Volume 2020 Article 118

2020

Negative Findings Report Cultural Resource Survey Fabens Lease 1301, University Lands El Paso County, Texas

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Cultural Resource Survey
Fabens Lease 13031, University Lands
El Paso County, Texas

Final Report prepared for

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by

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Permit #9518

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Draft Technical Report 372
July 2020

ABSTRACT

On July 23, 2020, TAS Inc. conducted a cultural resource survey of a 10-acre tract intended to host a truck stop on the northwest corner of IH10 and FM 793 two miles northeast of the town of Fabens, in El Paso County, Texas. The project was sponsored by Ya Rehman, Ent, Inc. and was authorized by Texas Antiquities Permit 9518 with Jeff Turpin acting as Principal Investigator. The tract is a southwest-trending dune between two arroyos. The pavement and construction debris from an abandoned gasoline station occupy the southwestern corner. The current survey and shovel test regime found the remains of the gas station, but no new archeological evidence of any kind was discovered Consequently cultural resources present no obstacle to construction of the proposed truck stop, and justify a finding of “no effect”. However, if cultural material is encountered during the course of construction, work in that area should cease and the various regulatory agencies should be advised.

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INTRODUCTION

On July 23, 2020, a TAS Inc. archeologist surveyed and shovel tested a 10-acre tract on the northwest corner of FM 793 and Interstate Highay 10 in El Paso County, Texas (Fig. 1). The survey was sponsored by Ya Rehman, Ent, Inc. and authorized by Texas Antiquities Permit 9518 with Jeff Turpin acting as Principal Investigator. This cultural resource assessment consisted of an archival search, an intensive pedestrian survey and shovel testing, and preparation of a report suitable for review in accordance with the Texas Historical Commission's Archeological Survey Standards for Texas.

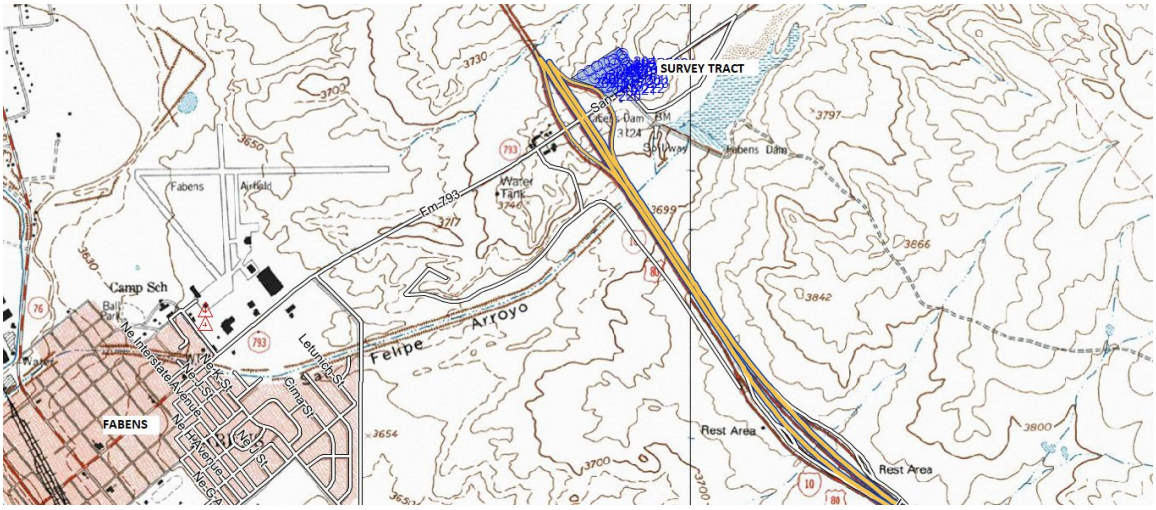

Figure 1. General location of project area (source: National Geographic Topo).

