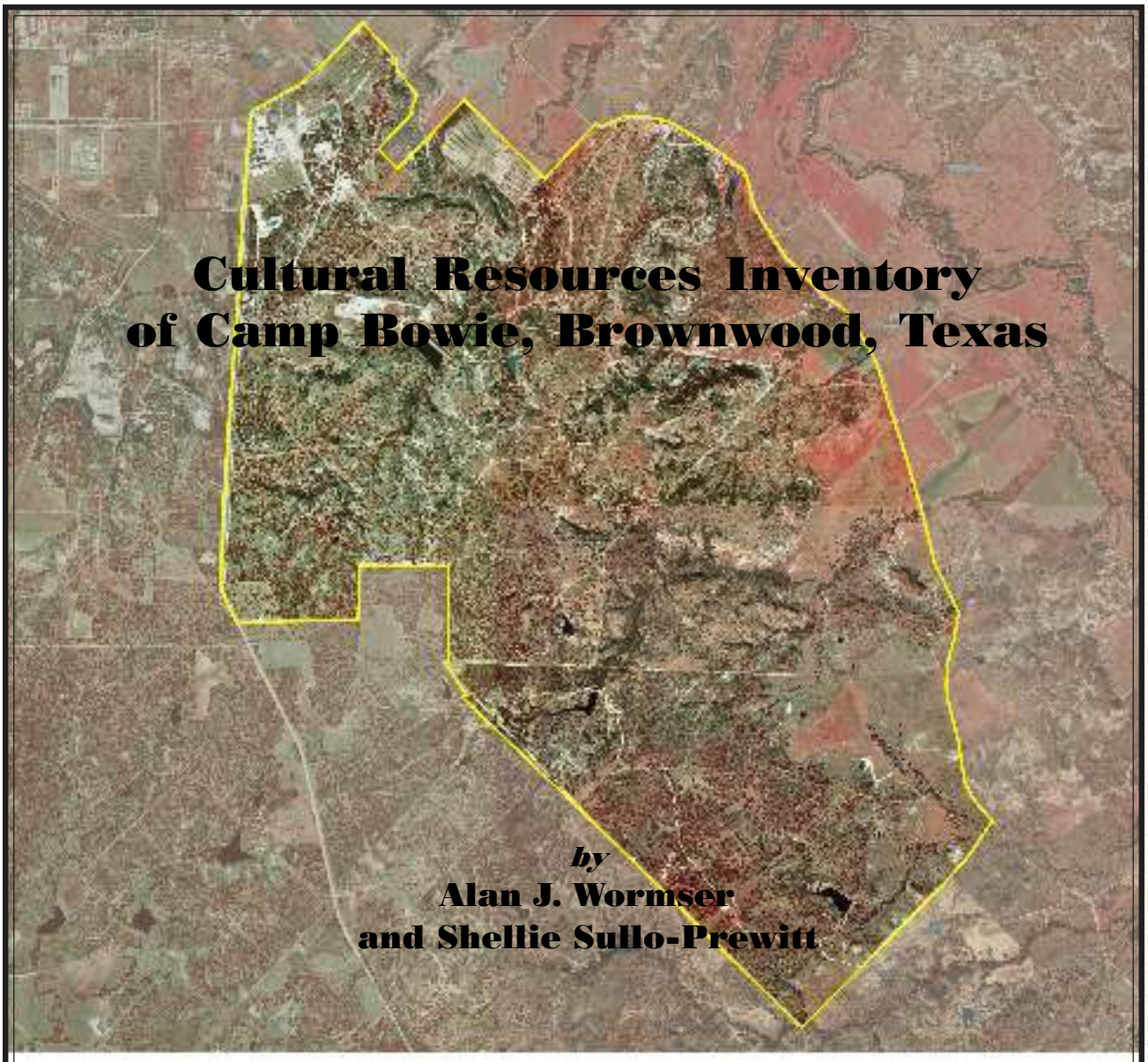

Cultural Resources Inventory of Camp Bowie, Brownwood, Texas

by

Alan J. Wormser
and Shellie Sullo-Prewitt

with contributions by
David L. Nickels, Cory Julian Broehm, Donna D. Edmondson,
and Raymond P. Mauldin

The Adjutant General's Department of Texas
Directorate of Facilities and Engineering
Environmental Branch, Austin, Texas

Center for Archaeological Research
The University of Texas at San Antonio
Archaeological Survey Report, No. 317

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To the memory of
Wayne Chesser

Executive Summary

What We Did and Why We Did It

The National Historic Preservation Act (16 USC 470 et seq.) and Executive Order 11593 requires cultural resources inventories of federal properties. From 1994 to 1997, the Adjutant General's Department of Texas (AGTX) Cultural Resources Program staff conducted a pedestrian inventory of archeological sites and historic structures at Camp Bowie. We explored all but approximately 150 of the camp's 9,297 acres. This report presents our findings and makes recommendations regarding National Register eligibility for each site or structure found.

What We Found

We discovered or revisited 186 archeological sites, structures, or groups of structures. Of these, 18 prehistoric sites and six historic sites or structures/groups are potentially eligible. These 24 sites are considered sensitive and will receive protective measures until they can be further evaluated. Of the remaining 162 sites, 158 are not eligible—primarily due to shallow soils, erosion, or disturbance—and do not require any special protection. The remaining four sites will require additional shovel tests to determine eligibility. This work is planned for the immediate future.

What Next?

To ascertain their eligibility, the critical sites require investigation that is beyond the scope of the present study. For the prehistoric sites, test excavations would be the primary investigative tool. For the historic sites and structures, photo-documentation, measured drawings, and historical research would be the primary methods.

Recommendations

We recommend that the Adjutant General's Department avoid disturbing the potentially eligible sites and structures until they can be thoroughly evaluated for National Register eligibility. In order to ensure this protection, the following measures will be implemented:

- The facility manager will be provided with a location map of critical sites.

- Buffer zones will be established around critical sites.

- Within the buffer zones, the following policy will be implemented:
  —Vehicular traffic must stay on existing roads.
  —Digging, construction, or demolition will require consultation with the AGTX environmental office.

The facility managers will brief all incoming units that will be training at the camp, and show them areas that are considered sensitive and/or off-limits. The results of this and other surveys will be used to support a Cultural Resources Management Plan, and the Adjutant General's Department will continue in its role as steward to the cultural resources on National Guard training sites across Texas.

Site Location Map

We have elected to not include the overall site location map in this report because of the sensitivity issues involved with archeological sites. For those readers who are interested, this map may be obtained by calling (512) 782-6194, or writing to AGTX-EV, Cultural Resources, P.O. Box 5218, Austin, TX 78763-5218.

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Acknowledgments

This project is the result of efforts by a number of individuals. The field survey was conducted by Alan Wormser, Shellie Sullo-Prewitt, Stephen C. Stringer, Gene P. Davis, Tina (Leshley) Prikryl, and intern Michael Jordan; all of whom contributed to the writing of this report. Special thanks to Jett Hays for assisting Tina in the field when the rest of us were sitting behind our desks in Austin. Additional historical research was conducted by Galen Denham and Laurie Marder. Valerie Stein of the AGTX Environmental Compliance and Management Branch was instrumental in obtaining the funding to support the first in-house cultural resources program in the National Guard anywhere in the 54 states and territories. Many military leaders within the Texas National Guard gave our program their full support. These include Major General Sam Turk, Major General Daniel James III, and Brigadier General Wayne Marty, as well as Colonel John Wells, Colonel Dennis Haire, Colonel William "Randy" Furr, and Colonel Clifford Barkley. The facility managers at Camp Bowie were of great help, especially Captain Tim Earheart, Sergeant Major Marcus Pilkington, Sergeant Chris Hallum, Mr. James Hillegas, and Captain Hildebrandt. The staff of the Operations Maintenance Shop (OMS) at Camp Bowie provided the use of a Humvee throughout the field survey and pulled us out of the mud more than once. Mr. Herman Moore, a rancher who held the lease on grazing rights at the installation, was also very cooperative and helpful. He gave us numerous insights into the history of the camp and assisted us in locating others that were knowledgeable about Brown County. We also thank Lorene Bishop, a local historian; Claude Hudson, curator of the Brown County Museum; Georgia Rodgers, who provided expertise on Brown County cemeteries and local history; and Ronnie Lappe, of the Brown County Historical Society. We also appreciate the assistance we obtained from the Downtown Brownwood Association, officials at the Brown County Clerk's office and the Tax Assessor-Collector's office, and at the USDA Natural Resources Conservation Service in Brownwood.

Introduction

Camp Bowie, south of Brownwood, Texas, is a training site primarily for the Texas Army National Guard. Developed as a training site in World War II, the camp hosts a number of different types of military training. These include tank maneuvers, air drops, hand grenade practice, and small arms fire. It is the most active National Guard facility in the state. In addition to the National Guard, the active Army and Air Force also use the camp.

The Texas Army National Guard is concerned with the effects that some of its activities could have on cultural resources. By "cultural resources" we mean such things as archeological sites, historic structures, Native American traditional or sacred places, rock paintings, graves, and cemeteries.

At Camp Bowie, the most likely impacts to cultural resources occur in tank maneuver areas and from any activities that involve digging. Also of concern are construction and maintenance of target berms, parachute drop zones, roads, and firebreaks.

During the course of five years, from 1993 to 1997, the in-house cultural resources staff conducted a pedestrian inventory survey of 98.5 percent of Camp Bowie (9,157 out of 9,297 acres). Of the remaining 140 acres, 50 are marshy and under water much of the time, and 90 are in a field that was under cultivation at the time of the survey. During the course of this survey, the crew discovered or revisited 186 archeological sites.

The results of this survey will be used to support a Cultural Resources Management Plan now being developed for Camp Bowie. Through the use of management plans, in-house cultural resources personnel, and awareness training for troops and commanders, the Texas Army National Guard can be a good steward of the fragile cultural resources that occur on our training lands.

Environmental Overview

Location

Camp Bowie training site occupies 9,297 acres. The northern portion, consisting of 5,410 acres, is state-owned, and the southern portion, consisting of 3,887 acres, is federally owned. Camp Bowie is just south of the city of Brownwood in Brown County, Texas (Figure 1), on the Brownwood and Indian Creek 7.5' USGS quadrangles. The topography is characterized by rolling prairie, with flat uplands ranging in elevation from 1,290 to 1,590 feet above mean sea level (amsl). Various streams within the facility drain into either Indian Creek to the west or Pecan Bayou to the east. Both of these are tributaries of the Colorado River.

Climate

Mild winters and hot summers characterize the climate of Brown County. Average temperatures exceed 90° F on 111 days, and fall below 32° F on 55 days per year. The mean annual precipitation is 26.1 inches; the wettest period is from April through October (Clower 1980) with maximum precipitation occurring in May and September (Carr 1967:6).

Land Use

The property is both state and federally owned. Previous military training, construction activity, road and utility maintenance, and livestock over-grazing have disturbed the state-owned portion of Camp Bowie. Tank and jeep trails have been cut throughout the military reservation, disturbing the soils from shallow to moderate depths. Sections along the property boundary fences have been cleared of vegetation for firebreaks. Cattle and sheep grazing have resulted in less vegetative cover and increased erosion over much of the state owned land, contrasting with the relatively ungrazed federal land.

Stock ponds, dams, and metal barns have been constructed throughout the facility to support livestock. These disturbances have allowed good ground surface visibility within the survey area. However, there has been some displacement of artifacts through erosion and soil turbation.

Vegetation

Camp Bowie lies where the Cross Timbers and Prairies, Edwards Plateau, and Rolling Plains areas converge (Gould 1975). Blair (1950) characterizes this as a boundary area between his Balconian biotic province and the Midgrass portion of his Kansan biotic province, and points to the transitional nature of the area.

Human activity has profoundly influenced the flora in this climatic region. Early historical accounts suggest that the county was mostly prairie, with timber confined to the courses of streams (Templin et al. 1948). A considerable portion of this county has been cleared for grazing or used as cropland, but a few areas, particularly riparian zones and rocky hillsides, are still wooded. At one time natural grasslands may have covered much of the county, but most of those grasslands appear to have been artificially cleared for grazing and other agricultural uses.

Historic range management practices have taken place over all of Camp Bowie to make it more conducive to grazing. There is an almost total absence of understory throughout the area except for limited shrub areas and areas within the riparian vegetational community.

Several seasonal streams dissect the area, and split the vegetational areas into relatively small, dense communities. Generally, surface visibility at Camp Bowie ranges from 20 to 100 percent.

Findings of a biological inventory of Camp Bowie carried out by the Texas Parks and Wildlife Department (TPWD) in 1994 indicate the presence of at

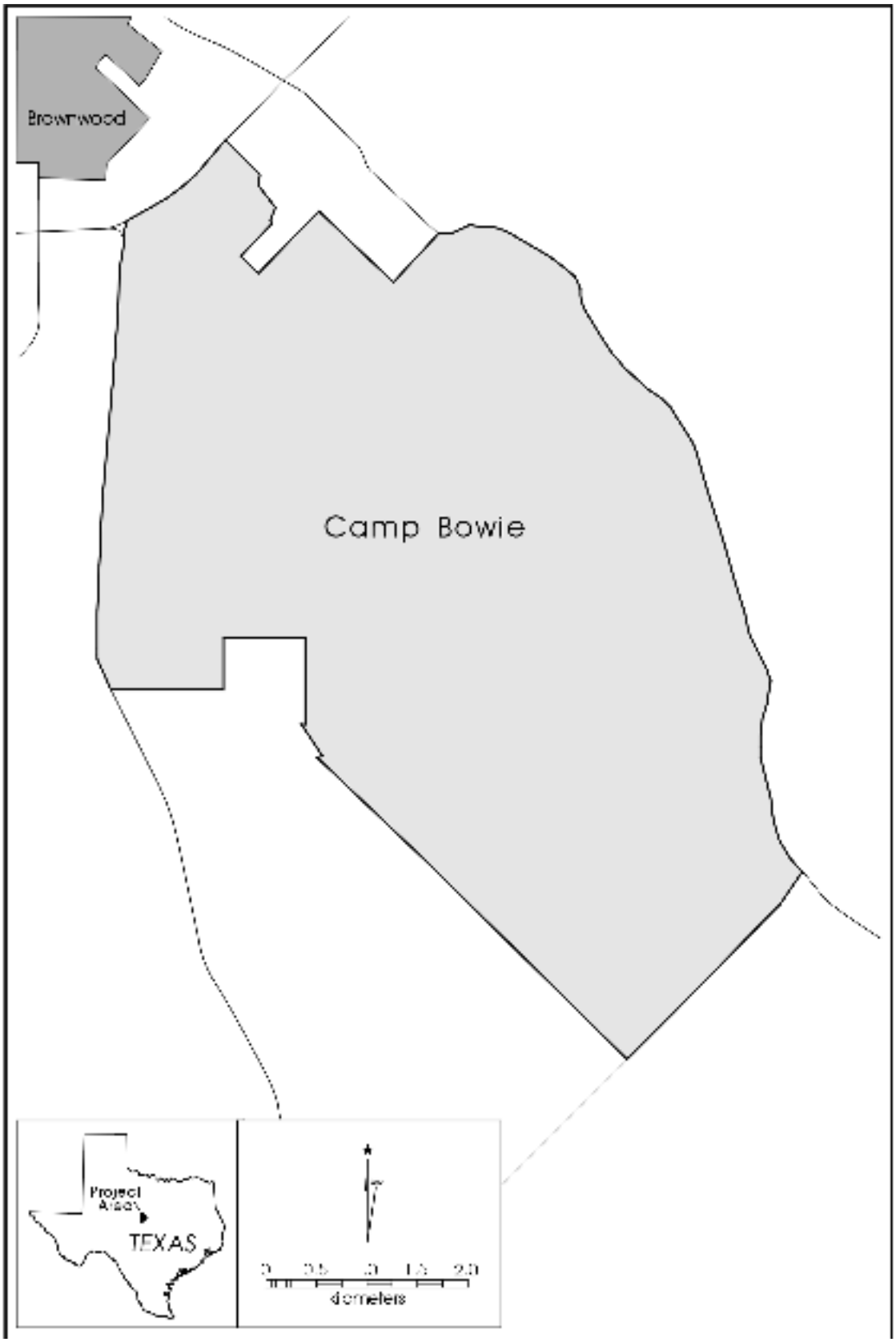

Figure 1. *Camp Bowie, Brown County, Texas.*

least four series-level plant communities. These include the Plateau Live Oak Midgrass Woodlands Grasslands Series, generally on the shallow, stony soils of the rolling uplands. This series is structured as a mixture of grasslands and primarily evergreen woodlands. Characteristic tree-sized plants consist primarily of plateau live oak (*Quercus fusiform*) with small numbers of post oak (*Quercus stellata*), and Texas oak (*Quercus buckleyi*). Shrubs and woody vines include elbow bush (*Forestiera pubenscens*), poison ivy (*Rhus toxicodendron* var. *eximia*), greenbriar (*Smilax bona-nox*), and young netleaf hackberry (*Cletis reticulata*). Other species present include prickly pear (*Opuntia* sp.), blue yucca (*Yucca pallida*), and uncommon examples of honey mesquite (*Prosopis glandulosa*). Short and midgrasses include buffalo grass (*Buchloe dactyloides*), Texas grama (*Bouteloua rigidiseta*), hairy tridens (*Erioneuron pilosum*), Texas wintergrass (*Stipa leucoiricha*), and little bluestem (*Schizachyrium scoparium*). Forbs include blackfoot daisy (*Melampodium leucanthum*), hairy cornsalad (*Valerianella amarella*), and Texas sage (*Salvia texana*).

Slopes with exposed sandstone generally support a deciduous woodland and the Post Oak-Blackjack Oak Series. Common trees include post oak and blackjack oak (*Quercus marilandica*). Shrubs are uncommon and are generally represented by Ashe juniper (*Juniperus ashei*) sprouts. Grasses include Texas grama and buffalo grass, while slender umbrella sedge (*Cyperusfiliculm is*), pinweed (*Lechaca* cf. *sansabeana*), and sand least daisy (*Chaetopappa ostero ides*) are common herbaceous species.

Level areas in the valley bottoms at Camp Bowie that now support a mesquite dominated woodland, may have once supported Sideoats Grama Series Grasslands. However, severe disturbance and erosion prevent such a grassland from developing. Common shrubs include lotebush (*Ziziphus obtusifohus*) and whitebrush (*Aloysia gratissima*). Cold season grasses include Texas wintergrass, Japanese brome (*Bromus japonicus*), and little barley (*Hordeum pusillum*). Present in abundance are white prickly poppy (*Argemone albiflora*), sow thistle (*Sonchus* sp.), Mexican Hats (*Ratibida columnaris*), and silverleaf nightshade (*Solanum elaeagnifioium*). Dense stands of Britton sedge (*Carex brittoniana*) are found in a few shallow depressions.

The Pecan-Sugarberry Series Woodland is found only adjacent to the banks of Lewis Creek below a large tank near the center of the facility. The primary tree species in this area include pecan (*Caiya illinoinensis*) and cedar elm (*Ulmus crassifolia*), with some specimens of sugar hackberry (*Celtis laevigata*), American elm (*Ulmus americana*), western soapberry (*Sapindus saponaria*), and Texas oak being present throughout. Shrubs are generally not present, while ground cover is dominated by speargrass and Muhlenberg sedge (*Carex muhlenbergii*).

Geology

Camp Bowie is within the Lampasas Cut Plain district of the Great Plains province (Fenneman 1939). This area of Lower Cretaceous terrain is between the Brazos and Colorado rivers and is underlain with an outcrop of strong limestone.

Various drainages of the Colorado River system have cut through the Cretaceous deposits and have exposed underlying Permian and Pennsylvanian formations. This process has left behind isolated plateaus of Cretaceous rock in the divides between the drainages. Camp Bowie is on one of these plateaus, at the end of a broad ridge (Kier et al. 1976; Nance and Wermund 1993).

Oriented on a northwest-southeast axis, this ridge is about 18 miles long and ranges from three quarters of a mile to four miles in width. It stands separated from the Cretaceous formations of the Lampasas Cut Plains by Pecan Bayou. This ridge is comprised of a Cretaceous formation known as the Travis Peak Formation. Consisting of conglomerate, sandstone, and limestone (in ascending order), the Travis Peak Formation was deposited by sedimentary processes about 130 million years ago. The ridge slopes moderately to the west, north, and east to relatively flat alluvial plains.

Underlying this ridge, and exposed in the surrounding area, is a sedimentary formation known as the Strawn Group, which was formed from, and deposited by, a Pennsylvanian-age delta system. There are

scattered sandstone lenses deposited in streams that flowed across this delta.

The uppermost zone of the Strawn Group has interbedded sandstone and fossiliferous limestone, probably formed during fluctuations in sea level. Being more resistant to the erosional processes, this zone has resulted in the formation of flat benches, located adjacent to the ridge along the slope. These benches have proven to be culturally significant, as they are the location of a number of prehistoric habitation sites.

The conglomerate occurring in the Travis Peak Formation contains pebbles and small cobbles as large as approximately 10 cm in diameter, primarily sandstone with some chert nodules. Derived through erosional processes from Pennsylvanian deposits to the west, the clasts were redeposited in river channels that crossed during the early Cretaceous period. Above the conglomerate, directly overlying the Pennsylvanian shale, are cross-bedded sandstone beds, fining upward. Limestone becomes increasingly prevalent in the upper Travis Peak Formation and caps many of the upland areas at Camp Bowie (Kier et al. 1976; Nance and Wermund 1993).

Soil Units and Potential for Buried Archeological Remains

Soils on Camp Bowie are highly related to the character of the underlying rock types (Figure 2). Ridge tops, generally underlain by Travis Peak limestone, are characterized by lime-rich clay loams, while ridge slopes are generally sandy loams underlain by Travis Peak sandy limestone and sandstone. Both soils are stony and very thin (Nance and Wermund 1993).

The uplands are characterized by limestone and sandstone of the Travis peak formation and the upper Strawn Group, which have soils that are generally more thin, sandy, rocky, and permeable. The lowlands are characterized by the shale of the lower Strawn Group and by alluvial deposits; these have soils that contain more clay and are poorly drained and less permeable. In the upland area underlain by the Travis Peak Formation, the most prevalent soil type is the Doudle-Real Association (Clower 1980).

Soil Classifications

Soils within the survey area fall into one of the following Great Groups as described by Clower (1980). The following definitions are adapted from Buol et al. (1980:225–299).

Chromusterts (Leeray clay)

Heavy clay soils, formed on limestone, shales, or alluvium, with high chroma (typically a Munsell chroma of 1.5 or more within some horizon for at least 20 cm); dry climates with hot summers (Ustic) and shrinking/swelling dark clay (Vertisol; argillipedoturbative), expanding clay, >35 percent cracks that open and close more than once a year.

Ustochrepts (Doudle soil, Throck soil)

"Immature" soils, formed on highly resistant parent material, steep slopes, or young surfaces; of dry climate with hot summers (Ustic); orhric epipedon (either a light colored surface, or mollic or umibric epipedon less than 25 cm thick).

Paleustalfs (Bonti fine sandy loam, Pedernales fine sandy loam, Winters fine sandy loam)

"Well developed" soil with an argillic B-horizon, often found in forested locations; of dry climate, hot in summer; petrocalcic horizon within 1.5 meters of the surface, or a dense argillic horizon.

Haplustalfs (Callahan loam)

"Well-developed" soil with an argillic B-horizon, often found in forested locations; of dry climate, hot in summer (i.e., Ustic); no specific distinguishing characteristics; typical of Ustalfs.

Argiustolls (Abilene clay loam)

Dark soils with thick, dark epipedons; usually formed under prairie grasses and/or influenced by a high degree of bioturbation; of dry climate, hot in summer (i.e., Ustic); presence of a thin argillic horizon.

Calciustolls (Mereta clay loam, Real soil, Rowena clay loam)

Dark soils with thick, dark epipedons; usually formed under prairie grasses and/or influenced by a high degree of bioturbation; of dry climate, hot

in summer (i.e., Ustic); calcic horizon within 1 meter of the surface, or petrocalcic horizon within 1.5 meters.

Paleustolls (Sagerton clay loam)

Dark soils with thick, dark epipedons; usually formed under prairie grasses and/or influenced by a high degree of bioturbation; of dry climate, hot in summer (i.e., Ustic); calcic horizon within 1 meter of the surface, or petrocalcic horizon within 1.5 meters.

Haplustolls (Deleon silty clay, Frio silty clay, Nukrum silty clay)

Dark soils with thick, dark epipedons; usually formed under prairie grasses and/or influenced by a high degree of bioturbation; of dry climate, hot in summer (i.e., Ustic); no specific distinguishing characteristics; typical of Ustolls.

Modifiers used with Great Group Designations

The following list defines common modifiers of Great Group designations (Buol et al. 1980:212–221):

Cumulic - thickened epipedon; often the result of colluvial deposition

Pachic - thick epipedon

Petrocalcic - petrocalcic (rich in calcium carbonate and rocky) horizon present

Typic - typical of the soil group

Udertic - of humid climates and with characteristics of a Vertisol (udertic = udic + vertic)

Udic - of humid climates

Ultic - Characteristics of a Ultisol, but not enough to be in the Ultisol great group; ultic soils have strong soil development, indicating that they have been stable for a long period of time or have evolved very gradually. These are often ancient soils.

Vertic - Characteristics of a Vertisol, but not enough to be in the Vertisol great group; vertic soils have a high degree of shrink-swell activity. Because cracks periodically open and close and may extend as deep as two meters below the surface, vertic soils are called *self-mixing,* or *pedoargilliturbative.*

Summary of Soil Characteristics

Most of Camp Bowie is several kilometers west of Pecan Bayou, the nearest major stream. Thus, only the extreme eastern portion of the survey area includes the terraces or floodplain of Pecan Bayou. The vast majority of the survey area is upland. Of the upland tributaries, Devil's River is the largest and most reliable source of water season after season. Devil's River is generally deeply cut into the bedrock, and alluvial deposition is limited to a very narrow floodplain. Lewis Creek is also a significant water source in the uplands. In addition, seep springs occur on the upland slopes, especially at the boundary between the conglomerate and sandstone strata. The uplands can generally be characterized as rocky, with soils that are shallow or developed from ancient deposits.

Potential for Buried Cultural Deposits

We classified the USDA soil units at Camp Bowie into several groups based on the potential for each soil to contain buried cultural deposits more than 10 cm below the surface (Figure 3; Table 1). Since no in-depth geomorphic analysis was attempted, the classifications are conservative (i.e., although a soil may actually have low potential, we have classified them here as low to moderate or moderate).

The only soil units with a moderate to high likelihood for buried archeological sites are the Deleon, Frio, Nukrum, and Winters soils. Deleon and Frio are Haplustolls formed on alluvial deposits. Along Pecan Bayou, Deleon occurs on terraces, while Frio occurs on the floodplain and lower terraces. Frio also occurs on floodplains of some of the upland streams. Nukrum soil, which is also a Haplustoll, develops from outwash at the base of the uplands and adjacent to upper terraces of Pecan Bayou. Winters soils, although rare within the boundaries of Camp Bowie, are Paleustalfs that developed on upper and middle terraces of Pecan Bayou.

Soils with low to moderate potential for buried sites and stratigraphic development include Pedernales fine

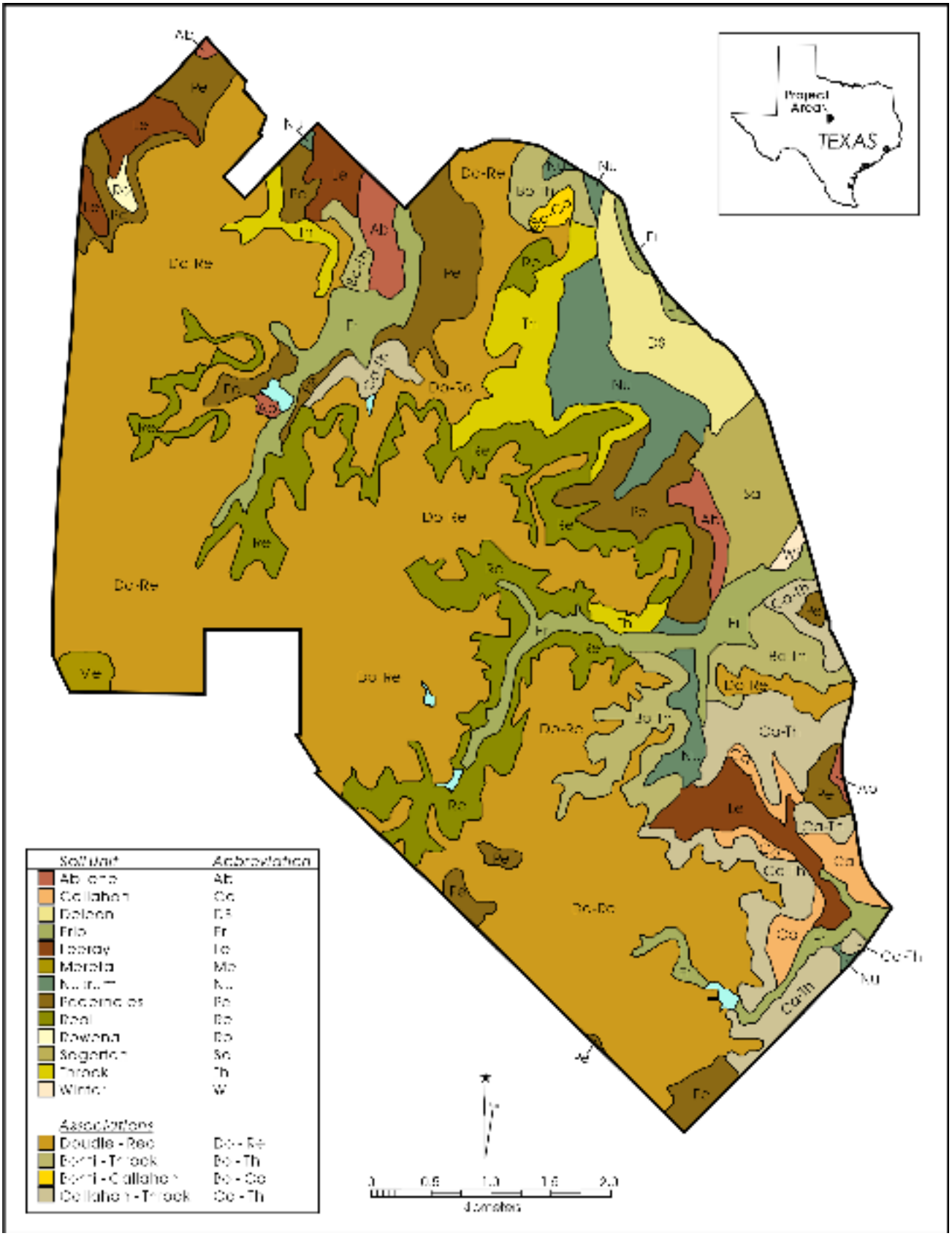

Figure 2. *Soil units at Camp Bowie.*

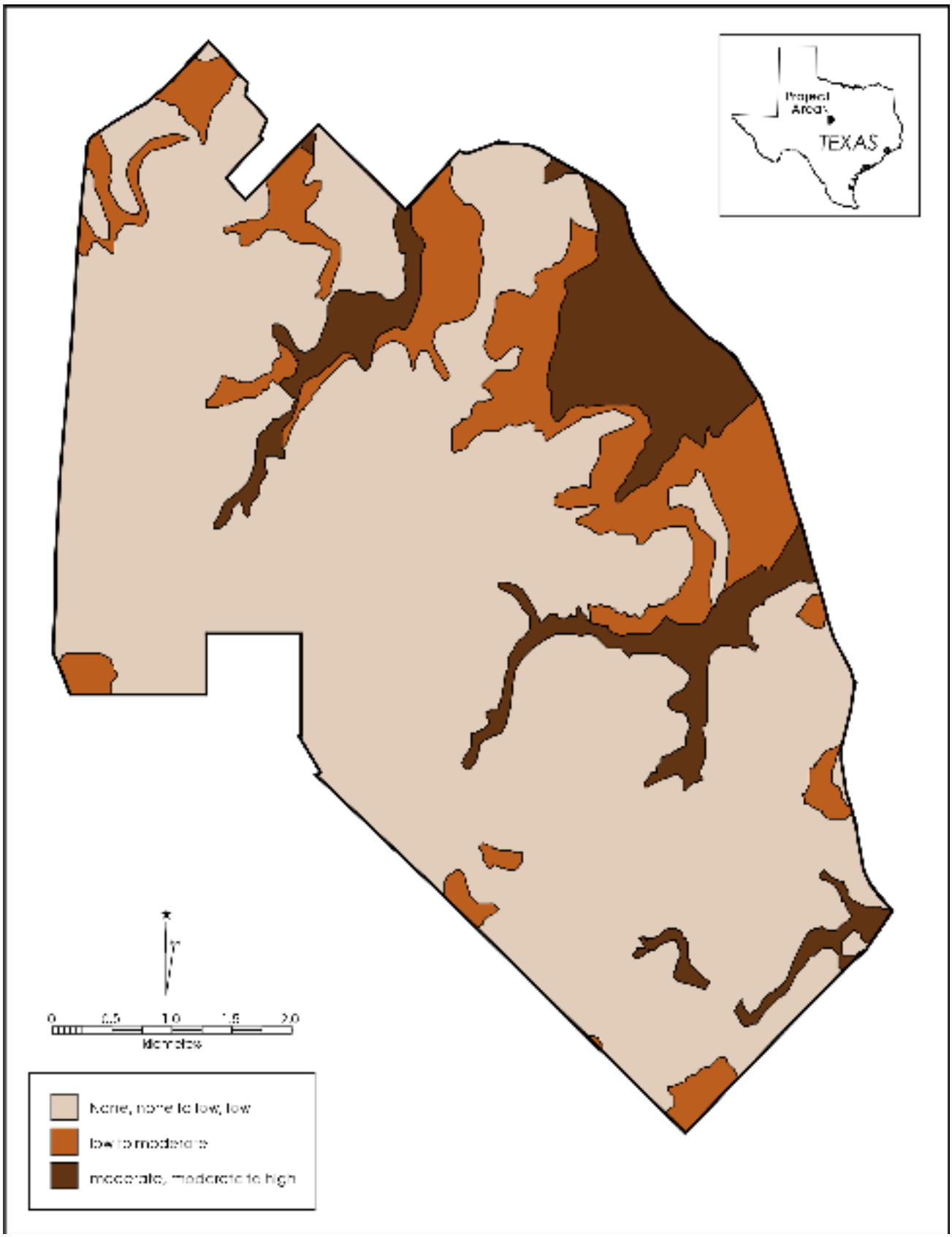

Figure 3. *Soils grouped by likelihood for buried cultural deposits.*

sandy loam (Paleustalfs) and Sagerton clay loam (Paleustolls). These soils develop from older sediments, which may or may not be chronologically young enough to yield well-stratified cultural deposits.

The remaining soils have a very low likelihood of yielding buried cultural deposits. Abilene, Leeray, Mereta, and Throck soils developed in ancient alluvium or colluvium. The Callahan, Doudle, Real, and Rowena soils, on the other hand, developed from weathered rock, marls, shales or gravelly deposits. In the case of Real and Throck, there is very little soil development, indicating severe erosion and deflation, or a general lack of the deposition, weathering, time, or vegetation required for soil formation.

In summary, sites on the Deleon, Frio, Winters, and to a lesser extent on the Nukrum soils, may have intact buried and stratified deposits. Sites on Pedernales and Sagerton soils may also have some potential for buried, stratified cultural deposits.

Table 1. Soils within the survey area

Soil Unit (Abbreviation)	Characteristics	Potential for Buried Sites	Soil Subgroup
Abilene clay loam (Ab)	Formed in ancient alluvium, deep, loamy, on upper terraces and shallow upland valleys.	None to very low	Pachic Argiustolls
Bonti fine sandy loam (Bo)	Weathered from sandstone interbedded with clay, very stony, may be moderately deep, on uplands.	None	Ultic Paleustalfs
Callahan loam (Ca)	Formed on weathered shaly clay, moderately deep, on uplands.	None	Typic Haplustalfs
Deleon silty clay (DS)	Formed from alluvium, deep, on floodplains, A-C soil profile with C-horizon at 2 meters.	Moderate to high	Udertic Haplustolls
Doudle soil (Do)	Formed from weakly consolidated calcareous sandstone and loamy soil, moderately deep, ancient deposits, on uplands.	None	Typic Ustochrepts
Frio silty clay loam (Fr)	Formed from calcareous alluvium, on floodplains, A-C soil profile with C-horizon at 1 meter.	Moderate	Cumulic Haplustolls
Leeray clay (Le)	Formed in thick beds of (ancient) clay, deep, in uplands, A-C soil profiles with C-horizon at 1.5 meters.	None to low	Typic Chromusterts
Mereta clay loam (Me)	Formed in old alluvium and chalky marine sediments, rocky, shallow, on uplands.	None	Petrocalcic Calciustolls
Nukrum silty clay (Nu)	Formed in calcareous, clayey outwash sediments, deep, on uplands.	Moderate	Vertic Haplustolls
Pedernales fine sandy loam (Pe)	Formed in thick beds of calcareous clayey and loamy material, deep, on uplands, A-C soil profile with C-horizon at 1 meter.	Low to moderate	Udic Paleustalfs
Real soil (Re)	Formed in cobbly, gravely uplands, generally shallow soil development.	None	Typic Calciustolls
Rowena clay loam (Ro)	Formed on calcareous clay sediments (ancient), in uplands, well developed B-horizon, calcareous with caliche at 60 cm below the surface.	Low	Vertic Calciustoll
Sagerton clay loam (Sa)	Formed in calcareous, clayey sediment, deep, in uplands, C-horizon in excess of 2.5 meters below surface.	Low to moderate	Typic Paleustolls
Throck soil (Th)	Formed in calcareous, shaly clay and marl (ancient deposits), rocky, deep, in uplands.	None	Typic Ustochrepts
Winters fine sandy loam (Wi)	Formed in old alluvial sediment, deep, C-horizon in excess of 2 meters below surface.	Moderate	Udic Paleustalfs

Archeological Overview

Chronological Sequence

In Central Texas, an "Archaic Stage" subsistence-settlement strategy predominated throughout most of prehistory, obscuring cultural differences that are more visible in the northern and central Plains, greater Southwest, and eastern U.S. Woodlands. For much of Central Texas, the primary diagnostic artifact type is the "projectile point" (functionally, dart and arrow points), along with some knives, gouges, and multipurpose tools. Therefore, the traits that form the basis for Central Texas chronology are the gross changes in these tool types through time. This results in a less-subtle chronology than would occur if the diagnostics were pottery, village design, or abrupt changes in settlement pattern.

Camp Bowie is located near the northwestern margin of the Central Texas archeological region (Prewitt 1981; Weir 1976). Both Weir and Prewitt, as well as Collins (1995), Johnson and Goode (1994), and to a lesser extent Hester (1995) and Turner and Hester (1993), have extensively reviewed the development of cultural chronologies for the region, and their reviews provide the basis for modern interpretations of the regional archeological data. Prewitt's chronology adds phases to those presented by Weir. Over the past decade, archeologists have found some of Prewitt's additional phases useful, and the commonly used phases represent a compromise between Weir's "lumping" and Prewitt's "splitting." For purposes of the present inventory, we present the following simplified chronological scheme ("BP" is defined as "years before the present," and is actually the number of years before A.D. 1950, the year that the refinements of radiocarbon dating were accepted as accurate):

Paleoindian Period (before 12,000 to 8000 BP)

Clovis Complex (11,200 BP)
Folsom Complex (10,800 to 10,200 BP)
Plainview Complex (10,200 to 10,000 BP)
Dalton/San Patrice Complex (10,000 to 9000 BP)

Early Archaic Period (8000 to 5500 BP)
Including the following of Prewitt's phases:

Circleville Phase
San Geronimo Phase
Jarrell Phase
Oakalla Phase

Middle Archaic Period (5500 to 3700 BP)
Including the following of Prewitt's phases:

Clear Fork Phase
Marshall Ford Phase
Round Rock Phase
San Marcos Phase

Late Archaic Period (3700 to 1200 BP)
Including the following of Prewitt's phases:

Uvalde Phase
Twin Sisters Phase
Driftwood Phase

Late Prehistoric Period (1200 to 420 BP)
Including the following of Prewitt's phases:

Austin Phase
Toyah Phase

Historic Period (420 BP [ca. A.D. 1530] to present)
Subdivided into the following time periods and biased toward Euroamerican settlement:

Early Historic Period (A.D. 1530 to 1718)
Spanish Colonial Period (A.D. 1718 to 1821)
Mexican Colonies and the Texas Republic (A.D. 1821 to 1845)
Frontier Settlement Period (A.D. 1845 to 1900)
Modern Period (A.D. 1900 to present)

As can be seen in the above list, the Central Texas chronology is divided into four broad time periods: Paleoindian, Archaic, Late Prehistoric (or Neoindian), and Historic. To some extent, these periods are similar to the "stages" described by Willey and Phillips (1958), but without the evolutionary connotations.

The Central Texas Paleoindian period began prior to 12,000 BP and terminated between 10,000 and 8000 BP. Paleoindian people were hunter-gatherers who hunted now extinct megafauna as well as modern species. Most sites of this period are open campsites or butchering sites associated with hunting. Clovis and Folsom points are found at sites dating to the Early Paleoindian period, while Plainview, "Meserve" (now considered a modified Dalton), and Midland points are found in the Late Paleoindian period. Angostura points are also common beginning in the Late Paleoindian period and extend into the Early Archaic period.

Some authors, notably Weir and Prewitt, have divided the Archaic period into numerous phases based on the distribution frequency of projectile points and other traits. On the other hand, Johnson (1987) criticizes Texas archeologists for their splitter mentality regarding chronology and typology. For purposes of this report, a more generalized chronology will be presented.

Although the entire Archaic period is typified by the presence of open campsites and lithic procurement areas, burned rock middens first appear in the latter half of the period. The presence of grinding tools and burned rock middens indicate more emphasis on plant processing than during the Paleoindian period. Point types become more regionalized during the Archaic, and the population appears to be more sedentary than in the previous period. An examination of the faunal remains indicates an increased dependence on smaller game and riverine resources such as mussels.

Based primarily on changes in projectile point styles, the Archaic period is divided into the Early, Middle, and Late Archaic. The Early Archaic sites, dating from 8000 to 5500 BP, are identified by the presence of, among others, Angostura, Early Barbed, Gower, Bell, and Uvalde dart points. Middle Archaic sites (5500 to 3700 BP) typically yield points such as Nolan and Travis. Late Archaic sites (3700 to 1200 BP) are identified by the presence of Bulverde, Pedernales, Castroville, Marcos, Frio, and Ensor points. Darl points occur at the end of the period and are thought to be a transitional point entering into the Late Prehistoric period. This transitional period is often called the Transitional Archaic (Hester 1995).

The Late Prehistoric period in Central Texas extends from about 1200 BP to 400 BP, ending with the arrival of Europeans into Texas. Johnson and Campbell (1992) use the term "Neo-Archaic," and this seems to more correctly identify the predominant lifestyle of people in the Brownwood area during that time period. Culturally, there was a continuation of the hunter-gatherer strategy from the Archaic period. However, the development of a bow-and-arrow hunting technology marks the shift from Archaic hunting strategies using darts and an atlatl. Typical sites from this period are campsites and lithic workshops. However, burned rock middens also occur with Late Prehistoric components.

Typical point styles during this period include Scallorn, and later, Perdiz arrow points. Pottery may also occur during this time period, especially near the end of the period. Grinding tools such as manos, milling slabs and mortars occur, as they do during the Archaic period.

Previous Archeological Research in and around Brown County

J. E. Pearce, of the University of Texas, conducted the first formal archeological investigations in the area in 1919 at the Pittman Site (41BR3, [Campbell 1952]). The site consisted of two burned rock middens along Willis Creek, four miles southwest of Brownwood. Midden 1 was ringed-shaped, and Midden 2 was crescent-shaped. Later, A. T. Jackson tested a similar midden site in the Cow House Creek drainage in neighboring Hamilton County.

Based on more than two decades of excavation, Pearce (1932) attempted to organize his Central Texas data by defining a sequence of midden site development based on three broad sequences. With the introduction of the Midwest Taxonomic System (McKern 1939), archeologists across the United States re-evaluated their site

data and in many regions, including Texas, they tried to fit their sites into the new "McKern" system (Kelley 1947a, 1947b; Krieger 1944).

Formal archeological investigations in the area were enhanced when the Texas Archaeological Salvage Project conducted a survey of the proposed Proctor Reservoir in Comanche County in the late 1950s (Jelks and Tunnell 1960). A few years later, Prewitt (1964) excavated two stratified terrace sites that were found during the reservoir survey. Prewitt's findings provided regionally important information on the Middle Archaic through Late Prehistoric periods

Although surveys and excavations were sparse in previous decades, the 1970s saw an increase in activity. In the first half of the decade, Texas A&M University located several lithic scatters during archeological surveys conducted on the Pecan Bayou Watershed in Brown County (Shafer et al. 1975a), some of which were associated with fire hearths and burned rock scatters. Other features found during the survey included a rockshelter, a quarry site, four burned rock ring middens, and one dome-shaped midden. Diagnostic artifacts found during this same survey included a parallel stemmed dart point typically Middle Archaic in age, along with a Castroville-like drill base and an expanding stem dart point typical of the Late Archaic period. During another small survey of Cordell and Camp Bowie parks for the city of Brownwood, Kegley and Black (1978) found evidence of a Late Prehistoric (Perdiz) component.

In 1976, Southern Methodist University (Kirby and Moir 1976) surveyed an area along Pecan Bayou, north of Brownwood, for a proposed modification of the Lake Brownwood Dam. One historic and 12 prehistoric sites were investigated. Two of the sites were recommended as having National Register potential. One of these is the Old Baugh Homestead (41BR10), and the other (41BR3) is a large burned rock midden that had originally been recorded and excavated by J. E. Pearce. Another site recorded during the survey (41BR89) was found to probably represent a small component of the Central Texas Aspect, identified by the presence of pottery and arrow points.

In 1983, Prewitt and Associates conducted an archeological survey for the City of Brownwood for a sanitary landfill site (Prikryl 1983). Four prehistoric sites (41BR411, 41BR412, 41BR413, and 41BR414) were located at the time. Diagnostic projectile points found at three of the sites indicate that the area was occupied from approximately 5000 B.C. to A.D. 1600. Espey, Huston & Associates (1986) tested two of the four sites (41BR413 and 41BR414).

Focus on Burned Rock Middens

Much of the archeological research in west-central Texas has focused on the forms and functions of burned rock middens, which consist of several varieties of circular mounds of burned limestone or sandstone. The burned rock middens are typically five to 15 meters across and can be as high as two meters. Burned rock middens tend to occur on open campsites, and the predominant archeological interpretation is that they represent some type of specialized activity related to food preparation. Two issues have received the most attention regarding burned rock middens: 1) what types of activities do burned rock middens represent, and 2) how were the "middens" formed?

To answer the question of function, Creel (1986) compared the distribution of burned rock midden sites to oak savannah zones in west-central Texas. Although only the western edge of Brown County was included in his study, his results are probably applicable to areas farther east and south as well. Creel presents a strong argument that the burned rock middens represent seasonal sites where acorn harvesting and processing was the major activity.

Burned rock middens also occur in different shapes, which are correlated with geographical subregions, and may also represent somewhat different functions or formation processes. Such distinctions were described as early as 1920 by J. E. Pearce (1938), and discussed in detail by Weir (1976).

Creel describes three midden types, which are refinements of Weir's typology. Type 1 is mounded without any obvious internal features. These occur in the eastern portion of Central Texas, but west of the Balcones Escarpment, and are sometimes called domed middens.

Type 2 is mounded with a central depression or flat top. These occur predominantly in the western portion of Central Texas and are often referred to as "ring" and "crescent" middens. The crescent shapes are probably just a less symmetrical version within the same type, and may represent a formative stage of the more symmetrical middens. At Camp Bowie, several of the crescent-shaped middens are on hillsides, and their shape may relate to the fact that they are on sloped surfaces. In these instances the more developed side is usually downslope.

Creel's and Weir's Type 3 is also ring-shaped, but instead of a central depression within the mound, the central area is at the same level as the ground, so there is literally a ring of stone debris more than a mound. This type is more frequent in the Trans-Pecos region of southwest Texas and outside the region associated with Brown County.

At Camp Bowie, all of the burned rock middens observed were Type 2, with some completely circular, and others crescent-shaped. Although there were usually only one or two in a campsite, a few sites have multiple burned rock middens.

Early researchers believed that the burned rock middens formed as refuse piles by successive dumping and cleaning of smaller hearths around the campsite. More recent evidence suggests a communal subsistence-processing function, and therefore the observed forms derive from different ways of cleaning out and maintaining the middens themselves. The Type 2 middens, or "ring middens," appear to have functioned as roasting pits; possibly for acorn processing (at least in Central Texas). At the end of a cooking event, the central roasting of the midden would be cleaned out, with smaller burned rock fragments deposited at the periphery. As the midden was reused, burned rock fragments would accumulate to form a crescent or ring. As the mound grew through time, it would approach the classic shape of a mound of burned rock with a central depression or flat top.

In west Texas, where the Type 3 rings occur, the roasting was perhaps less intensive, and materials other than acorns were being processed. Thus, the accumulation of rock is less, and the central portion appears more thoroughly cleaned out in successive uses.

Historic Sites

Relatively little historical archeology has been conducted in the immediate vicinity of Camp Bowie and Brown County. Except for sites related to the Spanish mission of San Sabá, near present-day Menard, Texas, permanent settlements in the region only developed in the latter half of the nineteenth century. Although much of the land was surveyed in 1838 (Williams 1979), it was not until 1856 that a few Anglo settlers dared venture into the new county because of Indian depredations, primarily by Comanches. The Comanche raids and white outlaws slowed settlement in the area until the late 1870s (Leffler 1996:769–771).

Previous Research at Camp Bowie

A record search at the Texas Archeological Research Laboratory revealed previous surveys and recorded sites at Camp Bowie. Harry J. Shafer, Edward P. Baxter, and J. Philip Dering from Texas A&M conducted a survey for the Brownwood Laterals Watershed Project in 1975 and documented three prehistoric sites (41BR65, 41BR66, and 41BR68) on land that was later acquired by the Texas National Guard (Shafer et al. 1975b). Sites 41BR65 and 41BR66 contained burned rock middens and were recommended for further testing by Shafer. AGTX-EV Cultural Resources staff shovel tested the sites in 1995 and 1996 and confirmed that additional testing should be conducted.

Briggs (1992), conducted surveys of three sample areas within a tract later acquired by Camp Bowie. These investigations resulted in the recording of 12 sites: 11 prehistoric sites, and one historic sandstone quarry. The 11 prehistoric sites consisted of five open campsites, five lithic workshops, and one open campsite associated with a burned rock midden. A lithic workshop was also associated with one of the open campsites.

AGTX-EV staff wrote two reports preceding training activities. One of these reported on a survey for a firebreak constructed by the Texas National Guard (Wormser et al. 1994). The second report (Wormser et al. 1997) documented 66 sites that were in the vicinity of roads to be improved for armored tank maneuvers.

Historical Overview

Historical Periods in Central Texas

Several time periods marked by a succession of migrations and population pressure, socioeconomic changes, and political developments are relevant to cultural resources that may be present at Camp Bowie. These factors are among those that most influenced the types of cultural resources that occur and their placement across the landscape. For the purposes of this study the following periods are defined:

Early Historic Period (ca. A.D. 1530 to 1718)
Spanish Colonial Period (ca. A.D. 1718 to 1821)
Mexican and Texas Republic Period (A.D. 1821 to 1845)
Frontier Period (A.D. 1845 to 1900)
Modern Period: (A.D. 1900 to present)

Early Historic Period (ca. A.D. 1530 to 1718)

The first written records began in the 1530s with the Spanish explorations. Cabeza de Vaca first crossed Texas on foot from November 1528 to 1535. Some authors have placed Cabeza de Vaca in west-central Texas (cf. Williams 1979:5–10). But more recent analysis by Chipman (1992:29–34) indicates that his adventures took him farther south, along the Texas coast, across deep south Texas, and then south of the Rio Grande—re-entering Texas just west of the Big Bend area.

Shortly after Cabeza de Vaca, Coronado entered the northern Texas panhandle from New Mexico in the 1540s in search of Gran Quivira. It is thought that Coronado's guide was a Pawnee who intended to escape the Zuni and rejoin his people in southern Kansas. While de Vaca's travels took him far south of the Brown County area, Coronado's travels were far to the north (Morris 1997). It appears that few Europeans entered this part of Texas before 1718, and they did not explore the San Saba River or the Colorado River until the mid-1700s.

During the Early Historic period, the Lipan Apache dominated west and west-central Texas, including the Llano Estacado and Edwards Plateau, and extending eastward to the Balcones Escarpment. The Tonkawa may have already appeared along the eastern edge of the Balcones Escarpment (Campbell 1983, 1991; Johnson and Campbell 1992).

The "Coahuiltecans"

In the 1700s, the Spanish encountered a broad mixture of peoples in central and south Texas. Until recently, many archeologists and historians lumped these diverse peoples together under the rubric "Coahuiltecans." However, anthropologists have recently challenged this label.

Rather than a single group, the varied languages and myriad of tribal names may indicate that the Spanish were witnessing a mixture of local indigenous groups and refugees from the eastward advance of the Apache. Another possibility is that central Texas represented the shared, periphery area for a number of groups whose core areas ringed central Texas. In any case, the Spanish presence would have disrupted the settlement and territories that had already been established and further confused the situation. As yet, there are no clear archeological distinctions between the various central Texas groups, but the Apache invasion is fairly well-documented in the archeological record, in Apachean linguistics, and in oral traditions. The evidence thus tends to favor the refugee hypothesis.

Johnson and Campbell (1992) suggest that archeologists refer to these peoples collectively as "Coahuilteco speakers" rather than "Coahuiltecans" in order to make clear that they are not a single people, but rather a collection of peoples who spoke related languages. This may be more accurate, but there may have been unrelated languages spoken among the so-called "Coahuiltecans" as well as Coahuilteco. Campbell (1979) has identified at least seven languages that might be related—Coahuilteco, Karankawa, Comecrudo,

Cotoname, Solano, Tonkawa, and Aranama. In addition, Johnson and Campbell (1992) have named yet another, which they call "Sanan," but the designation is based only on a very small word list.

For archeologists, the term "Coahuiltecan" could be considered a protohistoric cultural "component." It is a component with more historical data than archeologists are accustomed to, but for which the archeological evidence is poorly understood.

The Lipan Apache

In the 1600s or early 1700s, the Lipan Apache were recent arrivals. The Apache language is in the Athapaskan language family, and most of the other Athapaskans are found in southern Canada, Alaska, and the Northwest Coast.

The archeological record indicates that southward Athapaskan migrations started before A.D. 1300 along two routes; the western route that extended west of the Rocky Mountains and passed through the Great Basin, and the eastern route that extended along the east side of the Rockies and onto the Great Plains. The Navajo and Western Apache followed the western route into the Southwestern U.S., arriving among the Tewa, Hopi, and Zuni Pueblos by no later than A.D. 1350. The Lipan Apache and Kiowa Apache followed the eastern route and spread onto the western half of the Great Plains. This latter group appeared in Nebraska, Kansas, and eastern Colorado by around A.D. 1400 to A.D. 1500 (Gunnerson 1960).

By the time the Spanish founded missions in central Texas in the early 1700s, the Lipan Apache were well established in the region. While the Lipan Apache had a major impact on Texas history, their representation in the prehistoric record is limited, due, in part, to the short time span involved (to an archeologist), their highly mobile life-style, and their usually very ephemeral campsites. However, related Apache sites are known in Nebraska, Kansas, and Colorado.

The Tonkawa

The Tonkawa are another relatively recent arrival to the area. Historically, their core area appears to have been east of the Balcones Escarpment, but the range of their nomadic migrations included the area that is now Brown County, as well as much of the rest of Central Texas southward to the Rio Grande. Until recently, archeologists identified the Tonkawa with the latest prehistoric period of Central Texas—the Toyah Phase. Yet even this identification is tenuous and it is becoming apparent to most archeologists that the Tonkawa may not be descended from the Toyah Phase group after all (Collins 1995).

The Toyah Phase Perdiz arrow point and distinctive pottery stand in marked contrast to the preceding Austin Phase throughout Texas (Johnson 1994). These seem to arise as replacements for preceding Austin Phase traits—as if a new group of people entered Central Texas or local groups borrowed traits from neighboring groups. Thus, if the Toyah Phase sites are indeed Tonkawan, then it would imply that the Tonkawa either moved into the area from elsewhere, or that they rapidly adopted traits from elsewhere.

Spanish Colonial Period (A.D. 1718 to 1821)

The Spanish Presence in Colonial Texas

Throughout the 1600s, the Spanish emphasis in Texas shifted from one of exploration and conquest to a focus on establishing settlements and missions. The Spanish strategy was to establish a presidio (fortified village and garrison) near one or more associated missions. The presidio included soldiers and their families and, eventually, converted Indians and colonists. The presidio was responsible for supplying and protecting the missions and also served as the local seat of government (Moorhead 1975).

Beginning in east Texas and along the coast, the Spanish established missions throughout the territory by the 1720s. Mission San Antonio de Valero was among the more successful of these ventures. It was at these missions that the Tonkawa and Coahuiltecans, as well as the Karankawa and Tejas (a Caddo tribe), formed strong ties with the Spanish (Campbell and Campbell 1985; Habig 1968).

However, these Spanish alliances fueled enmity with the Lipan Apache. From the founding of San Antonio de Valero in 1718, the Lipan Apache conducted frequent raids for horses and provisions. The military

leaders at San Antonio insisted on capturing Apache women and children to hold as hostages, although many of the clergy considered this tactic counterproductive (Chipman 1992).

The raids became especially serious from 1722 to 1726, subsided for a few years, then resumed in 1731. In response, the Spanish mounted a punitive campaign into west-central Texas. From October to December of 1732, the Spanish marched as far as the San Saba River. There they battled the Apache, capturing 30 women and children. It was in this incursion that the Spanish became familiar with the land they called "Apachería," and which included modern Brown County (Chipman 1992; Reeve 1946).

An Apache delegation concluded a treaty with the Spanish at the beginning of 1733, but the truce only lasted until March, and then raids and counterattacks once again continued. The Spanish conducted another campaign against the Apache in 1745, once again reaching the San Saba River. Finally, in 1749, the Lipan Apache made a treaty with the Spanish (Chipman 1992).

In 1753, Juan Galván and Fr. Miguel de Aranda explored the Pedernales, Llano, and San Saba rivers in search of locations for a presidio and a mission. For the priests, this was to be the beginning of a process to convert the Lipan Apache. For the military, it was to be a defensive outpost for San Antonio (Chipman 1992; Hindes et al. 1995; Weddle 1964).

Located on the San Saba River near the town of Menard, the mission was called Santa Cruz de San Sabá. The presidio was called San Luis de los Amarillos, and later was renamed Real Presidio de San Sabá (Hindes et al. 1995; Weddle 1964). These were the first permanent European settlements in the region, but they were short-lived. There would not be any substantial European settlement in today's Brown County for another century.

After A.D. 1700: The Arrival of the Comanche

Shortly after the Spanish established permanent missions in South Texas, the Comanche entered Texas from the west and northwest. Originally from the Great Basin area west of the Rocky Mountains, the Comanche, relatives of the Shoshoni, arrived in Texas by a path similar to that of the eastern route of the Apache 300 years before. One factor in this migration may have been the availability of the horse, which allowed the Comanche to migrate rapidly into their new territory. Like the Apache, they were nomadic hunter-gatherers, but their core area was somewhat west of the Apache, near the Caprock Escarpment that separates the Rolling Plains from the Llano Estacado (Fehrenbach 1974).

Horse transportation added a new element to migration. On the one hand, it allowed for more effective bison hunting, yet it also created increased competition among Native Americans in the Great Plains. The introduction of horses allowed for greater mobility and, with settlers pressing from the east and south, resulted in Native American populations shifting their territories across North America. The Comanche rapidly acquired many of the cultural traits of Plains Indians (Fehrenbach 1974).

A.D. 1747 to 1800: The Arrival of Wichita Peoples

The Wichita Tribe refers to several related tribal groups, including the Wichita, Waco, Tawakoni, and Keechi, who share a common language. Their language is based in the Caddoan family, suggesting remote affiliations with the Caddo of eastern Texas and Oklahoma and the Pawnee of Kansas and Nebraska. Just before the historic period, they lived in villages in Oklahoma and southern Kansas. Neighbors included the Apache, Kiowa, Pawnee, and Osage. Along the banks of the Arkansas River, the Wichita developed a strong trading relationship with the French. After frequent Osage attacks on their outposts, French traders relocated with the Wichita south to the Red River in the mid-1700s. From their Red River villages, the Wichita continued their tradition of seasonally leaving the villages to hunt bison and conduct trade. These activities periodically took them into west-central Texas (Bell et al. 1974; John 1975; Newcomb 1976).

Traditional Indian Trails in Brown County

White (1941) describes two Indian trails that existed in Brown County when the first white settlers arrived:

> One of these [trails] was through Mercer's Gap, running along toward what later became known

> as Salt Mountain, and continued toward the west and northwest up Pecan Bayou and on into Callahan County. The other trail came from the west, and crossed in the vicinity of what is now Elkins [White 1941:12].

The southernmost of these two trails, the one passing by Elkins, may have been close to Camp Bowie. However, no historic or protohistoric Indian archeological sites were identified during our surveys.

