ENVIRONMENTAL BACKGROUND

The upper Salado Creek watershed constitutes a definable study area with distinctive natural (topographic) boundaries. The drainage originates in the rolling limestone hills north of San Antonio in the margins of the Edwards Plateau escarpment. Bounded on the north and east by the Cibolo Creek watershed and on the west by the Leon Creek drainage, Salado Creek and its tributaries are approximately 58 km in length from the northern margins of the watershed to its confluence with the San Antonio River (Fig. 54). Upper Salado Creek is bounded on the south by a vague natural boundary located near the intersection of Salado Creek and Austin Highway in San Antonio, Texas. This division point is suggested since all the major tributaries of Salado Creek have their confluences north of this spot. At this boundary, the associated soils in adjacent areas are more similar to the deep clayey soils of eastern and southern Bexar County and less similar to the thin, stoney, calcareous soils common throughout most of the northern area. Both the topography and associated flora are also more characteristic of southern and eastern Bexar County south of this Austin Highway boundary. For a more detailed discussion of biotic resources, hydrology, and climate, see the Environmental Setting section of this report.

In recent times, the location of the watershed in relation to San Antonio has prompted a systematic and extensive program of flood control, water conservation, and erosion control. The Salado Creek Watershed Project, approved by Congress in 1962 and amended in 1971, eventually will provide for 15 flood-control dams that will directly affect 74,989 acres above the damsites and indirectly affect the remainder of the watershed by drastically reducing flood damage by an estimated 87%. All dams in the upper Salado Creek drainage are being constructed to control runoff from storms that might occur once in a 100-year interval (equal to approximately 18-20 inches of rain in less than 48 hours). It is also estimated that these structures, located on Edwards limestone outcroppings, will increase the groundwater recharge into the Edwards Aquifer and associated limestones by an average of 3000 acre-feet annually (San Antonio River Authority 1980). This environmental program and related federal and state antiquities guidelines, requiring surveys, testing, and sometimes excavation programs, have contributed significantly to the identification of archaeological sites within the area.

PALEOENVIRONMENTAL BACKGROUND

Paleoenvironmental data from the area and region are presented in some detail in the Environmental Setting section. Several additional comments are made here concerning the studies of Robinson (1979), Graham (1976), and Nance (1972), and the observations of W. W. Hammond, Jr. (personal communication), instructor in the Division of Earth and Physical Sciences at UTSA.

Pollen studies in many parts of the world have contributed greatly to the interpretation of past climatic and environmental conditions, but the subtropical climate of southern Texas and its margins is not conducive to the survival of fossil (prehistoric) pollen. Robinson (1979) has presented a series of postulated climatic conditions for this area based on floral

