

**CULTURAL RESOURCES INVESTIGATION OF SITES 41BX233 AND 41BX631,
BEXAR COUNTY, TEXAS**

Prepared for

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ABSTRACT

On behalf of Pape-Dawson Engineers, Inc. and Valero Energy Corporation, SWCA Environmental Consultants (SWCA) conducted cultural resources investigations of sites 41BX233 and 41BX631, which are previously recorded sites located on property owned by Valero Energy Corporation/Diamond Shamrock. The landowner plans to build a new home office on the property, and prior to any construction, the City of San Antonio Historic Preservation Office (HPO) requested that these sites be investigated further for their potential to contribute important information to the prehistory or history of the area. The investigations were conducted to comply with the City of San Antonio's Historic Preservation and Design Section of the Unified Development Code, as well as the specific recommendations from Kay Hinder of the HPO.

The two archaeological sites are located in northwestern Bexar County, Texas. They are about 1 mile southwest of the intersection of Interstate Highway (IH) 10 and Loop 1604, just north of UTSA Blvd. along Leon Creek. Site 41BX233 is located on the east side of the creek, and 41BX631 is on the west side. Investigations of 41BX233, a prehistoric campsite with a previously recorded burned rock lens eroding out of the cutbank, consisted of an intensive pedestrian survey of the site area and limited shovel testing. Site 41BX631, a multicomponent site with an Archaic period campsite and burned rock midden along with a surface scatter of Spanish Colonial and Civil War era artifacts, also from a temporary encampment, was investigated with an intensive surface reconnaissance, metal detection, and excavation of shovel tests and a 1-x-1-m test unit.

Very little remains of site 41BX233; the burned rock lens was not relocated, and the site contains only a surface scatter of lithic debitage. As a result, site 41BX233 does not retain enough integrity to provide important information to the prehistory of the area, and is not considered significant.

The search for the previously recorded site components at site 41BX631 was partially successful. The prehistoric component appears to be a short-term campsite that was used sporadically from the Early Archaic to the Late Prehistoric Period. However, the lithic tools described by early visitors to the site were not observed during this investigation. The previously recorded burned rock midden (Feature 1) was relocated and investigated; it consists of a typical donut-shaped midden sitting on top of bedrock. No charcoal or diagnostic tools were recovered. The historic component to 41BX631 consisted of an artifact assemblage of a Spanish Colonial gunflint, as well as Civil War musket balls, Minié balls, harness buckles, and a musket ball hand mold. The site appears to be overnight camp(s) resulting in some dropped artifacts. The above artifacts were all found by previous investigators; only one historic artifact and one feature was located during the current investigation. A railroad spike was found during the metal detector survey and an old roadcut (Feature 2) was seen within the site boundaries. Neither is associated with the previous assemblage. Based on the findings, site 41BX631 does not retain enough integrity to provide important information to the prehistory or history of the area, and is not considered significant.

As sites 41BX233 and 41BX631 are not considered significant, no further work is necessary. The artifacts have been returned to the landowner, and only excavation forms and notes have been curated at the Texas Archeological Research Laboratory (TARL).

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MANAGEMENT SUMMARY

PROJECT TITLE: Cultural Resources Investigations of Sites 41BX233 and 41BX631, Bexar County, Texas.

SWCA PROJECT NUMBER: 10524-192.

PROJECT DESCRIPTION: The project included an archaeological investigation of previously recorded sites 41BX233 and 41BX631, located on Valero Energy Corporation's North Campus, near San Antonio, Bexar County, Texas. The area where the sites are located has been chosen for the new home office for Valero/Diamond Shamrock, and prior to any construction activities, the City of San Antonio HPO directed that these sites be investigated further. Each site was investigated with surface and subsurface excavation methods, and site 41BX631 was also investigated with metal detectors. The sites were assessed for integrity and significance in regards to their potential to contribute important information to the prehistory or history of the area.

LOCATION: The two sites are located on either side of Leon Creek near where UTSA Blvd. crosses the creek. The area is located about 1 mile southwest of the IH 10 and Loop 1604 intersection. Site 41BX233 is seen in the eastern cutbank of Leon Creek and the north side of UTSA Blvd, and site 41BX631 is situated between the western bank of Leon Creek and Regency Blvd., just north of UTSA Blvd. The sites are located on the Castle Hills USGS 7.5-minute topographic map.

NUMBER OF ACRES SURVEYED: Approximately 22 acres.

PRINCIPAL INVESTIGATOR: Mindy L. Bonine.

DATES OF WORK: November 8–10, 2005.

PURPOSE OF WORK: The client is complying with the City of San Antonio's Historic Preservation and Design Section of the Unified Development Code, and recommendations by Kay Hinder of the HPO.

NUMBER OF SITES: Two: 41BX233 and 41BX631.

ELIGIBILITY OF SITES: Neither site contains enough integrity and significance to provide important information to the prehistory or history of the area, and thus would not be eligible for the National Register of Historic Places or for listing as a State Archeological Landmark.

CURATION: All collected artifacts were returned to the landowner, and were not curated. However, original field notes and records were submitted to TARL for inclusion in the site files.

COMMENTS: Sites 41BX233 and 41BX631 are known to be collecting spots of local artifact hunters and have suffered from stormwater erosion. Not enough material remains to warrant further investigations.

INTRODUCTION

On behalf of Pape-Dawson Engineers, Inc. and Valero Energy Corporation, SWCA Environmental Consultants (SWCA) conducted cultural resources investigations of sites 41BX233 and 41BX631, which are previously recorded sites located on property owned by Valero Energy Corporation/Diamond Shamrock (Figure 1). The landowner plans to build a new home office on the property, and prior to any construction, the City of San Antonio Historic Preservation Office (HPO) requested that these sites be investigated further for their potential to contribute important information to the prehistory or history of the area. The investigation consisted of both surface reconnaissance and subsurface excavations, with the addition of metal detection of select areas at site 41BX631. The investigations were conducted to comply with the City of San Antonio's Historic Preservation and Design Section of the Unified Development Code, as well as the specific recommendations from Kay Hindes of the HPO.

Mindy Bonine, the Principal Investigator, conducted the investigations with two staff SWCA archaeologists on November 8–10, 2005. All of the artifacts collected during the investigations were returned to the landowner, and only field notes and revisit forms were submitted to the Texas Archeological Research Laboratory (TARL) for curation. The site forms for each site were also updated.

PROJECT AREA DESCRIPTION

The two archaeological sites are located in northwestern Bexar County, Texas. They are about 1 mile southwest of the intersection of Interstate Highway (IH) 10 and Loop 1604, just north of UTSA Blvd. along Leon Creek. Leon Creek begins in the northwestern portion of Bexar County and flows in a southerly direction until it joins the Medina River, south

of San Antonio, and on to the San Antonio River. Site 41BX233 is situated just north of UTSA Blvd. along the east side of Leon Creek, and extends into the field to the east. The area is partially covered with juniper, but several open grassy areas are present at the site. Site 41BX631 is located on the western side of Leon Creek, extending from UTSA Blvd. northward along the creek for about 250 m, and westward to Regency Blvd. The site consists of some grassy areas along the slope to Leon Creek and in small pockets throughout the site, but the majority of the site is covered with moderately dense juniper, live oak, prickly pear, Texas mountain laurel, and other brushy undergrowth. Both of the sites are located on the Castle Hills USGS 7.5-minute topographic map.

Although the plans for the proposed home office facility have not been finalized, the cultural resources investigation was conducted at this time to provide the client with enough information to make decisions about the potential impact to significant archaeological sites from construction activities.

