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Cultural Resource Assessment of the JP Energy 8 S Trunkline ROW Reagan County, Texas

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NEGATIVE FINDINGS

Cultural Resource Assessment of the

JP Energy 8 S Trunkline ROW

Reagan County, Texas

Report
prepared for
JP Energy Permian
Barnhart, Texas

by

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ABSTRACT

In early April 2014, Turpin and Sons Inc (TAS) archeologists assessed the cultural resource potential of a 12.5-mile long, 100-foot wide JP Energy 8 S Trunkline ROW on University Lands (UL) in central south Reagan County, Texas. The survey was sponsored by JP Energy as part of their permitting process to install a 10-inch pipeline on UL, and authorized by Texas Antiquities Permit 7233, Jeff Turpin, Principal Investigator. The proposed route extends north northeast across an upland grassland, dropping suddenly just before mile 8 into a lowland flat. It transects Talley, Big Jim, and Big Lake draws along with multiple other unnamed draw headers, existing pipelines, 2-tracks, and Hwys 67 and 137. About 152 acres were surveyed.

The area has been disturbed by detrimental land management practices, though grasses seem to be making a comeback. No archeological sites were added to the inventory and the route does not pass through any previously recorded sites, therefore, cultural resources present no impediment to installation of the pipeline on University Lands.

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INTRODUCTION

In early April 2015, Turpin and Sons Inc (TAS) archeologists assessed the cultural resource potential of the proposed 12.5-mile long, 100-foot wide JP Energy 8S Trunkline ROW in central south Reagan County, Texas (Fig. 1, 2). The survey was sponsored by JP Energy as part of their permitting process to install a pipeline on University Lands, and was authorized by Texas Antiquities Permit 7233, Jeff Turpin, Principal Investigator.

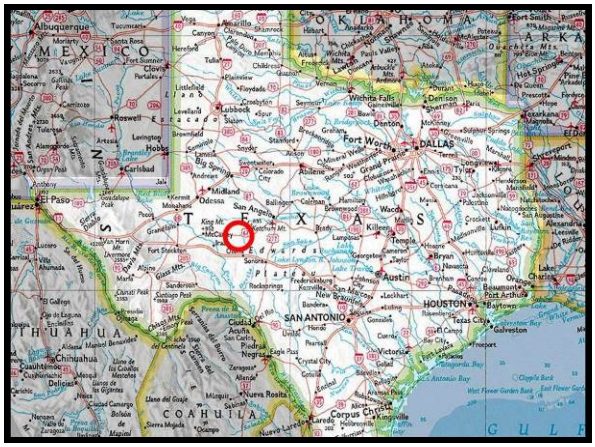

Figure 1. Project location map (source: National Geographic TOPO!).