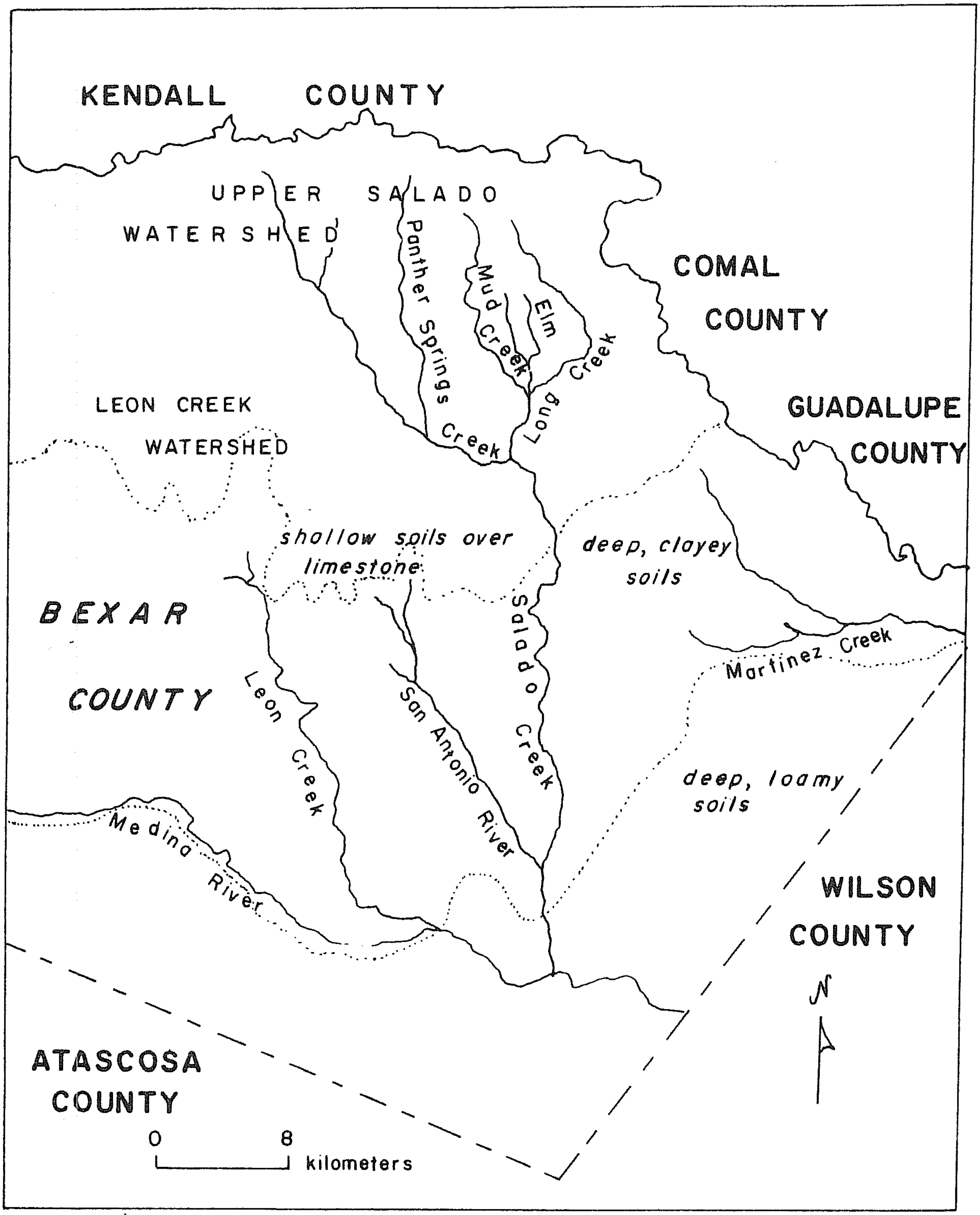

Figure 54. **General Distribution of Drainages and Soils Within Bexar County.**

biosilica research. Samples from a series of soil horizons from two sites in Goliad County were processed and analyzed for phytolith content. Robinson's (ibid.) preliminary conclusions led him to believe that a regional dry period prior to 1000 B.C. was bracketed by periods of much wetter conditions. Mesic periods seemed to correspond to Holocene glacial advances while xeric periods apparently corresponded to glacial retreats. These conclusions are, of course, preliminary interpretations based on limited data.

A regional phenomenon of some potential significance has been the identification of several former shallow lake beds in southern Texas of presumed late Pleistocene origins (McGraw and Knepper 1985). This follows the postulation of Joel Gunn (personal communication) in his works on regional climatic changes. Gunn suggests the former lake beds, created by more moist and cooler conditions of the Pleistocene, gradually declined in size and importance as drier and warmer conditions prevailed.

In a discussion of the fossil microfaunal remains of Friesenhahn Cave in northwestern Bexar County, Graham (1976) relates these species to a faunal sequence developed by E. Lundelius, Professor of Geology at the University of Texas at Austin. This sequence is divided into five stages, based upon the types of fauna related to particular environments (e.g., boreal, deciduous, steppe). These groups of fauna demonstrate a change through time in the central Texas climate and fauna.

Lundelius (1967) presents the following age range of these five stages:

Stage I	before 9140 years B.P.
Stage II	9140-4680 years B.P.
Stage III	4680-1690 years B.P.
Stage IV	1690-760 years B.P.
Stage V	760-0 years B.P.

In interpreting the Friesenhahn Cave faunal materials, Graham (1976) suggested that the occurrence of grazers and browsers within the same Stage I deposits reveals an interfingering of forests and grasslands near the cave during the Pleistocene, and his postulation is further substantiated by pine pollen from the same deposits. The forested environment may indicate higher periods of precipitation during this time; Graham (ibid.) speculates a minimum of two to four inches more rain annually than today during the summer months. The presence of boreal, deciduous, and steppe species might also indicate that summers were cooler and more moist than today, but that the climate was generally neither cool enough in the winter nor moist enough in the summer to displace southern and steppe species, respectively. He further suggested that climatic changes between Stages I and II caused major changes in the biota, not only in the extinction of large herbivores and carnivores but also in the extinction of boreal microfauna as well. Graham (1976) speculated that a warming trend developed during this time, although many of the deciduous species were still in the area. During Stage II, seasonal extremes continued to develop, and by the end of this time, deciduous species were no longer present in central Texas. Faunal materials from Stages III and IV indicated a continual accentuation of seasonal extremes with hotter and drier summers. Graham's observations on climatic variation, particularly the Stage II sequence, generally follow climatic data presented by Nance (1972). Nance (**ibid.**) discusses the phenomenon of the Altithermal, a period of unusually warm temperatures, as a causal factor in the prehistory of Texas and Mexico from ca. 5000-3500 B.C. He suggested that the Altithermal hypothesis may be the best current explanation for a widespread pattern of cultural change in these areas. Using sites from the Amistad Reservoir area in far west Texas to document cultural and/or climatic variations, he suggests that these inferences may have wider inter-regional significance. Nance (1972) noted that there is an increase in the number of sites occupied after 3000 B.C. and again after 2500 B.C. The fewest occupations are identified during 6500-3000 B.C., and all substantial occupations for this period are at sites situated less than a quarter of a mile from major, perennial rivers. The hypothetical Altithermal phenomenon still lacks conclusive proof and still must be more clearly defined; however, as Nance (**ibid.**) points out, it is a reasonable explanation of cultural variation. A much more detailed discussion of the positive and negative arguments for a continental Altithermal condition is presented in Hester (1973b).

The physical evidence of such an Altithermal period in central and southern Texas, as noted, does not conclusively exist. W. W. Hammond (instructor in the Division of Earth and Physical Sciences at UTSA) has, however, made several observations (personal communication) on the nature of stream valley formations locally, and in the Salado Creek watershed and throughout much of the Edwards Plateau escarpment. This geological phenomenon may be related to the climatic phenomenon. Modern stream valley formations in this area are characteristically underfed channels in relatively broad and deep valleys. A modern geological theory suggests that these stream valleys, formed during the late Pleistocene and/or early Holocene epochs, were literally gouged from the drainage courses by extremely high-energy, single-event flooding sequences (cf. Gunn 1981:65). This may be reflected at 41 BX 228 by a series of extensive gravel deposits underlying the earliest cultural deposits. Glen Evans (personal communication), a geomorphologist, believes these gravels to be late Pleistocene in deposition. Similar gravels underlie other excavated sites within the Salado Creek watershed, including 41 BX 300 and 41 BX 271. If these gravels are actually of late Pleistocene origin, they may be related to a postulated, relatively short period of climatic transition (instability) as the climate shifted from the wet, cool conditions of the Pleistocene to the warmer conditions of the early Holocene (ca. 8000-7000 B.C.). Such major scouring of drainage channels and associated terraces could in part account for the lack of water-proximate Paleo-Indian sites within the upper Salado Creek drainage.