ENVIRONMENTAL SETTING

GEOLOGY

The setting around site 41BX631 is mapped as Upper Cretaceous-age Buda Limestone (Barnes 1983). These deposits consist of fine-grained, light gray to pale orange limestone, 60–100 feet in thickness. The hard, massive, and poorly bedded limestone contains grains composed of fragmented organic material (i.e., shell fragments) and pyrites, and is commonly glauconitic. Burrows are commonly filled with chalky marl and abundant pelecypod fossils (Barnes 1983). However, the geology just beyond the site boundary to the north (less than 500 m away) quickly changes to Edwards Limestone, which includes abun-

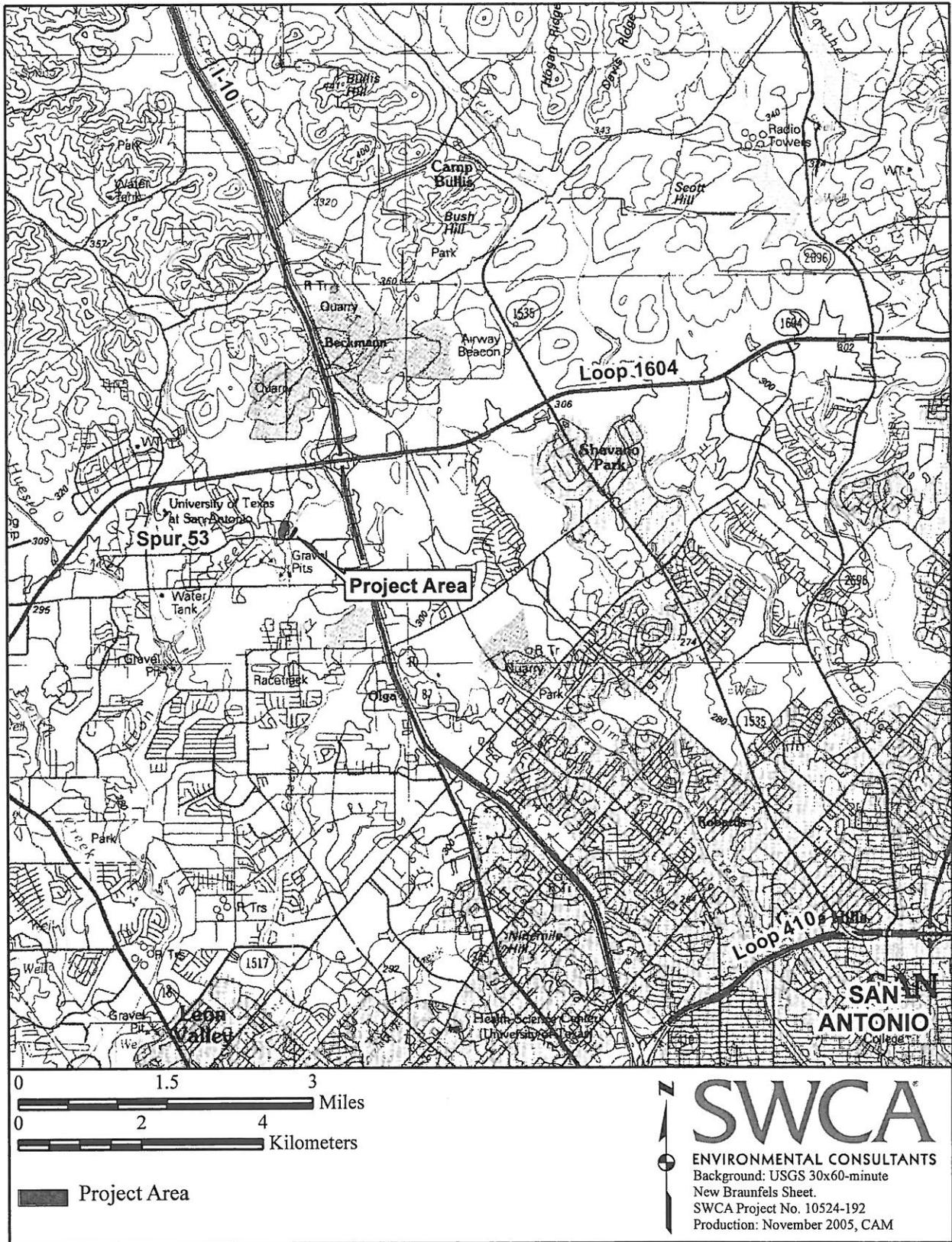


Figure 1. Location of project area.

dant fine- to coarse-grained gray to grayish brown chert.

South of site 41BX631, and where site 41BX233 is located, the formation is mapped as Fluvial terrace deposits, which run adjacent to the Edwards Plateau. These Pleistocene age deposits consist of gravel, silt, sand, and clays. These low terrace deposits are mostly above the floodplain along entrenched streams like Leon Creek, and the fluvial morphology is well preserved in point bars, oxbows, and abandoned channel segments (Barnes 1983). These fluvial deposits run adjacent to Leon Creek on the southeast side and cover an area up to 1 km away (Barnes 1983).

SOILS

The soils within site 41BX631 and in the surrounding area are Crawford and Bexar stony soils, 0 to 5 percent slopes (Taylor et al. 1991). These soils comprise large areas and form an almost continuous belt extending westward from the northeastern part of Bexar County to Helotes. The soils are stony clay to gravelly loam in texture and are shallow to moderately deep over hard limestone. Chert and limestone fragments comprise up to 40 percent of the total volume of soil. The soils are non-arable and best suited to native vegetation.

The narrow strip of land on either side of Leon Creek adjacent to the two sites consists of Trinity and Frio soils, frequently flooded (Taylor et al. 1991). These soils are narrow, long and irregularly shaped areas on the floodplains of small streams and larger field drainageways. Deposits of thin soils are mixed with scoured surfaces within the series. The soils that do exist within the series are comprised of clay loam to gravelly clay. Thick vegetation is common along the stream banks.

The soils within site 41BX233 and the surrounding area consist of Patrick soils, 1 to 3 percent slopes (Taylor et al. 1991). They occur as nearly level to gently rolling terraces along streams that drain into the limestone prairies. The layers of these soils vary between clay loam, gravelly loam, and silty clay over a deposit of brown clay loam. The soils are subject to erosion and are generally droughty.

HYDROLOGY

Bexar County rainfall is subject to drought periods every few years but averages about 28 inches a year with peak periods in April through June and August through October. The average annual rainfall is 31 inches (Long 2005), but heavy downpours are not uncommon, with a peak 24-hour accumulation of 4 inches at least once in an average 2-year period, and a 10-inch downpour at least once every 100 years (Frederick Wilderness Park Charette 1998). Given the typically thin soils of the area, these rainfall patterns make stormwater erosion a serious problem.

VEGETATION AND WILDLIFE

The project area is located within the Edwards Plateau region as defined by Gould (1975), and the Balconian biotic zone (Blair 1950). Upland areas are dominated by a mixed live oak (*Quercus virginiana*) and Ashe juniper (*Juniperus ashei*) woodland interspersed with occasional grassy openings. The lower elevation areas along the riparian zone often include a dense understory of acacia (*Acacia* sp.), prickly pear (*Opuntia leptocaulis*), Texas mountain laurel (*Sophora secundiflora*), and other brushy species (Petrides 1988; Simpson 1988). Common mammals of the Balconian biotic zone include white-tailed deer (*Odocoileus virginianus*), opossum (*Didelphis virginiana*), raccoon (*Procyon lotor*), nine-banded armadillo (*Dasypus novemcinctus*), black-tailed jackrabbit (*Lepus californi-*

cus), and deer mouse (*Peromyscus maniculatus*). In addition, bison (*Bison bison*), mountain lion (*Felis concolor*), and black bear (*Ursus americanus*) would have been present prehistorically (Davis and Schmidly 1994). Bird species composition in the project area is fairly diverse with numerous breeding, migrant, and wintering species present (Davis and Schmidly 1994). In addition to mammals and birds, Blair (1950) lists at least 75 species of amphibians and reptiles within the Balconian Province.

