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Cultural Resources Survey of the FGE Texas Project, Mitchell County, Texas

Prepared for

U.S. Environmental Protection Agency

On behalf of

FGE Power, LLC

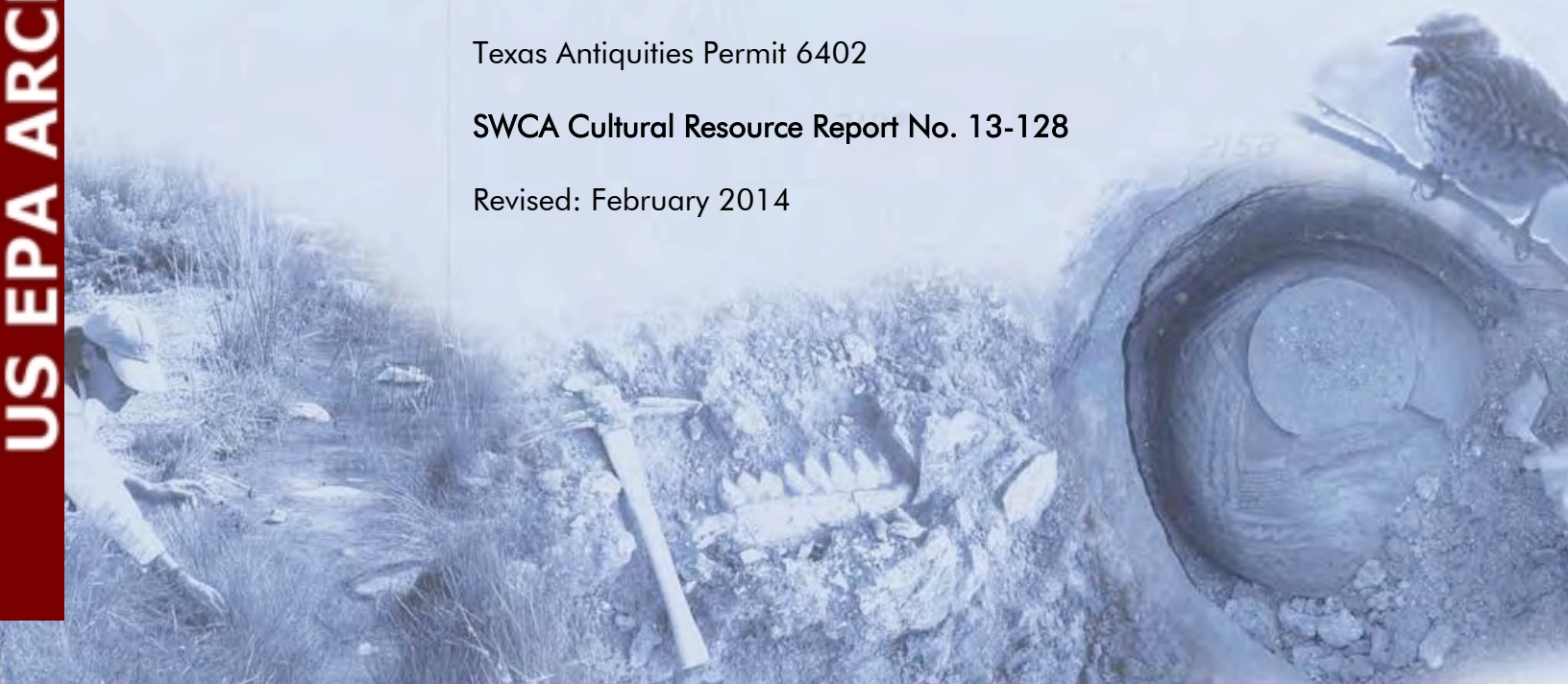
Prepared by

SWCA Environmental Consultants

Texas Antiquities Permit 6402

SWCA Cultural Resource Report No. 13-128

Revised: February 2014



CULTURAL RESOURCES SURVEY OF THE FGE TEXAS PROJECT, MITCHELL COUNTY, TEXAS

Prepared for

U.S. ENVIRONMENTAL PROTECTION AGENCY
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On behalf of

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Texas Antiquities Permit 6402

SWCA Project Number 23583-AUS
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ABSTRACT

On behalf of FGE Power, LLC (FGE), SWCA Environmental Consultants (SWCA) conducted an intensive cultural resources survey of a proposed power plant in west-central Mitchell County, Texas. FGE proposes to construct a greenfield electric generating station and ancillary equipment on an approximately 200-acre site located about 3.5 miles south-southwest of Westbrook, Mitchell County, Texas. FGE proposes to designate the project as the "FGE Texas Project." The FGE Texas Project will include two combined-cycle power blocks. The proposed facility would be constructed in two phases, with Phase I consisting of a single power block operating in combined-cycle mode. A second power block consisting of an additional 2-on-1 combined-cycle power block would be constructed at a later date during Phase II of the project.

The project will require authorization under current Greenhouse Gas (GHG) permitting requirements. GHG permits are presently administered by the Environmental Protection Agency (EPA); therefore, archaeological investigations were conducted in accordance with Section 106 of the National Historic Preservation Act of 1966 (as amended). In addition, Mitchell County, a political subdivision of the State of Texas, owns the property upon which the proposed power plant will be constructed; however, the land will be subsequently transferred to FGE Power. As such, cultural resources investigations were also conducted to satisfy the requirements of the Antiquities Code of Texas (Permit No. 6402).

The area of potential effects (APE) for direct effects is defined as the entire 200-acre project site. The depth of impact is currently undetermined. While the majority of the facility will have a low profile, multiple narrow (20-feet-wide) combustion turbine stacks are proposed at a height 213 feet above the ground surface. SWCA examined an APE for indirect (visual) effects of 0.75 mile. The investigations included a background review of the APE and a surrounding 1-mile study area, an intensive pedestrian survey with subsurface investigations of the APE for direct effects, and a desktop review of the APE for indirect effects to identify existing historic properties. The EPA is the lead federal agency for the project.

The background review determined that the APE for direct effects has not been surveyed for cultural resources, and no previously recorded cultural resources are within or immediately adjacent to the 200-acre proposed project site. Two cultural resources were identified within the 1-mile study area. An Official Texas Historical Marker for the Conaway School is approximately 1,770 feet (0.34 mile) south of the proposed project site. The Conway School is no longer standing; it is now a plowed agricultural field. A farmstead (41MH91), which remains unevaluated regarding its National Register of Historic Places (NRHP) eligibility or its eligibility as a State Antiquities Landmark (SAL), was identified approximately 4,500 feet (0.85 mile) to the northeast of the proposed project site. A review of the Texas Department of Transportation Historic Overlay maps did not identify any other historic-age structures in or near the proposed project site. The review of these sources and available aerial photography for the entire 1-mile study area shows that the properties have long been cleared agricultural fields or pasture.

Intensive survey within the 200-acre proposed project site revealed common modern disturbances associated with farming and ranching activities, including a stock tank, plowing, and extensive agricultural terracing. A total of 61 shovel tests were excavated across the survey area, four of which were positive for cultural material. One historic site (41MH90) was documented as a result of the investigation. This site consists of 11 historic resources including six standing structures. The site is recommended as not eligible for listing as a SAL or for inclusion in the NRHP under all criteria based on the resources' poor condition, compromised integrity, and lack of association with significant individuals. One prehistoric chipped stone artifact and the remnants of a collapsed oil well were noted on the ground surface of the survey area, but neither was sufficient to justify definition of an archaeological site and both were recorded as isolated finds.

SWCA's intensive cultural resources survey concluded that there are no cultural resources eligible for the NRHP or for listing as SALs located within the APE for direct effects. A desktop review revealed that there are no historic properties located within the APE for indirect effects. As such, the proposed FGE Texas Project undertaking will have no effect on historic properties (i.e., cultural resources that are listed on or meet the criteria to be listed on the NRHP), and no further archaeological investigations are recommended. Based on these findings, SWCA recommends that a determination of *No Historic Properties Affected* be granted for the project to proceed as planned.

ACKNOWLEDGEMENTS

Judith R. Cooper served as Principal Investigator and Task Manager for the project, overseeing project logistics and organization, and managing reporting and agency consultation. Matthew Stotts served as Field Director and primary report author, assisted by Kevin Hanselka and Field Technicians Alamea Young and Melissa Garcia. Architectural Historian Kristen Brown evaluated site 41MH90 and Carole Carpenter produced all field and report maps for the project.

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INTRODUCTION

On behalf of FGE Power, LLC (FGE), SWCA conducted an intensive cultural resources survey of a proposed 200-acre power plant in west-central Mitchell County, Texas (Figure 1). FGE proposes to construct a greenfield electric generating station and ancillary equipment about 3.5 miles south-southwest of Westbrook, Mitchell County, Texas. FGE proposes to designate the project as the "FGE Texas Project." The FGE Texas Project will include two combined-cycle power blocks. The proposed facility would be constructed in two phases, with Phase I consisting of a single power block operating in combined-cycle mode. A second power block consisting of an additional 2-on-1 combined-cycle power block will be constructed at a later date during Phase II of the project.

The proposed project will require authorization under current Greenhouse Gas (GHG) permitting requirements. GHG permits are presently administered by the Environmental Protection Agency (EPA); therefore, archaeological investigations were conducted in accordance with Section 106 of the National Historic Preservation Act (NHPA) of 1966 (as amended). In addition, as the property is owned by Mitchell County, a political subdivision of the State of Texas, cultural resources investigations were conducted to satisfy the requirements of the Antiquities Code of Texas (Permit No. 6402). The EPA is the lead federal agency for the project.

The area of potential effects (APE) for direct effects is defined as the entire 200-acre proposed project site. The depth of impact is currently undetermined. While the majority of the facility will have a low profile, multiple narrow (20-feet-wide) combustion turbine stacks are proposed at a height 213 feet above the ground surface. SWCA examined an APE for indirect (visual) effects of 0.75 mile. The investigations included a background review of the APE and a surrounding 1-mile study area, an intensive pedestrian survey with subsurface investigations of the APE of direct effects, and a desktop review of the APE of indirect effects to identify existing historic properties.

Judith R. Cooper served as Principal Investigator for the project (Appendix A) and SWCA archaeologists Matthew Stotts, Alamea Young, and Melissa Garcia conducted the fieldwork on March 18–20, 2013. The purpose of the fieldwork was to locate and identify cultural resources within the APE for direct effects, establish vertical and horizontal site boundaries as appropriate with regard to the proposed project site, and evaluate the significance and eligibility of any site recorded within the property for listing on the National Register of Historic Places (NRHP) or as a State Antiquities Landmark (SAL).

DEFINITION OF STUDY AREA AND ENVIRONMENTAL SETTING

The FGE Texas Project parcel lies roughly 3.5 miles south-southwest of Westbrook, in west-central Mitchell County, Texas. The tract is bounded on the west by the unpaved County Road (CR) 266, and by barbed wire fence lines on the north and east. The southern boundary is roughly 0.25 mile north of CR 262 (Figure 2).

The proposed project site is situated within the High Plains Physiographic Province of Texas, which lies between the Basin and Range Province including the Rocky Mountains on the west and the lowlands of the Gulf Coastal Plains to the southeast (Blair 1950). The High Plains are generally flat plateaus formed by deposition of stream-carried sediments flowing eastward from the Rocky Mountains. The sand and gravel deposited by the streams form the Ogallala aquifer underlying the High Plains, whereas windblown sands and silts that settle on the ground surface form thick, rich soils and local areas of caliche (Blair 1950).

The proposed power plant site is in a rural setting dominated by broad expanses of gently rolling agricultural land. Remnant oil well pads are also present in and around the proposed project site. Modern disturbances to the proposed project site include an artificial stock pond and associated berm, cattle trampling, regular plowing, fencing, an existing transmission line, a recently excavated deep water well, and extensive agricultural