A SUMMARY OF PREHISTORIC SETTLEMENT DATA IN BEXAR COUNTY

Discussions of prehistoric site distribution within Bexar County have been presented by Fawcett (1972), Gerstle, Kelly, and Assad (1978), and to a lesser extent, McGraw and Valdez (1978a, 1978b), McGraw (1977), McGraw and Marshall (1982). Previously recorded sites are illustrated in Figure 55. Regional settlement-pattern models have been discussed by Skinner (1971), Briggs (1971), Kelly and Hester (1975a, 1975b, 1976), Patterson and Adams (1977), and Story (1980). The latter (with the exception of Story) may be of

This page has been redacted because it contains restricted information.

limited value in comparison with the upper Salado Creek watershed, since Hester (1976) suggests an interdrainage heterogeneity of cultural patterns and perhaps intradrainage differences as well.

Describing prehistoric sites in Bexar County, Fawcett (1972) divided the area into three localities: the northern, transitional, and southern sections. Based on artifact content, he suggested that three site types dominated the archaeological record: base camps, hunting and gathering temporary camps, and chipping stations. Base camps were characterized as thick terrace sites near major water courses; hunting and gathering camps were physically smaller and located on valley rims and uplands; chipping stations were located on gravel terraces or on rims (limestone outcroppings) of large valleys.

Fawcett (**ibid.**) noted that Paleo-Indian artifacts were never isolated from later cultural materials; the Paleo-Indian artifacts usually appeared mixed with other stone tools at prehistoric sites. **Angostura** projectile points seemed to predominate in the northern section; **Plainview** materials were more common to the southern section. He observed that Archaic age sites were well represented throughout the three sections with base camps apparently associated with plant and mussel collection. Chipping stations, common to the northern areas, were mostly unidentified in southern Bexar County. Fawcett (1972) cites evidence of rapid depopulation throughout the Late Archaic and possible northern migrations somewhat similar to the evidence at Cibolo Reservoir in Wilson County (Hsu and Ralph 1968:52). The Late Prehistoric, according to Fawcett, reflected a scarcity of sites; those that could be identified were major base camps. Late Prehistoric projectile points had identifiable distributions; **Edwards** points were common to the northern zone, while **Scallorn** and **Perdiz** points were concentrated along the edges of the Edwards Plateau. It should be noted that, following Fawcett's zone divisions, burned rock middens are characteristic of the northern zone and are a common feature of water-proximate sites.

Gerstle, Kelly, and Assad (1978) present a detailed summary of excavated sites along the Salado Creek watershed and the adjacent Cibolo Creek and compared these sites to those investigated in the Camp Bullis area in northern Bexar County. In interpreting data from the Camp Bullis area, Gerstle, Kelly, and Assad (**ibid.**) concluded that prehistoric campsites exhibited a gradual trend toward water resources from the Early Archaic through the Late Prehistoric. Special activity sites of the Archaic were generally considered water proximate; quarry sites were considered water distant in the Early and Late Archaic, but entirely water proximate at all other times.

Gerstle, Kelly, and Assad (1978) divided their study area into three sections: south, central, and north. Sites were concentrated along the southern and southeastern sections of Cibolo Creek and south of the Balcones Fault Zone where chert was readily available as a raw resource. The majority (67%) of the southern sites were quarry sites. Six of the total of 28 sites were campsites, and four of the six included burned rock scatters. Three of the total of eight burned rock middens were located in the southern section, all near a water source but distant from chert resources. Gerstle, Kelly, and Assad (**ibid.**) summarized the southern sites as those in stream valleys, with burned rock accumulations; upland campsites with burned rock; lithic workshops (procurement areas) south of chert outcroppings; quarry sites on low hills in the Panther Springs Creek valley; and quarry sites on upper ridges and crests of hills, with no burned rock (possible Early and Late Archaic associations).

The central section of the Gerstle, Kelly, and Assad (1978) study area was characterized by an apparent paucity of sites but only 15% of the locality was surveyed. Of the six recorded sites, three were campsites, and three were special activity areas. Camps were located in stream valleys; special activity sites occurred in hills. Gerstle, Kelly, and Assad (**ibid.**) postulated that this central section was a territorial boundary used only occasionally for specific purposes. A lack of reliable water sources and insufficient food resources may have been responsible for such use.

Contrasted to the central study area, a total of 29 sites was recorded in the northern study area; the sites had a fairly uniform distribution along Cibolo Creek. Five of the 29 sites were distant from water and were identified as special activity locations such as food-procurement and knapping sites. Four floodplain and/or terrace sites were recorded; three water-proximate special activity centers were discovered. Gerstle, Kelly, and Assad (1978) noted a lack of quarrying activities along the drainage and suggested that campsites were multifunctional and may have supported large populations. Scattered artifact patterns were noted throughout the northern zone; bifaces (possibly projectile points) were found in water-distant, upland sites, while scrapers and retouched flakes were more usually found in lowland areas. A number of projectile points were found within three kilometers of the creek, scrapers and flakes within one kilometer.

The frequency of chronologically diagnostic projectile points recovered from selected sites along the Salado Creek watershed is summarized in Table 52. The projectile points and their associated chronological sequence have been grouped into a generally accepted (at present) prehistoric chronological sequence within the upper Salado Creek watershed. These chronologies are tentative, and the actual percentages are extracted from a preliminary analysis of materials and data.