Beyond the recording of 41EP5921 no new evidence of historic or prehistoric occupation or use was observed. These negative results justify a finding of "no effect." However, in the event that cultural materials are encountered during the course of construction, work in that area should cease and the appropriate authorities contacted. All records and photographs will be curated at the Centennial Museum at UTEP.

The project was located on state lands operated by the University Lands System (UL), and had been previously surveyed under TAP 4447, for the much larger Fabens Border Patrol firing range (Turpin 2007a), at which time a single prehistoric site, 41EP5921, was recorded on the northern edge of the current tract. The entire tract is a high, sloping dune between arroyos, with > 90%

surface visibility. An intensive examination of was conducted in four transects with shovel tests placed randomly (Fig. 3).

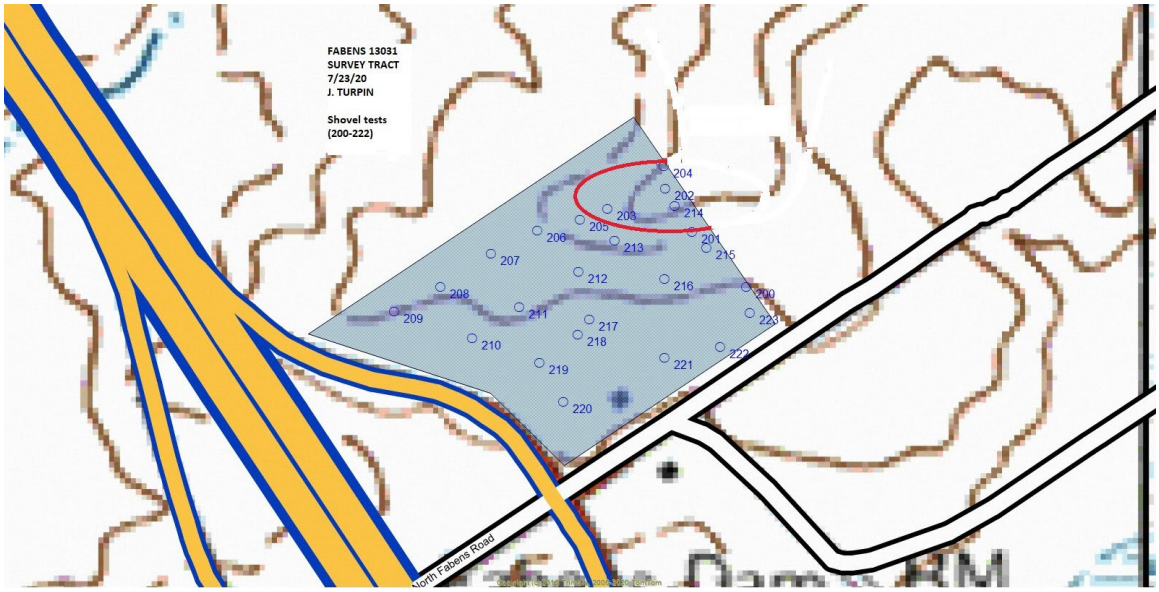

Figure 2. Survey area with shovel tests (source: Terrain Navigator).

ENVIRONMENTAL CONTEXT

Soils locally are described as “Bluepoint Association, rolling,” and the survey tract effectively occupies the southwestern face of an extensive sand dune between arroyos which flow southwest towards the Rio Grande (Fig. 4).

Figure 3. Aerial image, firing range, arroyos (source: Google Earth 3/13/2019).

Figure 4. Facing south from top of dune towards IH-10 and Fabens.