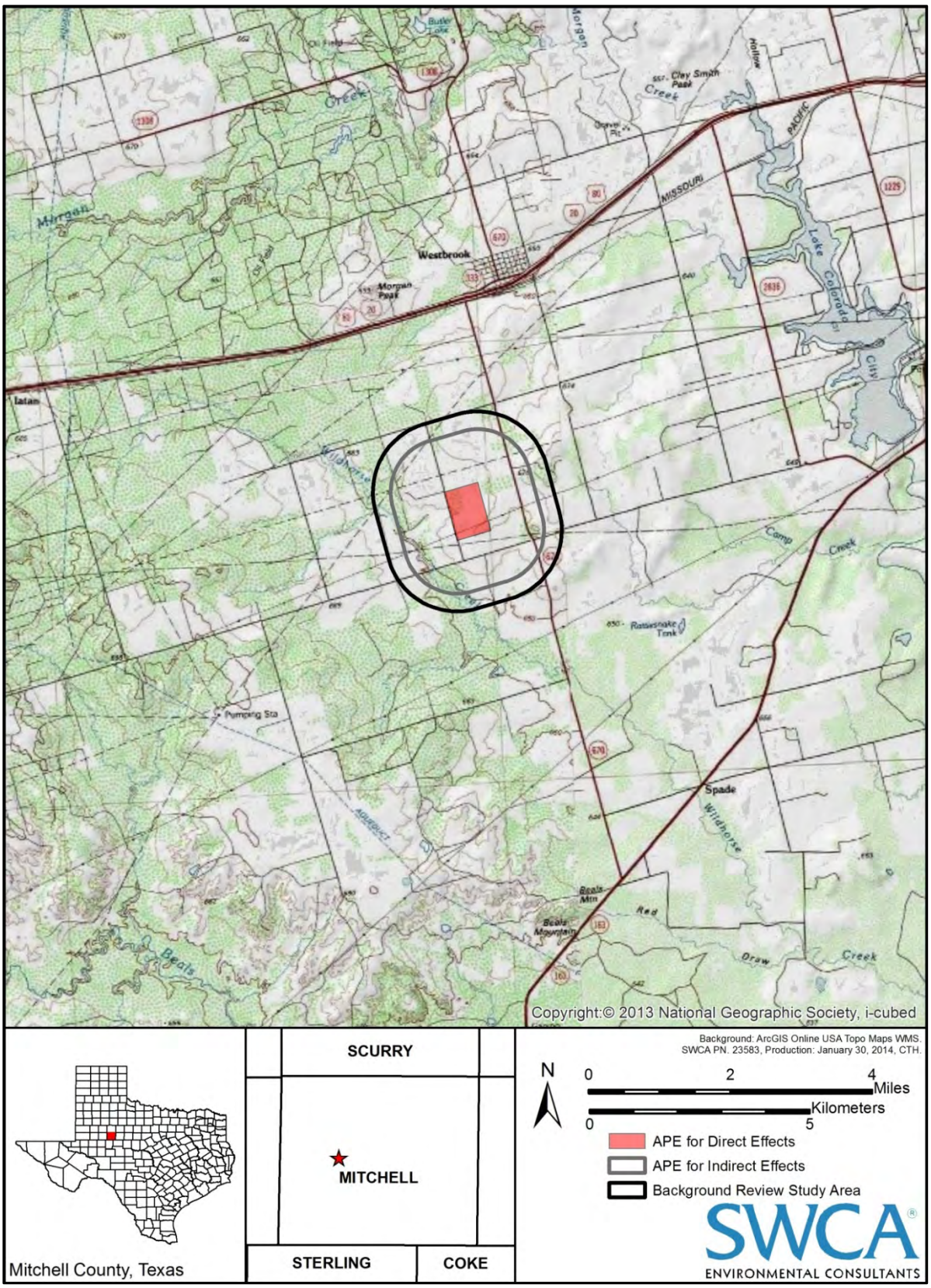

Figure 1. Project location map

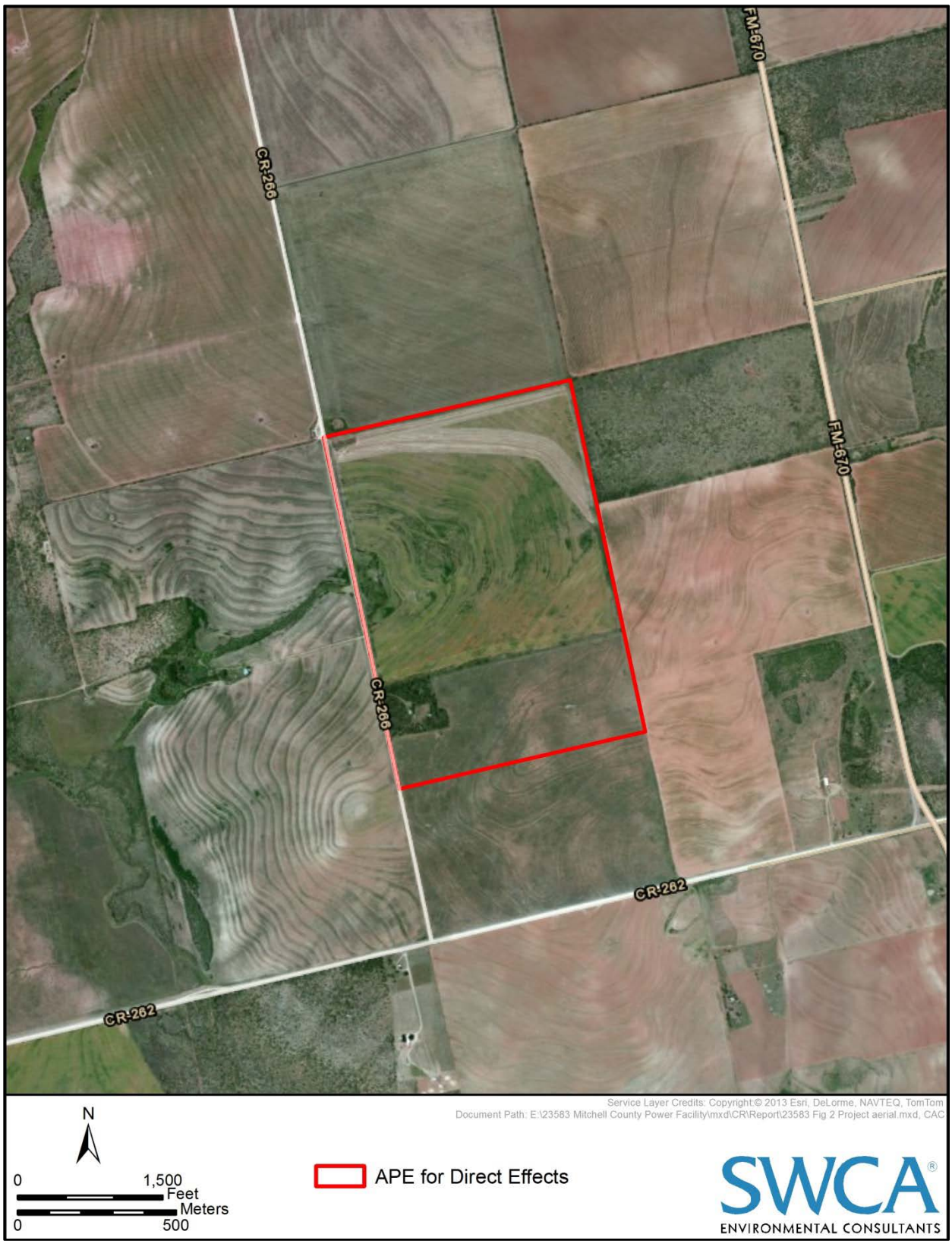

Figure 2. Proposed project site map.

terracing. The northern 160 acres were recently plowed at the time of survey and 100 percent of the surface was visible. The southern 40 acres consist of range grasses in a fallow agricultural field with variable surface visibility. Figures 3–6 depict the proposed project site.

SOILS AND GEOLOGY

Geologically, the proposed project site is located entirely within the Dockum Group, Triassic-age formation (Barnes 1994). This formation is comprised of sandstone, clay, shale, and conglomerate. Sandstone is fine- to coarse-grained quartz that is greenish gray to brownish red in color. The clay is sandy or silty and reddish brown in color. Shale is sandy and calcareous in portions and the conglomerate is comprised of various-colored chert pebbles, quartz, sandstone slabs, and petrified wood (Barnes 1994). The total thickness of this formation is 450 feet.

The soils for the proposed project site generally consist of deep clays and clay loams, some calcareous. Specifically, soils mapped within the proposed project site consist of Miles fine sandy loam, Bukreek loam, Angelo silty clay loam, Stamford clay, Spade fine sandy loam, and Pyron clay loam, in order of predominance (Natural Resources Conservation Service [NRCS] 2013). The Angelo, Miles, and Bukreek soils combined cover 71.1 percent of the proposed project site with the five remaining soils each occurring in less than 10 percent of the area.

Miles fine sandy loam with 1 to 3 percent slopes is the most common soil (42.4 percent), found across the southern portion of the proposed project site. This soil is well-drained and found on alluvial plain remnants, formed in mixed loamy alluvium, with an upper layer of fine sandy loam (0–8 inches thick).

Bukreek loam on 0 to 1 percent slopes is of similar composition and formed in loamy alluvium on alluvial plain remnants. This soil is mapped in the northern central portion of the proposed project site (18.1 percent).

Angelo silty clay loam with 0 to 1 and 1 to 3 percent slopes comprise 10.1 and 14.7 percent of the total proposed project site, respectively. This well-drained soil, found on alluvial plain remnants and formed in calcareous loamy alluvium, is mapped in the northwestern portion of the proposed project site (NRCS 2013). The soil is indicated as prime farmland and reaches a restrictive feature at greater than 80 inches.

Remaining soils (Stamford clay, Spade fine sandy loam and Pyron clay loam) each comprise less than 10 percent of the proposed project site and are fairly similar loams to clay loam with 0 to 3 percent slopes.

CULTURAL BACKGROUND AND SETTING

The 200-acre proposed project site lies on the southwestern edge of the Southern Plains archaeological region (Hofman 1989:1–2), bordering the Trans-Pecos to the west. Most previously recorded sites in the area are small occupational sites with minimal research potential, often lacking a means of assigning cultural affiliation. The cumulative assemblage, however, indicates occupation of the area throughout most prehistoric and historic stages and phases that are recognized in the Southern Plains region. Each stage of the basic four-part division of human chronology, including Paleoindian, Archaic, Late Prehistoric, and Historic periods, is represented in the archaeological record of the survey area.

The Paleoindian and Archaic periods are manifestations of a trend from the earliest identified “peopling phase” to an adaptation to particular regional environments, which fostered development of specific regional identities and artifact styles. The Paleoindian period, dating from 10,000+ to 6000 B.C., spanned a time of more mesic conditions than the present. Springs were perhaps more abundant and playa lakes were likely important loci of hunting and occupation. Traditional views of Paleoindian lifeways depict small, highly mobile groups whose subsistence patterns were based largely on late Pleistocene megafauna. Sites of this period are relatively common in the Southern Plains region.

Figure 3. Typical overview of proposed project site from CR 266; facing southeast.

Figure 4. Typical overview of proposed project site; facing west.

Figure 5. Typical overview of proposed project site; facing north.

Figure 6. Typical overview of proposed project site; facing north.

The end of the Paleoindian period coincided with a trend towards increasingly arid conditions, the advent of the Chihuahuan Desert to the west, and the extinction of megafaunal species. With these changes, the Archaic pattern emerged. Dating from 6000 B.C. to A.D. 500, Archaic groups are generally viewed as maintaining a mobile lifestyle in which bands exploited seasonally and spatially dispersed resources. Characteristics of the Archaic period include a more generalized hunting and gathering subsistence, a more intensive exploitation of regional resources, and the proliferation of regional artifact styles. The move towards a more general subsistence pattern was in part instigated by the apparent decrease in bison populations in the general vicinity from 5000–1000 B.C. (Hofman 1989:53).

The Late Prehistoric period (500 to late A.D. 1500s) is marked by a series of social and technological changes that coincided with, and resulted from, ever-widening regional interaction spheres, including Puebloan influences from the northwest and Woodland influences from the east mixing with Plains cultures. Horticulture/ agriculture, semi- to permanent architecture, ceramics and the bow and arrow are distinctive traits of this period. Bison, which returned en masse during cyclical mesic periods, resumed its prominence in subsistence patterns.

The Historic period began with the first Spanish expeditions through the region in the sixteenth through eighteenth centuries. In 1582–1583, Antonio de Espejo led an expedition to the upper reaches of the Rio Grande and Pecos River before returning southward along the latter (Snow 1992:235–236; Bolton 1908:189–190).

In 1589 to 1590, Gaspar de Sosa, the lieutenant-governor of Nuevo Leon, led a large, but unauthorized, colonizing party through west Texas, evidently following the Pecos River (Tyler 1996:25; Chipman 1992:58). For violating settlement policies, a viceregal agent captured and returned de Sosa to Mexico. After being convicted, he was exiled to the Philippines where he died in a slave revolt.

In 1683, Dominguez de Mendoza, with a mandate to look for pearls, trade possibilities, and instilling respect among the native people for friars, led a group of soldiers from La Junta to the Pecos River (Chipman 1992:70), probably following Espejo's route. After arriving at the Pecos River, the expedition traveled "downstream for nine leagues to a point near Horsehead Crossing" (Chipman 1992:70), where they turned eastward.

In 1787, Juan de Ugalde led an extensive expedition through the region in an effort to subdue the Apache threat. Ugalde's expedition was part of a new Spanish policy for securing the northern frontier. The Spaniards threatened military force, but also offered the Apaches protection from the Comanche as an inducement for peace. The Comanche, however, as well as Apache groups, dominated the area well into the middle of the following century.

The Texas legislature formed Mitchell County from the Bexar District in 1876, although it had virtually no permanent settlers at the time (Amin and Leffler 2013). By 1880, Mitchell County had 112 residents, according to census records, and elections were held to organize the county in 1881. Cattlemen were the first to move into and settle the area, and as such, cattle ranching dominated the economy until the early twentieth century (Amin and Leffler 2013).

The Texas and Pacific Railway was built through Mitchell County to Colorado City in the early 1880s, and by April 16, 1881, the town's population had reached 300. Between 1881 and 1885, Colorado City became a major shipping center, rivaling Dodge City and Abilene, with a booming population of about 3,000. Severe drought in 1886, followed by the harshest winter of the decade brought an end to the boom, however. Subsequent droughts through the 1890s led to declining population and business (Amin and Leffler 2013). By the turn of the century, farmers began establishing themselves in Mitchell County, planting crops such as corn, cotton, and sorghum. Oil was discovered in the county in 1920, which helped to stabilize an agricultural economy plagued by drought, and remained an

important source of revenue and employment through the 1980s (Amin and Leffler 2013).

METHODS

BACKGROUND REVIEW

SWCA conducted a thorough background cultural resources and environmental literature search of the proposed project site and surrounding 1-mile study area, including the 0.75-mile APE for indirect effects. An SWCA archaeologist reviewed the Westbrook U.S. Geological Survey (USGS) 7.5-minute topographic quadrangle maps at the Texas Archeological Research Laboratory and searched the Texas Historical Commission's (THC's) Texas Archeological Sites Atlas (Atlas) online database for any previously recorded surveys and historic or prehistoric archaeological sites located in or near the proposed project site. In addition to identifying recorded archaeological sites, the review included information on the following types of cultural resources: NRHP properties, SALs, Official Texas Historical Markers (OTHM), Recorded Texas Historic Landmarks (RTHLs), cemeteries, and local neighborhood surveys. The archaeologist also examined the NRCS's Web Soil Survey database for Mitchell County (NRCS 2012) and the *Geologic Atlas of Texas, Big Spring Sheet* (Barnes 1994). As a part of the review, a SWCA archaeologist reviewed the Texas Department of Transportation (TxDOT) Historic Overlay Maps, a mapping/Geographic Information Systems database with historic maps and resource information covering most portions of the state (Foster et al. 2006). Aerial photographs were also reviewed to assist in identifying any disturbances.

FIELD METHODS

SWCA's investigations consisted of an intensive pedestrian survey with subsurface investigations within the 200-acre FGE Texas Project APE for direct effects. Archaeologists examined the ground surface for cultural resources. Subsurface investigations involved shovel testing in settings with the potential to contain buried cultural materials. For block survey projects, the THC survey standards require a minimum of one shovel test for every three acres. Following this standard, 67 shovel tests are required for the 200-acre survey area. The shovel tests were approximately 30 centimeters (cm) in diameter and excavated to culturally sterile deposits or impassible clays, whichever came first. The matrix from each shovel test was screened through ¼-inch mesh, and the location of each excavation was plotted using a sub-meter accurate hand-held Global Positioning Systems receiver. Each shovel test was recorded on a standardized form to document the excavations. As this was a non-collection survey, any artifacts discovered were to be tabulated, analyzed, and documented in the field, but not collected. Temporally diagnostic artifacts, if present, were to be described in detail and photographed in the field. Only particularly rare artifacts were to be collected.

RESULTS

BACKGROUND REVIEW

The Atlas (2012) review revealed that the 200-acre proposed project site has not previously been surveyed for cultural resources. Furthermore, no cultural resources, including NRHP properties, SALs, OTHMs, RTHLs, or cemeteries have been identified within the proposed project site (Figure 7).

According to the Atlas (2013), two cultural resources are within the 1-mile background review study area of the proposed project site. The first is an OTHM about 1,770 feet (0.34 mile) to the south, well outside the boundaries of the proposed project site (Figure 7). This marker, erected in 1972, signifies the site of the Conaway School, which was established in 1896 by C.P. and Mattie Conaway to serve settlers in the surrounding area. According to the marker many successful teachers, doctors, lawyers, and religious leaders began their studies at the Conaway School. The site was home to both a circa 1906 school building that was destroyed by a fire in 1929, and its replacement, a brick four-room school building that was dismantled in 1947. The former school site is now a cultivated field. Since the school buildings are no longer present, the site is unlikely to be eligible for listing in the NRHP or as a SAL, unless

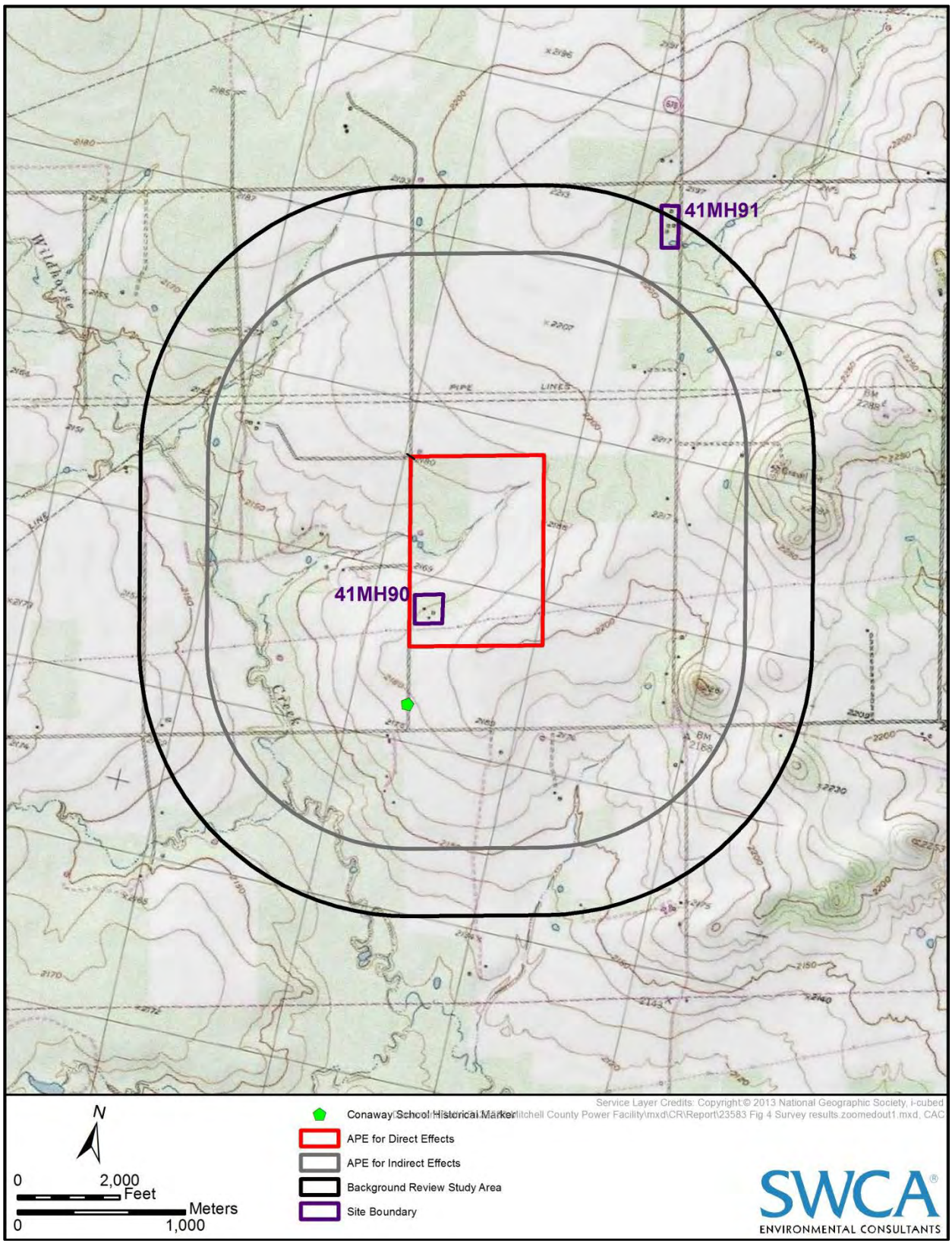

Figure 7. Map depicting background review and survey results.

