 31 | 0-40 | Very dark grayish brown (10YR3/2) fat clay mottled w/10% dark yellowish brown (10YR3/6) fat clay, moist | General Project | Terminated due to roots |
| 32 | 0-40 40-50 | Very dark brown (10YR2/2) loamy clay Very dark grayish brown (10YR3/2) clay w/CaCO ₃ (>1 mm) | General Project | None |
| 33 | 0-40 40-50 | Brown (10YR4/3) clay loam w/gravel and CaCO ₃ Brownish yellow (10YR6/8) clay mottled w/30% dark yellowish brown (10YR4/4) clay, gravel and CaCO ₃ | General Project | None |
| 34 | 0-40 | Very dark grayish brown (10YR3/2) clay mottled w/50% light gray (10YR7/2) gravelly loam- fill | General Project | None |
| 35 | 0-60 60-120 120-150 | Very dark grayish brown (10YR3/2) clay loam w/gravel Very dark grayish brown (10YR3/2) clay mottled w/50% brownish yellow (10YR6/8) clay and gravel Black (10YR2/1) clay w/gravel, shale, and limestone-very wet | General Project | None |

41TR309

Site 41TR309 is located *Nqecvqp'lphto cvqp'tgf cevgf + *Nqecvqp'lphto cvqp'tgf cevgf +(Figure 11). The site is located on two parcels, that were once part of a larger parcel. Previously discussed historic maps and aerials demonstrated the site was occupied after 1936 and before 1955. Deeds research (Table 3) demonstrates that the property belonged to the R.C. Boaz family during that time. Survey of the centerline on the south side of the road documented a foundation and some concrete debris on the surface within the 100-ft corridor. Four STs (7-10) were excavated, but none recovered any artifacts. ST 7 was excavated near an Atmos Natural Gas Metering Station (Figure 12). The area was covered with short grasses and ground visibility was between 0 and 50 percent. Trees consisted of larger older oaks and a few mesquites.

