

ARCHAEOLOGICAL MONITORING AT THREE PREHISTORIC  
LOCALES IN ZAPATA COUNTY, TEXAS

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Center for Archaeological Research  
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Archaeological Survey Report, No. 170

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## ABSTRACT

Archaeological monitoring at three locales on federal land within the Falcon Reservoir was conducted by the Center for Archaeological Research, The University of Texas at San Antonio, on October 2 and 3, 1986. Machine trenching across each locale was done by Arco Oil and Gas Company, Freer, Texas, in conjunction with the construction of a pipeline which crosses both private and federal lands adjacent to the Beckwith Arm of Falcon Reservoir. Trenching did not adversely affect the integrity of cultural materials at any of the three locales. One of the locales was designated an archaeological site (41 ZP 109), and one archaeological site (41 ZP 108) not previously recorded was located. None of the locales or sites meet the eligibility criteria to be nominated to the National Register of Historic Places or to be designated as a State Archeological Landmark.

## TABLE OF CONTENTS

ABSTRACT . . . . .	i
LIST OF FIGURES . . . . .	ii
ACKNOWLEDGMENTS . . . . .	iii
INTRODUCTION . . . . .	1
METHODOLOGY . . . . .	1
MONITORING RESULTS . . . . .	3
Arco Locale No. 1 . . . . .	3
Arco Locale No. 2 . . . . .	3
Arco Site No. 3 (41 ZP 109) . . . . .	6
CAR-UTSA Site No. 1 (41 ZP 108) . . . . .	7
SUMMARY AND RECOMMENDATIONS . . . . .	8
REFERENCES CITED . . . . .	9

## LIST OF FIGURES

1. Location of the Project Area Pipeline Route and Archaeological Sites and Locales Monitored . . . . .	2
2. Trench Soil Profiles Observed . . . . .	4
3. Artifacts Recovered Within and Adjacent to the Arco Right-of-Way . . . . .	5

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## INTRODUCTION

The Arco Oil and Gas Company, Freer, Texas, proposed the construction of a gas pipeline across federal land in the Falcon Reservoir in Zapata County, Texas (Fig. 1). The construction right-of-way, which crosses the Beckwith Arm of the reservoir, was surveyed in its entirety for archaeological sites by Kenneth L. Brown (1986), who reported three possible archaeological "sites." Brown was hesitant to call any of the three locales "sites" due to the paucity of cultural materials identified at each (no site survey forms were filed with the Texas Archeological Research Laboratory [TARL] at that time). The initial reconnaissance survey of federal land within the pipeline project was required for an Archaeological and Historical Impact Assessment, as specified in the Army Corps of Engineers Permit No. 17748.

Archaeological monitoring of construction activities in the vicinity of these three locales was conducted under contract (invoice dated September 30, 1986) with Arco Oil and Gas Company by the Center for Archaeological Research at The University of Texas at San Antonio (CAR-UTSA) on October 2 and 3, 1986. The monitoring of construction activities at each locale was required by the Texas Historical Commission based on the recommendations of the earlier on-the-ground survey by Brown (1986:8).

Prior to the commencement of trenching, the entire length of the proposed pipeline route was inspected by Lori Ripple (Arco engineer) and Joe Labadie (CAR-UTSA). The Arco engineer noted the locations for all three locales. The construction right-of-way width across the three areas is 60 feet; approximately 40 feet has been cleared of all trees and surface vegetation by heavy machinery. During the course of the premonitoring survey of the right-of-way, one additional archaeological site was identified.

As a result of the current work, survey forms for 41 ZP 109 (Arco Site No. 3) and 41 ZP 108 (CAR-UTSA Site No. 1) have been filed with the appropriate authorities. Site 41 ZP 108 was overlooked by the initial survey. Arco Locales Nos. 1 and 2 are not considered to be worthy of the designation as an archaeological site, and site survey forms have not been filed for these two areas.