CULTURAL SETTING

PREVIOUS INVESTIGATIONS

The area surrounding sites 41BX233 and 41BX631 have been investigated numerous times since 1970 by the Environmental Protection Agency (EPA), the Texas Department of Highways and Public Transportation (TDHPT) and later the Texas Department of Transportation (TxDOT), the U.S. Army Corps of Engineers (USACE), and the University of Texas at San Antonio (UTSA). The majority of the surveys were conducted in preparation for a development project or in conjunction with an environmental survey of 100-year or 500-year floodplains along streams and rivers (Texas Historical Commission [THC] *Atlas*). However, by far the most thorough investigations have been conducted at Camp Bullis, located east of IH 10 and a few miles north of Loop 1604. A framework for prehistoric archaeological research has been crafted for the area (Hines 1993), excavations of some sites have been conducted (Kibler and Scott 2000; Mahoney 2004), and over 10 archaeological surveys of areas between 60 and 2,300 acres have been performed (ex: Boyd et al. 1990; Cestaro et al. 2000; Quigg 1988; and Scott 1999).

SITE 41BX233

Site 41BX233 was first recorded during a survey of the University of San Antonio campus by T.R. Hester in 1974. The site was observed in a roadcut along the access highway to campus (UTSA Blvd.). The site was described as a prehistoric burned rock lens and associated midden debris on the east side of Leon Creek and the north side of the road, indicating a possible prehistoric campsite (TARL site form). The lens measured 21 feet long and 6 inches thick, and was buried 9–10 inches below the surface. The site appeared to extend into a field on the north side of the road in alluvial deposits. Lithic debitage was seen on the surface of the field, in addition to a Montell-like point (Late to Transitional Archaic ca. 1000 B.C. to A.D. 200 [Turner and Hester 1993]). Evidence of the site continuing south of UTSA Blvd. was also present (TARL site form).

The site was reinvestigated in 1995, when Horizon Environmental Services, Inc. (Horizon) relocated 41BX233 (described in the report as site 41BX223) as part of a larger survey to investigate the location and condition of archaeological sites in an area proposed for the Valero/Diamond Shamrock home office (Rader 1995). They described the site as heavily impacted by erosion and containing remains of flaked stone debitage and thermally altered limestone rocks (Rader 1995:3). The site was not considered significant due to the sparse archaeological material and erosion impacts (Figure 2).

SITE 41BX631

Site 41BX631 was first recorded in 1984 as the “Bob Burns Site” by T. R. Hester and Bob Burns (Figure 3). Burns had been surface collecting at the site for several years, and invited Hester to both view the site and inspect the recovered artifacts (Table 1). At the time of the survey the area had been cleared of vege-

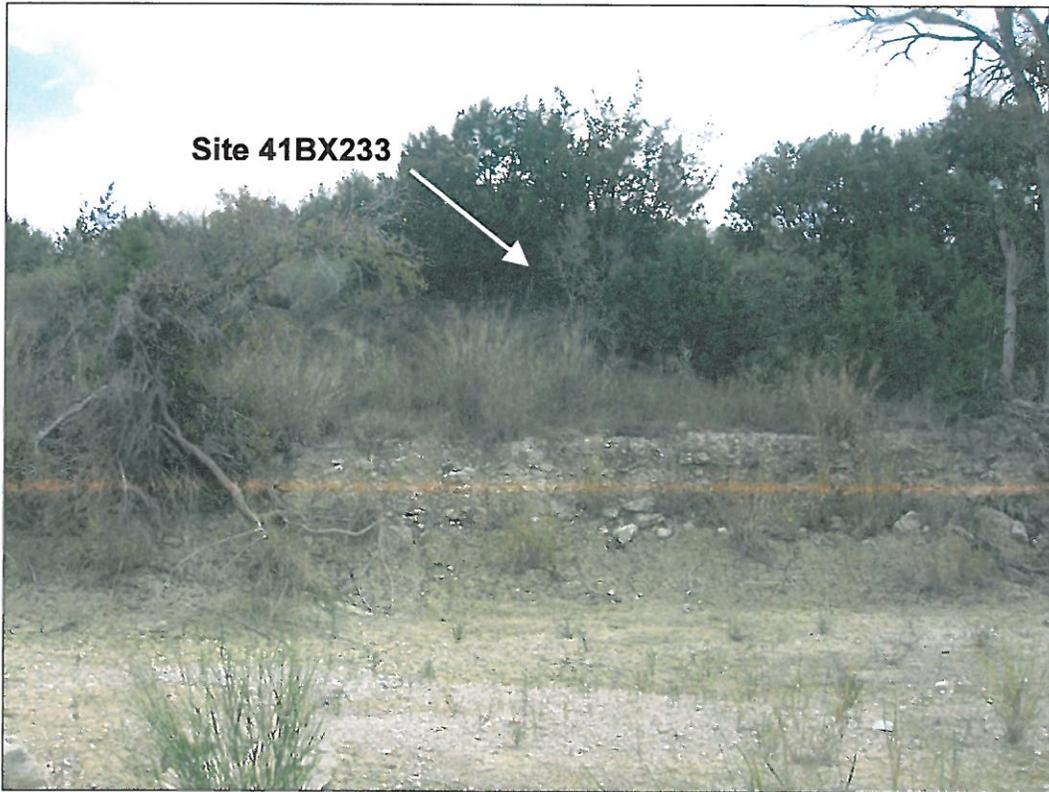


Figure 2. Photo of site 41BX233, taken from Leon Creek looking east.

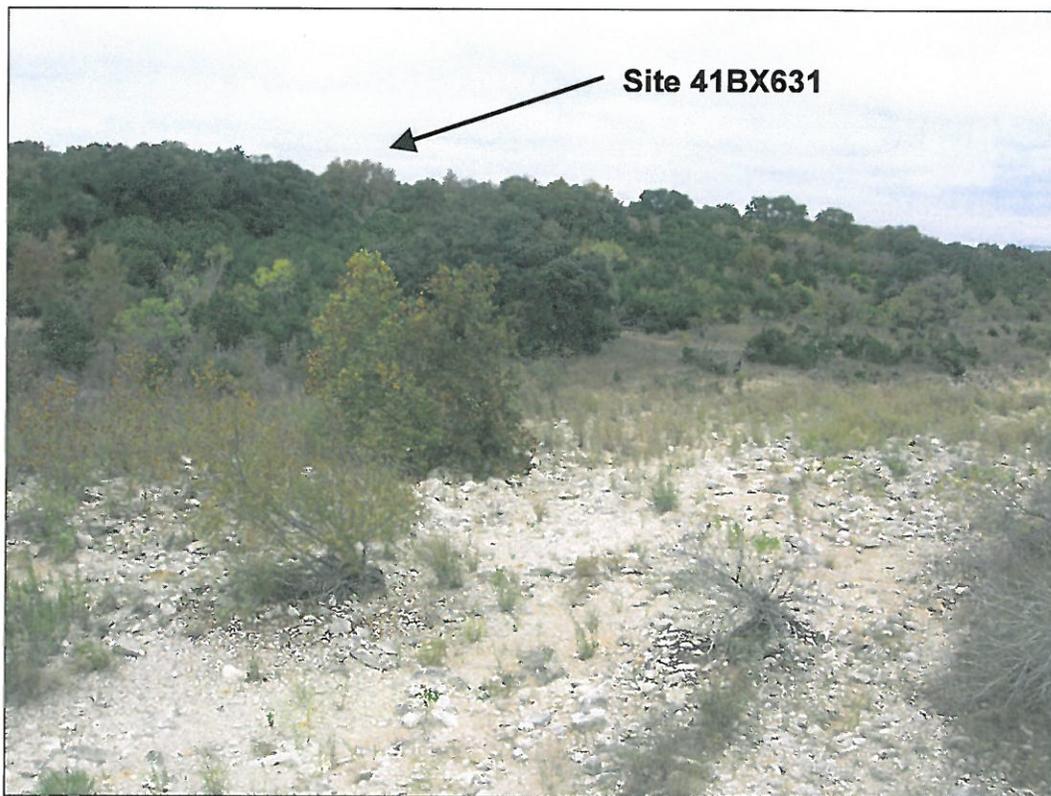


Figure 3. Photo of site 41BX631, taken from Leon Creek looking northwest.