significant archaeological deposits remain. However, because of the modern and agricultural disturbances, that is unlikely. Site 41MH91, a historic farmstead, is approximately 4,500 feet (0.85 mile) northeast of the APE for direct effects and outside the APE for indirect effects. The site is an early to mid-twentieth century farmstead consisting of a house and garage; a barn with attached corrals; two outbuildings; a well and its water tank; stock ponds; and other associated elements such as driveways and fencing. Recorded by SWCA in 2013, the site is in fair condition; the buildings have suffered weathering and degradation due to neglect and vandalism. Though the site was recommended as not eligible for the NRHP under Criteria A, C, and D, the site was left unevaluated under Criterion B pending deed research. The site remains unevaluated regarding its SAL eligibility status.

A review of the TxDOT Historic Overlay revealed 51 maps dating from 1760–1939 that overlap the study area (Foster et al. 2006). Only two of these maps showed evidence of historic activity within or near the proposed project site. The 1867 Holtz Map of Texas indicates the Pacific Railroad traversing the general project area, roughly parallel to the current transmission line location, and the 1854 Marcy Map of the Brazos and Big Wichita Rivers indicates a wagon road "From Dona Ana, NM to Ft. Smith Ark. In 1849," passing approximately 1,300 feet south of the proposed project site (Foster et al 2006). Of note, prospective railroad routes were frequently indicated on maps, but never actually proceeded to construction (survey results verified that there was no indication of a railroad through the proposed project site). The 1952 Westbrook, Texas USGS topographic quadrangle, historic aerial maps, as well as the current (1978) topographic map and aerial photographs were also reviewed; these revealed the presence of structures in the southwestern portion of the 200-acre project APE for direct effects. The location and arrangement of the depicted structures correlates to site 41MH90, an historic-age farmstead identified in the proposed project site during SWCA's survey, discussed in detail below and shown in Figure 7.

These maps, along with historic aerial photographs, also provide information regarding long-term land use of the property, which aids in gauging the intensity of agriculture-related disturbances over the past century

FIELD SURVEY

Field investigation of the 200-acre APE for direct effects was performed on March 18–21, 2013. For projects of this size, the THC survey standards require a minimum of one shovel test for every 3 acres surveyed. Following this standard, 67 shovel tests were required for the 200-acre proposed project site. SWCA excavated a total of 61 shovel tests within the survey area (Figure 8, Table 1). Although this falls short of 67 shovel tests, the minimum survey standards take into account variables such as surface visibility, disturbance, and slope. At the time of survey 100 percent of the ground surface was visible across most of the proposed project site due to plowing, conditions under which SWCA's investigation exceeds the THC's minimum survey standard.

The northern 160 acres of the 200-acre proposed project site is an active agricultural field (Figure 9). At the time of survey, the field was recently plowed and 100 percent of the surface was visible. Approximately 1.5 acres in the northwestern corner of the tract are used for hay bale and farm equipment storage (Figure 10). A stock pond on a small tributary of Wildhorse Creek has affected 8 acres in the west central portion of the 160 acres, east of CR 266. The headwaters of this drainage are located within the northeastern portion of this tract, where investigators noted chert and quartzite cobbles mixed within the plow zone. One decorticated piece of chert noted in this area may be cultural in origin; however, several others of modern mechanical origin were also noted. Nearby shovel test MG17 was negative for cultural material and the artifact is considered an isolated find. The remainder of the tract consists of open and plowed rolling uplands with reddish brown sandy loam soil over reddish clay.

As noted in the preliminary background map review, a cluster of standing structures is located in a wooded portion of the southern 40-acre

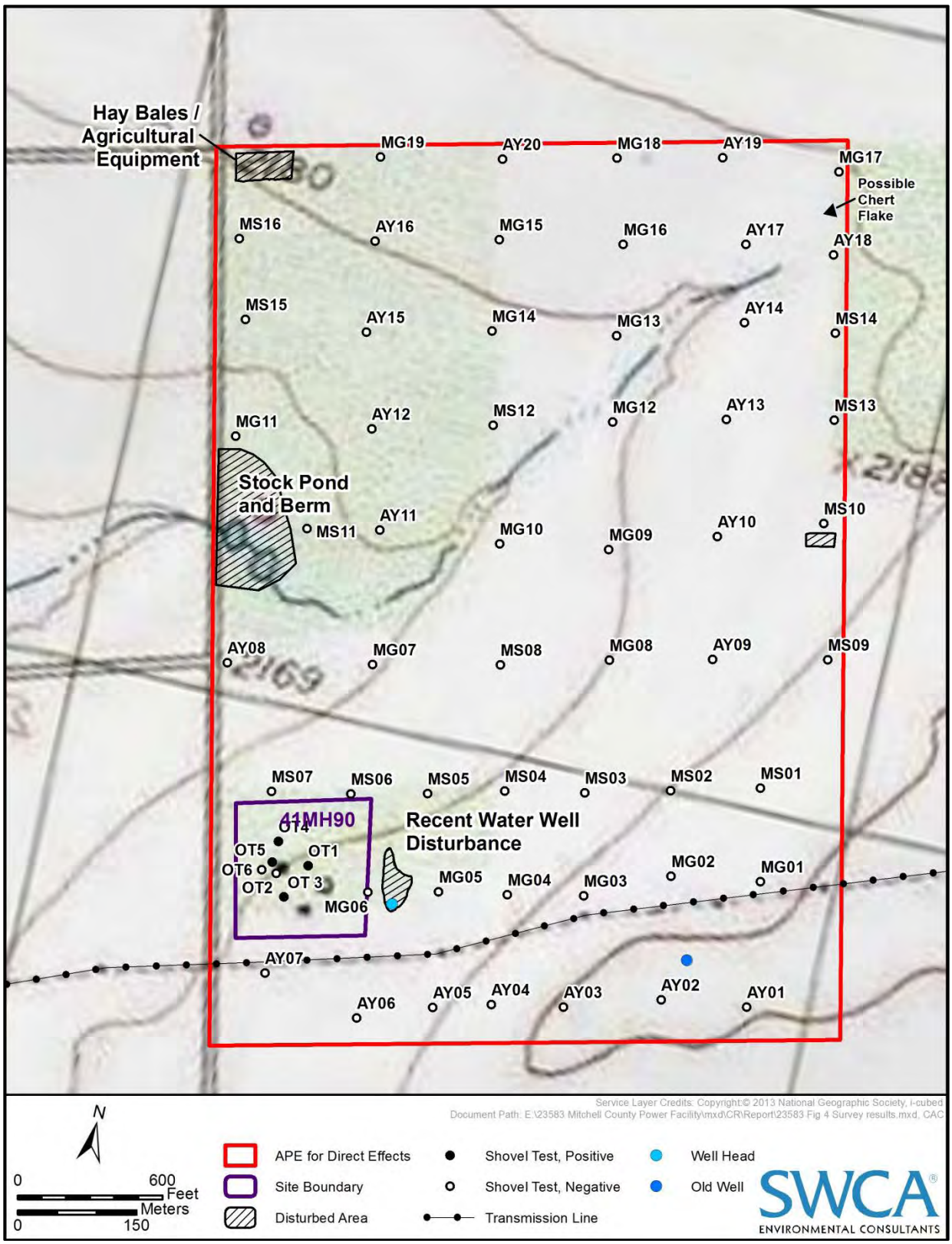

Figure 8. Map of survey results within the APE for direct effects.

Table 1. Shovel Test Data

ST ID	Site	Depth (cmbs)	P/N	Munsell	Soil Texture Description	Inclusions	Comments/ Reason for Termination
AY01		0–85	N	5YR5/6	sandy loam	rare rounded gravels, 60% degraded bedrock	No cultural materials encountered; termination due to bedrock.
AY02		0–80	N	5YR5/6	sandy loam	1% $CaCO_3$ nodules, 40% degraded bedrock at 60 cmbs	No cultural materials encountered; termination due to bedrock.
AY03		0–60	N	5YR5/6	sandy loam	rootlets, rare calcareous gravels, 80% degraded bedrock at base	No cultural materials encountered; termination due to bedrock.
AY04		0–35	N	5YR4/4	clay loam	rootlets, 1% rounded gravels	No cultural materials encountered.
		35–55	N	5YR5/6	sandy clay	5% calcareous gravels, 50% degraded bedrock at base	Termination due to bedrock.
AY05		0–50	N	5YR5/6	sandy loam	rootlets, calcareous cobble, 1% $CaCO_3$ nodules	No cultural materials encountered; termination due to bedrock.
AY06		0–60	N	7.5YR5/4	sandy loam	rootlets, sand lenses, calcareous gravels, degraded bedrock	No cultural materials encountered; termination due to bedrock.
AY07		0–50	N	5YR5/6	sandy loam	rootlets, rare gravels	No cultural materials encountered; termination due to bedrock.
AY08		0–50	N	5YR4/4	clay	organics	No cultural materials encountered.
		50–70	N	5YR5/6	clay loam	small $CaCO_3$ nodules	Termination due to compact soils.
AY09		0–50	N	5YR4/3	sandy loam	organics	No cultural materials encountered.

ST ID	Site	Depth (cmbs)	P/N	Munsell	Soil Texture Description	Inclusions	Comments/ Reason for Termination
		50–80	N	5YR5/6	sandy loam	5% $CaCo_3$ nodules, 15% degraded sandstone bedrock	Termination due to bedrock.
AY10		0–30	N	5YR4/3	clay loam	organics, reddish mottling	No cultural materials encountered; termination due to compact soils.
AY11		0–30	N	7.5YR4/3	clay loam	organics, $CaCO_3$ nodules	No cultural materials encountered.
		30–60	N	5YR5/6	sandy loam	5% $CaCo_3$ nodules, degraded sandstone bedrock	Termination due to bedrock.
AY12		0–50	N	5YR4/4	clay loam	3% $CaCO_3$ nodules, organics, rare rounded gravels	No cultural materials encountered; termination due to compact soils.
AY13		0–50	N	5YR4/4	clay loam	3% $CaCO_3$ nodules, organics, rare rounded gravels	No cultural materials encountered; termination due to compact soils.
AY14		0–40	N	5YR4/4	clay loam	3% $CaCO_3$ nodules, organics, rare rounded gravels	No cultural materials encountered; termination due to compact soils.
AY15		0–70	N	7.5YR4/2	clay loam	organics, strong brown mottling, 4% $CaCO_3$ filaments	No cultural materials encountered; termination due to disturbance.
AY16		0–40	N	7.5YR4/2	clay	organics, rare rounded gravels, reddish mottling	No cultural materials encountered; termination due to compact soils.

ST ID	Site	Depth (cmbs)	P/N	Munsell	Soil Texture Description	Inclusions	Comments/ Reason for Termination
AY17		0–40	N	7.5YR4/2	clay	organics, rare rounded gravels, reddish mottling	No cultural materials encountered; termination due to compact soils.
AY18		0–45	N	5YR5/4	clay loam	organics, dark brown mottling	No cultural materials encountered.
		45+	N	5YR5/6	clay loam	5% $CaCO_3$ nodules, large calcareous gravels	Termination due to basal clay.
AY19		0–30	N	5YR4/4	clay	organics, 1% $CaCO_3$ nodules	No cultural materials encountered; termination due to compact soils.
AY20		0–50	N	7.5YR4/2	clay loam	organics, rare $CaCO_3$ nodules, reddish mottling	No cultural materials encountered; termination due to compact soils.
MG01		0–40	N	5YR5/4	sandy loam	rootlets, 1% $CaCo_3$ nodules	No cultural materials encountered.
		40–70	N	2.5YR4/6	clay loam	degraded bedrock	Termination due to bedrock.
MG02		0–30	N	5YR5/4	sandy loam	rootlets	No cultural materials encountered.
		30–35	N	5YR5/4	clay loam	rootlets, 1% small gravels, 2.5YR5/6 mottling	No cultural materials encountered.
		35–45	N	2.5YR4/6	sandy clay	rootlets	Termination due to basal clay.
MG03		0–30	N	5YR5/4	silty loam	rootlets, insect burrows, 5YR4/4 mottling	No cultural materials encountered.
		30–35	N	2.5YR4/6	silty clay	insect burrows	Termination due to basal clay.
MG04		0–35	N	5YR5/4	silty loam	rootlets, insect burrows	No cultural materials encountered.
		35–40	N	2.5YR5/6	sandy clay	insect burrows	No cultural materials encountered.
		40–45	N	2.5YR4/6	sandy clay	degraded bedrock	Termination due to bedrock.
MG05		0–40	N	5YR4/6	silty loam	rootlets, insect burrows	No cultural materials encountered.
		40–50	N	2.5YR4/6	clay loam	degraded bedrock	Termination due to bedrock.

ST ID	Site	Depth (cmbs)	P/N	Munsell	Soil Texture Description	Inclusions	Comments/ Reason for Termination
MG06		0–30	N	5YR4/6	silty loam	rootlets, 2% gravels, 2.5YR4/6 mottling	No cultural materials encountered; termination due to disturbance.
MG07		0–40	N	5YR4/4	silty loam	rootlets, 5% gravels, 5% $CaCO_3$ nodules	No cultural materials encountered; termination due to compact soils.
MG08		0–40	N	5YR4/4	silty loam	insect burrows	No cultural materials encountered.
		40–50	N	5YR3/4	sandy clay	rootlets	Termination due to basal clay.
MG09		0–25	N	5YR4/4	silty loam	rootlets	No cultural materials encountered.
		25–35	N	5YR3/4	silty clay	rootlets	Termination due to basal clay.
MG10		0–50	N	5YR4/4	silty loam	rootlets, few gravels, $CaCO_3$ nodules	No cultural materials encountered.
		50+	N	5YR4/3	silty clay	rootlets	Termination due to basal clay.
MG11		0–30	N	5YR3/4	silty loam	rootlets, <1% gravels	No cultural materials encountered; termination due to compact soils.
MG12		0–20	N	10YR5/4	silty loam	rootlets, 1% gravels, insect casts	No cultural materials encountered.
		20–60	N	7.5YR4/2	silty loam	1% $CaCO_3$ nodules	No cultural materials encountered.
		60–65	N	5YR3/4	silty clay	rootlets	Termination due to basal clay.
MG13		0–30	N	5YR3/4	silty loam	rootlets, insect burrows, 7.5YR5/6 sand pockets	No cultural materials encountered.
		30–40	N	2.5YR4/4	silty clay	rootlets	Termination due to basal clay.
MG14		0–55	N	5YR3/4	silty loam	rootlets, 2% $CaCO_3$ flecking	No cultural materials encountered.
		55–65	N	2.5YR5/4	silty clay	25% $CaCO_3$ nodules	Termination due to basal clay.
MG15		0–30	N	5YR3/4	silty loam	rootlets, 1% $CaCO_3$ flecking	No cultural materials encountered.
		30–40	N	2.5YR5/4	silty clay	rootlets	Termination due to basal clay.