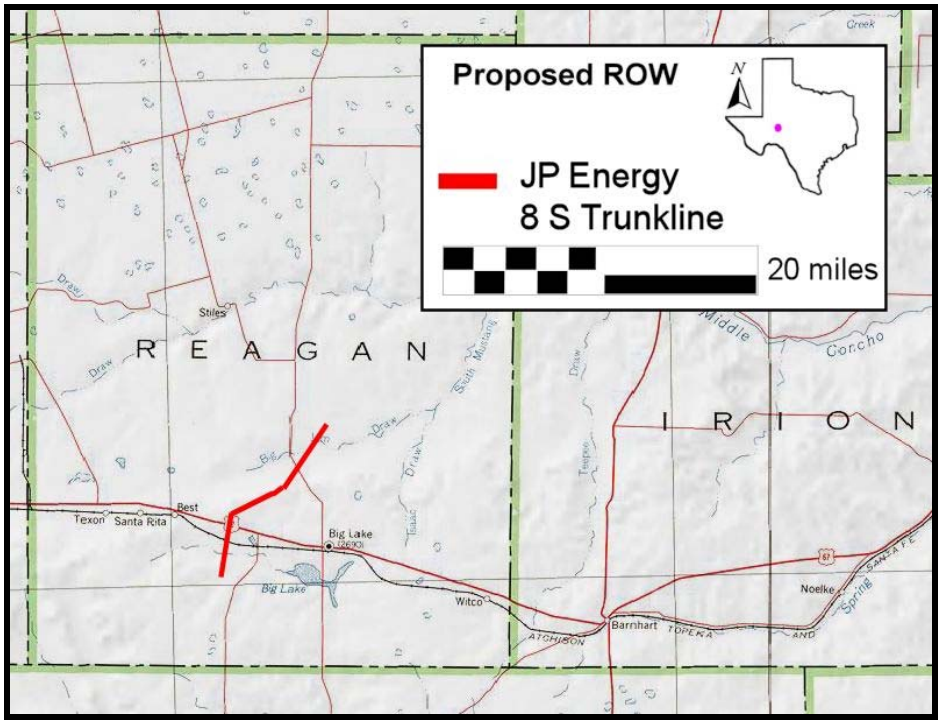

Figure 2. Project location in Reagan County (source: National Geographic TOPO!)

The proposed JP Energy 8 S Trunkline ROW is generally located about 5-miles northwest of the town of Big Lake. The northern end starts about 1-mile north of Big Lake, 1-mile southeast of North Bates Windmill, and 1-mile southwest of Dixon Windmill on the Best, Gardener Draw and Divide Draw quad USGS quad maps (Fig. 3). The proposed route crosses through Block 8, Sections 6-7, and 18-19; Block 11, Section 1; and Block 10 Sections 6-8, 16-17, 21-22, 26-27, and 35-36 of University Lands (Fig. 4).