The reader is referred to Brown (1986) for background information on the environment, geology, topography, and previous archaeological research in the vicinity of the Arco pipeline. This report presents only the results of archaeological monitoring at the locales recommended for further work by Brown (1986:8) and the Texas Historical Commission. Basic data on site 41 ZP 108 are also provided.

## METHODOLOGY

Standard archaeological field procedures (Hester, Heizer, and Graham 1975) and documentation procedures (CTA 1981) were adhered to for this project. Activities at each archaeological locale consisted of monitoring the trenching across each "site." Machine trenching at each locale produced a four-foot-deep trench that was ca. 18 inches wide. Backdirt from trenching was visually inspected for any cultural materials (such as bone, shell, and

This page has been redacted because it contains restricted information.

lithics) but was not screened. Vertical soil profiles at each locale were photographed and drawn. All field notes, photographs, and other pertinent items concerning this project are on file at the CAR-UTSA laboratory.

## MONITORING RESULTS

### Arco Locale No. 1

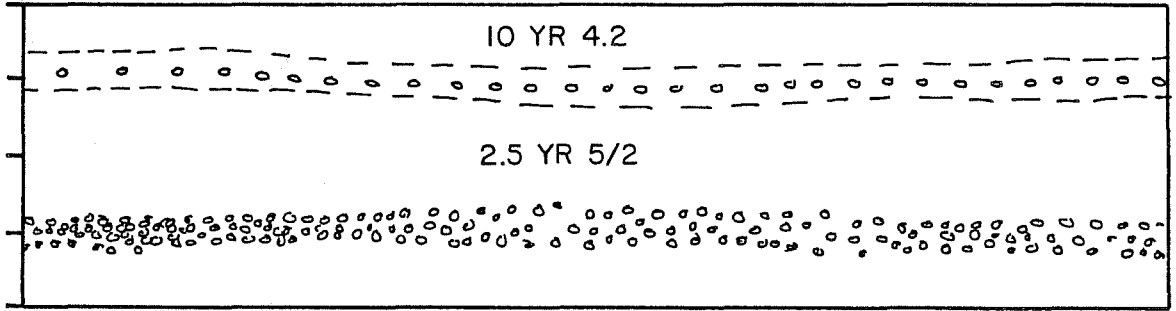
Arco Locale No. 1 is located on federal land at the western end of the pipeline route (Fig. 1). Brown (1986:6) recovered two nondiagnostic lithic artifacts (one utilized flake, one scraper) on the surface in a 3000-square-foot area within the right-of-way near survey station 36+00. Subsurface shovel testing by Brown at this locale (number and location of units unspecified) produced no additional artifacts.

Monitoring of the machine trenching at this locale failed to identify any cultural materials in the backdirt. No artifacts were found on the ground surface within this portion of the right-of-way during the pretrenching survey by the CAR-UTSA archaeologist. The vertical soil profile within the trench evidenced a weakly stratified mixture of sand and gravel with no obvious soil horizon development (Fig. 2,a). The lowest parts of the profile contained high proportions of caliche and sandstone.