ST ID	Site	Depth (cmbs)	P/N	Munsell	Soil Texture Description	Inclusions	Comments/ Reason for Termination
MG16		0–50	N	5YR4/4	silty loam	rootlets, rare gravels	No cultural materials encountered.
		50–60	N	5YR3/4	silty clay	rootlets	Termination due to basal clay.
MG17		0–20	N	5YR4/4	silty loam	rootlets, rare gravels	No cultural materials encountered.
		20–30	N	5YR3/4	silty clay	rootlets	Termination due to basal clay.
MG18		0–30	N	5YR4/4	silty loam	rootlets, rare gravels	No cultural materials encountered.
		30–40	N	5YR3/4	silty clay	rootlets	Termination due to basal clay.
MG19		0–35	N	5YR4/4	silty loam	rootlets, 5% $CaCO_3$ flecking, 7.5YR5/6 mottling	No cultural materials encountered.
		35–45	N	5YR3/4	silty clay	rootlets	Termination due to basal clay.
MS01		0–35	N	5YR5/6	sandy loam	small pebbles, $CaCO_3$ nodules	No cultural materials encountered; termination due to compact soils.
MS02		0–50	N	5YR5/6	sandy loam	4% $CaCO_3$ nodules	No cultural materials encountered; termination due to basal soils.
MS03		0–50	N	5YR5/6	sandy loam	rootlets	No cultural materials encountered.
		50–70	N	5YR5/6	clay loam	10YR7/2 mottling; high $CaCO_3$ content	Termination due to basal soils.
MS04		0–50	N	5YR5/6	sandy loam	3% $CaCO_3$ nodules	No cultural materials encountered; termination due to compact soils.
MS05		0–50	N	5YR5/6	sandy loam	rootlets	No cultural materials encountered.
		50–55	N	5YR3/3	sandy clay	rootlets	Termination due to basal clay.
MS06		0–50	N	5YR5/6	sandy loam	rootlets	No cultural materials encountered.
		50–60	N	5YR3/3	sandy clay	rootlets	Termination due to basal clay.
MS07		0–50	N	5YR4/4	sandy loam	5YR3/3 mottling, roots, small $CaCO_3$ nodules	No cultural materials encountered; termination due to compact soils.
MS08		0–40	N	5YR4/4	sandy loam	rootlets	No cultural materials encountered.
		40–45	N	5YR3/4	clay	rootlets	Termination due to basal clay.
MS09		0–30	N	5YR4/4	sandy loam	rootlets	No cultural materials encountered.
		30–60	N	5YR3/4	loam	rootlets	No cultural materials encountered.

ST ID	Site	Depth (cmbs)	P/N	Munsell	Soil Texture Description	Inclusions	Comments/ Reason for Termination
		60–70	N	5YR4/6	clay	3% $CaCO_3$ nodules	Termination due to basal clay.
MS10		0–30	N	5YR4/4	sandy loam	rootlets	No cultural materials encountered.
		30+	N	5YR3/4	clay	rootlets	Termination due to basal clay.
MS11		0–50	N	5YR4/3	sandy loam	rootlets	No cultural materials encountered.
		50–60	N	5YR5/6	clay loam	rootlets	Termination due to basal soils.
MS12		0–50	N	5YR4/3	sandy loam	2% gravels	No cultural materials encountered; termination due to compact soils.
MS13		0–35	N	5YR4/3	sandy loam	few small gravels	No cultural materials encountered; termination due to compact soils.
MS14		0–30	N	5YR4/3	sandy loam	few small gravels	No cultural materials encountered; termination due to compact soils.
MS15		0–50	N	5YR4/3	sandy loam	rootlets	No cultural materials encountered; termination due to compact soils.
MS16		0–40	N	5YR4/3	sandy loam	rootlets	No cultural materials encountered; termination due to compact soils.
OT01	FS-01	0–10	P	5YR5/4	silty loam	rootlets	**0–5 cmbs: 3 blue glass shards.**
		10–35	P	5YR4/4	clay loam	rare rounded gravels	**10–20 cmbs: 1 patinated clear glass shard; 30 cmbs: 1 white plastic fragment.**
		35–50	N	5YR3/4	clay loam	rare rounded gravels	Termination due to basal clay.
OT02	FS-01	0–25	N	5YR5/4	silty loam	rootlets, 5YR4/4 mottling	No cultural materials encountered.
		25–45	N	5YR4/4	sandy clay	<10% gravels, 5YR3/4 mottling	No cultural materials encountered.
		45+	N	5YR4/4	clay loam	rootlets	Termination due to basal clay.
OT03	FS-01	0–20	P	5YR5/4	silty loam	roots, rootlets	**0–15 cmbs: 1 wire nail, 1 metal washer, 1 miscellaneous metal fragment, and 1 piece of lead.**
		20–50	N	5YR4/6	sandy clay	rootlets, yellowish mottling	Termination due to basal clay.
OT04	FS-01	0–40	P	5YR5/4	silty loam	rootlets, 4% $CaCO_3$ nodules	**10 cmbs: 1 wire nail.**
		40–50	N	5YR4/4	sandy clay	rootlets	Termination due to basal clay.

ST ID	Site	Depth (cmbs)	P/N	Munsell	Soil Texture Description	Inclusions	Comments/ Reason for Termination
OT05	FS-01	0–45	P	5YR4/4	sandy clay	rootlets, 2% gravels	**0–30 cmbs: 1 wire nail, 1 metal bolt, 1 small red brick fragment, 2 white earthenware fragments, 1 miscellaneous metal fragment, 5 clear window glass shards, 3 clear bottle glass shards, and 2 brown-colored bottle glass shards; termination due to basal clay.**
OT06	FS-01	0–25	N	5YR4/4	sandy clay	rootlets	No cultural materials encountered; termination due to basal clay.

Figure 9. Plowed field with 100 percent surface visibility; facing southwest from shovel test MS13.

Figure 10. Agricultural equipment and hay bales within the proposed project site, facing northeast.

portion, just east of CR 266. This area was documented as site 41MH90, a farmstead built in roughly the 1930s, with occupation extending through the 1990s. A detailed discussion of the site follows the general survey results.

The remainder of the 40-acre portion is former agricultural land exhibiting various levels of disturbance. Three high voltage transmission line towers are within the tract, which have disturbed those areas through the potential depth of cultural deposits. Additionally, a 330-foot-diameter area immediately east of 41MH90 was recently disturbed by the drilling of a deep water well (Figure 11). A dismantled oil well was noted in the southeast portion of the proposed project site, where milled lumber and miscellaneous metal fragments were present on the surface (Figure 12). In general, soils across the open, grassy field consist of brown to reddish brown clay loam with a clay content that increases with depth.

No evidence of the Dona Ana to Fort Smith wagon road, the Pacific Railroad, or the Conaway School was found within the APE for direct effects. Both the wagon road and Conaway School are mapped well outside of the proposed project site, and the railroad, though depicted on a historic map as possibly traversing the general project area, likely was never constructed along that alignment.

SITE 41MH90

Site 41MH90 is an historic farmstead located in west-central Mitchell County, immediately east of CR 266 and approximately 800 m north of CR 262. The site is within a grove of mainly mesquite trees and tall grass, surrounded by gently rolling agricultural land (Figure 13). A small tributary of Wildhorse Creek is located roughly 300 m north of the site. Vegetation consists of mesquite trees and tall grass around the periphery of the site, with a few hardwoods near the house and ancillary structures. Many portions of the site remain cleared, where vehicle and foot traffic was heavy (Figure 14). In the areas immediately surrounding the structures, approximately 50–75 percent of the surface is visible. Within the surrounding mesquite grove, where tall grass is present, surface visibility is less than 10 percent. Soil consists of reddish brown silty loam over reddish brown to dark reddish brown clay loam or sandy slay at depths of 10–50 cm below surface (bs). Impacts to the site include general weathering of the abandoned structures. The site area measures approximately 175 m2, based upon surface artifact distribution and shovel test results. The site is located within the western portion of the survey area, immediately east of CR 266 and north of the transmission lines.

The site consists of scattered household debris and a total of 11 historic resources, including six standing structures. Six shovel tests were excavated at the site (OT1–6), four of which (OT1 and OT3–5) were positive for cultural material (Table 1). From these, a total of 26 artifacts were recovered: five clear window, four clear bottle, three blue bottle, and two brown bottle glass fragments; three wire nails; two miscellaneous metal fragments; one metal bolt; one metal washer; one lead fragment; one red brick fragment; two earthenware shards; and one piece of white plastic. All artifacts were recovered from 0–30 cmbs, with most of the cultural material confined to the upper 15 cmbs. A large amount of miscellaneous debris is present on the surface, including many 30–80 gallon drums, cinder blocks, wooden pallets, coffee cans, red bricks, clear glass bottles, automotive and machine parts, barbed wire, milled lumber, and railroad ties. All of the items observed date to the mid to late 20th century. Additional artifacts encountered within the various structures will be discussed along with those structural descriptions.

Resource 1 is a house located in the approximate center of the treed 7.5-acre site, along a two-track farm road and about 85 m east of CR 266 (Figure 15). The house appears to be a circa 1930s front-gabled bungalow with a footprint measuring approximately 30 x 20 feet. The front façade faces north and features a partial-width gabled porch with square posts. A shed-roofed addition is found on the east elevation. The wood-framed building is supported on a pier and beam foundation and has horizontal board siding, asphalt shingles, and 6/6 wood divided light windows. The roof has a shallow overhang and exposed rafter ends. Most of the windows are missing their glass panes, and some are missing muntins. The siding is in fair

Figure 11. Overview of disturbances within proposed project site; facing southwest.

Figure 12. Dismantled oil well located in the southeast portion of the proposed project site; facing east.

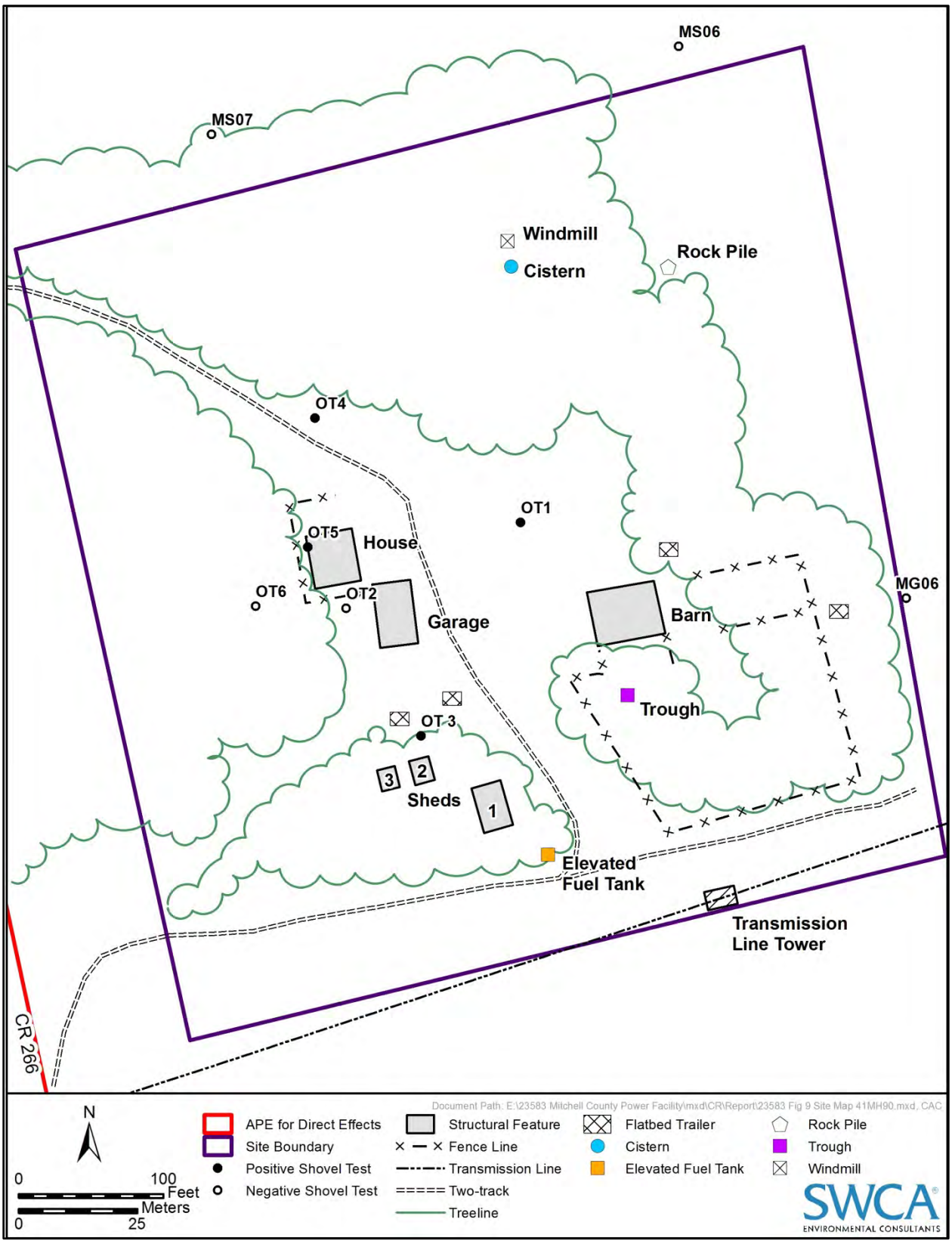

Figure 13. Site 41MH90 plan map.

Figure 14. Open drive east of the garage on site 41MH90, facing southwest.

Figure 15. Resource 1 (house) front-right oblique, facing southeast.

condition. The trimwork, window sash, and roofing material are in poor condition.

Investigators encountered a bee hive within the front of the house, so investigation of the interior was limited. However, several pieces of furniture remain inside the house, including a sofa set, circa 1960s Motorola television, chest of drawers, several one gallon plastic milk jugs and "Folger's" coffee cans, and hanging wall calendars from 1973 and 1996 (Figure 16).

Resource 2 is a garage situated immediately southeast of the house (Figure 17). It is a long rectangular building measuring 40 x 20 feet and consists of two distinct sections. The front section, nearest to the house, is a front-gabled structure with a shallow roof pitch, likely constructed in the 1930s. It has a partial-width interior storage room with door and window openings and horizontal board siding. The rest of the front section is open and supported by lally poles, creating a carport-like parking area and two additional covered storage areas; one that opens to the front (north) and another, smaller storage area that opens to the east. The door to this area has been covered in corrugated metal siding. The rear portion of the garage is a long addition extending to the south. It is a frame building clad in horizontal boards, with replacement corrugated metal siding along the east elevation. The south elevation, at the building's rear, has one window and large double doors. The doors swing open on strap hinges and are wide and tall enough to admit vehicles or farm equipment. The entire garage building has corrugated metal roofing material that is missing in places. The building is in fair condition.

Artifacts found within the garage include "Kerr" mason jars, a "Cragmont Grape Soda" pull-tab can, "Jones Blair" house paint, "Folger's" coffee cans, "Gerber" baby food jars, a "Pierce Glass Company" medicine bottle, 1964, 1968, and 1988 Texas license plates, "Owens-Illinois" bottles, a spark plug, a "Clover Manufacturing Company Valve Abrading Compound" double-sided tin, a small "Black Leaf" (nicotine based insecticide) bottle, and two small motor air filter casings (Figures 18 and 19). Again, an active bee hive was located within the western side of the garage, so investigation was not conducted in this area.