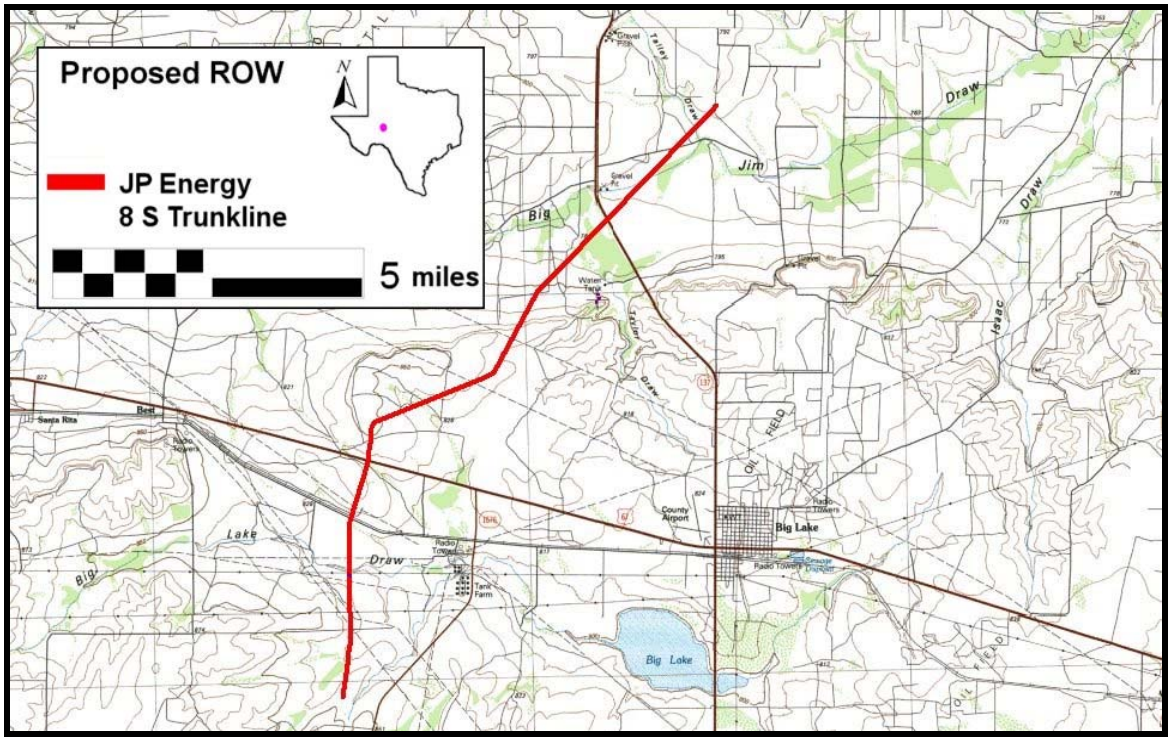

Figure 3. ROW is on USGS QUAD Maps Best, Gardener Draw, and Divide Draw (Source: Terrain Navigator and GoogleEarth-Earth Survey QUADS)

The ROW runs across relatively flat grasslands with some young mesquite and fairly dense clump grassed lowland with fine, silty loam and few rocks in most places (Fig. 5). The survey found no intact cultural material nor historical structures in the path of the ROW, so the proposed installation will not affect significant cultural resources.

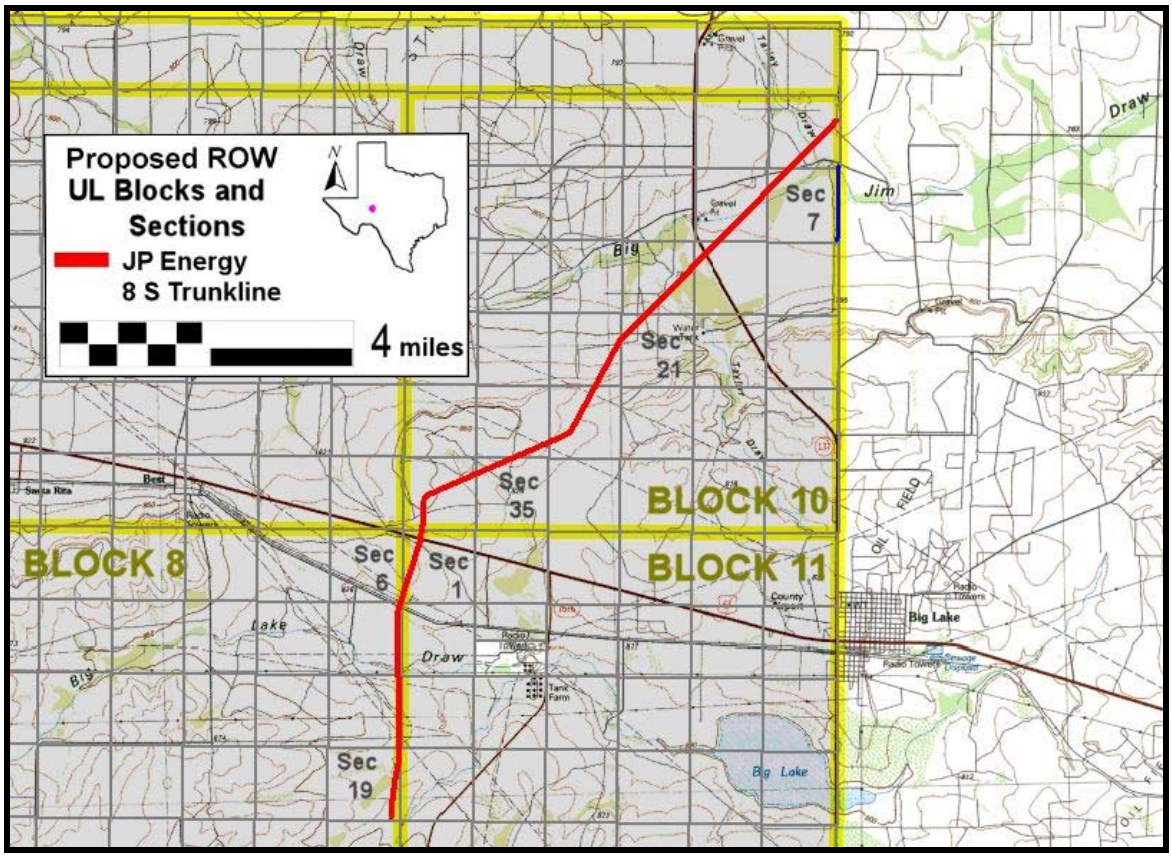

Figure 4. Location on University Lands Blocks and Sections (source: Terrain Navigator)