Table 1. Selected List of Artifacts in the Bob Burns Collection from Site 41BX631*

Quantity	Artifact Type	Associated Time Period
3	Martindale-Uvalde dart points	Early Archaic
3	Nolan dart points	Early Archaic
3	Pedernales dart points	Middle Archaic
1	Travis dart point	Middle Archaic
1	Castroville dart point	Late Archaic
3	Montell dart points	Late Archaic-Transitional Archaic
1	Langtry? dart point	Middle Archaic
3	Bulverde basal fragments	Early Archaic
2	Tortugas dart points	Middle Archaic
7	Ensor dart points	Transitional Archaic
4	Ensor-Frio dart points	Transitional Archaic
6	Frio dart points	Transitional Archaic
2	Ellis dart points	Middle Archaic-Transitional Archaic
1	Marcos dart point	Late Archaic-Transitional Archaic
8	Dart point fragments	unknown
3	Scallorn arrow points	Late Prehistoric
1	Talco/Guerrero arrow point	Late Prehistoric
15	Arrow point preforms	Late Prehistoric
3	Arrow point fragments	Late Prehistoric
2	Perforators	unknown
2	Unifaces	unknown
2	Misc. bifaces	unknown

tation. Hester described the site as a multi-component occupation area with a possible prehistoric burned rock midden at the center (TARL site form). In addition, prehistoric and historic artifacts were recovered on the surface, including Archaic dart points (from Early Archaic to Transitional Archaic), Late Prehistoric arrow points, a historic gunflint, and a historic arrow point. Hester recommended additional investigation to determine overall site size and layout.

Sometime around 1991, the site was revisited and surveyed with a metal detector (TARL site form). An area comprising a 100-foot radius was detected, and the surface was visually checked for artifacts. Historic artifacts were observed in a 15-x-15-foot area, including three .57 caliber lead musket balls, two .69 caliber lead musket balls, five Minié balls, a .57 caliber lead musket ball hand mold, melted lead, and a high top percussion cap. Harness buckles and another buckle were also found about 20 feet northeast of the other artifacts. The recorder speculated that the site had been a temporary overnight camp during the Civil War, with no evidence of a structure or fire features (TARL site form).

The site was reinvestigated in 1995, when Horizon relocated 41BX631 as part of a larger survey to investigate the location and condition of archaeological sites in an area proposed for the Valero/Diamond Shamrock home office (Rader 1995). They describe the site as a large lithic scatter with biface fragments, cores, and fire-cracked rocks on a shallow surface. A Bulverde point was found, dating to the Early Archaic. Historic artifacts at the site included alkaline glazed crockery, but no metal artifacts were located. The archaeologist suspected that some aggregations of limestone rock might be the ruins of a structure or feature. A recommendation was made to further investigate the site (Rader 1995:4).

The most recent recorded revisit to the site was in 2004, when a plan for construction of a corner store on a 2-acre parcel south of the site was proposed. Horizon returned to the site and found the historic component did not extend into the surveyed area. However, a lanceolate biface basal fragment, scattered lithic debris, and burned rocks were present (TARL site form). The site was determined to be 850 x 400 feet in size (259.08 x 121.92 m), and contained all surficial artifacts (nothing was recovered from several shovel tests). The prehistoric component of the site was determined not to have research potential, but further work was recommended for the historic component (TARL site form).

Additional archaeological investigations of site 41BX631 may have been conducted but are not listed in the site files at TARL or in the THC *Atlas* database of existing archaeological sites. For example, a survey was evidently performed prior to the construction of a walking trail through the site (Wade Merrell, personal communication November 10, 2005), but SWCA archaeologists have not located a record of such an investigation. Additionally, the local grounds and security personnel mentioned local artifact collectors have hunted the area, with both metal detectors and subsurface digging (Wade Merrell, personal communication, November 10, 2005).

CULTURAL HISTORY

Situated in northwestern Bexar County, the project area lies within the South Texas archaeological region (Hester 1980). Bexar County, however, lies sufficiently close to the Central Texas archaeological region that the archaeological record shows common influences from the Edwards Plateau. Accordingly, the following culture history draws from both regions to define the context of the area.

PALEOINDIAN PERIOD

The Paleoindian period dates from about 11,500–8,800 B.P. (Collins 1995). While there are few known Paleoindian sites in the Nueces-Guadalupe Plain area, surface finds of artifacts dating to this period are not uncommon (Black 1989:48). Such diagnostic artifacts of the age include various lanceolate projectile points, certain scraper forms, and technological artifacts such as blade cores and blades. Clovis, Folsom, and Plano points are generally considered as distinctive of the earlier Paleoindian period (11,500–10,000 B.P.). The later Paleoindian period (10,000–8,800 B.P.) is denoted by forms such as Angostura, Dalton, Golondrina, Plainview, and Scottsbluff points (Hester 1995). In both periods, these projectile points were hafted onto wooden spears, launched from atlatls (spear throwers), and often used to hunt big game such as mammoth, mastodons, bison, camel, and horse (Black 1989).

During the Paleoindian period, subsistence strategies gradually changed to include increased harvesting of flora and small game as the big game died off and the climate warmed following the end of the Pleistocene ice age. Excavated Paleoindian sites in South Texas include Buckner Ranch (Sellards 1940) and Berger Bluff (Brown 1987). Representative Central Texas Paleoindian sites include Wilson-Leonard, Gault, and St. Mary's Hall (Collins 1995). Many Paleoindian artifacts in the area are recovered as either isolated surface finds or within surface lithic scatters lacking good stratigraphic context (e.g., Howard 1974; Meltzer and Bever 1995).

ARCHAIC PERIOD

As the Paleoindian period came to an end, humans began to more intensively harvest local floral and faunal resources (Collins 1995). Material culture became more diverse, and the use of burned rock middens and ovens became

widespread. This period is known as the Archaic and dates from approximately 8,800–1,200 B.P. in Central Texas (Collins 1995; Johnson and Goode 1994).

EARLY ARCHAIC

Early Archaic artifacts and sites date from about 8,800–6,000 B.P. (Collins 1995; Hester 1995). The fluted projectile points of the Paleoindian period were replaced by stemmed varieties such as Early Split Stem, Martindale, and Uvalde (Black 1989; Hester 1995). Specialized tools, perhaps used in woodworking, known as Guadalupe and Nueces bifaces were prevalent in this period (Collins 1995).

Most sites were open campsites, although cave sites have been found (Collins 1995). While subsistence data are sparse, it appears that people were hunting deer and other small animals and fishing, and cooking bulbs in earth ovens (Collins 1995). This strategy evolved, in part, due to the extinction of megafauna and the changing climate at the beginning of the Holocene (McKinney 1981). Representative sites of the South Texas Early Archaic include the La Jita, and Smith sites as well as several of the sites excavated during the Choke Canyon reservoir project (Hester 1995). Sites representative of the Central Texas Early Archaic include the Loeve-Fox, Jetta Court, and Sleeper sites (Collins 1995).

MIDDLE ARCHAIC

Middle Archaic artifacts and sites date from about 6,000–4,000 B.P. with multi-use bifacial knives becoming more common. Characteristic Middle Archaic projectile points include Andice, Bell, Bulverde, Pedernales, and Travis, several of which are deeply notched (Black 1989). These artifacts could have served as knives and projectile points.

Bison were hunted intensively at the start of the Middle Archaic, but, as the climate became drier, a reliance on dry climate plants such as sotol probably became common. The climatic change was also accompanied by a technological change as Nolan and Travis points, which are thick and have narrow blades, first appear in the archaeological record (Collins 1995). Furthermore, a series of distally-beveled tools such as Nueces tools and Clear Fork unifaces (Hester 1995) appear in the record. Representative sites of the Central Texas Middle Archaic include the Landslide, Wounded Eye, Gibson, and Panther Springs sites (Collins 1995). South Texas sites include the Loma Sandia site in Live Oak County and several sites investigated at the Choke Canyon Reservoir (Black 1989; Hester 1995).