Resource 3 is a circa 1930s side-gabled barn located about 55 m east/southeast of the house (Figure 20). Its footprint measures approximately 40 x 30 feet, with its long axis oriented east–west. On the south elevation is a shed-roofed extension that opens onto the corrals. The wood frame building is clad in wide vertical boards, many of which are missing or broken. Along the north and west elevation, corrugated metal siding has been added, obscuring any door openings that were originally there. The shallow-pitched roof is clad in corrugated metal. The barn's interior contains animal stalls and hay storage areas. Overall, the barn is in fair condition, although the structural integrity of the southern shed-roofed extension is failing.

Three sheds are located about 50 m south of the house. Their construction dates are unknown but they appear to date from between 1930 and 1950. Resource 4 (Shed 1) is a flat-roofed building that housed an automobile and machinery workshop (Figure 21). It is approximately 25 x 15 feet in size and is open along its eastern edge. The other three elevations are windowless. The building has a wood frame and is clad in corrugated sheet metal. It is in fair condition. Artifacts including "John Deere" and "Ford" tractor hydraulic oil (one and five gallon) cans, "Treflan" herbicide drums, a "Ford Motor Company" plastic hubcap, and a stack of flattened cardboard boxes were found inside the shed.

Resource 5 (Shed 2), a gable-roofed, wood frame building that may have contained animal pens (Figure 22). It measures approximately 20 x 15 feet. Its south and west elevations were clad in vertical boards, but most of them are missing. Its north and east elevations have corrugated metal siding, most of which is intact. The building is in poor condition. Resource 6 (Shed 3) is a small shed-roofed building measuring 10 x 12 feet (Figure 23). It is a wood frame building clad in horizontal boards, and may have been a chicken coop. It is in poor condition. A glass "Presto Supreme Mason" jar, small glass (possibly extract)

Figure 16. Living area of house (front-right room), facing west.

Figure 17. Resource 2 (garage) front-left oblique, facing southwest.

Figure 18. Various containers found within the garage on site 41MH90.

Figure 19. Base of brown glass "Owens-Illinois" and "Black Leaf 40".

Figure 20. Resource 3 (barn) rear-left oblique; facing southeast.

Figure 21. Resource 4 (Shed 1) front-right oblique; facing south.

Figure 22. Resource 5 (Shed 2) rear-right oblique; facing southwest.

Figure 23. Resource 6 (Shed 3) front-left oblique; facing northeast.

bottle, metal "Hawaiian Punch" can, "Ball No. 10" clear glass canning jar lid, and an "Owens-Illinois," large (approximately one quart) clear glass flask with bucking bull rider and metal screw cap (cologne bottle?) were found inside this shed (Figure 24).

Resource 7 is a windmill and cistern located about 70 m northeast of the house (Figure 25). The windmill and cistern are located within a cluster of mesquite trees and brush. The small steel windmill is a self-oiling Aermotor, either the 602 or 702 model, which are very similar in appearance. The Aermotor 602 was produced from 1916 to 1932, and the 702 model was launched in 1933 and produced through the 1980s (Nayab 2013). The windmill has a steel four-post tower, two small wooden platforms, and eighteen blades. Its tail reads "AERMOTOR." Located next to the windmill is a cylindrical above-ground cistern. It is clad in corrugated steel and sits just above ground atop a raised lattice of wood beams and railroad ties. The windmill and cistern are in good condition.

Resource 8, the fencing and corrals, includes the corrals adjacent to the barn, decorative fencing near the house, and the fencing found around the fallow field. The corrals are located south and east of the barn and primarily consist of historic mesquite post and barbed wire, with sections of fence missing. Fencing around the house is historic mesquite and box wire with decorative wire loops along the fence top. The nonhistoric fencing around the hay field consists primarily of metal poles, box wire, and barbed wire. Overall, the fencing at the farmstead is in good condition but has only fair integrity. Fencing found at the site varies in age.

Resource 9 is a two-track farm road that enters the building cluster site from CR 266, near the northwest corner of the farmstead (Figure 13). The road curves through the home site, passing the house and sheds, until it reaches the plowed hay field. There it splits and runs alongside the hay field in both directions. The western branch returns to CR 266, while the eastern branch turns north to access the northern portion of the hay field. The two-track farm road is a well-established road with two distinct tracks of exposed dirt and rock. Indistinct, less-traveled dirt roads encircle the entire farmstead, providing access to the field's boundaries. The road's integrity is good.

Resource 10 includes several objects collectively counted as the farmstead's agricultural equipment. Immediately north and east of the corral are two historic flatbed trailers, both of which are in poor condition and are missing wheels (Figure 26).

Additional flatbed trailers are found near Sheds 1 and 2. These are in fair to poor condition. Atop one of them is a large metal piece of farm equipment labeled "HESSTON 3000" (Figure 27). Hesston has been making hay and forage equipment since 1955. This piece of equipment is similar in shape to a baler, but is clad in metal mesh. The exact function and equipment type could not be confirmed. Other agricultural equipment at the site includes a rectangular concrete trough found south of the barn and an elevated (approximately 300 gallon) fuel tank near the fallow field and Shed 1. The condition and integrity of the agricultural equipment is fair.

Resource 11, the fallow agricultural field, is the only resource not located within the 7.5-acre building cluster. When evaluating rural historic districts, fields and pastures are counted as resources due to their land use characteristics. The fallow field is approximately 158 acres in size and is flat to undulating. The field is bounded by CR 266 and CR 262 to the west and south, respectively. Modern barbed wire fences separate the field from hay fields to the north and east. A power transmission line cuts across the northern portion of the field on a slight diagonal, just south of the building cluster. Additionally, a deep water well was recently excavated just east of the building cluster (Figure 11). Both of these modern disturbances detract from the field's otherwise good integrity.

Since the majority of resources at the farmstead date from the 1930s through the 1950s, deed research was conducted to determine the property's owners during that time period. In the 1930s the farmstead was owned by Lewis A. and

Figure 24. Artifacts found within Shed 3.

Figure 25. Resource 7, windmill and cistern, facing northeast.

Figure 26. Flatbed trailer east of the corral on site 41MH90; facing south.

Figure 27. **"Hesston 3000" foraging equipment on a flatbed trailer on site 41MH90; facing northeast.**

Iva Miller. In 1940, the Millers sold the property to Emra L. and Maggie Ashford. In 1955, the Ashfords filed a Right of Way Grant to a petroleum company for access to the land. In 1970, Erma Langford, who co-owned the land with his daughter Peggy Yvonne Mayberry, sold the land to current owner Joe H. Morren. Deed research determined, therefore, that the Miller and Ashford families likely constructed the buildings at the site.

Lewis Miller was born in Texas in 1894 and died in Texas in 1973 (Texas Death Certificate, Lewis A. Miller). His wife, Iva Harper Miller was born in Oklahoma in 1900 and died in 1968 (Texas Death Certificate, Iva Harper Miller). Census records show the Millers as living in nearby Colorado City in 1930, but working as farmers (Mitchell County census records, 1930). Later owner Emra L. Ashford was born in Texas in 1908. His wife Maggie was born in 1890. The couple lived in rural Taylor County in 1935 and records show them as living in Mitchell County in 1940 (Mitchell County Census Records, 1940). Their daughter Peggy Yvonne Ashford was born in 1936 (ibid.). Peggy married Harley W. Mayberry, and the couple now lives in Arlington. Further research efforts did not discover historic significance related to the Miller or Ashford families.

SUMMARY

Site 41MH90 is an historic farmstead first occupied in the 1930s with continuous activity through the 1990s. None of the resources at site 41MH90 are recommended as individually eligible for listing in the NRHP or as SALs. Individually, the resources at the farmstead do not meet the following NRHP criteria for evaluation:

A) Being associated with significant historic events;

B) Being associated with significant persons;

C) Having distinctive architectural characteristics, or exemplifying an architectural style; or

D) Having the potential to yield important historic or prehistoric information via archeological study.

However, farmsteads such as this are sometimes listed as rural historic districts with multiple components contributing to the overall whole. A potential rural historic district is evaluated using the same NRHP criteria as an individual resource. The farmstead at site 41MH90, however, does not meet any of the NRHP criteria. It is not associated with significant historical events or significant persons, and is not likely to yield important information in history or prehistory. Furthermore, the farmstead and its resources are extremely common types found throughout the region. The farmstead is not significant architecturally and does not represent a significant type, period, or method of construction. Although the 11 resources comprise a farmstead with good integrity of location, setting, and association, the condition of each resource is poor and integrity of workmanship, materials, and design is lacking. Since the farmstead is vacant, overgrown, and in poor condition, its integrity of feeling is also deficient. Because of these factors, site 41MH90 is not recommended as eligible as an SAL or for inclusion on the NRHP under any criteria. Therefore, no further work or avoidance is recommended for 41MH90.

SUMMARY AND RECOMMENDATIONS

On behalf of FGE, SWCA conducted an intensive cultural resources survey of the FGE Texas Project proposed project site in west-central Mitchell County, Texas. Archaeological investigations were conducted in accordance with Section 106 of the NHPA of 1966 (as amended) as well as the Antiquities Code of Texas (Permit No. 6402). The proposed project site is located within an open agricultural setting with small residential complexes dotting the area.

The APE for direct effects is defined as the entire 200-acre project site. The depth of impact is currently undetermined. While the majority of the facility will have a low profile, multiple narrow (20-feet-wide) combustion turbine stacks are proposed at a height 213 feet above the ground surface. SWCA examined an APE for indirect (visual) effects of 0.75 mile. The investigations included a background review of the APE and a surrounding 1-mile study area, an intensive pedestrian survey with subsurface investigations

of the APE for direct effects, and a desktop review of the APE for indirect effects to identify existing historic properties.

The background review determined that the APE for direct effects has not been surveyed for cultural resources, and no previously recorded cultural resources are within or immediately adjacent to the 200-acre proposed project site. Two cultural resources were identified within the 1-mile study area. An OTHM for the Conaway School is approximately 1,770 feet (0.34 mile) south of the proposed project site. The Conway School is no longer standing; it is now a plowed agricultural field. A farmstead (41MH91), which remains unevaluated regarding its NRHP eligibility or its eligibility as SAL, was identified approximately 4,500 feet (0.85 mile) to the northeast of the proposed project site. A review of the TxDOT Historic Overlay maps did not identify any other historic-age structures in or near the proposed project site. The 1867 Holtz Map of Texas indicates the Pacific Railroad traversing the general project area, parallel to the current transmission line location, and the 1854 Marcy Map of the Brazos and Big Wichita Rivers indicates a wagon road "From Dona Ana, NM to Ft. Smith Ark. In 1849," passing approximately 1,300 feet south of the proposed project site (Foster et al 2006). These maps also confirmed that the proposed project site is within an area that has experienced long-term agricultural activity. Such activities have continually impacted the surface and subsurface deposits across the majority of the 200-acre proposed project site. No evidence of historic trails or railroads was observed during the survey.

Intensive survey within the 200-acre proposed project site revealed common modern disturbances associated with farming and ranching activities, including a stock tank, plowing, and extensive agricultural terracing. The THC survey standards for this project necessitated the excavation of at least 67 shovel tests within the 200-acre proposed project site. However, much of the proposed project site was disturbed by agricultural activity and was characterized by excellent surface visibility; therefore, fewer shovel tests were needed. SWCA excavated a total of 61 shovel tests, which more than met the testing requirements given the project conditions. Four shovel tests were positive for cultural material at site 41MH90 to a maximum depth of 30 cmbs.

41MH90, a historic farmstead, was documented as a result of the investigation. This site consists of 11 historic resources including six standing structures. The site is recommended as not eligible for listing as a SAL or for inclusion in the NRHP under all criteria based on the resources' poor condition, compromised integrity, and lack of association with significant individuals. One prehistoric chipped stone artifact and the remnants of a collapsed oil well were noted on the ground surface of the survey area, but neither was sufficient to justify definition of an archaeological site and both were recorded as isolated finds.

SWCA's intensive cultural resources survey concluded that there are no cultural resources eligible for the NRHP or for listing as SALs located within the APE for direct effects. A desktop review revealed that there are no historic properties located within the APE for indirect effects. As such, the proposed FGE Texas Project undertaking will have no effect on historic properties (i.e., cultural resources that are listed on or meet the criteria to be listed on the NRHP), and no further archaeological investigations are recommended. Based on these findings, SWCA recommends that a determination of *No Historic Properties Affected* be granted for the project to proceed as planned.

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APPENDIX A

RESUME: PRINCIPAL INVESTIGATOR JUDITH R. COOPER

SWCA ENVIRONMENTAL CONSULTANTS

JUDITH R. COOPER, Ph.D.
Cultural Resources Program Director

Education

- Ph.D., Anthropology, emphasis in Archaeology, Southern Methodist University, 2008
- M.A., Anthropology, emphasis in Archaeology, Southern Methodist University, 2005
- Graduate Certificate Program, Geographic Information Systems, University of Texas at Dallas; Richardson, Texas, 2004
- B.A., Anthropology, emphasis in Archaeology, minor in Psychology, Penn State University, 2001

Training

- NEPA Training, Shipley Group, Seattle, Washington, December 2012
- Gas Detection Training, North Dakota Safety Council, February 2012
- Context Sensitive Solutions Training, National Highway Institute, November 2011
- Hydrogen Sulfide (H2S) Awareness , North Dakota Safety Council, February 2011
- American Red Cross CPR/AED and Standard First Aid, January 2011 & August 2013
- 10 hour OSHA Training, TrainND, Williston, North Dakota, March 2010
- Historic Preservation Compliance for Energy Projects: Understanding Comprehensive Procedures with Agencies & Tribes, CLE International, February 2010

Experience Summary

Dr. Cooper is the Cultural Resources Program Director and a Principal Investigator in SWCA's Austin, Texas, office. She has thirteen years of experience in prehistoric North American archaeology and has worked on field and research projects in Texas, Colorado, Wyoming, North Dakota, and Pennsylvania, including at the Paleoindian-aged Lindenmeier, Mountaineer, and Bonfire Shelter sites. Some of her research interests include hunter-gatherers of the Paleoindian and late pre-Contact periods in the Great Plains and Rocky Mountains, geographic information systems (GIS) and spatial analysis, human ecology and paleoenvironments, and lithic technology. She has a graduate certificate in GIS.

Dr. Cooper's doctoral dissertation research at Southern Methodist University, funded by the National Science Foundation and a Dissertation Write-up Grant from the Department of Anthropology and the Office of Research and Graduate Studies at Southern Methodist University, focused on broad changes across space and time in the diet of prehistoric peoples of the Great Plains, providing her with wide-reaching and extensive knowledge of prehistoric Plains cultures. As part of this research, she worked with data from thirteen state/provincial historic preservation offices in the U.S. and Canada, providing her with a unique perspective of the nature and extent of the Great Plains archaeological record.

Dr. Cooper has cultural resources consulting and management experience in Texas, Oklahoma, Kansas, Colorado, Wyoming, Montana, North Dakota, South Dakota, and Pennsylvania. She is responsible for project management, proposal development, research planning and design, prehistoric and historic archaeological research, analysis, reporting, and project/report review. She has published on archaeology of the Great Plains and Rocky Mountains in peer-reviewed journals such as the *Journal of Archaeological Science* and *American Antiquity* and has presented her research at a number of national and regional professional meetings.