Figure 5. Typical terrain is relatively flat with dense grasses and some brush

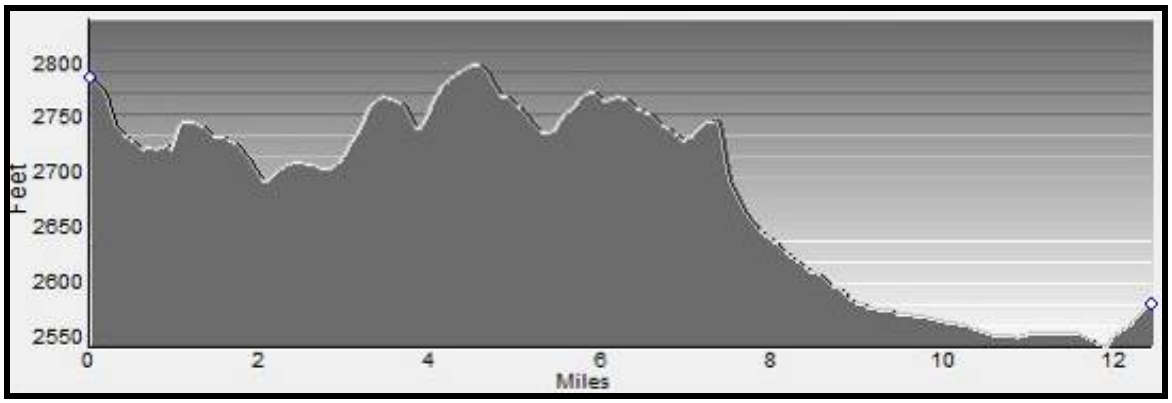

Figure 6. As the route extends north, elevations drop fairly dramatically starting between miles 7 and 8

This cultural resource assessment consisted of an archival search, an intensive pedestrian survey, and preparation of a report suitable for review in accordance with the Texas Historical Commission's Archeological Survey Standards for Texas. The investigations also conform to guidelines and standards set forth in the National Historic Preservation Act.

ENVIRONMENTAL SETTING

The project area is classified as part of the Edwards Plateau Section of the Great Plains Province of the Interior Plains which is described as mesas, plateaus, and limestone ridges and hills with deep canyons and nearly level to gently sloping valley floors (Fig. 7). This description does not provide an accurate context for prehistoric adaptations in the area of the current survey. The deep canyons with proximity to the Pecos River are southwest of the area of interest. The proposed ROW crosses broad flat grasslands with sparse vegetation, thin soils and rock outcrops. Drainages sometimes contain more clump grasses, but for the most part are also sparsely vegetated.