Fox (1977), from her studies in the San Antonio area, suggested that larger sites (in area) occurred in northwestern San Antonio and that the farther west a site was located, the more likely it was to contain hammerstones and perforators as part of the associated cultural assemblages. She also noted that Paleo-Indian and Late Prehistoric sites generally occurred in the north in high locations in contrast to Archaic sites, which were more usually located farther south and in lower, water-proximate areas. There appeared to be a high correlation between physiography and chronology. Noted in the Archaic period sites recorded by Fox (**ibid.**) were cores and larger flakes associated with chert outcrops and shallow soils instead of an identified midden. A high incidence of flakes with cortex occurred in sites whose orientation was to the southeast. Fox (1977) defined three site clusters during her survey work: small sites (nine) located on tributaries within the northern area of Salado Creek (subclustered into bluff sites and stream terrace sites), medium-sized sites (four) located along the Salado Creek

TABLE 52. SITE CULTURAL SEQUENCES, AS DETERMINED BY OCCURRENCE OF DIAGNOSTIC PROJECTILE POINTS (PERCENTAGE)

Site	Late Prehistoric	Late Archaic	Middle Archaic	Early Archaic	Paleo-Indian
41 BX 22[1]	3	76	21	--	--
41 BX 271[2]	--	35	7	50	7
41 BX 228[3]	12	28	17	42	--
41 BX 229[4]	66	11	5	--	14
41 BX 300[5]	15	16	29	39	2

Note: Table modified from Gerstle, Kelly, and Assad (1978).

[1]From Fox (ms.) on file, CAR-UTSA.
[2]From excavated contexts; notes on file, CAR-UTSA.
[3]From excavated context.
[4]Includes data from 1974 and 1975 Southern Texas Archaeological Association excavation, notes on file.
[5]Katz (n.d.).

floodplain and associated with Archaic materials, and four moderately sized sites in the coastal plain south of the city (situated on stream terraces). She concluded that Archaic period peoples concentrated their campsites in lower, wetter, more localized habitats. Such preferred locations were postulated to occur south of San Antonio in wide valleys, where riparian resources could be exploited. Paleo-Indian and Late Prehistoric peoples were thought to have occupied higher locations in stream valleys and foothills, primarily in the Balcones Escarpment.

In addition to the studies mentioned, a 25-acre survey of the Encino Park location in northern Bexar County was conducted by McGraw, Valdez, and Cox (1977). They found that this area was dominated by lithic workshops and quarry sites with a distinct lack of sustained occupations. Although a high frequency of large, thin bifaces was noted, suggesting tools associated with occupational activities, no burned rock middens were recorded along the small drainages in this area.

Based on these and earlier studies, Table 53 reviews the types of identified archaeological sites within the upper Salado Creek watershed. A brief review of identified sites from the records of the Texas Archeological Research Laboratory, Balcones Research Center, Austin, indicates that occupation and/or campsites are the most frequent prehistoric activity centers and comprise approximately 45% of the recorded sites. The data in Table 53 are presented by quadrants (northeast, northwest, southeast, southwest) that correspond to USGS 7.5' map quadrants that conveniently divide the study area. Data are tentative due to possible errors in former site

TABLE 53. GENERAL DISTRIBUTIONS AND TYPES OF IDENTIFIED ARCHAEOLOGICAL SITES IN THE UPPER SALADO CREEK DRAINAGE, NORTHERN BEXAR COUNTY, TEXAS

USGS 7.5' Quadrangle	Location in Study Area	Type of Site								TOTAL
		Quarry	Camp	Midden	Rock Shelter	Lithic Scatter	Unknown	Burial	Historic	
Camp Bullis	northwest	10	17	1	0	9	1	0	3	41
Castle Hills	southwest	2	25	2	3	20	1	0	1	54
Bulverde	northeast	1	10	4	2	4	0	0	0	21
Longhorn	southeast	7	23	3	1	9	1	1	2	47
TOTAL		20	75	10	6	42	3	1	6	163
Percentage of Total (rounded to nearest percent)		12	46	6	4	26	2	1	4	100

Tabulations based on data from Texas Archeological Research Laboratory, Balcones Research Center, Austin.

identifications, unequal distribution of survey efforts, and inconsistent reporting and description. A synthesis of previous work in the upper Salado Creek watershed is now in progress (McGraw ms.).

A PRELIMINARY STATISTICAL ANALYSIS OF PHYSICAL SITE CHARACTERISTICS

The distribution and pattern of prehistoric sites within the Salado Creek drainage system are assumed to reflect the interests and activities of aboriginal peoples who exploited this resource area for many thousands of years. Although the archaeological record is incomplete, an attempt to define the more general site patterns will be made. We hope that our efforts will produce predictive indicators of type-site locations. Research goals were directed toward identifying a series of common, primarily physical, site characteristics that presumably varied spatially and temporally. The description of these indicators is the basis for more detailed analyses and a guide to a regional research design.

In the past, the analysis of hunting and gathering settlement patterns in central and south-central Texas has been approached by various authors (cf. Weir 1976b; Skinner 1971; Skinner and Gallagher 1974; Gerstle, Kelly, and Assad 1978; Fawcett 1972; Fox 1977); however, their interpretations appear to be either too general, too localized, or areally adaptive to specific ecosystems. Only the most broadly based comparisons can be inferred. The Salado Creek watershed of northern Bexar County may offer one of the better studied locales from which to view the patterned activities of hunter-gatherer groups.