Mexican Colonies and Republic of Texas Period (A.D. 1821 to 1845)

After freeing itself from Spain, Mexico tended to focus its resources on maintaining order centrally. Therefore, locations on its periphery were given less attention. From 1821 to 1845, the less-settled territories from the Gulf of Mexico to the Pacific coast were home to factions with weak allegiance to the distant government in Mexico City. The Mexicans hoped to control Native American raids by settling Texas, which had been beset with Apache and Comanche raids since the Spanish set up the first presidios and missions. Therefore, the Mexican government encouraged limited immigration under the auspices of empresarios, who operated as franchises, giving land grants to colonists (e.g., Cantrell 1999; Hammett 1973; Waugh 1986). Promises of land to a U.S. population already moving westward attracted frontiersmen from Tennessee, Kentucky, Missouri, and elsewhere. During this period, new settlement was over 200 miles southeast of modern Brown County. The few Euroamericans who ventured into the area were primarily involved in hunting and trade, and there was little interest in settlement that far west. The Brownwood area was still considered the hinterlands when the Republic of Texas was dissolved in 1845 (White 1941).

Frontier Settlement Period (A.D. 1845 to 1900)

Development of Brown County

Brown County was named for Captain Henry Stephenson Brown, who along with 28 other men, chased a band of Apaches through the region in 1828 in retribution for the theft of 500 horses (White 1941:12–13). Captain Brown had no other connection with the founding or development of the county, but later took part in the Texas revolution.

Between 1850 and 1853, several land surveys were conducted in what are today Brown and Callahan counties (Williams 1979:279). Notes from these surveys indicate that a military road already existed and passed near present-day Brownwood, forming a northwest to southeast line between Fort Phantom Hill (north of present-day Abilene) and Fort Coghan (in Burnet). The Texas Legislature created Brown County August 27, 1856, in an effort to curtail the Indian depredations (Havins 1958).

In 1856 Welcome W. Chandler became the first permanent settler and farmer staking his claim along Pecan Bayou. The population increased rapidly over the next few years so that by 1858 Brownwood was named county seat, and the area's first post office was established there. A fire at the County courthouse in March 1880 destroyed all county records, with the exception of some of the voting and census records, which are at the state archives. The original land patentees' names for the land encompassing the modern boundaries of Camp Bowie were obtained from the General Land Office:

Reuben Ross (August 27, 1851)
Peter M. Cameron (December 8, 1847)
James Cotton (July 3, 1847)
Bernard E. Bee (July 3, 1841)
R. Hall
Henry Tolley (December 8, 1847)
Y. D. Yates
T. H. Roberts (February 18, 1861)
Kerr County School Land (October 21, 1860)

Since most of these patents were granted eight years or more before the county was settled, many of the patentees probably never saw their original land grants. As is common in other Texas counties, the patents were split up and sold to others as soon as the area opened to settlement.

Throughout the 1850s and 1860s, numerous battles occurred between the settlers and Indians—primarily Comanches. Two of the first raids occurred in November 1857 at Steppes Creek and in 1858 at Swinden Valley. During most of the early "raids," the Indians

appeared to be interested in obtaining horses rather than killing settlers, but gunfire erupted whenever the settlers surprised them.

By 1858, a cycle of retribution had begun, with both sides attacking the other to avenge previous wrongs. In December 1858, a party of Comanches killed the father, mother, and two daughters of a Jackson Springs family and kidnapped the two remaining children. A group of settlers mistakenly retaliated against another group of Comanches who were camped near the group that had actually conducted the raid. In the noise and confusion, the original raiding party retreated and left the children behind for the settlers to find (White 1941).

As the situation escalated, the settlers asked for protection from the Texas Rangers, and a company of Rangers was assigned to Brown County in 1859. Further violence occurred between settlers and Indians from 1859 to 1863. The last confrontation occurred in 1873, when James A. Cheatham encountered a group of Comanches stealing cattle near Clear Creek. Cheatham and others gave chase, killing two of the Indians.

A decade of increased mercantilism in a town supporting agricultural production provided the impetus for Brownwood to become an incorporated city in 1877. That same year, Brooke Smith, who owned the general store, established the first cotton gin in Brownwood (White 1941:97–98).

In December 1885, when the railroad started regular train service, farmers and ranchers were able to exploit a much more expanded market for their products (Havins 1958:58–59). Thus, in the short span of 30 years, Brown County changed from a frontier based on subsistence farming to an agricultural and business center in the west-central Texas region.

Modern Period (A.D. 1900 to present)

The Early Twentieth Century

U.S. census figures show that by 1900, there was a total of 16,019 people in Brown County, and about 4,000 of these were living in Brownwood (Havins 1958:92). About 69 percent of the population lived in the rural areas rather than in towns. In addition, it can be assumed that a significant number of the urban population also practiced farming and ranching, but chose to live in town.

In the first years of the new century, the oil industry became significant in Texas, yet cattle and agriculture endured as the mainstay of the local economy. Brownwood grew steadily throughout the first three decades of the twentieth century, even though it remained a small city. The children in the Camp Bowie area probably attended the Lewis Valley School, which was immediately outside of the modern boundaries of Camp Bowie along a county road. By 1941, this school was consolidated with two others to become the Blake Common School District (Havins 1958).

The Great Depression and the Civilian Conservation Corps

Although the onset of the Great Depression affected Brown County less than other parts of the state, the rural population suffered mainly from lowered commodity prices and a cold winter in 1930-31. Thus, when the Brownwood Relief Association formed in December 1930, a total of 216 families were listed as receiving aid. The families received only about four dollars per family from privately donated funds (Havins 1958:156–161).

By September 1931, the Association was replaced by the Brownwood Employment Bureau for Relief, which worked in job placement as well as giving out financial aid. But by December, the Bureau, still privately financed, could not keep up with citizens' needs and had to decide between providing clothes or food—they couldn't afford both. Homeless persons were wandering the streets during the day and there were reports of people sleeping in box cars at night. Additional homeless people were drifting into town daily. By the spring of 1932, the American Legion and Spanish War Veterans began providing soup kitchens, and cots were provided so that abandoned buildings could be turned into "flop houses."

Although relief agencies only spent $6,000 per year on indigents from 1932 to 1934, by 1935, the agencies were spending as much as $7,854 per month to care for over 200 people listed as employable, but for whom no work was available. From 1933 to 1935 a

series of federal programs put many people back to work. In 1934, a state park was established and the Civilian Conservation Corps (CCC) was organized to build improvements in the new park.

A New Camp and World War II Mobilization

The original "Camp Bowie" was located in Fort Worth, Texas during World War I. As early as 1923, the Army considered opening a training camp at Brownwood that would replace either Camp Hulen in Palacios, or Camp Mabry in Austin. But plans for a new camp were never implemented and speculation about a new Army camp waned. The advent of World War II, however, brought the idea to the forefront.

Just before World War II, the Army selected Brownwood as the site for a new Camp Bowie. Much of the land that had supported the primary industries of ranching and agriculture, in addition to oil production that began in 1917 and continued through the 1940s, would be taken over by the Army. In August of 1940, the Brownwood Chamber of Commerce sent a delegation to Fort Sam Houston in San Antonio. There they met with Major General H. J. Brees of the 8th Army Corps of Engineers and proposed a new Army training site in Brownwood. On September 4, 1940, State Representative Charles L. South announced that the Army was going to establish a training center at Brownwood. Funds were formally allocated by September 19, and were to provide for a tent city, hospital and other facilities. Construction actually began two days before at Camp Bowie, on September 17, and the Chamber of Commerce spent September through November acquiring land for the new camp.

On September 14, 1940, as the threat of war intensified, Congress ordered the first peacetime draft and gave President Roosevelt the authority to mobilize the National Guard. On November 25, the Texas Army National Guard's 36th Division and the 111th Air Squadron were ordered to report to Camp Bowie, but heavy rains in the autumn of 1940 prevented the full deployment of troops to the Camp until early 1941.

Records in the Brown County Tax Assessor-Collector's Office indicate that the landowners at the time of the 1941 government acquisition were:

D. McChristy
J. H. and H. F. Mays
E. W. Gill
E. L. Ehrke
Margeret Lacy
Armett West
J. A. Walker
John Shannon
J. W. Martin
J. H. Boyd
Joe Foster
R. C. Thompson

The original plan for Camp Bowie was to acquire 61,000 acres south and southwest of Brownwood, in Brown and Mills counties. These plans included 2,000 acres for a cantonment area, 8,000 acres for an infantry range, 28,000 acres of maneuver grounds, and 23,000 acres for the artillery ranges. With ever-expanding missions, by the time camp Bowie closed in 1947, its size had increased to 123,000 acres, including 5,000 acres of cantonment area and 118,500 acres of maneuver area (Brownwood Bulletin 1990; Havins 1958).

Construction of the Cantonment

The main cantonment area was located immediately south of Brownwood and was laid out in a rectangular configuration, a pattern popularized during World War II. In the rectangular arrangement, brigades were grouped together, and the training ranges were adjacent to each brigade. None of the original cantonment area is at the present-day Camp Bowie.

Between 1940 and 1942, most of the National Guard troops at Brownwood were housed in tents within the main cantonment area, but in 1942, the CCC and Work Projects Administration (WPA) erected a number of wooden buildings. The CCC camp was located in the northeast corner of the cantonment area from about 1940 to 1942. The CCC workers constructed buildings, bridges, check dams, and various infrastructure throughout Camp Bowie. Some of those check dams are located at present-day Camp Bowie.

The 8th Army Corps of Engineers located their headquarters at Krueger Hill, on the west side of U.S. 377 and west of the main cantonment. Krueger Hill afforded

the best view of the new camp and the entire cantonment could be seen from that location. Post Headquarters and 36th Division Headquarters were located in the northwest portion of the cantonment area.

German and Italian POWs arrived at the Camp starting in 1943, and remained until the end of the War. The POWs were housed southwest of the main cantonment area, east of the present site of the Brownwood Country Club.

Camp Bowie at the Close of the War

On August 31, 1946 the War Department declared Camp Bowie surplus property, and the disposal of property and equipment began in March 1947. By March 1949, 77,440 acres had been sold, some of it to former landowners. The Texas Army National Guard retained approximately 5,520 acres of the impact area for training. These 5,000+ acres comprise the northern half of Camp Bowie. The southern portion of the modern camp was acquired between 1993 and 1994, effectively doubling its size (Brownwood Bulletin 1990; Havins 1958).

Types of Cultural Resources at Camp Bowie

An Overview of Prehistoric Site Types in Central Texas

Archeologists typically classify sites on the basis of function (inferential) and morphology (descriptive). The two approaches are complementary, and modern typologies tend to blend them. This is especially important regarding prehistoric sites for which a paucity of data, such as historical accounts, exists to confirm or reject notions about the culture of the site occupants. By identifying which attributes are primarily inferential versus descriptive, a well-grounded classification scheme can be developed without giving up the inferences that facilitate interpretations of past human behaviors.

Identifying site function requires inferences about specific activities such as cooking, plant processing, stone tool manufacture, and extraction of raw material. A single site may have several functions and these change through time, reflecting subsistence strategy and resource abundance or depletion. Immigration, interchange, and blending of cultures create further complications for accurately classifying sites along purely functional lines.

The morphological approach is at once simpler and more superficial, but also is a necessary prerequisite for refining a classification based on function. Site morphology considers such factors as placement on the terrain, apparent size of the occupation, and the types and diversity of artifacts. It is especially dependent on the archeologist identifying specific features such as pits, hearths, burned rock middens, and activity areas. It is in this aspect that the morphological and functional methodologies most frequently blur into one another.

For some of the types, such as a lithic quarry, the morphological traits help define many readily identifiable site functions. A rockshelter with a burial is a bit more problematic, but still, a functional classification can be made with some confidence, especially if there are multiple burials or obvious ceremonialism present. At the other extreme are the so-called open campsites, which are based only on the most generic of traits. Between these extremes are the burned rock midden sites. Many of these sites appear to be similar to open campsites, but with the addition of one or more specialized features.

In selecting a site typology for the Camp Bowie archeological survey, we opted for a typology described by Black (1989) and used almost universally throughout the region. This assists in comparing our data with those of other researchers. Where possible in the following discussion, we emphasize functional versus morphological traits.

Prehistoric Open Campsites

Descriptive Attributes

Material: Flaking debris, burned rock fragments, stone tools (occasional), ground stone fragments and manos (rare), mussel shell fragments (rare).

Distribution of Material: Scattered across the site; specific groups of artifacts (such as burned rock) may be concentrated in some areas within the site.

Features: Usually none visible during survey; excavation may reveal hearths, trash pits, and chipping stations.

Site Locations: Sites occur in a variety of settings as would be expected for a category that is really an amalgam of several functional types of sites.

Inferential Attributes

Activities: Cooking, stone tool-making and resharpening, butchering, residential activities, staging areas for plant gathering, planning and preparation for hunts, ceremonial activities (evidence rare to none), burials (rare) may be individual or in small clusters, but no designated cemetery areas.

Site Function: This is not a single function, but a collection of sites with different functions that share similar morphological attributes. Larger examples are general purpose base camps or temporary camps repeatedly occupied. Smaller camps are of a more temporary nature, less frequently reoccupied, or specialized on exploited seasonal or specific resources.

Location Relative to Function: Base camps would tend to have a range of activities and be located in a way that allows smaller trips to more specialized resources. The relation of a base camp to resources will give preference to those resources that are used frequently (e.g., drinking water, flood-free areas, sheltered areas). Smaller, specialized camps would be located close to resources that require a great deal of processing (some plant remains are difficult to transport).

General Discussion

Open campsites represent a variety of sites with a variety of functions. These sites generally appear as areas of scattered chipping debris and occasional stone tools, but may also include fragments of animal bone, mussel shell, burned rock, and prehistoric pottery. As the name suggests, they are in open areas rather than enclosed locations. Open camps thus contrast with more protected prehistoric sites associated with rockshelters, caves, sinkholes, or box canyons. In addition, open campsites are distinguished from other site types by traits that they lack: no quarry/workshop material, no burned rock midden, and no obvious features other than hearths and trash pits. Defining a class based on a lack of specific traits can be a treacherous exercise, and is the hallmark of categories that might as well be called "none of the above." Because of this, some open campsites may be reclassified upon further investigation.

As expected with a class of site that is really an amalgam of functional types, they can appear highly varied in terms of time period, size, topographic location, and artifact density. Many open campsites were reoccupied through time, resulting in a number of different components overlain atop one another. Within a single site, each occupation may represent a slightly different site function within an overall nomadic seasonal subsistence strategy, and this would also shift from one time period to another. While some occupations and components may represent base camps with a broad array of activities, others may have been specialized for acquiring or processing specific resources. Many of these latter subtypes of sites appear to lack diagnostic artifacts and are obviously ephemeral.

An inventory survey, such as the present study, is not sufficient to tease out the subtle differences among the many different kinds of sites that archeologists have assigned to this category. Even after we have excavated these sites, we often fail to derive information beyond a generic list of functions that apply to almost any prehistoric site in the region. However, an inventory survey is useful in interpreting groups of such sites and comparing these sites to the topographic and hydrological settings in which they occur.

One of the factors affecting open campsites within the survey area is that broad areas of Camp Bowie consist of shallow, rocky soils or deep, but pre-Holocene, deposits. Thus, over much of the camp, Holocene deposits are shallow, and prehistoric campsites often have several components (time periods, occupations) that are mixed and difficult to separate. This is common where there has been relatively little natural deposition or where there has been deflation. Mixed components may also be found in areas affected either by previous military training or natural erosion. Mixed, shallow sites are difficult to interpret and at this time are considered to have relatively low potential to yield significant scientific or historical information, although their placement on the landscape may be helpful to regional studies or settlement pattern modeling.

Burned Rock Midden Sites

Descriptive Attributes

Material: Flaking debris, burned rock fragments, stone tools (occasional), ground stone fragments and manos (rare), mussel shell fragments (rare).

Distribution of Material: Artifacts are scattered across the site. Specific groups of artifacts (such as burned rock) may be concentrated in areas within the site.

Features: One or more burned rock middens are present. At Camp Bowie, all are of the Central Texas

crescent- and ring-midden variety. Otherwise, these sites appear similar to open campsites.

Site Locations: At Camp Bowie, burned rock midden sites are found in one of two types of locations. Most of these sites are found on the upper terraces of Pecan Bayou and minor tributaries, at the base of the uplands. A second type of location is at the top of the upland slopes and possibly co-occurring with springs.

Inferential Attributes

Activities: General purpose site function, cooking, stone tool-making and resharpening, butchering, residential activities, staging areas for plant gathering, planning and preparation for hunts, ceremonial activities (evidence rare to none), burials (rare) may be individual or in small clusters, but no designated cemetery areas.

Location Relative to Function: Burned rock midden sites appear to have been used for processing plant resources. They may occur near or at resource locations for such things as acorns, mesquite, or sotol. They also occur where rocks are easily obtained, and therefore are associated with upland margins within Camp Bowie. In addition, the presence of a source for water would be an important attractor to any campsite location, including burned rock midden sites.

General Discussion

These sites are a specialized form of campsite, with one or more burned rock midden features. A burned rock midden is a mound of rock typically at least 2 to 3 meters in diameter and 0.5 to 1.5 meters high. At Camp Bowie, and in much of west-central Texas, burned rock middens occur in the form of rings or crescents. The west-central Texas ring pattern is that of a mound with a central depression, whereas the "ring middens" found farther to the southwest are more often a ring of broken stone with a central cleared area at ground level. The crescent variant is typical of middens formed on sloping surfaces, or perhaps in the early stages of development.

Even though they are referred to as middens (meaning "trash deposits"), they are actually giant hearths representing large-scale, and possibly communal, plant processing. Sites with burned rock middens appear to have been used by nomadic hunter-gatherers who gathered seasonally into large camps to harvest and process acorns or other materials that require very labor-intensive processing. In the case of acorns for example, before they can be made into an edible flour, the tannic acid must be removed. This is done by roasting the acorns and then leaching the poison.

Although Creel (1986) interprets these features as primarily used for acorn processing, others have concluded that they may have been used for other plant materials as well; thus the acorn-processing scenario may be correct, but incomplete. If acorns are one factor in these features, then these types of camps were probably occupied during the fall and early winter, since acorns become available for harvest in the fall.

Lithic Procurement/Lithic Workshop Sites

Descriptive Attributes

Material: Large flaking debris, cores and tested cobbles, preforms (may be common), finished stone tools (rare).

Distribution of Material: Scattered across the site; specific groups of artifacts (such as cores) may be concentrated in some areas within the site.

Site Locations: Upland areas where chert, quartzite, jasper, rhyolite or other stone tool-making material is available; notable at Camp Bowie is the relationship between lithic procurement sites and the geological zone of conglomerate deposits on the upland slopes.

Features: Usually none visible during survey; some lithic quarry sites may have evidence of prehistoric quarrying pits, but none have been observed at Camp Bowie.

Inferential Attributes

Activities: Acquisition of raw lithic material for tool-making; processing includes testing cobbles to choose those with the fewest flaws, breaking up larger stones into smaller ones for transport, splitting cobbles to create platforms, and initial shaping of implements to be used as blanks for tool-making.

Locations Relative to Function: These are specialized sites that are on top of easily-accessible lithic resources. Generally, this means at outcrops of raw chert or, at Camp Bowie, chert-bearing conglomerate.

General Discussion

Some of these sites represent specialized campsites where raw stone was collected or extracted (lithic procurement). In addition, pieces of stone were tested for flaws and overall quality, reduced to smaller pieces for transport, and used for tool-making (lithic workshop). These sites are on or near locations where raw material can be obtained for chipped stone tools, and where the pattern of chipping stressed reduction of raw stones to smaller cores and tested cobbles, with lots of primary and secondary flakes. This is in contrast with the more general type of campsite, where the dominant chipping debris consists of tertiary flakes.

These are specialized sites where camping activities may or may not have occurred. Most are on the upper slopes of the upland margins. One point of interest at Camp Bowie is that the lithic resources that appear most readily available are cobbles eroding from the conglomerate that forms the contact with the underlying sandstone and overlying limestone. In general, the lithic procurement and workshop sites occur along or nearby the conglomerate layer.

The materials from the conglomerate include an array of stone types—including cherts, quartzites, jasper, gabbro, and rhyolite (Nance and Wermund 1993; Templin et al. 1948). However, material found on the sites does not reflect this degree of variability in the conglomerate deposit. That might indicate that although chippable material was plentiful, the aboriginal inhabitants of the area around Camp Bowie were selective in the material they preferred.

Prehistoric Site Types and Features not Found at Camp Bowie

Archeologists have identified other types of prehistoric site types in addition to the ones described above (e.g., Black 1989). So far none of these have been identified at Camp Bowie, but some can masquerade as other, more common, site types:

Rockshelters, Caves, and Sinkholes

No opportunities for these types of sites were found at Camp Bowie. Rockshelters, caves, and sinkholes represent protected site locations that may be used not only for general habitation, but also for burials and rock art—both of which also may relate to ceremonialism.

Isolated Graves and Cemeteries

In Central Texas, isolated graves or isolated clusters of a few graves are more common on sites than cemeteries, especially as one moves westward onto the Edwards Plateau. Within Central Texas, almost all the well-documented examples of burials occur east of the Balcones Escarpment. Generally, burials tend to be in open campsites with a few occurring in sinkholes and, very rarely, in burned rock middens.

Most graves occur at depths of over 50 cm below the surface unless there has been a great deal of erosion, deflation, or man-made disturbance. It is therefore difficult to detect burials from surface survey, even with shovel testing. When excavated, few open campsites yield graves and it is usually difficult to predict where within the site any burials may occur.

Caches (Isolated or as part of a larger site)

A cache is more properly a feature of a site rather than a site by itself, but seemingly-isolated caches also occur. Caches are buried collections of material for producing stone tools. These may include raw, unworked chert, as well as blades and partially finished tools.

Rock Art (Isolated or as part of a larger site)

The geology at Camp Bowie is less conducive to preserving rock art than other locations in Central Texas. The limestone at the camp is soft and easily eroded, and there are few areas protected enough that rock art would be expected. There are few locations where vertical sandstone faces are exposed, and none of these have yielded rock art.

Homesteads and Related Structures

Homestead Complexes

These are represented by ruins of house walls or foundations. Sometimes a cistern, well, or outbuildings are also present. At Camp Bowie, most of these represent

farm and ranch houses that were standing prior to 1940. Some of them appear to extend into the late nineteenth century.

Stone Walls

Stone walls occur at several locations across Camp Bowie. Many of these separate old property boundaries and often date to the late nineteenth century. Most are associated with nearby farmstead sites. The typical stone wall at Camp Bowie is constructed of stacked rock, without mortar, and once stood about two to four feet in height.

Water Wells and Cisterns

Water wells and cisterns are other common features. Many of these date to the early twentieth century, although some may be earlier. The cisterns and wells found are typically brick-lined with a concrete rim for mounting a pump.

Trash Dumps

Throughout the twentieth century, residents have dumped trash by the sides of roads and in ravines, as well as at places locally designated for dumping. At Camp Bowie, the small, informal dump sites are more common than any designated, centralized dumping location. In general, following existing practices in Texas, if there is no associated house or farmstead, the small trash dumps are not considered eligible for the National Register of Historic Places.

Civilian Conservation Corps Structures

Engineered Structures, Probably Related to World War II

Check Dams

Check dams were one of the improvements constructed by the Civilian Conservation Corps (CCC) at the beginning of World War II mobilization at camp Bowie. The CCC was established by President Roosevelt as one of the New Deal back-to-work projects. Run by the Army, the CCC recruited young men as labor for public works projects across the U.S. One of the hallmarks of the CCC was stonework using local materials and built to specification promulgated by the National Park Service. A line of six (two remain intact) small stone check dams occur just east of the modern cantonment area and armory, in an area just south of the main World War II cantonment area.

Culverts

Stone culverts are on the east side of the modern armory, and may also be CCC structures. By and large, these are minor structures, and most have not been recorded for this inventory as sites.

Military Structures Associated with World War II

Pillboxes

At least four pillboxes are at Camp Bowie. These structures face a hill on which there may have been targets or other fighting positions. They are made of molded concrete, and are about six to eight feet wide and perhaps five to six feet deep. Inside, the walls have some graffiti bearing dates of the 1940s.

Storage Bunker

There is one large storage bunker at the west side of a modern drop zone. Like the pillboxes, the bunker is made of concrete, with a narrow entryway. The top and back side are covered with soil, forming a berm on one side. As with the pillboxes, within the bunker is graffiti indicating early 1940s dates.

Mock Fortress or Village

A very large concrete structure is also present at Camp Bowie, and is in the form of a large fortress. It has slit windows, and may have served a purpose similar to one found at Camp Swift. During World War II, soldiers trained in mock villages that may have utilized such structures. However, we have no direct evidence regarding the specific training function for the structure at Camp Bowie.

Historic Contexts

On the Notion of Historic Contexts

Several elements are required to define a historic context. Primarily, the context must apply to a specific geographic region, must apply to a specific time period, and must have well-defined manifestations among the cultural resources that are being inventoried or evaluated. There are a myriad of contexts that could be derived, so identifying specific themes to use as contexts is a highly subjective procedure. However, certain themes stand out because of current or past interests on the part of the public, researchers, or preservationists, and these are thus given highest priority. It is important to realize that historic contexts are a heuristic device with which to mount an argument for or against preservation of a specific property. However, no list of *a priori* contexts is absolute or complete.

Paleoindian Stage Subsistence and Settlement

Geographic Region: Southern Great Plains as well as much of North America, especially western North America.

Time Period: Before ca. 12,000 (or earlier) to 8000 BP (several subdivisions).

Manifestations within the Region:

- Open campsites
- Lithic workshops
- Kill sites (megafauna)
- Blade and tool caches

Relevant National Register Criteria: Criterion D, usefulness to scientific or historical research.

Requirements to be Significant/Eligible: Sites with datable material (carbon, dendrochronology samples, and diagnostic artifacts for Llano, Folsom, Plano, Dalton/San Patrice) not mixed with later cultural components, intact features. All site types are important, but special attention should be paid to a broader array of site types than has previously been investigated.

Applicability to Camp Bowie: No Paleoindian sites were found during our survey. Potential for such sites is on upland edges and on upper terraces.

Discussion: The hallmark of Paleoindian subsistence is their use of now-extinct megafauna and, for at least some of the phases, fluted projectile points. One aspect of this period is that variants of many of the tool types are found across a region much larger than the state of Texas. This is especially true of the older tool types, such as Clovis and Folsom. Such a wide-scale distribution has been taken to indicate that groups were much more nomadic during the Paleoindian period than during the Archaic periods, when tool types begin to differ from region to region.

Although much is known about specific kill/butchering sites, little is known of the day-to-day life on more ordinary open campsites. It is presumed that, as with most hunter-gatherers, Paleoindians depended on gathered plants for a portion of their diet.

With notable exceptions, archeologists have tended to investigate Paleoindian kill sites since other site types often have mixed components. Emphasizing a narrow spectrum of sites may have biased our interpretation of these early lifeways. The need therefore exists not only for more investigation of Paleoindian sites overall, but also for investigation of a broader array of site types than has already been researched.

Archaic Stage Subsistence and Settlement

Geographic Region: Edwards Plateau and Rolling Plains, Texas.

Time Period: Before ca. 8000 to 1000 BP (may be extended into the Late Prehistoric as well as the Paleoindian periods).

Manifestations within the Region:

Open campsites
Burned rock midden sites (Middle Archaic and later)
Lithic workshops
Rockshelters/sinkholes

Relevant National Register Criteria: Criterion D, usefulness to scientific and historical research.

Requirements to be Significant/Eligible: Sites with datable material (carbon, dendrochronology samples, and diagnostic artifacts), unmixed cultural components, intact features are significant and eligible. Also important is the preservation of fragile material, such as pollen, vegetal remains, textiles, shell, and bone.

Applicability to Camp Bowie: The majority of Camp Bowie sites are important if for no other reason than their location on the terrain may be useful in settlement pattern modeling. However, a large number are thin, deflated, disturbed, and lack diagnostic artifacts, making it difficult to derive information on their functional time period.

Discussion: Because settlement patterns seem to have been fairly constant throughout much of the Archaic period and into the Late Prehistoric, the preferred site locations were utilized time and again by different peoples throughout prehistory. As a result, there is a high degree of mixing at many Archaic sites, and the sites most likely to hold the most flexibility for addressing an array of research questions would be deeper sites, or where episodic flooding has "sealed" one component from another. In addition to particularly active cumulic and alluvial situations, some rockshelters could also have the type of deposition necessary to prevent severe mixing of components.

Questions related to the Archaic period settlement patterns would be related directly to diet, seasonality, and seasonal movement. Using these portions of the human adaptations, and with knowledge of changing environmental conditions and resource availability, subtle differences between Archaic time periods may be revealed. At the time of this writing, however, the Archaic period appears to be fairly homogenous. It is still unclear what the significance is of the shifts from one point type to another, or the presence or absence of Clear Fork gouges. While useful in distinguishing archeologists' groupings, the cultural realities behind these groupings are not understood.

The goal, therefore, is to find a number of sites in a variety of topographic settings that have a single component or have separable multiple components. In addition, the individual site should have the potential to yield botanical and faunal data and have intact features that would help us address diet and seasonality. Studies oriented toward diet and seasonality could also examine such phenomena as alternative strategies, identification of possible famine foods, and a host of similar questions not currently asked in the Central Texas literature.

Subtle site differences are likely to be discovered by looking at traits other than stone tools. When such complementary studies are melded back into previous studies of lithic technology and ongoing studies of geomorphology, then a clearer picture may emerge of the cultures that we now merge together under the rubric "Archaic."

Neoindian Period Subsistence and Settlement

Geographic Region: Edwards Plateau and Rolling Plains, Texas.

Time Period: ca. 1100 to 400 BP.

Manifestations within the Region:

Open campsites
Burned rock midden sites (Middle Archaic and later)
Lithic workshops
Rockshelters/sinkholes

Relevant National Register Criteria: Criterion D, usefulness to scientific and historical research.

Requirements to be Significant/Eligible: Sites with datable material (carbon, dendrochronology samples), Late Prehistoric diagnostic artifacts, intact separated cultural components, intact features.

Applicability to Camp Bowie: Neoindian sites are somewhat common in the region. Sites from this time period at Camp Bowie include open campsites and lithic workshops.

Discussion: Since the Neoindian period includes the latest of the prehistoric time periods, we have the best opportunity to analyze this period using the data available from the subsequent historic time periods. It appears that the Spanish entered the region at a time of broad population disturbances that followed the immigration of the Apaches, and later the Comanches and others, onto the Southern Plains and into west Texas. Understanding what happened in the Neoindian period can help us explain the native populations as the Spanish first saw them.

Another important development during the Archaic-Neoindian boundary is the more sedentary life-style adopted by the Caddoan tribes to the east and the establishment of pueblo villages by the Mogollon and Anasazi to the west. Despite these developments by their neighbors, the Central Texas peoples remained essentially Archaic in their settlement and subsistence behavior. Yet they may have served an important role in conducting trade and carrying the news of the day. The relation between the Central Texas peoples and their more-sedentary neighbors is one which has been explored only occasionally in the literature.

The Nature of Burned Rock Midden Sites

Geographic Region: Central, south and western Texas, and northern Mexico.

Time Period: Before ca. 6000 to 1000 BP (florescence ca. 3000 to 2000 BP).

Manifestations within the Region:

Burned rock middens
Open camps and other types of sites (for comparative purposes)

Relevant National Register Criteria: Criterion D, usefulness to scientific and historical research.

Requirements to be Significant/Eligible: In reviewing the literature of the past six or seven decades, it would appear that archeologists have addressed the same narrow set of research topics time and time again regarding burned rock midden sites. Recently, there have been calls to stop systematically excavating these sites unless new research questions can be addressed (Black et al. 1997:307–314). After all, excavation, even for lofty research purposes, destroys the resource.

The solution, as Black et al. point out, may be to ask new questions and to ask the basic questions in a different way. The exhaustive analysis those authors present is a step in that direction. In this recommendation, Black et al. have identified the key ingredient missing from the National Register criteria: That the attributes that make an archeological site significant are *not inherent in the site*, but only exist in relation to ongoing *research questions*.

Their recommendation for evaluating site potential is to revert to the standard attributes based on "high scores" for organic preservation, structural integrity, and stratification (Black et al. 1997:310). But because of the number of sites that are available for study, as a land management decision it is difficult to justify setting aside any particular site. The standard criteria should be augmented by additional ones, including those that address specific research questions. Such additional attributes might include:

- Any traits allowing researchers to address specific, current research questions
- Atypical time period
- Features other than burned rock middens, especially atypical features
- Unusual locations
- Exceptionally good preservation

Applicability to Camp Bowie: As would be expected, Camp Bowie has a number of burned rock middens. Of these, several are unlikely to be disturbed in the near future by military training. One site in particular, 41BR228 (the Chesser Midden) is in an unusual location, has an intact midden, and also has bedrock mortars. Bedrock mortars, while not rare, are significant when associated with burned rock middens since they *may* support the idea that acorn processing was a major activity at these sites.

Discussion: As mentioned, Black et al. (1997) have presented a detailed study of four burned rock midden sites and present a good synopsis of past explorations and suggest future directions. They correctly point out the need for new research questions and new approaches to existing questions. Toward that end, we present the following brief examples:

Functional Studies. The function of these sites has been elusive, despite over 70 years of archeological investigation. Most investigations have focused on the functions of the burned rock middens themselves. This is expected, given the distinctive appearance of such features on what would otherwise be an unremarkable open campsite. Conclusions generally address the fact that these appear to be related to some type of intensive, oft-repeated, and communal cooking activity.

Associated Activities and Site Structure. What has been less frequent in all of these investigations has been exploration of the site beyond the burned rock midden.

Comparisons with Other Sites, or comparisons between the layout of generic open campsites with burned rock middens of the same time period. If the activities associated with burned rock middens are seasonal, then there could be differences.

Settlement Pattern. Archeologists recognize that burned rock midden sites did not occur in a vacuum, but represent a subset of activities within a system of settlement-subsistence strategies. The fact that these types of sites occur over a long time span may indicate that although certain strategies may have changed through time, the subset of activities that accompanied these sites were relatively stable and the required resources were dependable.

Defining Central Texas Co-Traditions and Revisiting the "Coahuiltecan" Dilemma

Geographic Region: Central and south Texas, northern Mexico.

Time Period: Before ca. 1500 BP to ca. 200 BP.

Manifestations within the Region:

Open campsites
Burned rock midden sites (Middle Archaic and later)
Lithic workshops
Rockshelters/sinkholes

Relevant National Register Criteria: Criterion D, usefulness to scientific and historical research.

Requirements to be Significant/Eligible: In order to address this research topic, sites should have traits that identify them as being part of a so-far poorly defined Central Texas Co-Tradition, that can be related to peoples collectively identified as "Coahuiltecan." With the recent reinterpretation of the problematic term, "Coahuiltecan," archeologists have taken the first step in this reappraisal.

This reappraisal may require a minor paradigm shift regarding notions of Central Texas chronology and relationships between already-defined phases. Since the theoretical structures are yet to be fully defined, we must rely on the standard attributes that define a "useful" site:

- Good preservation
- Good stratigraphy
- Presence of diagnostic artifacts and other datable material
- Presence of features

Sites with these attributes are the most likely to allow us to identify and separate different groupings that may form a co-tradition across the region.

Applicability to Camp Bowie: Any of the better-preserved sites at Camp Bowie could be used to address the Coahuiltecan issue, especially those with components dating between the Middle Archaic and Early Historic (Spanish Colonial) periods.

Discussion: A need exists for a concise re-evaluation of the existing research and collections in order to better define what is meant by the term "Coahuiltecan." As part of an effort to define a Central Texas co-tradition, some of the better preserved Camp Bowie sites may be helpful—but so could thousands of other known sites across the region.

Historic and Protohistoric Immigrants: Comanche, Apache, Wichita, Tonkawa, and Others

Geographic Region: Southern Great Plains.

Time Period: Before ca. 700 BP to 300 BP.

Manifestations within the Region: We would expect to find campsites, villages, lithic procurement areas, and other specialized resource procurement areas. Specific camps have not yet been identified vis-à-vis specific cultural affiliation.

Relevant National Register Criteria: Criterion D, scientific or historical information that the sites could provide.

Requirements to be Significant/Eligible: In order to address this research topic, sites should have traits that associate them with Protohistoric or Historic time periods. This includes artifacts of a "prehistoric" type but made of "modern" materials, such as metal or glass arrow points, and artifacts that are distinctive of a historically known cultural group. The latter artifact category is not well defined for Texas, but one might expect something equivalent to the sandy paste pottery of the Dismal River Apache sites in the central Plains (see, for example, Gunnerson 1960).

We must also rely on the standard attributes that define a "useful" site:

- ·Good preservation
- ·Good stratigraphy
- ·Presence of diagnostic artifacts and other datable material
- ·Presence of features

Applicability to Camp Bowie: No such sites were found during the survey of Camp Bowie. However, this remains an important set of issues within the region and could be addressed as new data and better ethnic affiliations are worked out.

Discussion: The arrival of the Apache, Comanche, Wichita, and Tonkawa is indicated by linguistic evidence and oral tradition, as well as by archeological research. We know roughly the order in which these groups entered Central Texas and the probable dates. However, this portion of Texas' culture history could still be refined given better diagnostics that would identify the ethnicity of specific components at sites across the region.

Spanish Entrada and the Spanish Colonial Period

Geographic Region: Southern Great Plains, Gulf Coast, southwest U.S.

Time Period: Before ca. A.D. 1530 to 1821.

Manifestations within the Region: Sites associated with the Mission of San Sabá have been found near Menard, Texas. However, Spanish sites are extremely rare. The known sites in the vicinity of Brown County are Spanish ranches that supplied the missions with provisions. It may be possible to find more temporary campsites left by Spanish explorers or military campaigns, but these are unknown so far.

Relevant National Register Criteria: Criterion B, D, historic events and scientific or historical information.

Requirements to be Significant/Eligible: Sites with datable material (e.g., carbon, dendrochronology samples), diagnostic artifacts such as Majolica ceramics, metal arrow points, remains of flintlock guns, mission-era religious items, intact separated cultural components, intact features, evidence of mission-era structures.

Applicability to Camp Bowie: No Spanish sites were found at Camp Bowie. Because of their rarity, they are not likely to occur there.

Discussion: Several research questions can be addressed within this historic context. For example, what effect did missions and European traders have on Native American subsistence and settlement patterns? How did the introduction of European trading partners encourage competition among Native American ethnic groups, and did these new relationships cause political realignments among Native Americans factions? How did Spanish chroniclers' perceptions

affect our modern understanding of the sixteenth- and seventeenth-century native peoples? At this time, we rely primarily on written narratives by the Spanish and on mission records. To a lesser degree, we have archeological investigations, but almost all occur at the periphery of the region in question. Considering the paucity of Spanish entry into this part of Central Texas, it is likely that this situation will continue into the near future. For this reason, the archeological record will be able to address these questions best if additional sites are found in the Brownwood region.

Should any eligible sites be found, they would probably relate to the mission at San Sabá, or to the military campaign associated with its destruction.

Anglo-American Settlement

Geographic Region: Texas and the Southern Great Plains.

Time Period: ca. A.D. 1850 to 1941.

Manifestations within the Region: Towns and villages, rural homesteads, other historic structures and sites.

Relevant National Register Criteria: A, B, C, D, historic person, events, typical construction or decorative style, work of a master craftsman, or potential for yielding significant scientific or historic information.

Requirements to be Significant/Eligible: Site must be intact and structure must retain a high degree of physical integrity. Such properties should also have an availability of corroborative evidence from archival or oral historic sources.

Applicability to Camp Bowie: There are a few ruins of homesteads, stone walls, wells, and cisterns. Few of these would meet any of the requirements for National Register eligibility, primarily due to prior disturbance and a general lack of archival information.

Discussion: This period of history is fairly well documented in the historical annals as well as in oral histories and public records. However, details of day-to-day life on the frontier, socioeconomic status, transportation, and communication with the Texas Gulf coastal area can be examined in the archeological record, if sites are of sufficient quality.

Depression Era Back-to-Work Programs

Geographic Region: Southern Great Plains.

Time Period: A.D. 1929 to 1941.

Manifestations within the Region: Structures constructed by the Works Progress Administration (WPA) and Civilian Conservation Corps (CCC). Primarily stone work in the form of bridges, walls, roadways and stone-lined drainages, check dams, gates, and commemorative structures.

Relevant National Register Criteria: Primarily related to Criteria B, C, historic events and style typical of a particular time period and specific government programs that focused on local artisans and local materials.

Requirements to be Significant/Eligible: Because these properties usually have a distinctive appearance, integrity of material and setting is especially important. In addition, archival information specific to any particular structure may be lacking. So, oral history could take on a special significance where such accounts or informants are available.

Applicability to Camp Bowie: Camp Bowie has two sets of check dams that may be WPA or CCC structures.

Discussion: The CCC constructed many buildings and other structures during the Army's mobilization in 1941. A particular problem at Camp Bowie was poor drainage in and around the cantonment, so it is likely that the stone check dams were built at that time.

World War II and Camp Bowie

Geographic Region: Central Texas.

Time Period: A.D. 1941-1945.

Manifestations within the Region: Military structures include World War II-era temporary wooden buildings. Many of these are visible within the old cantonment area, which is now an industrial park on the south side of Brownwood. Others, including a wooden chapel, were moved into town after the war and are still in use today.

Relevant National Register Criteria: Criterion B, C, association with significant historic events, or typical of a style or time period.

Requirements to be Significant/Eligible: Structures must be intact, but also must be relatively uncommon. None of the military structures at Camp Bowie meet these requirements. All were constructed from standard military plans that were implemented repeatedly nationwide at various training installations.

Applicability to Camp Bowie: Camp Bowie retains several World War II-era military structures. These include pillboxes, a concrete bunker, and the remains of a mock "Nazi village."

Discussion: Of the various historic contexts discussed in this section, this is the most recent. Therefore, many factors which may seem important to us now, may become less relevant to historical or stylistic interests a century or more from now. It is difficult to anticipate the interest or research needs of future historians, and at the same time it is hazardous to maintain a chauvinism about the importance of specific elements so close to our own era. The best solution, then, may be to balance these two issues by identifying the best examples among such properties and then put our efforts into preserving those.

Eligibility Criteria

The Notion of "Research Potential"

Archeological sites are usually evaluated for National Register eligibility on the basis of their potential to yield important scientific or historical information (National Register Criterion D). Current federal regulations are often applied as if "research potential" is somehow an inherent trait of the site. However, the potential of a site to yield information is dependent primarily on the research questions, and only secondarily on the condition and attributes of the site.

Part of the current practice of assigning eligibility is the result of pragmatic considerations: that is, a site's inherent traits—cultural affiliations, disturbance, stratigraphy, and intact features—are relatively easy to observe and record. However, the next step—identifying current research questions—is a more subtle process and is subject to biases and oversights. By comparison, anticipating all potential future research questions would require a soothsayer and a crystal ball.

One solution to this problem is to consider a site's potential to yield information as a continuum. On one hand, there are sites whose inherent traits allow for many different kinds of research questions. On the opposite end of the scale, there are sites that offer the potential for only a few, specific, and limited research questions. In general, the limited research questions can be applied to both types of sites. Sites that lend themselves to the broadest array of questions tend to be undisturbed, with buried and stratified cultural components, and with intact features.

Therefore, one task of cultural resources management is to form a prioritized list of archeological sites based on their apparent usefulness in answering a broad range of research questions. If we apply this philosophy, we have a better chance of anticipating future research questions.

Degree of Prior Disturbance

Camp Bowie has been used for military training since the 1940s. As with any such military facility, the degree to which earlier training has had an impact on archeological sites is significant and often obvious. The upland, rocky nature of most of Camp Bowie lends itself to training using armored vehicles such as tanks and personnel carriers. In the rugged terrain, tank drivers and foot soldiers can practice a number of different training scenarios. The central location of the camp makes it one of the most heavily utilized training sites in Texas.

Prior destruction of archeological sites is a serious consideration at Camp Bowie. In areas with clayey soils, and where tracked vehicles have maneuvered for decades, there is often very little intact depositition from the surface to depths of 50 to 100 cm. Other destructive activities included use of bulldozers, road maintainers, and front-end loaders to create rifle ranges, target berms, drop zones, trails, and firebreaks. During the survey, the crew attempted to identify areas that had such disturbance.

In addition to man-made disturbances, the upland slopes exhibit erosion and deflation. Deflation is particularly significant at multicomponent sites. In some cases, sites that once had stratified cultural zones are now deflated to the point that the components have become mixed, therefore limiting their usefulness for researchers. When archeological sites were encountered, the crew made observations regarding such natural disturbances.

Stratigraphic Characteristics

Shallow Upland Sites

Since Camp Bowie is primarily an upland training site, much of the camp's soils are shallow and rocky, or developed *in situ* from ancient deposits. In these cases,

the archeological sites that were found tend to be very shallow lithic scatters. Some of these are readily identifiable as lithic procurement or workshop areas, and tend to occur with the bands of conglomerate that ring the mid-slopes below the upland areas.

In general, sites on shallow or ancient upland soils are ineligible for the National Register if they do not have any intact surface features. Because of their lack of depth, these sites have low research potential and are less likely than other sites to yield important scientific or historical information.

Buried and Vertically Stratified Cultural Zones

Sites with the best potential for buried deposits occur in Frio soils. The next most likely locations are on the Deleon and Winters soil units. There may also be some potential on Nukrum soils. Because they form from alluvial activity on floodplains and terraces, sites in the Frio, Deleon and Winters soils also have the greatest probability of vertically separated components.

Single Component Sites

Another consideration is those sites that, although lacking in stratified cultural zones, appear to be single component sites. Since single component sites are defined by a negative argument (i.e., no other time period's diagnostics were found), they are difficult to detect in survey. However, upon testing, a preponderance of diagnostically identical artifacts from a single component may be used to argue that any other components are relatively minor and ephemeral—especially if only a single, thin, buried culture-bearing zone, along with site location, were used as determining factors.

Sites with Horizontally Discrete Components

In addition to single component sites, there may be sites that lack vertical separation of components, but appear to have discrete concentrations of artifacts associated with specific components. Unlike single component sites, these rely on positive evidence, and are therefore easier to detect during survey. At Camp Bowie, this pattern was not observed during the survey, even though detailed inventories were made of surface material and diagnostics. Part of the difficulty in assessing this patterning occurs because of the generally small sample sizes of diagnostic artifacts, especially where all artifacts are sparsely distributed.

Unless disturbed, sites on Frio and Deleon soils require shovel testing, and any sites found may require test excavations to determine their eligibility for the National Register of Historic Places.

Intact Features

Surface features include burned rock middens, bedrock mortars, and historic features such as rock walls, foundations, wells, check dams, pillboxes, and bunkers. The presence of surface features alone does not indicate the site is eligible for the National Register, and the nature and integrity of surface features should be considered.

For example, the majority of the burned rock midden sites are on Throck soils, which are shallow, rocky upland soils. Typical burned rock middens occur at the base of upland slopes, just above the terrace of floodplain deposits. One well-preserved burned rock midden is on top of a saddle-shaped, upland toe-ridge, and a spring occurs on the nearby slope. Both of these locations have limited potential for stratified cultural components.

Although a few site forms from earlier surveys indicated that sites had "buried hearths," examination of the same locations by AGTX cultural resources staff failed to locate any hearths. We therefore conclude that gravel lenses, which we did observe, were misidentified as hearths by the earlier researchers.

Survey Methodology

Preparation

Before and during the fieldwork phase of the survey, the cultural resources staff checked for previously recorded sites at the Texas Archeological Research Laboratory (TARL). All previously recorded sites were plotted on the maps that were subsequently used in the field. In addition to the site locations, all previously recorded site forms and available reports were consulted for additional information.

Field Methods

Intensive pedestrian surveys were conducted between May 1994 and August 1997 in an effort to locate, record, and assess prehistoric and historic sites within the boundaries of Camp Bowie. Pedestrian surveys used teams of three to four people walking transects at 15 to 50-meter intervals. The direction and spacing of transects varied according to the topography. On upland slopes and ridges with sparse vegetation and ground cover, transects were typically spaced at 30 to 50-meter intervals. Transects on terraces and alluvial floodplains, and areas with minimal ground surface visibility were typically spaced at 15 to 30-meter intervals.

The majority of the prehistoric sites were located by the presence of cultural material exposed on the ground surface. Ground surface visibility ranged from 20 to 100 percent. Limestone, conglomerate, and sandstone ridges, slopes, creek banks, thin soils, jeep and tank trails, and overgrazed and eroded surfaces provided 50 percent or more visibility over the majority of the survey area.

Shovel Testing

Shovel testing was used in areas where there was little or no surface visibility. In addition to these criteria, special emphasis was given to soils with the potential for buried archeological remains. Shovel tests were typically 30 to 50 cm in diameter and were excavated in 10 to 15-cm levels, with an average depth being 30 cm. All soil was passed through ¼-inch wire mesh hardware cloth.

Characterizing "Artifact Density"

Artifact density (also called a "scatter" of artifacts) refers to the observed distribution of artifacts over the core area of the site. For purposes of this study, it is an ordinal-scaled variable with three ordered classes (dense, moderate, and sparse), and is based upon visual observations. Because it is impressionistic, we have not attempted to quantify beyond the ordinal scale. As with other ordinal variables, ours is a dimensionless measurement (Wormser 1986).

In our study, artifact density is given as it would appear near the core or centroid of the site. To ensure comparable measurements between different types of archeological sites, obvious features—such as burned rock middens, hearths, and foundations—are excluded from characterizing artifact density.

It is more common in archeology to define "density" as artifacts per square meter. Yet this value varies widely over a site; there are always nodes of high artifact concentration and, unless there is a physical barrier, geomorphological boundary, or another node nearby, artifact counts decrease in a manner consistent with a distance-decay function at the periphery of each node. It is therefore almost meaningless to describe each site's artifact distribution by a single number—no matter how many decimal places are reported.

In addition, although "density" is usually a reciprocal of volume in the other sciences, archeologists commonly apply it as a reciprocal of area. Yet, when an archeologist describes density within an excavation level it returns to the more normative volumetric measurement. On smaller or sparser sites, apparent density can vary greatly by just small changes in artifact counts.

Thus, while using a ratio-scaled measurement might look more precise, it can be less reliable because it is more difficult to operationalize. By using an ordinal measure, we lose precision but avoid a false accuracy, while retaining a useful site attribute that can be acquired rapidly in the field.

For the benefit of readers who prefer quantified definitions, the following will further refine our concept of artifact density, and is based on *a posteriori* (relative to our field survey) numerical estimates:

Core Area - The area surrounding the centroid of artifact density excluding discreet features. It is possible for a site to have more than one focus of artifact density. In these cases, the observer may distinguish an "Area A" as separate from an "Area B," and record observations from each.

Area of a Site - A portion of the site with characteristics similar to the site as a whole. Minimum size is arbitrarily set at 10-meters-by-10-meters, but can include the entire site if the edges of the site are fairly discrete and there appears to be only one focus of artifact distribution.

High Density (Dense) - More than 0.4 artifacts per square meter within the core area of the site.

Moderate Density (Moderate) - Between 0.1 and 0.4 artifacts per square meter, inclusive, within the core area.

Low Density (Sparse) - Less than 0.1 artifacts per square meter within the core area of the site.

Site Descriptions

Introduction

TXARNG Cultural Resources staff conducted an archeological surface inspection accompanied by shovel tests from April 1994 to August 1997 (Figure 4). All the acreage was surveyed on foot except a 50-acre marshy area and a 90-acre cultivated field.

The sites are summarized in Table 2, and each is described in greater detail throughout the rest of this chapter. A total of 186 prehistoric and historic sites, structures, and groups of structures were discovered or revisited (Figure 5 [this figure is not included in the text]). Of these, 18 prehistoric sites and six historic sites, structures, or groups of structures were identified as being potentially eligible for nomination to the National Register of Historic Places (NRHP) or as a State Archeological Landmark (SAL). To ascertain their eligibility, these 24 locations will require further investigation that is beyond the scope of the present study. Of the remaining 162 sites and structures, 158 are not considered eligible. Most are on shallow or eroded soils or have been disturbed by previous digging, clearing, construction, or demolition. The four remaining sites will require additional shovel tests to determine their eligibility status.

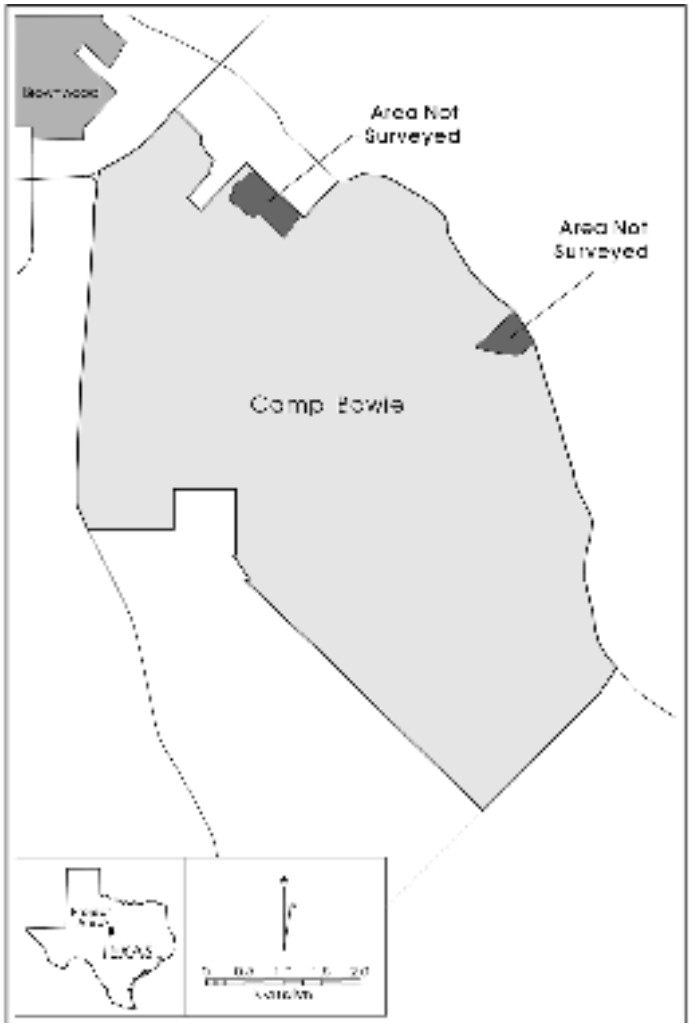

Figure 4. *Areas not surveyed at Camp Bowie.*

Table 2. Site summary

Site Number	Site Type	Components	National Register?	Comments	Soil Subtype
41BR65	Farm building Burned Rock Midden	Historic Prehistoric	Potentially	Historic: Concrete slab Prehistoric: one midden, intact	Pe
41BR66	Open Campsite	Prehistoric	No	Sparse scatter of material, minor site.	Nu/Th
41BR67	Open Campsite	Prehistoric	No	Sparse scatter of material, minor site.	Th/Fr
41BR68	Open Campsite	Prehistoric	No	1975: Hearths were reported 1997: No hearths or artifacts Gravel lenses may have been mistaken for hearths in 1975.	Th/Fr
41BR69	Open Campsite	Prehistoric	No	Sparse scatter of material, minor site.	Do-Re/Bo-Th
41BR70	Open Campsite	Prehistoric	No	Sparse scatter of material, minor site.	Ca-Th/Fr
41BR87	Burned Rock Midden	Prehistoric	Potentially	One intact midden.	Bo-Th/Fr
41BR227	Stone wall	Historic (1856-1941)	No	Clearing has disturbed most of the stone wall.	Ds/Nu
	Isolated finds (?)	Late Archaic (Pedernales, Ensor points)	No	Artifacts may be miscatalogued. Field notes do not mention prehistoric artifacts from 41BR227.	
41BR228 Chesser Midden	Burned Rock Midden with bedrock mortars	Late Archaic (Bulverde, Pedernales points)	Potentially	Unusual location for Camp Bowie burned rock midden sites, diagnostic artifacts, well-preserved midden, additional features (bedrock mortars).	Re/Do-Re
41BR229	Lithic Workshop	Prehistoric	No	Shallow and rocky, minimal artifacts, depressions indicate disturbance by military activity.	Re/Do-Re
41BR230	Storage Bunker	Historic (Military) 1941-1945	No	Stone bunker with wooden roof.	Re
41BR231	Lithic Workshop	Late Prehistoric (Scallorn point)	No	Few artifacts, shallow and rocky soils.	Re
41BR232	Lithic Workshop	Prehistoric	No	Shallow, rocky, no diagnostics.	Re
41BR233	Lithic Workshop	Prehistoric	No	Shallow, rocky, no diagnostics.	Re/Do-Re
41BR234	Lithic Workshop	Prehistoric	No	Shallow, rocky, no diagnostics.	Re
41BR235	Lithic Workshop	Prehistoric	No	Shallow, rocky, no diagnostics.	Re
41BR236	Lithic Workshop	Prehistoric	No	Shallow, rocky, no diagnostics.	Re/Th
41BR237	Lithic Workshop	Prehistoric	No	Sparse scatter of material, minor site.	Re
41BR238	Lithic Workshop	Prehistoric	No	Shallow, rocky, no diagnostics.	Re/Do-Re
41BR239	Lithic Workshop	Early Archaic (Pandora/Gower pt.) Late Archaic (Pedernales pt.) Late Prehistoric (Scallorn pt.)	No	Shallow, rocky, mixed components, no features.	Re
41BR240	Lithic Procurement	Middle Archaic (Nolan point)	No	Shallow, rocky, no features	Re/Do-Re
41BR241	Open Campsite	Early Archaic (Martindale pt.) Middle Archaic (Travis point) Late Archaic (Bulverde, Pedernales points)	No	Shallow, rocky, no features. Site is next to a grotto and small waterfall.	Re/Do-Re
41BR242	Stone Structure and Isolated prehistoric find	Historic (Military? 1930s-1940s?) Isolated Prehistoric find-Pedernales point	No	A rectangular stone and mortar structure; possible firing position.	Re
41BR243	Lithic Workshop	Prehistoric	No	Shallow, rocky, no diagnostics.	Th
41BR244	Lithic Workshop	Prehistoric	No	Shallow, rocky, no diagnostics.	Th/Re
41BR245	Open Campsite	Late Prehistoric (Perdiz-like arrow pt.)	No	Shallow and disturbed by previous military activity, clearing, and grubbing.	Nu

Table 2. continued…

Site Number	Site Type	Components	National Register?	Comments	Soil Subtype
41BR246	Burned Rock Midden	Prehistoric	Potentially	Well-preserved, may have cultural deposits below 30 cm depth.	Th
41BR247	Open Campsite	Prehistoric	No	Concurrence by SHPO, 1997.	Th
41BR248	Open Campsite	Prehistoric	Additional Testing Required	Shallow and sparse artifacts, no diagnostics, very small site area, minor campsite.	Pe/Do-Re
41BR249	Open Campsite	Prehistoric	No	Shallow and sparse artifacts, no diagnostics, minor campsite.	Do-Re
41BR250	Burned Rock Midden	Late Archaic (Pedernales base), Late Prehistoric (untypable arrow pt.)	Potentially	Intact burned rock midden and diagnostic artifacts.	Th
41BR251	Open Campsite	Prehistoric	No	Disturbed, severely eroded.	Th
41BR252	Open Campsite	Prehistoric	No	Disturbed, very sparse artifacts.	Th
41BR253	Burned Rock Midden (2 middens)	Prehistoric	Potentially	2 burned rock middens, may be intact, dense artifact distribution.	Th
41BR254	Open Campsite	Prehistoric	No	Small site, shallow deposits, and sparse artifacts.	Do-Re
41BR255	Open Campsite	Prehistoric	No	Small site, shallow deposits, and sparse artifacts.	Do-Re
41BR256	Open Campsite	Prehistoric	No	Concurrence by SHPO, 1997.	Re/Do-Re
41BR257	Open Campsite	Prehistoric	No	Concurrence by SHPO, 1997.	Re/Do-Re
41BR258	Lithic Workshop	Prehistoric	No	Concurrence by SHPO, 1997.	Re/Do-Re
41BR259	Open Campsite	Prehistoric	No	Concurrence by SHPO, 1997.	Do-Re
41BR260	Concrete Water Trough Open Campsite	Historic (1930s or post-1945) Prehistoric	No	Concurrence by SHPO, 1997.	Bo-Th/Ca-Th/Fr
41BR261	Open Campsite and possible Lithic Procurement Area	Early Archaic (3 Pandale points)	Potentially	Unusual for being Early Archaic. More systematic surface exploration, shovel testing, and test excavations could determine presence of features.	Bo-Th/Ca-Th
41BR262	Open Campsite	Prehistoric	No	Concurrence by SHPO, 1997.	Th/Do-Re
41BR263	Open Campsite	Prehistoric	No	Concurrence by SHPO, 1997.	Bo-Th
41BR264	Open Campsite	Prehistoric	No	Shallow deposits, rocky, eroded.	Re
41BR265	Open Campsite	Prehistoric	No	Shallow deposits, rocky, eroded.	Th/Do-Re
41BR266	Stone Wall	Historic (early 1900s?)	Potentially	Requires further documentation to establish associations with people or events.	Do-Re
41BR267	Lithic Workshop	Prehistoric	No	Shallow, rocky, eroded, no diagnostics.	Do-Re
41BR268	Lithic Workshop	Prehistoric	No	Shallow, rocky, eroded, no diagnostics.	
41BR269	Open Campsite	Late Archaic (Bulverde reworked into a drill, Pedernales dart point), Late Prehistoric (Fresno arrow point)	No	Very shallow, rocky, eroded, deflated with mixed components.	Do-Re
41BR270	Stone Check Dams	Historic (1930s-1940s, CCC or Army)	Potentially	Requires further documentation to establish association with specific events or construction styles.	Pe
41BR271	Alignment of Limestone Boulders along Old Roadway	Historic (1900-1950s?)	No	Large limestone arranged along one side of an old roadbed.	Le
41BR272	House site	Historic (1950-1960)	No	Recent house foundation.	Le
41BR273	Open Campsite	Prehistoric	No	Sparse artifact distribution; small, minor campsite.	Pe
41BR274	Open Campsite	Prehistoric	No	Concurrence by SHPO, 1997.	Re
41BR275	Lithic Procurement	Prehistoric	No	Very shallow, rocky, eroded.	Do-Re