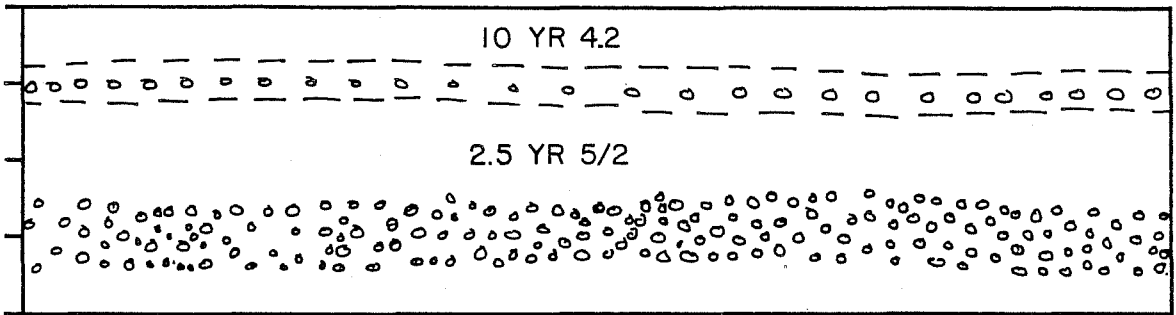
Brown suggested that cultural materials at this locale were there as a result of erosion from an upland area to the west that was not surveyed. Survey of the upland area by this project tends to confirm Brown's initial impressions. Over 50 chert flakes (mostly primary and secondary hand-hammer flakes) and several biface fragments (Fig. 3,c,d) were noted within 250 feet of the pipeline center line, well outside of the right-of-way. No temporally diagnostic artifacts were found; however, the size and general technology of the biface fragments suggest Archaic rather than Late Prehistoric origins. It appears that Arco Locale No. 1 is situated on the upland ridge west of the right-of-way and that all cultural materials within the right-of-way have eroded down slope and are no longer in a primary context.

### Arco Locale No. 2

Arco Locale No. 2 is located on federal land between survey stations 48+00 and 49+50 within the construction right-of-way (Fig. 1). Brown (1986:6) recovered four lithic artifacts (three flakes, one scraper) from a 250- to 300-foot-long portion of the right-of-way (or 7500- to 9000-square-foot area). No artifacts were recovered from his shovel testing at the site. He also noted that surface topography at this locale was relatively flat and suggested it was a product of wave action associated with the normal pool level of the reservoir (301 feet above mean sea level [MSL]). At the time of Brown's survey (June 3 and 5, 1986), the Beckwith Arm of Falcon Reservoir was 800 feet in width and ca. 4.5 feet in depth (pool level of 265 feet above MSL). During this current project, the Beckwith Arm was ca. 1200 feet wide and 11.5 feet deep (or 272 feet above MSL).



a



b

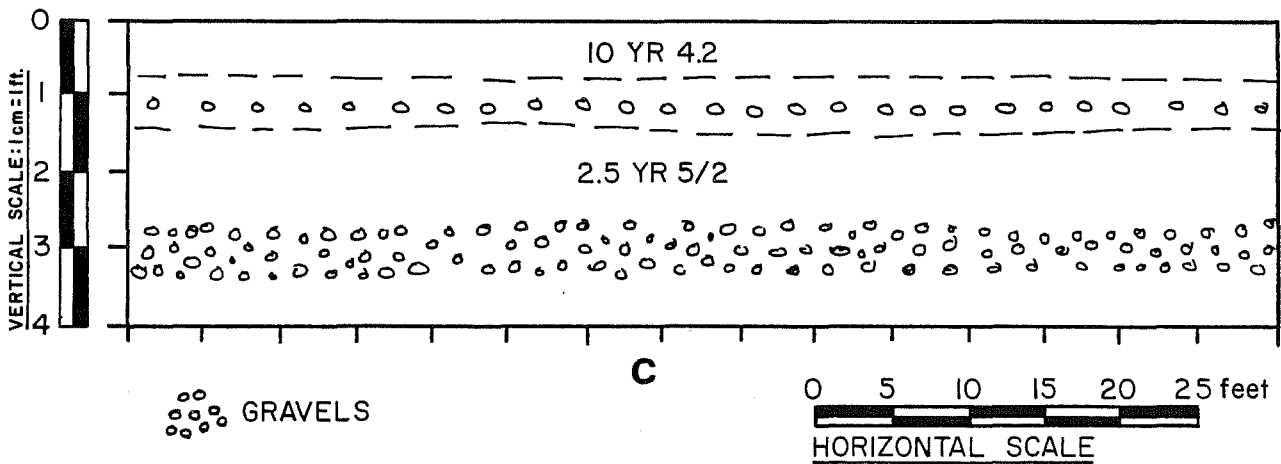


Figure 2. Trench Soil Profiles Observed. a, Arco Locale No. 1; b, Arco Locale No. 2; c, Arco Locale No. 3 (41 ZP 109).