Although the Salado Creek watershed is perceived as having great potential for providing a clearer understanding of the activities of prehistoric hunters and gatherers, several problems affecting the validity of such an undertaking are recognized: the unequal distribution of actual sites and the unequal distribution of recorded sites may bias current investigations and/or interpretations; current knowledge (or lack of it) may handicap potential hypothesis and/or model testing; and most of the information used in this study is limited to secondary sources from previous research (supplemental field work is severely limited).

Research goals are based on both specific and broad perspectives. Specific short-term goals were to identify common denominators of site characteristics which would help to predict site locations, to assess the importance of these various characteristics and their effects on prehistoric exploitation processes, and to more clearly define site distribution. Broader-based research compares this data with other studies to establish a refined picture of the regional hunting and gathering sequence as a whole.

IDENTIFICATION OF CRITERIA USED TO ASSESS (PHYSICAL) INTERSITE CHARACTERISTICS

Five previously excavated and/or tested prehistoric site locations represent the data base. To broaden this data base and at the same time act as a comparison, 12 randomly selected localities (utilizing a table of random numbers [Redman 1974]) were selected from a gridded 1-km^2 overlay superimposed over USGS 7.5' topographic maps, and 10 other localities within 300 m of the drainage and at least 20 feet above the elevation of the stream were selected. This arbitrary elevation represents the approximate limits of the 100-year flood line within this area. Stream miles began at an arbitrary point considered to be the southern boundary of the study area and increased northward (Fig. 56).

Site characteristics were based upon 14 variables: (1) coordinates (east and north) obtained from topographic sheets; (2) distance from the assumed center of the site to the nearest identifiable water source; (3) distance from the site to the nearest point of high relief (overview point); (4) distance to assumed resource area (if known, refers primarily to lithic exploitation/overview); (5) direction to water source; (6) direction to overview; (7) direction to resource area; (8) site length; (9) site width; (10) maximum depth of known cultural deposits (extracted from excavation data); (11) distance to nearest identifiable site; (12) stream mile of drainage (measured northward); (13) elevation, in feet above stream channel; and (14) distance to the nearest confluence of stream and tributary. All measurements, excluding stream mile and elevation, are metric.

DATA TREATMENT

The analysis of data from actual and potential site locations was directed toward identifying physiographic characteristics that may influence actual site locations. Since these characteristics were assumed to have underlying regularity, an identification of these influencing elements would then contribute to more reliable predictions of potential site locations in unsurveyed areas. To date, such an undertaking has been met with only limited success by McGraw (ms.); nonetheless, a brief summary of an SPSS (Nie et al. 1975) principal-component factor analysis is presented. This R-type factor analysis (based on correlations between variables) was directed toward reducing the number of valid factors within the set of variables discussed earlier and toward determining the degrees of influence of the factors. Following the determination of correlations between variables (or attributes), a principal components analysis was used to construct a new set of composite variables, based on the inter-relations of the original data. Three principal components were identified that accounted for the best summary of linear relations (SPSS Principal Factoring with Iterations, PA2, was utilized). After identification of these composite factors, a varimax rotation method was used to arrive at a final solution. In addition, the variable _site_ was added to distinguish the actual site locations and their characteristics from potential site localities. A high value for this latter site variable within a factor would indicate a real-site affinity for a component. The varimax rotated matrix is presented in Table 54.

Factor 1 suggests a significant relationship between (1) distance to water and (2) distance to the nearest confluence point. These two variables are inversely related to the variable of water direction. Within the study area, the farther east the potential site location, the more distant the site