Table 2. continued…

Site Number	Site Type	Components	National Register?	Comments	Soil Subtype
41BR276	Open Campsite	Late Archaic (Bulverde and Pedernales dart points)	Potentially	Evaluate for integrity of the cultural deposits and likelihood to yield undisturbed features and separation between components.	Do-Re
41BR277	Lithic Procurement	Late Archaic (Bulverde point)	No	Shallow, rocky, eroded.	Do-Re
41BR278	Open Campsite	Prehistoric	No	Shallow, rocky, eroded.	Do-Re
41BR279	Lithic Procurement	Late Archaic (Ensor point)	No	Shallow, rocky, eroded.	Do-Re
41BR280	Open Campsite	Late Archaic (Bulverde point)	No	Shallow, rocky, eroded.	Do-Re
41BR281	Open Campsite	Prehistoric	No	Concurrence by SHPO, 1997.	Do-Re/Bo-Th
41BR282	Open Campsite	Prehistoric	No	Shallow, rocky, eroded.	Bo-Th
41BR283	Open Campsite	Prehistoric	No	Concurrence by SHPO, 1997.	Do-Re
41BR284	Open Campsite	Prehistoric	No	Shallow, rocky, eroded.	Re/Do-Re
41BR285	Open Campsite	Prehistoric	No	Shallow, disturbed by tree clearing. Concurrence by SHPO, 1997.	Re/Do-Re
41BR286	Trash Dump Open Campsite	Historic (ca. 1900-1935) Prehistoric	No	Shallow deposits, small trash dump and minor campsite.	Do-Re
41BR287	Open Campsite	Late Archaic (Bulverde point)	No	Concurrence by SHPO, 1997.	Do-Re
41BR288	Open Campsite	Prehistoric	No	Sparse artifacts and shallow soil.	Re/Do-Re
41BR289	Open Campsite	Prehistoric	No	Sparse artifacts and shallow soil.	Do-Re
41BR290	Farmstead	Historic (20th century)	Potentially	Additional archival research needed.	Do-Re
41BR291	Lithic Workshop	Prehistoric	No	Very shallow, rocky, eroded.	Re
41BR292	Lithic Workshop	Prehistoric	No	Very shallow, rocky, eroded.	Re
41BR293	Lithic Workshop	Late Archaic (Ensor point)	No	Very shallow, rocky, eroded.	Re/Fr
41BR294	Trash Dump Open campsite	Historic (1920-1930s) Late Archaic (Frio point)	No	Not associated with any known homestead. Small, isolated dump site.	Re
41BR295	Open Campsite	Prehistoric	No	Sparse lithic scatter and shallow soil.	Re/Do-Re
41BR296	Lithic Procurement	Prehistoric	No	Sparse artifacts and shallow soil.	Do-Re
41BR297	Lithic Procurement	Prehistoric	No	Concurrence by SHPO, 1997.	Do-Re/Ca-Th
41BR298	Open Campsite	Prehistoric	No	Sparse artifacts and shallow, rocky soil.	Do-Re
41BR299	Large Bunker	Historic (1941-1945)	Potentially	Requires further documentation to establish association with specific events.	Le
41BR300	Open Campsite	Prehistoric	No	Sparse artifacts, minor campsite.	Do-Re
41BR301	Lithic Workshop	Prehistoric	No	Sparse artifacts and shallow, rocky soil.	Do-Re
41BR380	Burned Rock Midden	Prehistoric	Could not be found during survey.	This site was reported in 1992 by Lone Star Archeological Services. It could not be relocated during the intensive survey by the National Guard cultural resources staff in 1995.	Th/Fr
41BR381	Lithic Workshop	Prehistoric	No	Originally reported by Lone Star Archeological Services, 1992. Eligibility concurrence by SHPO, 1997.	Do-Re
41BR382	Open Campsite	Prehistoric	No	Originally reported by Lone Star Archeological Services in 1992. Paucity of artifacts, minor campsite.	Do-Re
41BR383	Open Campsite	Prehistoric	No	Originally reported by Lone Star Archeological Services in 1992. Sparse artifacts and shallow, rocky soil.	Re

Table 2. continued…

Site Number	Site Type	Components	National Register?	Comments	Soil Subtype
41BR384	Historic Quarry	Historic (20th century, possibly 19th)	No	Originally reported by Lone Star Archeological Services in 1992. Historic sand-stone quarry.	Fr
41BR385	Lithic Procurement	Prehistoric	No	Originally reported by Lone Star Archeological Services in 1992. Sparse artifacts and shallow, rocky soil.	Do-Re
41BR386	Lithic Procurement	Late Archaic (Pedernales point)	No	Originally reported by Lone Star Archeological Services in 1992. Sparse artifacts and shallow, rocky soil.	Re/Do-Re
41BR387	Trash Dump Open Campsite	Historic: late 19th-early 20th century; Prehistoric	No	Originally reported by Lone Star Archeological Services in 1992. Few artifacts, minor campsite. The historic component has no other associated features or other associated historic sites.	Ca-Th
41BR388	Lithic Procurement	Prehistoric	No	Originally reported by Lone Star Archeological Services in 1992. Sparse artifacts and shallow, rocky soil.	Pe/Ca-Th
41BR389	Lithic Procurement	Prehistoric	No	Originally reported by Lone Star Archeological Services in 1992. Sparse artifacts and shallow, deflated, rocky soil.	Do-Re/Ca-Th
41BR390	Open Campsite	Prehistoric	No	Originally reported by Lone Star Archeological Services in 1992. Sparse artifacts and shallow, deflated, rocky soil. Eligibility concurrence by SHPO, 1997.	Do-Re
41BR391	Lithic Procurement	Prehistoric	No	Originally reported by Lone Star Archeological Services in 1992. Sparse artifacts and shallow, deflated, rocky soil.	Le/Ca/Ca-Th
41BR392	Homestead (stone, ruins)	Historic	No	Only the chimney and a portion of the stone foundation remains.	Nu
41BR393	Open Campsite	Prehistoric	No	Sparse artifacts and shallow, rocky soil.	Pe/Th/Re
41BR394	Open Campsite	Prehistoric	No	Sparse artifacts and shallow, rocky soil	Do-Re
41BR395	Lithic Workshop	Prehistoric	No	Extremely sparse distribution of artifacts, no diagnostics, and shallow, rocky soil.	Re/Do-Re
41BR396	Lithic Workshop	Prehistoric	No	Extremely sparse distribution of artifacts, no diagnostics, and the site is on eroded and shallow soil.	Re/Do-Re
41BR397	Open Campsite	Prehistoric	No	Few artifacts, no features, no diagnostics.	Nu
41BR398	Concrete Pill Box Lithic Workshop	Historic (1941-1945) Prehistoric	No	Common feature at military training sites. The prehistoric component is on the surface, does not appear to have features and no diagnostics were observed. Surface is disturbed.	Ca-Th
41BR399	Lithic Workshop	Prehistoric	No	Site is on eroded and shallow soil.	Pe-Th
41BR400	Trash Scatter Lithic Workshop	Historic Prehistoric	No	Site is on eroded and shallow soil.	Do-Re
41BR401	Lithic Workshop	Prehistoric	No	Site is on eroded and shallow soil.	Do-Re
41BR402	Lithic Procurement	Prehistoric	No	Few artifacts. Site is on eroded and shallow soil. Concurrence by SHPO, 1997.	Ca-Th/Do-Re

Table 2. continued…

Site Number	Site Type	Components	National Register?	Comments	Soil Subtype
41BR403	Lithic Procurement	Prehistoric	No	Few artifacts. Site is on eroded and shallow soil. Concurrence by SHPO, 1997.	Do-Re
41BR407	Lithic Procurement	Early Archaic (Pandale-like point)	No	Eroded, shallow soil. No features.	Do-Re
41BR408	Lithic Procurement	Early Archaic (Early Triangular point)	No	Eroded, shallow soil. No features.	Bo-Th/Do-Re
41BR409	Lithic Procurement	Late Archaic (Bulverde point)	No	Eroded, shallow soil. No features.	Bo-Th
41BR410	Lithic Procurement	Middle Archaic (Nolan point)	No	Eroded, shallow soil. No features.	Re/Do-Re
41BR411	Concrete Pill Box	Historic (1941-1945)	No	Pillboxes are common features at military training sites.	Ca-Th
41BR412	Concrete Pill Box	Historic (1941-1945)	No	Pillboxes are common features at military training sites.	Ca-Th
41BR413	Concrete Pill Box	Historic (1941-1945)	No	Pillboxes are common features at military training sites.	Ca-Th
41BR414	Open Campsite (Possible Base Camp)	Prehistoric	No	This is a very large site with higher artifact density than usually seen at other open campsites at Camp Bowie. Artifacts indicate a wide array of site activities. However, the soils are rocky and Holocene deposits are shallow (10 to 15 cm).	Do-Re
41BR415	Burned Rock Midden	Middle Archaic (Nolan point); Late Archaic (2 Pedernales points)	Potentially	Intact burned rock midden and deposits 30 to 45 cm deep. Possibility of additional intact features.	Th
41BR416	Trash Scatter	Historic (1930s or later)	No	Small trash dump (6 by 7 meters).	Do-Re
41BR417	Trash Scatter	Historic (1920s-1950s or later)	No	Most of material is from the 1950s or later.	Do-Re
41BR418	Homestead, Cistern	Historic (ca. 1890s-1941)	No	Very little left of the historic structures.	Do-Re
41BR419	Open Campsite	Prehistoric	No	Very few artifacts, and no apparent features. Site is on bedrock with pockets of soil less than 2 to 5 cm deep.	Do-Re
41BR420	Burned Rock Midden	Prehistoric	Potentially	Two burned rock middens. May be additional hearth or dump features. Soils may be shallow, but the potential for intact non-midden features should be explored as part of the eligibility determination.	Th
41BR421	Open Campsite	Prehistoric	No	Few artifacts, and very small site. A minor campsite with no diagnostics.	Do-Re
41BR422	Trash Dump	Historic (1930s or later)	No	Concurrence by SHPO, 1997.	Do-Re
41BR423	Farmstead	Historic (1930s or later)	No	Trash scatter surrounding concrete stock tank, and foundation. Artifacts appear to be household items.	Pe
41BR424	House Site	Historic (early 20th century)	No	Foundation, metal water tank, concrete stock tank, a trash dump, standpipe, and windmill vane.	Me/Do-Re
41BR425	Lithic Workshop	Prehistoric	No	Possible chipping station. Consists of one core and 7 flakes. Soils shallow.	Do-Re
41BR426	Lithic Workshop	Prehistoric	No	Shallow soils, no diagnostics or features.	Ca-Th

Table 2. continued…

Site Number	Site Type	Components	National Register?	Comments	Soil Subtype
41BR427	Lithic Workshop	Early part of the Late Prehistoric (Scallorn arrow point)	No	Shallow soils (20 cm) over conglomerate bedrock.	Ca
41BR428	Open Campsite	Prehistoric	No	Concurrence by SHPO, 1997.	Fr
41BR429	Lithic Workshop	Prehistoric	No	Shallow soils, no diagnostics or features. Concurrence by SHPO, 1997.	Nu/Ca-Th
41BR430	Open Campsite	Middle to Late Archaic (Travis points and Pedernales points)	No	Severely deflated and eroded. Shallow soils, bedrock exposure across site. No apparent features.	Re
41BR431	Open Campsite	Prehistoric	No	Shallow soils, no diagnostics or features.	Do-Re
41BR432	Open Campsite	Late Archaic (Lange, 2 Pedernales, Bulverde, Marcos, and Castroville points)	No	Shallow soils, no features.	Re/Do-Re
41BR433	Burned Rock Midden	Late Archaic (Castroville dart point)	Potentially	Shallow soils (20 to 25 cm), but there is the possibility of other related features.	Re/Do-Re
41BR434	Open Campsite	Prehistoric	No	Concurrence by SHPO, 1997.	Do-Re
41BR435	Open campsite	Prehistoric	No	Very small size; no diagnostics or features.	Do-Re
41BR436	Open Campsite	Late Archaic (Darl point) Late Prehistoric (arrow point tip)	No	Disturbed by pipeline construction. Concurrence by SHPO, 1997.	Do-Re
41BR437	Trash Scatter Open Campsite	Historic Prehistoric	No	Disturbed by pipeline construction. Concurrence by SHPO, 1997.	Pe/Fr/Do-Re
41BR438	House Site	Historic (early 20th century)	Potentially	Stone wall, cistern, possible house foundation.	Do-Re
41BR439	Open Campsite	Prehistoric	No	Shallow soils. Concurrence by SHPO, 1997.	Do-Re
41BR440	Open Campsite	Early Archaic (Clear Fork Gouge)	No	Shallow soils. Concurrence by SHPO, 1997.	Do-Re
41BR441	Burned Rock Midden	Late Prehistoric (Scallorn point)	Potentially	Burned rock midden disturbed, but other portions of the site may be intact.	Pe/Do-Re
41BR442	Open Campsite	Prehistoric	No	Shallow, rocky soil.	Do-Re
41BR443	Open Campsite	Prehistoric	No	Shallow, rocky soil.	Re
41BR444	Open Campsite	Prehistoric	No	Shallow, rocky soil.	Re
41BR445	Open Campsite	Middle Archaic (Travis point); Late Archaic (Pedernales point)	No	Shallow, rocky soil.	Do-Re
41BR446	Lithic Procurement or Workshop	Early Archaic (Gower point); Middle Archaic (Nolan point, Nueces Tool); Late Archaic (Ensor, Pedernales points, Nueces tool)	No	Very shallow soils (4 to 12 cm) over bedrock. Components mixed.	Re/Do-Re
41BR447	Open Campsite	Prehistoric	No	Severely disturbed.	Do-Re
41BR448	Open Campsite	Late Paleoindian (point tip)	No	Few artifacts; shallow, rocky soils.	Re
41BR449	Open Campsite	Late Archaic (Pedernales point)	No	Few artifacts; shallow, rocky soils. Concurrence by SHPO, 1997.	Re
41BR450	Open Campsite	Prehistoric	No	Few artifacts; shallow, rocky soils. Concurrence by SHPO, 1997.	Re
41BR451	Open Campsite	Prehistoric	No	Few artifacts; shallow, rocky soils.	Do-Re

Table 2. continued…

Site Number	Site Type	Components	National Register?	Comments	Soil Subtype
41BR452	Lithic Workshop	Prehistoric	No	Shallow, rocky soils. Concurrence by SHPO, 1997.	Th/Re/Do-Re
41BR453	Open Campsite	Prehistoric	No	Few artifacts; shallow, rocky soils.	Do-Re
41BR454	Open Campsite	Late Archaic (Pedernales point)	No	Ancient soils at 20 to 35 cm below the surface. Shallow Holocene deposits.	Do-Re
41RR455	Open Campsite	Prehistoric	No	Few artifacts; shallow, rocky soils. Concurrence by SHPO, 1997.	Fr
41BR456	Water Well (possible house site)	Historic (mid-20th century)	No	Well is isolated. No evidence of house or other structures, and no historic debris.	Fr
41BR457	Open Campsite	Prehistoric	No	Severely disturbed.	Pe/Ab
41BR458	Open Campsite	Prehistoric	No	Few artifacts; shallow, rocky soils.	Th/Do-Re
41BR459	Trash Scatter	Historic	No	Common, very small (5 by 5 meters). Concurrence by SHPO, 1997.	Do-Re
41BR460	Lithic Workshop	Prehistoric	No	Shallow, rocky soils.	Re/Do-Re
41BR461	Trash Dump	Historic (mid-20th century) Isolated Find (Pedernales point)	No	Material from the 1950s or later, including shoe leather.	Bo-Th
41BR462	Trash Scatter Open Campsite	Historic (mid-20th century); Prehistoric (possibly Late Archaic, Pedernales-like point)	No	Historic component is from mid-20th century or later. Dart point base is too fragmentary to be identifiable. Possibly a Pedernales. Shallow, rocky soils.	Bo-Th/Do-Re
41BR463	Open Campsite	Prehistoric	No	Few artifacts; shallow, rocky soils.	Re
41BR464	Open Campsite	Prehistoric	No	Few artifacts; shallow, rocky soils.	Th
41BR465	Open Campsite	Prehistoric	No	Few artifacts; shallow, rocky soils.	Th
41BR466	Open Campsite	Late Archaic (Bulverde point)	No	Few artifacts; shallow, rocky soils.	Re
41BR467	Open Campsite	Prehistoric	Additional Testing Required	Few artifacts; shallow, rocky soils.	Do-Re
41BR468	Open Campsite	Prehistoric	No	Few artifacts; shallow, rocky soils.	Th/Do-Re
41BR469	Lithic Procurement	Late Paleoindian to Early Archaic (Dalton or Angostura-like point base)	Additional Testing Required	Large site, shallow, rocky.	Th/Re/Do-Re
41BR470	Open Campsite	Prehistoric	No	Extends over two upland ridge toes; shallow, rocky.	Re/Do-Re
41BR471	Open Campsite	Prehistoric	Additional Testing Required	Few artifacts; shallow, rocky soils.	Pe
41BR472	Open Campsite	Prehistoric	No	Shallow Holocene soils. Our previous recommendation (1997) suggested avoidance, but re-evaluation revealed $CaCO_3$ occurs at 18 cm below surface, which indicates an ancient soil zone.	Pe
41BR473	Burned Rock Midden	Prehistoric	Potentially	Testing recommended. Intact midden.	Pe/Re
41BR474	Burned Rock Midden (4 middens)	Prehistoric	Potentially	Large site, four (4) burned rock middens, deep soils (1.5 to 2 meters). May be mostly undisturbed. Excellent potential for intact non-midden features.	Pe/Fr
41BR475	Open Campsite	Late Archaic (Pedernales point)	No	Shallow, rocky soils. Concurrence by SHPO, 1997.	Pe/Fr
41BR476	Open Campsite	Prehistoric	No	Site appears to be limited to the surface.	Ab
41BR477	Stone Check Dams	Historic (1930s-1940s, CCC or Army)	Potentially	Requires further documentation to establish association with specific events or construction styles.	Le/Pe

Table 2. continued…

Site Number	Site Type	Components	National Register?	Comments	Soil Subtype
41BR478	Burned Rock Midden (possibly dome-shaped)	Early Archaic (Andice, Wells points), the midden may be a later component.	Potentially	Dome-shaped rather than crescent- or ring-shaped, and presence of an Early Archaic component.	Fr/Ab/Bo-Th
41BR479	Lithic Procurement	Prehistoric	No	Shallow, directly on bedrock.	Re
41BR480	Burned Rock Midden	Prehistoric	Potentially	One intact burned rock midden that is partially buried. A second possible disturbed midden. Potential for other buried features.	Re/Fr/Bo-Th
41BR491	Mock Nazi Village	Historic (1941-1945)	No	"Nazi Village" site. Used for troop training 1940s and later. Very little left of the mock village.	Bo-Th
41BR492	Burned Rock Midden (possibly dome-shaped)	Prehistoric	Potentially	Intact burned rock midden with a flat top (i.e., no central depression). Potential for buried features.	Ab/Bo-Th
41BR493	Burned Rock Midden (possibly dome-shaped)	Prehistoric	Potentially	Intact burned rock midden with a flat top (i.e., no central depression). Potential for buried features.	Bo-Th
41BR494	Water Well, hand dug	Historic (1855-1941)	No	Isolated water well.	Ab
41BR495	Homestead and Well	Historic (mid-20th century)	No	Stone and concrete porch and water well.	Sa
41BR496	Cistern	Historic	No	Isolated cistern. No other evidence of a site.	Pe

41BR65

This is a multicomponent site consisting of a prehistoric lithic scatter and burned rock midden from an unspecified prehistoric time period (Figure 6). There is also a historic concrete slab and stone structure on the southwest side of the midden. The site covers a 50 x 50-m area at an elevation of 1,350 ft. amsl and is on a terrace of Devil's River, 200 m to the south. A silty and rocky clay loam supports oak, mesquite, and tall grasses.

The site was initially recorded by Texas A&M Anthropology Laboratory in February 1975 for a dam site project and was revisited by the AGTX-EV staff during the summer of 1995. Ground surface visibility in 1995 was 25 percent.

The main prehistoric feature is a ring shaped burned rock midden measuring 14 m in diameter. The midden has a small, slight central depression about 3 x 5 m across. The west side has a gradual slope to the outside, while on the east the outer edge is steeper. The midden is approximately 1 m high on the east side and 50–60 cm high on the west side. The soil is dark and ashy with mussel shells present. There was lithic debris and a burned rock scatter on top of dark sandy midden soil surrounding the midden.

The historic component of the site consists of a stone water/feed trough that measures 4 x 3.25 ft., with 1-in. thick walls, and is 20 in. high. There is also a concrete slab with posthole molds and a concrete-lined cattle dipping trough nearby.

This site is recommended for avoidance during the training exercises. It will require further evaluation in order to determine its eligibility for the National Register of Historic Places.

The Center for Archaeological Research (CAR) has recently completed additional work at this site, including the excavation of 49 shovel tests. While a report detailing that work is in production, the boundary on the accompanying map (Figure 6) reflects that additional work.

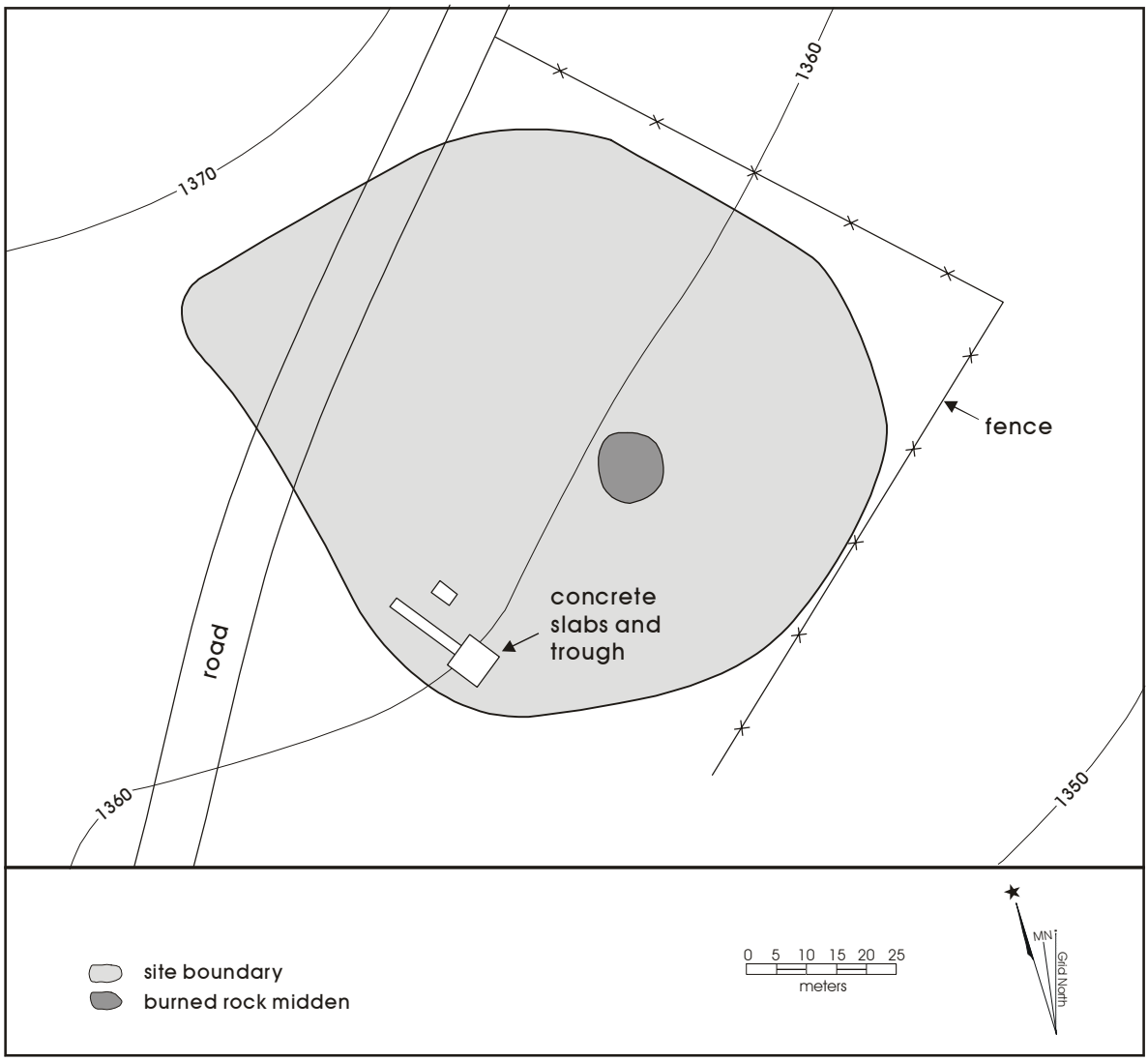

Figure 6. *Site map of 41BR65.*

41BR66

41BR66 is a prehistoric open campsite from an unspecified time period. It was recorded by Texas A&M Anthropology Laboratory for the Brownwood Laterals Watershed Project in February 1975.

This is a sparse lithic scatter on a gravelly, eroded surface and is not likely to yield significant scientific or historical information. It is therefore not eligible for the National Register of Historic Places or as a State Archeological Landmark.

41BR67

41BR67 is a prehistoric open campsite from an unspecified time period. It measures 20 m in diameter and is located on the west terrace of a low, flat hilltop. A road runs along the base of the hill. This site was recorded by Texas A&M Anthropology Laboratory for the Brownwood Laterals Watershed Project in February 1975.

The lithic scatter is sparse and not likely to yield significant scientific or historical information. It is therefore not eligible for the National Register of Historic Places or as a State Archeological Landmark.

41BR68

41BR68 is a possible prehistoric open campsite that occupies a 70 x 50-m area on a sandy terrace top above a creek. First documented by Texas A&M Anthropology Laboratory for the Brownwood Laterals Watershed Project in February 1975, it was described as a sparse scatter of burned rock and a few flakes, with hearths weathering out of a cutbank 50 cm below the surface.

However, during our 1997 revisit, no artifacts were found, and although there were a number of gravel lenses that may have been confused with hearths by the earlier investigators, an examination of the eroded gullies near the site by AGTX cultural resources staff failed to reveal any cultural features or fire-cracked rock.

This site is not eligible for the National Register of Historic Places or as a State Archeological Landmark. Although the earlier description from 1975 indicated hearths and sparse artifacts, nothing was found during the 1997 revisit. If there is/was a site at this location it has either been disturbed or eroded away over the past 22 years, or it represents a minor, ephemeral campsite and the hearths were misidentified gravel lenses.

41BR69

41BR69 is a 50 x 75-m prehistoric open campsite at the confluence of two drainages. The site was initially recorded by Texas A&M Anthropology Laboratory for the Brownwood Laterals Watershed Project in February 1975. At that time the A&M team observed burned rock and a sparse flake scatter. The site was relocated by AGTX-EV staff in August 1996. Raw lithic materials and flakes were observed on the site, and one shovel test, yielding no artifacts, was excavated (Table 3).

Table 3. Shovel testing at 41BR69

Unit	Depth	Observations
ST-1	Level 1 0-15 cm	5YR 3/3 (dark reddish brown), gritty clay loam.
	Level 2 15-20 cm	5YR 3/3 (dark reddish brown), gritty clay loam.

This appears to be a minor campsite on rocky, shallow soils. No features were in evidence and material appears to be sparsely distributed. Therefore, this site is not considered eligible for the National Register.

41BR70

Site 41BR70 is a prehistoric open campsite consisting of a lithic scatter near the banks of a small tributary. The soil is a shallow sandy brown loam that covers a layer of gravel, overlying a layer of clay. The site was initially recorded by Texas A&M Anthropology Laboratory for the Brownwood Laterals Watershed Project in February 1975, and they observed cultural materials in the form of a sparse lithic scatter.

This is a sparse lithic scatter and is not likely to yield significant scientific or historical information. It is therefore not eligible for the National Register of Historic Places or as a State Archeological Landmark.

41BR87

41BR87 is a burned rock midden from an unspecified prehistoric time period (Figure 7). The site consists of a burned rock midden that is on a gentle rolling slope trending to the north and west. It is circular in shape with a central depression and measures approximately 15 m in diameter. The midden's relief above the surrounding landscape varies from 30 to 80 cm, with the rock accumulation being thicker on the north side.

The site is on the northeast side of a northwest-southeast trending fence that crosses the Devil's River approximately 200 m to the southeast. Vegetation includes oak, elm, mesquite, prickly pear, tasajillo, and agarita.

The site was originally recorded in 1976 by Texas A&M, and AGTX cultural resources staff relocated and shovel tested the site in 1996. One 30 x 30-cm shovel test was excavated and yielded cultural material to a depth of 30 cm below the surface (Table 4).

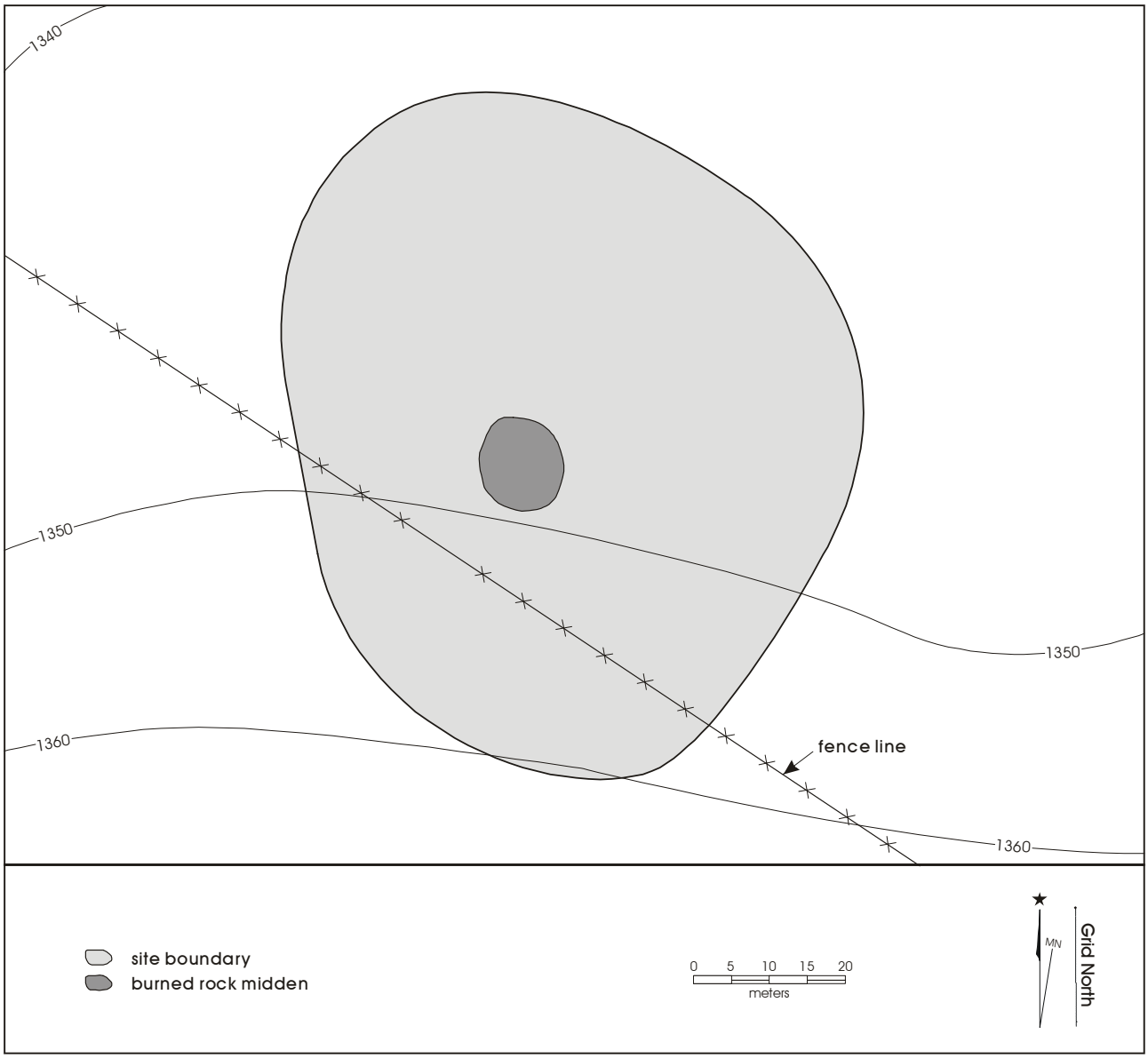

Figure 7. *Site map of 41BR87.*

This site is recommended for avoidance during the training exercises, and it will require further evaluation in order to determine its eligibility for the National Register of Historic Places.

CAR has recently completed additional work at this site, including the excavation of 42 shovel tests. While a report detailing that work is in production, the boundary on the accompanying map (Figure 7) reflects that additional work.

41BR227

41BR227 is a stone wall dating to between 1856 and 1941. It was constructed on a level terrace in a marshy area within the existing tank training area, with an unnamed intermittent tributary to Devil's River about 150 m to the north.

The wall runs in a northeast-southwest direction, is 370 m long and 1 to 2 m wide, and extends across the

Table 4. Shovel testing at 41BR87

Unit	Depth	Observations
ST-1	Surface	Bunch grass and leaf litter. The soil is 10YR 3/3 dark brown, dense and dry gritty loam
	Level 1 0-15 cm	10YR 3/3 dark brown, dense and dry gritty loam. **4 debitage**
	Level 2 15-30 cm	Same as level 1 but slightly more sandy. **1 biface fragment**
	At 30 cm	Reddish clay subsoil, hard.

Note: Items from shovel tests were collected.

terrace with an elevation ranging between 1,290 and 1,300 ft. amsl. Most of the wall has been badly disturbed by clearing and grubbing to create a target area for tank artillery training. Artificial berms, which are used to hold targets, have been constructed with bulldozers, further destroying the wall so that it now appears as a loose, linear pile of sandstone rubble.

It is constructed of dry-laid sandstone blocks probably procured from the nearby bluffs to the west and the southwest. The stones do not appear to be cut, just roughly broken or used as they were found. The individual stones range in size from approximately 15 to 30 cm in diameter, and the more intact segments of wall have stones stacked to a height of about 60 cm.

The wall separates the original boundary between the tracts granted to patentees Henry Tolley (1847) and Bernard Bee (1841). Euroamericans did not settle in Brown County before about 1856, but the property line remained the same until 1941, when the parcels were combined into Camp Bowie. The wall's age and owners are unknown, but it could date any time between 1856 and 1941.

No prehistoric components were observed in the field, despite 80 percent ground surface visibility and several repeated visits to the stone wall during various surveys from 1994 to 1997. Yet two prehistoric artifacts (Figures A-1 and 2) found in the lab may have come from the site. Their disposition is questionable; they could be either 1) isolated finds from near the wall, or 2) miscataloged. They are a Late Archaic Pedernales point (Collins 1995; Johnson and Goode 1994) and a Late Archaic Ensor point (Turner and Hester 1993).

Although its alignment is visible, the wall is mostly destroyed. Because of its poor integrity, it is not eligible for the National Register of Historic Places or as a State Archeological Landmark.

4lBR228, Chesser Midden Site

41BR228 is a burned rock midden and open campsite with bedrock mortar holes and a dense lithic scatter. The site occupies a saddleback ridge with exposed bedrock (sandstone and limestone), paralleling both sides of the ridge. Artificial disturbances include an east-west trending transmission line located 80 m north of the site, and an east-west jeep trail dissects the northern portion of the site (Figure 8). Vegetation consists of short grasses, prickly pear, yucca, mesquite, juniper, and oak, and the nearest source of water could have been an intermittent tributary of the Devil's River, 350 m to the south.

The burned rock ring midden consists of sandstone and limestone, is 15 m in diameter, is piled to a height of approximately 1 m, and has a central depression. Eleven bedrock mortar holes occurring in two clusters are located in the limestone bedrock paralleling the north and south side of the western edge of the ridge (Figure 8).

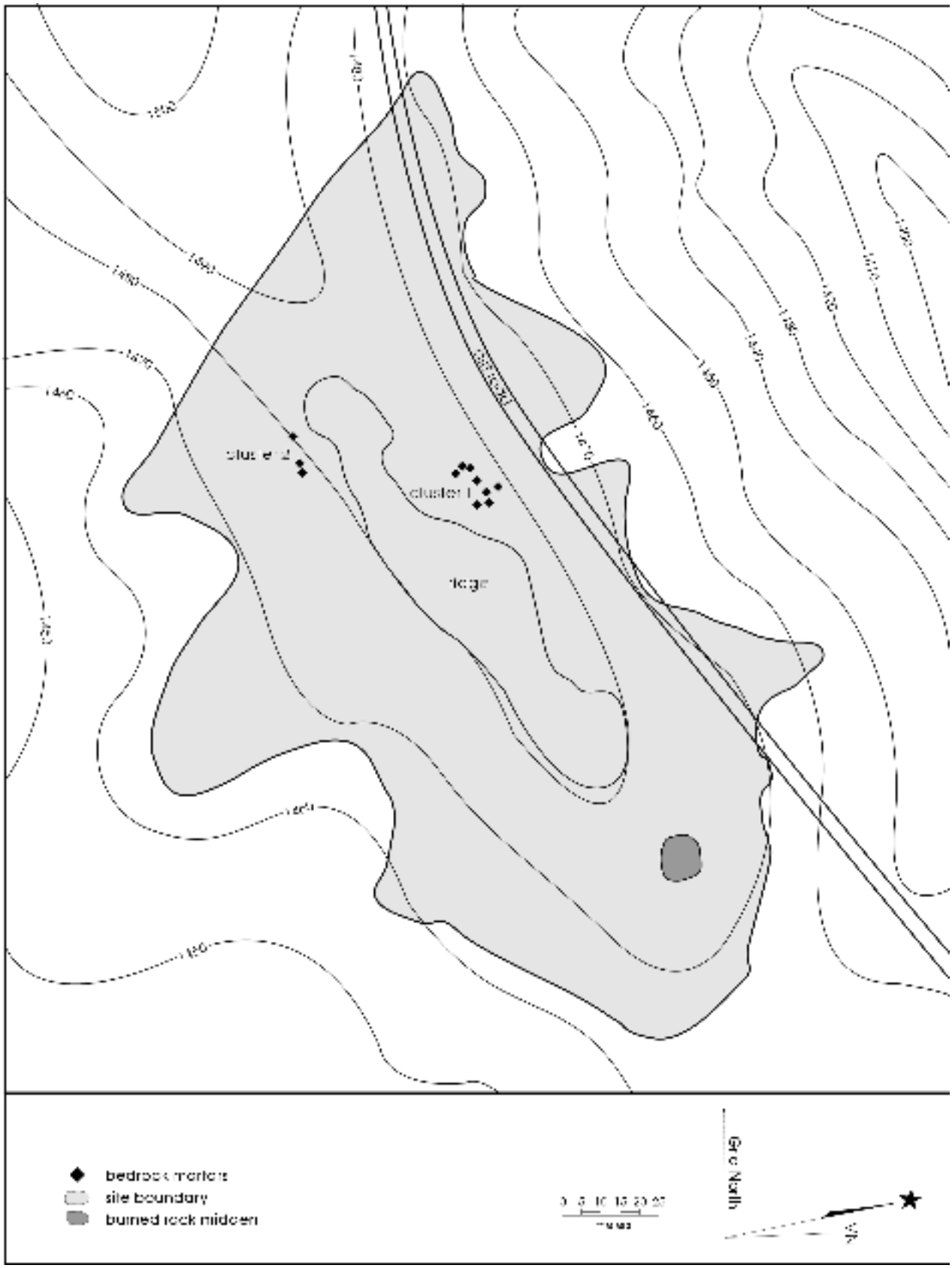

Figure 8. *Site map of 41BR228 - Chesser Midden.*

Table 5. Artifacts at 41BR228

Artifacts	General Surface	Mortar 1 Cluster 1	Mortar 5 Cluster 1	South Side of Ridge	East End of Ridge	Total
Bulverde point	*1	-	-	-	-	1
Pedernales point base	-	*1	-	-	-	1
Biface	*2	-	-	1	-	3
Biface (knife?)	*1	-	-	-	-	1
Biface fragments	2	*2	-	18	-	22
Drill	*2	-	-	-	-	2
Hammerstones	-	-	-	2	-	2
Modified flakes	-	-	-	3	-	3
Primary flakes	-	-	-	3	-	3
Secondary flakes	-	-	-	28	11	39
Tertiary flakes	-	-	-	24	1	25
Flake (unspecified type)	-	-	*6	-	-	6
Shatter	-	-	-	10	-	10
Tested cobbles	-	-	-	9	4	13
Cores	-	-	-	21	2	23
Core fragments	-	-	-	9	-	9
Fire-cracked rocks	-	-	-	15	5	20
Mussel shell fragments	present	-	*present	-	-	
Total	**8**	**3**	**6**	**143**	**23**	**183**

(*) denotes items collected.

Cluster 1 is on the north side of the ridge and has eight mortar holes. Mortar holes 1, 2, and 3 are in the western portion of the cluster and are circular in shape, approximately 8 to 10 cm in diameter, and 6 to 10 cm deep. Mortar holes 7 and 8 are north of the first three, are also circular, and are approximately 8-10 cm in diameter. Mortar holes 4, 5, and 6 are on the eastern portion of the limestone bedrock outcrop, are about 20 to 23 cm in diameter, and are approximately 20 cm in depth. They are not aligned in any particular direction but appear to be in proximity to one another. Mortar hole 6 is filled with sandy soil and is plugged with a sandstone fragment that may be a pestle or mano.

Cluster 2 is on the south side of the ridge at the western end, and consists of three mortar holes aligned in an east-west direction. The depths of the holes were not measured, but they appeared to be shallower than those in Cluster 1.

Cultural materials observed and/or collected are listed in Table 5, and include a Late Archaic Bulverde point, and a Late Archaic Pedernales point (Collins 1995; Johnson and Goode 1994; Figures A-3 and 4, this report). This site is recommended for avoidance during training exercises. It will require further evaluation in order to determine its eligibility for the National Register of Historic Places.

CAR has recently completed additional work at this site, including the excavation of 94 shovel tests. While a report detailing that work is in production, the boundary on the accompanying map (Figure 8) reflects that additional work.

41BR229

41BR229 is a prehistoric lithic workshop site occupied during an unspecified prehistoric time period. It is set on a flat ridge toe with limestone and conglomerate bedrock outcrops. It covers a 125 x 150-m area at an elevation of 1,450 ft. amsl and contains abundant chert nodules, apparently eroded out of the conglomerate outcrop. Vegetation at the site consists of prickly pear, yucca, and scattered mesquite, juniper, and oak trees.

No artifacts were collected, but cultural materials observed included tested cobbles, a small amount of burned rock, and a dense scatter of lithic debris, particularly on the southern portion of the ridge toe.

Two depressions were also noted in the southern portion of the ridge toe. The first depression is 3.65 m north-to-south, 3.14 m east-to-west, and no more than 30 to 40 cm deep. The central part of the depression contains a small cluster of conglomerate cobbles, and a backdirt pile is adjacent to the east edge of the depression. The second depression is similar to the first and is more circular in plan view with a diameter of 3 x 3-m. Several spent pistol cartridges were found in and around these depressions, and unlike prehistoric quarry pits, they do not appear to be filled with limestone and chert rubble. Thus, they do not appear to be quarry pits, but rather are more consistent with fortified positions (foxholes) used in military training exercises.

This site is shallow, rocky, and disturbed, with few artifacts. It is not likely to yield significant scientific or historical information and is not eligible for the National Register of Historic Places or as a State Archeological Landmark.

41BR230

41BR230 is a World War II-era bunker, possibly used for storage, constructed of dry-laid limestone. The bunker is on the south-facing slope on the saddle of an upland ridge. An unnamed intermittent tributary to Devil's River is approximately 600 m east. The vegetation consists of scattered oak, juniper, mesquite, agave, yucca, prickly pear, and short mixed grasses, providing approximately 85 percent surface visibility.

The stones used in constructing the bunker are 10 to 16 in. in size and were stacked to a height of approximately 6 ft. Wooden 2 x 4-in. planks that may have formed the roof of the bunker are also present.

This site is not likely to yield significant scientific or historical information and is not eligible for the National Register of Historic Places or as a State Archeological Landmark.

41BR231

41BR231 is a small (50 m diameter) prehistoric lithic workshop setting on the east end of the second highest of five benches. The benches are formed by limestone and conglomerate outcrops on a ridge. Approximately 500 m north is an intermittently flowing tributary of Pecan Bayou. Vegetation consists of short mixed grasses, prickly pear and yucca cacti, and mesquite, juniper, and oak trees.

A Late Prehistoric Scallorn point (Turner and Hester 1993) was collected from the surface (Figure A-5). Other cultural material observed included a thin scatter of tested cobbles and hard-hammer flakes. Although there were less than 10 flakes observed, they all appeared to have come off the same core.

This is a sparse lithic workshop, is shallow on rocky soils, and is not likely to yield significant scientific or historical information. It is therefore not eligible for the National Register of Historic Places or as a State Archeological Landmark.

41BR232

41BR232 is a prehistoric lithic workshop with no known temporal affiliation. It is set on a knoll with limestone and sandstone bedrock outcrops, especially at the base of the knoll. The vegetation includes mixed grasses, prickly pear and yucca cacti, and scattered mesquite, juniper, and oak trees. The cultural materials observed included 15 or more primary and secondary flakes, tested cobbles, and cores.

This is a sparse lithic workshop, is shallow on rocky soils, has no observable diagnostics, and is not likely to yield significant scientific or historical information. It is therefore not eligible for the National Register of Historic Places or as a State Archeological Landmark.

41BR233

41BR233 is a prehistoric lithic workshop with no known temporal affiliation. It occupies an area about 350 x 50-m and is located on a bench and finger slopes

of a north-south extending ridge ranging in elevation between 1,430 and 1,450 ft. amsl. Two seasonal drainages parallel both sides of the landform and join at the base of the slope. There is an expansive sandstone bedrock outcrop located west of the site. The modern vegetation consists of oak, juniper, and mesquite trees, yucca and prickly pear cacti, and mixed grasses. This area was surveyed in late October, and although there was leaf litter on the ground, surface visibility was still between 40 and 80 percent.

No artifacts were collected but cultural materials concentrated on a bench below the sandstone outcrop included a small concentration of chert flakes, tested cobbles, one modified flake, and one biface fragment. In addition, a moderate scatter of tested chert cobbles was observed on a bench and slope located between two drainages.

This is a sparse lithic workshop, is shallow on rocky soils, has no observable diagnostics, and is not likely to yield significant scientific or historical information. It is therefore not eligible for the National Register of Historic Places or as a State Archeological Landmark.

41BR234

41BR234 is a prehistoric lithic workshop with no known temporal affiliation. This site is located on a finger slope of an east-west ridge toe whose surface is covered with eroded conglomerate containing abundant chert nodules. It occupies a 50 x 250-m area of the slope at an elevation range of 1,400 to 1,450 ft. amsl. Sparse vegetation consisting of mixed grasses, yucca and prickly pear cacti, and oak, mesquite, and juniper trees provide approximately 80 percent surface visibility. A seasonal drainage parallels both sides of the slope and the trees are primarily in the drainages. Artifacts observed on the surface included chert flakes and tested cobbles scattered sporadically across the site.

This is a sparse lithic workshop, is shallow on rocky soils, has no observable diagnostics, and is not likely to yield significant scientific or historical information. It appears that the artifacts have been displaced downslope from erosion. It is therefore not eligible for the National Register of Historic Places or as a State Archeological Landmark.

41BR235

41BR235 is a prehistoric lithic workshop that occupies a ridge toe and slope next to an intermittent stream to the north. The site covers a 50 x 250-m area at an elevation range of 1,410 to 1,450 ft. amsl. The edge of the ridge and the slope is covered with eroding conglomerate and some sandstone, and the adjoining intermittent stream channel is lined with sandstone and limestone outcroppings. The vegetation consists of mixed grasses, prickly pear, juniper, mesquite, and oak trees, providing approximately 60 percent surface visibility. A light lithic scatter consisting of chert flakes and tested cobbles was observed on the surface, but nothing was collected.

This is a sparse lithic workshop, is shallow on rocky soils, has no observable diagnostics, and is not likely to yield significant scientific or historical information. It is therefore not eligible for the National Register of Historic Places or as a State Archeological Landmark.

41BR236

41BR236 is a sparse, 100 x 100-m, prehistoric lithic workshop area on the south side of a ridge of eroded conglomerate and sandstone at an elevation range between 1,400 and 1,430 ft. amsl. The rather steep, 3 to 5 percent slope has been dissected by erosional processes, thus providing approximately 80 percent surface visibility. The eastern boundary of the site is formed by a large, deep, dry erosional drainage. Artifacts observed, but not collected, were a moderate amount of primary and secondary chert flakes and a core fragment.

This is a sparse lithic workshop, is shallow on rocky soils, has no observable diagnostics, and is not likely to yield significant scientific or historical information. It is therefore not eligible for the National Register of Historic Places or as a State Archeological Landmark.

41BR237

Site 41BR237 is a prehistoric lithic workshop that occupies an area approximately 180 x 180-m on the south-facing slopes of a ridge, dissected by erosional washes and a drainage to Devil's River. The conglomerate and sandstone-covered slope is rather steep (10 to 30 percent), ranging in elevation from 1,380 to 1,400 ft. amsl. An east-west trending transmission line is located immediately south of the site. The sparse vegetation, consisting of mesquite, prickly pear, agarita, and mixed grasses, provides approximately 80 percent surface visibility.

Artifacts observed but not collected included a moderate to dense scatter of chert lithic debris consisting of tested cobbles, primary and secondary flakes, cores, and core fragments.

This is a sparse lithic workshop, yielded no diagnostic artifacts, and is not likely to yield significant scientific or historical information. It is therefore not eligible for the National Register of Historic Places or as a State Archeological Landmark.

41BR238

41BR238 is a prehistoric lithic workshop of an unspecified prehistoric time period, covering an area approximately 150 x 40-m. It is on the side of a rocky, benched ridge near the confluence of two drainages that empty into the Devil's River. Raw materials in the form of chert cobbles are present within the silty clay loam in the cutbank of the drainage, and the rocky slopes have numerous unmodified chert and quartzite gravels eroding from them. The steep, 3 to 5 percent slope and elevation range between 1,450 and 1,470 ft. amsl has caused considerable erosion to take place. The erosional processes, along with sparse vegetation consisting of various grasses, mesquite, juniper, red oak, prickly pear, agarita, and tasajillo allowed for approximately 70 to 80 percent surface visibility.

Although no diagnostics were observed, one chert biface was collected. Other artifacts observed on the surface but not collected included over 20 flakes, pieces of shatter, cores, and biface fragments.

This is a sparse lithic workshop, is shallow on rocky soils, has no observable diagnostics, and is not likely to yield significant scientific or historical information. It is therefore not eligible for the National Register of Historic Places or as a State Archeological Landmark.

41BR239

Site 41BR239 is a prehistoric lithic workshop site with point types diagnostic of the Early and Late Archaic and Late Prehistoric periods. It is located on top of, and down the side of, a rocky ridge, continuing downslope to an intermittent drainage. The slope has sandstone and limestone bedrock outcrops while the drainage below is intermittently fed by seeps from the higher slopes. In addition to erosion, the site's integrity has been affected by the construction of transformer lines on the southeast side of the site. The site measures 50 x 300-m and is at an elevation range of 1,450 to 1,470 ft. amsl. The ground surface visibility was 80 percent. The vegetation on and around the site is composed of oak, juniper, agarita, yucca, prickly pear, tasajillo, beargrass, and various other grasses.

Cultural materials observed, but not collected, included 2 quartzite hammerstones, over 30 chert flakes (some modified), 8 broken chert biface fragments and 4 non-diagnostic point fragments. In addition, three points were collected: a Pandora/Gower-like dart point (Early Archaic), a Pedernales dart point (Late Archaic), and a Scallorn arrow point (Late Prehistoric [Figures A-6 through 8]).

Even though there were several diagnostic artifacts, the site is on shallow soils and the various cultural components are mixed. Thus, the site is not likely to yield significant scientific or historical information and is not eligible for the National Register of Historic Places or as a State Archeological Landmark.

41BR240

41BR240 is a large (300 x 600-m) lithic procurement site with a Middle Archaic component. It consists of a dense concentration of lithic debris on an upland ridge at an elevation of 1,480 ft. amsl. It is in a dissected

upland terrace with sandstone bedrock outcrops visible across the site, while cemented conglomerate is eroding from the slope cutbanks of an intermittent tributary to the Devil's River which lies to the west.

Modern vegetation consists of stands of juniper and oak trees in the drainage and over the site, along with yucca, tasajillo, prickly pear, agarita, beargrass, and mixed grasses. The surface visibility at the time of survey was between 20 and 50 percent.

A burned gray chert Nolan point base (Figure A-9) that dates to the Middle Archaic (Collins 1995) was found on the surface and collected. Other artifacts observed, but not collected, include hundreds of chert flakes, and many tested cobbles, cores, and biface fragments. No field counts were made, but the artifacts are on shallow soils or directly on the bedrock.

Based on the intensity of the use of this procurement area and its apparent palimpsest condition, it is likely that the components are mixed across the site. In addition, no features were observed. Therefore, the site is not likely to yield significant scientific or historical information and is ineligible for the National Register of Historic Places or as a State Archeological Landmark.

41BR241

41BR241 is a prehistoric, 200 x 200-m open campsite with diagnostic artifacts representing the Early, Middle, and Late Archaic periods (Table 6; Figures A-10 through 13). The site is set on a gradual, gently rolling, rocky slope between two drainages. The majority of the site occupies the first terrace above the westernmost drainage, and follows this drainage in a southeasterly direction, ranging in elevation between 1,450 and 1,480 ft. amsl. Limestone conglomerate outcrops are present within the banks of both drainages, limestone bedrock is on the surface in many areas on the site, and fragmented limestone cobbles are scattered throughout.

There are three areas across the site where artifacts tend to be concentrated; two of the concentrations consist primarily of non-cortical thinning flakes. In addition to four biface fragments, a Martindale point (Early Archaic), a Travis point (Middle Archaic), a Pedernales point (Late Archaic), and a Bulverde point (Late Archaic) were collected from the surface (Figures A-10 through 13). Other cultural materials observed are listed in Table 6. A grotto and waterfall are in the western drainage. The ground surface visibility ranges between 50 and 100 percent amidst oak, juniper, agarita, beargrass, tasajillo, and prickly pear. Goats grazing on the site also contributed to the sparse vegetation.

Table 6. Artifacts at 41BR241

Artifacts	Observed
Pedernales point	*1
Travis point	*1
Bulverde point	*1
Martindale point base	*1
Biface fragments	16 (*4)
Unifacially modified flake	1
Primary flakes	10
Secondary flakes	86
Tertiary flakes	116
Shatter	24
Fire-cracked rock	5
Core fragments	8
Tested cobbles	7
Total	**277**

(*) denotes items collected.

The site is shallow and rocky, and despite the presence of diagnostic artifacts, cultural components appear to be mixed. No features were observed. 41BR241 is not considered eligible for the National Register of Historic Places or as a State Archeological Landmark.

41BR242

This is a historic stone and mortar structure possibly dating to the 1930s or 1940s. It is rectangular in shape and approximately 4 ft. wide, 8 ft. long, and 3 ft. high. It is reminiscent of firing positions used on modern military shooting ranges.

The structure is at an elevation of 1,420 ft. amsl and is alongside a drainage in a dissected upland area at the

base of a steep slope. The drainage is an unnamed, intermittent tributary to Devil's River and is located to the north. The vegetation, consisting of juniper and mixed grasses, reduced surface visibility to less than 10 percent.

Along with the stone structure, an isolated Pedernales point preform base was recovered (Figure A-14). This preform exhibits the same chipping strategy as has been observed in other parts of Texas (for example, Ensor et al. 1988), where the stem is completed, but is then cached with its blade still unfinished. The blade from this particular specimen is snapped laterally, making it difficult to determine if it was used, whether it was abandoned during manufacture, or whether it represents the distinctive preform types described above.

This site is a minor historic structure and an isolated prehistoric artifact. As such, the site is not considered eligible for the National Register of Historic Places or as a State Archeological Landmark.

41BR243

41BR243 is a lithic workshop consisting of a sparse scatter of tested cobbles, core fragments, and flakes among eroded conglomerate. The site area measures 40 x 100-m, at an elevation range of 1,310 and 1,330 ft. amsl.

It is located primarily on a bench at the east end of a ridge base, although there are occasional flakes found on the slope below the ridge that may have washed down from the top of the landform. The site is dissected by two washes from the top of the ridge, the surface area is heavily eroded, and a large, deep gully lies along the southern site boundary. The vegetation on and around the site consists of mesquite, juniper, prickly pear, and an abundant amount of agarita, tasajillo, and Mormon tea, providing approximately 60 percent surface visibility.

This workshop has only a sparse scatter of lithics, contains no diagnostics, is heavily eroded and sheetwashed, and is not likely to yield significant scientific or historical information. It is therefore not eligible for the National Register of Historic Places or as a State Archeological Landmark.

41BR244

41BR244 is a lithic workshop consisting of a sparse lithic scatter on a north-facing, steep (>40 degrees), and eroded rocky slope. It covers an area approximately 20 x 10-m, at an elevation of 1,335 ft. amsl. Limestone conglomerate outcrops with eroding chert nodules apparently provided the necessary raw material. Soils are extremely shallow and rocky. In addition to erosion, the site has been disturbed by the construction of a pipeline approximately 40 m north, and a stock pond to the west. The dense vegetation consisting of juniper, oak, tasajillo, prickly pear, agarita, and various grasses provided only limited, 10 percent surface visibility. Although no diagnostics were found, two biface fragments were collected from the surface.

The lithic scatter on this site is sparse, contains no diagnostics, has been subjected to heavy erosional processes, and is not likely to yield significant scientific or historical information. It is therefore not eligible for the National Register of Historic Places or as a State Archeological Landmark.

41BR245

41BR245 is a prehistoric open campsite on the southwest end of a military tank target range that has been previously cleared of trees. The site occupies a 50 x 75-m area of a low rise (1,380 ft. amsl), on a relatively flat floodplain dissected by an intermittent drainage. The remaining vegetation consists of patches of mixed grasses and mesquite, providing approximately 80 percent surface visibility.

A single Perdiz-like arrow point (Figure A-15) as well as an unidentified arrow point base (Figure A-16) collected from the surface suggest a Late Prehistoric occupation (Turner and Hester 1993). Three shovel tests were excavated to evaluate the site's integrity (Table 7): Shovel Test 1 (ST-1) was placed 25 m from a tank target and approximately 200 m north of a gravel road; Shovel Test 2 (ST-2) was placed about 25 m southwest of a tank target and 220 m north of a gravel road; Shovel Test 3 (ST-3) was placed about 40 m east of a tank target and 75 m north of a gravel road. A moderate to dense lithic scatter and mussel shell

Table 7. Shovel testing at 41BR245

Unit	Depth	Observations
ST-1	Level 1 0-15 cm	10YR 3/3 (dark brown), silty clay; friable. **3 debitage, 6 mussel shell fragments**
	Level 2 15-30 cm	Soil as in Level 1. **1 debitage, 1 mussel shell fragment**
	Level 3 30-45 cm	Soil as in Level 1. **2 debitage**
	Level 4	Gravel (lens?) **No artifacts**
ST-2	Surface	2.5 Y 3/3 (dark olive brown) silty clay. **Mussel shell (observed)**
	Level 1 0-15 cm	2.5 Y 3/3 (dark olive brown), friable, dry, platy soil. **11 debitage, 1 biface fragment, 5 mussel shell fragments**
	Level 2 15-30 cm	Soil as in Level 1 **2 debitage, 2 mussel shell fragments**
	Level 3 30-35 cm	Soil as in Level 1 **No artifacts**
ST-3	Level 1 0-15 cm	10YR 4/3 (brown), silty clay. **No artifacts**
	Level 2 15-30 cm	10YR 4/3 (brown), silty clay. **6 burned rock**
	Level 3 30-35 cm	Soil as in Levels 1 and 2 **No artifacts**

Note: Items from shovel tests were collected.

concentration was observed on the surface in the area of Shovel Tests 1 and 2, and mussel shells, burned rock (chert), and debitage were recovered to 30 cm below the surface (Table 8). However, no intact features were found, suggesting the mussel shells, burned rock, and flakes may have been part of a feature disturbed by construction and clearing activity in the area. Although mussel shell and debitage were recovered in the shovel testing, the site has been heavily disturbed from military construction and training, as well as tree clearing activities. Thus it has very little integrity and is not considered eligible for the National Register of Historic Places or as a State Archeological Landmark.

Table 8. Artifacts at 41BR245

Artifact	Surface	ST 1	ST 2	ST 3
Perdiz-like point	1	-	-	-
Arrow point base (unident.)	1	-	-	-
Biface frags.	3	-	1	-
Cores	2	-	-	-
Modified flakes	1	-	-	
Debitage	2	6	13	-
Burned rock	-	-	-	6
Mussel shell	present	present	present	-
Total	**10**	**6**	**14**	**6**

Note: All items listed were collected.

41BR246

41BR246 (Figure 9) is a burned rock midden site occupying a 100 x 300-m area, with elevations ranging between 1,340 and 1,400 ft. amsl, and extending across two eroded, northeast-facing ridges. The nearest water source would have been a now-intermittent stream, approximately 100 m to the southeast. The northern boundary of the site is formed by an artificially constructed stock tank; beyond that is a pipeline and tank training range. A sparse covering of tasajillo, prickly pear, yucca, oak, juniper, and agarita provides between 80 and 90 percent surface visibility.

The burned rock midden is crescent-shaped and is 15 m in diameter. Although no diagnostics were found, artifacts observed on the surface included tested chert cobbles, biface fragments, primary and secondary flakes, unifacially-modified flakes, hammerstones, burned rock, and mussel shells. Of these, three bifaces, one hammerstone, and a modified flake were collected.

Three shovel tests were excavated (Table 9). Shovel Test 1 was placed 25 m northeast of the apex of the burned rock midden, Shovel Test 2 about 25 m south-southeast of the midden's apex, and Shovel Test 3 was approximately 25 m north of the apex. Artifacts were recovered only from Shovel Test 2.