The survey tract is in the Mexican Basin and Range physiographic province. Parallel mountain chains, north-south trending outliers of the Sierra Madres, alternate with internally draining valleys or basins called bolsóns. The major physiographic features of El Paso County are the Franklin Mountains in the west and the Hueco Mountains in the east, enclosing the Hueco Bolsón that declines into an old dissected terrace that parallels the flood plain of the Rio Grande (Soil Survey 1971:65). Fabens is at the break between the ancient terrace and the Rio Grande plain, the dominant hydrological feature and cultural boundary. In the survey area, the rolling upland desert ranges in elevation from 3740 ft AMSL near the southwest boundary to 3810 ft in the north. Vegetation was typically creosote, saltbush, mesquite, ephedra, yucca and various clump grasses. The nearest water source is San Felipe Arroyo which flows southwest toward the Rio Grande on the southeast side of CR 793, across the pavement from the survey tract. The arroyo is dammed just north of IH 10.

Dust and sandstorms are not uncommon and cause considerable irritation since the loose arid soil is easily carried by even moderate winds. The mobility of the soil is one of the dominant factors affecting site settlement patterns, since sites in the dune fields are exposed and reburied at the whim of the winds. However, paleoclimatic studies show that prior to about 7000 B.C. the area was

a savannah with scattered woodland communities. The drying trend that began with a major erosional event ca 7000 B.C. continued with minor cooler and wetter periods through the Late Holocene. Periods of higher rainfall and stable climate correlate with changes in the cultural trajectory, especially the introduction of horticulture and the rise of more complex societies.