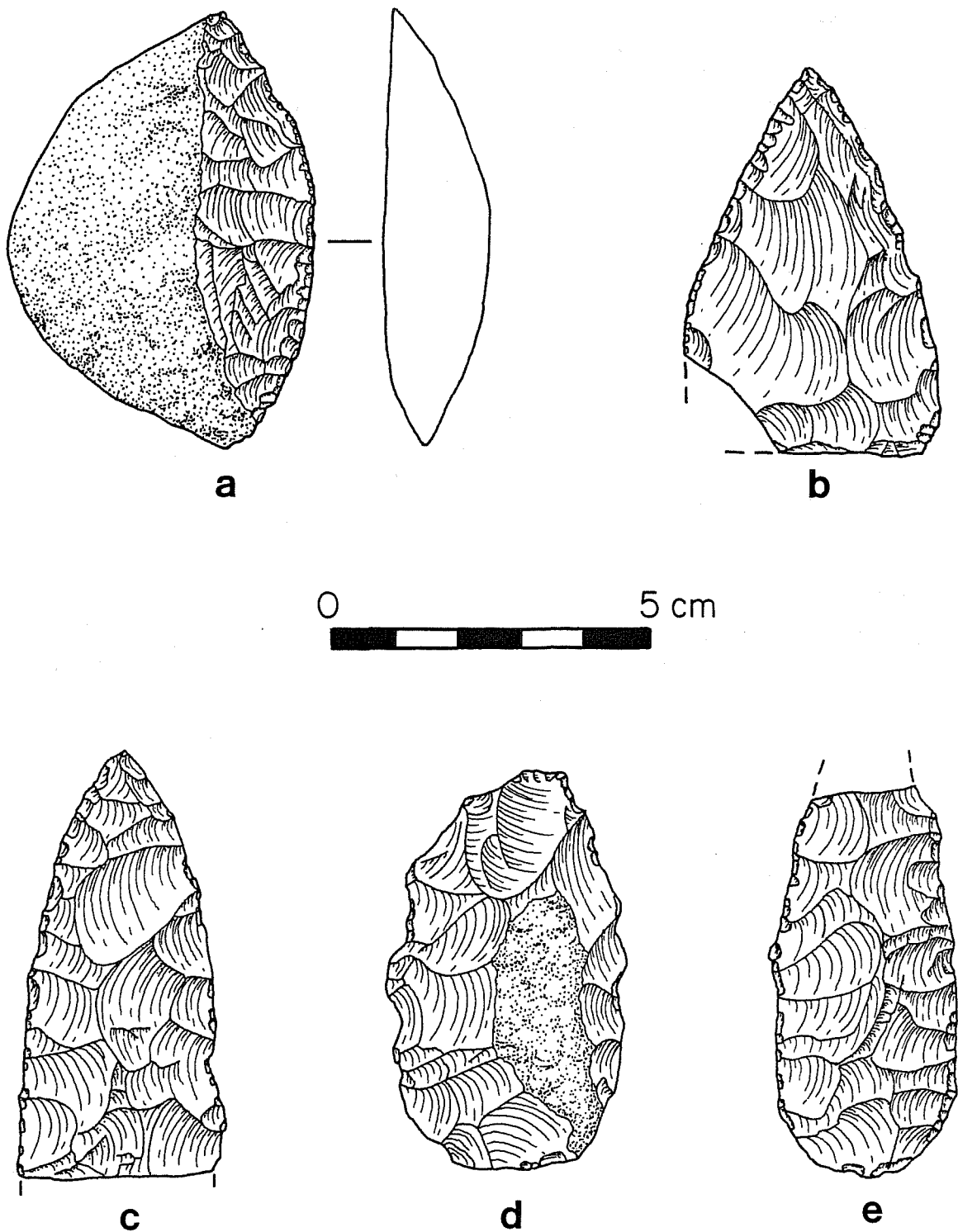


Figure 3. Artifacts Recovered Within and Adjacent to the Arco Right-of-Way. a, unifacial scraper; b, Tortugas point; c, thin biface; d, thick biface; e, Abasolo point.