This burned rock midden appears to be intact. Thus, the site is recommended for avoidance during the training exercises, and will require further evaluation in order to determine its eligibility for the National Register of Historic Places or as a State Archeological Landmark.

CAR has recently completed additional work at this site, including the excavation of 48 shovel tests. While a report detailing that work is in production, the boundary on the accompanying map (Figure 9) reflects that additional work.

Table 9. Shovel testing at 41BR246

Unit	Depth	Observations
ST-1	Level 1 0-15 cm	10YR 3/3 (dark brown), silty clay; friable. **No artifacts**
	Level 2 15-30 cm	Soil same as Level 1. **No artifacts**
	Level 3 30-45 cm	Soil same as Level 1. **No artifacts**
	Level 4	Gravel (lens?) **No artifacts**
ST-2	Surface	2.5 Y 3/3 (dark olive brown) silty clay. **No artifacts**
	Level 1 0-15 cm	2.5 Y 3/3 (dark olive brown), friable, dry, platy soil. **2 mussel shell fragments**
	Level 2 15-30 cm	Soil as in Level 1 **1 debitage**
	Level 3 30-45 cm	Soil as in Level 1 **5 debitage**
ST-3	Level 1 0-15 cm	10YR 4/3 (brown), silty clay. **No artifacts**
	Level 2 15-30 cm	10YR 4/3 (brown), silty clay. **No artifacts**
	Level 3 30-35 cm	Soil as in Levels 1 and 2. **No artifacts**

Note: Items from shovel tests were collected.

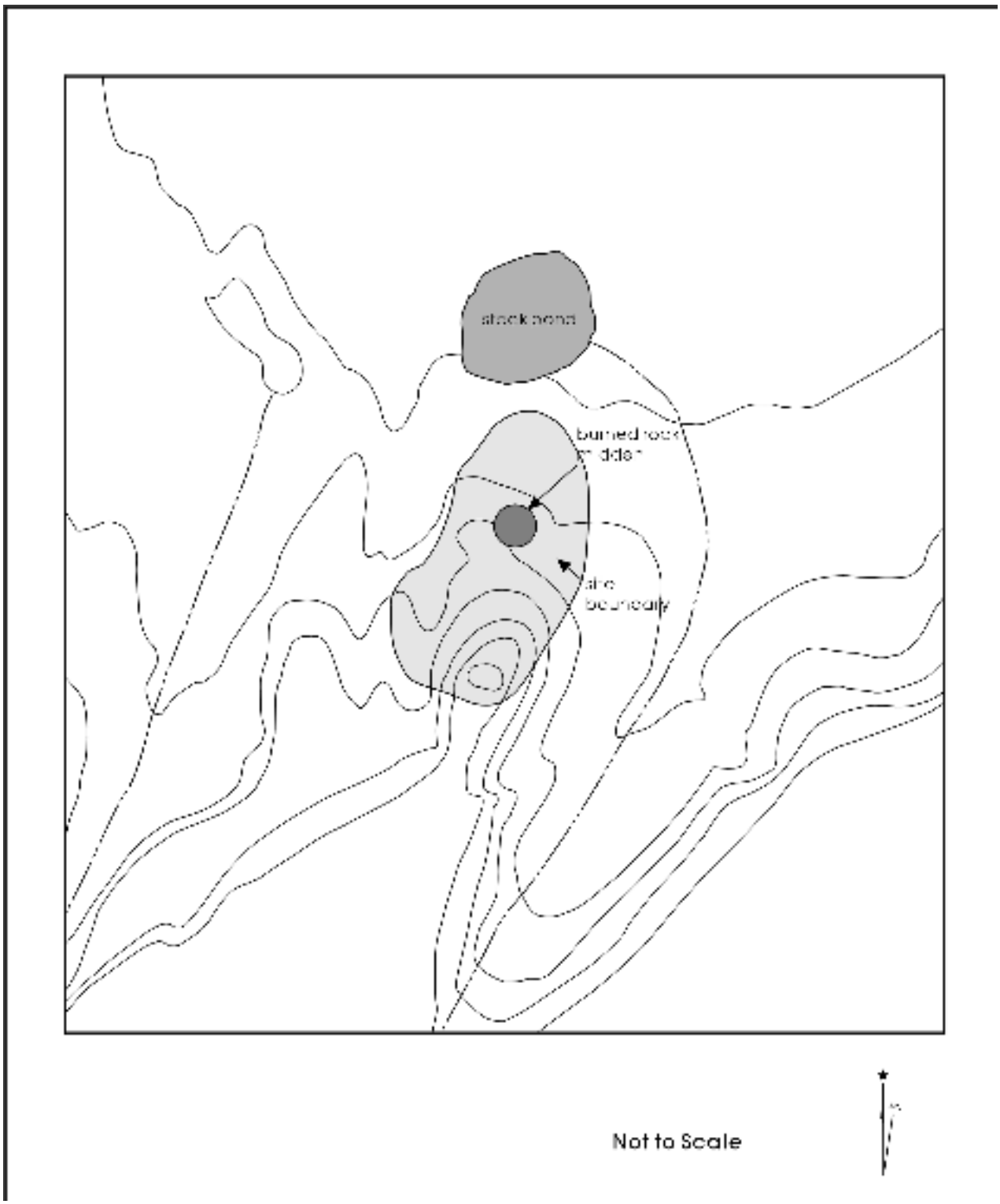

Figure 9. *Site map of 41BR246.*

41BR247

41BR247 is an open campsite consisting of a moderate lithic scatter from an unknown prehistoric temporal affiliation. It occupies a 20 x 20-m area on a bench and north slope of an eastern trending ridge, at an elevation of 1,380 ft. amsl. The sparse vegetation consisting of agarita, juniper, oak, mesquite, prickly pear, tasajillo, and mixed grasses provided approximately 85 percent surface visibility at the time of the survey, and flakes were observed on the bench and slope. Eroded sandstone and conglomerate gravels are scattered throughout the site.

This site is a moderate lithic scatter located atop shallow soils and bedrock and is not likely to yield significant scientific or historical information. It was previously evaluated for eligibility and is not eligible for the National Register of Historic Places or as a State Archeological Landmark (Wormser et al. 1997).

41BR248

41BR248 is a small (10 x 10-m) open campsite on a low (1,440 ft. amsl) terrace on the west side of a north-south trending ridge. Artifacts observed on the surface include three chert cores, two primary and secondary flakes, and one possible burned rock. The site has been disturbed by the construction of a fence and power transmission line. The moderately dense vegetation consisting of mixed grasses, prickly pear, cactus, agarita, mesquite, oak, and juniper provided ground surface visibility ranging between 30 and 50 percent.

While this sparse lithic scatter is not likely to yield significant scientific or historical information, the nature of the site is such that shovel testing will be required. This work is planned for the immediate future.

41BR249

41BR249 is an open campsite that occupies a ridge top with sandstone and limestone outcrops. It is dissected by a north-south trending jeep trail. The site covers a 20 x 20-m area at an elevation of 1,470 ft. amsl. Ground surface visibility at the time of survey was 75 percent. Soils at this site are extremely shallow. Vegetation consisted of various grasses, prickly pear cactus, and juniper, oak, and mesquite trees. Artifacts observed on the surface consisted of five chert flakes, two of which were found on the dirt road.

This sparse lithic scatter is not likely to yield significant scientific or historical information, and is therefore not eligible for the National Register of Historic Places or as a State Archeological Landmark.

41BR250

41BR250 is a Late Archaic and Late Prehistoric (Collins 1995; Johnson and Goode 1994) burned rock midden site. It is set on a southeast bearing landform at the base of a north-south trending ridge, with an intermittent drainage along its north and southwest edges (Figure 10). The site area measures 120 x 140-m, with an elevation of 1,330 ft. amsl. The vegetation consists of sparse patches of agarita, tasajillo, mesquite, and prickly pear, thus allowing for 80 percent surface visibility.

A burned rock midden 4.3 m in diameter is located on the edge of the drainage along the northernmost edge of the site, surrounded by scattered broken limestone and sandstone. A Pedernales dart point base (Figure A-17), an expanding-stem, side-notched arrow point (Figure A-18), and a biface were collected from the three artifact concentration areas observed on the surface. Other artifacts observed, but not collected, included mussel shell and over 100 flakes.

This site is recommended for avoidance during the training exercises and will require further evaluation in order to determine its eligibility for the National Register of Historic Places.

CAR has recently completed additional work at this site, including the excavation of 34 shovel tests. While a report detailing that work is in production, the boundary on the accompanying map (Figure 10) reflects that additional work.

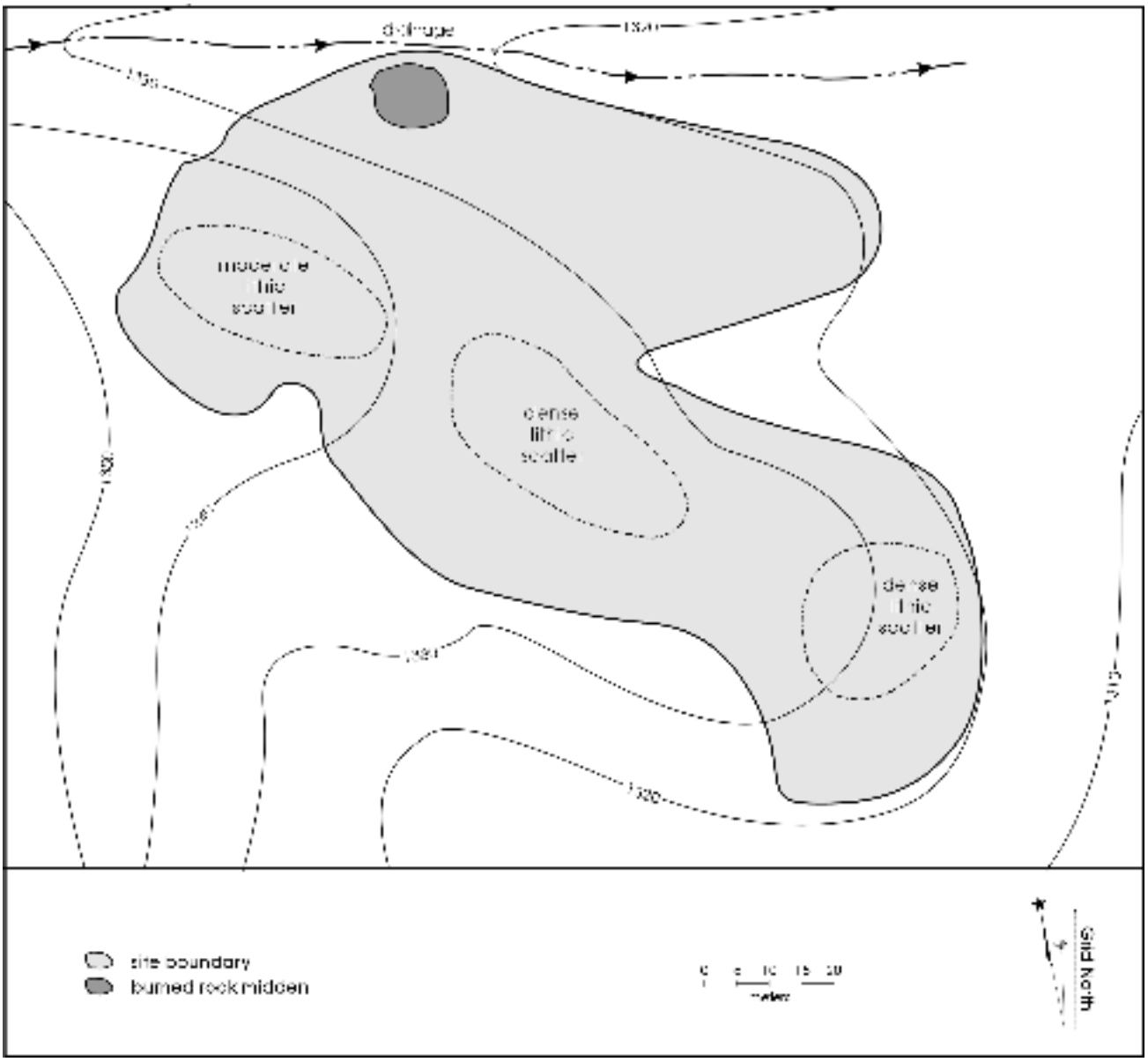

Figure 10. *Site map of 41BR250.*

41BR251

Site 41BR251 is an open campsite with a light lithic scatter approximately 30 x 20-m. It is set on a heavily eroded knoll at 1,340 ft. amsl. The knoll is 25 m west of a seasonal drainage. Because of the extensive erosion that has occurred and the sparse patches of agarita, prickly pear, mesquite, oak, tasajillo, and various grasses, the ground surface visibility is about 85 percent. Cultural materials observed, but not collected, included five chert flakes and one broken biface. Two shovel tests were excavated on the site: Shovel Test 1 (ST-1) was placed along the east edge of the knoll, and Shovel Test 2 (ST-2) was placed on the northeast edge of the knoll, approximately 25 m north of ST-1. No prehistoric artifacts were found below the surface (Table 10).

Table 10. Shovel testing and artifacts at 41BR251

Unit	Depth	Observations
ST-1	Level 1 0-10 cm	Gravel, eroded surface with a sandstone outcrop. **No artifacts**
	Level 2 10-15 cm	10YR 6/4 (light yellowish brown). **No artifacts**
	Level 3 15-30 cm	10YR 5/4 (yellowish brown), sandy loam with sandstone. **No artifacts**
	Level 4 30-35 cm	Bedrock. 10YR 6/4 (light yellowish brown), sandy loam; moist, loose, sub-angular; rocky sandstone fragments. **No artifacts**
ST-2	Level 1 0-10 cm	Eroded gravel: 10YR 6/4 (light yellowish brown), clay loam; iron oxide mottling and sandstone fragments. **1 bullet found (not collected)**
	Level 2 10-20 cm	10YR 7/3 (very pale brown), sand with sandstone fragments. **No artifacts**
	Level 3 20-30 cm	10YR 5/6 (yellowish brown), moist clay with small concretions. **No artifacts**

Because of the extensive erosion that has occurred, the surface artifacts have been displaced. In addition, no prehistoric material was found in limited subsurface testing. Thus, this site is not eligible for the National Register of Historic Places or as a State Archeological Landmark.

41BR252

41BR252 is an open campsite on a footslope at the base of a north-south trending ridge. The area has been disturbed by erosion, as well as the construction of a stock pond and dam on an intermittent drainage which dissects the site. The site is located at an elevation of 1,340 ft. amsl and measures 150 m (N-S) x 100 m (E-W). Ground surface visibility at the time of survey was 95 percent. Soils at this site are extremely shallow. Vegetation consists of mixed grasses, prickly pear, agarita, tasajillo, mesquite, and juniper.

Artifacts observed on the surface included six flakes, one crude chopper, a tested cobble, a modified flake, and one piece of shatter. All materials observed were made of chert and nothing was collected.

The disturbed nature and sparse distribution of artifacts over a broad area deem this site ineligible for the National Register of Historic Places or as a State Archeological Landmark.

41BR253

41BR253 is a burned rock midden site with a dense lithic scatter covering a 200 x 300-m area (Figure 11). It is located within a small valley along the base of a north-south trending ridge and continues onto two trending landforms slightly elevated above the valley floor. The elevation at the center of the site is 1,330 ft. amsl, but varies greatly because of the undulating terrain and a dissecting intermittent drainage. A sparse covering of flora consists of mesquite, oak, agarita, yucca, prickly pear, horse crippler cactus, and various grasses, providing 80 percent ground surface visibility.

There are two limestone burned rock middens located at the site. The southernmost midden (M-l) is 3 m high, circular in shape, and has a depression in its center. There is a very large oak tree growing from the middle of the midden and numerous agarita bushes scattered around the top of its ring. M-1 measures 10 m (N-S) x 15 m (E-W). Midden 2 (M-2) is approximately 70 m northeast of M-1. M-2 is irregularly shaped, almost square, and is flat on top. Its measurements are 7 m (E-W) x 4 m (N-S). There is a dense concentration of

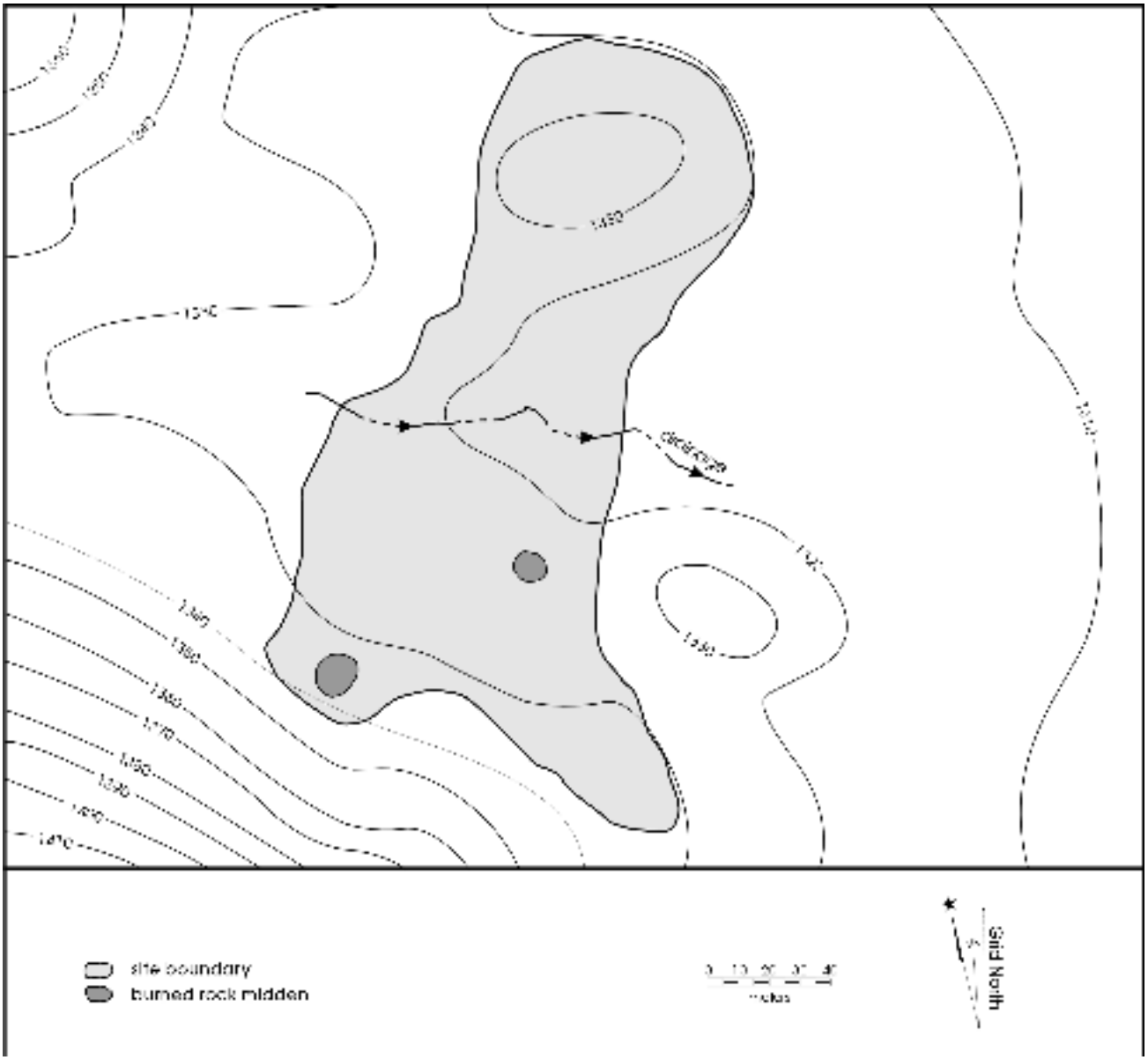

Figure 11. *Site map of 41BR253.*

limestone on the ridge slope above M-1 that may have been the source of stone for both middens.

There is a thin scatter of lithics throughout the entire site, but they are more concentrated on the landforms. The only item collected was a biface fragment.

Because of the apparent undisturbed middens and the potential for peripheral buried features, this site is recommended for avoidance during military training exercises, and will require further evaluation in order to determine its eligibility for the National Register of Historic Places or as a State Archeological Landmark. CAR has recently completed additional work at this site, including the excavation of 82 shovel tests. While a report detailing that work is in production, the boundary on the accompanying map (Figure 11) reflects that additional work.

41BR254

41BR254 is an open campsite with a sparse lithic scatter that occupies a 60 x 90-m dissected upland (1,460 ft. amsl) area paralleling Lewis Creek, approximately 40 m to the east and south. With about 90 percent

ground surface visibility, eroded conglomerate cobbles and gravels, limestone fragments, and brown loamy soils are visible amidst sparse patches of mixed grasses and yucca, with an occasional oak or mesquite tree. Soils at this site are extremely shallow and surficial.

Cultural material observed on the surface, but not collected, includes: six chert flakes, one chert core, and two tested cobbles. This site is small, with a sparse lithic scatter and no observable diagnostics. Thus it is not considered eligible for the National Register of Historic Places or as a State Archeological Landmark.

41BR255

41BR255 is an open campsite consisting of a light lithic scatter on an upland ridge west of Lewis Creek. The edge of the ridge is covered with eroded chert cobbles and sandstone and limestone fragments, but the brown loamy soils support mixed grasses, prickly pear, agarita, oak, juniper, and an occasional mesquite tree. The soils at this site are extremely shallow. No shovel tests were excavated as the surface visibility was excellent. The site occupies a 40 x 40-m area and is 1,460 ft. amsl.

With good ground surface visibility (80 percent), the cultural lithic material observed consisted of six chert flakes, five tested cobbles, a quartzite flake, and one chert core.

This is a sparse lithic scatter with no observable diagnostics, and is not likely to yield significant scientific or historical information. Therefore, it is not eligible for the National Register of Historic Places or as a State Archeological Landmark.

41BR256

41BR256 is an open campsite consisting of a sparse lithic scatter within a 25 x 40-m area on a footslope of a dissected upland ridge. Because it generally lies at an elevation of 1,510 ft. amsl on sloping terrain, the surface is scattered with limestone, chert, and quartzite gravels. The brown, loamy soil supports sparse mixed grasses, prickly pear, yucca, and mesquite, allowing for 90 percent surface visibility. Cultural materials observed on the surface, but not collected, included seven chert flakes, one modified chert flake, and a tested chert cobble.

This is a sparse lithic scatter with shallow soils and is not likely to yield significant scientific or historical information. It was evaluated previously and deemed ineligible for nomination to the National Register of Historic Places or as a State Archeological Landmark (Wormser et al. 1997).

41BR257

41BR257 is an open campsite consisting of a sparse scatter on a limestone ridge overlooking a large reservoir and dam to the northwest. The scatter is spread over a 50 x 30-m area at an elevation of 1,520 ft. amsl. A coarse, brown loam supports mixed grasses, juniper, beargrass, mesquite, and oak.

Cultural material observed on the surface, but not collected, included 30 chert flakes, one exhausted chert core, five cores, and one chalcedony flake. Ninety-five percent of the ground surface was visible at the time of survey.

This is a sparse lithic scatter located atop shallow soils and bedrock, and is not likely to yield significant scientific or historical information. It was evaluated previously and deemed ineligible for nomination to the National Register of Historic Places or as a State Archeological Landmark (Wormser et al. 1997).

41BR258

41BR258 is a lithic workshop consisting of a light scatter of debris over a 30 x 30-m area on a small, eroded conglomerate knoll 320 m south of Lewis Creek. In addition to the limestone conglomerate, eroded sandstone is also scattered throughout the site. The coarse and loamy soil supports mixed grasses, yucca, juniper, oak, agarita, and prickly pear, with about 80 percent of the ground surface visible. Cultural materials observed at the site included two chert cores, 20 flakes, and a biface (collected).

This is a sparse lithic scatter on shallow soils and bedrock, and is not likely to yield significant scientific or historical information. It was evaluated previously and deemed ineligible for nomination to the National Register of Historic Places or as a State Archeological Landmark (Wormser et al. 1997).

41BR259

41BR259 is a 20 x 20-m open campsite on a heavily disturbed and eroded terrace. Tank traffic and machine blading have caused most of the disturbance, followed by slope erosion. Vegetation consists of yucca, prickly pear, agarita, oak, juniper, and various grasses, allowing for 80 percent ground surface visibility at the time of the survey. The area has an abundance of eroded sandstone bedrock, and there are chert nodules present in an intermittent drainage bed 60 m to the west. Cultural materials observed on the surface, but not collected, are listed in Table 11.

This site has only a sparse scatter of lithics and is heavily disturbed. It was evaluated previously and deemed ineligible for nomination to the National Register of Historic Places or as a State Archeological Landmark (Wormser et al. 1997). Avoidance is unnecessary and no further protection from training activities will be required.

Table 11. Artifacts at 41BR259

Artifact	Total
Interior flakes	2
Modified interior flake	1
Secondary flake	1
Core	1
Tested cobble	1
Total	**6**

41BR260

41BR260 consists of a lithic scatter, representing an open campsite, and a historic concrete water trough. Covering a 160 x 30-m area, it is located on a small, eroded, isolated knoll, 60 m south of Devil's River. The silty clay loam supports sparse patches of agarita, mesquite, Mormon tea, oak, and various grasses, allowing for 90 percent surface visibility. It appears that the area immediately surrounding the site may have been used as a borrow pit for the construction of a dam approximately 150 m to the northwest.

The prehistoric component consists of three tested cobbles, one core, one dart point base fragment (unidentified, Figure A-19), one biface fragment, and 20 flakes, all lying on an eroded landform. The dart point and biface fragments were collected. The historic component is located 160 m south of the lithic scatter and consists of a scatter of purple glass (including one bottleneck) surrounding the water trough. The purple bottleneck was collected. The water trough measured 3 ft., 11 in. wide by 8 ft., 10 in. long by 2 ft., 7 in. tall. The walls were 5.5 in. thick. A date of "1936" was etched into the concrete at its base. A single shovel test, placed 30 m south of the rocky, eroded knoll, revealed no evidence of buried cultural material (Table 12).

Neither component is likely to yield significant scientific or historical information. The lithic scatter was evaluated previously and deemed ineligible for nomination to the National Register of Historic Places or as a State Archeological Landmark (Wormser et al. 1997).

Table 12. Shovel testing at 41BR260

Unit	Depth	Observations
ST-1	Level 1 0-5 cm	2.5YR 5/4 (light olive brown), silty clay loam, small gravels. Dry, rocky, friable.
	Level 2 5-25 cm	2.5YR 5/4 (light olive brown), silty clay loam with gravels. Gravels and specks of $CaCO_3$ from 10 to 25 cm
	Level 3 25-30 cm	2.5YR 6/3 (light yellowish brown) to 2.5Y 6/2 (light brownish gray), gritty clay loam which is more like typical alluvial fill for the area.

41BR261

41BR261 is an open campsite and possible lithic procurement area manifested by a 150 x 300-m lithic scatter at the base of an eroded ridge slope (Figure 12). There are numerous conglomerate bedrock outcrops located throughout the area, but the site is set on a rocky, clayey soil which supports tasajillo, Mormon tea**,** yucca, prickly pear, lupine, sage, various grasses, and oak. The vegetation is nevertheless sparse, and the surface visibility in the area is 85 percent.

Three Pandale points (Figures A-20, 21, and 22) collected from the surface suggest an Early Archaic occupation (Collins 1995; Turner and Hester 1993). Other cultural materials on the surface observed and/or collected are listed in Table 13. There are numerous gullies running through the south end of the site,

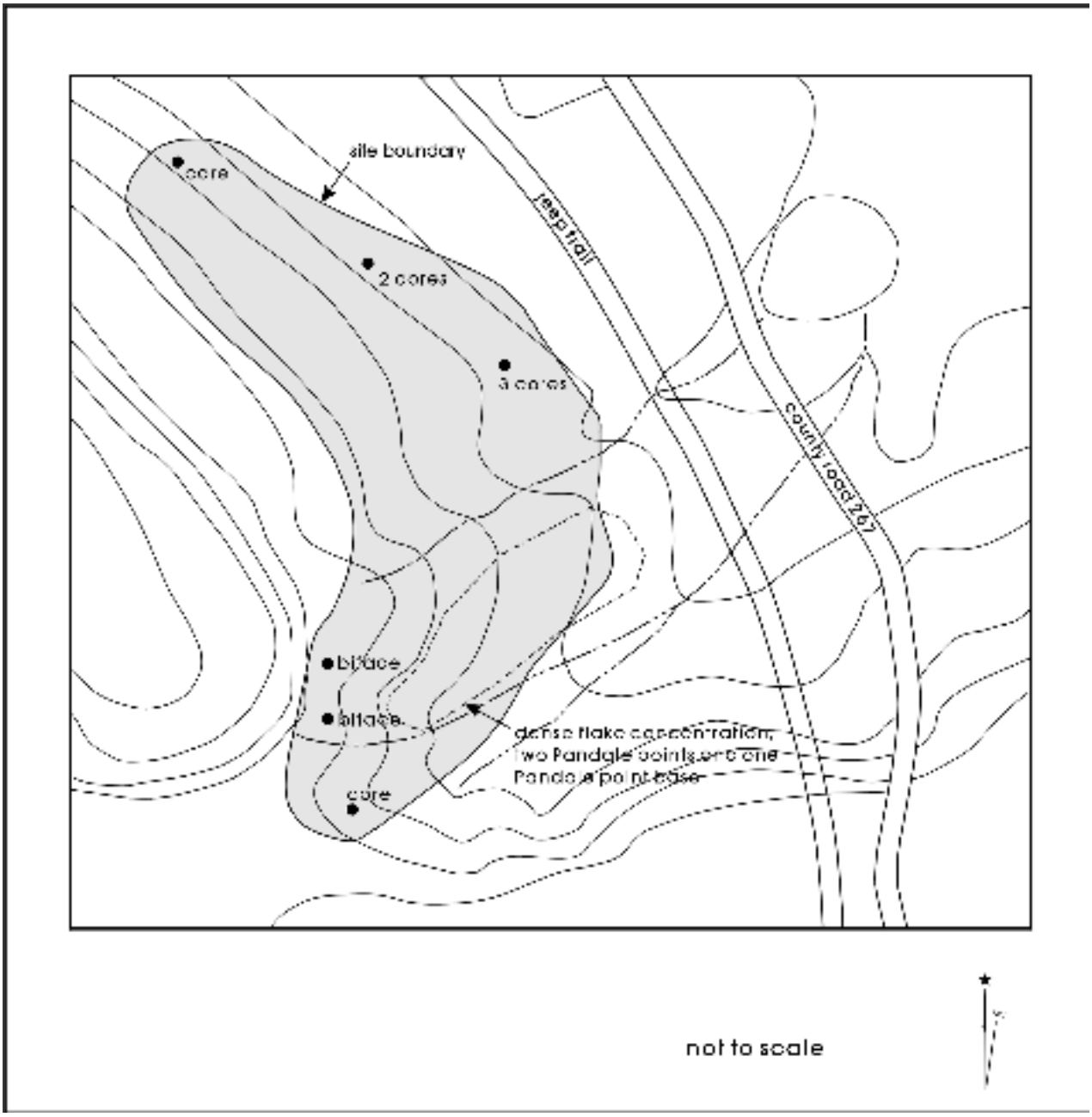

Figure 12. *Site map of 41BR261.*

Table 13. Artifacts at 41BR261

Artifact	Total
Pandale point	*2
Pandale point base	*1
Biface	1
Biface fragment	*2
Scraper	*1
Bifacial core	1
Flakes	140
Tested cobble	10
Core	10
Modified flake	10
Total	**178**

(*) denotes items collected.

and two large concentrations of flakes are located in-between the gullies on small islands. The area where two of the Pandale points were found had over 100 flakes within a 10 x 10-m area. One of the two shovel tests excavated in areas where there were deeper soils revealed the presence of cultural material to 20 cm below the surface (Table 14).

This site is recommended for avoidance during the training exercises. Because of the possibility of an intact Early Archaic campsite, this site will require further evaluation in order to determine its eligibility for the National Register of Historic Places or as a State Archeological Landmark. CAR has recently completed additional work at this site, including the excavation of 18 shovel tests. While a report detailing that work is in production, the boundary on the accompanying map (Figure 12) reflects that additional work.

Table 14. Shovel testing at 41BR261

Unit	Level	Observations
ST-1	Level 1 0-10 cm	10YR 4/3 (brown), friable, silty, clay loam with gravels. **No artifacts**
	Level 2 10-20 cm	2.5Y 4/3 (olive brown), silty clay loam. The soil is moister than the previous level and has less gravels. **2 flakes**
	Level 3 20-30 cm	2.5Y 4/3 (olive brown), hard, dry, gritty clay. Shovel test discontinued due to dense soil. **No artifacts**
ST-2	Level 1 0-7 cm	10YR 5/6 (yellowish brown), friable, silty loam with gravel. **No artifacts**
	Level 2 7-25 cm	10YR 4/2 (dark grayish brown), silty clay loam. More gravel than previous level. Shovel test discontinued due to high gravel density. **No artifacts**

41BR262

41BR262 is a small, open campsite consisting of a lithic and burned rock scatter over a 20 x 20-m area. It lies on a dissected upland footslope at the base of a ridge, approximately 300 m north of Lewis Creek. There are sandstone outcrops located within the site area, and the soil is a deflated fine sandy loam supporting tasajillo, prickly pear, oak, and buffalo grass.

Ground visibility was 90 percent and artifacts observed on the surface were over 25 chert flakes and a scatter of burned sandstone within a 7 x 7-m area. One biface fragment was collected.

This site is a sparse lithic and burned rock scatter located on shallow soils and bedrock, and is not likely to yield significant scientific or historical information. It was evaluated previously and deemed ineligible for nomination to the National Register of Historic Places or as a State Archeological Landmark (Wormser et al. 1997).

41BR263

41BR263 is a 50-m diameter open campsite on a large knoll on the west side of a north-northwest trending ridge. The loamy soil supports live oak trees, agarita, tasajillo, prickly pear, and mixed grasses, yet 60 percent of the ground surface was visible at the time of survey. Soils at this site are extremely shallow. Among other lithic debris, two hammerstones were observed, and one biface was collected.

Because of its paucity of cultural material and shallow soils, 41BR263 is not likely to yield significant scientific or historical information. It was evaluated previously and deemed ineligible for nomination to the National Register of Historic Places or as a State Archeological Landmark (Wormser et al. 1997).

41BR264

41BR264 is an open campsite with a lithic scatter on the footslope of a dissected upland ridge, with limestone outcrops and broken gravels. Lewis Creek is an intermittent drainage along the west side of the slope. The site covers a 400-m^2 area and is located at an elevation of 1,470 ft. amsl. Although the site is heavily eroded and rocky, the shallow, loamy soil supports mixed grasses, prickly pear, yucca, and mesquite.

The ground visibility in the area was very good, approximately 90 percent, and the cultural materials observed on the surface were: one chert flake, one chert core, and one biface fragment (biface collected). All artifacts were found on the northern end of the footslope of the dissected ridge.

The deposits appear to be shallow, within a rocky and eroded context, and are not likely to yield significant scientific or historical information. Therefore, it is not eligible for the National Register of Historic Places or as a State Archeological Landmark.

41BR265

41BR265 is an open campsite that occupies an upland ridge 1,500 to 1,530 ft. amsl. Immediately to the south is an intermittent tributary of Lewis Creek. The extent of artifact distribution is 500 m (E-W) x 200 m (N-S), with a small concentration area noted north of a fork in the intermittent drainage. The eroded and dissected surface is covered with limestone outcrops along the ridge edge, and scattered limestone fragments cover the area. Site vegetation consists of live oak, mesquite, prickly pear, tasajillo, and mixed grasses, allowing for 60 percent ground surface visibility. A total of 33 artifacts were observed on the surface (Table 15), with burning noted on six of the flakes. One unidentifiable dart point base was collected (Figure A-23). Six shovel tests were excavated to either caliche or limestone bedrock, none of which yielded cultural material (Table 16).

This is a sparse lithic scatter on shallow soils and is not likely to yield significant scientific or historical information. It was evaluated previously and deemed ineligible for nomination to the National Register of Historic Places or as a State Archeological Landmark (Wormser et al. 1997).

Table 15. Artifacts at 41BR265

Artifacts	Total
Dart point base	*1
Biface fragment	3
Primary flake	1
Secondary flake	10
Tertiary flake	11
Shatter	7
Total	**33**

(*) denotes items collected.

41BR266

This is a historic stone wall (Figure 13), possibly a field boundary dating to the early 1900s, running parallel to a north-south trending fence and gravel road along the base of Travis Peak. Approximately 360 ft. long and oriented on a north-south axis, it is constructed of dry stacked limestone and sandstone, ranging from a single course high (approximately 5 in.) to three or four courses high (approximately 2 ft.). Areas of the wall have layered stone 3 to 6 ft. wide.

This wall could be eligible for the National Register of Historic Places (Criteria A and B) or as a State Archeological Landmark, depending upon the results of further documentation to assess its association with specific people or events.

41BR267

41BR267 is a lithic workshop at an elevation of 1,550 ft. amsl, covering 30 x 60-m of the limestone and sandstone upland area. The moderately dense patches of live oak, yucca, juniper, prickly pear, and various grasses allowed for between 60 and 80 percent ground visibility.

Artifacts observed on the surface but not collected, included: one chert biface fragment, two chert noncortical thinning flakes, one secondary chert flake, and one unifacially modified flake.

Table 16. Shovel testing at 41BR265

Unit	Level	Observations	Unit	Level	Observations
ST-1	Level 1 0-10 cm	10YR 3/2 (very dark grayish brown) clay loam, subangular blocky, limestone fragments.	ST-4	Level 1 0-10 cm	10YR 3/2 (very dark grayish brown) loam, friable.
	Level 2 10-20 cm	10YR 4/3 (brown) loam, friable, subangular blocky, limestone fragments and gravel.		Level 2 10-16 cm	10YR 3/2 (very dark grayish brown) loam, friable, abundant limestone fragments. Limestone bedrock at 16 cm below surface.
	Level 3 20-30 cm	10YR 4/4 (dark yellowish brown) loam, limestone fragments, caliche.			
ST-2	Level 1 0-10 cm	10YR 3/2 (very dark grayish brown) clay loam, friable, subangular blocky, with limestone fragments.	ST-5	Level 1 0-10 cm	10YR 2/2 (very dark brown) clay loam with limestone fragments.
	Level 2 10-20 cm	10YR 3/3 (dark brown) loam, friable, a lot of limestone fragments and some $CaCO_3$ concretions.		Level 2 10-20 cm	10YR 2/2 (very dark brown) clay loam, firm, subangular blocky, limestone fragments.
	Level 3 20-25 cm	10YR 3/3 (dark brown), loam with limestone fragments and caliche.		Level 3 20-30 cm	10YR 3/3 (dark brown) silty clay loam. Abundant limestone fragments. Caliche (10YR8/2) with yellowish iron mottling at 30 cm below the surface.
ST-3	Level 1 0-10 cm	10YR 3/3 (dark brown) clay loam, friable.			
	Level 2 10-20 cm	10YR 3/3 (dark brown) clay loam, friable.	ST-6	Level 1 0-10 cm	10YR 3/1 (very dark gray) clay loam.
	Level 3 20-30 cm	10YR 4/3 (brown) clay loam, friable.		Level 2 10-18 cm	10YR 3/2 (very dark grayish brown). Limestone bedrock at 18 cm below surface.
	Level 4 30-33 cm	10YR 4/3 (brown) clay loam. Caliche at 33 cm.			

This is a shallow, rocky, and eroded site, and is not likely to yield significant scientific or historical information. Thus, it is not eligible for the National Register of Historic Places or as a State Archeological Landmark.

Cultural materials observed on the surface are listed in Table 17. This is a sparse lithic scatter from a workshop found on shallow soils, and is not likely to yield significant scientific or historical information. It is therefore not eligible for the National Register of Historic Places or as a State Archeological Landmark.

41BR268

41BR268 is a lithic workshop and procurement site of an unknown prehistoric period, approximately 500 m south of Devil's River. It covers a 200 x 150-m area of a dissected, ridge footslope, with eroded conglomerate and sandstone. The setting is characterized as upland, with an elevation of 1,390 ft. amsl. Vegetation consists of Mormon tea, yucca, agarita, tasajillo, mesquite, live oak, prickly pear, sage, and mixed grasses, allowing for 60 to 80 percent ground visibility.

Table 17. Artifacts at 41BR268

Artifact	Total
Flakes	20
Modified flakes	5
Tested cobbles	10
Cores	10
Total	**45**

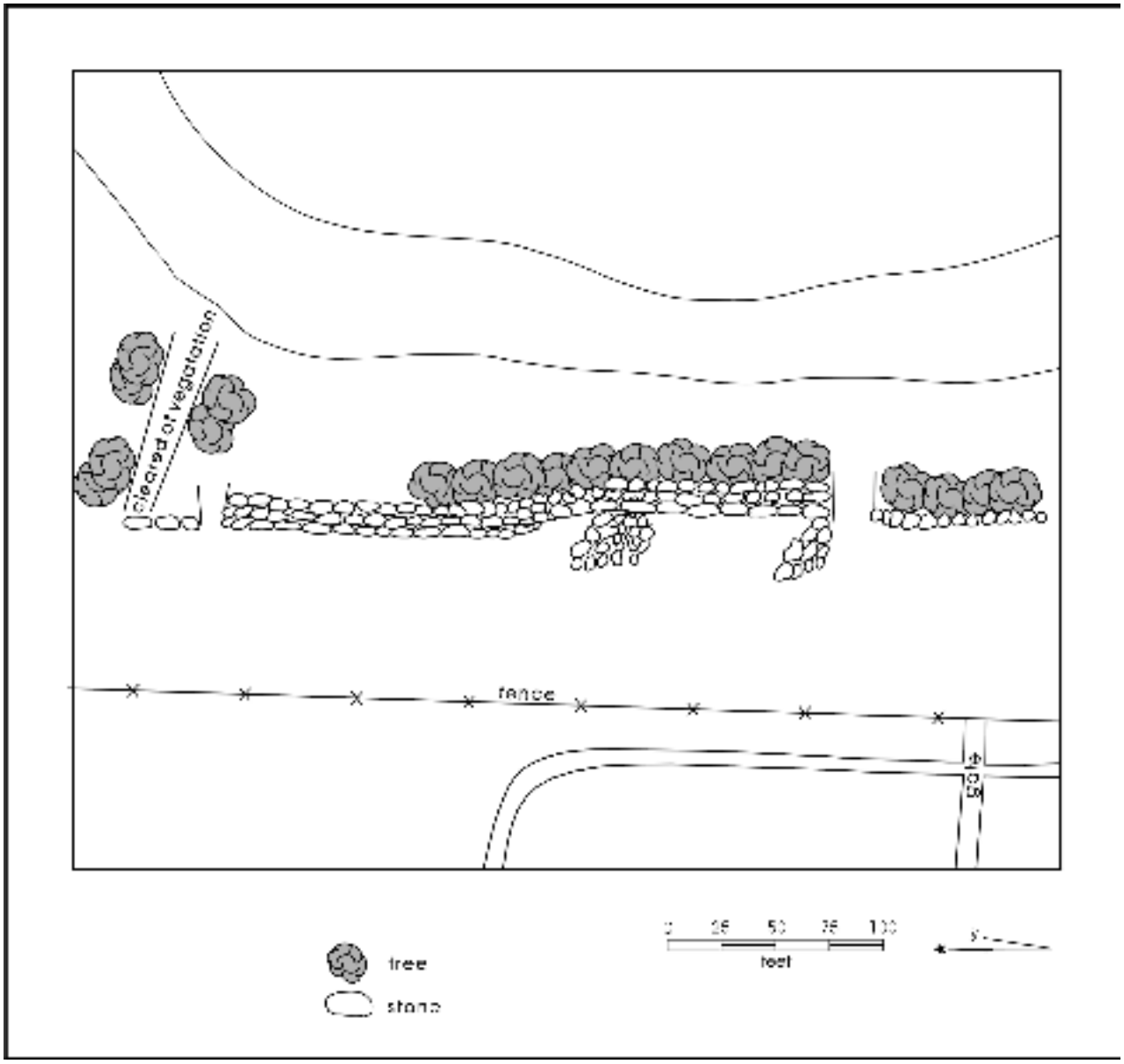

Figure 13. *Site map of 41BR266.*

41BR269

41BR269 is an open campsite with a lithic scatter covering a 100 x 110-m area of a flat ridge top, at an elevation of 1,500 ft. amsl. Vegetation consists of mixed grasses, mesquite, juniper, prickly pear, and horse mint, allowing for 50 to 100 percent surface visibility at the time of the survey.

Bulverde (reworked into a drill), Pedernales, and Fresno point types (Figures A-24, 25, and 26) found on the surface suggest that the site's temporal affiliations may range from the Late Archaic to the Late Prehistoric (Collins 1995; Johnson and Goode 1994; Turner and Hester 1993). Other cultural materials observed or collected are listed in Table 18. Three shovel tests were excavated, but all were shallow since bedrock was close to the surface (Table 19). Artifacts were recovered from two.

This site yielded three diagnostic artifacts and has a higher density of artifacts than many of the other sites

at Camp Bowie. However, it appears that deposits are very shallow (less than 10 cm in most places), the site is very rocky and eroded, and a jeep trail bisects the site. This site has little research potential due to the high degree of mixing of components through deflation. Thus it is not eligible for the National Register of Historic Places or as a State Archeological Landmark.

Table 18. Artifacts at 41BR269

Artifacts	Shovel Tests	Surface
Drill (reworked Bulverde)	-	*1
Fresno arrow pt.	-	*1
Pedernales pt.	-	*1
Dart point frag. (distal)	-	*1
Biface fragments	-	*4
Bifacial core	-	1
Burned, battered cobble	-	*1
Flakes	*2	121
Core fragments	-	2
Edge modified pieces	-	4
Mano fragment	-	1
Pieces of burned rock	-	4 (*1)
Total	**2**	**142**

(*) denotes items collected.

Table 19. Shovel testing at 41BR269

Unit	Depth	Observations
ST-1	0-6 cm	10YR 3/1 (very dark gray), loose, friable, medium block with limestone gravels and rocks. **1 debitage (surface)**
ST-2	0-8 cm	10YR 3/1 (very dark gray), loamy, friable medium blocky with limestone gravels and bedrock. **1 debitage (0-6 cm)**
ST-3	0-10 cm	10YR 3/l (very dark gray), loam with limestone gravels and bedrock. **No artifacts.**

41BR270

This is a historic site consisting of the remains of five check dams that may be WPA-era structures, dating to the 1930s (Figures 14 and 15). These structures are constructed of roughly cut limestone with concrete caps and facings, and are spaced out over an area measuring 360 ft. north-south by 115 ft. east-west. They were damaged or displaced when the drainage was later channelized for flood control.

The stone check dams are potentially eligible for the National Register of Historic Places and should be avoided until they can be documented further. Additional documentation would be used to evaluate the check dams for eligibility based on association with historic events or Depression-era CCC construction styles.

41BR271

This is a historic site consisting of a 100-ft. linear alignment of large limestone boulders associated with a line of oak trees oriented on a northwest-southeast axis. A 10-ft. wide area between the boulders and trees, and a ditch and berm may be an old roadbed.

The alignment of limestone boulders may line one side of an old road. Whether it is decorative or derives from military use of the property is difficult to determine. This feature is not considered eligible for the National Register of Historic Places under any of the standard criteria.

41BR272

Based on the structural and cultural materials present, 41BR272 appears to be a mid-twentieth century historic house site covering an area measuring 120 x 80 ft. The cultural remains consist of a concrete house foundation, a cylindrical water storage tank constructed of cut stone and mortar, a well platform and standpipe, and an associated scatter of historic artifacts.

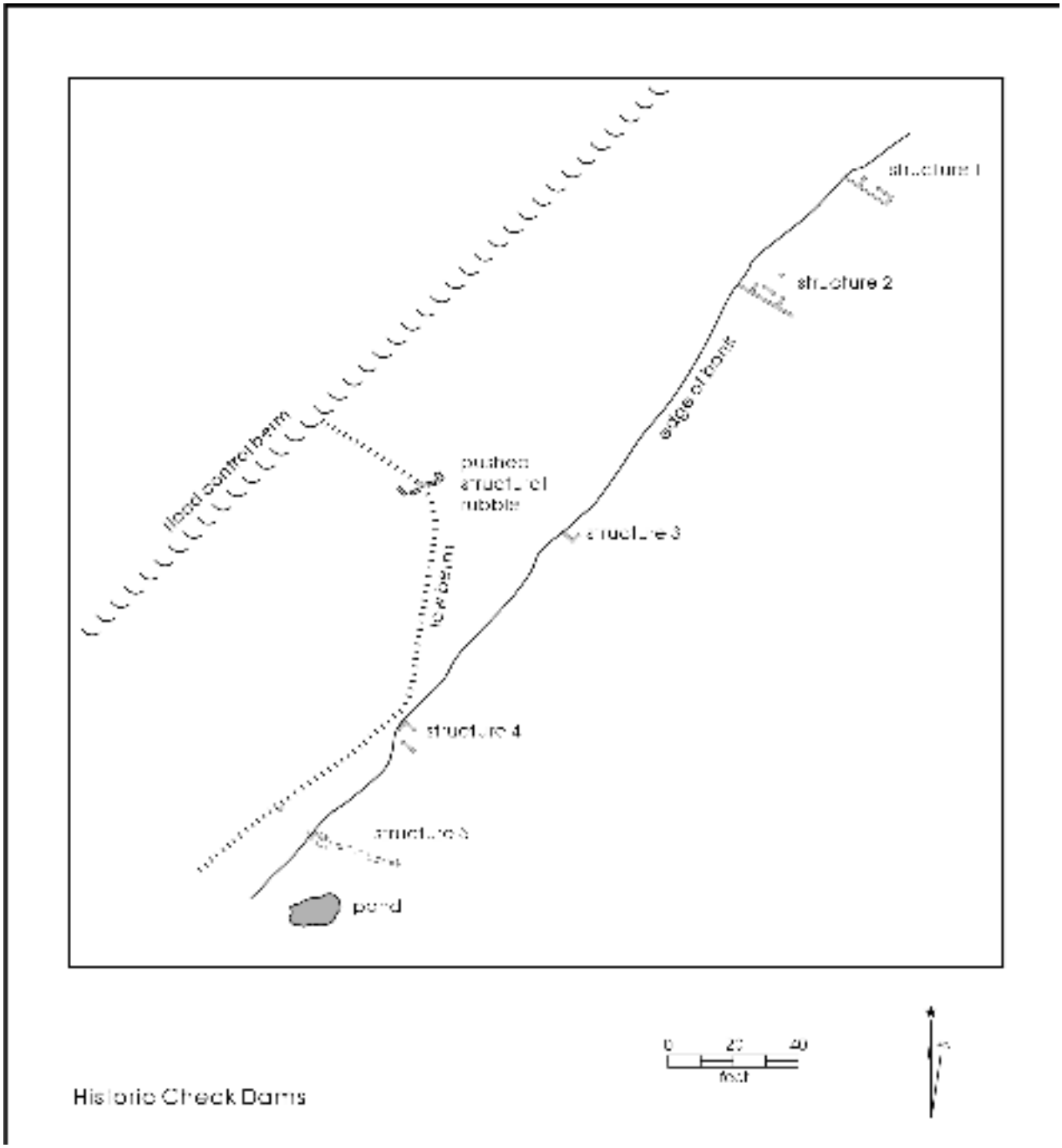

Figure 14. *Site map of 41BR270 - overview of the site.*

The house foundation measures approximately 40 ft. north-south by 35 ft. east-west, and is located approximately 130 ft. south of FM 2126. The water storage tank and well are approximately 50 to 60 ft. south of the house foundation. The water storage tank has an exterior diameter of 10 ft. and an exterior height of 6.5 ft., with a maximum volume based on internal dimensions of 2,200 gallons.

The vegetation consists of native bunch grasses, mesquite, live oak, tasajillo, and prickly pear, allowing for approximately 75 percent surface visibility.

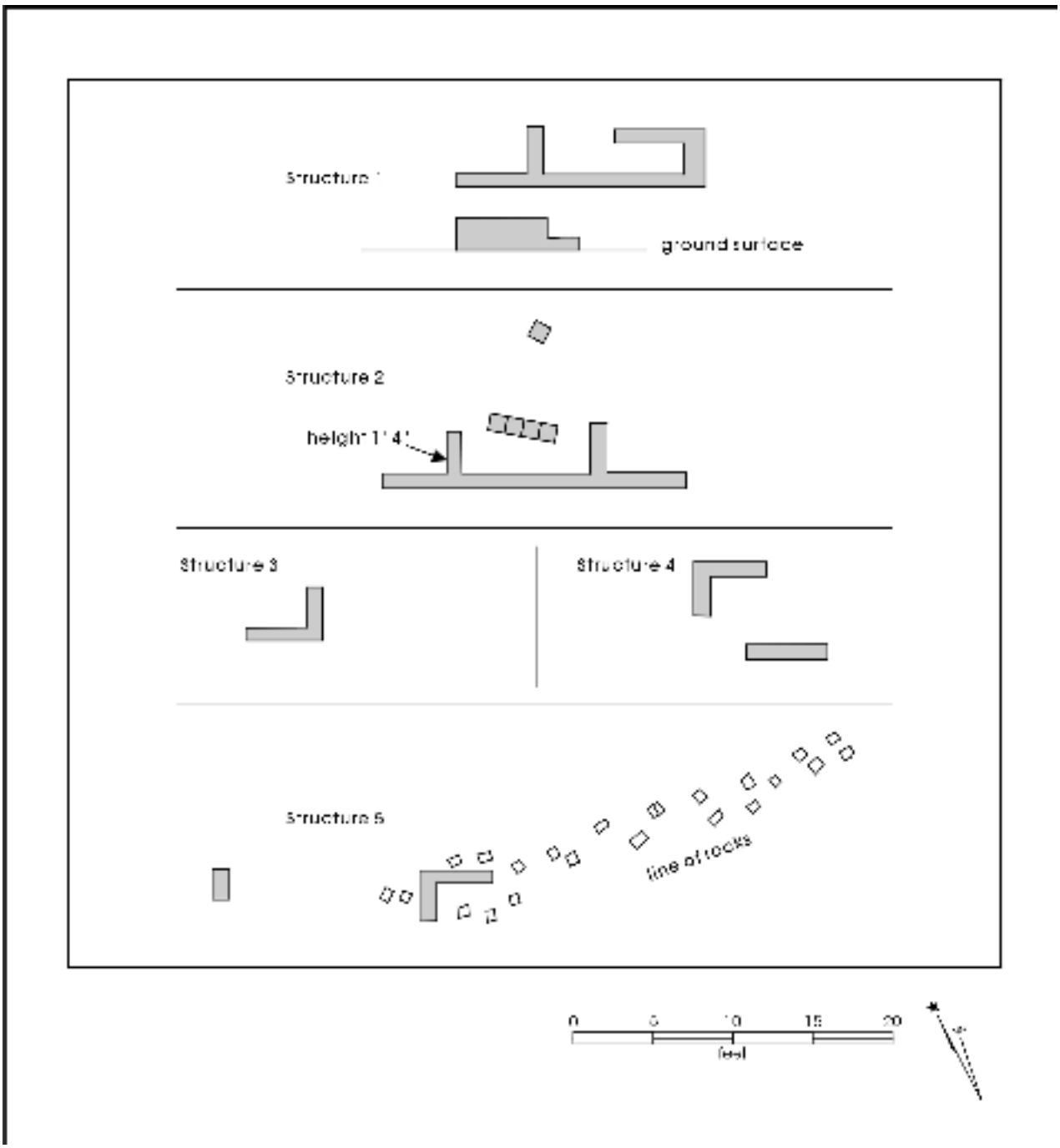

Figure 15. *Detail of the structures on 41BR270.*

Ceramic artifacts observed included china sherds with floral decal decoration, whiteware and stoneware sherds, and ceramic insulator fragments. Glass artifacts observed included soda bottle fragments, a clear glass beer mug handle and clear, green, brown, opaque white, and opaque green glass. Metal artifacts included steel cans, baling wire, and a light bulb base. This site is not eligible for the National Register of Historic Places due to its recent origin.

41BR273

41BR273 is an open campsite with a sparse lithic scatter covering a 10 x 20-m area of a gentle slope (1,565 ft. amsl at datum), located 200 m from FM 2126 and the Camp Bowie boundary fence. The soils are deflated and have been scraped. Although the generally sparse patches of mesquite, prickly pear and various grasses allowed between 50 and 90 percent surface visibility, only 10 chert flakes were observed on the surface. A single shovel test excavated to 50 cm revealed a silty clay loam transitioning with depth from a strong brown to reddish brown, but no artifacts.

This sparse lithic scatter has no diagnostics and is not likely to yield significant scientific or historical information. Thus, it is not eligible for the National Register of Historic Places or as a State Archeological Landmark.

41BR274

41BR274 is an open campsite with a light lithic scatter on a terrace slope overlooking a seasonal drainage to the northeast. The site occupies a 40 x 20-m area, set at an elevation of 1,500 ft. amsl. Nearly 100 percent of the ground's surface was visible amidst sparsely growing oak, juniper, yucca, beargrass, and mixed grasses. A scraper was collected and 20 chert flakes were observed on the surface.

This is a sparse lithic scatter and is not likely to yield significant scientific or historical information. It was evaluated previously and deemed ineligible for nomination to the National Register of Historic Places or as a State Archeological Landmark (Wormser et al. 1997).

41BR275

41BR275 is a lithic procurement site and workshop with a moderately dense prehistoric lithic scatter encompassing a 45 x 40-m area. It is located north of an intermittent tributary of Devil's River, on a 2 to 5 percent slope at the base of a knoll. Site vegetation consists of sparse mixed grasses, oak, juniper, prickly pear, yucca, and agarita, allowing for 80 to 90 percent ground surface visibility.

There are localized concentrations of flakes around sandstone and limestone bedrock outcrops along the slope and at the foot of the knoll. Lithic materials observed include over 20 chert flakes, shatter, and core fragments. Also observed was a square, flat rock (10 x 3 cm) made of coarse sandstone, which may be an abrader. One biface fragment was collected.

This lithic scatter, although moderately dense, is on shallow soils and bedrock and is not likely to yield significant scientific or historical information. It is therefore not eligible for the National Register of Historic Places or as a State Archeological Landmark.

41BR276

41BR276 is an open campsite on a gentle slope about 20 m north of a stock pond and east of an unnamed drainage (Figure 16). It covers a 100 x 100-m area, at an elevation of 1,520 ft. amsl. The Bulverde and Pedernales dart points (Figures A-27 and 28) collected from the site indicate a possible Late Archaic temporal affiliation (Collins 1995; Johnson and Goode 1994). Ground surface visibility ranged from 65 to 90 percent. A northwest-southeast trending jeep trail bisecting the site, along with sparse patches of juniper, oak, and various grasses, allowed for 65 to 90 percent surface visibility.

In addition to the two projectile points, artifacts observed and/or collected are listed in Table 20. A single shovel test excavated to 50 cm yielded no evidence of buried cultural material.

Table 20. Artifacts at 41BR276

Artifact	Total
Bulverde point	*1
Pedernales base fragment	*1
Medial dart point frag.	*1
Scraper	*1
Biface fragment	*1
Flakes	62 (*15)
Modified flake	*1
Tested cobbles	3
Total	**71**

(*) denotes items collected.

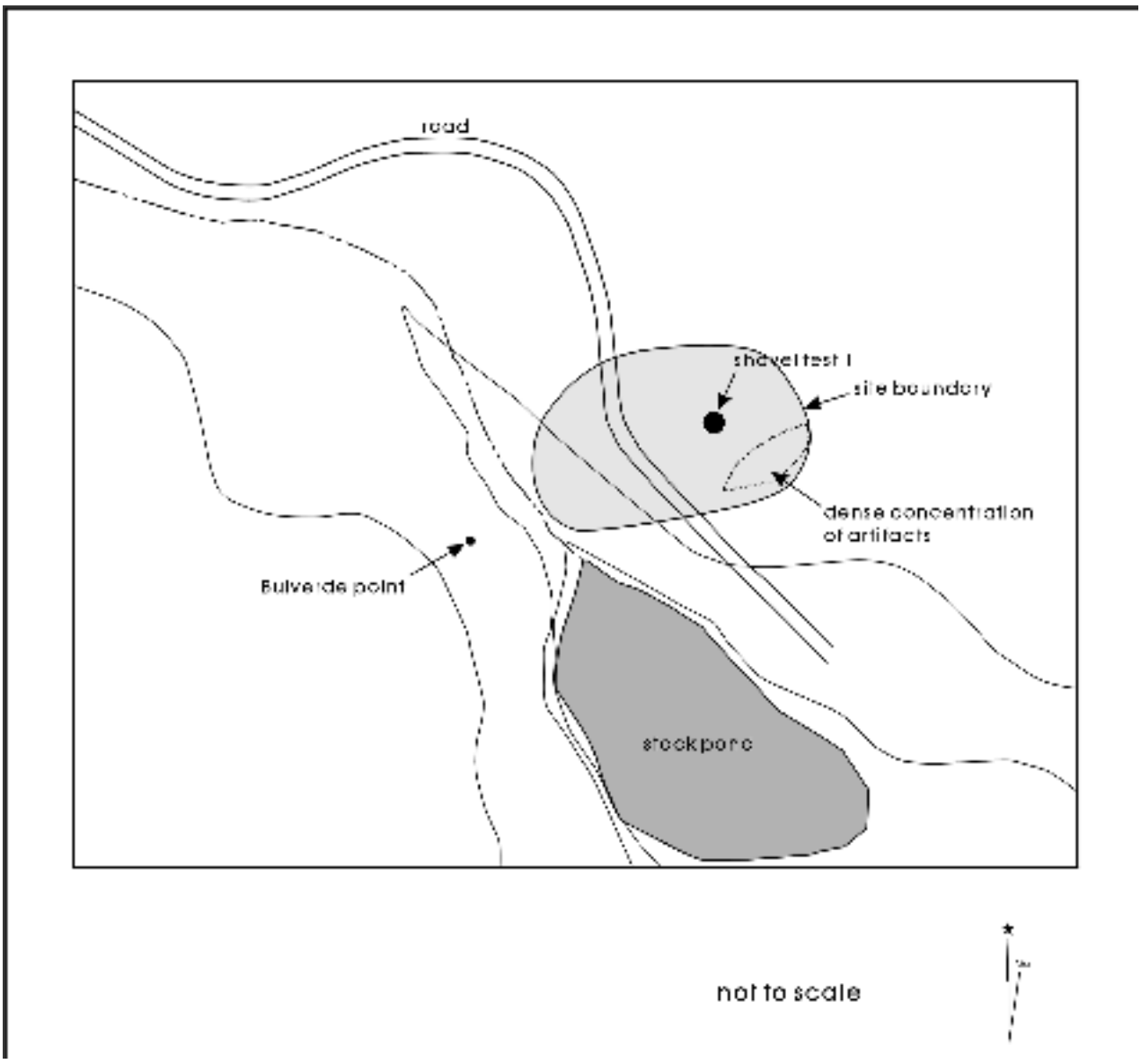

Figure 16. *Site map of 41BR276.*

The presence of a Late Archaic component indicates that this site may have good overall potential for yielding data using common archeological research methods. This site requires further evaluation to assess the condition of the cultural deposits, the probability for encountering intact features, and whether components are stratigraphically separated. The results would then determine its eligibility for the National Register.