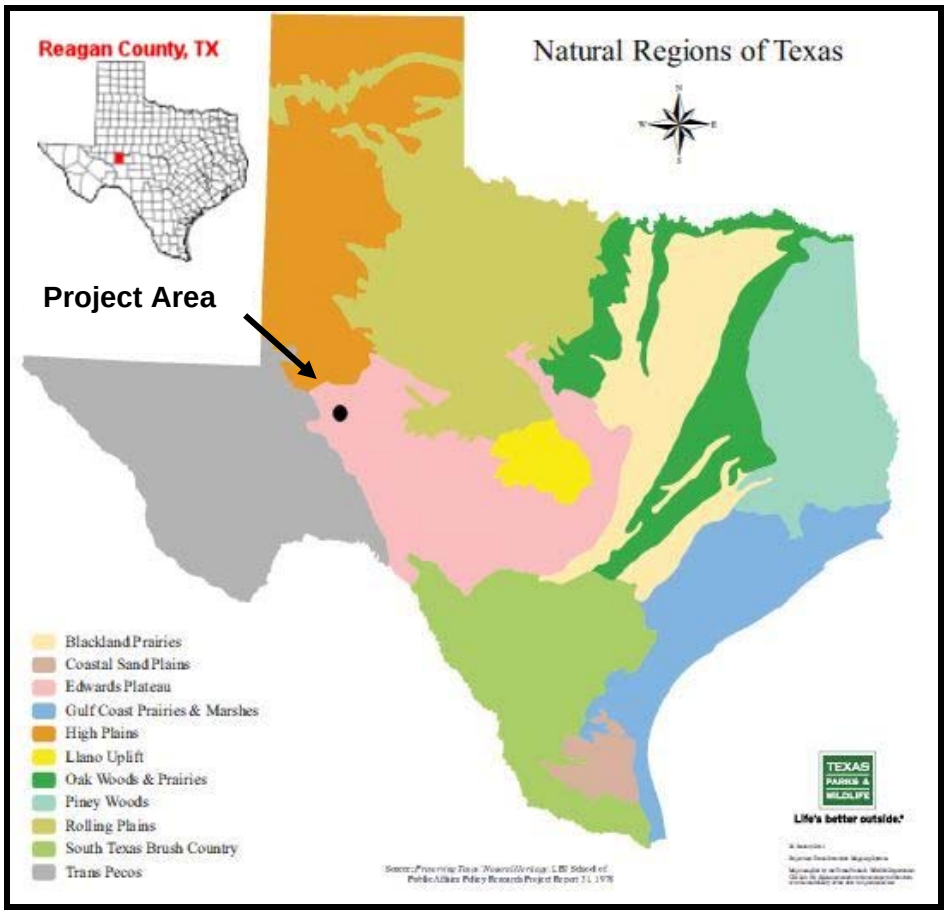

Figure 7. Natural Regions of Texas (source: Texas Parks & Wildlife)

Hydrology

Hydrology is the dominant factor in prehistoric and early historic settlement patterns in the study area. The area of interest here is on relatively flat grasslands between Talley and Big Jim Draws to the northeast and Big Lake Draw to the southwest. Garrison Draw, along with Big Jim Draw, drains directly into Big Lake Draw at the Depression southwest of Big Lake. Casual water made it possible for people and animals to exploit the high dry uplands between the permanent springs, such as Grierson, Flat Rock, Howards Well, and the Pecos River (Brune 1980). The interfluvial divide between the Pecos/Rio Grande and Concho river basins is just south of the project area. Big Lake, the largest playa in Texas, is perched atop the divide. Since record keeping began, the lake has filled on an average of every 20 years. The archeological record demonstrates occupation of the lake shores and Big Lake Draw from Paleoindian through early historic times.

Soils

Most of the JP Energy 8S Trunkline lays in the Rock outcrop-Ector (s7304) soil series, but also crosses the following soil series: Ector-Angelo (s7301), Regan-Merta-Conger-Angelo (s7170), and Cho-Angelo (s7167; Fig. 8). Draws and drainages contained Angelo silty clay loams (alluvium derived from limestone) and Ector soils (loamy residuum weathered from limestone) while the grasslands are mostly Reagan and Conger loams, both alluvium derived from limestone.