LATE ARCHAIC

Late Archaic artifacts and sites date from about 4,000–2,250 B.P. Characteristic dart point types include Ensor, Fairland, Shumla, Marshall, and Marcos (Hester 1995). Increasingly complex and sedentary cultural manifestations first appear in the Late Archaic. These sites include burned rock middens, open campsites, and lithic procurement sites. Population increases are evidenced by large cemeteries. Also, trade and exchange networks between cultures appear to have increased in complexity as evidenced by exotic goods in sites and cemeteries (Black 1989). Representative sites include the Anthon and Loeve Fox sites in Central Texas (Collins 1995) and a series of 44 sites in the Choke Canyon Reservoir in south Texas (Hester 1995).

TRANSITIONAL ARCHAIC

The Transitional Archaic subperiod is noted by the similarities between the latest dart point types, such as Darl, Ensor, Fairland, and Frio, and the earliest arrow point types (Turner and

Hester 1993). Several researchers believe that the increased interaction between groups at the end of the Archaic was an important catalyst for this cultural change (Collins 1995; Johnson and Goode 1994).

Changes may have included increased regional stress and conflict between groups as interaction became more frequent (Houk et al. 1997). Groups began to use hilltops as camps rather than just lithic procurement locations. These elevated locations would have provided points from which to observe game and other groups of humans as they moved through the surrounding creek valleys and upland prairies (Houk et al. 1997).

LATE PREHISTORIC

By the end of the Transitional Archaic, the bow and arrow technologies were introduced, indicated by the increasingly smaller size of projectile points. The Late Prehistoric dates from 1,250–260 B.P. (Collins 1995). Characteristic artifacts include small arrowpoints like Perdiz and Scallorn as well as a variety of specific-use tools. During the early stage of the Late Prehistoric, burned rock middens reached their maximum use (Black and Creel 1997). Characteristic arrow point types of the early stage include Scallorn and Edwards (Collins 1995; Turner and Hester 1993).

By the late stage of the Late Prehistoric, plainware ceramics appeared, indicating possible influence in the Central Texas and South Texas regions from ceramic producing cultures to the east and north. Most late stage sites have the distinctive Perdiz arrow point, and some sites also have bison processing tool kits. These changes indicate an increasing complexity in subsistence patterns and higher prehistoric populations (Black 1989; Collins 1995). Representative sites include the Kyle, Smith, and Currie sites in Central Texas (Collins 1995) and site 41ME19 in South

Texas near the town of Natalia (Hester and Kelly 1976).

EUROPEAN CONTACT

The Historic period begins in 1528 with the arrival of Alvar Nuñez Cabeza de Vaca and other shipwrecked survivors of the Narvaez expedition. At this time, South Texas was inhabited by a number of groups collectively referred to as Coahuiltecan. Their cultural patterns were significantly disrupted and eventually extinguished by the intrusions of several Native American groups beginning in the eighteenth century, including the Tonkawa (Sjoberg 1953:280–304), Lipan Apache, and Comanche cultures.

Until the end of the seventeenth century European incursions into south-central Texas were rare. The late seventeenth century began an era of sustained interaction between Europeans and Native Americans as the Spanish moved northward from Mexico to establish settlements and missions on their northern frontier (see Bolton [1970] for extended discussions of the mission system and Indian relations in Texas and the San Antonio area). From 1689 through the first half of the eighteenth century, Spanish settlement established the first official routes, settlements and European commercial structure (such as *ranchos*) in South Texas (Chipman 1992; Foster 1995; McGraw, Clark, and Robbins 1991). In the vicinity of the project area, these groups have been referred to collectively as Coahuiltecan. However, this “monolithic adaptation” was perhaps a rush to judgment that led to an oversight in cultural and linguistic variability.

Spanish incursions into the region from the late seventeenth century on left valuable information on native groups and tribes. One such group, the Payaya, lived in the area of the modern city of San Antonio and are described as a hunting and gathering group organized in

extended family units camping near springs and streams where nuts, pecan trees, and woods were abundant. Bison were hunted on open grasslands between the San Antonio and Colorado Rivers for their meat and hides (Hester 1989:80). The Payaya may have occupied several sites in a roughly 50 km “summer” range and had occasional contact with other groups as they traveled to and from resource camps seasonally (Campbell 1983:349–351).

The Payaya sought protection from the Apache at newly established Spanish missions, settlements, and presidios like the Mission San Antonio de Valero (the Alamo) and the Presidio San Antonio de Bexar founded on May 5, 1718, by Don Martín de Alarcón near the headwaters of San Pedro Creek (Chipman 1992:117). The Spanish in turn, actively recruited the Native Americans to help bolster their settlements on this northern frontier in response to French incursions led by La Salle. The Spanish presence around San Antonio is best seen as part of the complex European political picture of the time. Spearheading the renewed Spanish interest with leadership and funding was the captain, general and governor of Coahuila and Texas, Joseph de Azlor y Virto de Vera, Marques de San Miguel de Aguayo, who established San Antonio as the regional hub of northern Spanish settlement in Texas at this time (Cox 1997; Fox 1989).

TEXAS REPUBLIC AND STATEHOOD

After the establishment of San Antonio in the 1720s, the settlement effectively developed into a provincial Spanish town in the eighteenth century. In the early nineteenth century, the viceroyalty of New Spain gained independence from the Spanish empire partly due to the Napoleonic invasion of Spain, and the nation of Mexico was born. To help facilitate settlement of Texas, the region was opened up to Anglo settlers from the United States led by

Stephen F. Austin. Eventually, this led to an independence movement by Texas area Anglo and Mexican citizens in the 1830s (Fox 1989). The well-known story of the battle of the Alamo and Texas independence is beyond the scope of discussion here, but the city of San Antonio played an integral part for both Mexican and Texan forces during the War for Texas Independence. Following this period, San Antonio remained a significant provincial city, growing and developing under Mexican, Texan, and American national policy in the nineteenth century (Fox 1989).

Anglo-period settlement began in the nineteenth century with significant historical events including the initial 1820s settlements, the Texas War for Independence in 1836, the incorporation of the Republic of Texas into the United States in 1845, the War with Mexico a few years after incorporation, and the U.S. Civil War of 1861–1865. During the War with Mexico, San Antonio served as a major hub for General Zachary Taylor's invasion of Mexico. Many of the military commanders of the U.S. Civil War were stationed and operated out of San Antonio at this time (Taylor 1996). San Antonio also served as a communications and shipping hub for goods imported from Mexico for the Confederate war effort in the early 1860s (Taylor 1996).

The first railway came through the city in 1877, bringing with it a plethora of job opportunities and commercial ventures. The railroad brought about a large shift in settlement patterns, as the eastern neighborhoods which were once multi-ethnic, became popular among African-Americans who worked as porters, mechanics, and loading crew for the growing railways. Wealthy citizens moved from the noise and traffic of downtown to quieter suburbs to the north and west. Through the 1880s and 1890s, as the economy of the city prospered through tourism, population of

the city doubled from 53,321 to over 100,000 people (Fox et al. 1997:31).

Throughout the early twentieth century, trade, transportation, and tourism continued to bring economic prosperity to the city. The establishment of Fort Sam Houston and the activity surrounding World War I and World War II kept the railway system active and commercial activity in the east prospered. Through the remainder of the twentieth century, the city expanded rapidly but the downtown portion retained the city plan established in the nineteenth century.

RESEARCH DESIGN

To investigate sites 41BX233 and 41BX631, separate research strategies were tailored for each one, corresponding to the nature of each site and the results of the previous investigations. These tests were designed to provide enough information to determine the nature, extent, integrity, and significance of each site.

SITE 41BX233

This site was investigated first by attempting to locate the burned rock lens and associated midden debris first described in 1974. The site location coordinates from the previous site form were confirmed on the ground using a handheld GPS, and an attempt was made to relocate the area described in the form. Every cutbank and erosional feature along the east side of Leon Creek near UTSA Blvd. was inspected for evidence of a burned rock lens or buried cultural material. Additionally, the field located on the eastern terrace above Leon Creek was thoroughly surface inspected. As the soils along the top of the terrace are shallow, only four shovel tests were excavated within the terrace to identify potential subsurface artifacts. The investigation was conducted between the creekbed and the north-south property line approximately 45 m to the

east, and from UTSA Blvd. northward about 150 m, following Leon Creek.