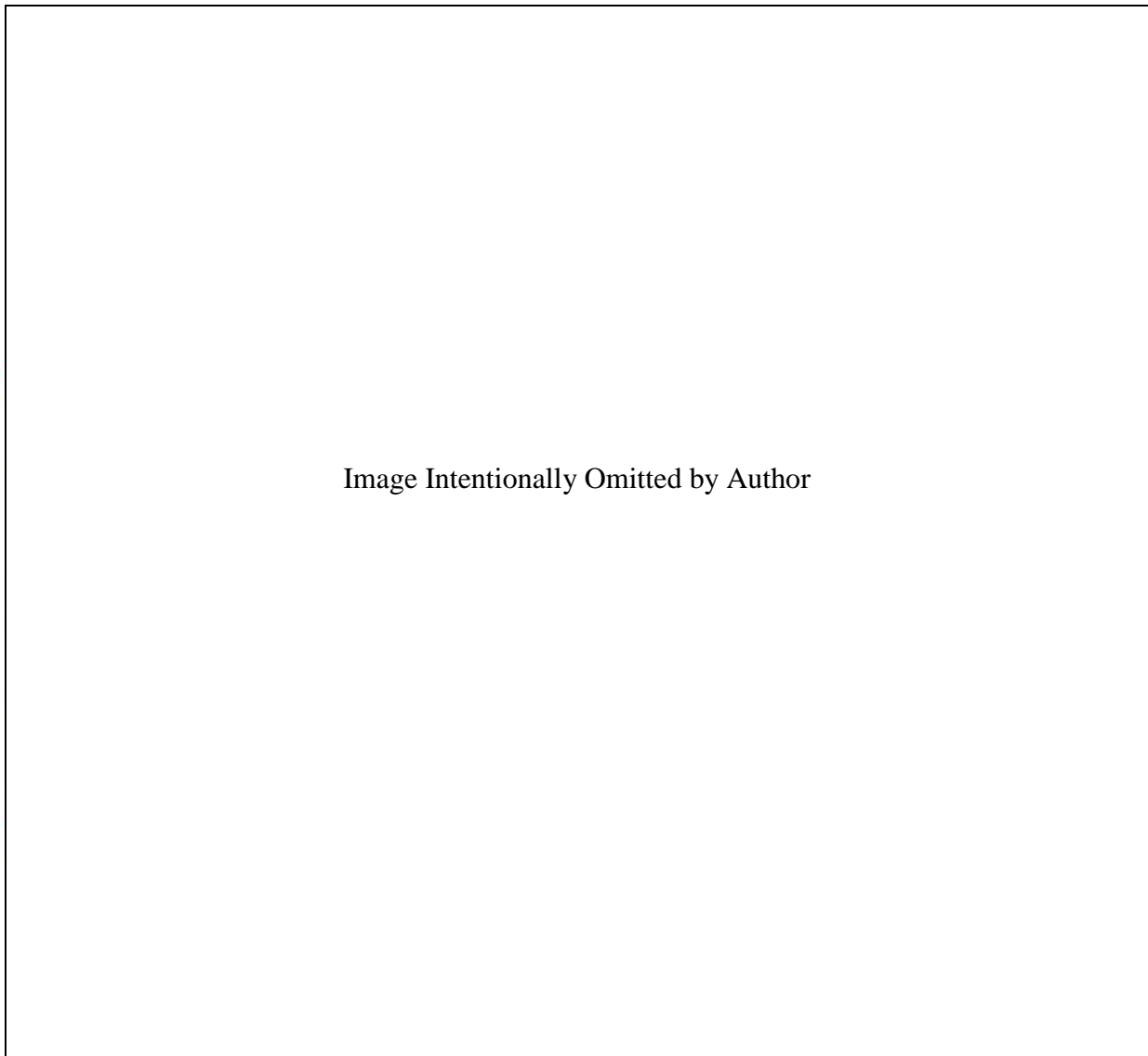


Figure 11. Plan map of 41TR309.

Table 3. Deed Records for Site 41TR309.

| Grantor | Grantee | Date | Volume | Page Number |
|--------------------|-----------------------------|------------|--------|-------------|
| Nora Lee Elkins | DBE Realty Investments, Ltd | 10/04/2002 | 16417 | 167 |
| Boaz Et al. Estate | Nora Lee Elkins | 04/21/1983 | 7497 | 459 |
| Tarrant County | R.C. Boaz | 10/17/1935 | 1267 | 605 |
| W.R. Ross | Tarrant County | 04/24/1935 | 1247 | 418 |
| A.R. Jameson | W.R. Ross | 08/07/1923 | 758 | 39 |



Figure 12. Looking down the centerline towards ST7 near the Atmos Facility. View is to the northeast.

Outside of the survey area, there was a collapsed barn (Figure 13), which corresponded to the last structure observed on the 2005 Google Earth aerials. Additionally, one small concrete structure with a tank on top of it (Figure 14) was under the denser tree canopy, which was likely why it was not seen on the aerials. Both of these features are approximately three meters outside the survey corridor. However, estimated easements for the project demonstrate that the features are 10 to 15 meters outside the temporary construction easement and nearly 20 meters outside the permanent easement. Additionally, even further outside the survey corridor are other features (like a concrete trough), historic trash scatter, and possible foundation (Figure 15) associated with some of the other structures shown on early aerials. Only the foundation to the structure removed by 1968 is within the survey area (Figure 16). The foundation is approximately 5 meters by 15 meters. Research on the Boaz family, specifically R.C. did not reveal any ties to historical events or significance to the local, state, or county history.



Figure 13. Collapsed barn outside the survey corridor. View is to the southeast.



Figure 14. Structure with tank outside the survey corridor. View is to the southwest.



Figure 15. Overview of site 41TR309 outside of the survey area. The red arrow points to the trough, while the green arrows point to a large trash scatter with possible foundation remains.



Figure 16. Concrete foundation found in the survey area. View is to the north.

Conclusions

Beyond site 41TR309, no other cultural resources were found during the survey of the project area. In terms of prehistoric resources, no evidence of occupation was found, which was expected given the location in the uplands near intermittent drainages. Intermittent streams did not provide a consistent water source conducive to prehistoric occupation. Site 41TR309 is the remains of a historic farmstead. The site has been almost completely demolished, leaving only a collapsed barn, a small outbuilding with a tank on top of it, a trough, some foundations, and a scatter of concrete and brick fragments. No artifacts were recovered in shovel tests and no diagnostics were found on the surface. ARC concludes that the site is not recommended as eligible for NRHP listing or for designation as an SAL. The property cannot be tied to any significant individuals or events (36 CFR 60.4a-b). The structures do not represent a unique construction form (36 CFR 60.4c). Based on surface scatter and lack of subsurface cultural deposits, it is unlikely the site holds any further potential to provide insight into past lifeways or environments (36 CFR 60.4d).

RECOMMENDATIONS

The purpose of this investigation was to determine if significant cultural resources are present in the proposed Eagle Mountain to Big Fossil Diversion Pipeline project area in Tarrant County, Texas. Site 41TR309 is the remains of a historic farmstead, but is not recommended eligible for NRHP or SAL listing. No other cultural resources were identified on or below the surface during the survey. Based on the results of the survey, ARC concludes that further cultural resource investigations for this project are unwarranted, and requests that the THC concur with this recommendation. However, if buried cultural materials are discovered during construction, the Archeology Division of the THC should be notified.

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