Monitoring of the machine trenching at this locale failed to identify any cultural materials. Additionally, no artifacts had been identified in the right-of-way during the pretrenching survey by the CAR-UTSA archaeologist. The vertical soil profile following trenching was very similar to that reported for Arco Locale No. 1. The only major difference consisted of several strata of bedded gravels intermixed with mussel shell in the upper portions of the profile (Fig. 2,b). There was no caliche or sandstone strata evident in this profile; the lowest portions of the profile consisted of a lense of gravels at least 25 cm in thickness.

Brown (1986:6) suggested that the cultural materials at this locale were found in a secondary context--possibly eroded from the uplands west of the right-of-way. The nearby uplands were closely inspected for a distance of ca. 300 feet west and 150 feet east of the pipeline center line. Vegetation in both areas was dense, consisting of scrub brush, prickly pear cactus, mimosa, and mesquite, which limited ground visibility. Intensive surface survey failed to identify a single flake. It would appear that the materials identified by Brown's survey did not erode downhill nor had they been pushed uphill by wave action. No alternative hypothesis for their presence can be offered by this project.

#### Arco Site No. 3 (41 ZP 109)

Arco Site No. 3 is located on the eastern side of the Beckwith Arm of Falcon Reservoir near the extreme eastern end of the pipeline corridor on federal land (Fig. 1). Brown (1986:7) recovered two artifacts from this locale (within a 3000-square-foot area). He noted that the general vicinity of this locale had been disturbed by heavy machinery, and the site had been heavily impacted prior to his survey (*ibid.*).

During the pretrenching survey by the CAR-UTSA archaeologist, the Arco engineer had noted the location for this locale as in the vicinity of survey stations 101+00 and 102+00. No evidence for the presence of a site was found within or adjacent to these survey stations. However, near station 86+00, a large surface scatter of lithic debitage and several dart points (Fig. 3,b,e) were identified. Trenching at station 86+00 failed to produce any cultural materials in the backdirt (Fig. 2,c). Trenching at survey stations 101+00 to 102+00 was not observed due to the breakdown of the trenching machine. Based on the evidence observed in the field, either Arco Site No. 3 was misplotted in the report by Brown (1986:Fig. 2) or the site at station 86+00 had been overlooked during his survey. Due to the size of the area exhibiting cultural materials and their proximity to the pipeline center line, the former is most probably the case. However, there was no evidence of surface disturbance by heavy machinery for portions of the site outside the right-of-way as had been noted by Brown (*ibid.*).

The largest portion of the site at survey station 86+00 is situated on the easternmost portions of the right-of-way and extends at least 200 feet east along a sandstone ridge. Site size is estimated at 200 feet by at least 100 feet. Evidence at the site suggests that the lower portions have been exposed by wave action from the waters in the Beckwith Arm of the reservoir. The uppermost portion of the site, densely covered with mesquite (up to

10 inches in diameter), appears to be intact and above normal pool level (301 feet above MSL).

Cultural materials at the site consisted primarily of lithic debitage (75 flakes; only two of which were in the right-of-way). Two nearly complete Archaic dart points, an **Abasolo** and a **Tortugas** point (Turner and Hester 1985:61 and 152, respectively), were also recovered (Fig. 3,b,e), along with a unifacial scraper (Fig. 3,a). The scraper is finely crafted from a primary flake and exhibits extensive use wear along the working edge. Use wear-related edge damage consists of edge rounding and a few isolated striations perpendicular to the working edge at 40X magnification. These types of edge modifications suggest that the mode of use for this tool would have been in an adzelike fashion, versus a sawing or cutting type of motion. The basal portion of a unifacial gougelike tool (not illustrated) was also recovered; similar specimens have been noted by this author roughly 30 miles north of this site in a nearly identical topographic and environmental setting.