SITE 41BX631

Site 41BX631 was recorded as much larger in size than site 41BX233, and was known to be located within an area of dense vegetation. The site also contained both prehistoric and historic artifacts. Interestingly, several varying accounts of the site components existed from numerous previous investigations, including a burned rock midden, Archaic dart points and Late Prehistoric arrow points on the surface, a possible historic limestone rock feature, historic metal artifacts in a 15-x-15-foot area, a gunflint and historic arrow point, and numerous lithic debitage, burned rock, and a piece of alkaline glazed crockery. During the SWCA investigation, an attempt was made to relocate all of the previously recorded site components and evaluate their integrity and significance. First, a systematic surface reconnaissance was performed, looking for surface artifacts, features, disturbances, and changes in the landscape. As the soils within the site area are very shallow and any significant artifact or feature is likely to be located on the surface, a site-wide shovel-testing regimen to locate subsurface cultural material was not considered necessary.

Once the surface features or potential features were located and mapped with a handheld GPS, the entire site was again surveyed with metal detectors to locate hidden or shallowly buried metal artifacts. Tools for vegetation clearing were on hand to assist in accessing spots that were too thick to walk through. A handheld GPS was used to track the route of the metal detectors to ensure the entire site was surveyed with the same intensity and no area was missed. The metal detectors were set at very low discrimination levels to detect the widest possible range of metals. All hits were investigated and the item was recovered and

documented. Since the metal detectors often recover modern items as well as historic artifacts, only confirmed historic artifacts were plotted with a GPS.

One relocated feature, a burned rock midden (Feature 1), warranted further investigation with shovel tests and a 1-x-1-m test excavation unit. The burned rock midden was a relatively well-defined mound on the ground surface, and shovel tests were used to confirm the extent of the midden and associated artifact distribution. Five shovel tests were excavated around the midden. Additionally, a 1-x-1-m test excavation unit was placed at the high point of the midden adjacent to the central depression (see the Results section below), and was excavated to the bedrock in four levels. The goal of the investigation of the midden was to determine its depth, artifact complement, and overall integrity, and to evaluate its research potential.

RESULTS OF FIELD INVESTIGATIONS

At the time of the field investigation, Leon Creek was almost dry, with no current at all and only pockets of standing water in low-lying areas (Figure 4). This enabled an excellent view of the cutbanks of Leon Creek and the terraced slopes along each side. The slopes have suffered greatly from stormwater erosion, with significant slumping of the surrounding soils up to 15 m from the edge of the creekbank.

Sites 41BX233 and 41BX631 were both relocated and investigated, but only some of the features and artifact types described on the site forms were observed during the investigation. Evidence of one or two excavation pits was seen at site 41BX631, and the noticeable lack of projectile points at both sites hinted at previous collection activities. The results of the investigation of each site are described in more detail below.



Figure 4. Dry creekbed of Leon Creek, facing north.

SITE 41BX233

The cutbank located on the east side of Leon Creek north of UTSA Blvd. did not contain evidence of the burned rock lens or any midden debris. At the primary cutbank adjacent to the creekbed, a gravel layer was noted in several locations just below the soil, and below that degrading bedrock was present (Figure 5). Further upslope, several other cutbanks created by slumping were examined, but were found to contain no evidence of cultural material or features. The roadcut along UTSA Blvd. described by Hester was not seen, as the land slopes down away from the roadway at the site location (Figure 6).

The absence of the burned rock lens led to the possibility that the site was located elsewhere along Leon Creek. The cutbank along the east side of Leon Creek both north and south of the site location was investigated, but no sign of a similarly described area was located. Additionally, the coordinates recorded on the 1974 site form were found to correspond with an area over 200 m south of the location plotted on the maps on file at TARL. This location was also investigated with no positive results.

Alternatively, a few sparse lithic flakes and thermally altered rock were seen on the surface of the terrace above Leon Creek at the site location (Figure 7). This corresponds with the cultural material observed by Horizon during their 1995 survey. The burned rocks were not located in a concentrated area or feature, and appeared to be the result of a brush fire or other natural event. No lithic tools were observed, and the lithic flakes were seen at a ratio of 1 for every 25 m². Overall, the artifacts were scattered in an area 30 m northwest-southeast by 180 m northeast-southwest (Figure 8).

Four shovel tests were excavated at site 41BX233 along the edge of the terrace (see

Figure 8). No cultural material was recovered from any of the tests, and the shovel test depths reached only 8–10 cm below surface (cmbs) before hitting bedrock. The soils consisted of light brown clay loam with numerous limestone inclusions (Table 2).

SITE 41BX631

The systematic surface reconnaissance of site 41BX631 confirmed the previously determined site size of about 270 m (north-south) by 230 m (east-west). This was based on the location of surface artifacts, features, and topographic elements (Figure 9). The search for the previously recorded site components was partially successful, and only one new feature, a historic roadcut, was recorded at the site. As the site has distinct prehistoric and historic components, each will be described separately below. Additionally, several modern disturbances were noted, and these will be described following the site description.

PREHISTORIC COMPONENT

Unfortunately, the plethora of lithic tools described by the early visitors to the site was not observed during this investigation. No projectile points were seen on the surface, and only one scraper was located towards the northeastern end of the site (Figure 10). Apparently, most have been collected over the past few decades. The surface artifacts consisted mostly of a sparse scatter of lithic debitage. Figure 9 shows the artifact distribution of lithic material found at the site, with each icon representing between one and three lithic flakes.

FEATURE 1

The burned rock midden described by Hester in 1984 was relocated towards the western side of the site, adjacent to the new walking trail (Feature 1). The feature is a typical



Figure 5. Cutbank located along the east side of Leon Creek at site 41BX233.



Figure 6. UTSA Blvd. at Leon Creek, facing west. Notice downward slope from road. Site 41BX233 is along terrace to the right of photo.



Figure 7. Terrace above Leon Creek at site 41BX233 (facing north).



Figure 8. Map of site 41BX233.

Table 2. Shovel Tests From 41BX233

Shovel Test #	Site	Depth (cmbs)	Munsell	Soil Color	Soil Texture Description	Inclusions	Comments
1	41BX233	0-10	7.5YR6/3	Light brown	Clay loam	Limestone	Degrading limestone bedrock and no cultural materials
2	41BX233	0-8	7.5YR6/3	Light brown	Clay loam	Limestone	Degrading limestone bedrock and no cultural materials
3	41BX233	0-8	7.5YR6/3	Light brown	Clay loam	Limestone	Degrading limestone bedrock and no cultural materials
4	41BX233	0-10	7.5YR6/3	Light brown	Clay loam	Limestone	Degrading limestone bedrock and no cultural materials

IMAGE RESTRICTED

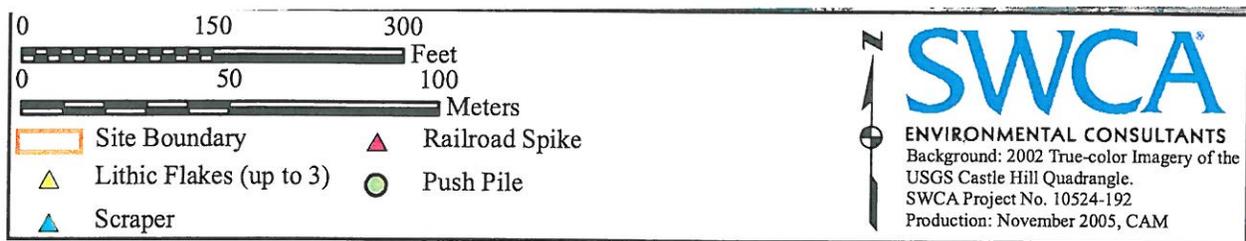


Figure 9. Map of site 41BX631.



Figure 10. Scraper found towards the northwestern end of site 41BX631.

donut-shaped midden sitting atop bedrock (Figures 11 and 12), with the central pit measuring 1.98 m (north-south) by 2.03 m (east-west) and the outer ring extending out approximately 15 m (north-south) by 12 m (east-west). The pit bottoms out at 26 cm below the rim of the feature, and the top of the mound reaches 51 cm above ground level (Figure 13). A large oak stands adjacent to the pit on the southeast side, and several animal burrows could be seen dug into the side of the pit and within the outer ring. Several artifacts were observed on top of the midden, including lithic debitage, a scraper (Figure 14), and a core (Figure 15).