CAR has recently completed additional work at this site, including the excavation of 33 shovel tests. While a report detailing that work is in production, the boundary on the accompanying map (Figure 16) reflects that additional work.

41BR277

41BR277 is a lithic procurement site with a sparse lithic scatter measuring 25 x 15 m. It is located on a terrace at 1,455 ft. amsl above a seasonal drainage. Sandstone bedrock is exposed at the slope edge and weathered gravels from a conglomerate outcrop

adjacent to the site are densely scattered on the terrace. The rocky loam soil supports a sparse growth of juniper, prickly pear, yucca, mesquite, tasajillo, oak, and various grasses, thus allowing for ground surface visibility between 70 and 90 percent.

A Bulverde dart point (Figure A-29) collected from the surface suggests a possible Late Archaic temporal affiliation (Collins 1995; Johnson and Goode 1994). Greater than 25 chert flakes were also observed on the surface, but not collected.

This is a sparse lithic scatter located atop shallow and eroded soils. This site is not likely to yield significant scientific or historical information and is therefore not eligible for the National Register of Historic Places or as a State Archeological Landmark.

41BR278

41BR278 is an open campsite and lithic scatter on a rocky and eroded terrace above a tributary to Devil's River. The site occupies a 50 x 50-m area at an elevation of 1,450 ft. amsl. The percentage of ground surface visible at the time of survey was 80 percent, amidst a sparse growth of live oak, prickly pear, juniper, and various grasses. Cultural material observed on the surface included over 20 flakes and a biface fragment. Only the biface fragment was collected.

This is a sparse lithic scatter on shallow, rocky, and eroded soils. It is not likely to yield significant scientific or historical information, and is therefore not eligible for the National Register of Historic Places or as a State Archeological Landmark.

41BR279

41BR279 is a lithic procurement site consisting of a light lithic scatter on a rocky, eroded terrace west of an unnamed drainage and above a conglomerate outcrop. It extends across a 50 x 50-m area at an elevation of 1,450 ft. amsl. Although in places the juniper, oak, buffalo grass, and various other grasses were dense, surface visibility was about 75 percent.

An Ensor dart point fragment (Figure A-30) collected from the surface suggests a Late Archaic affiliation (Collins 1995; Turner and Hester 1993). Other artifacts, observed but not collected, included three exhausted cores and over 30 flakes.

This is a sparse lithic scatter with shallow, rocky soils, thus severely limiting its ability to provide significant archeological information. As such, it is not eligible for the National Register of Historic Places or as a State Archeological Landmark.

41BR280

41BR280 is an open campsite with a sparse lithic scatter, setting on a second terrace above Devil's River. It covers a 40 x 70-m area at an elevation of 1,450 ft. amsl. A dam and pond have been constructed approximately 160 m to the northeast. The thin, rocky, silty soil supports juniper, live oaks, prickly pear, yucca, agarita, and various grasses.

With about 65 to 80 percent of the ground surface visible, cultural materials observed and/or collected are listed in Table 21. A single Bulverde dart point (Figure A-31) found on the surface suggests a Late Archaic affiliation (Collins 1995; Johnson and Goode 1994). This appears to be a very minor site lying on thin soils, and has very little potential to provide significant archeological information. Thus, the site is not eligible for the National Register of Historic Places or as a State Archeological Landmark.

Table 21. Artifacts at 41BR280

Artifact	Total
Bulverde point	*1
Biface fragment	*1
Cores	*3
Debitage	*11
Top of a split core	1
Flakes	25
Total	**42**

(*) denotes items collected.

41BR281

41BR28l is a small (10 x 10-m), open campsite with a sparse lithic scatter on eroded soils. Its elevation of 1,400 ft. amsl on top of a gravelly north-facing ridge slope provides an advantageous view of the valley below. Moderately dense vegetation around the site includes oak, agarita, yucca, tasajillo, and various grasses, allowing for 65 percent surface visibility. Only 10 flakes were observed on the surface.

The site has been disturbed by both natural and artificial causes. In addition to the eroded soils, there are conglomerate outcrops along the edge of the ridge top, an artificial berm adjacent to the site was built to control wind erosion, and the Camp Bowie boundary fence abuts the site to the east.

This is a sparse lithic scatter on shallow and eroded soils, and is not likely to yield significant scientific or historical information. It was evaluated previously and deemed ineligible for nomination to the National Register of Historic Places or as a State Archeological Landmark (Wormser et al. 1997).

41BR282

41BR282 is a small (10 x 20-m), open campsite with a sparse lithic scatter on a flat conglomerate-based ridge top, 500 m south of Devil's River and 1,550 ft. amsl. The dense vegetation, which includes oak, juniper, yucca, agarita, tasajillo, cat claw, and various grasses, reduces surface visibility to about 50 percent. One flake showing edge-modification/utilization was collected, while one exhausted core and 11 additional unmodified flakes were observed on the surface, but not collected.

Because of the paucity of artifacts and the shallow nature of the deposits, this site is not likely to yield significant scientific or historical information. It is therefore not eligible for the National Register of Historic Places or as a State Archeological Landmark.

41BR283

41BR283 is a small open campsite with a sparse lithic scatter on a gentle slope 100 m east of Devil's River. It covers a 175 x 50-m area, including exposures of sandstone bedrock. A jeep trail abuts the site to the south. Oak, prickly pear, yucca, juniper, tasajillo, beargrass, and various grasses are moderately dense on most of the site, with thicker growth along the drainages. Thus, surface visibility ranged between 50 and 75 percent. In addition to a biface fragment collected from the surface, 40+ flakes were observed.

This is a sparse lithic scatter located atop shallow soils and bedrock and is not likely to yield significant scientific or historical information. It was evaluated previously and deemed ineligible for nomination to the National Register of Historic Places or as a State Archeological Landmark (Wormser et al. 1997).

41BR284

41BR284 is a small open campsite with a sparse lithic scatter on a slope abutting the north side of Devil's River. It covers a 50 x 50-m area at an elevation of 1,500 ft. amsl. A firebreak and Camp Bowie boundary fence have been constructed 50 m west of the site. At the time of the survey, between 65 and 80 percent of the ground surface was visible between patches of juniper, live oak, yucca, and beargrass. Ten chert flakes, one biface fragment and a unifacially modified secondary flake were observed; only the biface was collected.

This is a sparse lithic scatter. The soil is rocky and cultural deposits are shallow. Thus, it is not likely to yield significant scientific or historical information and is not eligible for the National Register of Historic Places or as a State Archeological Landmark.

41BR285

41BR285 is a small open campsite with a lithic scatter spread across a 90 x 180-m area on an elevated landform on the north edge of Devil's River. Eighty

percent of the ground surface was visible at the time of survey, primarily due to clearing activities by the military, leaving only sparsely scattered juniper, yucca, oak, and mesquite. Natural processes have also heavily disturbed the site. There are sandstone bedrock outcrops, the soils are deflated, and erosion is evident on the 5–15 percent slope on the south side. Artifacts collected included six bifaces, one core, and one piece of burned chert. In addition, over 50 flakes were observed but not collected.

This sparse lithic scatter is on shallow and heavily disturbed soils. In its present condition, the site is not likely to yield significant scientific or historical information. It was evaluated previously and deemed ineligible for nomination to the National Register of Historic Places or as a State Archeological Landmark (Wormser et al. 1997).

41BR286

41BR286 is a small open campsite with a sparse lithic scatter from an unspecified prehistoric time period, underlying a historic trash dump that dates between 1900 and 1935. This 50 x 75-m site is on a gently sloping terrace above tributary drainages of Devil's River. Sandstone bedrock outcrops characterize the terrace edge. Shallow and stony loam soils at this 1,440-ft. elevation support oak, cedar, yucca, beargrass and various grasses, allowing for between 50 and 70 percent surface visibility.

Artifacts present at the site are summarized in Table 22. The prehistoric component of the site consisted of a distal biface fragment, one modified flake, and four unmodified flakes, an assemblage that is typical of the many small, minor campsites that occur across the region.

The historic component consisted of 10 pieces of glass (five purple, three green, one aqua, and one clear — all collected), four pieces of ceramics (white granite "ironstone" —collected), three pieces of metal, and one cut nail with a forged head. The purple glass fragments were solarized. The term "solarized glass" refers to glass that was originally clear, but had gradually turned purple upon exposure to sunlight. Glass manufacturers once used manganese to clarify glass, and that is the substance that changes color over time. America's supplier of manganese was Germany, but from 1914 to 1918 (World War I), that supply was cut off. By the end of the war, American glass manufacturers had turned to selenium as a replacement for manganese (Munsey 1970). Thus, the solarized glass was probably manufactured prior to 1914, but after 1880. The aqua glass was manufactured from approximately 1880-1920. Green glass dates from about 1880

Table 22. Artifacts at 41BR286

Item	Total	Comments
Biface fragment	1	Blade and tip; not diagnostic.
Modified flake	1	Secondary, thick hard-hammer flake unifacially worked on ventral face of distal edge–probably for scraping.
Flakes	4	
Clear glass	1	
Green glass	3	1 round bottle bottom embossed with the words, "TOLEDO," "TRADE MARK," and "BOTTLE." Glass is fresh-looking, not patinated or etched. Also, 1 rectangular bottle bottom embossed "A & DHC."
Aqua glass	1	Probable medicine bottle.
Purple "solarized" glass	5	Includes: 1 bottle neck with mold seam up to lip; 1 rectangular bottle bottom embossed with, "CCC"; 1 stem of a pedestaled dessert or candy bowl.
White granite "ironstone" ware	4	
Metal fragments	3	Not collected.
Cut nail	1	Not collected.

to the present, while clear glass dates from the 1930s. Embossed bottles were common from the late-nineteenth century and into the mid-twentieth century (Toulouse 1971), but the presence of three-piece mold seams (each side and the bottom) indicates a post-1893 date of manufacture (Kendrick 1966). The white granite "ironstone" ware dates from about 1860-1900.

Based on this assessment, and given a life span for glass bottles of two to 20 years, the dump probably falls into a date range of 1894 to 1935. Cut nails tend to predate 1900, but were also used later and may survive for decades (Nelson 1968).

No homestead or farm is associated with the trash scatter, and the trash dump as a sole entity is not considered significant. The prehistoric component appears to be a minor campsite. However, the soils are very shallow and rocky. This site is unlikely to produce significant scientific or historical information, and is not considered eligible for the National Register of Historic Places or as a State Archeological Landmark.

41BR287

41BR287 is a small open campsite with a sparse lithic scatter covering a 60 x 60-m area. It is set at an elevation of 1,430 ft. amsl on a northern terrace above Devil's River. The soils are thin and rocky, with areas of exposed sandstone bedrock. The vegetation in the area consists of juniper, yucca, oak, beargrass, and various grasses, allowing for 75 percent surface visibility at the time of the survey. One Bulverde point base (Figure A-32) suggesting a Late Archaic occupation (Collins 1995; Turner and Hester 1993), one biface fragment, one modified flake, and 21 unmodified flakes were collected.

This is a sparse lithic scatter located atop shallow soils and bedrock and is not likely to yield significant scientific or historical information. It was evaluated previously (Wormser et al. 1997), and deemed ineligible for nomination to the National Register of Historic Places or as a State Archeological Landmark.

41BR288

41BR288 is a small open campsite with a sparse lithic scatter from an unknown prehistoric temporal affiliation. This 75 x 100-m site is located at 1,510 ft. amsl on a northward trending slope, 500 m south-southeast of Devil's River. Broken limestone is scattered around the area, and the soils are shallow. The amount of ground surface visible at the time of survey was between 70 to 100 percent because of the widely scattered juniper, oak, and various grasses.

Cultural materials observed or collected are listed in Table 23. The bifacial tools, cores, and associated debitage suggest limited stone tool manufacturing occurred at the site.

This sparse lithic scatter located atop shallow and eroded soils is not likely to yield significant scientific or historical information. It is therefore not eligible for the National Register of Historic Places or as a State Archeological Landmark.

Table 23. Artifacts at 41BR288

Artifacts	Total
Biface fragment	*1
Scraper	*1
Core	*3
Tested cobble	1
Flakes	3
Total	**9**

(*) denotes items collected.

41BR289

41BR289 is a small open campsite with a sparse lithic scatter on a relatively flat area at the base of a slope. The site occupies a 50 x 40-m area at an elevation of 1,485 ft. amsl. The moderately dense vegetation consists of live oaks, mesquite, juniper, agave, prickly pear, low grasses, and forbs, and allows for 70 percent surface visibility. Cultural materials observed and/or collected are listed in Table 24.

This is a sparse lithic scatter with no diagnostics and is not likely to yield significant scientific or historical information. It is therefore not eligible for the National Register of Historic Places or as a State Archeological Landmark.

Table 24. Artifacts at 41BR289

Artifacts	Total
Core	*1
Modified flake	*1
Debitage	*1
Fractured cobble	1
Test block	1
Flake	1
Total	**6**

(*) denotes items collected.

41BR290

41BR290 is a 90 x 40-m historic farmstead. The site contains a windmill and masonry/concrete water tank. Inscribed on the tank is the date "08/19/38." Two modern metal sheds, a modern metal storage bin, a modern plywood structure, and fencing associated with swine raising are present. These modern materials appear to date to the 1980s. The site is located at 1,490 ft. amsl on a flat, wide ridgeline. An unnamed, intermittent drainage is located roughly 280 m to the north of the site. The surface of the site is a silt loam, and gravels are common. Vegetation observed at the time of the survey included live oak, mesquite, prickly pear, and grass. The area's ground surface visibility was 80 to 100 percent.

This site appears to represent the remains of a farmstead, possibly associated with ranching. In order to evaluate 41BR290, further documentation to establish association with specific persons or events will be required. It is therefore recommended that archival work be conducted for 41BR290. Until that work is conducted, the site should be considered potentially eligible for inclusion to the National Register of Historic Places and as a State Archeological Landmark.

41BR291

41BR291 is 160 x 40-m lithic workshop consisting of a lithic scatter on an undulating, eroded terrace above Devil's River and a reservoir. Limestone conglomerate outcrops occur at 1,445 ft. amsl on the western edge of the site, and broken limestone is scattered throughout. The area's ground surface visibility ranged from 50 to 100 percent in-between juniper, oak, yucca, and buffalo grass. Cultural materials observed and/or collected are listed in Table 25.

This site is a sparse lithic scatter on shallow soils and is not likely to yield significant scientific or historical information. It is therefore not eligible for the National Register of Historic Places or as a State Archeological Landmark.

Table 25. Artifacts at 41BR291

Artifacts	Total
Uniface	1
Biface fragments	2
Debitage	*1
Secondary flakes	42
Primary flakes	14
Total	**60**

(*) denotes items collected.

41BR292

41BR292 is a lithic workshop consisting of a sparse lithic scatter along the edge of a flat, rocky terrace ridge. The site is at an elevation of 1,500 ft. amsl and covers a 50 x 30-m area. The soils are thin and stony, with broken limestone scattered around the site. The percentage of ground visibility ranged from 75 to 90 percent amidst juniper, oak, and yucca. Cultural materials observed and/or collected are listed in Table 26.

The site is on shallow soils, with no features or diagnostics. It is not likely to yield significant scientific or historical information. It is therefore not eligible for the National Register of Historic Places or as a State Archeological Landmark.

Table 26. Artifacts at 41BR292

Artifact	Total
Bifaces	*3
Cores	*2
Modified flakes	*3
Debitage	*11
Fire-cracked rock	*1
Primary flake	1
Secondary flakes	11
Interior flakes	5
Total	**37**

(*) denotes items collected.

41BR293

41BR293 is a lithic workshop consisting of a sparse lithic scatter on a five percent sloping terrace, 400 m south-southwest of Devil's River. A conglomerate outcrop is directly adjacent to the site. The site occupies a 50 x 50-m area at an elevation range of 1,450 to 1,500 ft. amsl. There are a few areas with deep soils, but the majority of the soils are shallow and stony, supporting only a few oak trees, agarita, and prickly pear cactus. About 60 to 85 percent of the surface was visible at the time of survey.

The few artifacts that were present included cores, tested cobbles, and a secondary flake, as would be expected at a workshop site. There were also a biface and an Ensor point (Figure A-33), with the latter indicating a Late Archaic component (Collins 1995; Turner and Hester 1993). Cultural materials observed and collected are listed in Table 27.

Table 27. Artifacts at 41BR293

Artifact	Total
Flake	*1
Biface	*1
Tested cobbles	2
Cores	*2
Ensor point	*1
Total	**7**

(*) denotes items collected.

Overall, this site has a paucity of artifacts, lacks any apparent features, and is on shallow, rocky soils. Although one diagnostic artifact was found, the site is not likely to yield significant scientific or historical information, and thus it is not eligible for the National Register of Historic Places or as a State Archeological Landmark.

41BR294

41BR294 is a historic trash dump on a dissected terrace ridge, approximately 1,440 ft. amsl. Devil's River is located about 100 m to the northwest. The site vegetation consists of oak, juniper, yucca, phlox, and buffalo grass, allowing between 70 and 100 percent surface visibility.

Artifacts observed at the site included embossed Purex and Clorox bleach bottles, a vinegar bottle, a clear medicine bottle, fragments of clear, brown, and blue bottle glass, and one piece of solarized glass. Cans observed were sanitary food cans, steel beverage cans, an offset threaded tall can, and a friction lid quart can. Ceramics observed included a yellow and white earthenware bowl with decal applique, and earthenware fragments of electric blue and hot pink. None of these historic artifacts were collected. In addition, a prehistoric component to the site, probably an open campsite, is evidenced by the presence of a Frio point (Figure A-34) and a biface (both collected), and two chert flakes (not collected). The Frio point dates to the Late Archaic (Collins 1995).

Based on the embossed glass, but lack of a substantial amount of solarized glass, the historic component probably dates to between about 1920 and the 1930s and does not appear to be associated with any specific farmstead or house. Neither the historic nor prehistoric components of this site are likely to yield significant scientific or historical information, and are not eligible for the National Register of Historic Places or as State Archeological Landmarks.

41BR295

41BR295 is an open campsite consisting of a light lithic scatter on a long, wide, and flat terrace. There is broken limestone scattered around the site with reddish limestone outcrops. The center of the site is located at an elevation of 1,500 ft. amsl and occupies a 50 x 150-m area. The percentage of ground surface visible at the time of survey was 70 percent. The vegetation consists of oak, prickly pear, juniper, yucca, and beargrass. One biface, one modified flake, and 10 debitage were collected from the surface, while a tested cobble and an additional five flakes were noted.

This sparse lithic scatter located atop shallow soils is not likely to yield significant scientific or historical information, and is not eligible for the National Register of Historic Places or as a State Archeological Landmark.

41BR296

41BR296 is a lithic procurement site, with a sparse lithic scatter covering a 50 x 75-m area. It is located along the southwest end of a ridge slope 1,440 ft. amsl. An intermittent drainage abuts the site to the southwest. The silty loam soil is 10–20 cm deep over most of the site, and thus a healthy growth of oak and various grasses reduces surface visibility to between 25 and 50 percent. Cultural materials found and collected included eight flakes, two bifaces, and one exhausted core.

This sparse lithic scatter on shallow, rocky soil is not likely to yield significant scientific or historical information. It is therefore not eligible for the National Register of Historic Places or as a State Archeological Landmark.

41BR297

41BR297 is a lithic procurement site, with a sparse, 30 x 30-m lithic scatter on an eroded conglomerate slope, 1,440 ft. amsl. An unnamed tributary to Devil's River is located 200 m northeast of the site. A rocky, silty loam supports a few oaks, junipers, and prickly pear cactus, allowing for 80 percent surface visibility. Three chert flakes were observed but not collected.

This sparse lithic scatter is not likely to yield significant scientific or historical information. It was evaluated previously and deemed ineligible for nomination to the National Register of Historic Places or as a State Archeological Landmark (Wormser et al. 1997).

41BR298

41BR298 is an open campsite with a sparse lithic scatter on a rocky stream bank. Two flakes, one modified flake, and a biface were collected within a 30 x 75-m area on the south side of the seasonal drainage. The shallow, rocky soils support prickly pear, oak, and juniper, allowing for surface visibility ranging between 50 and 100 percent. The site's elevation at its center is 1,470 ft. amsl.

This site has a paucity of artifacts and very shallow, rocky soils, and is not likely to yield significant scientific or historical information. It is therefore not eligible for the National Register of Historic Places or as a State Archeological Landmark.

41BR299

This site is a large historic military concrete bunker used for training purposes during World War II (Figure 17). It is on a flat area southeast of a small ridgeline, with an unnamed tributary to Devil's River located 200 m to the northeast. The interior of the bunker is approximately 12 ft. wide by 24 ft. long, and is buried within an earthen berm measuring 64 ft. wide by 100 ft. long. The bunker is constructed of concrete that was poured into a frame made with 8-in. boards; their impressions can be seen on the bunker's ceiling. Graffiti dating from the 1940s, was also observed on the inside of the bunker. The berm is topped with rock rubble, and small oak trees, prickly pear, and grasses are growing on and around it. An earthen mound has also been built up along the east side of the bunker mound. One piece of clear glass was collected.

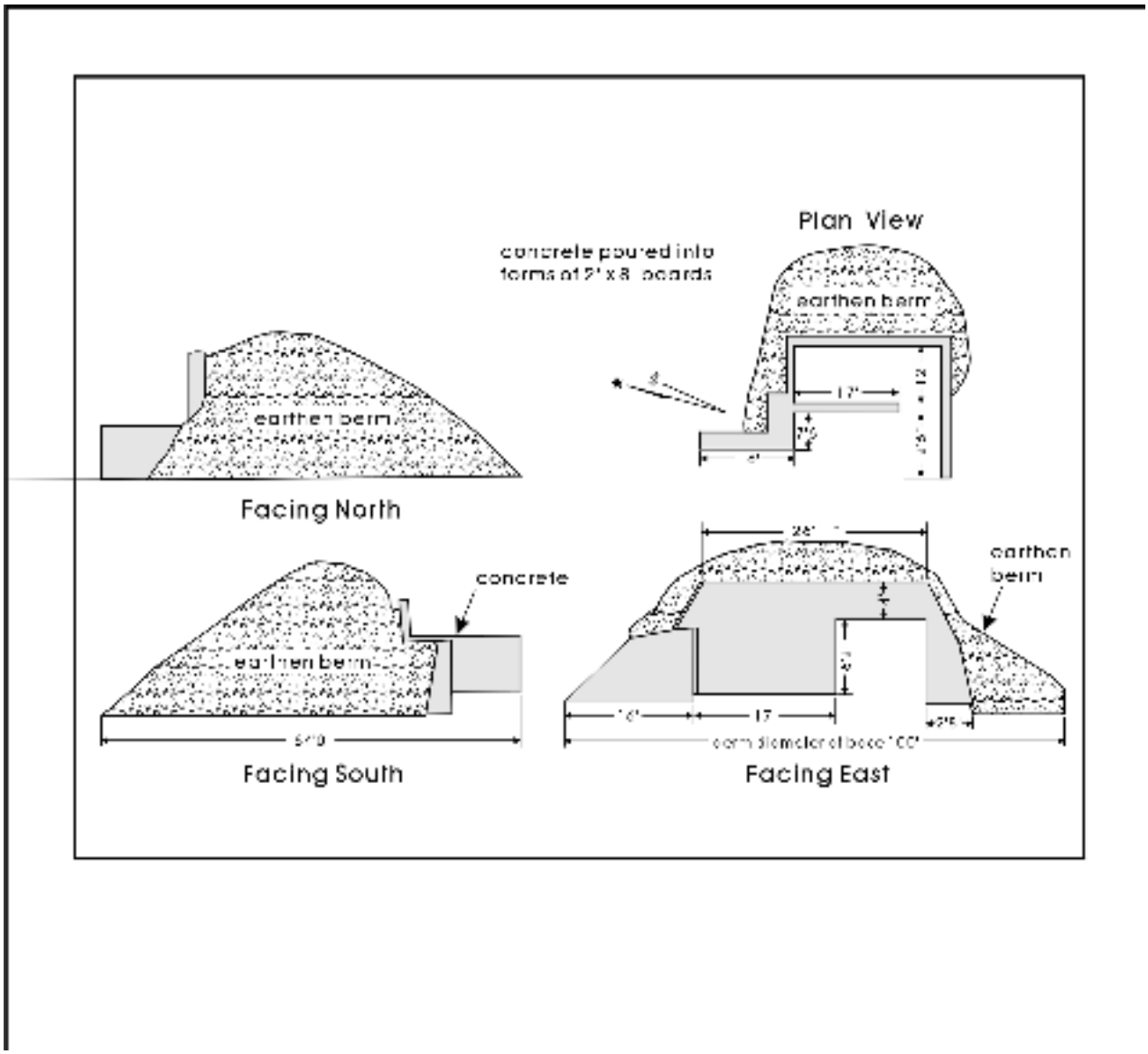

Figure 17. *Site map of 41BR299.*

This site will be marked for avoidance. It is potentially eligible for the National Register of Historic Places, and will require more in-depth investigation to be certain of its eligibility.

41BR300

41BR300 is an open campsite with a lithic scatter on a gently sloping upland terrace at the head of a seasonal wash. The site covers an 80 x 30-m area at an elevation of 1,450 ft. amsl. Sandy soil with gravel and small fragments of sandstone support mixed grasses, oak, yucca, prickly pear, agarita, and cat's claw. Chert gravels are eroding from exposed conglomerate at the site. Surface visibility was good at the time of the survey—approximately 90 percent. Cultural materials collected included a biface, one modified flake, and nine unmodified flakes.

With few artifacts and no diagnostics or features, this site is not likely to yield significant scientific or historical information. It is therefore not eligible for the National Register of Historic Places or as a State Archeological Landmark.

41BR301

41BR301 is a lithic workshop with a scatter of debitage spread across the edge of an eastern-trending finger ridge. Limestone bedrock is exposed in places and broken limestone is scattered throughout. The site, which covers a 50 x 50-m area, is surrounded by a dense grove of cedars and small oaks. A total of 11 tertiary and six secondary chert flakes were observed on the surface.

This site has a paucity of artifacts, and the soils are shallow and rocky. It is not likely to yield significant scientific or historical information and is therefore not eligible for the National Register of Historic Places or as a State Archeological Landmark.

41BR380

41BR380 was located by Lone Star Archeological Services in July 1992 and categorized as a burned rock midden site. However, it could not be relocated by AGTX survey crews in 1995. Lone Star archaeologists reported that it was a very small site—only occupying a 10 x 5-m area on the side of an intermittent drainage that feeds into Devil's River from the north. It was documented as due south of an unimproved road that trends east-west along the north banks of the river. The soil was sandy clay, with small to medium gravels. The vegetation included red oak, juniper, elm, and mixed grasses, and 50 percent of the ground surface was visible at the time of the 1992 survey.

In their report to the Adjutant General's Department, Lone Star further described the site as being an open campsite with a burned rock midden, with thermally fractured, cubic chunks of sandstone integrated into a hearth. The hearth could be seen in the edge of a drainage about 25 ft. south of a dirt road, which passed through the site. Lone Star surveyors did not collect any cultural material, but they observed chert flakes, mussel shell and burned sandstone on the surface. The Lone Star crew also reported that most of this site appeared to be buried.

The AGTX Cultural Resources staff returned in 1996 and again attempted to relocate the site. The area as plotted for 41BR380 was thoroughly examined, including the cutbank of Devil's River, and no evidence of cultural material was found. In addition, archeologists from the Center for Archaeological Research at UTSA systematically searched a 300 x 200-m area centered on the location provided by Lone Star. After these intensive reconnaissances of the area, it was determined that the site had either been plotted incorrectly or had eroded into the drainage. Therefore, although it is shown on our maps as it was plotted by Lone Star, this particular location is not considered worthy of further investigation. If a burned rock midden site is found at some later date and determined to be the one Lone Star reported, it should be evaluated for National Register eligibility.

41BR381

41BR381 is a lithic workshop consisting of a very light scatter of chert tool reduction debris on the surface, covering a 20 x 40-m area at an elevation of 1,365 ft. amsl. The debitage lies on a deflated bedrock edge of an upland ridge. The site has been disturbed by the construction of a road through it for circa 1940s military training. Fifty percent of the ground surface was visible amidst live oak, red oak, juniper, and mixed grasses. This site was originally found during a survey by Lone Star Archeological Services in July 1992. One biface was collected from the surface by Lone Star.

This sparse lithic scatter located atop shallow soils is not likely to yield significant scientific or historical information. It was evaluated previously and deemed ineligible for nomination to the National Register of Historic Places or as a State Archeological Landmark (Wormser et al. 1997).

41BR382

41BR382 is an open campsite with a sparse lithic scatter on a 1,510-ft. amsl hilltop overlooking Devil's River, 300 m to the northwest. The scatter covers about a 50-m diameter area. This site was found during a survey by Lone Star Archeological Services in July 1992. According to their records the site's cultural materials consisted of one ovate biface, core nuclei,

and a sparse scatter of coarse-grained chert flakes. None of the artifacts were collected. They also excavated one shovel test to a depth of 30 cm, with negative results. During the 1995 visit by AGTX archeologists, there was about 30 percent surface visibility, revealing light brown sandy loam with red oak, live oak, cactus, and mixed grasses.

This site has a paucity of artifacts, with no evidence of subsurface material. It is not likely to yield significant scientific or historical information, and is not eligible for the National Register of Historic Places or as a State Archeological Landmark.

41BR383

41BR383 is an open campsite with a small lithic scatter occupying a 20-m diameter area on the toe of a hill about 1,500 ft. amsl, with Devil's River 280 m to the northwest. This site was initially documented by Lone Star Archeological Services in July 1992. They observed only chert flakes (artifact count not specified) on the surface. They also excavated a shovel test to five cm, with negative results. During a revisit by AGTX archeologists, the surface visibility ranged between 40 and 50 percent. The light brown silty loam with small gravels supported mixed grasses, juniper, red oak, and low forbs.

The site has a paucity of artifacts and very shallow soils (about 5 cm). It was evaluated previously and deemed ineligible for nomination to the National Register of Historic Places or as a State Archeological Landmark (Wormser et al. 1997).

41BR384

41BR384 is a historic sandstone quarry of unknown age, covering an area approximately 30 x 95 m, with an average elevation of 1,490 ft. amsl. The stone has been quarried from the northern edge of a slope, resulting in an artificial waterfall forming in wet weather. The quarry was recorded by Lone Star Archeological Services during their 1992 survey and was given a site number by the Texas Archeological Research Laboratory. Although not considered an archeological site, it is included on the present cultural resources inventory for completeness.

The quarry is not eligible for the National Register of Historic Places, nor is it eligible as a State Archeological Landmark. However, recording its location may prove useful if other stone structures in the vicinity of Camp Bowie are constructed of stone from this quarry.

41BR385

41BR385 is a lithic procurement area utilizing a gravel bar between two drainages that feed into Devil's River. The extent of lithic debris is about 200 x 70 m, and lies at an elevation of 1,460 ft. amsl. The soils at the site are a tan silt with medium to large gravels, with 60 percent surface visibility amidst a growth of red oak, juniper, prickly pear, and mixed grasses. This site was initially found by Lone Star Archeological Services in July 1992. According to their site record, there was a light scatter of tested chert gravels, with primary, secondary, and tertiary chert flakes.

This site has a paucity of artifacts, no diagnostics or features, and appears to be shallow. It was evaluated previously and deemed ineligible for nomination to the National Register of Historic Places or as a State Archeological Landmark (Wormser et al. 1997).

41BR386

Site 41BR386 is a lithic procurement site setting on a 1,442-ft. amsl terrace 100 m east of Devil's River. A sparse lithic scatter covers a 20 x 40-m area of the terrace. Reddish brown sandy loam supports vegetation consisting of red oak, juniper, yucca, and mixed grasses. The vegetation is moderately thick, allowing for only between 30 and 50 percent ground surface visibility. This site was located by Lone Star Archeological Services in July 1992. At that time they recorded observing a biface fragment, and an unspecified number of primary, secondary, and tertiary flakes. A Pedernales point base (Figure A-35) collected from the surface by Lone Star suggests a Late Archaic component to the site (Collins 1995; Johnson and Goode

1994). They also excavated a single shovel test to 5 cm, with negative results.

Despite the recovery of the Pedernales point, this site has a paucity of artifacts, no features, and very shallow soils. It is not likely to yield significant scientific or historical information, and is not eligible for the National Register of Historic Places or as a State Archeological Landmark.

41BR387

41BR387 consists of at least two components: a prehistoric open campsite and lithic scatter, and a historic trash dump. The lithic scatter is sparse, with no diagnostics, and the trash dump may date to the late nineteenth century.

The site occupies a 175 x 100-m hilltop area at an elevation of 1,390 ft. amsl. Silty soils support live oak, sagebrush, prickly pear, Spanish dagger, and short grasses. Surface visibility in the area ranges between 20 and 80 percent.

The site was originally recorded by Lone Star Archeological Services in July 1992. They reported observing a core, a biface midsection, and an unspecified number of flakes. Historic artifacts included fragments of bottle glass, including aquamarine, brown, and Italian blue glass, which they identified as being of nineteenth-century origin. No artifacts were collected.

The prehistoric component represents a minor lithic scatter with a paucity of artifacts, and the historic component is not affiliated with any other historic features or sites. Thus, it is not likely to yield significant scientific or historical information. It was evaluated previously and deemed ineligible for nomination to the National Register of Historic Places or as a State Archeological Landmark (Wormser et al. 1997).

41BR388

41BR388 is a lithic procurement site consisting of a sparse lithic scatter from an unknown prehistoric time period. It occupies a 200 x 75-m area on an upland gravelly ridge, and an intermittent drainage to MacKinally Creek lies 200 m to the west.

The brown, sandy loam with small to large gravels supports a sparse growth of prickly pear, mesquite, and mixed grasses, allowing for 90 percent ground surface visibility at the time of survey. Originally located by Lone Star Archeological Services in July 1992, they observed tested cobbles and dug a single shovel test to 5 cm with negative results. No artifacts were collected from the surface.

This sparse lithic scatter on shallow soils is not likely to yield significant scientific or historical information. It was evaluated previously and deemed ineligible for nomination to the National Register of Historic Places or as a State Archeological Landmark (Wormser et al. 1997).

41BR389

41BR389 is a 30 x 45-m lithic procurement area situated on the toe of a northeast sloping hill. An intermittent drainage feeds into Devil's River 160 m to the northeast of the site. Seventy-five percent of the ground surface was visible at the time of survey, with exposed gravels at the toeslope. The soils in the area are a dark reddish brown silty sand with small to medium gravels, supporting a sparse growth of red oak, mesquite, juniper, and mixed grasses.

This site was originally recorded by Lone Star Archeological Services in July 1992. According to their site records the cultural materials present included tested cobbles, primary and secondary flakes, and two small, thick bifaces. No materials were collected.

This sparse lithic scatter on shallow and deflated soils is not likely to yield significant scientific or historical information. It is therefore not eligible for the National Register of Historic Places or as a State Archeological Landmark.

41BR390

41BR390 is prehistoric open campsite and lithic scatter found on a slightly rolling, open area shaded by an

abundance of trees. The scatter covers a 150 x 50-m area, with an intermittent drainage to MacKinally Creek located 200 m to the south. Tan silty soils with small to medium gravels support oak trees, tasajillo, and mixed grasses.

This site was located by Lone Star Archeological Services in July 1992. They dug a single shovel test to 5 cm, and found no evidence of cultural material below the surface. Although the ground surface visibility was only 20 percent at the time of their survey, they observed a few cores and flakes and two biface fragments.

This sparse lithic scatter on shallow and eroded soils is not likely to yield significant scientific or historical information. It was evaluated previously and deemed ineligible for nomination to the National Register of Historic Places or as a State Archeological Landmark (Wormser et al. 1997).

41BR391

41BR391 is a lithic procurement site of unknown prehistoric affiliation. The lithic scatter covers a 160 x 60-m area at the toe of a slope, at an elevation of 1,390 ft. amsl. The tan, silty sand contains large gravels, and an intermittent drainage lies 100 m to the northeast. First reported by Lone Star Archeological Services in July 1992, they observed tested cobbles, primary and secondary flakes, and a small chert hammerstone.

This site is on shallow, rocky soils, with no diagnostics or features observed. It is not likely to yield significant scientific or historical information, and is not eligible for the National Register of Historic Places or as a State Archeological Landmark.

41BR392

41BR392 is a historic homestead constructed on an alluvial fan near the base of a bluff at 1,330 ft. amsl, and approximately 125 m south of an unnamed tributary to Devil's River. The vegetation in the area consists of mesquite, juniper, oak, and mixed grasses, allowing for about 25 percent surface visibility.

The site measures 30 x 10 m and includes a collapsed stone chimney, remnants of a stone wall associated with the chimney, a circular depression, and remnants of another stone wall nearby. One piece of purple "solarized" glass, seven pieces of clear glass, and two pieces of white granite "ironstone" ceramic were collected. The purple glass indicates a date of 1880-1917, while the white granite ware was made from 1860-1900.

The ruins of the stone house are near one end of the stone wall that has been recorded as 41BR227. In the tax records for 1936, there is no mention of a house on the property, so it may postdate 1936. Little is left of the stone house that once stood at this location except the collapsed chimney. This structure is not considered eligible for the National Register of Historic Places or as a State Archeological Landmark.

41BR393

This site is an open campsite consisting of a sparse lithic scatter from an unknown prehistoric temporal affiliation. It occupies a 100 x 60-m area on the sloping bank of an unnamed drainage. The area was surveyed in preparation for a proposed firebreak along a fence, necessitating the clearing of trees and grasses. The vegetation consists of mesquite, oak, and juniper, with an understory of sparse mixed grasses, allowing for only 50 percent surface visibility. Four hammerstones and an exhausted core were observed on the surface. Additionally, four biface fragments were collected. At an elevation of 1,550 ft. amsl, the soils are a coarse sandy loam, with broken sandstone bedrock on the southern margin of the site.

This site has a paucity of artifacts and shallow, rocky soils. It is not likely to yield significant scientific or historical information, and is not eligible for the National Register of Historic Places or as a State Archeological Landmark.

41BR394

41BR394 is an open campsite represented by a sparse lithic scatter on an upland slope. It lies about 30 m

south of an unnamed, intermittent stream, and about 30 m west of a north-south trending fence. The area was surveyed in preparation for a proposed firebreak along the fence, which would necessitate the surface clearing of trees and grasses. The site occupies a 30 x 30-m area at an elevation of 1,480 ft. amsl. Shallow, silty clay loam with sandstone and limestone bedrock exposed on the surface supports moderately dense vegetation such as oak, juniper, mesquite, and mixed grasses. With ground surface visibility at 40 percent, cultural materials observed at the site included one flake and one piece of shatter.

This site has a paucity of artifacts, and is on bedrock and very shallow soils. It is not likely to yield significant scientific or historical information, and is thus not eligible for the National Register of Historic Places or as a State Archeological Landmark.

41BR395

41BR395 is a lithic workshop consisting of a sparse lithic scatter from an unknown prehistoric period. The area was surveyed in preparation for a proposed firebreak along a fence, involving the surface clearing of trees and grasses. The site occupies a 200 x 100-m area on an upland slope at 1,450 ft. amsl. Lithics are scattered along the north bank of an unnamed seasonal drainage, 100 m west of Devil's River. The soils on and around the site are a silty loam, with sparse prickly pear, oak, and mixed grasses, allowing for 85 percent surface visibility.

Cultural materials found on the surface are summarized in Table 28. None of the artifacts observed were collected. Considering the size of the site area, the small number of observed artifacts indicates an extremely thin distribution.

This site has an extreme paucity of artifacts, no observable diagnostics, and is on rocky, shallow soils. It is not likely to yield significant scientific or historical information and is therefore not eligible for the National Register of Historic Places or as a State Archeological Landmark.

Table 28. Artifacts at 41BR395

Artifact	Total
Flakes	12
Cores	2
Modified Flake (bifacial)	1
Fire-cracked rock	2
Total	**17**

41BR396

41BR396 is a lithic workshop consisting of a sparse 150 x 100-m surface scatter from an unknown prehistoric period. The site occupies an eroded upland ridge toe and slope, 1,450 ft. amsl, approximately 30 m from a southwest trending fence. The area was surveyed in preparation for a proposed firebreak along the fence, involving the surface clearing of prickly pear, mesquite, and mixed grasses. The ground surface visibility was 85 percent, and the soils are loamy. Cultural materials found at the site included over 15 flakes, one tested cobble, one core, and one piece of burned rock. None of the artifacts were collected.

This site has a paucity of artifacts and is on eroded, shallow soils. It is not likely to yield significant scientific or historical information. It is therefore not eligible for the National Register of Historic Places or as a State Archeological Landmark.

41BR397

41BR397 is an open campsite located north of a cattle pen, in a floodplain that is dissected by an unnamed intermittent stream. At an elevation of 1,305 ft. amsl, the site occupies a 120 x 75-m area. The area was surveyed in preparation for a proposed firebreak along a fence, thus involving the surface clearing of vegetation. A silty clay loam supports mixed grasses, juniper, and mesquite, allowing for 80 percent surface visibility. Cultural materials found at the site included only four hard hammer chert flakes, none of which were collected.

This site has few artifacts and neither features nor diagnostic artifacts were observed. It is not likely to yield significant scientific or historical information, and is therefore not eligible for the National Register of Historic Places or as a State Archeological Landmark.

41BR398

41BR398 is a multicomponent site consisting of a prehistoric lithic workshop and a historic World War II pillbox. The site occupies a 140 x 30-m area of a rocky and dissected upland slope and hilltop. An unnamed seasonal drainage is located 30 m west of the site. Stony clay loam supports a sparse scatter of prickly pear and mixed grasses, allowing for 50 to 75 percent ground surface visibility at the time of survey. The prehistoric component of the site consists of a moderate scatter of 20 flakes, five tested cobbles and one hammerstone. No artifacts were collected.

The pillbox is a west-facing, field firing position dug into the side of a hill. It measures 8 x 8 ft. on the outside, 7 x 7 ft. on the inside, and is 7 ft. high. The structure's entranceway is constructed of concrete.

As observed during this survey, the prehistoric component of this site is not currently eligible for the National Register or as a State Archeological Landmark. It is recommended that the prehistoric component be tested to determine the nature of the deposits and if features are present. The historic component is not eligible, since pillboxes are common, minor structures on many twentieth-century military training facilities.

41BR399

41BR399 is a lithic workshop consisting of a scatter of debris covering a 70 x 30-m area of a slope and hilltop. The vegetation in the area consists of mesquite, juniper, and sparse grasses. At an elevation of 1,360 ft. amsl, the soils are a coarse, sandy loam with sandstone, chert, and quartzite gravels. However, because they are extremely eroded, little of the topsoil remains. In addition, most of the site has been cleared for the construction of a power transmission line and a firebreak, thus, surface visibility was 85 percent at the time of survey.

Cultural materials found at the site included four tested cobbles, four pieces of burned rock, over six flakes, and one modified flake. The modified flake was the only artifact collected.

This site has few artifacts on the surface and very shallow soils. It is not likely to yield significant scientific or historical information, and is therefore not eligible for the National Register of Historic Places or as a State Archeological Landmark.

41BR400

41BR400 is a lithic workshop and historic trash scatter consisting of a 40 x 40-m debitage scatter on a 1,495-ft. amsl bench along the east side of a hill. An intermittent tributary to Devil's River is 400 m from the site. The sandy loam soil at the site supports only sparse patches of buffalo grass, prickly pear, juniper, and oak, thus allowing for about 90 percent surface visibility at the time of our visit. The soils are shallow, the surface is severely eroded, and sandstone bedrock is exposed across the site.

Artifacts observed included three tested cobbles, seven chert flakes, five chert cores, and one uniface (Table 29). The uniface was the only artifact collected. A description of the historic component was not available but artifacts collected included one piece of clear glass, one piece of a porcelain tea set plate, and hair from a porcelain figurine. For purposes of this report, this site is classified as a trash scatter. Its exact date is unclear.

Table 29. Artifacts at 41BR400

Artifact	Total
Chert flakes	7
Tested cobbles	3
Cores	5
Uniface	*1
Total	**16**

(*) denotes items collected.

Because of the shallow soils and lack of features or diagnostics, neither site component is likely to yield significant scientific or historical information. The site is therefore not eligible for the National Register of Historic Places or as State Archeological Landmarks.

41BR401

41BR401 is a lithic workshop with debitage scattered over a 70 x 70-m area from the top of a hill down to the base of its eroded slope, and in-between two jeep roads. Loamy soils support oak, mesquite, prickly pear, juniper, and mixed grasses, allowing for about 50 to 80 percent surface visibility during the time of the survey. Artifacts observed included over eight chert flakes, and five to ten tested cobbles; no artifacts were collected.

This sparse lithic scatter is on shallow and eroded soils and is not likely to yield significant scientific or historical information. It is therefore deemed ineligible for nomination to the National Register of Historic Places or as a State Archeological Landmark.

41BR402

41BR402 is a lithic procurement site consisting of a few artifacts scattered across an area measuring approximately 100 x 30 m. Eroded drainages bound the site on its east and west sides, and they feed into a seasonal, intermittent stream to the south. Loamy, but rocky and shallow, soils support oak, juniper, mesquite, and mixed grasses. Surface visibility was 60 percent at the time of survey. Artifacts observed are listed in Table 30, and are typical of the minor lithic procurement sites that abound at Camp Bowie.

Table 30. Artifacts at 41BR402

Artifact	Total
Chert flakes	5
Tested cobbles	2
Core fragments	2
Modified flake	1
Total	**10**

This is a sparse lithic scatter on shallow and eroded soils, and is not likely to yield significant scientific or historical information. It was evaluated previously and deemed ineligible for nomination to the National Register of Historic Places or as a State Archeological Landmark (Wormser et al. 1997).

41BR403

41BR403 is a lithic procurement site on a gentle slope above a dry drainage and south of a jeep trail. It occupies a 60 x 60-m area at an elevation of 1,420 ft. amsl. Loamy soils support juniper, mesquite, oak, prickly pear, and mixed grasses, thus allowing for 60 percent ground surface visibility at the time of survey. Artifacts observed are listed in Table 31; none were collected.

This is a sparse lithic scatter and not likely to yield significant scientific or historical information. It was evaluated previously and deemed ineligible for nomination to the National Register of Historic Places or as a State Archeological Landmark (Wormser et al. 1997).

Table 31. Artifacts at 41BR403

Artifacts	Total
Flakes	5
Tested cobbles	3
Cores	2
Core fragments	3
Total	**13**

41BR407

41BR407 is a lithic procurement site with an Early Archaic Pandale-like projectile point (Figure A-36). It sits on a northeasterly trending upland ridge toe, above the Devil's River floodplain, and approximately 200 m south of 41BR408, along the same ridge. A limestone cap covers the summit of the slope and gravel is eroding out of a conglomerate layer at site level. The surface slopes about 2 percent to the northeast.

The site is circular, about 50 m in diameter, and two dirt roads run through it. The vegetation consists of

sparse grasses, yucca, oak, and cedar, allowing for 75 percent surface visibility at the time of our survey.

Artifacts observed or collected at the site are listed in Table 32. The presence of a Pandale-like dart point suggests an Early Archaic component (Turner and Hester 1993). However, the site is rocky and eroded and has little soil depth.

Because this site is a small lithic procurement site with shallow soils, and no observable features, it is not considered eligible for the National Register of Historic Places or as a State Archeological Landmark.

Table 32. Artifacts at 41BR407

Artifacts	Total
Pandale-like point	*1
Biface tip	*1
Scraper	*1
Modified flakes	4 (*1)
Secondary flakes	*4
Tertiary flakes	*8
Cores	2 (*1)
Tested cobbles	3
Burned Rock	4 (*1)
Total	**28**

(*) denotes items collected.

41BR408

41BR408 is a 100 x 450-m lithic procurement site consisting of a lithic scatter on a northeast-southwest trending ridge. Conglomerate outcrops occur along the edges of the ridge, and the site sits on limestone bedrock. Where it does occur, the gravelly silt clay is less than 10 cm thick, supporting a sparse mix of prickly pear, tasajillo, juniper, oak, and various grasses, thus allowing for 70 percent surface visibility. Modern disturbance includes a jeep trail that runs through the center of the site along the extent of the ridge.

Artifacts found on the surface (Table 33) include 10 chert flakes and an Early Triangular projectile point (Figure A-37). Only the point was collected, and its presence indicates an Early Archaic component (Hester 1995; Turner and Hester 1993). It should be noted that this site is near 41BR407, which also has an Early Archaic component; it is likely that the two sites are associated as part of a larger lithic procurement locality.

This site is very shallow and lacks any apparent cultural features. It is not considered eligible for the National Register of Historic Places or as a State Archeological Landmark.

Table 33. Artifacts at 41BR408

Artifacts	Total
Early Triangular point	*1
Chert Flakes	10
Total	**11**

(*) denotes items collected.

41BR409

This site is a lithic procurement site, and consists of a scatter of cores and other lithic debris on a mid-slope bench at the tip of a northeast-trending ridge toe. It occupies a 10 x 50-m area at an elevation of 1,460 ft. amsl, overlooking the confluence of two intermittent tributaries of Devil's River. Chert gravels are eroding from the conglomerate across the site.

The vegetation is sparse, consisting of clumps of mixed grasses, beargrass, yucca, juniper, and scrub oak, with oaks along the drainages. Surface visibility was 75 to 85 percent at the time of survey.

Artifacts observed, but not collected, included 30 flakes, four cores, and a biface fragment. Additional items that were collected from the surface are listed in Table 34. A Bulverde point (Figure A-38) found on the surface suggests a Late Archaic temporal affiliation (Collins 1995; Johnson and Goode 1994).

This site is on very shallow soils, has no apparent features, and is thus not likely to yield significant scientific or historical information. It is not eligible for the National Register of Historic Places or as a State Archeological landmark.

Table 34. Artifacts at 41BR409

Artifacts	Total
Bulverde point	*1
Modified Flakes	*5
Cores	*6
Debitage	*55
Total	**67**

(*) denotes items collected.

41BR410

This site is a 100 x 400-m lithic procurement site with a late Middle Archaic component. It occupies the 1,440 to 1,465-ft. amsl levels of the lobes and upper terraces of an upland margin overlooking Devil's River to the north and an unnamed drainage to the south. There is also a spring to the south of the landform. At the time of survey there had been a lot of rain and the spring and surrounding creeks were full and flowing rapidly.

Conglomerate and limestone bedrock are exposed throughout the site, and broken limestone litters much of the surface. Site vegetation included oaks, beargrass, cactus, agarita, tasajillo, and various grasses, allowing for between 50 and 100 percent ground surface visibility.

Artifacts observed and/or collected are listed in Table 35. A Nolan point (Figure A-39) found on the surface is diagnostic of the late Middle Archaic period in Central Texas (Collins 1995; Johnson and Goode 1994).

Table 35. Artifacts at 41BR410

Artifact	Total
Nolan point fragment	*1
Biface fragment	*1
Primary flakes	7
Secondary flakes	17
Tertiary flakes	13
Shatter	20
Cores	2
Core fragment	1
Fire-cracked rock	1
Total	**63**

(*) denotes items collected.

Other material, especially the relatively high proportion of secondary flakes to tertiary flakes, is typical of assemblages at other lithic procurement sites.

This site has very shallow and eroded soils, and in fact most of the site is on top of bedrock. No features were apparent despite the high amount of surface visibility and non-potential for buried deposits. This site is not likely to yield significant scientific or historical information, and is therefore not eligible for the National Register of Historic Places or as a State Archeological Landmark.

41BR411, 41BR412, and 41BR413

Each of these sites has a World War II-era concrete pillbox. They are on a dissected upland area at an elevation of between 1,380 and 1,410 ft. amsl. Another similar pillbox at Camp Bowie is 41BR398, which was described previously in this report. They are used as firing positions as well as for observing live fire, hand grenade drills, or other activities that could be hazardous.

The pillboxes have been dug into the side of a small hill, and each one is 8 ft. wide and 8 ft. deep, with the chamber about 7 ft. high (inside measurement). The concrete walls are between 6 and 8 in. thick. An unnamed tributary to Devil's River is between 40 and 190 m west of the site. Vegetation at the site consists of oak, mesquite, prickly pear, and mixed grasses.

Pillboxes are common at military training facilities. Therefore, these are not considered eligible for the National Register of Historic Places or as State Archeological Landmarks.

41BR414

41BR414 is a large (500 x 340 m) open campsite, and possibly a base camp, with a moderately dense distribution of surface artifacts. The site dates to an unspecified prehistoric time period.

It is located at 1,500 ft. amsl on a flat ridge top above the floodplain of Pecan Bayou. A gravelly clay loam supports juniper, mesquite, horsemint, and mixed grasses, allowing for between 50 and 100 percent surface visibility at the time of survey.

Two concentrations of artifacts exist. Concentration 1 is a dense scatter of flaked lithic material approximately 25 m in diameter. Concentration 2 measures 35 x 20 m and contains tested quartzite cobbles, fire-cracked rock, and a dense flake scatter as well. Cultural materials observed and/or collected are listed in Table 36. Of the 26 shovel tests that were excavated, 12 contained cultural materials. The results from these shovel tests are summarized in Table 37.

Even though this is a very large site and has a moderately dense distribution of artifacts, all of the positive shovel tests were shallow, and the Holocene soil does not extend deeper than 10 to 15 cm in most places. No temporally diagnostic artifacts were found and no apparent features were visible. Based on this, the prehistoric cultural components are likely to be mixed.

This site is therefore not eligible for the National Register of Historic Places or as a State Archeological Landmark. However, among the sites recorded in our survey, this is the only one which appears to be a base camp, or a location so favorable to the prehistoric inhabitants that it was used frequently or intensively.

41BR415

41BR415 is a burned rock midden site consisting of a lithic scatter of light to moderate density (Figure 18). It occupies a small upland spur that rises to the southwest from the floodplain, to a level upland bench below the summit. There is a seasonal stream about 75 m northwest of the site which drains into a slough in the Pecan Bayou floodplain.

The midden is approximately 12 m in diameter and is 240 m upslope from the northeast tip of the spur. It is also about 10 m east of a dirt road that runs up the spur, bisecting the site. The entire site covers an area approximately 200 x 50 m northeast-southwest at an elevation range of 1,360 to 1,370 ft. amsl. Vegetation on the site includes mixed grasses, mesquite, juniper, agarita, oak, yucca, and prickly pear. Surface visibility was 75 percent at the time of survey.

Cultural materials observed and/or collected are listed in Table 38, and include an array of debitage, cores, and makeshift flake tools. Temporally diagnostic artifacts collected included two Pedernales points (Figure A-40 and 41), suggesting a Late Archaic use of the site, a Nolan point (Figure A-42) suggesting a Middle Archaic use (Collins 1995; Johnson and Goode 1994; Turner and Hester 1993), and an arrow point tip, suggesting a Late Prehistoric component.

Table 36. Artifacts from 41BR414

Artifacts	Shovel Tests	Surface	Total
Flakes	*19	300+	319 +
Core fragments	-	4	4
Modified flakes	-	5	5
Mano fragments	-	1	1
Fire-cracked rock	*2	*1	3
Modified flake	-	1	1
Biface fragments	*1	*8	9
Dart point frag. (distal)	-	*1	1
Battered granite	-	*1	1
Total	**22**	**322+**	**344+**

(*) denotes items collected.

Table 37. Shovel testing at 41BR414

ST #	Depth (cm)	Soils	Artifacts (in bold)
1	0-15	10YR 2/2 (very dark brown), Stony, shallow clay loam.	
2	0-10	10YR 2/2 (very dark brown), Stony, shallow clay loam. Sandstone bedrock at 10 cm.	
3	0-10	10YR 3/1 (very dark gray), Dry, friable rocky loam with many gravels and stones.	
4	0-10	10YR 3/1 (very dark gray), Dry, friable rocky loam with many gravels and stones.	
5	0-15	10YR 3/2 (very dark grayish brown), Dry friable loam, mod. gravels & stones. Bedrock 15 cm.	
6	0-18	10YR 3/2 (very dark grayish brown), Dry friable loam , moderate gravels. Bedrock 18 cm.	
7	0-10	10YR 3/2 (very dark grayish brown), Dry friable stony loam, moderate gravels. Bedrock 10 cm.	
8	0-10	10YR 3/2 (very dark grayish brown), Dry friable stony loam. Bedrock at 10 cm.	
9	0-5	10YR 3/2 (very dark grayish brown), Dry friable stony loam. Bedrock at 5 cm.	
10	0-18	10YR 3/2 (very dark grayish brown), Dry friable stony loam. Bedrock at 18 cm.	**2 debitage (0-10 cm)**
11	0-10	10YR 3/2 (very dark grayish brown), Dry friable stony loam. Bedrock 10 cm.	
12	0-3	10YR 3/1 (very dark gray), Dry friable stony loam. Bedrock at 3 cm.	
13	0-8	10YR 3/1 (very dark gray), Dry friable stony loam. Lot of gravel. Bedrock 8 cm.	**3 debitage**
14	0-3	10YR 3/1 (very dark gray), Dry friable stony loam. Bedrock at 3 cm.	
15	0-12	10YR 3/1 (very dark gray brown), Dry friable stony loam, gravels. Bedrock 12 cm.	**2 debitage**
16	0-20	10YR 3/2 (very dark grayish brown), Dry friable stony loam. Bedrock at 20 cm.	**1 debitage**
17	0-3	10YR 3/2 (very dark grayish brown), Dry friable stony loam. Bedrock at 3 cm.	**1 debitage**
18	0-6	10YR 3/2 (very dark grayish brown), Dry friable stony loam. Bedrock at 6 cm.	**1 debitage**
19	0-10	10YR 3/2 (very dark grayish brown), Dry friable stony loam. Bedrock at 10 cm.	**1 biface fragment**
20	0-10	Concentration 2. 10YR 3/1 (very dark gray), Dry friable stony loam. Bedrock at 10 cm.	**1 fire-cracked rock**
21	0-12	Concentration 2. 10YR 3/1(very dark gray), Dry friable stony loam. Bedrock 10-12 cm.	**5 debitage**
22	0-4	10YR 3/2 (very dark grayish brown), Dry friable stony loam. Bedrock at 4 cm.	**1 debitage**
23	0-10	10YR 3/2 (very dark grayish brown), Dry friable stony loam. Bedrock at 10 cm.	**1 debitage**
24	0-10	10YR 3/2 (very dark grayish brown), Dry friable stony loam. Bedrock at 10 cm.	
25	0-10	10YR 3/2 (very dark grayish brown), Dry friable stony loam. Bedrock at 10 cm.	
26	0-8	10YR 3/2 (very dark grayish brown), Dry friable stony loam. Bedrock at 8 cm.	**2 debitage** **1 fire-cracked rock**

Nine shovel tests (ST) were excavated and are summarized in Table 39. ST-1 is about 30 m NW of the road and the burned rock midden. ST-2 is approximately 15 m NW of the road and 60 m southeast of the seasonal stream. ST-3 is 20 m northwest of the road and 35 m southeast of the stream. ST-4 is on the northeast side of the midden. ST-5 is northeast of ST-4, along the east side of the road. ST-6 is on the northeast end of a spur. ST-7 is on the southwest side of the midden. ST-8 is at the southern end of the site, and ST-9 is on the southeast side of the midden. Debitage was recovered from three of the shovel tests, while mussel shell was recovered from a fourth.

This site has an intact burned rock midden and the soil extends to between 30 and 45 cm in depth. Although some deflation has occurred, it is possible that this site could yield additional features that would aid

Figure 18. *Site map of 41BR415.*

in its interpretation by researchers. This site should be tested to determine its eligibility for the National Register of Historic Places.

CAR has recently completed additional work at this site, including the excavation of 70 shovel tests. While a report detailing that work is in production, the boundary on the accompanying map (Figure 18) reflects that additional work.

41BR416

41BR416 is a historic trash scatter dating from the 1930s or later. It is set at the base of a small upland knoll, with an unnamed tributary to Lewis Creek 300 m to the northeast. The trash scatter covers a 6 x 7-m area at an elevation of 1,570 ft. amsl. Surface visibility was 50 percent at the time of the survey.

Table 38. Artifacts at 41BR415

Artifact	Shovel Tests	General Surface	Total
Pedernales dart point	-	*2	2
Nolan dart point	-	*1	1
Arrow point frag. (tip)	-	*1	1
Biface fragments	-	*4	4
Chopper	-	*1	1
Uniface fragment	-	1	1
Unifacially modified flake	-	1	1
Modified flake	-	1	1
Ground stone fragment	-	1	1
Cores	-	2 (*1)	2
Tested cobbles	-	2	2
Primary flakes	-	9	9
Secondary flakes	-	16	16
Tertiary chert flakes	-	20	20
Debitage	*3	-	3
Mussel shell fragments	*Present	*Present	Present
Total	**3**	**62**	**65**

(*) denotes items collected.