SWCA Project Experience

17-Mile House Monitoring, Araphoe County, Colorado (2009): Duties include report writing. *Role: Archaeologist. Client: Arapahoe County.*

Arrow Midstream Holdings, Multiple Archaeological Monitoring Projects; Dunn and McKenzie Counties, North Dakota (2010-2012): Duties include project managmeent and coordination, agency consultation, and project oversight. *Role: Principal Investigator/Project Manager. Client: Arrow Midstream Holdings, LLC.*

Arrow Midstream Holdings, Multiple Trunk Pipelines; Dunn and McKenzie counties, North Dakota (2009-2011): Duties include field data collection, report coordination, and writing. *Role: Principal Investigator. Client: Arrow Midstream Holdings, LLC.*

Arrow Pipeline, Evaluative Shovel Testing of the Arrow Fort Berthold #148-95-23D-14-1H, #148-95-26A-35-1H, #148-95-23D-14-2H, and #148-95-26A-35-2H Gathering Pipeline, Dunn County, north Dakota. Duties include project coordination, scoping, and project oversight. *Role: Principal Investigator. Client: Arrow Midstream Holdings, LLC.*

Arrow Pipeline, Excavation of 32DU1535 in Association with the Proposed Arrow Fort Berthold #148-95-23D-14-1H, #148-95-26A-35-1H, #148-95-23D-14-2H, and #148-95-26A-35-2H Pipeline System, Dunn County, North Dakota. Duties include project coordination, scoping, and oversight. *Role: Principal Investigator. Client: Arrow Midstream Holdings, LLC.*

Arrow Pipeline, Kodiak Gathering Pipelines, Fort Berthold Indian Reservation, Dunn County, North Dakota (2010-2012): Duties include project managment, report coordination, and review. *Role: Principal Investigator/Project Manager. Client: ArrowPipeline, LLC.*

Arrow Pipeline, Questar Gathering Pipelines, Fort Berthold Indian Reservation, Dunn County, North Dakota (2010-2102): Duties include report coordination and review. *Role: Principal Investigator/Project Manager. Client: ArrowPipeline, LLC.*

Arrow Pipeline, Petro-Hunt Gathering Pipelines, Fort Berthold Indian Reservation, Dunn County, North Dakota (2010-2012): Duties include report coordination and review. *Role: Principal Investigator/Project Manager. Client: ArrowPipeline, LLC.*

Arrow Pipeline, XTO Gathering Pipelines, Fort Berthold Indian Reservation, Dunn County, North Dakota (2010-2012): Duties include report coordination and review. *Role: Principal Investigator/Project Manager. Client: ArrowPipeline, LLC.*

Bakken North Pipeline Project, North Dakota and Montana (2011-2012): Duties include project scoping and budgeting, task management, fieldwork planning, Class I file search, and agency consultation. *Role: Principal Investigator/Cultural Resources Lead. Client: Plains All American Pipeline.*

Blanco Vista Water Pipeline, Hays County, Texas (2013): Duties included project scoping, report coordination, report review, and project oversight *Role: PM. Client: Brookfield Residential.*

BNI Coal, Site Revisit, Oliver County, North Dakota (2010): Duties include project management, site recording, and site form write-up. *Role: Archaeologist and Project Manager. Client: BNI Coal.*

Buffalo Creek Pipeline, Beckham County, Oklahoma (2013): Duties include project scoping and budgeting, task management, file search coordination, and report QA/QC and review. *Role: Project Manager. Client: E3 Environmental, LLC.*

Carrera Madill Pipeline, Bryan and Marshall Counties, Oklahoma (2013): Duties include project scoping and budgeting, task management, fieldwork planning, EA preparation, and report QA/QC and review. *Role: Project Manager. Client: E3 Environmental, LLC.*

Centrahoma Stonewall Pipeline, Pontotoc and Coal Counties, Oklahoma (2013): Duties include project scoping and budgeting, task management, file search planning, and report QA/QC and review. *Role: Project Manager. Client: E3 Environmental, LLC.*

Chesapeake Rose Valley Pipeline, Woods County, Oklahoma (2013): Duties include project scoping and budgeting, task management, file search coordination, and report QA/QC and review. *Role: Project Manager. Client: E3 Environmental, LLC.*

City of Austin Site Damage Assessments, Travus County, Texas (2013): Duties include project scoping and budgeting, task management, and report QA/QC and review. *Role: Project Manager. Client: City of Austin.*

Cornell Companies, Hudson Correctional Facility; Hudson, Colorado (2009): Duties included assistant project management, project coordination, and report coordination. *Role: Assistant Project Manager. Client: Cornell Companies, Inc.*

Credo to Rawhide Pipeline, Glasscock and Sterling Counties, Texas (2013): Duties include project scoping and budgeting, task management, fieldwork planning, and report QA/QC and review. *Role: Project Manager. Client: DCP Midstream.*

David 3D/150 Geophysical Exploration Project, Dunn County, North Dakota (2012-2013): Duties include project scoping and budgeting, task management, agency consultation, client management, and fieldwork planning. *Role: Project Manager. Client: Dawson Geophysical.*

Denver Transit Construction Group RTD FasTracks West Corridor Paleontological Monitoring Project, Lakewood, Colorado (2009-2010): Duties included project management, client management, and project coordination. *Role: Project Manager. Client: Denver Transit Construction Group.*

Divide County Gathering System, Divide County, North Dakota (2012-2013): Duties include project management, client management, agency consulation, fieldwork coordination, report writing, and report review. *Role: Project Manager and Principal Investigator. Client:E3 Environmental, LLC.*

Eagle Chief Carmen Pipeline, Alfalfa County, Oklahoma (2013): Duties include project scoping and budgeting, task management, file search coordination, and report QA/QC and review. *Role: Project Manager. Client: E3 Environmental, LLC.*

Eagle Rock Wheeler Pipeline, Wheeler County, Texas (2013): Duties include project scoping and budgeting, task management, file search coordination, and report QA/QC and review. *Role: Project Manager. Client: E3 Environmental, LLC.*

Enerplus, Fort Berthold Well Pads, Dunn County, North Dakota (2010-2012): Duties include report coordination, fieldwork coordination, and review. *Role: Principal Investigator/Archaeologist. Client: Enerplus.*

Enogex McClure Pipeline, Custer County, Oklahoma (2013): Duties include project scoping and budgeting, task management, fieldwork planning, and report QA/QC and review. *Role: Project Manager/Principal Investigator. Client: E3 Environmental, LLC.*

EOG Resources, Inc., Fort Berthold BIA Well Pads, McKenzie County, North Dakota (2009-2013): Duties include fieldwork coordination, report writing, and report review. *Role: Principal Investigator/ Archaeologist. Client: EOG Resources, Inc.*

EOG Resources, Inc., Fee Surface Well Pads, Mountrail County, North Dakota (2010-2011): Duties include project management, client management, agency consulation, fieldwork coordination, report writing, and report review. *Role: Project Manager and Principal Investigator. Client: EOG Resources, Inc.*

FERC to Granite Pipeline, Hemphill County, Texas (2013): Duties include project scoping and budgeting, task management, file search coordination, and report QA/QC and review. *Role: Project Manager. Client: E3 Environmental, LLC.*

Fossil Creek Resources Federal 5-14H Well Access Reroute; Niobrara County, Wyoming (2008): Duties include site narrative writing, projectile point analysis, report revisions, and site form completion. *Role: Archaeologist. Client: James Enterprises, Inc., for Fossil Creek Resources.*

Garden Creek Gas Plant (2010): Duties include project management, client management, project oversight, agency consulation, fieldwork coordination, and report review. *Role: Principal Investigator and Project Manager. Client: E3 Environmental.*

Garden Creek Pipeline Project, North Dakota and Montana (2010-2011): Duties include project management, client management, fieldwork coordination, report writing, and report review. *Role: Project Manager and Principal Investigator. Client: E3 Environmental, LLC.*

Gunnison Rising Project; Gunnison, Colorado (2008): Duties include cultural historical research, projectile point analysis, report writing, review, revisions, and report coordination. *Role: Archaeologist. Client: Gunnison Valley Partners, LLC.*

Hess Avalanche Pipeline, Williams County, North Dakota (2010-2012): Duties include project scoping, agency consulation, and field and report coordination. *Role: Principal Investigator/Archaeologist. Client: Hess Corporation.*

Hess Federal Well Pads, McKenzie and Mountrail Counties, North Dakota (2010-2012): Duties include proejct mangement, agency consulation, fieldwork, field and report coordination, and report review. *Role: Principal Investigator and Project Manager. Client: Hess Corporation.*

Hess Keene Pipeline, McKenzie County, North Dakota (2010):): Duties include agency consulation and field/report coordination. *Role: Principal Investigator/Archaeologist. Client: Hess Corporation.*

Hess Red Sky Pipeline, Mountrail and Williams counties, North Dakota (2009): Duties include site form review and QA/QC. *Role: Archaeologist. Client: Hess Corporation.*

Hess Tioga Gas Plant Expansion Projects, Williams County, North Dakota (2010, 2011): Duties include project scoping, field and report coordination; report review. *Role: Principal Investigator/Archaeologist. Client: Hess Corporation.*

Hess Tioga Rail Terminal Project, Williams County, North Dakota (2010): Duties include project scoping, project coordination, and report review. *Role: Principal Investigator/Archaeologist. Client: Hess Corporation.*

Keystone XL Pipeline Project; Multiple Counties, Montana (2008-2009): Duties included site form preparation and production, prehistoric and historic research, and report writing. *Role: Archaeologist. Client: AECOM.*

Keystone XL Pipeline Project; Multiple Counties, South Dakota (2008-2009): Duties included culture history research and report writing. *Role: Archaeologist. Client: AECOM.*

Keystone XL Pipeline Project; Multiple Counties, Texas (2008-2009; 2013): Duties included project coordination, historic research, and report writing. *Role: Archaeologist. Client: AECOM/ENSR/expGlobal.*

Lane City Reservoir Project; Wharton County, Texas (2013): Duties included report review and QA/QC. *Role: Cultural Resources Program Director. Client: Lower Colorado River Authority.*

MB3D Geophysical Exploration Project, Richland County, Montana (2012-2013): Duties include project scoping and budgeting, task management, agency consultation, client management, and fieldwork planning. *Role: Project Manager. Client: Dawson Geophysical.*

Mitchell County Power Plant; Mitchell County, Texas (2013): Duties included report review and QA/QC, and agency consultation. *Role: Archaeologist. Client: FGE.*

Newmont Mining Company Sundance Project; Crook County, Wyoming (2008): Duties include report writing, culture history research, site narrative writing, report coordination, report revisions, and site form revisions and production. *Role: Archaeologist. Client: James Enterprises, Inc., for Newmont Mining.*

Normally Pressured Lance Core Area Project, Sublette County, Wyoming (2009-2010): Duties included assistant project managmeent, field preparation, report coordination, and report writing and review. *Role: Archaeologist. Client: EnCana.*

Normally Pressured Lance EA, Sublette County, Wyoming (2009): Duties included report writing. *Role: Archaeologist. Client: EnCana.*

O'Brien Homestead Federal #1 Well; Niobrara County, Wyoming (2008): Duties included report revision and production. *Role: Archaeologist. Client: James Enterprises, Inc., prepared for the BLM Newcastle Field Office.*

Paradise Transmission Project; Sublette County, Wyoming (2008): Duties included culture history writing and revisions. *Role: Archaeologist. GeoEngineers.*

Paso Robles Development, Hays County, Texas (2013): Duties included project scoping, report coordination, report review, and project oversight *Role: Program Director. Client: Paso Robles, LLC.*

Pecan Fertile LCS and Liberty CDP, Mountrail County, North Dakota (2010): Duties included report coordination, report review, agency consultation, and project oversight. *Role: Archaeologist/Principal Investigator. Client: Pecan Pipeline.*

Pecan Sidonia CDP/LCS and Alternate Compressor Station, Mountrail County, North Dakota (2010): Duties included report coordination, agency consultation, report review, and project oversight. *Role: Archaeologist/Principal Investigator. Client: Pecan Pipeline.*

Pecan Whiting Tie-In Cultural Resources Inventory, Mountrail County, North Dakota (2010): Duties included report coordination, report review, agency consultation, and project oversight. *Role: Archaeologist/Principal Investigator. Client: Pecan Pipeline.*

Pecan Stanley Gas Plant Expansion Cultural Resources Inventory, Mountrail County, North Dakota (2010): Duties included report coordination, agency consultation, report review, and project oversight. *Role: Archaeologist/Principal Investigator. Client: Pecan Pipeline.*

Pecan Ross LCS/CDP Cultural Resources Inventory, Mountrail County, North Dakota (2010): Duties included report coordination, report review, and project oversight. *Role: Archaeologist/Principal Investigator. Client: Pecan Pipeline.*

Pecan Archaeological Monitoring at 32MN0828, Mountrail County, North Dakota (2010): Duties included project coordination, agency consultation, and archaeological monitoring. *Role: Archaeologist/Cultural Resources Task Lead. Client: Pecan Pipeline.*

Petro-Hunt Site Revisits, Dunn County, North Dakota (2010): Duties include project management, fieldwork coordination, and site form review. *Role: Project Manager and Principal Investigator. Client: Petro-Hunt, LLC.*

Petro-Hunt Killdeer Pipeline, Dunn and McKenzie counties, North Dakota (2010): Duties include report review. *Role: Archaeologist/Cultural Resources Task Lead. Client: Petro-Hunt, LLC.*

Petro-Hunt State Highway 22 Expansion Project, Dunn County, North Dakota (2010): Duties include report writing and review. *Role: Principal Investigator. Client: Petro-Hunt, LLC.*

Petro-Hunt Central Leases Project, Fort Berthold Indian Reservation, McKenzie County, North Dakota (2010) Duties include report writing and review. *Role: Principal Investigator. Client: Petro-Hunt, LLC.*

Petro-Hunt 3 Well EA Project, Fort Berthold Indian Reservation, Dunn County, North Dakota (2010) Duties include report writing, coordination, and review. *Role: Principal Investigator. Client: Petro-Hunt, LLC.*

Petro-Hunt 4 Well EA Project, Fort Berthold Indian Reservation, Dunn County, North Dakota (2011) Duties include report writing, coordination, and review. *Role: Principal Investigator. Client: Petro-Hunt, LLC.*

Petro-Hunt 5 Well EA Project, Fort Berthold Indian Reservation, Dunn County, North Dakota (2010) Duties include report writing, coordination, and review. *Role: Principal Investigator. Client: Petro-Hunt, LLC.*

Pioneer Raton Basin Wells; Las Animas County, Colorado (2008): Duties include site form preparation and report writing. *Role: Archaeologist. Client: Pioneer.*

PAA Bakken North Pipeline, multiple counties in North Dakota and Montana (2011-2012) Duties include report writing, coordination, and review. *Role: Principal Investigator. Client: Plains All American Pipeline.*

PAA Nelson Take-Off to Ross Pipeline, Williams County, North Dakota (2011-2012) Duties include report writing, coordination, and review. *Role: Principal Investigator. Client: Plains All American Pipeline.*

Questar Fort Berthold Wells (5 wells); Dunn and McLean counties, North Dakota (2009): Duties include project management and report preparation. *Role: Project Manager. Client: Questar Exploration and Production Company.*

Rooks County Wind EA; Rooks County, Kansas (2009): Duties include Phase I file search. *Role: Archaeologist. Client: ICG Aeolian Energy.*

St. Croix 3-D Seismic Survey; Rio Blanco County, Colorado (2008): Duties include site form preparation and production, prehistoric and historic research, and report writing and production. *Role: Archaeologist. Client: St. Croix Seismic, LLC.*

Simray Fort Berthold Wells; Dunn County, North Dakota (2009): Duties include report writing and site form preparation. *Role: Archaeologist. Client: Simray Production Company.*

Slawson Exploration Water Disposal Well – Fox 1-28SWD, Dunn County, North Dakota (2010-2011): Duties include project oversight and report review. *Role: Principal Investigator/Archaeologist. Client: Slawson Exploration.*

Slawson Exploration USFS Well Pads (2011-2013): Duties include report review and field oversight. *Role: Principal Investigator/Archaeologist. Client: Slawson Exploration.*

State Line Gas Plant (2010-2011): Duties include project management, client management, project oversight, agency consulation, fieldwork coordination, and report review. *Role: Principal Investigator and Project Manager. Client: E3 Environmental.*