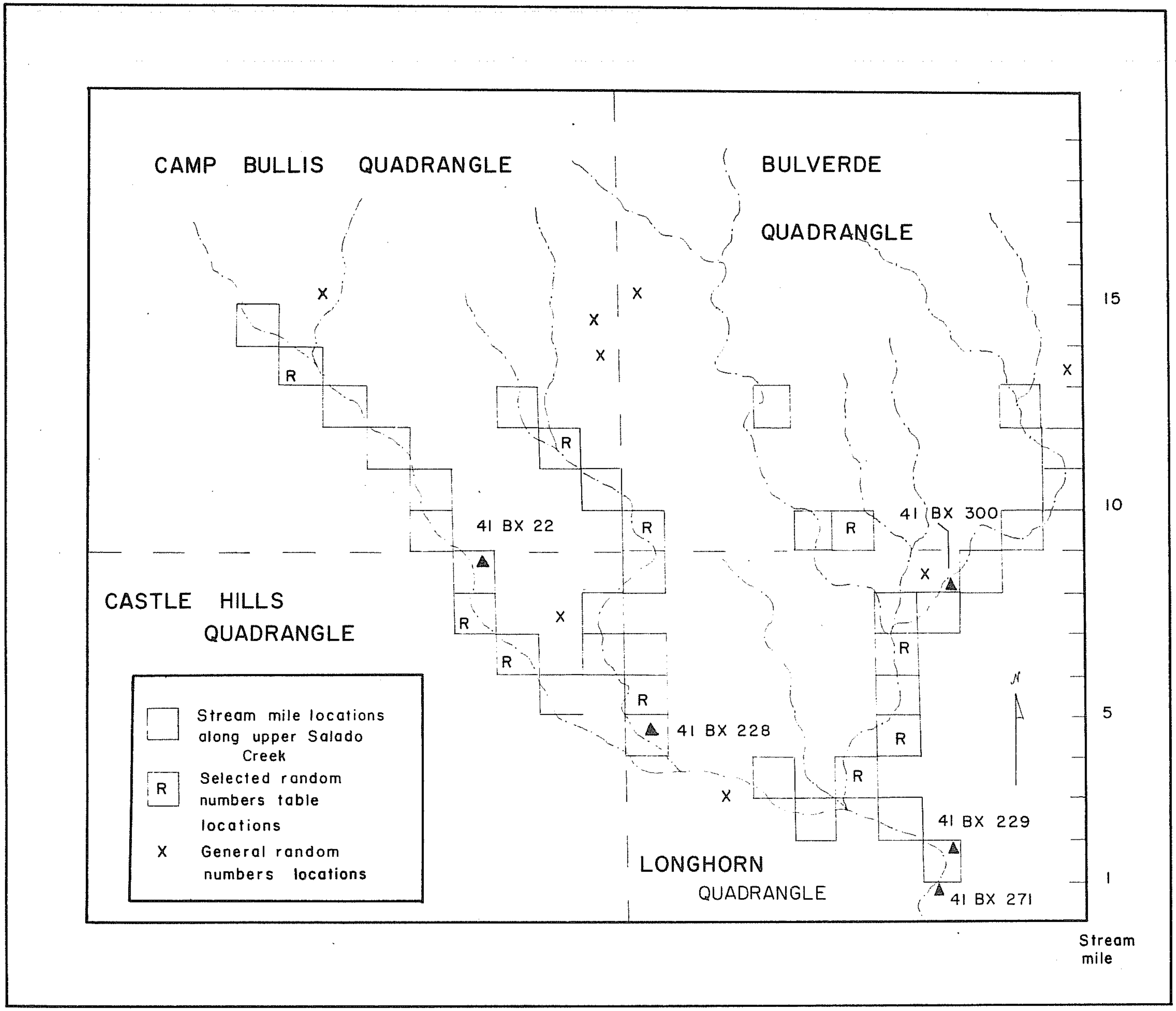

Figure 56. **Selected Areas for Site Characteristics Analysis, Upper Salado Creek Watershed.**

TABLE 54. SITES CHARACTERISTICS ALONG THE UPPER SALADO CREEK DRAINAGE; VARIMAX ROTATED FACTOR MATRIX

Variable	Factor 1	Factor 2	Factor 3
east (coordinate value)	0.01	0.12	0.52*
water distance	0.64*	0.50*	0.35*
overview distance	0.25	0.56*	0.10
water direction	-0.76*	0.29	0.30
stream mile	0.14	0.30	-0.60*
elevation	0.16	0.77*	0.16
distance to confluence	0.66*	0.04	0.10
overview direction	0.10	-0.17	-0.43*
site	0.01	-0.14	0.55*

*Important Loadings

location is from water and from a confluence point. This may suggest a landform phenomenon characterized by asymmetric floodplain drainage patterns. Unfortunately, the extremely low value for site in Factor 1 suggests that actual site locations do not follow this general trend; the pattern itself may be the result of biased sampling.

A similar situation occurs in Factor 2, indicating that, at potential site locations, as distance to water and elevation increases, distance to overview decreases. While actual sites are not significantly affected by this factor (site = -0.14), the factor itself represents a real physiographic characteristic. Since this composite factor was derived from basic data, the reflection of this known characteristic argues for the general validity of the analytical process and the relevance of the basic information.

Factor 3 indicates a high affinity of real site locations to the variables of east (coordinate) and stream mile. Real sites tend to be located in the southern portion of the study area and in proximity to water resources. Directions toward an overview from these locations tend to be within 180° of north. Distance to an overview, actual site elevation, and distance to the nearest confluence point are negligible elements in Factor 3 in influencing actual major site locations. Direction to a water source may have a slight influence on site location. The location of real sites in the southern survey area may be related to two major conditions: (1) a sampling bias in which an unintentional selection preference was made, based upon known major occupation sites or (2) an actual prehistoric preference for site localities to be situated along the southern margins of the upper Salado Creek watershed. Previous large-scale archaeological surveys have been roughly divided between the northern and southern parts of the drainage. As of this current study, no extensive prehistoric occupation sites equivalent to those investigated within the southern area have yet been recorded in the northern area of the drainage. Gerstle, Kelly, and Assad (1978:195) comment upon the distribution of sites within the Camp Bullis locale (northern section of the study area):

> . . . distribution of sites is not uniform over the survey area. . . . Most of the sites are located along Cibolo Creek, with a second concentration in the south and southeast sections of Camp Bullis, i.e., the area south of the Balcones Fault Zone where chert resources are available. The extensive area between these two site concentrations contains only a few sites.

Based upon this factored data, a majority of intensively occupied, major prehistoric sites are situated in the southern section of the study area. This distribution may be the result of a prehistoric preference for establishing long-term campsites in ecotones just south of the Balcones Escarpment and along the margins of the Blackland Prairie. Reliable water and lithic resources, combined with the potential variety of floral resources in this area, may be major contributing factors to these local site distributions.

The factor scores from this analysis were used to produce a cluster analysis of cases, utilizing the BMDP (Biomedical Computer Programs) program. The procedures for this analysis are explained in detail in Gerstle, Kelly, and Assad (1978:175-177). The clusters from this analysis represent groups of actual and potential site locations that are amalgamated according to closeness or similarities. The analysis (Fig. 57) included the same data with the variable site removed; it was thought that its presence might bias the results. Since the variables represent actual sites, the analysis would tend to cluster these into a single group. The cluster analysis of cases suggests that physiographic elements as yet unidentified do play a significant part in the location of actual sites. Cluster 1 includes three of the five actual sites and is distinctly separated from Cluster 2 (water-proximate potential site locations) and Cluster 3 (nonwater proximate, upland potential site location). As noted earlier, potential site locations were generated using a random numbers table (Redman 1974). Figure 57 also suggests that the potential site locations associated with certain cases (16 and 19) are physiographically similar to real site localities and may in fact be actual sites.[1] As noted, the analysis included a cluster analysis with the variable site removed. Case 3 is dropped from Cluster 1 (as is case 19). The difference between these two cluster analyses, based on this single variable score, suggests that only marginal differences are responsible for the inclusion or exclusion of cases 3 and 19 in Cluster 1. It must be cautioned that, sampling biases notwithstanding, these are only preliminary observations based upon a limited sample size.