This site yielded the widest range of lithic materials from all sites within the Arco right-of-way. It is suggested that this site may represent the remains of a temporary campsite used during the Middle to Late Archaic (ca. 2000 B.C.-A.D. 1000). No burned rock was evident anywhere within the area surveyed. This site stands in contrast to the other three "sites" mentioned in this report which appear to be no more than lithic procurement areas or "chipping stations." At these other "sites" material evidence is limited to lithic debitage, suggesting that the initial stages of stone tool production (i.e., dart points, scrapers, gouges) were occurring without associated campsite activities.

#### CAR-UTSA Site No. 1 (41 ZP 108)

Site 41 ZP 108 is not entirely located on federal land; however, portions of it are located within the Arco right-of-way between survey stations 15+38 and 17+38 (Fig. 1). The site was first identified by the presence of several tertiary flakes along the fence line adjacent to the right-of-way. A total of seven flakes was found within the right-of-way between the two survey stations. The location for this area is an upland ridge which gradually slopes to the west. The area west of the right-of-way (up to 250 feet) was surveyed in an attempt to isolate the main site area; the area east of the fence line was not surveyed. The area west of the right-of-way contained localized concentrations of lithic debitage in shallow depressions and small arroyos. Backdirt piles from four different armadillo burrows each contained four or more flakes. Most of the flakes in the general area appeared to be initial reduction, hard-hammer flakes (only one of 80+ appeared to have been produced by a soft hammer or billet).

Several large, complete mussel shell valves and numerous fragments were noted in the area west of the Arco right-of-way. This area also contained numerous eroded gravels (3-10 cm in length), of which only a very few (three) exhibited any evidence of deliberate modification. The ground surface in this area is generally unvegetated, deflated, and heavily eroded by sheetwash. Intensive survey failed to identify or isolate a single discrete site area within or adjacent to the right-of-way. Machine trenching between

survey stations 15+38 and 17+38 was closely monitored. Backdirt from trenching failed to produce any cultural materials.

#### SUMMARY AND RECOMMENDATIONS

The archaeological locales, initially identified by Brown (1986), within the Arco pipeline construction right-of-way were not adversely impacted by the machine trenching. No cultural materials were identified in the backdirt at any of the locales during archaeological monitoring. No further work is recommended at any of the three locales trenched.

Several comments regarding these areas need to be made. Brown (1986:6) was hesitant, and rightly so, to call these three areas "sites" given the level of recovery for cultural materials at each locale. This survey has demonstrated that Arco Locale No. 1 is not within the Arco right-of-way, rather it appears the main site area is approximately 100-250 feet west of the right-of-way. No evidence was found by this project that would verify the existence of a site at survey stations 48+00-49+50 (Arco Locale No. 2). This locale should not be considered as an archaeological site unless additional evidence can be found at some future date. Arco Site No. 3 (41 ZP 109) was apparently misplotted by the original survey as no evidence for its presence could be found at the location noted by Brown. If it was not misplotted, then the site at survey station 86+00 had been overlooked during the initial survey. The CAR-UTSA Site No. 1 (41 ZP 108) was not recorded during the earlier survey. Either it was overlooked during the previous survey or it was not recorded because it was not located on federal land, even though portions of it are within the Arco right-of-way.

Sites 41 ZP 108 and 41 ZP 109, both within the Arco right-of-way, are not considered to be significant cultural resources in that they are not deemed potentially eligible for nomination to the National Register of Historic Places, nor can they be designated as a State Archeological Landmark.



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