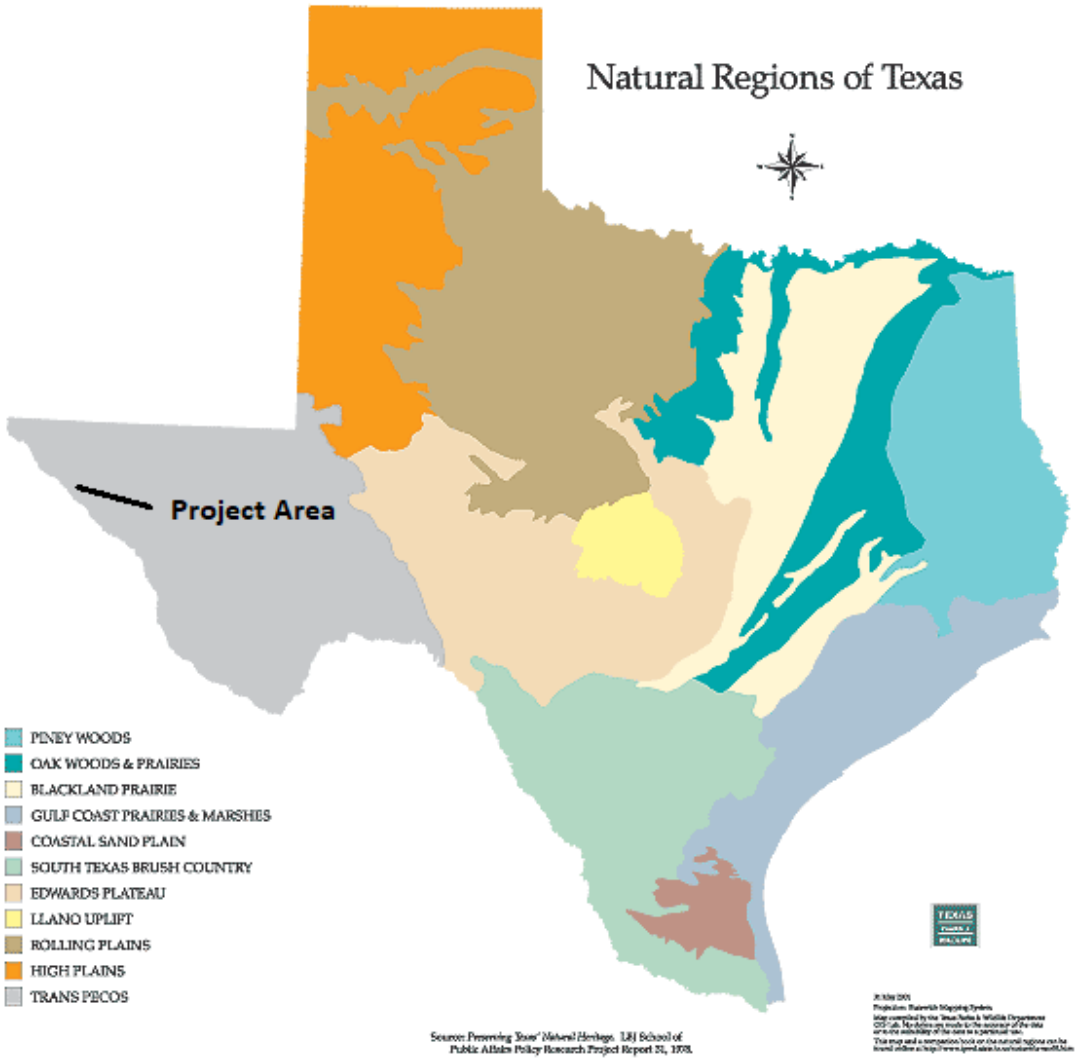

Figure 5. Natural region of the survey tract (source: Texas Parks and Wildlife).

Hydrology

San Felipe Arroyo just south and an unnamed tributary just north both drain southwest down to the Rio Grande river valley 6 miles to the west. Their

flow has been interrupted in modern times by a series of irrigation ditches down in the valley, but these are irrelevant to the prehistoric cultural manifestations within the current project area (see Fig. 1 above).

The climate is characterized as semi-arid, with less than 8 inches of rain falling annually. The sun shines about 83 percent of the time so the evapo-transpiration rate is high, mandating irrigation to successfully grow crops in the valley.

Soils

The Bureau of Economic Geology (1968) maps the tract as bolsón deposits which are clay, sand and gravel, in part gypsiferous, with some caliche. According to the USDA soil survey for El Paso County (1971), the mapped soils are Bluepoint association, deep loamy sands on rolling terrain above the Rio Grande flood plain.

Figure 6. Representative shovel test.

In practice the project tract is essentially composed of one large sand dune sloping 60 ft. up to the northeast, away from IH-10. Erosion rills skirt the western face, where the ground surface is capped by a modern “A-horizon” composed of windblown silts and clays from the adjacent valley, along with dust and aerosol oil from the adjacent highway. This same cap was found in some shovel tests at mid-slope, buried beneath 5 to 10 cm of redeposited sand and

gravel. In most tests sand and gravel were mixed to depth, and gravels varied in size from fist-sized to pea-sized, with most being erosionally rounded (Fig. 7). The implication is that this dune is a relict alluvial deposit from a post-Pleistocene Rio Grande that filled the entire valley. Topography tends to confirm this, but no formal confirmation was found in the literature viewed for this report.

Figure 7. Ground surface.

CULTURAL CONTEXT

Miller and Kenmotsu (2004) have written an exhaustive summary of many of the material traits that characterize the Western Trans Pecos, showing its affinities with the Greater Southwest, Chihuahua and the Southern Plains. Their chronology begins before 10,000 B.C. with a discussion of possible Early Man sites that is not relevant to the current project. Their Paleoindian period, including Clovis and Folsom subdivisions, extends from 10,000 to 6000 B.C., predating any of the cultural remains found in the Fabens survey. The long Archaic period is divided into Early (6000-3000 B.C.), Middle (3000 to 1000 B.C.) and Late (1000 to 500 B.C.) subperiods. The Early Archaic is poorly represented by isolated projectile points, a few radiocarbon dates from rock shelters and even fewer from open camp sites. Miller and Kenmotsu (2004:221) note the appearance of burned rock features and ground stone artifacts, both indicative of

an increased reliance on plant foods. Local stone is used as raw material for stone tool manufacture, perhaps because of restricted mobility. However, the Early Archaic remains a topic that requires considerably more research attention. The traits that emerge during the Early Archaic intensify during the Middle Archaic, perhaps in response to population growth (Miller and Kenmotsu 2004:223). A continued drying trend may have affected procurement and subsistence strategies. One of the more significant developments is the emergence of pit house architecture, round shallow semi-subterranean structures with wattle-and-daub superstructures.