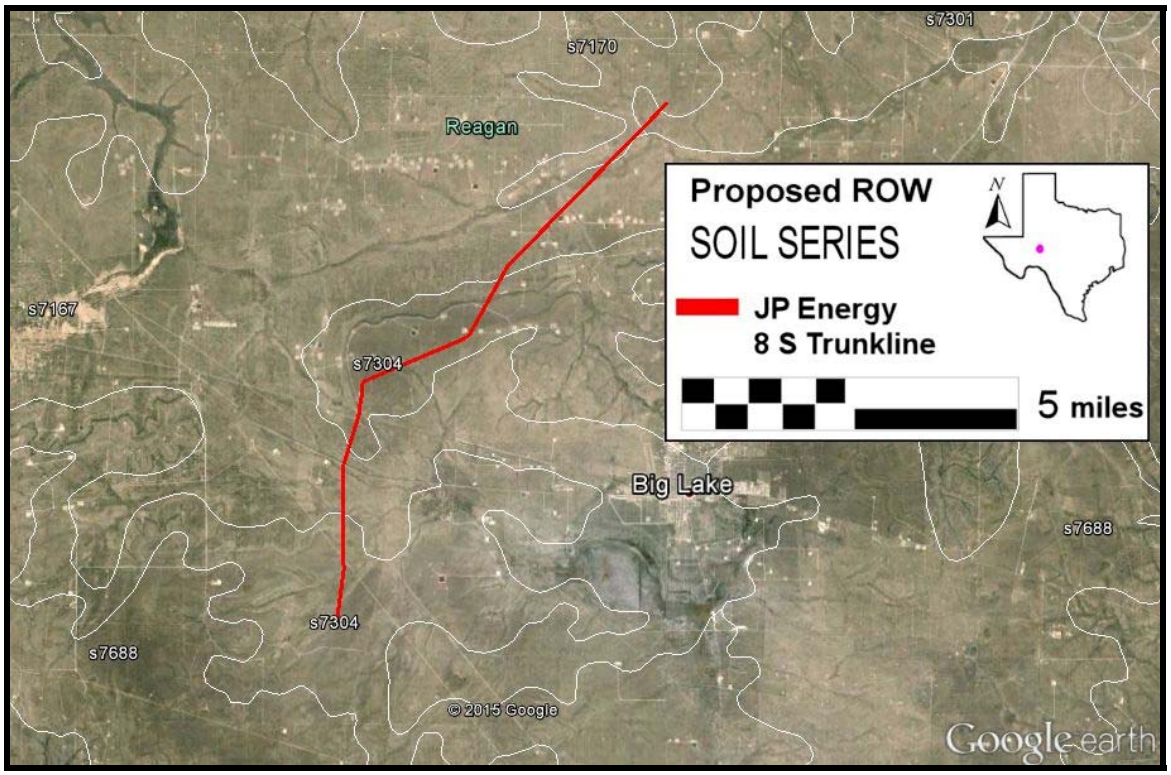

Figure 8. Soil Series (Source: Google Earth Pro-SSURGO)

Plants and Animals

Vegetation is very sparse and, in years with sufficient precipitation, consists of a plant community of shrubs and short or mid grasses. The plant community includes juniper, mesquite, lotebush, live oak, Texas oak, sumac, Texas prickly pear, tasajillo, kidneywood, netleaf hackberry, agarito, yucca, sotol, catclaw, Mexican persimmon, various gramas, threeawn, Texas wintergrass, little bluestem, Halls panicum, buffalo grass, cedar sedge, two-leaved senna, mat euphorbia, rabbit tobacco and hairy tridens. Scrub mesquite and juniper have

infested disturbed sections of the project area, to the detriment of range grasses in areas that have been cleared and overgrazed and where there has been extensive energy production.

Deer are the dominant wild species in the region today but archeological and historical evidence indicate that the faunal community was large and diverse prior to the introduction of domesticated animals (Wiedenfeld 2003). The bison kill site in the bed of the Big Lake testifies to more benign grassland before 8000 years ago, followed by a period of severe drought that would have driven herd animals north to the Plains (Turpin et al. 1997). Pioneers camping on the shores of the Big Lake mention a wide variety of long-gone game, including bears, antelope and bison (Prine 1920). Although no faunal studies have been done in the immediate vicinity of the study area, it can be assumed that the composition of the faunal community in general was equally fluid and dependant on the vagaries of climate and rainfall.