Stateline to Rawson Pipeline EA, Williams County, North Dakota (2012): Duties include project management, client management, project oversight, and report review. *Role: Principal Investigator and Project Manager. Client: E3 Environmental.*

Stateline to Riverview Pipeline, Williams County, North Dakota, and Richland and Roosevelt Counties, Montana (2011-2012): Duties include project management, client management, project oversight, agency consulation, fieldwork coordination, and report review. *Role: Principal Investigator and Project Manager. Client: E3 Environmental.*

TexStar Pipeline Project, Harris County, Texas (2013): Duties include report review, coordination, and project management. *Role: Principal Investigator and Project Manager. Client: Perennial Environmental.*

Tri-State Gore Pass Windy Gap; Grand County, Colorado (2008): Duties include historical research and site narrative writing. *Role: Archaeologist. Client: Tri-State*

United States Army Corps of Engineers (USACE), McLean and Mercer counties, North Dakota (2009-2010): Duties include report writing, coordination, and review. *Role: Archaeologist. Client: USACE, Omaha District.*

United States Army Corps of Engineers (USACE), various counties, South Dakota (2009-2010): Duties include report writing, coordination, and review. *Role: Archaeologist. Client: USACE, Omaha District.*

United States Army Corps of Engineers (USACE), Dunn County, North Dakota (2009-2010): Duties include assistant project management and project coordination. *Role: Archaeologist/Assistant Project Manager. Client: USACE, Omaha District.*

United States Army Corps of Engineers (USACE), Mountrail County, North Dakota (2011-2013): Duties include report review and project coordination. *Role: Principal Investigator. Client: USACE, Omaha District.*

United States Army Corps of Engineers (USACE), multiple counties, South Dakota and Nebraska (2009-2010): Duties include file search coordination and fieldwork coordination. *Role: Archaeologist. Client: USACE, Omaha District.*

United States Fish and Wildlife Service (USFWS), Lake Ilo Archaeological Mitigation Project, Dunn County, North Dakota (2010): Duties include project management, project planning, fieldwork coordination, agency consultation, and fieldwork execution. *Role: Project Manager/Field Director. Client: USFWS.*

Urland SS Antenna Tower, Tyler County, Texas (2013): Duties include project management, report review and project coordination. *Role: Principal Investigator/PM. Client: The WCM Group.*

Wasatch Wind Black Mountain MET C Tower Project, Natrona County, Wyoming (2009): Duties include report writing, site form production, and report production. *Role: Archaeologist. Client: Wasatch Wind.*

Williams Ryan Gulch Block Surveys; Rio Blanco County, Colorado (2008): Duties include report writing. *Role: Archaeologist. Client: Williams Production RMT Co.*

Zenergy Ft. Berthold Reservation EA, Well Pad Surveys; Dunn and McKenzie counties, North Dakota (2009-2010): Duties include proejct coordination, report writing, report coordination, and review. *Role: Principal Investigator. Client: Zenergy Operating Company, LLC.*

Zenergy Ft. Berthold Reservation EA, Gathering Line Surveys; Dunn and McKenzie counties, North Dakota (2009-2010): Duties include project coordination, report writing, report coordination, and review. *Role: Principal Investigator. Client: Zenergy Operating Company, LLC.*

Zenergy Monitoring Project for Well Pad and Gathering Line Construction, Dunn and McKenzie counties, North Dakota (2010): Duties include oversight of cultural resources monitoring and agency consultation. *Role: Principal Investigator. Client: Zenergy Operating Company, LLC.*

Zenergy Well Pads (2012-2013): Duties include project management, project planning, fieldwork coordination, agency consultation, and fieldwork execution. *Role: Project Manager/Principal Investigator. Client: Zenergy.*

Field Experience

Hess EN Rehak A-155-94-1423H-1, 2, 3 Super Well Pad and Access Road, Mountrail County, North Dakota (2010): Block inventory for well pad and linear inventory for access road (1 day). *Role: Lead Archaeologist/PI. Client: Hess.*

Arrow Questar MHA 2-06-01H Gathering Pipeline, Dunn County, North Dakota (2010): Site recording (1 day). *Role: Lead Archaeologist/PI. Client: Arrow Pipeline.*

Hess Avalanche Pipeline, Multiple Counties, North Dakota (2010): linear inventory (1 day). *Role: Lead Archaeologist/PI. Client: Hess.*

USFWS, Lake Ilo Archaeological Mitigation (Data Recovery) Project, Dunn County, North Dakota (2010): Block excavation at 32DU965 (2 weeks). *Role: Project Manager/Field Director. Client: USFWS*

Pecan Stanley Gas Plant Expansion, Mountrail County, North Dakota (2010): Block inventory (1 day). *Role: Lead Archaeologist/PI. Client: Pecan Pipeline.*

Pecan Whiting Tie-In, Mountrail County, North Dakota (2010): Linear and block inventory of gathering lines and additional work space areas (1 day). *Role: Lead Archaeologist/PI. Client: Pecan Pipeline.*

BNI Coal Site Revisit 32OL0498, Oliver County, North Dakota: Site revisit and recording at 32OL0498 (1 day). *Role: Archaeologist and Project Manager. Client: BNI Coal.*

Pecan Archaeological Monitoring at 32MN0828, Mountrail County, North Dakota (2010): Archaeological monitoring of radio tower construction following the identification of human remains by construction personnel (1 day). *Role: Archaeologist/PI. Client: Pecan Pipeline.*

Hess Tioga Gas Plant Expansion, Williams County, North Dakota (2010): Block survey of proposed gas plant expansion and oil storage facility (1 day). *Role: PI/Lead Archaeologist. Client: Hess Corporation.*

Zenergy Well Pads and Access Roads, Dunn and McKenzie counties, North Dakota (2010): Block and linear inventory of well pads and access roads; site recording (1 day). *Role: Archaeologist. Client: Zenergy.*

Arrow Phase 1B Pipeline and Well Pad Gathering Lines, Dunn and McKenzie counties, North Dakota (2009): Linear inventory of pipeline reroutes and well pad gathering lines (1 day). *Role: Archaeologist. Client: Zenergy.*

United States Army Corps of Engineers (USACE), Dunn County, North Dakota (2009): Block survey and inventory (1 day). *Role: Archaeologist. Client: USACE.*

United States Army Corps of Engineers (USACE), McLean County, North Dakota (2009): Block survey and inventory (1 week). *Role: Archaeologist. Client: USACE.*

Williams Culp Draw; Campbell County, Wyoming (2009); Block survey for well-pad and access roads (1 week). *Role: Archaeologist. Client: Williams.*

Pioneer Raton Basin Wells; Las Animas County, Colorado (2008): Well-pad survey (2 days). *Role: Archaeologist. Client: Pioneer.*

Lindenmeier Site; Larimer County, Colorado (2006): Dr. Jason LaBelle, director, Anthropology Department, Colorado State University (position funded by the Quest Archaeological Research Program, Southern Methodist University) (2 weeks). *Role: Survey Crew Member.*

Soapstone Prairie and Red Mountain Ranch; Colorado (2006): Dr. Jason LaBelle, director, Anthropology Department, Colorado State University (position funded by the Quest Archaeological Research Program) (1 month). *Role: Assistant Crew Leader / Survey Crew Member.*

Lanning; Gateview, Colorado (2005): Quest Archaeological Research Program, Southern Methodist University (2 weeks). *Role: Survey and Excavation Crew Member.*

Flat Top; Gunnison, Colorado (2005): Quest Archaeological Research Program, Southern Methodist University (1 week). *Role: Survey Crew Member.*

Bonfire Shelter; Langtry, Texas (2005): Quest Archaeological Research Program, Southern Methodist University (2.5 weeks). *Role: Survey and Excavation Crew Member.*

Mountaineer Site; Gunnison, Colorado (2003, 2005, and 2009): Quest Archaeological Research Program, Southern Methodist University (2.5 months). *Role: Excavation Crew Member (2003 and 2005) and Volunteer (2009).*

5GN149, Curecanti National Recreation Area; Colorado (2003–2004): Quest Archaeological Research Program, Southern Methodist University (1 month). *Role: Field Director (2004) and Survey and Excavation Crew Member (2003).*

Hot Tubb Site; Crane, Texas (2003): Quest Archaeological Research Program, Southern Methodist University (1 month). *Role: Excavation Crew Member.*

Commonwealth Archaeology Program, Harrisburg, Pennsylvania (2002). Pennsylvania Bureau for Historic Preservation (9 months). *Role: Field Technician.*

Penn State Field School, State College; Pennsylvania (2001): Anthropology Department, Pennsylvania State University (2.5 months). *Role: Field Crew Supervisor.*

Cortez, Colorado (2000): Anthropology Department, Penn State University (2 months). *Role: Survey Crew Member.*

Hatch Quarry Site, State College; Pennsylvania (1999): Dr. James Hatch and Dr. Timothy Murtha, directors, Anthropology Department, Penn State University (6 months). *Role: Survey and Excavation Crew Member.*

Hershey Site; Lancaster, Pennsylvania (1999): Dr. James Hatch, director, Anthropology Department, Penn State University (2 months). *Role: Archaeological Field School Student.*

Research Experience

- **Quest Archaeological Research Program, Southern Methodist University (2005–2008).** *Role: Graduate Research Assistant.*
- **Quest Archaeological Research Program, Southern Methodist University (2003–2005).** *Role: Intern / Employee Supervisor.*
- **Quest Archaeological Research Program, Southern Methodist University (2003–2005).** *Role: Lab Technician.*
- **Edwin J. Foscue Map Library, Southern Methodist University (2004).** *Role: GIS Specialist / Library Assistant.*
- **Quest Archaeological Research Program, Southern Methodist University (2002).** *Role: Graduate Research Assistant.*
- **Commonwealth Archaeology Program, Bureau for Historic Preservation; Harrisburg, Pennsylvania (2002).** *Role: Lab Technician.*
- **Anthropology Department, Penn State University (2001–2002):** Supervised by Dr. George Milner. *Role: Scientific Illustrator.*
- **Anthropology Department, Penn State University (2001–2002):** Supervised by Dr. Frances Hayashida. *Role: Laboratory Assistant.*
- **Anthropology Department, Penn State University (2000):** Supervised by Dr. Dean Snow. *Role: Lab Intern.*
- **Anthropology Department, Penn State University (1999–2000):** Supervised by Dr. Brad Andrews and Dr. Timothy Murtha. *Role: Lab Technician.*
- **Anthropology Department, Penn State University (1999):** Supervised by Dr. James Hatch. *Role: Lab Intern.*

Professional Experience

SWCA Environmental Consultants; Austin, Texas (April 2013 - present): Cultural Resources Program Director, principal investigator, project manager, report review and QA/QC, business development, and proposal preparation and coordination. *Role: Cultural Resources Program Director.*

SWCA Environmental Consultants; Bismarck, North Dakota (February 2012- April 2013): Office Director, marketing and business development lead, proposal coordination, principal investigator, project manager, report review. *Role: Office Director.*

SWCA Environmental Consultants; Bismarck, North Dakota (February 2010–February 2012): Cultural Resources team lead, principal investigator, project manager, report review and QA/QC, proposal writing, fieldwork and report coordination, report writing, and archaeological and historical research. *Role: Cultural Resources Team Lead.*

SWCA Environmental Consultants; Denver, Colorado (June 2008–February 2010): Project management, proposal writing, fieldwork and report coordination, report writing, archaeological and historical research, report review, and Access database design. *Role: Project Manager/Archaeologist.*

Commonwealth Archaeology Program, Harrisburg, Pennsylvania (2002). Field and laboratory archaeological technician for the Pennsylvania Bureau for Historic Preservation. *Role: Archaeological Technician.*

Teaching Appointments

- **Department of Anthropology, Colorado State University (2008).** *Role: Adjunct Instructor.*
- **Department of Anthropology, Southern Methodist University (2004):** Supervised by Dr. John Williams. *Role: Lab Instructor / Teaching Assistant.*
- **Department of Anthropology, Southern Methodist University (2003):** Supervised by Dr. Michael Adler. *Role: Instructor / Teaching Assistant.*
- **Department of Anthropology, Pennsylvania State University (2001):** Supervised by Dr. Dean Snow. *Role: Undergraduate Teaching Assistant.*

Publications

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Sessions Organized / Chaired

Cooper, Judith R. (session chair). "Plains Archaeology," a session at the 66th Plains Anthropological Conference, Laramie, Wyoming, 2008.

Cooper, Judith R. (session chair). "Developing Method and Theory in Archaeology," a session at the 106th American Anthropological Association (AAA) Meeting, Washington, D.C., 2007.

Cooper, Judith R. (organized with Ryan M. Byerly). "Research in Bison and Human Paleoecology on the Great Plains," a poster session at the 64th Plains Anthropological Conference, Topeka, Kansas, 2006.

Presentations at Professional Meetings

Cooper, Judith R. 2012. Pre-Contact Bison Hunting on the Great Plains. A paper presented at the North Dakota Archaeological Association, Jamestown, North Dakota.

Kennedy, John, Dave Vlcek, Paul Burnett, and Judith Cooper. 2010. 10,000 Years in the Upper Green. A poster presented at the 68h Plains Anthropological Conference, Bismarck, North Dakota.

Cooper, Judith R., Norma Crumbley, and John Kennedy. 2010. High Elevation Landscape Use in the Upper Green River Basin of Western Wyoming: Exploring Ecological and Cultural Mosaics. A paper presented at the Society of American Archaeology (SAA) 75th Annual Meeting, St. Louis.

Cooper, Judith R., Norma Crumbley, and John Kennedy. 2009. Long-term Technological and Land-use Patterns in the Jonah Subregion of the Upper Green River Basin, Western Wyoming. A poster presented at the 67h Plains Anthropological Conference, Norman, Oklahoma.

Cooper, Judith R., Norma Crumbley, Michael Cregger, and George Connell. 2009. Brush Fences and Human Landscape Use in the Piceance Basin. A poster presented at the Society of American Archaeology (SAA) 74th Annual Meeting, Atlanta.

Cooper, Judith R. 2008. Bison Hunting and Climate Variability during the Late Holocene. A paper presented at the 66th Plains Anthropological Conference, Laramie, Wyoming.

Cooper, Judith R. 2008. Examining Ecological Relationships in the Late Holocene: a Large-scale Analysis of Bison Use in the Great Plains. A paper presented at the Society of American Archaeology (SAA) 73rd Annual Meeting, Vancouver, B.C.

Cooper, Judith R. 2007. Contextualizing Great Plains Bison Hunting: Evaluating the Relevance of Historical Analogy in the Prehistoric Kill Record. A paper presented at the 106th American Anthropological Association (AAA) Meeting, Washington, D.C.

Cooper, Judith R. 2007. Teasing out Technologies: Investigations at a Quartzite Workshop (5GN149) near Gunnison, Colorado. A paper presented at the 2007 Annual Meeting of the Colorado Archaeological Society, Aurora, Colorado.

Cooper, Judith R. 2007. Exploring Spatial Variability in Late Prehistoric Bison Utilization on the Great Plains. A paper presented at the Society of American Archaeology (SAA) 72nd Annual Meeting, Austin, Texas.

Cooper, Judith R. 2006. Spatial and Temporal Variability in the Late Prehistoric Great Plains Bison Kill Site Record. A poster presented at the 64th Plains Anthropological Conferences, Topeka, Kansas.

Cooper, Judith R., with John P. Laughlin. 2006. Testing a GIS-Based Model for Lithic Refitting: An Example from Barger Gulch Locality B. A paper presented at the SAA 71st Annual Meeting, San Juan, Puerto Rico.

Cooper, Judith R. 2005. Intrasite Spatial Analysis at 5GN149, a Surface Lithic Scatter in the Gunnison Basin. A poster presented at the 7th Biennial Rocky Mountain Anthropological Conference, Park City, Utah.