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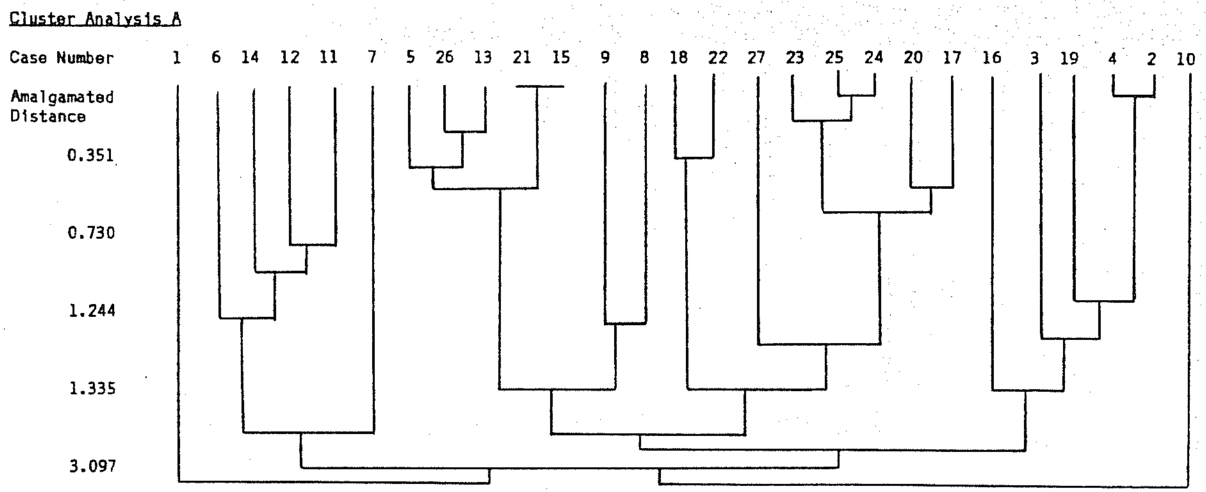
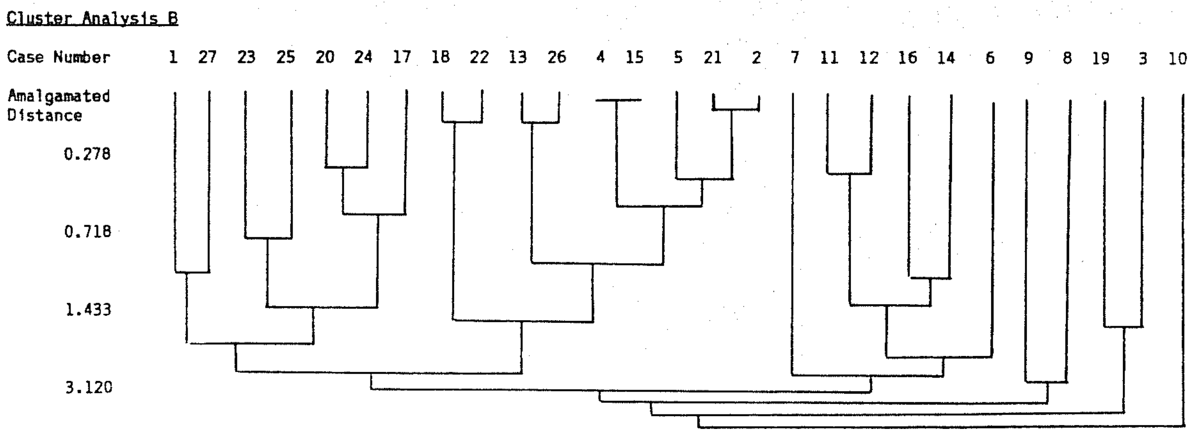
[1]While time did not allow an investigation of these areas, a preliminary survey was conducted in the area of location 19. Lithic debris scattered over a wide area, as well as several diagnostic projectile points and miscellaneous bifaces and unifaces, suggests a potentially extensive prehistoric occupation.





Case Numbers 1-5 represent actual sites.
Case Numbers 6-17 represent random numbers table selected locations.
Numbers 18-27 are water-proximate potential site locations.

Figure 57. **Cluster Analysis of Actual and Potential Site Locations Within the Upper Salado Creek Watershed, Northern Bexar County.** Cluster Analysis B indicates locations with the variable of site removed.

In summary, preliminary computer-assisted analysis of actual and potential site locations within the upper Salado Creek watershed suggests that individual site physiography (excluding proximity to a water source) is less important in the distribution of actual major site locations than is their general location within the southern section of the study area. Such a condition may be directly related to the ecotonal character of this location. The exploitation of these ecotonal elements may be a key to understanding the patterns of local site distributions, as well as better defining the variabilities of individual site locations.

THE UPPER SALADO CREEK WATERSHED AND ITS INTEGRATION INTO A CULTURAL-GEOGRAPHICAL UNIT

Shortcomings of the regional cultural chronological sequence, as it is understood today, the problems of integrating the local chronological sequence into the regional framework, and the local sequence as a cultural continuum are discussed below.