Table 39. Shovel testing at 41BR415

Unit	Depth	Observations	Unit	Depth	Observations
ST-1	Level 1 0-10 cm	10YR 5/3 (brown), sandy loam with angular gravels and $CaCO_3$ concretions. Sterile	ST-5	Level 1 0-15cm	Yellowish brown silty loam with cobbles. Sterile
	Level 2 10-20 cm	Soil same as level 1. Sterile		Level 2 15-30 cm	Yellowish brown silty loam with some clay. Sterile
	Level 3 20-30 cm	10YR 4/6 (dark yellowish brown), sandy clay loam with $CaCO_3$. **5 mussel shell fragments**		Level 3 30-45 cm	Soil same as level 2. Sterile
	Level 4 30-40 cm	Soil: 10YR 5/6 (yellowish brown), sandy clay loam Sterile	ST-6	0-45 cm	Soil: Silty clay, no rocks. Sterile
	Level 5 40-50 cm	Soil Same as level 4. Sterile	ST-7	Level 1 0-15 cm	Soil: Brownish yellow silty clay loam with rocks. Sterile
ST-2	0-50cm	Soil. **1 debitage (0-15 cm)**		Level 2 15-30 cm	Soil: Same as level 1. Sterile
ST-3	0-30 cm	Soil. **1 debitage (10-20 cm)**		Level 3 30-45 cm	Soil: Same as level 1. Sterile
ST-4	Level 1 0-15 cm	Dark brown silty loam. Sterile	ST-8	0-45 cm	Soil: Grayish brown silty clay loam with a few rocks. Sterile
	Level 2 15-30cm	Dark brown silty loam. Excavation discontinued due to dense rock layer. **1 debitage**	ST-9	0-45 cm	Soil: Sandy loam to a clay. Sterile

Artifacts observed at the site included cone top steel beverage cans, a one-gallon can, sheet metal, steel strapping, a metal fin, fragments of brown bottle glass and three Coca-Cola bottles. Nothing was collected. This site is not eligible for the National Register of Historic Places or as a State Archeological Landmark.

41BR417

41BR417 is a 10 x 15-m historic trash scatter from the 1920s or later. An unnamed tributary to Lewis Creek is approximately 225 m to the south. At an elevation of 1,560 ft. amsl, the site vegetation consists of oak, juniper, agaves, agarita, and low bunch grasses. It is located within a "Y" of a dirt road, and surface visibility was 50 percent.

Artifacts observed are itemized in Table 40. None were collected, and most appear to be fairly recent trash (post-1950s). A few items, such as the pressed glass, may have been manufactured as early as the 1920s or 1930s, and the dog tag may be from the 1940s (no field notes were made as to what was inscribed on the tag). This site is not eligible for the National Register of Historic Places or as a State Archeological Landmark.

Table 40. Artifacts at 41BR417

Artifact	Total
Bottle glass fragments:	
White	30+
Green	25+
Blue-green	2
Coca-Cola bottle fragments	3
Hoppe's No. 9 Gun Oil bottle	1
Milkglass fragments (pressed)	2
Cans:	
Matchstick Condensed Milk	1
Crimp closure bucket lid (5 gal.)	1
Screw top rectangular can (half pint)	1
Screw top rectangular can (1 quart)	1
Can with "POISON" embossed	1
Other cans (1 gallon)	6
Army dog tag	1
Belt buckle (spider web design)	1
China or earthenware with green glaze	2
Bricks	2
Spark plug, ceramic, marked "Bowers"	1

41BR418

41BR418 is a historic house site dating from 1890 to 1940. Constructed on an upland terrace, the site covers a 130 x 80-ft. area at an elevation of 1,490 ft. amsl. There is an unnamed intermittent tributary to Willis Creek approximately 950 m southwest of the site, and Highway 45 is located approximately 150 m west of the site.

Site features include a cistern, a limestone slab, two limestone piers, and a metal well pipe. There are two small concentrations of trash scatter within the site. Observed artifacts included crockery and whiteware fragments, numerous pieces of solarized (amethyst), blue, amber, and clear glass, white milkglass, wire nails, sheet metal, unidentified forged metal objects, and pieces of red brick.

Three pieces of clear, two pieces of purple, and two pieces of blue glass were collected, as were a porcelain doll leg, two fragments of porcelain, one piece of stoneware, three pieces of milkglass, and nine pieces of white earthen ware.

Very little is left of the house site, except a scatter of historic trash. Based on the presence of solarized (purple) glass and bottles of patent medicines, the house site appears to date to as early as the 1880s or 1890s. It was likely torn down during construction of Camp Bowie in 1941. This site is not eligible for the National Register of Historic Places or as a State Archeological landmark.

41BR419

41BR419 is an open campsite on the end of an upland ridge overlooking the confluence of Lewis Creek and an unnamed tributary that has been flooded by a modern reservoir. It is located at an elevation of 1,470 ft. amsl, atop thin soils, with exposures of sandstone and limestone bedrock. In addition, a firebreak road has caused disturbance to the shallow soils in a portion of the site. Vegetation consists of grasses, juniper, oak, yucca, and prickly pear, allowing for 60 percent surface visibility. Artifacts observed at the site are listed in Table 41. One biface was collected.

This site is extremely shallow, with less than 2 to 5 cm of soil, and exposed bedrock over much of the site. In addition, despite excellent surface visibility, the site yielded very few artifacts, and there were no apparent features. Thus, this site is not likely to yield significant scientific or historical information, and is not eligible for the National Register of Historic Places or as a State Archeological Landmark.

Table 41. Artifacts at 41BR419

Artifact	Total
Tested cobble	1
Tertiary flake	1
Biface	2 (*1)
Total	**4**

(*) denotes items collected.

41BR420

41BR420 is a burned rock midden site consisting of a scatter of lithic debris and two small burned rock middens (Figure 19). Located at the base of an east-facing bluff (toeslope) north of an intermittent tributary to Lewis Creek, the total site area measures 180 x 40 m at an elevation of 1,420 ft. amsl. The area is grassy but also has mesquite, oak, agarita, prickly pear, and tasajillo, thus surface visibility was only about 25 percent at the time of the survey.

One of the burned rock middens is approximately 7 m in diameter and 40 cm high. The other midden is about 12 m in diameter and 70 cm high. Both middens are composed of sandstone and limestone, with a dark brown soil matrix. The dark soil is presumably due to ash and other organic content.

Reddened sandstone dots the entire site and probably represents debris from the cooking activities surrounding the middens. A concentration of approximately 20 flakes was seen 60 m north of the middens. Cultural materials observed included primary and secondary flakes, cores, and core fragments. Only a single biface was collected, and all other artifacts were left in place.

There were also several piles of sandstone 2 to 3 m in diameter scattered throughout the site. The nature of these stone piles is not known, but could indicate *in situ* hearths used by individual families camped around the burned rock middens. They could also represent dumping of burned rock from the centers of the middens.

One shovel test was excavated to a depth of 22 cm. No artifacts were recovered. The soils were dry and very hard due to the drought conditions at the time of our visit. The soil in the shovel test was a 10YR 6/3 (pale brown).

The burned rock middens appear to be intact. Although the soils at this site are shallow (20 cm deep), there may be additional, non-midden features that are still intact. For example, there is evidence of possible stone hearths or dump piles.

This site is potentially eligible for the National Register of Historic Places and as a State Archeological Landmark. In order to ascertain its eligibility, it will be necessary to conduct test excavations. One goal of such an investigation would be to determine whether the deposits are intact, what time periods may be represented, and if there are indeed hearth features or other features that would assist in reconstructing the nature and function of the site and its inhabitants.

CAR has recently completed additional work at this site, including the excavation of 53 shovel tests. While a report detailing that work is in production, the boundary on the accompanying map (Figure 19) reflects that additional work.

41BR421

41BR421 is an open campsite consisting of a scatter of lithic debris. It occupies a 10 x 20-m area of a gently rolling, dissected upland at an elevation of 1,560 ft. amsl. An unnamed intermittent tributary to Lewis Creek is located 160 m to the east. Surface visibility was 75 percent amidst the sparse grasses, oak, small cedars, yucca, and agarita. Lithic materials observed included one secondary flake with a modified edge, five secondary and tertiary flakes, and a piece of heat-treated shatter.

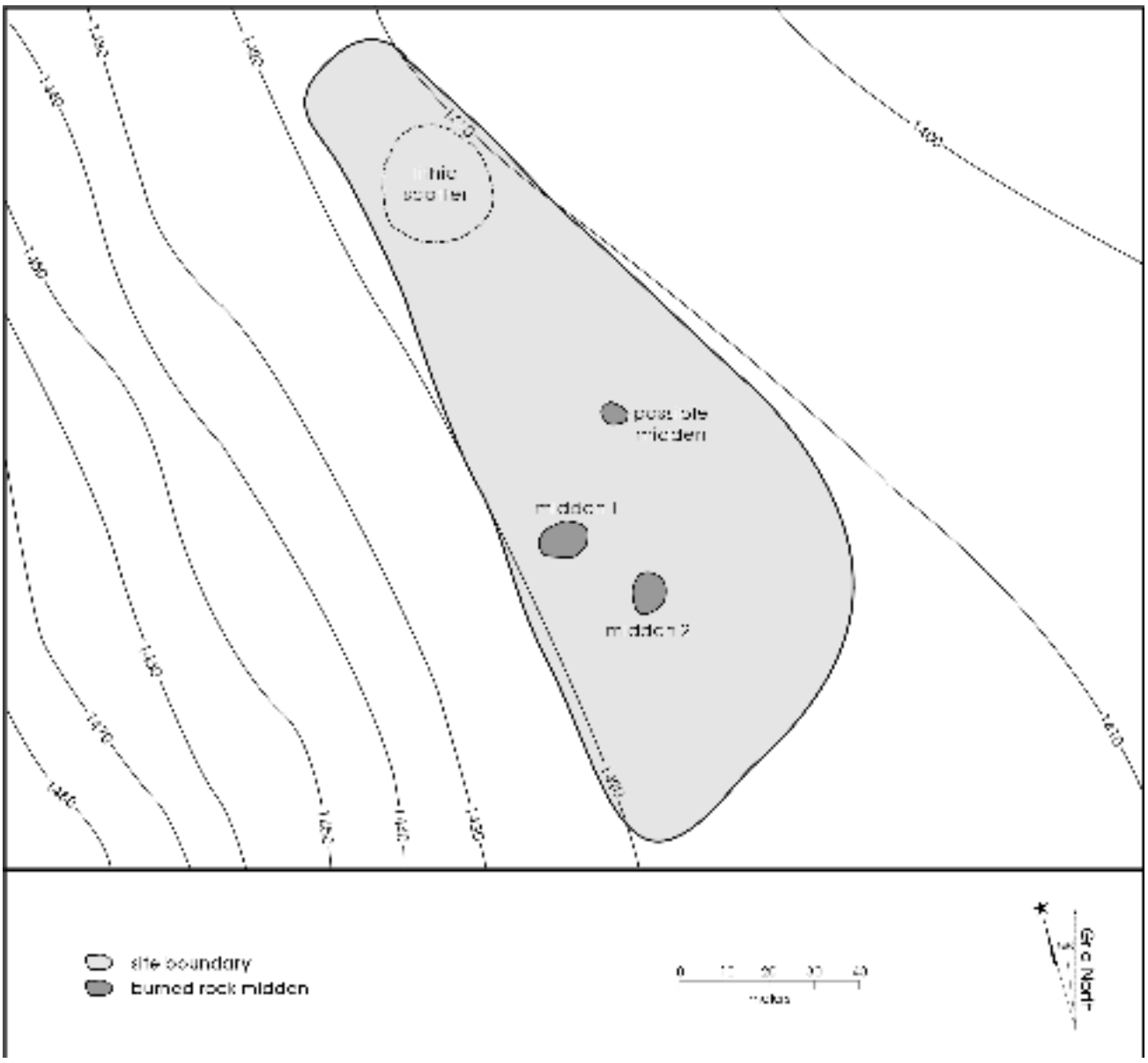

Figure 19. *Site map of 41BR420.*

This appears to be a small, minor campsite that yielded very few artifacts and no diagnostic artifacts. It is not likely to yield significant scientific or historical information, and is therefore not eligible for the National Register of Historic Places or as a State Archeological Landmark.

41BR422

41BR422 is a historic trash dump dating to the 1930s. It measures 15 m in diameter and is located on a gentle upland slope 150 m east of Highway 45. An unnamed tributary to Willis Creek is located 500 m west-southwest of the site. The vegetation is heavy, consisting of oak, juniper, agarita, mesquite, yucca, and mixed grasses, and surface visibility at the time of survey was 50 to 70 percent. Observed artifacts included 21 rectangular, one-gallon antifreeze cans, ten one-gallon sanitary food cans, over 30 food cans, nine condensed milk cans, a barrel end, and one 1/2 pint liquor bottle.

This is a historic trash dump and not likely to yield significant scientific or historical information. It was

evaluated previously and deemed ineligible for nomination to the National Register of Historic Places or as a State Archeological Landmark (Wormser et al. 1997).

41BR423

41BR423 is a historic site, likely a farmstead, consisting of a concrete foundation, a concrete stock tank, and a trash scatter. It is located at the foot of an east-facing bluff, approximately 503 m southwest of an unnamed tributary to Lewis Creek. It measures 23 x 37 m and was constructed at an elevation of 1,400 ft. amsl. Limited vegetation at the site, consisting of oak, mesquite, agarita, and bunch grasses, allows for 70 to 90 percent surface visibility.

The foundation measures 30 x 18 ft. Artifacts at the site included 30 to 40 pieces of crockery, whiteware, porcelain, a bottle and several bottlenecks, and pieces of purple, blue, aqua blue, and clear glass. Also observed were a horseshoe, a saw blade, a metal fruit jar lid, a galvanized wash tub, a piece of stove pipe, two bed springs, a water pail, three pieces of cast iron, a rectangular meat tin, and a shaker top rotating template can.

Little remains of this house site and it is not eligible for the National Register of Historic Places or as a State Archeological Landmark.

41BR424

41BR424 is a historic house site dating to the early twentieth century. The site covers 244 x 166 m of a level upland area. An unnamed tributary to Lewis Creek is located 604 m east-southeast of the site. Site vegetation consisted of oak, prickly pear, mesquite, and bunch grasses, and the surface visibility at the time of survey was 65 to 90 percent.

Features present at the house site include a house foundation, measuring 50 x 50 ft., an outbuilding foundation, a large cylindrical metal water tank on an elevated platform, a concrete stock tank, a trash dump, a stovepipe, and remnants of a windmill vane. Artifacts observed in the trash dump included over 80 food cans, 30 clear glass fragments, a piece of red glass, and a mustard jar. A metal mason jar lid and liner (probably made of milkglass) were collected.

Very little is left of the structures that once stood at this site. It appears to be one of the several farmsteads or houses which were destroyed during construction of Camp Bowie in the 1940s. This site is not eligible for the National Register of Historic Places or as a State Archeological Landmark.

41BR425

41BR425 is a small (15 x 15 m) lithic workshop of an unspecified prehistoric time period. It is at the edge of a sloping upland terrace where soils are deflated, with conglomerate gravels on the surface. The site is at an elevation of 1,480 ft. amsl, with a small drainage located 80 m to the west. The vegetation includes oak, agarita, yucca, mesquite, and various grasses, allowing for 60 percent ground surface visibility.

The site appears to be a single “chipping station.” Cultural materials observed at the site included an exhausted core and seven primary flakes, some of which may have come from the core.

This site is on shallow and deflated soils, and is not likely to yield significant scientific or historical information. It is therefore not eligible for the National Register of Historic Places or as a State Archeological Landmark.

41BR426

41BR426 is a lithic workshop located on a ridge top and saddle in-between two knobs. The center of the site is 1,410 ft. amsl, and it extends over a 110 x 80-m area. There is an unnamed drainage 200 m to the northeast, and the Camp Bowie boundary fence line is approximately 55 m to the southeast. The vegetation located at and around the site includes yucca, cat claw, agarita, low bunch grass, and other small herbaceous plants. Surface visibility was between 50 and 70 percent at the time of survey. The soils are gravelly with a silty loam texture. Cultural materials observed on the surface are listed in Table 42.

This is a sparse lithic scatter located atop deflated soils, and is not likely to yield significant scientific or historical information. It is therefore not eligible for the National Register of Historic Places or as a State Archeological Landmark.

Table 42. Artifacts at 41BR426

Artifact	Total
Primary flakes	5
Secondary flakes	5
Interior flakes	6
Modified flakes	2
Pieces of shatter	3
Tested cobbles	4
Core	1
Total	**26**

41BR427

41BR427 is a lithic workshop consisting of a sparse lithic scatter on a gradually sloping (one percent) floodplain terrace. The scatter extends across a 150 x 75-m area at an elevation of 1,370 ft. amsl. Construction of a jeep road that runs through the site northwest-southeast has exposed the underlying limestone conglomerate. The vegetation consists primarily of mesquite, with a few oaks and various grasses, providing a broad range of ground surface visibility between 10 and 100 percent in places.

One Scallorn point fragment (Figure A-43) was collected from the surface. Additional artifacts observed, but not collected, were 30 flakes, five tested cobbles, and two cores. The Scallorn point indicates the site was used during the early part of the Late Prehistoric period (Collins 1995; Hester 1995; Turner and Hester 1993). Two shovel tests were excavated to a depth of 20 cm (depth of bedrock), but no artifacts were recovered from either.

The soils are shallow with bedrock exposures, the surface was moderately to severely eroded, artifacts were generally scarce, and features were not apparent. As such, it is not likely to yield significant scientific or historical information, and is not eligible for the National Register of Historic Places or as a State Archeological Landmark.

41BR428

41BR428 is a small open campsite consisting of a lithic scatter on a toeslope projecting between two unnamed drainages that empty into Pecan Bayou. It occupies a 20 x 20-m area and is heavily eroded and dissected around the drainages. Although the soils are silty clay loams, and in some areas appear to be alluvial deposits with some depth, shifting of the drainage course through time may have affected the site. Other evidence of disturbance includes an area along a nearby firebreak road that had been cleared, and large brush piles were scattered around the site area. Additionally, the site also abuts the southeast Camp Bowie boundary fence line.

Site vegetation consisted of oaks, juniper, mesquite, and various grasses, with surface visibility ranging broadly between 10 and 80 percent at the time of survey. No diagnostics were found at the site. Cultural materials observed, but not collected, were 20 small, non-cortical chert flakes.

A single shovel test excavated on a level area approximately 20 m northwest of the site yielded no evidence of buried cultural material (Table 43).

This is a sparse lithic scatter on a heavily eroded landform, and is not likely to yield significant scientific or historical information. It was evaluated previously and deemed ineligible for nomination to the National Register of Historic Places or as a State Archeological Landmark (Wormser et al. 1997).

41BR429

41BR429 is a 75 x 50-m lithic workshop on a dissected terrace above an unnamed drainage that empties into two man-made stock ponds. Disturbance to the site has been extensive: it is heavily eroded near the drainage, the area is disturbed around its perimeter from when the stock ponds were constructed, soil has been pushed from the construction area onto the site,

Table 43. Shovel testing at 41BR428

Unit	Depth	Observations
ST-1	Level 1 0-3 cm	10YR 3/2 (very dark grayish brown), silty loam. **Sterile**
	Level 2 3-20 cm	10YR 3/2 (very dark grayish brown), moist, silty, clay loam. No gravels were observed. **Sterile**
	Level 3 20-40 cm	10YR 5/2 (grayish brown), silty clay. The soil is very dry and dense with CaCO3 specks. **Sterile**

and, the site abuts the southeast Camp Bowie boundary fence and a firebreak road. Large limestone boulders are present, and there are conglomerate bedrock outcrops and broken limestone scattered toward the northern edge of the site. The existing vegetation composed of mesquite, oak, and prickly pear has been disturbed by both the construction of the stock ponds and the firebreak road. Thus, 30 to 100 percent of the ground surface was visible at the time of the survey. Artifacts observed at the site included 30 flakes and five cores, all made from chert.

This is a sparse lithic scatter on shallow soils and exposed bedrock. In addition, the area has been disturbed by construction and is not likely to yield significant scientific or historical information. It was evaluated previously and deemed ineligible for nomination to the National Register of Historic Places or as a State Archeological Landmark (Wormser et al. 1997).

41BR430

Although 41BR430 is an open campsite with a moderately dense lithic scatter and evidence of Middle and Late Archaic occupations, the density of surface artifacts is a result of deflation and erosion. The scatter is spread across a 300 x 75-m area at an elevation ranging between 1,450 and 1,470 ft. amsl. The site is on a rocky, first-terrace slope south of an unnamed drainage that empties into Devil's River, and limestone bedrock outcrops throughout the site. A north-south jeep trail cuts through the western edge of the site.

The vegetation in the area is composed of oak, juniper, yucca, beargrass, and various other short grasses, and the ground visibility in the area was between 65 and 100 percent. Cultural materials observed and/or collected are listed in Table 44. The Pedernales point (Figure A-44) likely represents a Late Archaic occupation, while the Travis point (Figure A-45) suggests a Middle Archaic occupation (Collins 1995; Hester 1995; Johnson and Goode 1994). Other observations include artifacts that were found in the roadbed, and three of the artifacts were patinated.

This campsite and associated lithic scatter is located atop exposed bedrock and deflated soils, and is not likely to yield significant scientific or historical information. It is therefore not eligible for the National Register of Historic Places or as a State Archeological Landmark.

Table 44. Artifacts at 41BR430

Artifact	Total
Pedernales point	*1
Travis point (modified)	*1
Biface fragments	*9
Unifacially modified flake	7
Primary flakes	5
Secondary flakes	40
Tertiary flakes	33
Shatter	26
Fire-cracked rock	2 (*1)
Core fragments	6
Total	**130**

(*) denotes items collected.

41BR431

41BR431 is a small open campsite consisting of a sparse lithic scatter on a knoll at the east end of an upland slope. The site measures 30 x 50 m and is at an elevation of 1,540 ft. amsl. The area is rocky, with broken sandstone and limestone scattered around the site. A southeast trending tributary to Devil's River is about 420 m south of the site. Shallow, loamy soils on the 1 to 3 percent slope support prickly pear, oak, agarita, juniper, and various grasses, allowing for ground surface visibility ranging from 70 to 100 percent. Cultural materials observed at the site were three flakes, three pieces of shatter, and a point base. The point base fragment was not diagnostic and was not collected.

This is a sparse lithic scatter located atop broken and exposed bedrock, and is not likely to yield significant scientific or historical information. It is therefore not eligible for the National Register of Historic Places or as a State Archeological Landmark.

41BR432

41BR432 is an open campsite with a Late Archaic component. Although it is located on a flat terrace above two unnamed drainages and in their floodplain, limestone bedrock is exposed throughout the site and the soils are shallow. Additionally, conglomerate is on the edges of drainage slopes. The alluvial silty loam supports oak, mesquite, juniper, beargrass, prickly pear, yucca, and agarita, allowing for ground surface visibility at the time of survey between 40 and 100 percent.

The site is large, encompassing an area 500 m (NW-SE) x 400 m (NE-SW). The 40-ft. range in elevation, between 1,440 and 1,480 ft. amsl contributes to natural erosion processes and many artifacts are eroding out of the slope near the southern drainage. Cultural materials observed or collected appear in Table 45. The Bulverde, Castroville, Marcos, Pedernales, and Lange points (Figures A-46, 47, 48, 49, 50, and 51) can all be assigned to the Late Archaic period, although they may represent a more fine-grained temporal sequence within the period (Collins 1995; Hester 1995; Johnson and Goode 1994).

Although the site is large and has diagnostic artifacts, it has shallow, rocky soils. Thus, it is likely that artifacts are mixed at this site. It is not likely to yield significant scientific or historical information and therefore is not eligible for the National Register of Historic Places or as a State Archeological Landmark.

Table 45. Artifacts at 41BR432

Artifact	Total
Castroville point	*1
Bulverde base	*1
Pedernales points	*2
Marcos point	*1
Lange point	*1
Biface fragments	*13
Modified flake	*1
Modified flakes	3
Primary flakes	5
Secondary flakes	65
Tertiary flakes	92
Core fragments	9
Tested cobble	1
Total	**195**

(*) denotes items collected.

41BR433

41BR433 (Figure 20) is a burned rock midden site on a flat terrace dissected by a tributary of Lewis Creek. In addition to the natural disturbance caused by the drainage, a tank trail also bisects the site. A pipeline and pipeline road runs 75 m south of the site. The landform on the south side of the creek slopes gradually to the west along the draw, as does the landform to the north of the creek. Although oaks are the predominant vegetation along the drainages, the shallow (4–10 cm), silty loam soil supports mesquite, prickly pear, yucca, oak, agarita, tasajillo, and various grasses. Crumbled limestone and limestone outcrops are scattered about the site.

Ground surface visibility ranged from 40 to 100 percent, and a moderately dense lithic scatter over a 240 x 100-m area was observed on the south side of the creek. There is also a 10 x 10-m area near the

Figure 20. *Site map of 41BR433.*

Table 46. Artifacts at 41BR433

Artifact	South Side of Creek	North Side of Creek
Castroville point	*1	-
Biface fragments	*2	-
Primary flake	1	2
Secondary flakes	30 +	9
Tertiary flakes	100 +	31
Shatter	5	1
Core	1	-
Core fragment	1	-
Total	**141 +**	**43**

(*) denotes items collected.

southeastern edge of the site that appears to be a lithic manufacturing area. This area contained over 100 tertiary flakes, with the majority measuring about 1 x 1 cm. Two biface fragments and a Castroville dart point were collected from the surface. The Castroville (Figure A-52) represents a Late Archaic occupation at the site (Collins 1995). Other artifacts observed at the site are summarized in Table 46.

Table 47. Shovel testing at 41BR433

Unit	Depth	Observations
ST-1	0-26 cm	10YR 5/3 to 10YR 4/3 (brown), sandy silt. Dry. Small pieces of limestone were present. **Sterile**
ST-2	0-25 cm	10YR 5/2 to 10YR 4/3 (brown), fine sandy loam with subangular limestone gravel present. **Sterile**
ST-3	0-10 cm	10YR 5/3 (brown), sandy silt. Very dry soils. Bedrock at 10 cm. **Sterile**
ST-4	0-5 cm	10YR 3/3 (dark brown), densely compacted, dry silty loam. Bedrock at 5 cm. **Sterile**
ST-5	0-25 cm	10YR 3/2 (very dark grayish brown), silty clayey loam. The soil darkens with depth. **Sterile**

A ring-shaped burned rock midden composed of broken and fire-cracked limestone is located on the north side of the creek between a second and third terrace, 50 m from the drainage. While oak trees surround the area to the northwest and west, the area to the north and east has been cleared for grazing. The midden measures 10 m in diameter and from 30 to 60 cm in height. There is a 25 cm-deep depression in the midden below the highest point. Two large limestone fragments were found in the depression as well as a burned secondary flake. Surface visibility on the north side of the creek was 20 percent and lithic scatters were observed southwest of the midden, and to the north in a roadbed. Five shovel tests were excavated and are summarized in Table 47. The soil was dry and dense due to the drought conditions at the time.

This site is potentially eligible because of the intact burned rock midden and the possibility of other features nearby. However, the soils overall are fairly shallow (20 to 25 cm deep) and bedrock outcrops across the site. Nevertheless, it will require further evaluation in order to determine its eligibility for the National Register of Historic Places.

CAR has recently completed additional work at this site, including the excavation of 56 shovel tests. While a report detailing that work is in production, the boundary on the accompanying map (Figure 20) reflects that additional work.

41BR434

41BR434 is a small campsite consisting of a sparse lithic scatter on a sloping terrace, adjacent to a minor intermittent drainage. The site occupies a 40 x 20-m area at an elevation of 1,450 ft. amsl.

Between 60 and 80 percent of the ground surface was visible amidst a growth of oak, juniper, mesquite, yucca, and various grasses. Cultural material observed but not collected included eight primary chert flakes, four tested cobbles, one piece of shatter, and one core.

This sparse lithic scatter is located atop shallow soils, and is not likely to yield significant scientific or historical information. It was evaluated previously , and deemed ineligible for nomination to the National Register of Historic Places or as a State Archeological Landmark (Wormser et al. 1997).

41BR435

41BR435 is small open campsite consisting of a sparse lithic scatter. It is located at 1,440 ft. amsl on a moderate slope above an artificial pond/intermittent drainage. Site vegetation consists of prickly pear, oak, and various grasses. Despite the good ground surface visibility ranging between 70 and 80 percent, only

seven artifacts were observed in a 2 x 3 m area (Table 48); they were not collected.

This is a very minor site of extremely small size, and is not likely to yield significant scientific or historical information. It is therefore not eligible for the National Register of Historic Places or as a State Archeological Landmark.

Table 48. Artifacts at 41BR435

Artifact	Total
Primary flake	1
Secondary flake	1
Tertiary flakes	2
Core fragment	1
Shatter	2
Total	**7**

41BR436

41BR436 is a Late Archaic and Late Prehistoric open campsite on a small, flat, ridgeline bench. It is adjacent to a pipeline berm, and the site suffered severe disturbance when the pipeline was put into place. The site occupies a 90 x 70-m area, with shallow, stony, clay soil supporting oak, prickly pear, mesquite, and various grasses.

Eighty percent of the ground surface was visible at the time of survey. Artifacts observed at the site included over 300 pieces of lithic debitage and seven pieces of fire-cracked rock. One Darl point and an arrow point tip were the only artifacts collected. All materials observed or collected were chert. The Darl point (Figure A-53) represents a Late Archaic component (Collins 1995; Turner and Hester 1993). The distal arrow point fragment suggests a Late Prehistoric use of the site. One shovel test was excavated with negative results (Table 49).

This open campsite and lithic scatter is on shallow soils and exposed bedrock. The area has been disturbed by construction and is not likely to yield significant scientific or historical information. It was evaluated previously and deemed ineligible for nomination to the National Register of Historic Places or as a State Archeological Landmark (Wormser et al. 1997).

Table 49. Shovel testing at 41BR436

Unit	Depth	Observations
ST-1	Surface	7.5YR 6/4 (light brown), fine sandy loam.
	Level 1 0-10 cm	7.5YR 4/4 (brown), stony, fine sandy loam. **Sterile**
	Level 2 10-15 cm	5YR 4/6 (yellowish red), dense loam. **Sterile**

41BR437

41BR437 is a multicomponent site consisting of a sparse prehistoric lithic scatter (open campsite) and a historic trash scatter. It occupies a 40 x 35-m area and is located at the base of a slight slope near a barn. The site has been disturbed by clearing and construction of a pipeline corridor and a dirt trail running through it. A gravelly clay loam supports oak, mesquite, tasajillo, and various grasses, allowing for between 40 and 80 percent ground surface visibility. Artifacts observed and collected at the site are listed in Table 50.

This site has been heavily disturbed by the construction of a pipeline corridor and is not likely to yield significant scientific or historical information. It was evaluated previously and deemed ineligible for nomination to the National Register of Historic Places or as a State Archeological Landmark (Wormser et al. 1997).

Table 50. Artifacts at 41BR437

Artifact	Total
Biface fragment	*1
Primary flake	2
Secondary flake	2
Interior flake	5
Shatter	3
Test block	1
Clear glass	2 pieces
Crockery	1 piece
Total	**17**

(*) denotes items collected.

41BR438

41BR438 (Figure 21) is a historic site consisting of a stone wall, cistern, possible house foundation, and an associated scatter of artifacts. The wall is made of dry laid stone, approximately 2 ft. wide and 3 ft. high, and encloses a rectangular compound measuring roughly 70 x 95 ft. The area within the wall appears to have been filled and leveled, as the wall measures only 6 in. above the ground surface on the inside, compared to 2 ft. on the outside.

Within the compound is a rectangular house foundation measuring approximately 18 x 27 ft., paved with shaped, limestone slabs. In one corner of the compound is a large, subterranean bell-shaped cistern measuring approximately 12 to 14 ft. deep, with the wall opening projecting 2 ft. above the ground surface.

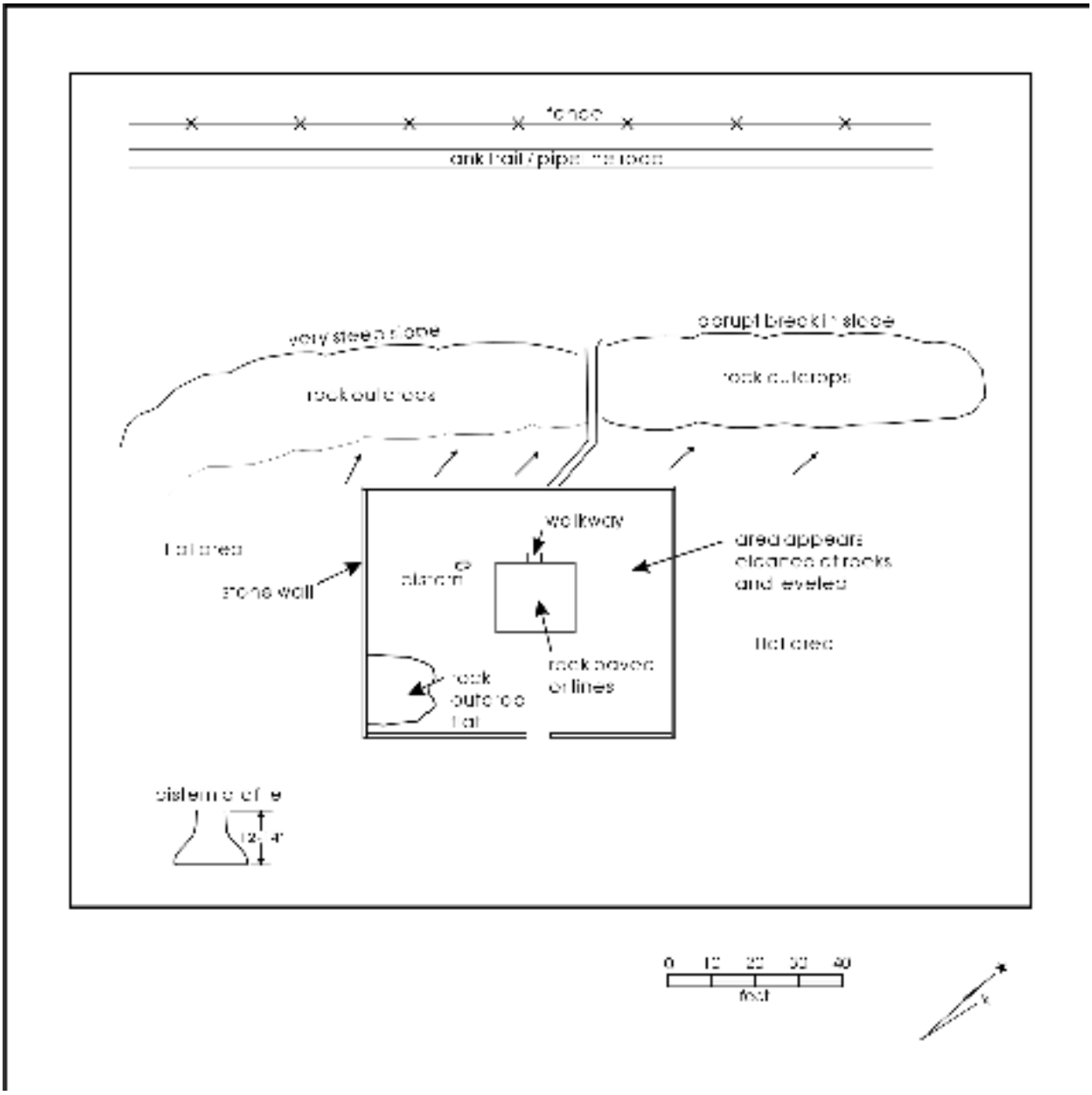

Figure 21. *Site map of 41BR438.*

The walls are approximately one foot thick and appear to be constructed of mortar-laid limestone slabs with concrete lining. Additionally, there is a drainage channel excavated into the bedrock, extending northwest from the west stone wall of the compound, down the slope into the floodplain.

With surface visibility at 80 percent amidst the oak, mesquite, prickly pear, agarita, and bunch grasses, artifacts were easily seen and consisted of ceramic, glass, and metal items, indicating that the site may date to the late-nineteenth and/or early-twentieth century. One fragment of white granite ironstone and one fragment of stoneware were collected. Other artifacts observed included fragments of crockery, glass fragments (five clear, five solarized, and one brown), six pieces of rusty metal, a metal barrel band, a lard can, and a horse shoe.

This site will be marked for avoidance until it can be examined more thoroughly to determine its eligibility for the National Register of Historic Places.

41BR439

Site 41BR439 is a 55 x 50-m open campsite situated on an eroded terrace above an artificially created channel. Gravelly soils support mesquite, barrel cactus, prickly pear, and tasajillo.

Over 100 pieces of lithic debitage were observed across the entire site. A 1 x 1-m surface observation unit was examined and the artifacts characterized (Table 51). Two biface fragments were collected.

Table 51. Artifacts from 1 x 1-m sample plot at 41BR439

Artifact	Total
Primary flakes	5
Secondary flakes	11
Interior flakes	18
Shatter	3
Biface fragments	*2
Total	**39**

(*) denotes items collected.

This sparse lithic scatter located atop shallow and eroded soils is not likely to yield significant scientific or historical information. It was evaluated previously and deemed ineligible for nomination to the National Register of Historic Places or as a State Archeological Landmark (Wormser et al. 1997).

41BR440

41BR440 is an open campsite on a flat area west of a stock pond. A coarse, silty gravelly soil supports mesquite, oak, prickly pear, tasajillo, and various grasses. A Clear Fork gouge (Figure A-54) was found on the site, indicating a possible Early Archaic component (Hester 1995; Turner and Hester 1993). The site, which occupies a 70 x 60-m area at an elevation of 1,425 ft. amsl, was disturbed during the construction of a stock pond.

Cultural materials observed and/or collected are listed in Table 52. Surface visibility was 80 to 100 percent across the site at the time of the survey. Artifact counts were made from both the general surface area of the site and from a 1 x 1-m surface observation area within the site. This sample was counted separately from the rest of the site.

Table 52. Artifacts at 41BR440

Artifact	1x1-Meter Plot	General
Clear Fork gouge	-	*1
Biface fragment	-	*1
Drill	-	*1
Chert flakes (all types)	-	400+
Burned rocks	-	present
Flake tools	-	3
Primary flake	1	-
Secondary flakes	5	-
Interior flakes	32	-
Total	**38**	**406+**

(*) denotes items collected.

41BR440 is a shallow site that has been disturbed by the construction of a stock tank and is not likely to yield significant scientific or historical information. It was

evaluated previously and deemed ineligible for nomination to the National Register of Historic Places or as a State Archeological Landmark (Wormser et al. 1997).

41BR441

41BR441 (Figure 22) is a burned rock midden site. The midden itself has been badly disturbed. The entire site occupies a 200 x 40-m area on a gentle slope off a ridge. Large boulders and broken sandstone are common on and around the slope, with scattered and fragmented large cobbles at the slope's base. A fine silty loam supports agarita, prickly pear, and various grasses. The soil becomes sandier with distance from the ridge. An east-west trending fence and road run through the area, and two stock ponds are located east and northwest of the site.

The midden is south-southwest of one of the ponds. It is made-up of two somewhat linear mounds and looks like heavy machinery has been used to scrape through the center of it, resulting in the three separate mounds. While the westernmost mound of rocks appears to be

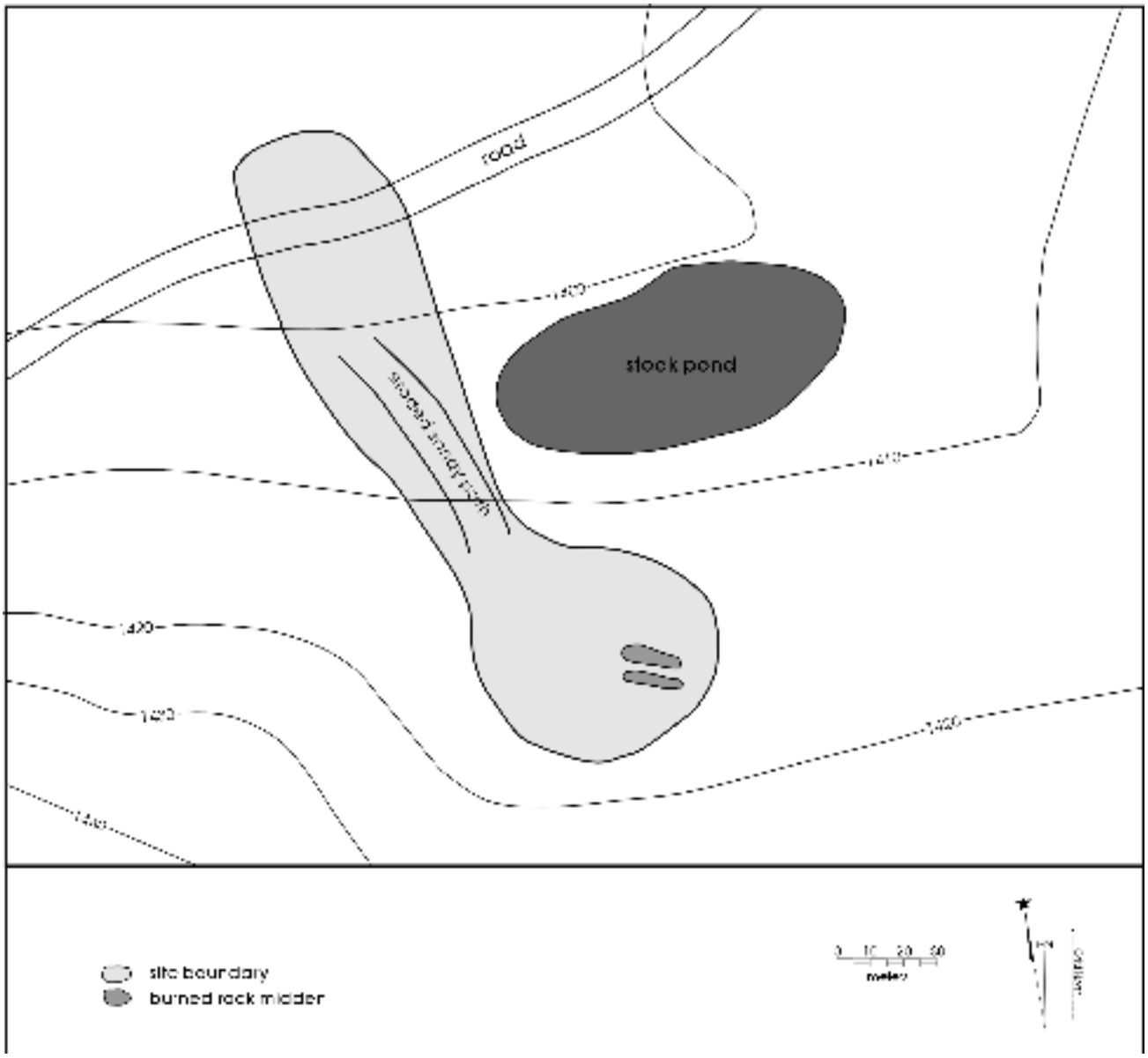

Figure 22. *Site map of 41BR441.*

a secondary deposit from blading, the other two mounds may be partially intact. The northern remnant of the midden measures 14 x 3 m, and the southern remnant measures 4 x 3 m. The midden matrix consists of burned sandstone cobbles supported by dark soil, contrasting sharply with the surrounding natural reddish colored and gravelly soil.

Seventy to 100 percent of the ground surface was visible at the time of survey. Cultural materials observed and/or collected from the site are listed in Table 53. A single Scallorn arrow point (Figure A-55) suggests that the midden was used during the Late Prehistoric period (Turner and Hester 1993).

Table 53. Artifacts at 41BR441

Artifact	Total
Scallorn point base	*1
Bifaces	*4
Debitage	*2
Primary flakes	4
Secondary flakes	46
Tertiary flakes	113
Shatter	15
Tested cobble	1
Cores	3
Total	**189**

(*) denotes items collected.

This site is recommended for avoidance during training exercises. It will require further evaluation in order to determine its eligibility for the National Register of Historic Places.

CAR has recently completed additional work at this site, including the excavation of 38 shovel tests. While a report detailing that work is in production, the boundary on the accompanying map (Figure 22) reflects that additional work.

41BR442

41BR442 is an open campsite consisting of a sparse lithic scatter on a flat terrace above the head of a southeast trending drainage. Obvious disturbances include tank roads that run along the northern and southern edges of the site and erosion, which has exposed limestone bedrock around the site. The site occupies a 150 x 80-m area at an elevation of 1,530 ft. amsl. A silty loam supports oak mesquite, prickly pear, tasajillo, and various grasses, allowing for 70 to 100 percent ground surface visibility at the time of survey. Cultural materials observed and/or collected are listed in Table 54.

This is a sparse lithic scatter and is not likely to yield significant scientific or historical information. It is therefore not eligible for the National Register of Historic Places or as a State Archeological Landmark.

Table 54. Artifacts at 41BR442

Artifact	Total
Biface/gouge	*1
Biface fragments	*2
Secondary flakes	2
Tertiary flakes	2
Piece of shatter	1
Total	**8**

(*) denotes items collected.

41BR443

41BR443 is an open campsite consisting of a sparse lithic scatter on a flat terrace at the confluence of two drainages. Amidst a limestone conglomerate outcrop, the silty and gravelly soils support juniper, agaves, prickly pear, and various grasses, allowing for 80 percent ground surface visibility at the time of survey. Cultural material observed included 10 pieces of lithic debitage within the 10 x 20-m site area.

This sparse lithic scatter located atop shallow soils is not likely to yield significant scientific or historical information. It was evaluated previously and deemed ineligible for nomination to the National Register of Historic Places or as a State Archeological Landmark (Wormser et al. 1997).

41BR444

41BR444 is an open campsite consisting of a sparse lithic scatter spread across a 20 x 60-m area at an elevation of 1,470 ft. amsl. It is situated on clayey loam soils of an upland slope, above the confluence of two drainages (one is a tributary to Devil's River). The ground surface visibility at the time of survey ranged from 50 to 100 percent between patches of cedar, oak, mesquite, yucca, and buffalo grass. Cultural materials observed are listed in Table 55. None were collected.

Table 55. Artifacts at 41BR444

Artifact	Total
Primary flakes	3
Secondary flake	1
Tertiary flakes	10
Core fragment	1
Point fragment	1
Total	**16**

This is a sparse lithic scatter and is not likely to yield significant scientific or historical information. It is therefore not eligible for the National Register of Historic Places or as a State Archeological Landmark.

41BR445

41BR445 is an open campsite consisting of a moderately dense lithic scatter on a gently sloping terrace above an unnamed tributary to Devil's River. Limestone conglomerate is exposed at the slope's edge. A clayey loam supports cedar, juniper, oak, yucca, and buffalo grass, allowing for ground surface visibility broadly ranging between 50 and 100 percent. The site occupies a 45 x 85-m area at an elevation of 1,480 ft. amsl.

Cultural materials observed or collected are listed in Table 56. A Travis point (Figure A-56) and a Pedernales point (Figure A-57) were collected, but other artifacts were left in place. The Travis point indicates a Middle Archaic component (Turner and Hester 1993), while the Pedernales point indicates the presence of a Late Archaic component (Collins 1995; Johnson and Goode 1994).

Table 56. Artifacts at 41BR445

Artifact	Total
Pedernales point	*1
Travis point	*1
Primary flakes	3
Secondary flakes	7
Interior flakes	13
Biface fragment	1
Total	**26**

(*) denotes items collected.

This is a small campsite, with shallow soils on conglomerate outcrops, and is not likely to yield significant scientific or historical information. It is therefore not eligible for the National Register of Historic Places or as a State Archeological Landmark.

41BR446

This is a lithic procurement area and workshop consisting of a dense and extensive scatter (200 x 140 m) of lithic tools and debris. Projectile points and a distinctive Nueces bifacial tool indicate components representing the Early, Middle, and Late Archaic periods (see Figures A-58 through A-62). The site is on a 1,485-ft. amsl, large rocky upland ridge between two drainages that empty into Devil's River. A stony, gravelly silt supports cedars, oak, agarita, beargrass, prickly pear, and various grasses.

With ground surface visibility broadly ranging between 30 and 100 percent, several hundred pieces of lithic debitage were observed. All reduction stages are well represented, although, based on the size of the debitage and amount of hard hammer flaking, the assemblage gave a general impression of a lithic procurement site or workshop. Other artifacts present included unifacially and bifacially modified flakes, cores, tested cobbles, and shatter. The greatest density of artifacts was observed along the northwest edge

Table 57. Artifacts collected at 41BR446

Artifact	Total	Observations
Gower point base	1	Early Archaic
Nolan point base	1	Late Middle Archaic
Pedernales point base	1	Late Archaic
Nueces biface	1	Middle to Late Archaic, South Texas/Rio Grande affinity
Ensor point base	1	Late Archaic
Biface fragment	1	Not diagnostic

of the landform. This area is where the majority of cores and tested cobbles were. Most material was left in place, but the few artifacts that were collected are summarized in Table 57.

Two shovel tests were excavated, and both exhibited a 10YR 3/4 (dark yellowish brown) rocky, silty loam over limestone bedrock and conglomerate. Shovel Test 1 was only 4 cm deep and Shovel Test 2 only reached a depth of 12 cm before each hit bedrock. No artifacts were recovered from the shovel tests.

This site is on very shallow soils and bedrock. Although the artifact distribution is dense, the cultural components are mixed and deflated. There were no apparent features despite extremely good ground visibility. The site is not likely to yield significant scientific or historical information. It is therefore not eligible for the National Register of Historic Places or as a State Archeological Landmark.

41BR447

41BR447 is a small open campsite consisting of a light lithic scatter on a flat ridge top. The site area covers a 20 x 15-m area at an elevation of 1,480 ft. amsl. The area has been disturbed by road and Camp Bowie boundary fence construction. Trees have been pushed over and the area has been graded. What remains of the vegetation includes juniper, oak, and buffalo grass. The ground surface visibility at the site ranges between 80 and 100 percent, with most of the artifacts visible within the roadbed. A total of ten chert flakes were observed but were not collected.

This is a sparse lithic scatter that has been heavily disturbed by road and fence construction, and natural erosion. Because it has been so heavily disturbed it is not likely to yield significant scientific or historical information. It is therefore not eligible for the National Register of Historic Places or as a State Archeological Landmark.

41BR448

41BR448 is an open campsite consisting of a sparse lithic scatter on a sloping, dissected terrace adjacent to a perennial stream. Scattered broken rock covers the 30 x 15-m site area. At an elevation of 1,480 ft. amsl, a gravelly silt supports juniper, oaks, beargrass, asters, and bunch grasses, allowing for 80 percent ground surface visibility.

Cultural materials observed and/or collected are listed in Table 58. The two artifacts collected are a possible beveled knife and a possible Late Paleoindian distal point tip (Figure A-63). The identification of this artifact as Late Paleoindian is based on its parallel-sided shape, parallel flaking which reaches across the breadth of the blade, and its thick patination. Overall, however, few artifacts are present at this site, the soil is shallow and rocky, and thus it is not likely to yield significant scientific or historical information. It is

Table 58. Artifacts at 41BR448

Artifact	Total
Possible Late Paleoindian point tip	*1
Possible beveled knife	*1
Primary flakes	2
Secondary flake	1
Tertiary Flake	1
Total	**6**

(*) denotes items collected.

therefore not eligible for the National Register of Historic Places or as a State Archeological Landmark.

41BR449

41BR449 is an open campsite on a sloping terrace below a ridgeline and adjacent to a seasonal drainage. The site occupies a 25 x 10-m area at an elevation of 1,470 ft. amsl. Eighty percent of the ground surface was visible at the time of survey. The gravelly, silty soil over bedrock is shallow, but manages to support oak, mesquite, prickly pear, and agaves.

Cultural materials observed and/or collected during site investigation are listed in Table 59. Only a few artifacts were observed at the site despite excellent visibility. Of these, only a Pedernales point (Figure A-64) was collected, and the rest were left in place. The presence of the Pedernales point indicates a Late Archaic component (Collins 1995; Johnson and Goode 1994).

This sparse lithic scatter on shallow soils and exposed bedrock is not likely to yield significant scientific or historical information and is not eligible for the National Register of Historic Places or as a State Archeological Landmark.

Table 59. Artifacts at 41BR449

Artifact	Total
Pedernales point	*1
Primary flake	2
Secondary flake	2
Piece of shatter	1
Projectile point (distal frag.)	1
Total	**7**

(*) denotes items collected.

41BR450

This site is a small (10 x 10-m) open campsite consisting of a sparse lithic scatter on a north trending limestone bench 1,515 ft. amsl. The Camp Bowie boundary fence lies 40 m to the southwest. Site vegetation includes juniper, oak, yucca, and buffalo grass. Even though surface visibility was 100 percent due to severe erosion and shallow soils, only eight artifacts were observed; none were collected.

This sparse lithic scatter on shallow soils has been heavily eroded and is not likely to yield significant scientific or historical information. It was evaluated previously and deemed ineligible for nomination to the National Register of Historic Places or as a State Archeological Landmark (Wormser et al. 1997).

41BR451

41BR451 is an open campsite consisting of a sparse lithic scatter on a long flat ridge top, 1,505 ft. amsl. A tank trail running through the site has severely disturbed the surface, and is probably responsible for the many broken gravels scattered around the site. The site occupies a 45 x 40-m area. Clay-loam soils support mesquite, prickly pear, oak, and tasajillo. Even with good, 75 percent surface visibility at the time of our visit, only eight artifacts were observed (Table 60).

Table 60. Artifacts at 41BR451

Artifact	Total
Primary flakes	2
Secondary flake	1
Tertiary flakes	4
Core fragment	1
Total	**8**

This appears to be a minor campsite with very few artifacts resting on eroded and shallow soils over bedrock. Thus it is not likely to yield significant scientific or historical information and is not eligible for the National Register of Historic Places or as a State Archeological Landmark.

41BR452

41BR452 is a lithic workshop consisting of a dense lithic scatter approximately 50 x 300 m. It is located on an upland terrace ridge above a dry, rocky drainage with exposed limestone bedrock. Broken limestone

is scattered about the site. Clayey soil at an elevation of 1,460 ft. amsl supports mesquite, oak, prickly pear, tasajillo, and buffalo grass.

Ground surface visibility at the time of the survey was between 50 and 100 percent. Cultural materials observed included one biface, one modified flake, and over 100 flakes. The biface and modified flake were collected, but the flakes were left in place. None of the artifacts were diagnostic of any particular time period.

This lithic scatter is on shallow soils and exposed bedrock, and is not likely to yield significant scientific or historical information. It was evaluated previously and deemed ineligible for nomination to the National Register of Historic Places or as a State Archeological Landmark (Wormser et al. 1997).

41BR453

This is an open campsite consisting of a sparse lithic scatter from an unspecified prehistoric period. It occupies an 80 x 40-m area on a steep east-facing bluff at an elevation of 1,470 ft. amsl. There are limestone bedrock outcrops and broken limestone scattered around the site. The shallow, clayey loam supports yucca, mesquite, oak, and buffalo grass, allowing for 75 percent surface visibility at the time of survey. Cultural materials found at the site included three primary flakes, three secondary flakes, and four non-cortical thinning flakes. Also found was a rimfire pistol cartridge casing. No artifacts were collected.

This site yielded few artifacts, and none of the prehistoric artifacts observed were diagnostic of any particular prehistoric time period. It is on shallow soils and exposed bedrock, and is not likely to yield significant scientific or historical information. The site is not eligible for the National Register of Historic Places or as a State Archeological Landmark.

41BR454

This site is an open campsite consisting of a dense lithic scatter on a gently sloping ridge, at an elevation of 1,410 ft. amsl. Broken limestone is scattered about the site and there is a conglomerate outcrop along the eastern edge of the ridge. Surface visibility across the 20 x 80-m site ranged between 75 and 100 percent due to erosion, and a sparse growth of oak, mesquite, and agarita in silty loam soils. Cultural materials present included over 100 flakes from all stages of reduction, one biface fragment, and one Pedernales point. Only the biface fragment and the Pedernales point (Figure A-65) were collected. The Pedernales point implies a Late Archaic occupation (Collins 1995; Johnson and Goode 1994).

This site is on shallow, heavily eroded, and deflated soils that have a well-developed zone of calcium carbonate 20 to 35 cm below the surface. It is not likely to yield significant scientific or historical information, and is therefore not eligible for the National Register of Historic Places or as a State Archeological Landmark.

41BR455

41BR455 is an open campsite on a small terrace approximately 60 m northwest of Devil's River. The lithic scatter is spread across an area that measures 180 x 50 m. The vegetation consists of mixed grasses, oak, elm, mesquite, and prickly pear, allowing between 10 and 90 percent ground surface visibility at the time of survey. A single shovel test revealed no evidence of buried cultural material. Cultural materials observed on the surface are listed in Table 61, and the results of shovel testing appear in Table 62.

This is a sparse lithic scatter and is not likely to yield significant scientific or historical information. It was

Table 61. Artifacts at 41BR455

Artifact	Total
Uniface	1
Primary flakes	3
Secondary flakes	9
Tertiary flakes	26
Shatter	2
Core	1
Tested cobbles	2
Core fragment	1
Total	**45**

evaluated previously and deemed ineligible for nomination to the National Register of Historic Places or as a State Archeological Landmark (Wormser et al. 1997).

Table 62. Shovel testing at 41BR455

Unit	Depth	Observations
ST-1	Level 1 0-5 cm	7.5YR 3/3 (strong brown), silty loam. **Sterile**
	Level 2 5-20 cm	7.5YR 3/3 (dark brown), silty clay loam. **Sterile**
	Level 3 20-35 cm	5YR 4/4 (reddish brown), clay loam. The soil is dryer and more blocky than in the previous levels and is modeled with CaCO3. **Sterile**

41BR456

41BR456 is a historic well, possibly representing a house site, from the mid-twentieth century. It is surrounded by various grasses on a level floodplain 80 m northwest of Devil's River. The well shaft is constructed of mortar over shaped limestone. Its outer diameter is 36 in. and its inner diameter measures 20 in. The shaft stands 20 in. above the ground surface. It has a deteriorated wooden cover that had been constructed with modern, round nails. Surface visibility was 30 to 60 percent at the time of our visit.

No historic debris was found and there did not appear to be other structures or ruins indicating specific activities or site function. The well is not considered eligible for the National Register of Historic Places or as a State Archeological Landmark.

41BR457

41BR457 is an open campsite consisting of a 35 x 15-m sparse lithic scatter on a gently-sloping terrace. It has been severely disturbed by clearing, mechanized blading activities, and fence construction. Sandy clay loam supports mesquite, prickly pear, tasajillo, and purple sage, allowing for a broad range of surface visibility between 30 and 100 percent at the time of the survey. Cultural materials observed are listed in Table 63. None were collected.

This sparse lithic scatter has been heavily disturbed and is not likely to yield significant scientific or historical information. It was evaluated previously and deemed ineligible for nomination to the National Register of Historic Places or as a State Archeological Landmark (Wormser et al. 1997).

Table 63. Artifacts at 41BR457

Artifact	Total
Primary flake	1
Secondary flakes	4
Interior flakes	4
Core fragments	2
Total	**11**

41BR458

41BR458 is an open campsite consisting of a sparse lithic scatter lying on the edge of a flat terrace at 1,500 ft. amsl. The scatter extends across a 140 x 120-m area. Stony, silty loam supports oak, mesquite, prickly pear, tasajillo, mixed grasses, and forbs, and ground surface visibility ranged from 60 to 100 percent. The area has been disturbed by military tank activities and broken limestone is scattered around the area; armored vehicle tracks are present throughout the site and adjacent areas. Cultural materials observed are listed in Table 64. None were collected.

Table 64. Artifacts at 41BR458

Artifact	Total
Primary flakes	2
Secondary flakes	5
Interior flakes	18
Biface	1
Core fragment	1
Biface midsection	1
Total	**28**

This is a sparse lithic scatter located atop shallow rocky soils and is not likely to yield significant scientific or historical information. It is therefore not eligible for the National Register of Historic Places or as a State Archeological Landmark.

41BR459

41BR459 is a small historic trash scatter that occupies a 5 x 5-m area at an elevation of 1,410 ft. amsl. The scatter is on a broad slope, along the west side of a northeast-southwest trending rise. Lewis Creek is located approximately 300 m to the northwest. Vegetation consists of mesquite, tasajillo, prickly pear, and oak. Artifacts observed at the site included eight crockery fragments, barbed wire, and a length of chain links. None were collected.

This sparse trash scatter is not likely to yield significant scientific or historical information. It was evaluated previously and deemed ineligible for nomination to the National Register of Historic Places or as a State Archeological Landmark (Wormser et al. 1997).

41BR460

This site is a small (10 x 10 m) lithic workshop at the southeastern edge of a 1,370-ft. (amsl) landform on a ridge system. The landform drops dramatically five meters from the site. Broken limestone is scattered throughout the site, and shallow silty loam soils support oak, yucca, juniper, and beargrass, with surface visibility ranging between 40 and 100 percent. Cultural materials observed are listed in Table 65.

Table 65. Artifacts at 41BR460

Artifact	Total
Primary flake	1
Secondary flakes	2
Tertiary flakes	14
Shatter	6
Hammerstone	1
Total	**24**

This is a sparse lithic scatter located atop shallow soils and is not likely to yield significant scientific or historical information. It is therefore not eligible for the National Register of Historic Places or as a State Archeological Landmark.

41BR461

41BR461 is a mid-twentieth century trash dump, which measures 10 m in diameter. The site is located near the edge of an east-facing bluff top, above a drainage leading to the Pecan Bayou floodplain. The nearest water source is Lewis Creek, approximately 1 km to the west. The site vegetation consists of grasses, live oak, mesquite, agarita, tasajillo, and prickly pear.