Cooper, Judith R. 2005. Solving Puzzles Using GIS? A Model for Stone Tool Refitting. A paper presented at the SAA 70th Annual Meeting. Salt Lake City, Utah.

Cooper, Judith R. 2004. Predicting Bison Drive Lanes at Bonfire Shelter: a GIS Approach to Understanding Prehistoric Landscape Use. A paper presented at the 75th Texas Archaeological Conference, College Station, Texas.

Cooper, Judith R. 2004. Technological and Refitting Analyses at 5GN149, a Lithic Workshop with Possible Paleoindian Affinities. A poster presented at the SAA 69th Annual Meeting, Montreal, Quebec.

Cooper, Judith R., with Brian N. Andrews. 2003. A Preliminary Report on a Possible Clovis Workshop in the Gunnison Basin, Colorado. A paper presented at the 61st Plains Anthropological Conference, Fayetteville, Arkansas.

Miscellaneous Presentations

Cooper, Judith R., Damien Reinhart, and William Harding. 2013. Cultural Resource Management Overview. Presentation to the Mandan Hidatsa Arikara (Three Affiliated) Tribes, Tribal Energy Office, Fort Berthold Indian Reservation, New Town, North Dakota.

Cooper, Judith R. 2009. From Lithic Scatters to Bison Kills: Using GIS at Different Scales of Archaeological Investigation. Guest speaker at the Indian Peaks Chapter of the Colorado Archaeology Society, Boulder, Colorado.

Cooper, Judith R. 2008. Communal Hunting and the Role of Bison in Great Plains Prehistory. Guest speaker at the Northern Colorado Chapter of the Colorado Archaeology Society, Fort Collins, Colorado.

Cooper, Judith R. 2007. Exploring Geographic Variability in Great Plains Bison Hunting. Guest lecturer, SMU Anthropology Club Brown Bag Lecture Series, Dallas, Texas.

Cooper, Judith R. 2007. Great Plains Prehistory: The Role of Bison. Invited class lecturer, ANTH 3304 North American Archaeology, Dr. Torben Rick, SMU, Dallas, Texas.

Cooper, Judith R. 2005. GIS and Paleoindian Archaeology: Bonfire Shelter, Texas, a Case Study. Exhibit displayed in the SMU Fondren Library Center, Dallas, Texas.

Cooper, Judith R. 2005. Modeling Bison Drive Lanes at Bonfire Shelter Using GIS. Guest speaker at Tarrant County Archaeological Society Meeting, Fort Worth, Texas.

Cooper, Judith R. 2004. Site 5GN149, Gunnison County, Colorado. A website accessible at http://www.smu.edu/anthro/QUEST/Projects/5GN149.htm.

Cooper, Judith R. 2004. Modeling Bison Jump Dynamics at Bonfire Shelter. A website, accessible at http://www.smu.edu/anthro/QUEST/Projects/Bonfire%20Rockshelter/home.htm.

Professional Affiliations / Committees / Service

- North Dakota State Historic Preservation Review Board, Committee Member (2012-2013)
- Society for American Archaeology
- Plains Anthropological Society
- Reviewer for *American Antiquity,* the principal journal of the Society for American Archaeology, and *Plains Anthropologist*, the journal of the Plains Anthropological Society
- Served on Plains Anthropological Society Native American Student Award committee, October 2011

Grants / Fellowships / Awards

- Dissertation Writing Fellowship, Anthropology Department, Southern Methodist University ($12,000), 2007–2008
- Dissertation Improvement Grant, National Science Foundation ($11,999), 2006–2008
- Student Development Grant (four-time recipient), Research and Graduate Studies, Southern Methodist University (total $1,600), 2004–2008
- Steed Travel Award (five-time recipient), Anthropology Department, Southern Methodist University (total $1,148), 2004–2008
- Travel Award (eight-time recipient), Graduate Student Assembly, Dedman College, Southern Methodist University ($1,830), 2002–2007
- Graduate Research Grant (co-recipient with Ryan M. Byerly), William P. Clements Center for Southwest Studies, Southern Methodist University ($385), 2005
- Departmental Tuition Award, Anthropology Department, Southern Methodist University ($9,540), 2004–2005
- Departmental Tuition Award, Anthropology Department, Southern Methodist University ($17,748), 2003–2004

- Departmental Tuition Award, Anthropology Department, Southern Methodist University ($16,506), 2002–2003
- Phi Beta Kappa, Lambda Chapter of Pennsylvania State University, 2001

APPENDIX B

ARCHAEOLOGICAL SITE FORMS

State Of Texas

Archeological Site Form

Field ID FS1

Form Date 3/22/2013

General Site Information

Site Name

☐ Revisit

Site Type Historic Farmstead

Explanation of Type

Site consists of a house, barn, 3 ancillary structures, farming equipment, a well and cistern, and associated household and farming debris. Initial construction may date to roughly the 1930s and all artifacts are mid-20th century through modern.

Project and Permit

Project Name Mitchell County Power Facility

Project Number 23583 **Project Funding** Mitchell County

Permit Number 6402 **Permit Source** TAC

Recorder Information

Name Matthew C. Stotts **Address** 4407 Monterey Oaks Blvd

Phone 512-476-0891 **Fax** 512-476-0893 Austin

Email mstotts@swca.com TX 78749

Affiliation SWCA Austin ☑ **Recorder Visited Site**

Sources of Information

Owner

Mitchell County (purchase in progress)

Informant

Additional Sources

Alamea Young, Melissa Garcia

Work Performed

Observation/Recording Date 03/18 & 03/19/2013

Surface Inspection/Collection Date 03/18 & 03/19/2013

Method Thorough surface inspection, no collection

Mapping Dates 03/18/2013

Method sketch and GPS

Testing Dates 03/18/2013

Method 6 shovel tests, 4 positive

Excavation Dates n/a

Method n/a

Records and Materials

Records
digital photos; daily journal; field inventory catalogue; paper map; photo logs; project report; shapefile; shovel test notes

Materials Collected
none

Special Samples
none

Temporary Housing SWCA (records only)

Permanent Housing TARL (records only)

Location

Primary County Mitchell **Location in County** west-central

Other Counties n/a

USGS Map and Quad Westbrook (3201-141)

UTM Zone 14 **Easting** 309311 **Northing** 3576004 **Datum** NAD 1983

Elevation 2183 **Elevation Range** 2179-2187ft

Description of Location
From IH20 and CR 670 in Westbrook, TX; take CR 670 SE for 3.5 miles. Take CR 262 SW for 1.0 mile, then CR 266 NW for 0.4 miles. Site is immediately east of CR 266 in a grove of trees.

Environment

Nearest Natural Water (well on site)

Major Drainage Colorado River

Creek Drainage Wildhorse Creek

Soil Description and Reference
Miles fine sandy loam 1-3% slopes

Percentage Surface Visible 40-100%

Surface Texture sandy loam

Soil Derivation ☑ **Alluvial** ☐ **Colluvial** ☐ **Eolian** ☐ **In Situ** ☐ **Marine**

Other Soils

Environmental/Topographical Setting
Upland plains; gently rolling agricultural lands surround the site in all directions. The site itself is situated within a grove of trees (primarily mesquite trees).

Site Conditions

Circumstances Affecting Observation
Bee hives in the house, barn, and garage . . . Watch out.

Site Condition poor condition, abandoned; 75% intact

Current Land Use
abandoned house within trees; surrounding land is agricultural, mainly cotton.

Natural Impacts
degredation of the structures from weathering

Artificial Impacts
minor vandalism; possibly rocks through the windows, bees were verbally assaulted but they started it

Future Impacts
power plant construction

Cultural Manifestations

Time Period of Occupation
1920s through 1990s

Basis for Time Period
Construction methods and cultural material present.

☑ **Single Component** ☐ **Multiple Component** ☐ **Component Unknown**

Basis for Component
Site represents a continuous occupation.

Cultural Features
Site is composed of 11 resources:

Resource 1 is a house located in the approximate center of the treed 7.5-acre home site, along the two-track farm road and about 85 meters east of CR 266. The house, circa 1930s, is a front-gabled bungalow with a footprint measuring approximately 30 x 20 feet. The front fatade faces north and features a partial-width gabled porch with square porch posts. A shed-roofed addition is found on the east elevation. The wood-framed building is supported on a pier and beam foundation and has horizontal board siding, asphalt shingles, and 6/6 wood divided light windows. The roof has a shallow overhang and exposed rafter ends. Most of the windows are missing their glass panes, and some are missing muntins. The siding is in fair condition. The trimwork, window sash, and roofing material are in poor condition.

Resource 2 is a garage situated immediately southeast of the house. It is a long rectangular building measuring 40 x 20 feet and consists of two distinct sections. The front section, nearest to the house, is a front-gabled structure with

a shallow roof pitch, likely constructed in the 1930s. It has a partial-width interior storage room with door and window openings and horizontal board siding. The rest of the front section is open and supported by lally poles, creating a carport-like parking area and an additional covered storage area that open to the front (north). The rear portion of the garage is a long addition extending to the south. It is a frame building clad in horizontal boards, with replacement corrugated metal siding along the east elevation. The south elevation, at the buildingÆs rear, has one window and large double doors. The doors swing open on strap hinges and are wide and tall enough to admit vehicles or farm equipment. The entire garage building has corrugated metal roofing material that is missing in places. The building is in fair condition.

Resource 3 is a circa 1930s side-gabled barn located about 55 meters east/southeast of the house. Its footprint measures approximately 40 x 30 feet, with its long axis oriented east-west. On the south elevation is a shed-roofed extension that opens onto the corrals. The wood frame building is clad in wide vertical boards, many of which are missing or broken. Along the north and west elevation, corrugated metal siding has been added, obscuring any door openings that were originally there. The shallow-pitched roof is clad in corrugated metal. The barnÆs interior contains animal stalls and hay storage areas. Overall, the barn is in fair condition, although the structural integrity of the southern shed-roofed extension is failing.

Three sheds are located about 50 meters south of the house, near the plowed hay field and the two-track farm road. Their construction dates are unknown but they appear to date from between 1930 and 1950. Resource 4 (shed #1 on sketch) is a flat-roofed building that housed an automobile and machinery workshop. It is approximately 25 x 15 feet in size and is open along its eastern edge. The other three elevations are windowless. The building has a wood frame and is clad in corrugated sheet metal. It is in fair condition. Resource 5 (shed #2) is a gable-roofed, wood frame building that may have contained animal pens. It measures approximately 20 x 15 feet. Its south and west elevations were clad in vertical boards, but most of them are missing. Its north and east elevations have corrugated metal siding, most of which is intact. The building is in poor condition. Resource 6 (shed #3) is a small shed-roofed building measuring 10 x 12 feet. It is a wood frame building clad in horizontal boards, and may have been a chicken coop. It is in poor condition.

Resource 7 is a windmill and cistern located about 70 meters northeast of the house. The windmill and cistern are located within a cluster of short trees and brush. The small steel windmill is a self-oiling Aermotor, either the 602 or 702 model, which are very similar in appearance. The Aermotor 602 was produced from 1916 and 1932, and the 702 model was launched in 1933 and produced through the 1980s (Nayab). The windmill has a steel four-post tower, two small wooden platforms, and eighteen blades. Its tail reads ôAERMOTOR.ö Located next to the windmill is a cylindrical above-ground cistern. It is clad in corrugated steel and sits just above ground atop a raised lattice of wood beams. The windmill and cistern are in good condition.

Resource 8, the fencing and corrals, includes the corrals adjacent to the barn, decorative fencing near the house, and the fencing found around the hay field. The corrals are located south and east of the barn and primarily consist of mesquite post and barbed wire, with sections of fence missing. Fencing around the house is mesquite and box wire with decorative wire loops along the fence top. The nonhistoric fencing around the hay field consists primarily of metal poles, box wire, and barbed wire. Overall, the fencing at the farmstead is in good condition but has only fair integrity. Fencing found at the site varies in age.

Resource 9 is a two-track farm road that enters the building cluster site from CR 266, near the northwest corner of the farmstead. The road curves through the home site, passing the house and sheds, until it reaches the plowed hay field. There it splits and runs alongside the hay field in both directions. The western branch returns to CR 266, while the eastern branch turns north to access the northern portion of the hay field. The two-track farm road is a well-established road with two distinct tracks of exposed dirt and rock. Indistinct, less-traveled dirt roads encircle

the entire farmstead, providing access to the fieldÆs boundaries. The roadÆs integrity is good.

Resource 10 includes several objects collectively counted as the farmsteadÆs agricultural equipment. Immediately north and east of the corral are two historic flatbed trailers, one of which are in poor condition and is missing wheels. Additional flatbed trailers are found near sheds #1 and #2. These are in fair to poor condition. Atop one of them is a large metal piece of farm equipment labeled ôHESSTON 3000.ö Hesston has been making hay and forage equipment since 1955. The exact function and equipment type could not be confirmed. Other agricultural equipment at the site includes a rectangular concrete trough found in the corrals and an elevated 300 gallon fuel tank near shed #1. The condition and integrity of the agricultural equipment is fair.

Resource 11, the plowed hay field, is the only resource not located within the 7.5 acre building cluster. When evaluating rural historic districts, fields and pastures are counted as resources due to their land use characteristics. The hay field is approximately 158 acres in size and is flat to undulating. A power transmission line cuts across the northern portion of the field on a slight diagonal, just south of the building cluster site. The power line detracts from the fieldÆs otherwise good integrity. The fieldÆs western boundary is CR 266, and its southern boundary is CR 262. Modern box wire fences separate the field from hay fields to the north and east.

Approximate Site Size 175m x 175 m

Basis for Determination Pedestrian inspection and shovel testing

Top of Deposit Below Surface 0 cmbs

Basis for Determination artifacts are visible on the surface

Bottom of Deposit 30 cmbs

Basis for Determination shovel test results

Artifactual Materials Observed

Artifacts noted include: cinder blocks, 30-80 gallon drums, wooden palates, auto tires, Folgers coffee cans, red bricks, clear glass detergent bottles, gas cans, plastic buckets, aluminum funnel, automotive parts, barbed wire, PVC pipes, milled lumber, railroad ties, old transmission line lumber with glass insulators, farming equipment; In shed 1 (auto shed): John Deere and Ford tractor hydraulic oil 1 & 5 gallon cans, Treflan herbicide drums, Ford Motor Company plastic hubcap, pile of collapsed cardboard boxes; In Garage: Kerr mason jar, Cragmont Grape Soda can (Safeway product, pull-tab), JB (Jones Blair) house paint, Folgers cans, Gerber baby food jar, Pierce Glass Company medicine bottle, 1988, 1968, and 1964 TX license plates, Owens-Illinois bottles, spark plug, Clover Manufacturing Company Valve Abrading Compound double-sided tin; Shed 3: Presto Supreme Mason Jar, small glass (extract?) bottle, "Hawaiian Punch can, Ball No. 10 canning jar lid (clear glass), Owens-Illinois large (~1 qt) "flask" with bucking bull rider & metal screw top; House: chest of drawers, Motorola television, sofa set, 1973 and 1996 wall calendars, 1 gallon plastic milk jugs (investigation of garage, barn, and house were brief and limited due to active bee hives)

Discussion of Site

The site is a typical rural, early-mid-late 20th century farmstead consisting of a house, barn, 3 ancillary structures, farming equipment, a well and cistern, and associated household and farming debris. An initial construction date is diffucult to pinpoint due to a lack of clear period distinction in rural vernacular architecture, but may be as early as the 1930s. Ancillary structures were likely added later. All artifacts date from the mid-late 20th century, through at least 1996 as evidenced by a wall calender hanging in the kitchen. Investigation of the house, barn, and the west (workshed?) room of the garage were limited due to active bee hives. The site is not the work of a master craftsman nor a shining example of a particular architectural style and is not consisdered significant.

Registration and Recommendations

Registration Status

State Arch Landmark	**Conservation Easement**
Registered TX Landmark	**National Register**

Registration Comments

Research Value
Low

Further Investigations
No further work is recommended.

Attachments
Sketch map, topo, shapefile.