The Late Archaic period sees several innovations, including the use of ceramics and a dramatic increase in archeological features and material remains, leading researchers to propose an expanding population that occupied many diverse ecological zones and developed new socio-economic strategies, including the adoption of horticulture. More relevant to the findings of this survey is the assumption that hunting and foraging also intensified with a concomitant increase in small short-term open camps. It is possible but not demonstrable that nearby 41BP5923 belongs in this category of Late Archaic site types. The Formative or Late Prehistoric Period, from A.D. 200 to 1450, has traditionally been divided into Mesilla, Doña Ana and El Paso phases (Lehmer 1948). The Mesilla phase is characterized by incipient pithouse architecture, El Paso Brown ceramics, limited use of cultigens, and some evidence for non-local trade items. Conceivably, 41EP5921 was laid down during this time period.

The Doña Ana phase is more controversial and is sometimes combined with the El Paso phase into a general Late Formative period (Whalen 1985). The transition from pithouse to pueblo architecture, elaboration of local ceramic technology, increase in non-local goods, intensified agriculture and increased sedentism led to the development of more complex social and religious practices. Around A.D. 1450, the cultural trajectory of the Western Trans-Pecos deviated from the path to increased complexity. The pueblos were abandoned for reasons that are still argued and that are not relevant to this project. Whether environmentally or socially motivated, people appear to have reverted to a broad

resource procurement economy that continued until the Spanish arrived ca. 1750 A.D. The conflict between the European invaders and the indigenous people is beyond the scope of this survey beyond the fact that it resulted in the decimation of native people and their way of life.

Table 1. Time Periods in prehistory.

Period	Subperiod	Radiocarbon Years (BP)	Trans-Pecos
Paleoindian		<12,000-9,800	<12,000-8500
	Aurora	14,500-11,900	
	Bonfire	10,700-9,800	
Late Paleoindian		9,400-9,000	
	Oriente	9,400-8,800	
Early Archaic		9,000-6,000	8,500-1,000
	Viejo	8,900-6,500	
Middle Archaic		6,000-3,000	
	Eagle Nest	5,500-4,100	
	San Felipe	4,100-3,200	
Late Archaic		3,000-1,000	
	Cibola	3,150-2,300	
	Flanders	2,300??	
	Blue Hills	2,300-1,300	
Late Prehistoric		1,000-350	
	Flecha	1,320-450	
	Infierno (phase)	450-250	
Historic		350-0	

PREVIOUS INVESTIGATIONS

A small area survey conducted by TxDot immediately across CR 793 from the survey tract produced no site recordings, nor did two other similar projects on the south side of IH10 (Atlas). A fourth TXDot borrow pit survey by Geo-Marine between the Fabens and Tornillo roads south of the study area resulted in two site recordings. Both are a series of caliche hearths with lithic debris and, in the case of 41EP5417, a purported Folsom preform, a Middle Archaic dart point and Formative ceramics. The six previously recorded sites on the Clint SE quad all resulted from survey of El Paso Gas' Samalayuca Gas Pipeline Extension by Mariah and Associates, Inc. All were open campsites exposed in dune blowouts, but the artifact assemblages varied from monotonous burned rock and lithic debris to ceramics, ground stone and features that resulted in testing recommendations for two of them. A large area survey immediately north of this cluster, however, failed to record any sites. A number of trinomials were issued

to sites south of IH 35, near Fabens, but no site forms were filed so only locational data are available.