Feature 1 was investigated first with shovel tests to determine the extent of the burned rock and associated artifacts. Five shovel tests were excavated, three were located within the mound area and two were off the mound (Table 3). Two shovel tests (STs 1 and 5) recovered burned rock and lithic flakes, one held only burned rock (ST 3) and the other two (STs 2 and 4) contained natural limestone fragments. The maximum depth reached with the shovel tests was 35 cm, and the soil encountered was black loam.

The next phase of investigation involved the excavation of a 1-x-1-m test unit within the top edge of the ring, near the central pit. A datum was placed 10 cm above the highest point of the midden, and the unit was excavated in four 10 cm levels down to bedrock (Figure 16). Generally, the burned rock density increased with depth, finally mixing with unburned limestone rocks at Level 4, just above bedrock. The densities of lithic debitage similarly increased to Level 3, and decreased sharply at Level 4 (Table 4). Snail shell was also found in small quantities in each level. No tools or diagnostic material was recovered in the test unit, and neither were any charcoal fragments located within the soil matrix. Level 4 was terminated at 50–52 cm below datum.

HISTORIC COMPONENT

The majority of the artifacts representing the historic component of site 41BX631 were found during a 1991 metal detector survey. Although the sketch maps associated with that survey indicated the Civil War era artifacts were found more towards the southern end of the site, the exact position could not be determined from the maps. Thus, it was decided that the metal detector survey would randomly cover about 40–50 percent of the entire site, with more intensive investigation once historic artifacts were recovered. The area is heavily wooded, but the duff on top of the ground was thin and leafy; and the operator was able to walk through the undergrowth and obtain good coverage with the metal detector without excessive pruning of the vegetation (Figure 17). Several metal artifacts were recovered during the survey, but only one was historic. A railroad spike was found near where the other Civil War artifacts were presumed to have been, but no date could be attributed to the artifact other than a wide range of 1877–present. A thorough 100 percent search of the area around the railroad spike revealed no additional artifacts. The other artifacts found during the metal detector survey were of late twentieth century manufacture or of undetermined age, and are listed below. As they are modern, these items have not been plotted on Figure 9:

- rebar
- wire
- aluminum cans
- U.S. quarter (1984)
- copper 10 gauge shotgun shell casing
- rimfire rifle casing (undetermined caliber)
- iron straps used to bind two-by-fours
- pull tabs
- long bolt with washer and nut
- barbed wire



Figure 11. Burned rock midden (Feature 1) at site 41BX631, facing east.



Figure 12. Center pit in burned rock midden (Feature 1), site 41BX631.

Valero North Campus II

**41BX631
Feature 1**



- Test Unit
- Positive Shovel Test
- Negative Shovel Test
- Walking Trail
- Contour Line
- ~ Tree Line
- ▲ Artifact
- ▲ Datum
- ↘ Slope Direction

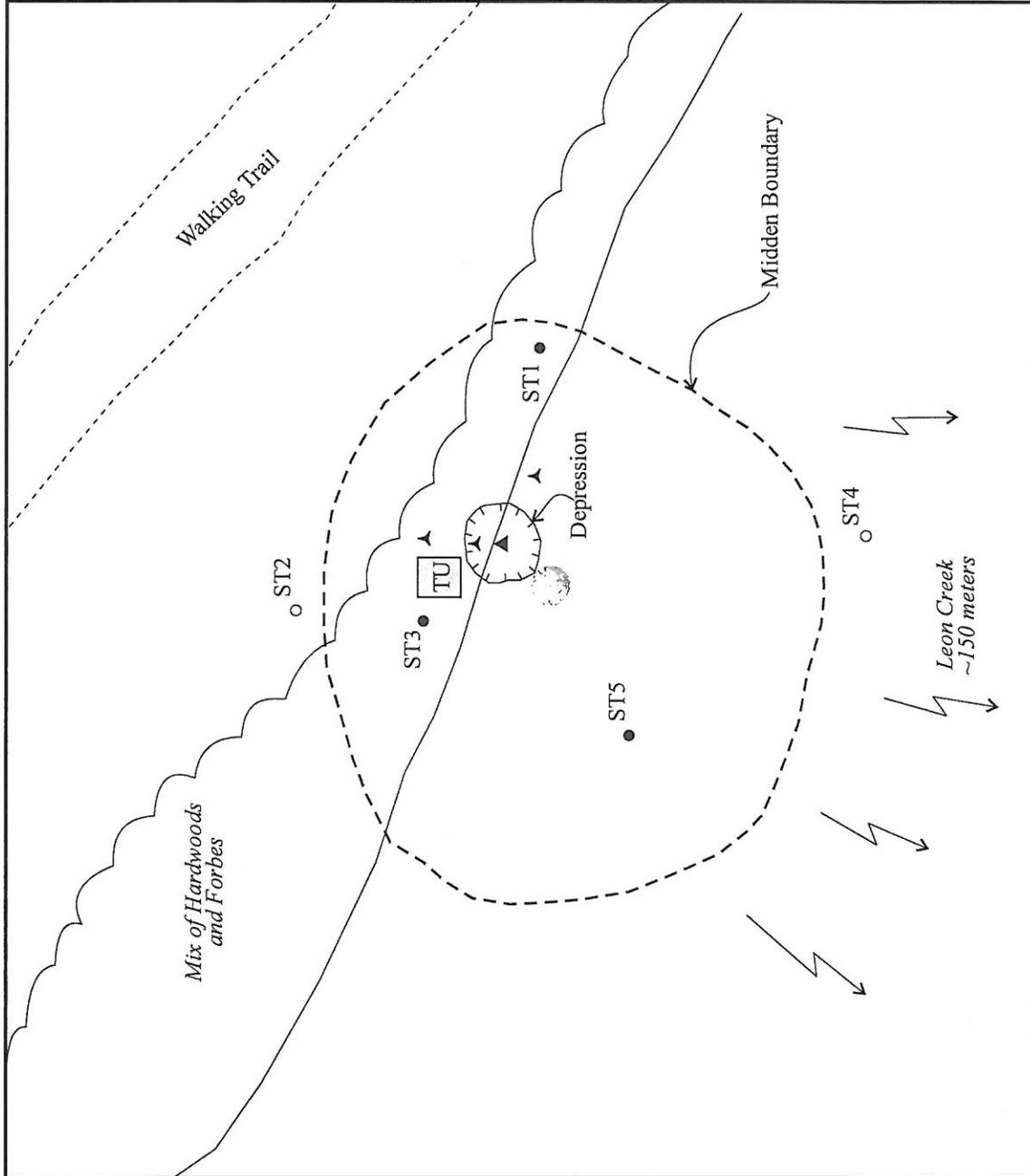


Figure 13. Sketch map of Feature 1, including location of surrounding shovel tests.



Figure 14. Scraper found on top of Feature 1 at site 41BX631.



Figure 15. Core found on top of Feature 1 at site 41BX631.

Table 3. 41BX631 Shovel Tests

Shovel Test #	Site	Depth (cmbs)	Munsell	Soil Color	Soil Texture Description	Inclusions	Comments
1	41BX631	0-35	10YR2/1	Black	Loam	Limestone	Mixed burned rock and natural limestone. 3 flakes at 0-10 cmbs.
2	41BX631	0-10	10YR2/1	Black	Loam	Limestone	Natural limestone with bedrock at 10 cmbs. No cultural materials.
3	41BX631	0-10	10YR2/1	Black	Loam	Limestone	Mixed burned rock and natural limestone. No lithics were observed.
4	41BX631	0-20	10YR2/1	Black	Loam	Limestone	Natural limestone with bedrock at 20 cmbs. No cultural materials.
5	41BX631	0-25	10YR2/1	Black	Loam	Limestone	Mixed burned rock and natural limestone. 1 flake at 15 cmbs.