Climate

Temperature ranges can be extreme in the Big Lake area, from a record low of 1 degree to a record high of 110 degrees, with an average of 49.6 degrees F in winter and 77 degrees in summer. The average annual total precipitation is about 18.22 inches (Western Regional Climate Center). Of this, about 14.76 inches, or 77 percent, usually falls in April through October. Texas is prone to severe droughts that, like the filling of Big Lake, are cyclical events. The high dune face on the northern side of the lake resulted from an extremely long dry spell with constant winds from the south-southwest sometime after about 8000 B.P. and was preceded by yet another undated period of dune accretion that has since stabilized. Many of the semi-buried hearths sites recorded during the recent block surveys would have been buried by wind-blown sediment during such periods of sparse vegetation and low rainfall.

CULTURAL CONTEXT

Reagan County is in a transitional zone between three defined cultural areas: the Southern Plains on the north, the Eastern Trans-Pecos, and the Lower Pecos to the west and east respectively. Just over 400 sites have been

recorded in Reagan County spanning the entire range of prehistory (Atlas). The Big Lake playa attracted hunters from the Paleoindian through Historic periods. Projectile points in private collections include Folsom, Plainview, Midland and Milnesand specimens from the western end of the lake, and excavations in the bed of the lake produced the remains of a small herd of bison driven into the mud and dispatched during the period of downsizing from mega- to modern bison around 8000 years ago (Turpin et al. 1993, 1997). Archaic and Late Prehistoric burned rock middens and hearths line the lake and its major feeder, Big Lake Draw (Turpin 1994). Most of the prehistoric sites in the area cannot be dated but the few with temporally diagnostic projectile points are Middle and Late Archaic in age. The Late Prehistoric presence is evidenced by a large Toyah phase component in the dunes at the western end of Big Lake (41RG26).

The history of the early frontier is manifested in the ruins of Camp Grierson (41RG3), a military outpost of Fort Concho built in 1878 around a secluded permanent spring that effectively shortened the road to Fort Lancaster (Riemenschneider and Turpin 1998). The only designated State Archeological Landmarks in this county are the Reagan County Courthouse in Stiles and a firing range associated with Camp Grierson on property managed by University Lands (41RG77; Turpin and Riemenschneider 2001). Although none of these sites are near the current project, they demonstrate the long duration of occupation attributable to the draw of the Big Lake.

Previous Investigations

The area of potential effect (APE) was previously surveyed in 2012 by TAS, Inc. for the Pioneer Block Survey under TAC permit 6098 (Burgess and Turpin 2013; see also Burgess and Turpin 2011; Moody 2014; Turner and Burgess 2014, Turpin 1994). Several previously recorded sites are located in the vicinity, but only 41RG60 comes close to the line (Turpin 1994). These sites are all poorly dated prehistoric open camps, burned rock middens (BRMs), and lithic scatters (Atlas). This survey demonstrated that no intact features will be disturbed by construction as the ROW does not pass through any previously recorded sites, nor were any new sites found.

METHODS

Prior to field work, the county site files and maps on the Texas Historical Commission's (THC) Archeological Site Atlas were searched for previously recorded site locations and references to archeological surveys undertaken in the vicinity of the proposed pipeline. Pedestrian survey of a total of 12.5 miles was conducted along the centerline of the ROW. Lack of or the extremely disturbed nature of the topsoil negated the need to dig shovel tests. No artifacts were collected so curation is not an issue.

RESULTS OF THE SURVEY

Existing pipelines and previous grubbed lines from the Pioneer Block Survey crossed the proposed ROW, as well as a few ephemeral drainages, numerous 2-tracks, and Hwys 67 and 137. However, no previously recorded sites impinge on the surveyed pipeline APE and no new sites were recorded.

CONCLUSIONS

Survey of the proposed pipeline produced no new site recordings and only one previously recorded site is near the APE. Located in the southern section of the proposed ROW, 41RG60's artifact assemblage – scattered burned rock, lithic debitage and one broken dart point – is typical of literally hundreds of sites in this region (Burgess and Turpin 2011, 2013, Turpin 1994). Shallow soils present a poor context for preservation and site integrity which was further compromised by detrimental land management practices including modern clearing for energy production, grazing, and hunting. Therefore, cultural resources present no impediment to installation of the JP Energy trunkline in the surveyed ROW.

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