As per above, TAS Inc. did a survey of the surrounding acreage for the Fabens Border Patrol firing range in 2007, as well as an assessment of the Fabens Independent School district lease, same year. Three archeological sites were recorded in the immediate vicinity of the project. 41EP5921-23 were all dune-top lithic scatters, with the occasional tool or generic ceramic sherd. 41EP5921 lies partly within the current survey area, and was revisited during this survey.

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 near the current project. Pedestrian survey was conducted in parallel transects running east/west across the project area. Four transects were walked in roughly parallel compass headings, with shovel tests excavated on random flat surfaces through the tract. Surface visibility varied from 70-90%. Twenty-three shovel tests were dug across the area. Matrix was sifted through ¼-inch wire mesh screen. Depth and collapsing test walls ended all tests. Shovel test and surface observation locations were recorded with handheld GPS units and transferred to topographic maps (Fig. 2 above). No artifacts were collected. All documentation will be curated at the Centennial Museum, The University of Texas at El Paso.

SURVEY RESULTS

Ya Reman, Ent Inc. plans to construct a truck stop on the tract, partly over-lapping the remains of an abandoned gas station in the southern corner of the tract (Fig. 7). Survey conditions were difficult, with temperature at or above 104 degrees throughout, so no attempt was made to parse out boundaries outside the survey area. Shovel tests found mixed, loose sand and gravel to depth; all tests collapsed below 30 cmbs. No buried artifacts were recovered.

Figure 7. Abandoned gas station pad.

Survey and shovel testing elsewhere in the tract found similar mixed, sterile deposits, with the occasional crust or lamellae from colluvial or rain-driven runoff. Erosion was particularly visible in the southern corner near the freeway and former gas station. Urban trash was common.

Beyond the remains of the gas station and site 41EP5921, no significant artifacts or indications of historic or prehistoric occupation or use were observed.

CONCLUSIONS

At the request of Ya Rehman, Ent, Inc., a 10-acre tract at the northern corner of IH 10 and FM 793, intended to host a truck stop, was examined for cultural resources. The property was owned by and will be leased from University Lands. The 10 acres were thoroughly examined through a pedestrian survey augmented by shovel tests. Beyond a previously recorded site, judged in 2007 to be ineligible for the National Register of Historic Places, and a recently abandoned gas station pad, no significant artifacts or archeological features were observed on the surface or in any of the shovel tests. Thus the planned construction should have no effect on areal cultural resources, and a determination of “no effect” is solicited. It is recommended that the project be allowed to proceed.

Shovel Test Log

Shovel Test #	UTM Zone 13 NAD 27	Matrix	Results
201	0392817 / 3487986	Gray sand w/pea gravels 10YR 8/3 to BOP	Neg
202	0392798 / 3488016	“” to 40 cmbs	Neg.
205	0392738 / 3487995	Gray sand w/gravels 40 cm	Neg.
206	0392708 / 3487988	“”	Neg.
207	0392675 / 3487972	“”Silty clay lamella 25 cmbs	Neg.
208	0392639 / 3487949	Gray sand w/gravels 40 cm	Neg.
209	0392606 / 3487932	“”	Neg.
210	0392661 / 3487913	“”	Neg.
211	0392694 / 3487934	“” silty clay lamella 30 cm	Neg.
212	0392736 / 3487959	“” silty clay lamella 30 cm	Neg.
213	0392763 / 3487980	Gray sand w/gravels 40 cm	Neg.
214	0392805 / 3488004	“”	Neg.
215	0392827 / 3487975	“”	Neg.
216	0392797 / 3487953	“”	Neg.
217	0392743 / 3487925	“”	Neg.
218	0392735 / 3487915	“”	Neg.
219	0392708 / 3487895	Silty clay lamella surface	Neg.
220	0392724 / 3487868	“”	Neg.
221	0392797 / 3487898	Gray sand w/gravels 40 cm	Neg.
222	0392836 / 3487905	“”	Neg.
223	0392857 / 3487929	“”	Neg.

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