Cans observed at the site included 18 cone top steel beverage cans, 30 flat top steel beverage cans, 27 sanitary food cans, two one-pound coffee cans, a spice can, and a flat oval fish tin. Glass artifacts observed included Coca-Cola and root beer bottles, a milk bottle neck, a brown Clorox bottle, three six-ounce condiment jars, two one-quart clear vinegar bottles, a disposable beer bottle, a clear glass mug handle, a cold cream jar, clear bottles and jars, and fragments of clear, brown, white, and light blue opaque glass. One piece of milkglass, one piece of white earthenware, and two pieces of semi-porcelain “hotel ware” were collected. This “hotel ware” was produced from about 1880 until the early twentieth century (Anne Fox, personal communication), though its use may have continued to a later date. The milkglass and earthenware both were manufactured in the U.S. beginning in the late 1800s, and production has continued to the present. Other items observed included shoe insoles, a shoe heel, and a piece of zinc from a lamp base. One prehistoric item was found: a Pedernales point base (Figure A-66). However, there was no other indication of a prehistoric component at the site.

This site is a common trash dump, largely dating from the 1950s or later. The presence of the Pedernales point is an anomaly and is considered an isolated find. The site is not eligible for the National Register of Historic Places or as a State Archeological Landmark.

41BR462

41BR462 is an open campsite consisting of a prehistoric lithic scatter and a historic trash scatter. The site is situated on the edge of a north-south trending ridge, above a heavily eroded area. The site occupies a 70 x 20-m area and is at an elevation of 1,410 ft. amsl. A road that follows the ridgeline cuts through the northernmost area of the site, and broken limestone and conglomerate are found throughout the site. Silty loam soils support mesquite, tasajillo, prickly pear, oak, yucca, and various grasses. Surface visibility ranged from 30 to 100 percent during our visit.

Prehistoric cultural materials included one dart point stem, one core, and ten flakes. The point stem, the only artifact collected, is too fragmentary to be readily identifiable, but may represent a Pedernales point (Figure A-67), dating to the Late Archaic period (Collins 1995; Johnson and Goode 1994). Artifacts from the historic component appear to date from the mid-twentieth century and later.

This site has shallow, rocky soils and no identifiable features. The prehistoric and the historic components are not considered eligible for the National Register of Historic Places or as State Archeological Landmarks.

41BR463

This is an open campsite consisting of a sparse lithic scatter from an unknown prehistoric temporal affiliation. It occupies a 10 x 10-m area of a stony rock outcrop. It is set on a 1,465-ft. (amsl) terrace adjacent to a saddle between two knobs. A stony and gravelly clay loam supports tasajillo, mesquite, prickly pear, and mixed grasses, allowing for 80 to 90 percent surface visibility at the time of survey. Cultural material observed included two secondary flakes and four non-cortical flakes. No artifacts were collected.

This is a sparse lithic scatter located atop shallow soils and is not likely to yield significant scientific or historical information. It is therefore not eligible for the National Register of Historic Places or as a State Archeological Landmark.

41BR464

41BR464 is an open campsite consisting of a sparse lithic scatter on the edge of a rocky ridge and adjacent to a steep drop-off. The ridge rises to an elevation of 1,460 ft. amsl at the site. The scatter covers an area of 55 x 20 m. The shallow, stony clay loam supports oak, juniper, agarita, prickly pear, yucca, and various grasses. The sparse vegetation allowed for 80 percent surface visibility at the time of the survey. Cultural materials observed amongst an abundance of naturally fractured chert along the edge of the landform included three non-cortical flakes, four pieces of shatter and two secondary flakes.

Due to the paucity of artifacts and the shallow nature of the soils at this site, it is not likely to yield significant scientific or historical information. It is not eligible for the National Register of Historic Places or as a State Archeological Landmark.

41BR465

This is a small open campsite consisting of a sparse lithic scatter on the rocky edge of a ridge, overlooking a floodplain. Shallow, rocky soils support oak, mesquite, agarita, prickly pear, and yucca. The site area is 20 x 10 m, at an elevation of 1,450 ft. amsl. Surface visibility ranges between 25 and 45 percent in the area. Fifteen chert flakes were observed, but none were collected. No diagnostic artifacts were found.

This is a sparse lithic scatter and is not likely to yield significant scientific or historical information. It is therefore not eligible for the National Register of Historic Places or as a State Archeological Landmark.

41BR466

41BR466 is an open campsite consisting of a sparse lithic scatter spread across a 100 x 30-m area. The site is located 75 m east of the Camp Bowie Reservation boundary fence. It is on a south-facing slope with a good view of other slopes and the valley below. The elevation at the center of the site is 1,470 ft. amsl.

Shallow rocky soils support juniper, oak, and bluestem grass, allowing for between 50 and 100 percent ground surface visibility. Artifacts observed and collected are summarized in Table 66. The only diagnostic artifact, a Bulverde point (Figure A-68), indicates a Late Archaic component (Collins 1995; Johnson and Goode 1994).

This is a sparse lithic scatter located atop shallow rocky soils, and is not likely to yield significant scientific or historical information. It is therefore not eligible for the National Register of Historic Places or as a State Archeological Landmark.

Table 66. Artifacts at 41BR466

Artifacts	Total
Bulverede point	*1
Tested cobble	1
Biface fragment	1
Flakes	6
Shatter	6
Total	**15**

(*) denotes items collected.

41BR467

41BR467 is an open campsite consisting of a sparse lithic scatter from an unspecified prehistoric period. The site occupies a 20 x 20-m area at an elevation of 1,460 ft. amsl. Its location on a south-facing upland slope offers a good view of the valley below. The soil is an extremely shallow gravelly loam, with exposed bedrock frequent across the site. Thus, it supports only a sparse growth of oak, juniper, and various grasses. Despite the good surface visibility ranging between 75 and 100 percent, only nine artifacts were observed (Table 67).

The only item collected was a modified flake. All other items were left in place, and no artifacts were found that would indicate any specific time period.

This is a sparse lithic scatter located atop shallow rocky soils, and is not likely to yield significant scientific or historical information. Nevertheless, shovel testing will be required to completely evaluate the site. This work is planned for the immediate future.

Table 67. Artifacts at 41BR467

Artifacts	Total
Primary flake	1
Tertiary flake	1
Pieces of shatter	3
Modified flake	*1
Burned rock frags.	2
Core	1
Total	**9**

(*) denotes items collected.

41BR468

This is an open campsite consisting of a sparse scatter on an upland ridge, with a good view of a valley to the south. The site occupies a 20 x l0-m area at an elevation of 1,410 ft. amsl. The soils are shallow and eroded, thus sandstone bedrock and limestone conglomerate are exposed throughout most of the site. Surface visibility was 100 percent throughout the site, and most of the artifacts are sitting directly on the bedrock. Those artifacts observed are listed in Table 68. None were collected.

Because this site has few artifacts and is on bedrock and very shallow soils, it is not likely to yield significant scientific or historical information. It is therefore not eligible for the National Register of Historic Places or as a State Archeological Landmark.

Table 68. Artifacts at 41BR468

Artifact	Total
Biface fragments	2
Primary flake	1
Secondary flakes	2
Piece of shatter	1
Tested cobble	1
Core	1
Total	**8**

41BR469

41BR469 is a lithic procurement area consisting of a moderate lithic scatter spread over three rocky terraces above the floodplain of Devil's River. The site size is about 75 by 150 m and is located at a median elevation of 1,450 ft. amsl. The soils are shallow and deflated, with broken sandstone and limestone scattered about the site. A conglomerate outcrop bounds the edge of the terrace, and the north end of the site abuts a fence line. Vegetation includes tasajillo, mesquite, prickly pear, yucca, agarita, and various grasses. Surface visibility varied between 40 to 100 percent at the time of our visit.

Cultural materials observed and/or collected are listed in Table 69. A Dalton or Angostura-like point base (Figure A-69) was collected, all other artifacts were left in place. The point's Dalton/Angostura-like qualities indicate a Late Paleoindian to Early Archaic affiliation (Collins 1995; Hester 1995; Turner and Hester 1993).

Table 69. Artifacts at 41BR469

Artifact	Total
Dalton/Angostura-like point	*1
Tested cobbles	3
Core	2
Secondary flakes	17
Primary flake	5
Tertiary flakes	28
Biface fragments	10
Cores	13
Total	**79**

(*) denotes items collected.

This lithic scatter is located atop shallow deflated soils and is not likely to yield significant scientific or historical information. It was evaluated previously and deemed ineligible for nomination to the National Register of Historic Places or as a State Archeological Landmark (Wormser et al. 1997). In spite of this evaluation, further testing would be useful in determining the nature and extent of the site. Shovel testing is planned for the immediate future.

41BR470

This site is an open campsite with an unknown prehistoric temporal affiliation. It lies on the crest of a ridge, with an elevation ranging between 1,430 and 1,450 ft. amsl, and overlooking an unnamed tributary of Pecan Bayou. The site covers a 60 x 50-m area, extending across a pair of small north-trending upland lobes on the ridge, separated by an eroded draw. The westernmost lobe (West Area) is divided into two erosional shelves. The upper shelf of the West Area is pink sandstone bedrock. The area directly south of the upper shelf is covered with limestone rubble. A steep slope composed of sandstone bedrock covered with limestone cobbles that are erosional remnants separates the upper and lower shelves. The lower shelf is rocky, with sandy, rosy pink soil that is obviously derived out of the pink sandstone. Just below the second shelf, is another drop-off and conglomerate occurs at that level. The East Area is similar to the upper bench of the West Area. Although bedrock outcrops over most of the site, pockets of sandy loam soil support live oak, yucca, beargrass, juniper, prickly pear, and sparse grasses.

The site is concentrated on the upper shelf, with fewer artifacts found on the lower shelf. The easternmost lobe (East Area) only had a few flakes, a scraper, and a core.

Surface visibility was almost 100 percent across the site due to the fact that most of the artifacts were sitting directly on bedrock, and soil development is minimal. Artifacts observed and collected are listed in Table 70. No artifacts were found that could be related directly to any specific prehistoric time period.

This site has no diagnostic artifacts, and no features were observed despite nearly 100 percent surface visibility. In addition, most of the site sits directly on bedrock, and the remainder is on a very shallow soil on the lower shelf of the West Area. It is not likely to yield significant scientific or historical information, and it is not eligible for the National Register of Historic Places or as a State Archeological Landmark.

Table 70. Artifacts at 41BR470

Artifact	W. Area		E. Area	Total
	Lower Shelf	Upper Shelf		
Biface fragments	-	*2	-	**2**
Scraper	-	-	*1	**1**
Cores	1	-	1	**2**
Tested cobble	2	-	-	**2**
Primary flakes	-	2	-	**2**
Secondary flakes	4	12	1	**17**
Tertiary flakes	2	10	2	**14**
Pressure flakes	-	2	-	**2**
Shatter	1	5	-	**6**
Burned rock	1	-	-	**1**
Total	**11**	**33**	**5**	**49**

(*) denotes items collected.

41BR471

41BR471 is an open campsite consisting of a lithic scatter on a flat area adjacent to an unnamed intermittent drainage, with a stock pond 35 m to the west. A gravelly loam soil supports mesquite, prickly pear, agarita, and short grasses, allowing for 75 to 100 percent surface visibility at the time of the survey. Cultural materials observed and collected at the site are listed in Table 71.

This is a sparse lithic scatter not likely to yield significant scientific or historical information. Nevertheless, shovel testing will be required to evaluate this site. The work is planned for the immediate future.

Table 71. Artifacts at 41BR471

Artifact	Total
Biface fragment	*1
Primary flake	2
Secondary flake	19
Interior flake	22
Core	2
Shatter	9
Tested cobble	1
Total	**56**

(*) denotes items collected.

41BR472

41BR472 is an open campsite that covers a 50 x 50-m area on the east side of a broad, gently-sloping drainage. A 10 x 10-m area of sandstone bedrock is on the west end of the site, standing approximately 1 m above the surrounding ground.

Surface visibility was 80 percent at the time of survey. Artifacts observed and collected are listed in Table 72. The artifact distribution is typical of open campsites in the upland areas, and there were no diagnostics.

Three shovel tests were excavated (Table 73). Shovel Test 1 was located 10 m east of the sandstone outcrop, Shovel Test 2 was located approximately 20 m southwest of Shovel Test 1, and Shovel Test 3 was located approximately 15 m south of Shovel Test 2. No artifacts were recovered from any of them. Further, all of the shovel tests were shallow. Calcium carbonates occur as shallow as 18 cm below the surface, an indicator of ancient, “mature” soils.

This site was previously evaluated for eligibility (Wormser et al. 1997). However, unlike our previous recommendation, it now appears that this site is shallow and deflated. It is not likely to yield significant scientific or historical information, and is not eligible for the National Register of Historic Places or as a State Archeological Landmark.

Table 72. Artifacts at 41BR472

Artifact	Total
Primary flakes	4
Secondary flakes	25
Tertiary flakes	32
Shatter	27
Cores	2
Spokeshave scraper	1
Modified flakes	*2
Total	**93**

(*) denotes items collected.

Table 73. Shovel testing at 41BR472

Unit	Depth	Observations
ST-1	Level 1 0-10 cm	2.5YR 6/4 (light yellowish brown), silty clay. Numerous chunks of sandstone were found in the shovel test. **Sterile**
	Level 2 10-20 cm	2.5Y 5/3 (light olive brown), silty clay, mottled and dense. **Sterile**
ST-2	Level 1 0-5 cm	10YR 4/4 (dark yellowish brown), fine sandy loam. **Sterile**
	Level 2 5-15 cm	10YR 3/3 (dark brown), fine sandy loam. More clayey than previous level, sandstone cobbles. **Sterile**
ST-3	Surface	Soil: 2.5Y 5/4 (light olive brown), fine loam.
	Level 1 0-10 cm	10YR 4/4 (dark yellowish brown), silt loam with few rocks. **Sterile**
	Level 2 10-20 cm	10YR 4/4 (dark yellowish brown), silt loam until 18 cm, then 2.5Y 4/3 (olive brown), mottled, blocky, sandy clay. This level had much $CaCO_3$. **Sterile**

41BR473

41BR473 (Figure 23) is a burned rock midden site that consists of a scatter of lithic debris with a ring-shaped midden to the north. The site is on a sloping upland terrace that has exposed outcroppings of conglomerates and conglomerate gravels.

The scatter is located approximately 40 m east of a drainage where oak occurs as a galleria forest. The lithic scatter covers only a 5 x 5-m area and the midden lies 60 m north of the scatter at 20 degrees. Loamy soils support short grasses, mesquite, and juniper, with 40 percent of the ground surface visible at the time of survey. Although soil near the lithic scatter is very shallow, there are deeper soils on the terrace and near the burned rock midden. Artifacts observed at the site are listed in Table 74.

The midden appears to be well preserved. It is ring-shaped with a rocky depression in the center, and the soil around the midden is reddish brown in color and gravelly. The midden consists of burned sandstone and measures 15 m in diameter and 1 to 1.5 m in height, with the northwest edge being higher than the rest. The central depression is approximately 50 cm deep. Six oak and two mesquite trees were growing on top of the midden.

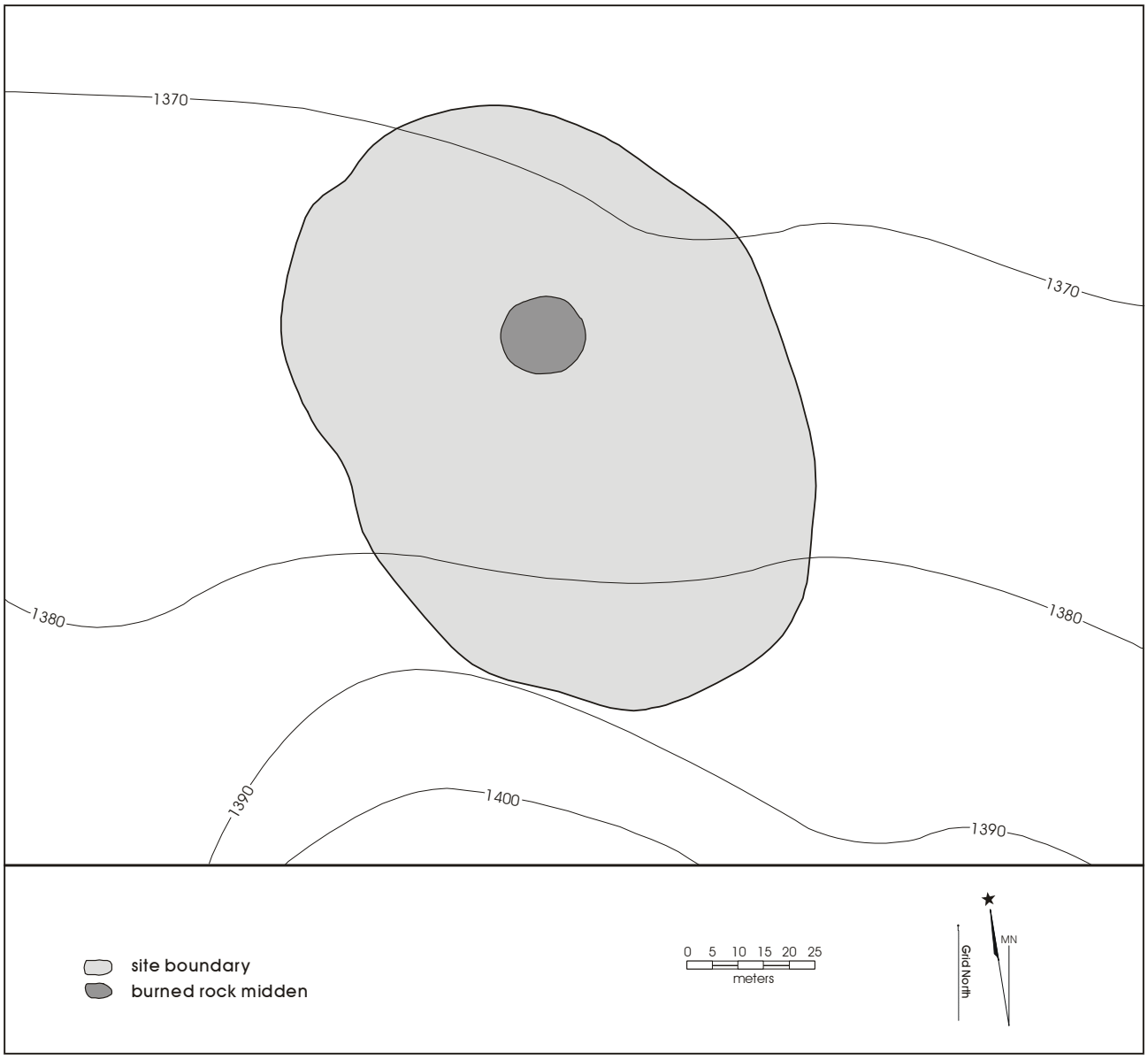

Figure 23. *Site map of 41BR473.*

The results of shovel testing appear in Table 75. Shovel Test 1 was placed 10 m south of the midden, and Shovel Test 2 was placed 10 m north of the midden. Only one flake was found in these units, in Shovel Test 1. Although the soil is shallow upslope from the midden where the core and flakes were found, there may be some depth to the soil within 20 m of the midden. Extremely hard, dry soil, rather than bedrock or gravel, hampered the field crew in their efforts to excavate the shovel tests.

This site has a well-preserved midden, and even though the soils may be shallow in some portions of the site, they may yield features related to the burned rock midden. The site should be investigated further using test excavations to determine its eligibility for the National Register of Historic Places.

CAR has recently completed additional work at this site, including the excavation of 55 shovel tests. While a report detailing that work is in production, the

boundary on the accompanying map (Figure 23) reflects that additional work.

Table 74. Artifacts at 41BR473

Artifact	ST 1	Total
Debitage	*1	5
Shatter	-	3
Core	-	1
Burned Rock	-	1
Total	**1**	**10**

(*) denotes items collected.

Table 75. Shovel testing at 41BR473

Unit	Depth	Observations
ST-1	Level 1 0-10 cm	7.5YR 3/3 (dark brown), dry silty loam. The soil is very dense but friable and contained small gravels. **1 debitage**
	Level 2 10-20 cm	7.5YR 3/2, silty loam. The soil is dense but friable under pressure and contained small gravels. The shovel test was discontinued due to the density of the soil. **Sterile**
ST-2	Level 1 0-20 cm	10YR 4/4 (dark yellowish brown), fine sandy loam. There was reddish-brown mottling and small $CaCO_3$ specks. **Sterile**
	Level 2 20-30 cm	7.5YR 3/2 (dark brown), silt loam to silty clay loam. **Sterile**

41BR474

This a large site that includes a dense lithic scatter and at least four burned rock middens (Figure 24). It occupies an area of 150 x 100 m at elevations ranging between 1,410 and 1,420 ft. amsl. It is on a gently-sloping surface and a jeep trail bounds the east side of the site. A tributary to Lewis Creek bounds the site to the west. Soils are estimated to be 1.5 to 2 m deep, based on cutbanks along Lewis Creek. Sandy loam supports mesquite and various grasses. Oaks occur along the creek. Fifty percent of the ground surface was visible at the time of survey.

Two middens are located at the north end, and two others lie at the south end of the site. The two southern middens are crescent/arc shaped, and are located between two tributary drainages to Lewis Creek. They are eroding into the easternmost drainage. These middens are referred to as the east and west middens. The east midden is 17 m long, 4 m wide, and approximately 50 cm in height. The west midden is 17 m long and approximately 7.5 m wide. There is a 2-m gap between the middens, and the soil around the middens is darker than the soil in the cut bank of the abutting stream. There is also a sparse lithic scatter in the area immediately surrounding the middens.

The northern middens are more elongated and occur side by side. They may be two parts of a single ring-shaped midden. An additional concentration of burned rock was located 10 m west of the midden/scatter.

Artifacts observed or collected are listed in Table 76. Because artifacts were unusually plentiful, the field crew counted only the artifacts within a single transect (60 m N-S x 1 m E-W) through the center of the site. Only a modified flake was collected, and there were no diagnostic artifacts found.

Two shovel tests were excavated at the site (Table 77), and artifacts were found to a depth of 20 cm. Excavation stopped at 25 to 30 cm when the field crew hit a reddish clay zone. However, the depth of Holocene deposits is unknown at this time.

This site has a number of burned rock middens, although the northernmost pair may not be intact. Portions of the site may have potential for buried cultural deposits and there may be non-midden features related to the burned rock middens. In addition, there is a large amount of cultural debris at the site, which could indicate mixing and deflation, but could also indicate an intensively used area. If the latter is true, then along with the burned rock middens, the site could have served as a base camp, or was simply a site that was returned to frequently through time.

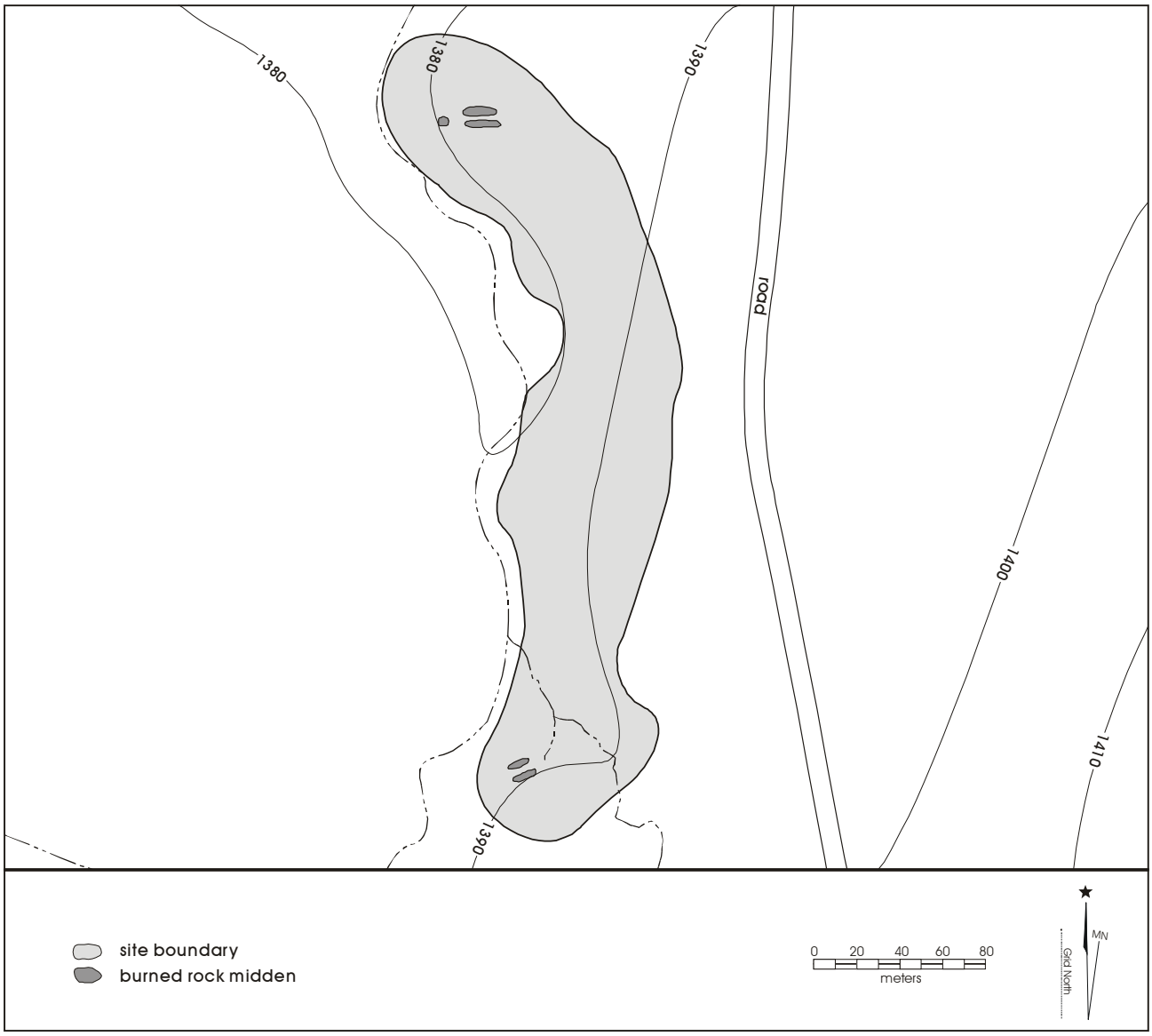

Figure 24. *Site map of 41BR474.*

Table 76. Artifacts at 41BR474

Artifacts	ST 1	ST 2	Surface Transect
Debitage	*3	*8	1
Interior flakes	-	-	17
Retouched thinning flakes	-	-	32
Pieces of shatter	-	-	8
Piece of burned rock	-	-	1
Heat spalls	-	-	2
Modified flake	-	-	*1
Brown glass	*1	-	-
Total	**4**	**8**	**62**

(*) denotes items collected.

41BR474 is potentially eligible for the National Register, but will require additional investigation to ascertain the depth and degree of disturbance, and whether there are buried features in addition to the burned rock middens.

CAR has recently completed additional work at this site, including the excavation of 76 shovel tests. While a report detailing that work is in production, the boundary on the accompanying map (Figure 24) reflects that additional work.

Table 77. Shovel testing at 41BR474

Unit	Depth	Observations
ST-1	Level 1 0-10 cm	10YR 4/4 (dark yellowish brown), fine sandy silt to silt loam. **1 flake, 1 brown glass fragment**
	Level 2 10-20 cm	7.5YR 4/6 (strong brown), silt loam. **2 flakes**
	Level 3 20-30 cm	5YR 3/4 (dark reddish brown), silt loam to silty clay loam. There are a few rocks. **Sterile**
ST-2	Level 1 0-10 cm	10YR4/4 (dark yellowish brown), fine sandy silt. **8 flakes**
	Level 2 10-20 cm	7.5YR 3/2 (dark brown), fine silty loam. **Sterile**
	Level 3 20-25 cm	Shovel test was terminated at this point due to red dense clay. **Sterile**

41BR475

41BR475 is a large open campsite with a dense scatter of lithic debris spread across a 150 x 200-m area, at an elevation of 1,420 ft. amsl. The site is on a flat area west of a jeep trail, and 75 m east of a tributary to Lewis Creek. To the south is a corral, a tin shed, a barn, and abandoned farm equipment and vehicles. Site vegetation includes mesquite and short grasses. Ground surface visibility at the time of survey ranged from 75 to 100 percent. Overgrazing has stimulated erosional processes, and the site has been disturbed by farming activities.

Artifacts observed or collected are listed in Table 78. Artifacts collected included a possible Pedernales point base (Figure A-70), a scraper, and two biface fragments. Three shovel tests were excavated and are summarized in Table 79. All were devoid of artifacts and hit gravelly soil or bedrock within 25 cm of the surface. The site and the general area have been greatly disturbed by the construction of the outbuildings and grazing activities.

The site is not likely to yield significant scientific or historical information. It was evaluated previously and deemed ineligible for nomination to the National Register of Historic Places or as a State Archeological Landmark (Wormser et al. 1997).

Table 78. Artifacts at 41BR475

Artifact	Total
Hard hammer secondary flakes	3
Retouched flake	1
Interior hard hammer flakes	9
Thinning flakes	31
Shatter	14
Biface fragments	2
Pedernales (?) point base	*1
Biface fragments	*2
Scraper	*1
Total	**64**

(*) denotes items collected.

Table 79. Shovel testing at 41BR475

Unit	Depth	Observations
ST-1	Level 1 0-4 cm	10YR 4/3 (brown), fine sandy loam. The soils are shallow and rocky. **Sterile**
ST-2	Level 1 0-15 cm	7.5YR 4/4 (brown), fine sandy loam. **Sterile**
	Level 2 15-25 cm	2.5YR 3/4 (dusky red), sandy loam. This level has more clay than the previous level. **Sterile**
ST-3	Level 1 0-10 cm	7.5YR 4/3 (brown), silty loam with many rocks. **Sterile**
	Level 2 10-15 cm	5YR 3/3 (dark reddish brown), silty loam with many rocks. **Sterile**

41BR476

41BR476 is an open campsite consisting of a sparse lithic scatter spread across a 100 x 50-m area. The western part of the site is situated on a flat sandy area, with a heavily wooded area southeast of the site. Disturbance to the site is evidenced by a jeep trail that goes through the eastern part of the site, and trees have been pushed in the area during the construction of an earthen dam and stock pond. A sandy loam supports oak, mesquite, prickly pear, agarita, horse crippler cactus, and various grasses, allowing for an extreme differentiation in ground surface visibility between 0 and 100 percent. Artifacts found on the east and west sides of the drainage are listed in Table 80. None of these were collected.

Five shovel tests were excavated at 41BR476 and are summarized in Table 81. Only one flake was found within all five shovel tests. Except for Shovel Test 5, all were shallow and typically hit an argillic B-horizon or C-horizon at 20 to 25 cm below the surface.

Table 80. Artifacts at 41BR476

Artifacts	East Side	West Side	Total
Secondary flake	1	4	5
Tertiary flakes	21	22	43
Shatter	3	1	4
Total	**25**	**27**	**52**

This site appears to be almost entirely on the surface and is not likely to yield significant scientific or historical information. It was evaluated previously and deemed ineligible for nomination to the National Register of Historic Places or as a State Archeological Landmark (Wormser et al. 1997).

41BR477

41BR477 (Figure 25) is a series of six check dams in a gently sloping swale within a floodplain. The vegetation consists of mesquite, prickly pear, and grasses. The dams were constructed by the CCC or WPA in the late 1930s or early 1940s. Some of the dams are intact, while others have been badly damaged through time. All appear to be constructed of cut sandstone blocks and Portland cement. Based on the dimensions of one relatively complete dam, they seem to be approximately 60 ft. long by 10 ft. wide. Overall site dimensions (the extent of the series of dams) is 600 ft. (N-S) by 460 ft. (E-W). The site's center is at an elevation of 1,440 ft. amsl.

The stone check dams are potentially eligible for the National Register and should be avoided until they can be documented further. Additional documentation would be used to evaluate the check dams for eligibility based on association with historic events or Depression-era CCC construction styles.

Table 81. Shovel testing at 41BR476

Unit	Depth	Observations
ST-1	Level 1 0-15 cm	10YR 3/2 (very dark grayish brown), silty clay loam mottled with a small amount of medium brown. Very dry, hard, subangular blocky. Not screened because it was too hard and dry. **Sterile**
ST-2	Level 1 0-25 cm	10YR 3/2 (dark grayish brown), silty clay loam. Very dry, hard, not screened. **Sterile**
ST-3	Level 1 0-25 cm	10YR 3/2 (dark grayish brown), silty clay loam. The soil was very hard and dry and was not screened. **1 flake (surface)**
ST-4	Level 1 0-22 cm	10YR 3/2 (very dark grayish brown), silty clay loam. **Sterile**
	Level 2 22-23 cm	5YR 4/6 (yellowish red). **Sterile**
ST-5	Surface	10YR 7/2 (light gray) silt.
	Level 1 0-7 cm	10YR 3/2 (very dark grayish brown), clayey silt loam. **Sterile**
	Level 2 7-17 cm	10YR 3/2 (dark gray), blocky silty clay. Very dry and dense. **Sterile**
	Level 3 17-40 cm	10YR 3/2 (very dark grayish brown), silty clay loam with slight moisture. **Sterile**

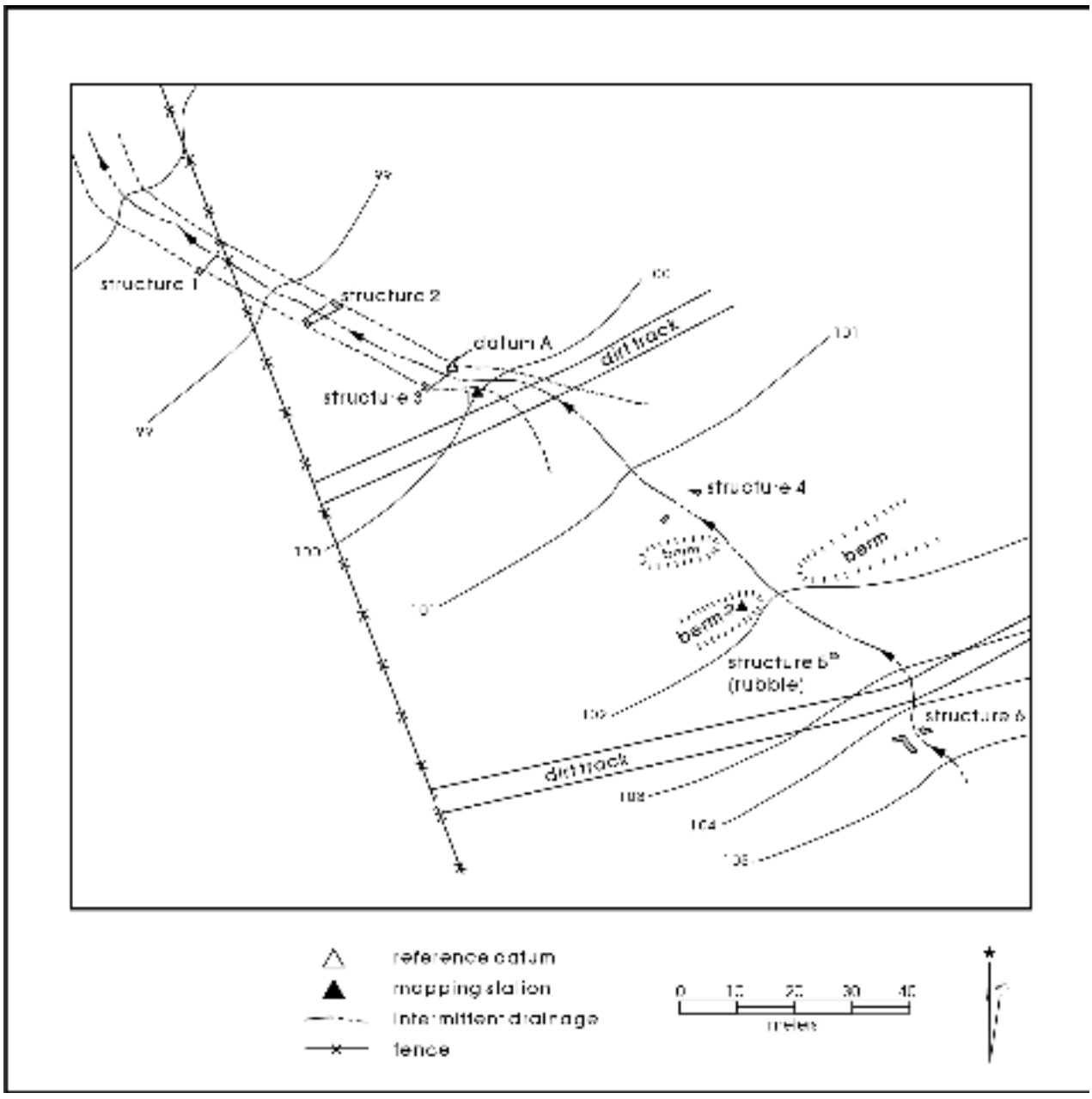

Figure 25. *Site map of 41BR477.*

41BR478

41BR478 (Figure 26) is a burned rock midden site with a lithic scatter surrounding a domed midden, approximately 15 m northeast of Lewis Creek. The site covers a 300 x 100-m area and is situated on an east-west trending landform at 1,400 ft. amsl. The landform extends from a rocky north-south trending ridgeline.

The lithic scatter extends out from the landform and flakes were observed over the entire site, with artifact density greatest near the base of the landform. Flakes observed on the surface tended to be large thinning flakes. A fine mixed sandy loam supports prickly pear, horse crippler cactus, oak, and tasajillo. Ground surface visibility ranged from 50 to 100 percent.

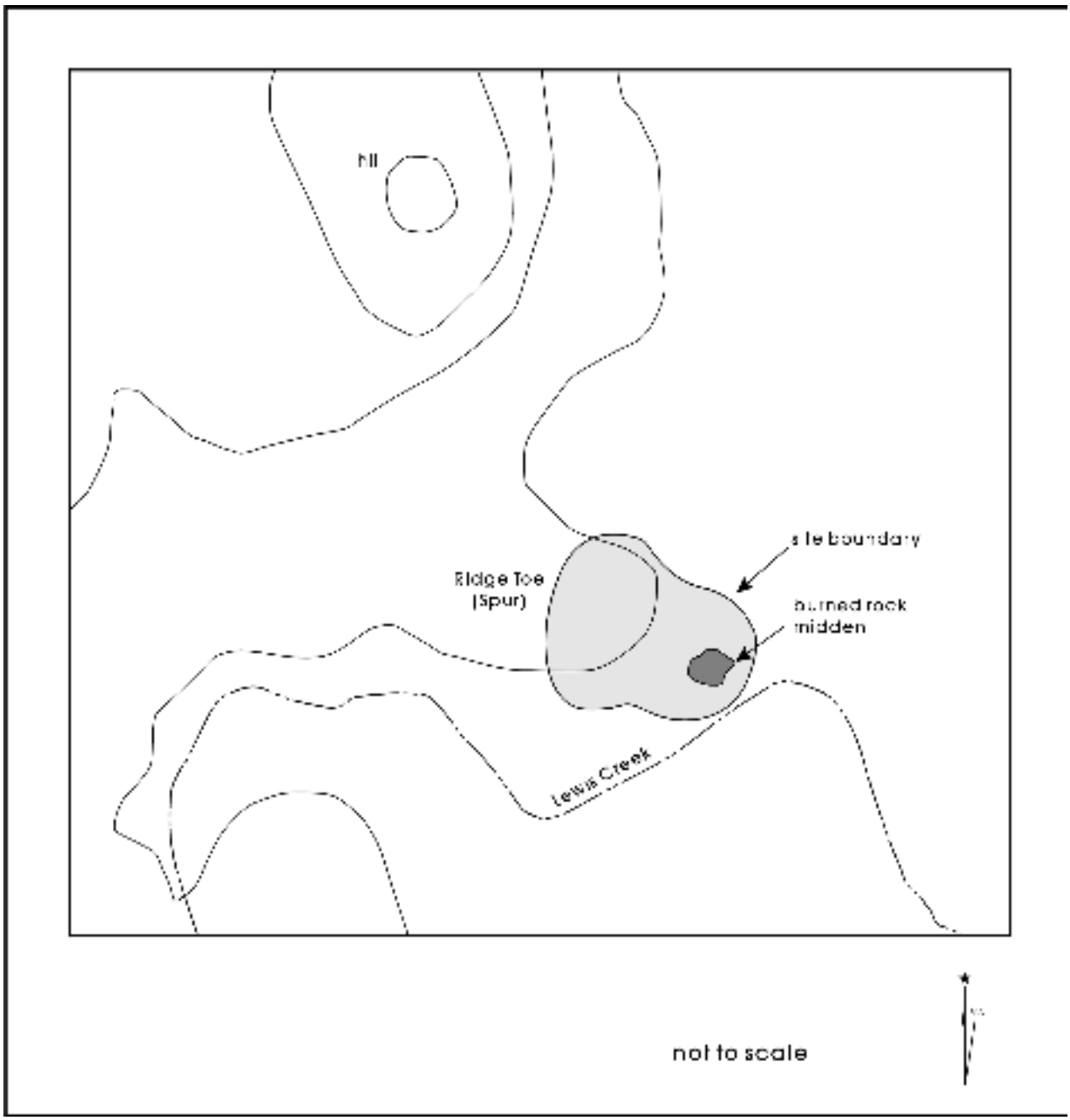

Figure 26. *Site map of 41BR478.*

The burned rock midden is located 50 m east-southeast from the eastern base of the landform. It measured 10 m in diameter and rose 50 cm above the ground surface. Several oaks were growing out of its center. Artifacts observed and collected are listed in Table 82. An Andice point (Figure A-71) and a Wells-like point (Figure A-72) represent the Early Archaic period in Central Texas (Turner and Hester 1993). Two other fragmentary dart point bases were collected, but could not be further identified.

This may be a very early burned rock midden site. Alternatively, it may be an Early Archaic site with a later burned rock midden superimposed. This site is potentially eligible and requires further investigation in order to ascertain whether or not it is eligible for

listing on the National Register of Historic Places or as a State Archeological Landmark.

CAR has recently completed additional work at this site, including the excavation of 30 shovel tests. While a report detailing that work is in production, the boundary on the accompanying map (Figure 26) reflects that additional work.

Table 82. Artifacts at 41BR478

Artifact	Total
Andice point	*1
Wells-like point	*1
Unidentified point bases	*2
Biface fragments	*2
Modified flake	*2
Total	**8**

(*) denotes items collected.

41BR479

This site is a lithic procurement site from an unspecified prehistoric time period. It is set on a north-facing terrace about 120 m south of Devil's River. The area is dissected by numerous intermittent drainages, and the 25 x 25-m site area is severely eroded to conglomerate. Large chert cobbles and broken limestone are scattered across the landform.

Located at an elevation of 1,380 ft. amsl, the vegetation consists of oaks, juniper, and cactus, thus allowing for between 70 and 100 percent surface visibility at the time of the survey. Artifacts observed at the site are listed in Table 83.

Portions of this site are on shallow, gravelly soil, and much of it is directly on bedrock. Temporally diagnostic artifacts were not found, nor were any features present. This site is not likely to yield significant scientific or historical information, and it is not eligible for the National Register of Historic Places or as a State Archeological Landmark.

Table 83. Artifacts at 41BR479

Artifacts	Total
Primary flakes	2
Secondary flakes	7
Tertiary flakes	12
Shatter	15
Core	1
Tested cobbles	2
Total	**39**

41BR480

41BR480 (Figure 27) is a burned rock midden site with a lithic scatter. The site is set on a terrace below a ridgeline on the south side of Devil's River, within an area that is the first high point of land above the river's floodplain. Oaks and cedars are the prevailing vegetation, in addition to buffalo grass and various short grasses and forbs. The total extent of the site is indeterminate, since buried remains may extend beyond those visible on the surface and in shovel tests. Burned limestone is scattered around the site, with concentrations along the north-south running drainages that abut the site.

Although the midden is partially buried, the visible portion is 3 m in diameter and consists of limestone. It is just east of a small concentration of surface artifacts. There is also a concentration of fire-cracked rock that may be a second midden that has been disturbed by erosion.

Over 50 flakes were observed within a 2 x 2-m area to the south of a possible lithic sheet midden. The results of three shovel tests are summarized in Table 84. All the artifacts observed in shovel tests were collected. With the exception of one modified flake, surface material was left in place.

This site has potential for intact buried deposits and features. Additional burned rock middens may be present, as well as intact non-midden features. The site is potentially eligible and will require further investigation to ascertain its eligibility for the National Register of Historic Places.

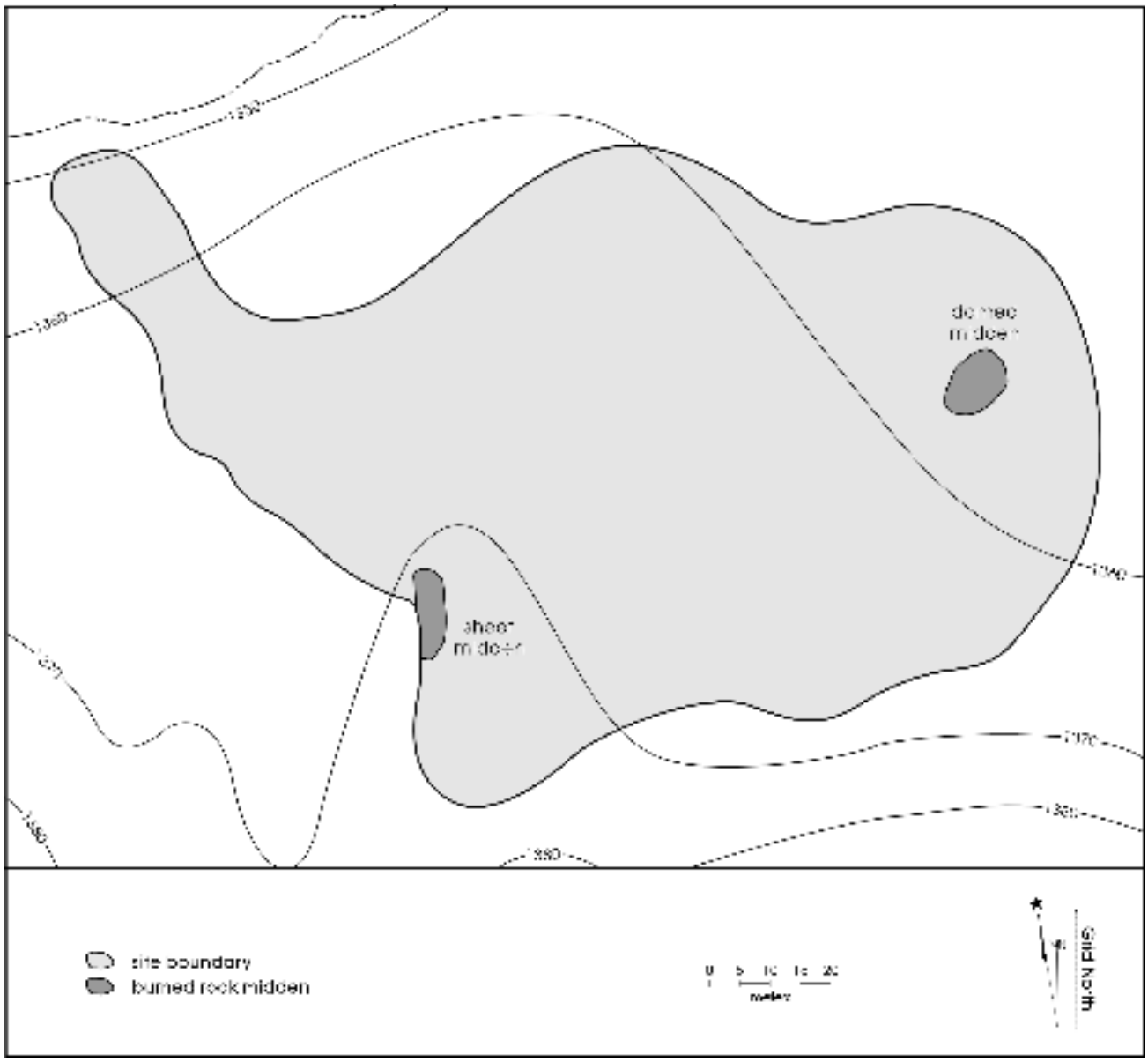

Figure 27. *Site map of 41BR480.*

Table 84. Artifacts found in shovel tests at 41BR480

Artifacts	ST-1 0-10 cm	ST-2 0-5 cm	ST-3 0-10 cm	Total
Debitage	37	-	14	51
Fire-cracked rock	-	1	-	1
Total	**37**	**1**	**14**	**52**

CAR has recently completed additional work at this site, including the excavation of 64 shovel tests. While a report detailing that work is in production, the boundary on the accompanying map (Figure 27) reflects that additional work.

41BR491, "Nazi Village" Site

This site is the remains of a mock Nazi village used for training troops during World War II. It consists of two colinear, buttressed walls made of reinforced concrete. It was still used for military training exercises until a few years before our site visit in July 1997. The site location was labeled "Nazi Village" on a World War II map of Camp Bowie shown to the field crew by Sergeant Major Pilkington, acting facility manager. Mock villages are a common feature on active military training sites. Little remains of this particular mock village. This site does not meet the criteria for listing on the National Register of Historic Places, and does not qualify as a State Archeological Landmark.

41BR492

41BR492 (Figure 28) is a burned rock midden with a round to oval shape and a flat top. It is measures 15 m in diameter and rises to 50–60 cm above the modern ground surface. It is located at the base of a ridge and lies at the edge of the floodplain of Lewis Creek. Vegetation observed included mesquite, agarita, tasajillo, prickly pear, oak, and various grasses. Mesquite, tasajillo, and grasses were growing from within the midden. The vegetation was dense and the surface visibility ranged from 10 to 30 percent.

One shovel test was excavated to 15 cm in depth, yielding several pieces of possibly burned sandstone. It is

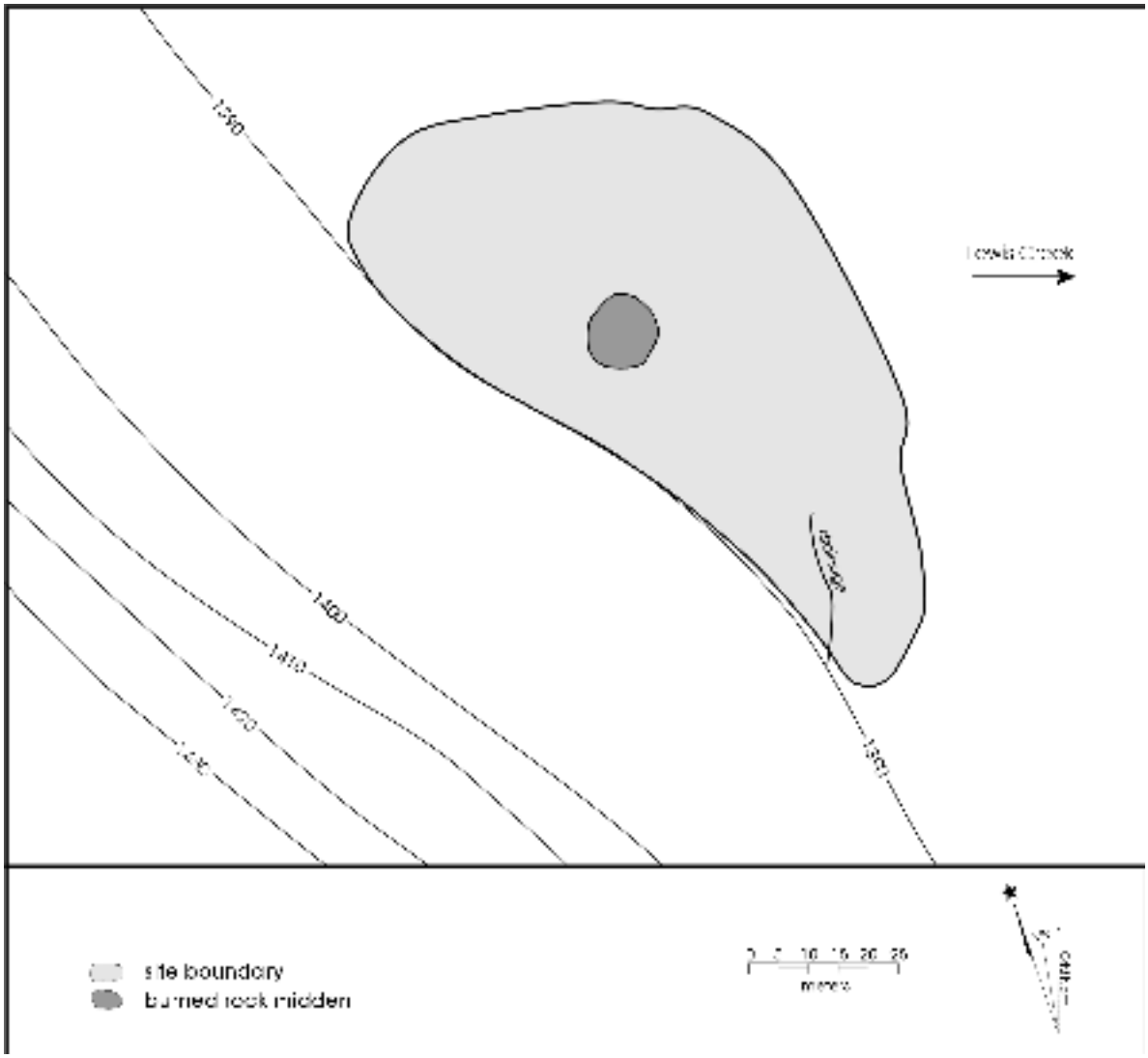

Figure 28. *Site map of 41BR492.*

possible that the sandstone may be associated with the midden, however, there are many rocks scattered around the site which originate from the rocky slope directly to the west. Very hard, dry clay prevented the crew from shovel testing the site, so the depth of deposits and exact site limits are not known.

This site is potentially eligible since additional investigation is required to ascertain its eligibility for the National Register of Historic Places. Test excavations would be useful in determining the nature of the deposits and estimating the likelihood for intact non-midden features.

CAR has recently completed additional work at this site, including the excavation of 39 shovel tests. While a report detailing that work is in production, the boundary on the accompanying map (Figure 28) reflects that additional work.

41BR493

41BR493 (Figure 29) consists of a dome-shaped, oval, burned rock midden, measuring 10 x 15 m and rising 50 to 75 cm above the modern ground surface. It is located at the base of a ridge. Vegetation in the area included agarita, tasajillo, prickly pear, and various grasses. A small elm and a small sugar hackberry were growing on the eastern side of the midden. The midden is covered with a 2 to 3-m high thicket of shrubby plants that may be a variety of St. John's Wort.

A tree once grew out of the midden, as indicated by the remains of a stump measuring 50 cm high by 30 cm in diameter. No cultural materials were observed around the midden, possibly due to the thick ground cover and limited visibility.

This site has an intact burned rock midden and may have deposits with other undisturbed features. It is potentially eligible, and further investigation would help determine whether or not it is eligible for the National Register of Historic Places.

CAR has recently completed additional work at this site, including the excavation of 39 shovel tests. While a report detailing that work is in production, the boundary on the accompanying map (Figure 29) reflects that additional work.

41BR494

This site consists of a hand-dug water well with a mortar and stone casing above ground. A modern stock pond on Lewis Creek lies about 30 m to the southeast. A modern corral and shed are about 75 m and 1,025 m to the east, respectively. Although the well probably dates to the period between 1855 and 1941, no late-nineteenth or early-twentieth century material is present, and there is no evidence of structures.

Two shovel tests were excavated and are summarized in Table 85. Shovel Test 1 was 2 m west of the well. No artifacts were found, although the soils were fairly deep (in excess of 70 cm). Shovel Test 2 was 5 m north of the well. The soil zones in this test are similar to those seen in the first one, and no artifacts were found.

There is no extant evidence of a historic site associated with the well. This site is not eligible for the National Register of Historic Places or as a State Archeological Landmark.

41BR495

This site is a homestead and consists of a water well, a house porch, fence posts, and aligned stones (possibly decorative garden or lawn edging). The well is hand-dug, and lined with rough-cut, ungrouted sandstone. The well is about 21.5 ft. (7 m) deep and the opening is at grade. Because of the hazard presented to dismounted troops, the well has been covered. A new metal cover was put on the well in 1997.

The porch is stone and mortar, with poured concrete on top. It is ringed on three sides by a stone and mortar wall that is 18 in. high. Rounded stones are embedded along the top of the porch wall as a decorative touch. The porch forms a 10.5 x 21-ft. rectangle. The attached house may have been pier-and-beam, but no piers remain.

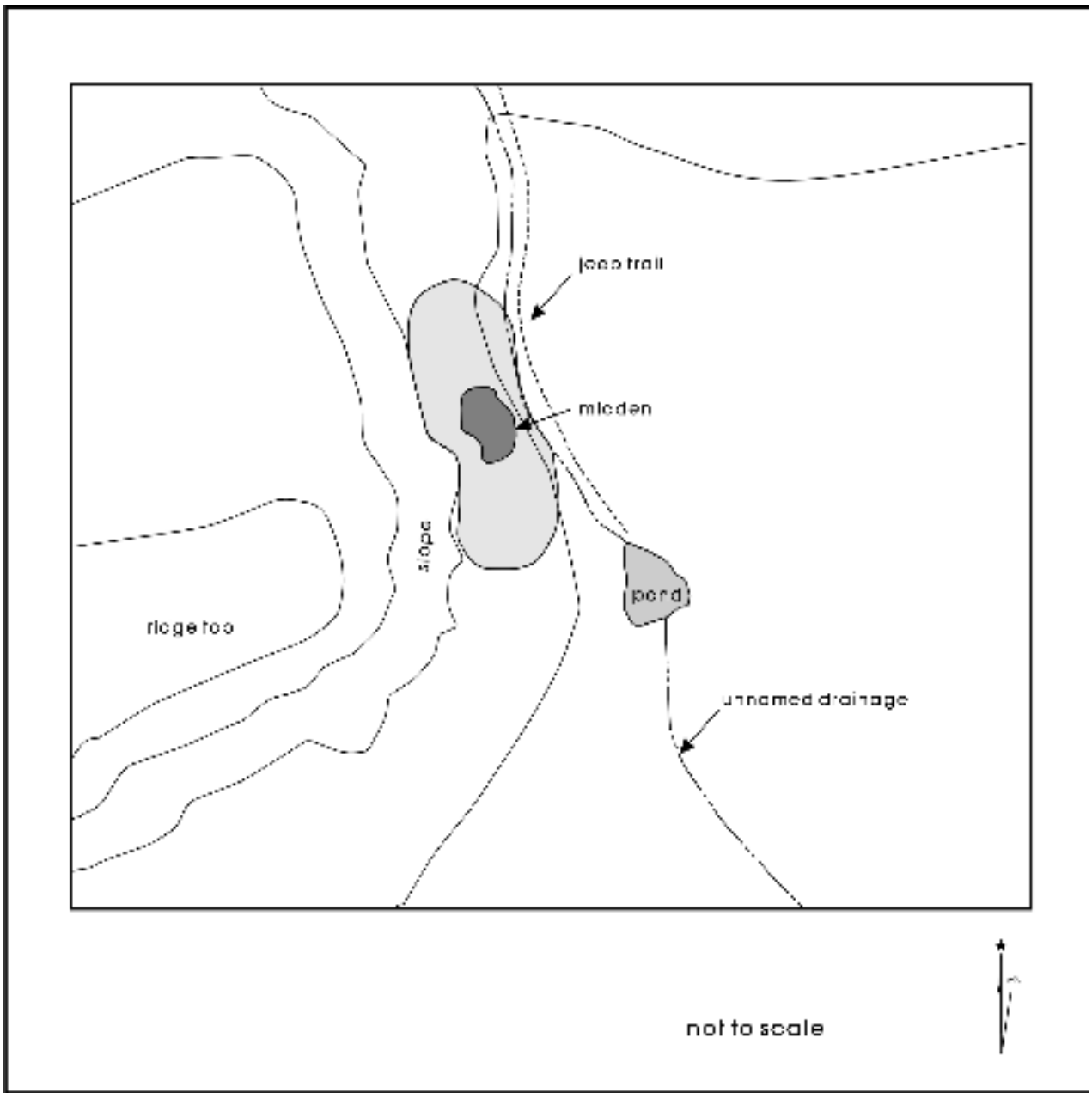

Figure 29. *Site map of 41BR493.*

Observed historic artifacts were few, but the field crew reported seeing a few pieces of white-glazed earthenware and a few fragments of glass, both clear and green. They noted a lack of solarized glass, and based on the items that were seen, the site appears to date from the mid-twentieth century or later.

The site is in very poor condition and has been disturbed by previous military training and the construction of a nearby pipeline and power lines. This site does not meet the criteria for listing on the National Register of Historic Places or as a State Archeological Landmark.

Table 85. Shovel testing at 41BR494

Shovel Test 1		Shovel Test 2	
Depth	**Observations**	**Depth**	**Observations**
Surface	10YR 5/3 (brown) silt; hard, dry, platy	Surface	10YR 5/3 (brown) loam
0-12 cm	10YR 5/3 (brown) silt; hard, dry, platy	0-10 cm	10YR 4/1 dark gray clay loam; hard, dry
12-18 cm	Layer of limestone gravel	10-20 cm	10YR 3/1 (very dark gray) clay loam; hard, dry
18-60 cm	10YR 3/2 (very dark grayish brown) clay loam; hard, blocky	20-30 cm	10YR 3/1 (very dark gray) clay loam; moderately hard, dry
60-70 cm	7.5YR 3/3 (dark brown) silt; friable	30-40 cm	10YR 3/1 (very dark gray) clay; hard and dry

41BR496

This site is a large cistern with a stone and mortar casing. An inlet pipe enters the top of the casing. The top of the cistern has an outer diameter of about 70 in. and its inside diameter is about 46 in. Below the surface, the inside walls widen to about 72 to 84 in., and it is at least 16 ft. deep.

Although the cistern may be associated with a homestead, no other structures were observed. Some modern trash had been dumped near the cistern, including an old refrigerator, the inner tub of a washing machine, and aluminum cans. All this trash appeared to date to the 1960s or 1970s.