Figure 16. 1-x-1-m test excavation unit placed in Feature 1 at site 41BX631.



Figure 17. Example of space under tree canopy within site 41BX631.

Table 4. 41BX631 1-x-1-m Test Excavation Unit

Level	Site	Depth (cmbd)	Munsell	Soil Color	Soil Texture Description	Burned Rock				Debitage	Bone
						0-5 cm	5-10 cm	10-15 cm	15+		
1	41BX631	10-20	10YR2/2	Very Dark Brown	Silty loam	50+	32	8	1	5	0
2	41BX631	20-30	10YR2/2	Very Dark Brown	Silty loam	100+	50+	12	4	19	0
3	41BX631	30-40	10YR2/2	Very Dark Brown	Silty loam	100+	100+	50	5	30	1
4	41BX631	40-50	10YR2/2	Very Dark Brown	Silty loam	50+	50+	20	0	9	3
TOTALS						300+	232+	90	10	63	4

The 1995 survey of the site mentioned a possible structure or feature represented by an aggregation of limestone rock (Rader 1995). During this survey, no definitive foundations were found, but a degrading limestone rock outcrop towards the southern end of the site is distinctly linear and may have been the feature mentioned in the 1995 report. This outcrop is mapped on Figure 9.

FEATURE 2

The only observable historic feature noted at site 41BX631 is an old roadcut, running east-west, from the top of the terrace downhill towards Leon Creek (Feature 2). Several large-diameter trees have grown in the cut, indicating its age (likely mid twentieth century or later), and the only present-day trace is two small linear mounds of soil and rock approximately 8 m apart and parallel to each other. The cut can be seen on the surface for about 20 m, but the roadcut disappears from view at each end. Both a surface inspection and metal detection of this area did not recover any artifacts.

MODERN DISTURBANCES

During the systematic surface reconnaissance of site 41BX631, several recent ground disturbances were noted. First, a 25-m strip of land along the north side of UTSA Blvd. and the east side of Regency Blvd. at the site location had been cleared of underbrush and covered with sod along UTSA Blvd. and around the corner along Regency Blvd. The remainder of the cleared area contained mowed native grass and weeds. Adjacent to the mowed area, a paved walking trail had been constructed, paralleling Regency Blvd. and making a loop through the site (Figure 18). Additional disturbances at the site include two wide vegetation cuts at the eastern edge of the site (Figure 19), and four push piles of limestone rocks and cleared vegetation (Figure 20). Although

the age of the push piles is unknown, they may have been the result of site clearing mentioned in the 1984 investigation (TARL site form).

SUMMARY AND RECOMMENDATIONS

On behalf of Pape-Dawson Engineers, Inc. and Valero Energy Corporation, SWCA conducted cultural resources investigations of sites 41BX233 and 41BX631, which are previously recorded sites located on property owned by Valero Energy Corporation/Diamond Shamrock. The landowner plans to build a new home office on the property, and prior to any construction, the City of San Antonio HPO requested that these sites be investigated further for their potential to contribute important information to the prehistory or history of the area. The cultural resources investigation was conducted to provide the client with information on the potential impact of future construction activities on significant archaeological sites.

SITE 41BX233 SUMMARY

Site 41BX233 is a prehistoric campsite that apparently once contained a burned rock lens and associated midden debris on the east side of Leon Creek and the north side of the road. Previous investigations found a Montell-like point and lithic debitage on the terrace behind the burned rock lens, indicating a Late to Transitional Archaic date (ca. 1000 B.C. to A.D. 200). The current investigation revealed that the burned rock lens is no longer present at the site and only very sparse amounts of lithic debris remain on the surface. The current site size was determined to be 30 m northwest-southeast by 180 m northeast-southwest. As much of the previously recorded site components are no longer present, site 41BX233 does not retain enough integrity to provide important information to the prehistory of the area, and is not considered signifi-



Figure 18. Walking trail located within site 41BX631 (facing south).



Figure 19. New vegetation cut at eastern edge of site 41BX631, facing north.



Figure 20. One of four large push piles found at site 41BX631 (facing northwest).

cant. Thus, the site would not be eligible for the National Register of Historic Places or for listing as a State Archeological Landmark.

SITE 41BX631 SUMMARY

Site 41BX631 is a multicomponent occupation area with two features: a prehistoric burned rock midden (Feature 1) at the western edge of the site and an old historic roadcut (Feature 2) towards the southeastern end of the site. Numerous surface artifacts are scattered throughout the site, and represent the majority of the material culture present.

The prehistoric component of the site, including the burned rock midden and numerous surface finds, appeared to be a long-term campsite with several occupation periods, spanning the Archaic Period (8,800–1,200 B.P.) and into the Late Prehistoric (1,250–260 B.P.). The prehistoric artifacts that represent these occupation periods were surface collected over several decades; based on the results of the current investigation, the diagnostic prehistoric artifacts have been mostly removed from the site. The presence of a burned rock midden (Feature 1) is consistent with an Archaic Period occupation, but no diagnostic material was found during the current investigation of the midden that point to a particular sub-period. The midden is rather small in comparison with others in Central Texas, and thus may represent transitional short-term cooking episodes rather than a long-term habitation.

In sum, much of the prehistoric site components of 41BX631 are no longer present (such as the surface artifacts), or have not retained elements necessary to provide good research value (such as the burned rock midden). The burned rock midden is small and not associated with other deposits within the site boundaries, and does not retain the characteristics associated with middens that have good research potential as described by Black et al.

(1997). For example, the degree of organic preservation is poor as shown by the lack of charcoal in the matrix, burrowing has compromised the structural integrity, and the degree of site stratification is low due to the position of the midden on a thin-soiled terrace. Thus, the prehistoric component of site 41BX631 does not retain enough integrity to provide important information to the prehistory of the area, and is not considered significant.

The historic component of the site does not contain evidence of a permanent occupation or activity, but rather is a collection of singular artifacts or a small group of related artifacts that date to a particular time period. The oldest historic artifact found at the site is a gunflint, part of the Bob Burns lithic collection, which dates from early European settlement (ca. 1690) to about 1800. However, this is an isolated find, and no other evidence of a Spanish Colonial Period presence has been found in the current investigation or any other previous survey. Other historic artifacts found at the site during the previous metal detector survey include the .57 and .69 caliber lead musket balls, the Minié balls, the .57 caliber lead musket ball hand mold, melted lead, and buckles. The possible explanation for the artifact assemblage at the time consisted of a ride-by or overnight camp of one or more riders during the Civil War, and while there they may have dropped a bag containing the artifacts (TARL site form). As the current metal detector survey of the entire site did not recover any additional Civil War artifacts, an overnight camp seems to be the most likely scenario. Given the combination of musket balls, Minié balls, and the hand mold, someone may have been melting one type of bullet to mold into another—perhaps the more recent Minié balls were transformed into .57 caliber musket balls for use with an older model smoothbore or rifled musket.

The only other historic artifacts found at the site are the alkaline glazed crockery and the railroad spike. Both of these artifacts have wide production and use dates (from the mid-nineteenth century onward), and do not seem to be related to the other artifacts found at the site. Additionally, no definitive connection between the historic artifacts found at the site and the historic twentieth century roadcut (Feature 2) can be made.

Thus, although site 41BX631 has contained definitive evidence of a historic component dating as far back as the Spanish Colonial Period and the Civil War, the cultural material present at the site today is very sparse. All of the oldest recorded artifacts are in a private collection, and the current investigation of the site revealed that no additional pre-1870s site components are present. The artifacts and feature that date after this time period were isolated finds, and do not provide much information by themselves. Therefore, site 41BX631 does not retain enough integrity to provide important information to the prehistory or history of the area, and is not considered significant. The site would not be eligible for the National Register of Historic Places or for listing as a State Archeological Landmark.

As sites 41BX233 and 41BX631 do not contain enough integrity or significance to contribute important information to the prehistory or history of the area, no further work is recommended for either site. The artifacts recovered from this investigation have been returned to the landowner, and original excavation forms and notes have been forwarded to TARL.

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