This site is not eligible for listing on the National Register of Historic Places or for designation as a State Archeological Landmark.

Observations about Sites at Camp Bowie

The Nature of Archeological Sites at Camp Bowie

Camp Bowie has been used for military training for over fifty years. Much of the landscape has been altered by tank maneuvers, ordnance detonation, artillery fire, trenching, and other earth-moving activities.

Nevertheless, there are a few well-preserved archeological sites within the boundaries of the camp. These include prehistoric open campsites, burned rock middens, and lithic workshops as old as 7,000 years. Historic sites are much less common than prehistoric sites, but include ruins of houses, stone walls, cisterns and wells, CCC-style check dams, and World War II training structures such as pillboxes and ammunition bunkers.

Because of the shallow soils at Camp Bowie, and because most of the Pecan Bayou floodplain and lower terraces are outside the boundaries of the modern camp, relatively few sites have potential to yield undisturbed stratified cultural deposits.

Summary by Site Types and Components

Prehistoric Sites

Sites at Camp Bowie are spread across various time periods from the Paleoindian to the Historic. Prehistoric sites are summarized in Table 86. Of those sites which can be dated using the available artifacts, sites with Late Archaic components are the most common. Of the 17 burned rock midden sites, only five yielded diagnostics allowing us to draw any conclusions about their temporal distributions. Likewise, the lithic procurement and open campsites tend to have few time-diagnostic artifacts, and thus their distribution is also inconclusive.

Of the various resources utilized by the prehistoric occupants, the distribution of local raw lithic material is the least likely to have changed through time. For that reason, it is probable that many of the lithic procurement areas (if not the workshops) were occupied periodically throughout the several millennia that people inhabited the region. Further investigation at sites of this type would probably result in their assignment as multicomponent sites.

Table 86. Sites by type and associated prehistoric components

Site Type: / Component:	Open Campsite	Burned Rock Midden	Lithic Procurement or Workshop	Total
General Prehistoric	68	11	39	**118**
Paleoindian	1	--	1	**2**
Early Archaic	2	1	3	**6**
Middle Archaic	--	--	2	**2**
Late Archaic	11	2	5	**18**
Late Prehistoric	1	1	1	**3**
Multicomponent: E. Archaic M. Archaic, L. Archaic,	1	--	--	**1**
Multicomponent: E. Archaic, L. Archaic, L. Prehistoric,	--	--	1	**1**
Multicomponent: M. Archaic, L. Archaic	2	1	--	**3**
Multicomponent: L. Archaic, L. Prehistoric,	2	1	--	**3**
Total	**88**	**17**	**52**	**157**

Farms and Homesteads

A total of 29 sites were found that related to the farmers and ranchers who occupied Camp Bowie between about 1855, when Brown County was first being settled by Euroamericans, and 1941, when the U.S. Army established Camp Bowie. These sites are summarized in Table 87. Remains of these sites are distributed throughout the landscape at the camp. These are routine site types for Central Texas.

Depression-Era and Military Structures

Depression-era and military structures found during the survey are summarized in Table 88. A total of two check dam sites appear to be related to the activities of the Civilian Conservation Corps (CCC) or Works Progress Administration (WPA). Although few Depression-era structures survive at Camp Bowie, the roadways to the west and north of the camp have a number of stone bridges that appear to have been the work of the CCC. These bridges formed part of the road system that ringed the World War II cantonment area that now serves as an industrial park for the city of Brownwood.

Military structures, as might be expected, are more numerous. All appear to be related directly to either ammunition storage or field training exercises. The various bunkers and fighting/observation positions are common at Army training sites. Using standard plans, the structures share many similarities wherever they are found.

Table 87. Farm and homestead-related sites and structures

Time Period: / Site Type:	General Historic	Settlement (1855-1941)	Post-1945	Total
Farmstead/Building	2	1	--	**3**
House site	1	3	2	**6**
Water Well/Cistern	1	1	1	**3**
Water Trough	--	1	--	**1**
Stone Wall	--	2	--	**2**
Stone Structure	--	1	--	**1**
Trash Dump	1	4	--	**5**
Trash Scatter	3	--	3	**6**
Boulder Alignment	1	--	--	**1**
Historic Quarry	--	1	--	**1**
Total	**9**	**14**	**6**	**29**

Table 88. Depression-era and military sites and structures

Time Period: / Site Type:	CCC or WPA	World War II	Total
Stone Check Dams	2	--	**2**
Limestone Bunker	--	1	**1**
Concrete Bunker	--	1	**1**
Concrete Pillbox	--	4	**4**
Mock “Nazi” Village	--	1	**1**
Total	**2**	**7**	**9**

Prehistoric Locational Patterns

Open Campsites: Dividing Travel Time between Various Resources

Open campsites occur almost anywhere, with the larger ones on the terraces below the uplands, or where reliable water is, or was, available. Generally, it is expected that campsites would be located closest to the subset of resources most critical, or most frequently required, for the site's day-to-day activities. Therefore, specialized campsites would be near the specialized resource. On the other hand, base camps, which have a broad array of functions and activities, would be located to minimize distances between various resources. The "sites are near water" rule would fit best for base camps, and fit less well for specialized campsites.

Burned Rock Midden Sites: Availability of Rock and Other Resources

Burned rock middens tend to be at the base or lower slope of the uplands, although the Chesser Midden site (41BR228) occurs in a saddle on top of an upland ridge toe. One site with as many as four burned rock middens (41BR474) occurred adjacent to a tributary of Lewis Creek. Generally, these represent specialized and seasonal activities, and the critical resources would be such things as the availability of appropriate types of rock, and perhaps vegetal material required for the associated processing activities. In other regards, the burned rock middens would be located in a manner similar to open campsites.

Lithic Workshop/Procurement Sites: Use of Conglomerate Deposits?

Lithic workshops and procurement areas are at the edges of uplands and on rocky slopes. However, during the survey, the field crew observed that lithic procurement sites often occurred on or adjacent to outcrops of the conglomerate layer of the upland slopes. The uplands of Camp Bowie often have a stratigraphic sequence of sandstone near the base, then conglomerate, then a limestone cap.

If there is an association between the lithic workshop/procurement sites and the conglomerate gravels, it may point to a source of raw lithic material within the Edwards Plateau area that has not been documented previously. In order to address this question, the raw material from sites across the region should be compared with the gravels found in the conglomerate. Even though there is a high variability of gravel material within the conglomerate, it may be possible to determine affinity by examining the rind or cortex of the specimen. This would represent the cementing material, which might be consistent across a region represented by Brown and surrounding counties. However, such an undertaking is beyond the scope of the present study.

General Conclusions

The presence of bedrock mortars at the Chesser Midden site (41BR228) may reinforce the assertion of some archeologists that the Central Texas burned rock middens represent acorn processing. While other materials may have required mortar-and-pestle technology, acorns are often associated with this type of feature in California, among other places.

Perhaps the most tantalizing finding may be the association of lithic workshop/procurement sites with conglomerate outcrops on the upland slopes and tops. While this may be a very localized phenomenon, or may have been exploited only when Edwards Plateau chert was unavailable, it indicates that there is yet another source for chipping material in the area.

Very little remains of the farms and homesteads that once dotted the land within Camp Bowie. In the early 1940s almost all structures were torn down. Whatever escaped the initial demolition has been severely disturbed during the ensuing half century of military training.

The historic sites and structures are, for the most part, very ordinary. The present Camp Bowie is much smaller than the World War II training installation. Therefore, in order to examine Camp Bowie in a World War II context, one needs to look at a much larger area. Exploration of the variety of military-related sites might be more productive through historical, rather than archeological, methods.

Summary of Eligibility Determinations

Introduction

Of the 186 cultural resource sites identified during the inventory survey at Camp Bowie, 24 are potentially eligible for listing on the National Register of Historic Places or as State Archeological Landmarks. In addition, four sites (41BR248, 41BR467, 41BR469, and 41BR471), while probably lacking any significant information, will require shovel testing to clarify their eligibility status.

For the 24 sites listed as potentially eligible, the type of investigation required must be considered on a case-by-case basis. For example, most of the archeological sites could be evaluated adequately with test excavations to determine the degree of intact discrete deposits, the potential for the presence of features, and the presence of activity and artifact areas with associated specific behaviors, ethnic groups, or time periods. For historic structures, photographic, archival, or oral history data could be investigated more fully. In such cases, any archeological investigations would be secondary to basic techniques of the historian.

Review of Historic Contexts

Historic contexts were discussed in detail elsewhere in this report. A brief summary is given below, with the contexts organized into four general categories that separate general themes from more specific ones, and prehistoric themes from those relating primarily to the Historic period.

General Subsistence-Settlement Contexts

1. Paleoindian subsistence and settlement
2. Archaic subsistence and settlement
3. Neoindian subsistence and settlement

Specific Issues in Central Texas Prehistory

4. The nature of burned rock midden sites
5. Defining Central Texas co-traditions and revisiting the "Coahuiltecan" dilemma

Historic and Protohistoric Population Movements

6. Historic and Protohistoric immigrants: Comanche, Apache, Wichita, Tonkawa, and others
7. Spanish Entrada and the Spanish Colonial period
8. Anglo-American settlement

Issues in Recent History and Historic Preservation

9. Depression Era back-to-work programs
10. World War II and Camp Bowie

Potentially-Eligible Sites and Relevant Historic Contexts

In order to prioritize and operationalize eligibility assessments, historic contexts are used. These have been described in detail in an earlier section of this report. In Table 89, the potentially-eligible sites are listed along with possible historic contexts.

None of the potentially-eligible sites at Camp Bowie appear to address the Coahuiltecan/Co-Tradition, Spanish Entrada, or Historic/Protohistoric (Native American) Immigrant contexts. This is not a surprise since these contexts are perhaps the most poorly understood and most difficult to assign to specific sites without more intensive investigation. It is possible that further test excavation would result in assigning this group of contexts to specific sites.

Of the other contexts, those that fall into the category of General (Prehistoric) Subsistence and Settlement are the most common, since questions of this nature are routinely asked on every prehistoric site an archeologist investigates. The nature of burned rock middens context is one which has been asked repeatedly in the Central Texas literature, yet finding answers to many of the basic questions remains daunting. In the case of the contexts related to the Historic period, all the sites in question could be used as simply the physical manifestation of a cultural resource that is perhaps best investigated in the archival record.

Table 89. Summary of eligibility determinations

Site No.	Site Type	Potentially Eligible Components	Contexts
41BR65	Farm building Burned Rock Midden	Historic Prehistoric	General Subsistence & Settlement Nature of Burned Rock Middens
41BR87	Burned Rock Midden	Prehistoric	General Subsistence & Settlement Nature of Burned Rock Middens
41BR228	Burned Rock Midden with bedrock mortars	Late Archaic	Archaic Subsistence & Settlement Nature of Burned Rock Middens
41BR246	Burned Rock Midden	Prehistoric	General Subsistence & Settlement Nature of Burned Rock Middens
41BR250	Burned Rock Midden	Late Archaic Late Prehistoric	Archaic Subsistence & Settlement Neoindian Subsistence & Settlement Nature of Burned Rock Middens
41BR253	Burned Rock Middens (2 middens)	Prehistoric	General Subsistence & Settlement Nature of Burned Rock Middens
41BR261	Open Campsite & Possible Lithic Area	Early Archaic	Archaic Subsistence & Settlement
41BR266	Stone Wall	Historic (early 1900s ?)	Anglo-American Settlement
41BR270	Stone Check Dams	Historic (1930s-1940s)	Depression Era Back-to-Work Programs
41BR276	Open Campsite	Late Archaic	Archaic Subsistence & Settlement
41BR290	Farmstead	Historic	Anglo-American Settlement
41BR299	Large Bunker	Historic (1941-1945)	World War II and Camp Bowie
41BR415	Burned Rock Midden	Middle Archaic Late Archaic	Archaic Subsistence & Settlement Nature of Burned Rock Middens
41BR420	Burned Rock Midden	Prehistoric	Nature of Burned Rock Middens
41BR433	Burned Rock Midden	Late Archaic	Archaic Subsistence and Settlement Nature of Burned Rock Middens
41BR438	House Site	Historic (early 20th century)	Anglo-American Settlement
41BR441	Burned Rock Midden	Late Prehistoric	Neoindian Subsistence & Settlement Nature of Burned Rock Middens
41BR473	Burned Rock Midden	Prehistoric	Nature of Burned Rock Middens
41BR474	Burned Rock Midden (4 middens)	Prehistoric	General Subsistence & Settlement Nature of Burned Rock Middens
41BR477	Stone Check Dams	Historic (1930s-1940s, CCC or Army)	World War II and Camp Bowie
41BR478	Burned Rock Midden	Early Archaic	Archaic Settlement and Subsistence Nature of Burned Rock Middens
41BR480	Burned Rock Midden	Prehistoric	General Subsistence & Settlement Nature of Burned Rock Middens
41BR492	Burned Rock Midden	Prehistoric	General Subsistence & Settlement Nature of Burned Rock Middens
41BR493	Burned Rock Midden	Prehistoric	General Subsistence & Settlement Nature of Burned Rock Middens

Recommendations

Strategies to Protect Sites

Using the results of the inventory survey, Camp Bowie can be divided into three zones: Unrestricted Zones, Restricted Activity Zones, and Off-Limits Zones. For purposes of military training, the goal is to identity as much unrestricted area as possible. This allows troops to engage in more realistic training scenarios. However, it is an obligation of the Army, and the Texas National Guard in particular, to consider the effect that training, construction, or maintenance can have on the historic properties that are under their stewardship.

General Policies

Discovery of Unanticipated Archeological Remains

The Cultural Resources staff has made every effort to locate archeological sites at Camp Bowie, however, it is always possible that training activities will uncover unanticipated finds. Federal law establishes procedures for notification and consultation.

When unanticipated finds are discovered, activity within 50 m of the find should cease, and the facility manager should be contacted through the chain of command. The facility manager should then contact the AGTX Environmental Office staff, who will determine any further actions that are required and consult with additional parties in accordance with federal and state regulations.

Native American Graves, Unmarked Graves, and Cemeteries

Treatment of graves is especially sensitive. Graves are often unmarked, or had wooden markers that decayed long ago. Stone markers may have been toppled or removed. Therefore, graves frequently fall under the category of "unanticipated discoveries."

Any human remains must be treated with the utmost respect for the traditions of the people who left them there. It makes no difference whether the grave is 10 years old or 10,000 years old. It is a federal offense to remove human remains or grave objects without proper authorization, or to remove such items from federal property [Native American Graves Protection and Repatriation Act, 25 U.S.C. 3001-3013; and Archeological Resources Protection Act, 16 U.S.C. 470(aa)-(mm)].

Incorporating Historic Preservation into Training

Military training and environmental compliance are not mutually exclusive. A training facility with well-managed ecological zones makes for more realistic training scenarios. In accordance with this philosophy, areas marked for avoidance can be incorporated as "hazardous material" locations, "mine fields," or other designations for purposes of training. The Cultural Resources staff shall coordinate with the training officers, assisting them in using "avoidance areas" as elements of their training scenarios.

Road Maintenance

Within Restricted Activity and Off-Limits Zones, new road construction (e.g., roadways, parking facilities, buildings, drainages, bridges, or other support facilities), realignment, or widening will require review from the AGTX Cultural Resources staff at least 90 days prior to the undertaking.

Road maintenance within 20 feet (6.7 meters) of the *centerline* of existing roads is allowed without prior consultation *unless it is within an Off-Limits Zone*.

Unrestricted Zones

Most of Camp Bowie is unrestricted for historic preservation purposes. These are locations with no eligible historic properties. Therefore, there are no concerns for archeological or historical sites within these zones.

Restricted Activity Zones

Restricted Activity Zones occur within 50 m of eligible archeological or historic sites and in areas not

previously surveyed for archeological sites. Such locations require protection from vehicular traffic and other activities that could disturb the surface of a site.

Non-Issue: Foot Traffic

Within Restricted Activity Zones, foot traffic is allowed. However, personnel must be aware that they are in an environmentally sensitive area. Awareness can be accomplished through such methods as troop awareness training and briefing by the facility manager prior to beginning training exercises.

Issue: Vehicular Traffic

When driving through a Restricted Activity Zone, vehicles must stay on the existing roads and parking lots. Vehicles can be very destructive to archeological remains and de-vegetation can accelerate erosion at some locations. Especially destructive are turns made with tracked vehicles in wet or sandy soil. Near sensitive sites, signs may be used to indicate to drivers that vehicles should stay on the roads.

Issue: Mechanical Digging, Clearing and Grubbing

Within Restricted Activity Zones, mechanical digging and clearing and grubbing to remove vegetation require prior review by the AGTX Environmental staff. Such a review will allow the staff time to notify the necessary consulting parties if necessary and recommend any special techniques or recommendations to the proponent.

Issue: Construction, Maintenance

Within Restricted Activity Zones, any construction or maintenance that could affect the surface will require prior review by the AGTX Environmental staff. Such a review will allow the staff time to notify the necessary consulting parties if necessary and recommend any special techniques or recommendations to the proponent.

Off-Limits Zones

Very rarely are there cultural resources that are so fragile and sensitive that they require special protection. These include places with a potential for unusually high levels of foot traffic across specific sensitive sites with fragile surface features. A common example would be burned rock middens that are near roads or high-traffic footpaths. Other locations include cemeteries, locations where unmarked graves have been found in the past, or where an archeological site is particularly significant.

Off-Limits Zones, where they occur, should be surrounded by a buffer marked as a Restricted Activity Zone. An Off-Limits Zone should be limited to the immediate vicinity of the sensitive cultural resource or site feature, and should be well marked both on field maps and on the ground.

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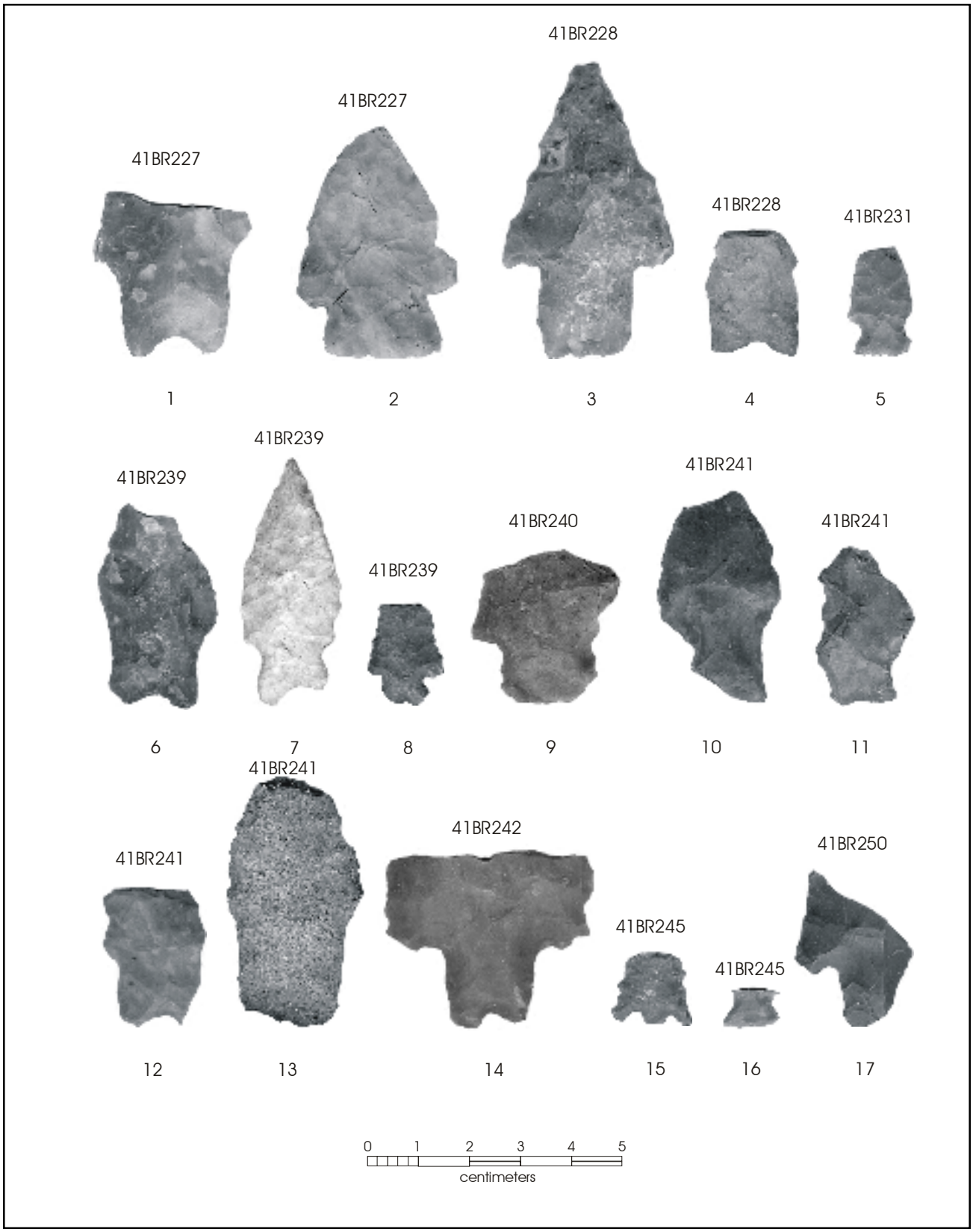
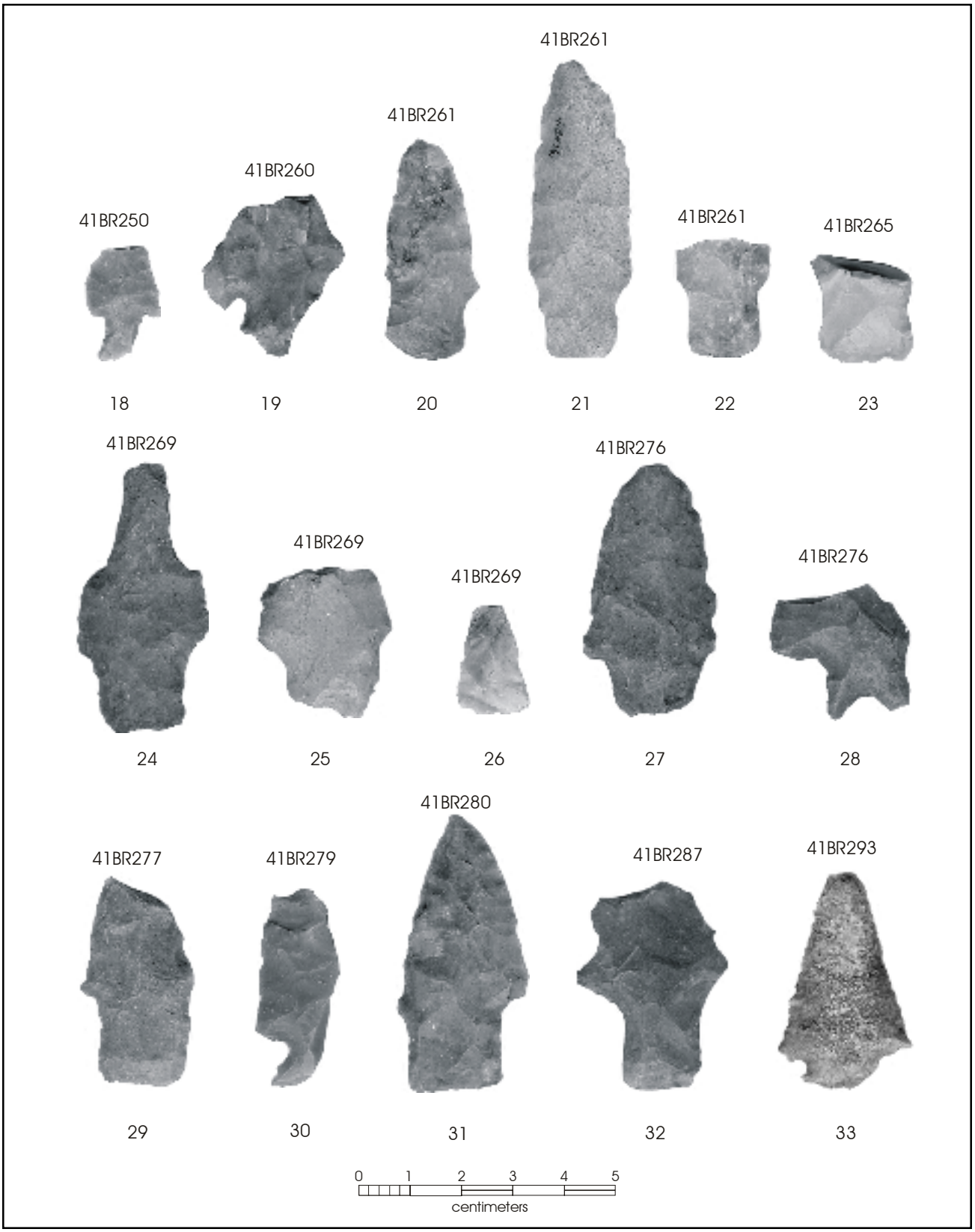
APPENDIX A

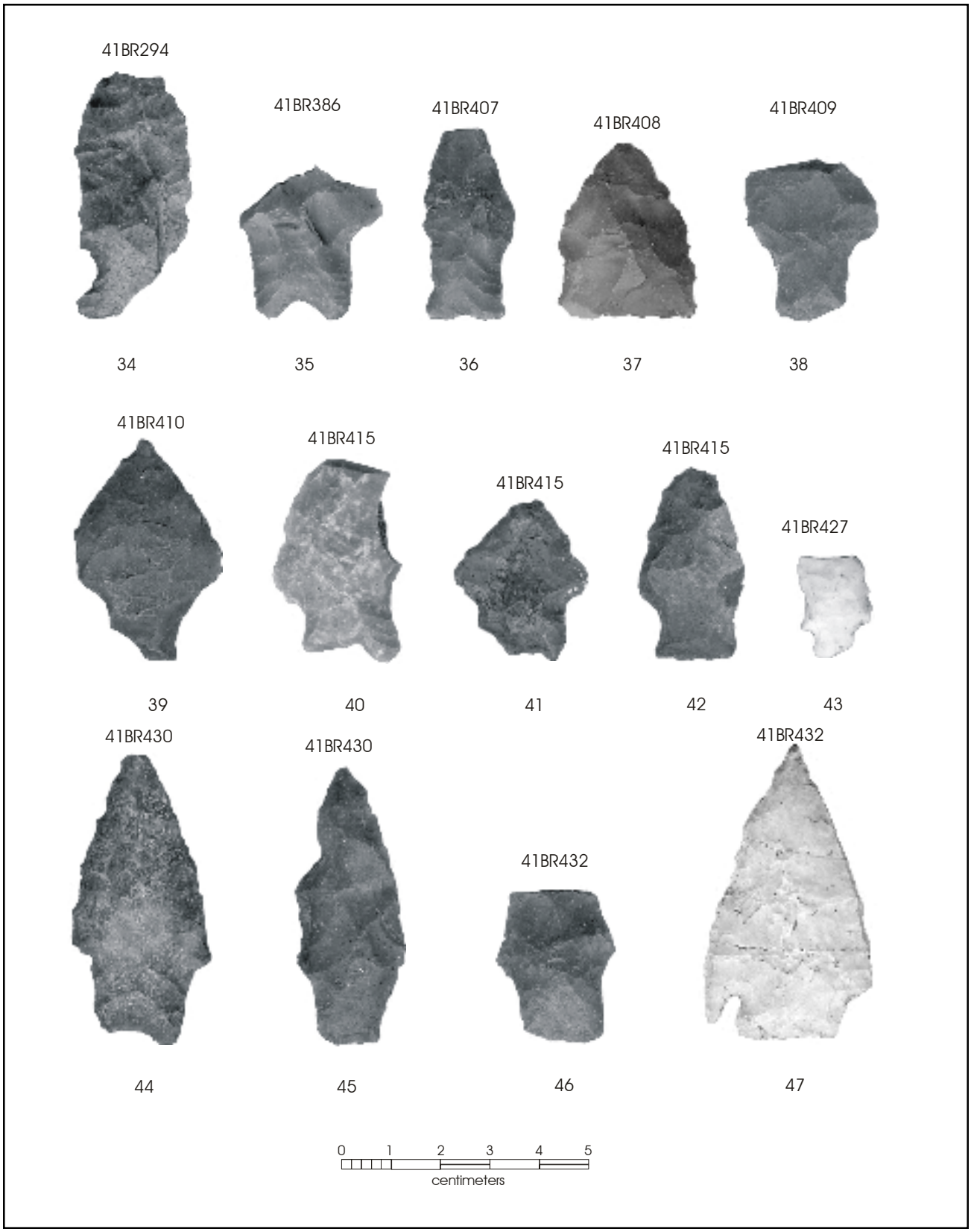
Projectile Points and Diagnostic Tools Collected



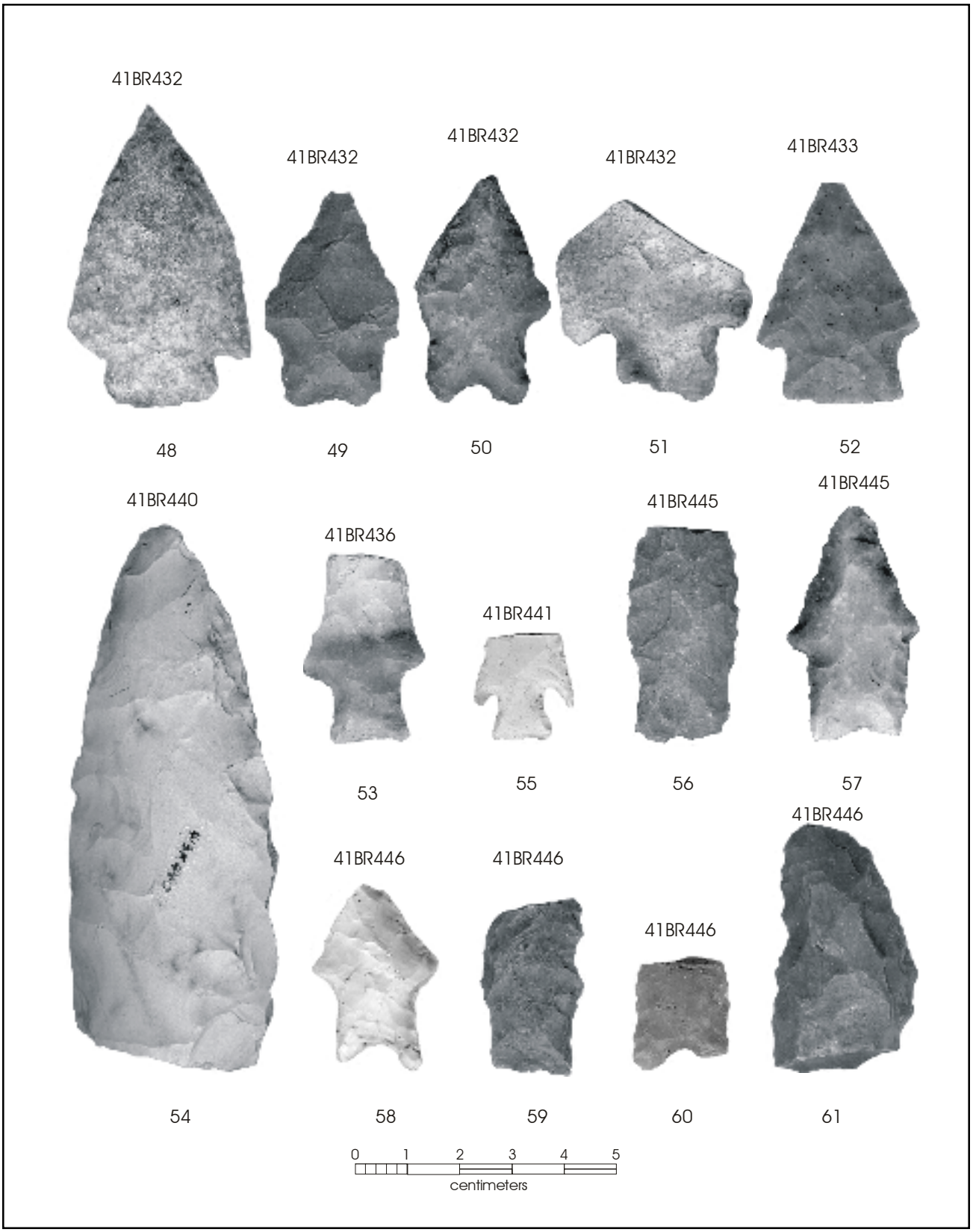
Figures A-1 through A-17: *Bulverde: A-3, 11; Ensor: A-2; Martindale: A-10; Nolan: A-9; Pandora/Gower: A-6; Pedernales: A-1, 4, 7, 12, 14, 17; Perdiz: A-15; Scallorn: A-5, 8; Travis A-13; unidentified: A-16.*



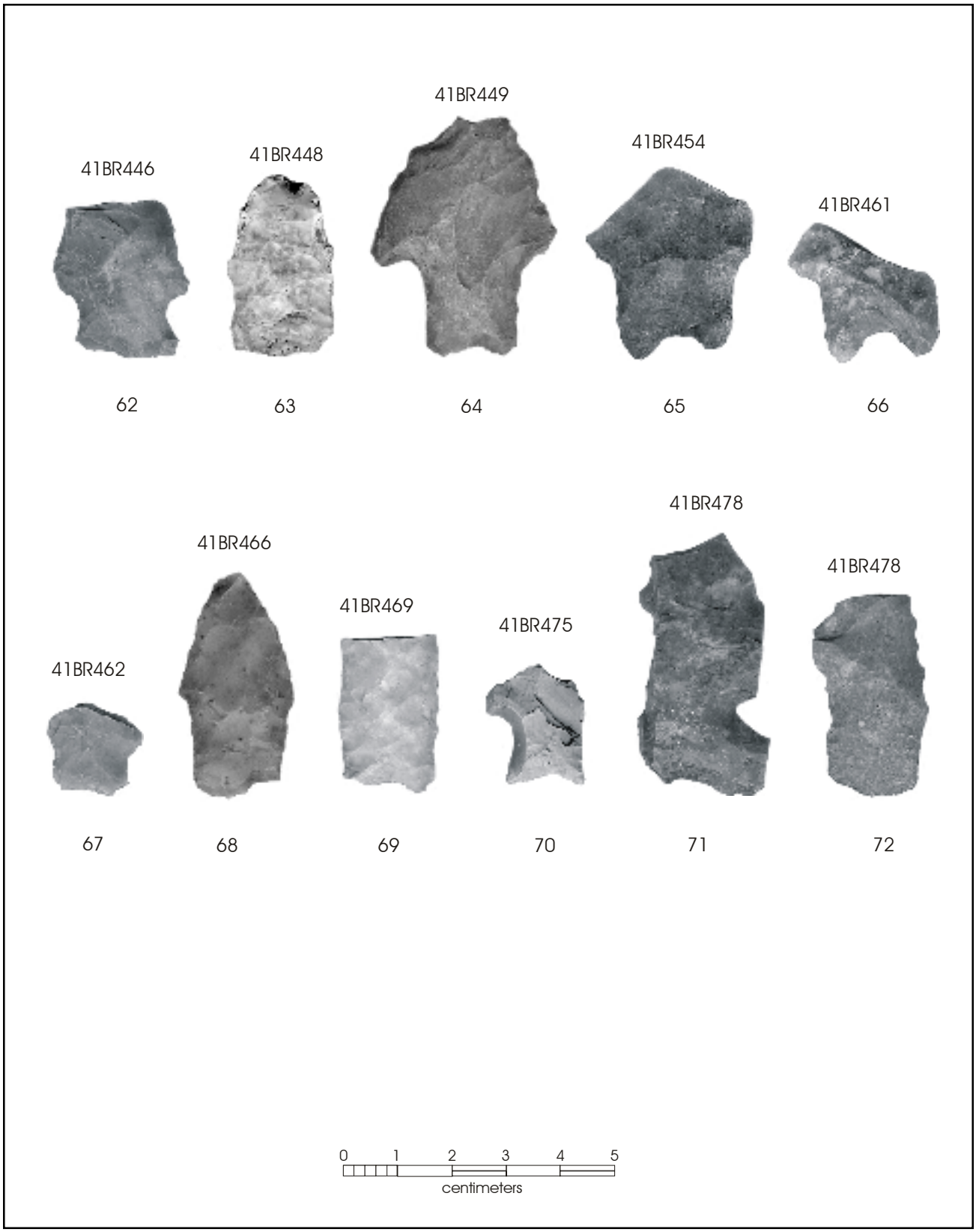
Figures A-18 through A-33: *Bulverde: A-24 (drill), 27, 29, 31, 32; Ensor: A-30, 33; Fresno: A-26; Pandale: A-20, 21, 22; Pedernales: A-25, 28; unidentified: A-18, 19, 23.*



Figures A-34 through A-47: *Bulverde: A-38; Castroville: A-47; Early Triangular: A-37; Frio: A-34; Lange: A-46; Nolan: A-39, 42; Pandale: A-36; Pedernales: A-35, 40, 41, 44; Scallorn: A-43; Travis: A-45.*



Figures A-48 through A-61: *Bulverde: A-51; Castroville: A-52; Clear Fork Gouge: A-54; Darl: A-53; Gower: A-58; Marcos: A-48; Nolan: A-59; Nueces Tool: A-61; Pedernales: A-49, 50, 57, 60; Scallorn: A-55; Travis: A-56.*



Figures A-62 through A-72: *Andice: A-71; Bulverde: A-68; Dalton or Angostura-like: A-69; Ensor: A-62; Pedernales: A-64, 65, 66; Wells: A-72; possible Late Paleoindian: A-63; unidentified: A-67, 70.*

APPENDIX B
Catalog of Collected Artifacts

Table B-1. Catalog of artifacts collected during the Camp Bowie survey

Site	Catalog No.	Provenience	Depth	Class	Description	Count	Date	Comments
41BR087	87-1-1	ST 1	0-15 cm	debitage		4		
41BR087	87-1-2	ST 1	15-30 cm	Tool	Biface frag	1		
41BR227	227-0-0-1	surface		Point	Pedernales	1		
41BR227	227-0-0-2	surface		Point	Ensor	1		
41BR228	228-0-0-01	Area 1	surface	Point	Bulverde	1	11/10/1994	
41BR228	228-0-0-02	BM1	BM1	Point	Pedernales	1	12/15/1994	
41BR228	228-0-0-03	Area 5	surface	Tool	Biface	1	11/10/1994	
41BR228	228-0-0-04	Area 4	surface	Tool	Drill	1	11/10/1994	
41BR228	228-0-0-05	Area 6	surface	Tool	Biface	1	11/10/1994	
41BR228	228-0-0-06	Area 3	surface	Tool	knife	1	10/13/1994	
41BR228	228-0-0-07	Area 1	surface	Tool	Drill	1	11/10/1994	
41BR228	228-0-0-08	BM1	BM1	Tool	Biface frag	2	12/15/1994	
41BR228	228-0-0-09	BM5	BM5	debitage		6	10/6/1994	
41BR228	228-0-0-10	BM5	BM5	Mussel Shell		2	10/6/1994	
41BR231	231-0-0	surface		Point	Scallorn	1	10/12/1994	
41BR238	238-0-0-1	surface		Tool	biface	1	11/10/1994	
41BR239	239-0-0-1	surface		Point	Pandora/Gower	1	11/16/1994	
41BR239	239-0-0-2	surface		Point	Pedernales	1	11/16/1994	
41BR239	239-0-0-3	surface		Point	Scallorn	1	11/16/1994	
41BR240	240-0-0	surface		Point	Nolan	1	11/17/1994	
41BR241	241-0-0-1	surface		Tool	Biface frag	4	11/17/1994	
41BR241	241-0-0-2	surface		Point	Pedernales	1	11/17/1994	
41BR241	241-0-0-3	surface		Point	Martindale	1	11/17/1994	
41BR241	241-0-0-4	surface		Point	Travis	1	11/17/1994	
41BR241	241-0-0-5	surface		Point	Bulverde	1	11/17/1994	
41BR242	242-0-0	surface		Point	Pedernales	1	11/18/1994	
41BR244	244-0-0	surface		Tool	Biface	2	11/30/1994	
41BR245	245-0-0-1	surface		Tool	Biface frag	2	Aug-97	
41BR245	245-0-0-2	surface		Mussel Shell		5		
41BR245	245-0-0-3	surface		Point	Perdiz	1	11/30/1994	
41BR245	245-0-0-4	surface		Point	point base	1	11/30/1994	
41BR245	245-0-0-5	surface		Tool	Mod. Flake	1	11/30/1994	
41BR245	245-0-0-6	surface		debitage		2	11/30/1994	
41BR245	245-0-0-7	surface		core		2	11/30/1994	
41BR245	245-0-0-8	surface		Tool	Biface frag	1	11/30/1994	
41BR245	245-1-1-1	ST1	0-15 cm	Mussel Shell		6	11/30/1994	
41BR245	245-1-1-2	ST1	0-15 cm	debitage		3	11/30/1994	
41BR245	245-1-2-1	ST1	15-30 cm	debitage		1	11/30/1994	
41BR245	245-1-2-2	ST1	15-30 cm	Mussel Shell		1	11/30/1994	
41BR245	245-1-3	ST1	30-45 cm	debitage		2	11/30/1994	
41BR245	245-2-1-1	ST2	0-15 cm	debitage		1	12/1/1994	
41BR245	245-2-1-2	ST2	0-15 cm	Mussel Shell		5	12/1/1994	
41BR245	245-2-1-3	ST2	0-15 cm	debitage		10	12/1/1994	
41BR245	245-2-1-4	ST2	0-15 cm	Tool	Biface frag	1	12/1/1994	
41BR245	245-2-2-1	ST2	15-30 cm	Mussel Shell		2	12/1/1994	
41BR245	245-2-2-2	ST2	15-30 cm	debitage		2	12/1/1994	
41BR245	245-3-2	ST3	15-30 cm	Burned Rock		6	12/1/1994	
41BR246	246-0-0-1	surface		Tool	Hammerstone	1	12/6/1994	
41BR246	246-0-0-2	surface		Tool	Mod. Flake	1	12/6/1994	
41BR246	246-0-0-3	surface		Tool	Biface	3	12/6/1994	
41BR246	246-2-1	ST2	0-15 cm	Mussel Shell		2	12/6/1994	
41BR246	246-2-2	ST2	15-30 cm	debitage		1	12/6/1994	
41BR246	246-3-3	ST2	30-45 cm	debitage		5	12/6/1994	

Table B-1. continued…

Site	Catalog No.	Provenience	Depth	Class	Description	Count	Date	Comments
41BR250	250-0-0-1	surface		Point	Pedernales	1	7/19/1995	
41BR250	250-0-0-2	surface		Point	base	1	7/19/1995	
41BR250	250-0-0-3	surface		Tool	biface	1	7/19/1995	
41BR253	253-0-0	surface		Tool	biface frag	1	7/19/1995	
41BR258	258-0-0	surface		Tool	biface	1	1/20/1995	
41BR260	260-0-0-1	surface		Historic	glass	1	2/7/1995	
41BR260	260-0-0-2	surface		Tool	Biface frag	1	2/7/1995	
41BR260	260-0-0-2	surface		Point	point base	1	2/7/1995	
41BR261	261-0-0-1	surface		Point	Pandale	2	2/9/1995	
41BR261	261-0-0-2	surface		Point	Pandale base	1	2/9/1995	
41BR261	261-0-0-3	surface		Tool	Biface frag	1	2/9/1995	
41BR261	261-0-0-4	surface		Tool	Biface frag	1	2/9/1995	
41BR261	261-0-0-5	surface		Tool	scraper	1	2/9/1995	
41BR261	261-1-2	ST1	10-20 cm	debitage		2	2/9/1995	
41BR262	262-0-0	surface		Tool	Biface frag	1	1/5/1995	
41BR263	263-0-0	surface		Tool	Biface frag	1	1/5/1995	
41BR264	264-0-0	surface		Tool	Biface frag	1	1/12/1995	
41BR265	265-0-0-1	surface		point	base	1	1/26/1995	
41BR269	269-0-0-1	Area 7	surface	point	Fresno	1	10/5/1994	
41BR269	269-0-0-2	Area 9	surface	point	Pedernales	1	10/5/1994	
41BR269	269-0-0-3	Area 6	surface	point	Bulverde	1	10/5/1994	
41BR269	269-0-0-4	Area 2	surface	Burned Rock		1	10/5/1994	
41BR269	269-0-0-5	Area 4	surface	Point	fragment	1	10/5/1994	
41BR269	269-0-0-6	Area 10	surface	Tool	biface frag	1	10/5/1994	
41BR269	269-0-0-7	Area 3	surface	Tool	Biface frag	1	10/5/1994	
41BR269	269-0-0-8	Area 5		tool	Biface frag	1	10/5/1994	
41BR269	269-0-0-9	Area 1	0-6 cm	Tool	Biface frag	1	10/5/1994	
41BR269	269-1-1	ST1	surface	debitage		1	10/5/1994	
41BR269	269-2-1	ST2	0-6 cm	debitage		1	10/5/1994	
41BR274	274-0-0-1	surface		Tool	scraper	1	2/16/1995	
41BR275	275-0-0	surface		Tool	Biface frag	1	7/17/1995	
41BR276	276-0-0-1	surface		Point	Bulverde	1	2/21/1995	
41BR276	276-0-0-2	surface		Point	Pedernales	1	2/21/1995	
41BR276	276-0-0-3	surface		Tool	scraper	1	2/21/1995	
41BR276	276-0-0-4	surface		Tool	Mod. Flake	1	2/21/1995	
41BR276	276-0-0-5	surface		Point	fragment	1	2/21/1995	
41BR276	276-0-0-6	surface		Tool	Biface frag	1	2/21/1995	
41BR276	276-0-0-7	surface		debitage		15	2/21/1995	
41BR277	277-0-0	surface		point	Bulverde	1	2/22/1995	
41BR278	278-0-0-1	surface		Tool	biface frag	1	2/22/1995	
41BR279	279-0-0	surface		Point	Ensor	1	2/22/1995	
41BR280	280-0-0-1	surface		core		3	2/22/1995	
41BR280	280-0-0-2	surface		point	Bulverde	1	2/22/1995	
41BR280	280-0-0-3	surface		Tool	biface frag	1	2/22/1995	
41BR280	280-0-0-4	surface		debitage		11	2/22/1995	
41BR282	282-0-0	surface		Tool	Mod. Flake	1	2/23/1995	
41BR283	283-0-0	surface		Tool	Biface frag	1	2/23/1995	
41BR284	284-0-0	surface		Tool	Biface frag	1	2/23/1995	
41BR285	285-0-0-1	surface		Core		1	2/28/1995	
41BR285	285-0-0-2	surface		Burned Rock		1	2/28/1995	
41BR285	285-0-0-3	surface		Tool	biface	6	2/28/1995	
41BR286	286-0-0-1	surface		Tool	biface frag	1	2/28/1995	
41BR286	286-0-0-2	surface		Tool	Mod. Flake	1	2/28/1995	

Table B-1. continued…

Site	Catalog No.	Provenience	Depth	Class	Description	Count	Date	Comments
41BR286	286-0-0-3	surface		debitage		4	2/28/1995	
41BR286	286-0-0-4	surface		Historic	glass	10	2/28/1995	
41BR286	286-0-0-5	surface		Historic	ceramic	4	2/28/1995	
41BR287	287-0-0-1	surface		Point	Bulverde	1	2/28/1995	
41BR287	287-0-0-2	surface		Tool	Biface frag	1	2/28/1995	
41BR287	287-0-0-3	surface		Tool	Mod. Flake	1	2/28/1995	
41BR287	287-0-0-4	surface		debitage		21	2/28/1995	
41BR288	288-0-0-1	surface		Tool	scraper	1	2/28/1995	
41BR288	288-0-0-2	surface		Tool	biface	1	2/28/1995	
41BR288	288-0-0-3	surface		Core		3	2/28/1995	
41BR289	289-0-0-1	surface		Core		1	3/1/1995	
41BR289	289-0-0-2	surface		debitage		1	3/1/1995	
41BR289	289-0-0-3	surface		Tool	Mod. Flake	1	3/1/1995	
41BR291	291-0-0	surface		debitage		1	3/7/1995	
41BR292	292-0-0-1	surface		Tool	biface	3	3/7/1995	
41BR292	292-0-0-2	surface		Core		2	3/7/1995	
41BR292	292-0-0-3	surface		Tool	Mod. Flake	3	3/7/1995	
41BR292	292-0-0-4	surface		FCR		1	3/7/1995	
41BR292	292-0-0-5	surface		debitage		11	3/7/1995	
41BR293	293-0-0-1	surface		point	Ensor	1	3/7/1995	
41BR293	293-0-0-2	surface		Core		2	3/7/1995	
41BR293	293-0-0-3	surface		Tool	biface	1	3/7/1995	
41BR293	293-0-0-4	surface		debitage		1	3/7/1995	
41BR294	294-0-0-1	surface		point	Frio	1	6/29/1995	
41BR294	294-0-0-2	surface		Tool	biface	1	6/29/1995	
41BR295	295-0-0-1	surface		Tool	biface	1	3/7/1995	
41BR295	295-0-0-2	surface		Tool	Mod. Flake	1	3/7/1995	
41BR295	295-0-0-3	surface		debitage		10	3/7/1995	
41BR296	296-0-0-1	surface		Tool	biface	2	3/8/1995	
41BR296	296-0-0-2	surface		core		1	3/8/1995	
41BR296	296-0-0-3	surface		debitage		8	3/8/1995	
41BR298	298-0-0-1	surface		natural rock		1	3/8/1995	
41BR298	298-0-0-2	surface		Tool	Mod. Flake	1	3/8/1995	
41BR298	298-0-0-3	surface		Tool	biface	1	3/8/1995	
41BR298	298-0-0-4	surface		debitage		2	3/8/1995	
41BR299	299-0-0	surface		Historic	glass	1	3/8/1995	
41BR300	300-0-0-1	surface		Tool	biface	1	3/9/1995	
41BR300	300-0-0-2	surface		tool	Mod. Flake	1	3/9/1995	
41BR300	300-0-0-3	surface		debitage		9	3/9/1995	
41BR381	381-0-0	surface		Tool	biface	1	Jul-92	
41BR386	386-0-0	surface		point	Pedernales	1	Jul-92	
41BR392	392-0-0-1	surface		Historic	glass	8	12/6/1994	
41BR392	392-0-0-2	surface		Historic	ceramic	2	Jul-92	
41BR393	393-0-0	surface		Tool	Biface frag	4	Aug-97	
41BR399	399-0-0	surface		Tool	Mod. Flake	1	6/10/1994	
41BR400	400-0-0-1	surface		Historic	porcelain	2	6/15/1994	
41BR400	400-0-0-2	surface		Historic	glass	1	6/15/1994	
41BR400	400-0-0-3	surface		Tool	uniface	1	6/15/1994	
41BR407	407-0-0-1	surface		debitage		12	3/9/1995	
41BR407	407-0-0-2	surface		Tool	Mod. Flake	1	3/9/1995	
41BR407	407-0-0-3	surface		Tool	Biface frag	1	3/9/1995	
41BR407	407-0-0-4	surface		Burned Rock		1	3/9/1995	
41BR407	407-0-0-5	surface		Tool	scraper	1	3/9/1995	

Table B-1. continued…

Site	Catalog No.	Provenience	Depth	Class	Description	Count	Date	Comments
41BR407	407-0-0-6	surface		core		1	3/9/1995	
41BR407	407-0-0-7	surface		Point	Pandale	1	3/9/1995	
41BR408	408-0-0	surface		Point	Early Triangular	1	3/9/1995	
41BR409	409-0-0-1	surface		debitage		55	3/13/1995	
41BR409	409-0-0-2	surface		Tool	Mod. Flake	5	3/13/1995	
41BR409	409-0-0-3	surface		Point	Bulverde	1	3/13/1995	
41BR409	409-0-0-4	surface		Core		6	3/13/1995	
41BR410	410-0-0-1	surface		Point	Nolan	1	4/3/1997	
41BR410	410-0-0-2	surface		Tool	Biface frag	1	4/3/1997	
41BR414	414-0-0-01	Area 1	surface	Point	fragment	1	7/15/1994	
41BR414	414-0-0-02	Area 2	surface	Tool	Biface frag	1	7/15/1994	
41BR414	414-0-0-03	Area 3	surface	Tool	Biface frag	1	7/15/1994	
41BR414	414-0-0-04	Area 4	surface	Tool	Biface frag	1	7/15/1994	
41BR414	414-0-0-05	Area 5	surface	Tool	Biface frag	1	7/15/1994	
41BR414	414-0-0-06	Area 6	surface	Tool	Battered cobble	1	7/15/1994	
41BR414	414-0-0-07	Area 7	surface	Tool	Biface frag	1	7/15/1994	
41BR414	414-0-0-08	Area 8	surface	Tool	Biface frag	1	7/15/1994	
41BR414	414-0-0-09	Area 9	surface	Tool	Biface frag	1	7/15/1994	
41BR414	414-0-0-10	Area 10	surface	Tool	Biface frag	1	7/15/1994	
41BR414	414-0-0-11	surface		FCR		1	7/22/1994	
41BR414	414-10-1	ST 10	0-10 cm	debitage		2	7/22/1994	
41BR414	414-13-1	ST 13	0-10 cm	debitage		3	7/22/1994	
41BR414	414-15-1	ST 15	0-12 cm	debitage		2	7/22/1994	
41BR414	414-16-1	ST 16	0-20 cm	debitage		1	7/22/1994	
41BR414	414-17-1	ST 17	0-3 cm	debitage		1	7/22/1994	
41BR414	414-18-1	ST 18	0-6 cm	debitage		1	7/22/1994	
41BR414	414-19-1	ST 19	0-10 cm	Tool	Biface frag	1	7/22/1994	
41BR414	414-20-1	ST 20	0-10 cm	FCR		1	7/22/1994	
41BR414	414-21-1	ST 21	0-10 cm	debitage		5	7/22/1994	
41BR414	414-22-1	ST22	0-4 cm	debitage		1	7/22/1994	
41BR414	414-23-1	ST 23	0-10 cm	debitage		1	7/22/1994	
41BR414	414-26-1	ST 26	0-8 cm	debitage		2	7/22/1994	
41BR414	414-26-2	ST26	0-8 cm	FCR		1	7/22/1994	
41BR415	415-0-0-1	surface		Mussel Shell		11	1/10/1995	
41BR415	415-0-0-2	surface		point	tip	1	1/10/1995	
41BR415	415-0-0-3	surface		Tool	Biface frag	4	1/10/1995	
41BR415	415-0-0-4	surface		core		1	1/10/1995	
41BR415	415-0-0-5	surface		Tool	chopper	1	1/10/1995	
41BR415	415-0-0-6	surface		point	Pedernales	2	1/10/1995	
41BR415	415-0-0-7	surface		point	Nolan	1	1/10/1995	
41BR415	415-1-2	ST 1	20-30 cm	Mussel Shell		5	1/10/1995	
41BR415	415-2-1	ST 2	0-15 cm	debitage		1	1/10/1995	
41BR415	415-3-1	ST 3	10-20 cm	debitage		1	1/10/1995	
41BR415	415-4-2	ST 4	15-30 cm	debitage		1	1/10/1995	
41BR418	418-0-0-1	surface		Historic	glass	7	1/25/1995	1 mod glass piece
41BR418	418-0-0-2	surface		Historic	ceramic	15	1/25/1995	
41BR419	419-0-0	surface		Tool	biface	1	1/17/1995	
41BR420	420-0-0	surface		Tool	biface	1	1/31/1995	
41BR424	424-0-0	surface		Historic	mason jar lid and liner	2	2/2/1995	
41BR427	427-0-0	surface		point	Scallorn	1	5/9/1995	
41BR430	430-0-0-1	surface		Tool	Biface frag	9	5/17/1995	
41BR430	430-0-0-2	surface		Burned Rock		1	5/17/1995	
41BR430	430-0-0-3	surface		Point	Pedernales	1	5/17/1995	

Table B-1. continued…

Site	Catalog No.	Provenience	Depth	Class	Description	Count	Date	Comments
41BR430	430-0-0-3	surface		Point	Travis	1	5/17/1995	
41BR432	432-0-0-1	surface		Tool	Mod. Flake	1	5/17/1995	
41BR432	432-0-0-2	surface		Tool	Biface frag	13	5/17/1995	
41BR432	432-0-0-3	surface		point	Lange	1	5/17/1995	
41BR432	432-0-0-4	surface		point	Bulverde	1	5/17/1995	
41BR432	432-0-0-4	surface		Point	Castroville	1	5/17/1995	
41BR432	432-0-0-5	surface		point	Pedernales	2	5/17/1995	
41BR432	432-0-0-6	surface		point	Marcos	1	5/17/1995	
41BR433	433-0-0-1	surface		point	Castroville	1	5/24/1995	
41BR433	433-0-0-2	surface		Tool	Biface frag	2	5/24/1995	
41BR436	436-0-0-1	surface		point	Darl	1	6/7/1995	
41BR436	436-0-0-2	surface		Tool	arrow point tip	1	6/7/1995	serrated
41BR437	437-0-0	surface		Tool	Biface frag	1	6/7/1995	
41BR438	438-0-0	surface		Historic	ceramic	2	6/7/1995	
41BR439	439-0-0	surface		Tool	Biface frag	2	6/8/1995	
41BR440	440-0-0-1	surface		Tool	Clear Fork	1	6/8/1995	
41BR440	440-0-0-2	surface		Tool	Drill	1	6/8/1995	
41BR440	440-0-0-3	surface		Tool	Biface frag	1	6/8/1995	
41BR441	441-0-0-1	surface		point	scallorn	1	6/15/1995	
41BR441	441-0-0-2	surface		Tool	biface	1	6/15/1995	
41BR441	441-0-0-3	surface		Tool	biface	3	6/15/1995	
41BR441	441-0-0-4	surface		debitage		2	6/15/1995	
41BR442	442-0-0-1	surface		Tool	biface/gouge frag	1	6/16/1995	
41BR442	442-0-0-2	surface		Tool	Biface frag	2	6/16/1995	
41BR445	445-0-0-1	surface		point	Pedernales	1	6/28/1995	
41BR445	445-0-0-2	surface		point	Travis	1	6/28/1995	
41BR446	446-0-0-1	surface		Tool	biface	1	6/28/1995	
41BR446	446-0-0-2	surface		point	Gower	1	6/28/1995	
41BR446	446-0-0-3	surface		point	Nolan	1	6/28/1995	
41BR446	446-0-0-4	surface		point	Pedernales	1	6/28/1995	
41BR446	446-0-0-5	surface		Tool	Nueces Biface	1	6/28/1995	
41BR446	446-0-0-6	surface		point	Ensor	1	6/28/1995	
41BR448	448-0-0	surface		Tool	Beveled Knife	1	6/28/1995	
41BR448	448-0-0	surface		point	Possible Late Paleo	1	6/28/1995	
41BR449	449-0-0	surface		point	Pedernales	1	6/28/1995	
41BR452	452-0-0-1	surface		Tool	biface	1	6/29/1995	
41BR452	452-0-0-2	surface		tool	Mod. Flake	1	6/29/1995	
41BR454	454-0-0-1	surface		tool	Biface frag	1	6/29/1995	
41BR454	454-0-0-2	surface		point	Pedernales	1	6/29/1995	
41BR461	461-0-0-1	surface		Historic	ceramic	4	7/19/1995	
41BR461	461-0-0-2	surface		point	Pedernales	1	7/19/1995	
41BR462	462-0-0	surface		point	Dart Point base	1	7/19/1995	
41BR466	466-0-0	surface		point	Bulverde	1	8/16/1995	
41BR467	467-0-0	surface		Tool	Mod. Flake	1	8/16/1995	
41BR469	469-0-0	surface		point	Dalton/Angostura	1	8/23/1995	
41BR470	470-0-0-1	surface		Tool	scraper	1	8/24/1995	
41BR470	470-0-0-2	surface		Tool	Biface frag	2	8/24/1995	
41BR471	471-0-0	surface		Tool	Biface frag	1	8/24/1995	
41BR472	472-0-0	surface		Tool	Mod. Flake	2	8/24/1995	
41BR473	473-1-1	ST1	0-10 cm	debitage		1	8/24/1995	
41BR474	474-0-0-1	surface		Tool	Mod. Flake	1	8/30/1995	
41BR474	474-1-1-1	ST 1	0-10 cm	debitage		1	8/22/1995	
41BR474	474-1-1-2	ST 1	0-10 cm	historic	brown glass	1	8/22/1995	

Table B-1. continued…

Site	Catalog No.	Provenience	Depth	Class	Description	Count	Date	Comments
41BR474	474-1-2	ST 1	10-20 cm	debitage		2	8/31/1995	
41BR474	474-2-1	ST 2	0-10 cm	debitage		8	8/31/1995	
41BR475	475-0-0-1	surface		Tool	scraper	1	8/31/1995	
41BR475	475-0-0-2	surface		tool	Biface frag	2	8/31/1995	
41BR475	475-0-0-3	surface		point	base fragment	1	8/31/1995	
41BR476	476-0-0	ST 2	surface	debitage		1	8/31/1995	
41BR478	478-0-0-1	surface		Tool	mod flake	2	6/19/1997	
41BR478	478-0-0-2	surface		point	base	2	6/19/1997	
41BR478	478-0-0-3	surface		Tool	Biface frag	1	6/19/1997	
41BR478	478-0-0-4	surface		point	Andice	1	6/19/1997	
41BR478	478-0-0-5	surface		point	Wells-like	1	6/19/1997	
41BR478	478-0-0-6	surface		Tool	Biface frag	1	6/19/1997	
41BR480	480-0-0-2	surface		Tool	mod flake	1	4/4/1997	
41BR480	480-1-1	ST 1	0-10 cm	debitage		37	4/4/1997	
41BR480	480-2-1	ST 2	0-5 cm	Burned Rock		1	4/4/1997	
41BR480	480-3-1	ST 3	0-10 cm	debitage		14	4/4/1997	