Three problems exist in defining a local prehistoric chronological sequence for the upper Salado Creek drainage: the confusion inherent in regional chronological phases, the definition of the phase concept, and the complexity of the local temporal record. The local chronological sequence was defined from the stratigraphic deposits from five major excavated sites; the excavations at 41 BX 228 served as a basis for comparison. In addition, data from other systematically tested sites within the study area were included.

COMMENTS ON THE REGIONAL ARCHAIC

Since the study area is located within an ecotone between the Edwards Plateau and the Gulf Coastal Plain, cultural remains apparently represent influences of both southern and central Texas. Any establishment of a local chronological sequence must, therefore, take into account the cultural continuum of both areas. Because so much of southern Texas is poorly known archaeologically, Hester (1980) offers only broad cultural periods: the Paleo-Indian, the Archaic, the Late Prehistoric, and the Historic. No attempts have yet been made to subdivide these "periods" into more discrete phases. Prewitt (1981) has criticized the "mis-use" of the term "period" as applied by Hester (1980) and others, suggesting that "this is patently contradictory to the meanings of 'stage' and 'period' as expressed by Krieger (1953:247)." Weir (1976a:3) has also suggested that this tripartite terminology, when applied to central Texas, is limited, unmanageable, and insensitive to the expressions of the Archaic. However, other archaeologists have employed the term "period" (cf. Story 1980; Rouse 1972; Jennings 1974); their views are summarized by Story (1980:10):

> The constructs of Early, Middle, and Late Archaic [periods] are admittedly crude, but in view of the poor quality of the data, they are useful for organizing an overview of early hunting and gathering cultural systems.

It is unfortunate that the reference that Prewitt (1981) cites from Hester (1980:20-31) is a short passage providing a general discussion for the lay reader of the basic nature of Paleo-Indian, Archaic, and Formative lifeways. Hester's use of the term cultural "period" was meant only to describe a temporally distinct unit without the evolutionary connotations of "stage." This use follows the definition of "cultural period" by Rouse (1972:288), "a local period (division of time) that is culturally homogeneous." Jennings (1974:10) points out that there are many terms used by archaeologists in this context, and no quick resolution is seen. Jennings (**ibid.**) further notes the use of the term "stage,"

> . . . there is an additional connotation of sequence and ranking of cultures by level of complexity toward some terminal or final level.

Because the archaeology of central Texas reflects a long span of hunting and gathering lifeways, the term "period" may be a safer, if more innocuous, description.

Using this approach, Story (1980) has discussed the characteristics and distributions of cultural elements within the West Gulf Coastal Plain, and Hester (1980) has discussed the characteristics and distributions of cultural elements within southern Texas.

The archaeology of central Texas, particularly that of the Archaic, has been most recently discussed in detail by Weir (1976a) and Prewitt (1981). While others have also contributed significant data (cf. Jelks 1978; Sollberger and Hester 1972), major unresolved problems remain. Because Weir (1976a) and Prewitt (1981) are considered to have presented the most recent detailed discussions of the central Texas Archaic, salient points of each of these reports will be briefly discussed and compared to the chronological data from 41 BX 228.

Weir (1976a) presented five chronological phases (interpreted from stratigraphic information from 17 archaeological sites with the aid of computer-assisted analysis) that spanned the Archaic. Prewitt (1981), however, has restructured these phases into 11 and considers, as well, two major areas of controversy: the Archaic vs. the Pre-Archaic and the Neo-American vs. the Late Prehistoric. Each of these controversies represents a problem of definition, the former being an apparent transition between the Late Paleo-Indian occupations and the beginnings of local Archaic traditions. Prewitt (**ibid.**) has incorporated the chronological problem area into his earliest Archaic phases. He also suggested the use of the term "Neo-Archaic" as a variation of the Archaic in the central Texas archaeological region to distinguish this time period from other cultures (often termed Late Prehistoric outside the region) which had achieved an agriculturally based Formative level of development.

A definition of the "central Texas region" is in order, as there are some distinctions in its usage by Weir (1976a) and Prewitt (1981). Weir defines central Texas as dominated by the Edwards Plateau and bordered on the east and southeast by the major ecotone of the Balcones Escarpment. The plateau is bordered on the north somewhat indistinctly with the Llano Estacado. Prewitt (**ibid.**) suggests that central Texas encompasses the eastern half of the Edwards Plateau, the Llano Uplift, most of the Lampasas Cut Plains, the Comanche Plateau, the southern end of the Grand Prairie, and the Blackland Prairie bordering the Balcones Escarpment from near Waco to near Uvalde. He further describes this as an archaeological region (after the cultural-geographical definition of Willey and Phillips [1958:20]):

> . . . generally, it is a geographical space, in which, at a given time, a high degree of cultural homogeneity may be expected . . . regions (sometimes) are likely to correspond with minor physiographic subdivisions.

Weir (1976a:1) described central Texas as an archaeological area but presumably meant a region, since his chronological phases are indicative of the latter term (phases would be inappropriately applied in an areal context).

Covering an area of approximately 50,000 square miles, the central Texas region reflects a diverse collection of geographical systems, local environmental ecosystems, and elements of at least two biotic provinces. The term "central Texas" (as defined by Prewitt [1981] and, to a lesser extent, Weir [1976a]) may represent a cartographic or physiographic area rather than the cultural geographically derived context of region implied by Willey and Phillips (1958). While the Edwards Plateau remains the dominant physical feature, other features (such as the Llano Uplift and the Balcones Escarpment) form easily recognizable and distinct subdivisions. Our criticism of Prewitt's and Weir's approaches lies in their definitions of central Texas as a cultural-geographic region and their subsequent application of phases to describe the broad spatial and temporal changes that have occurred throughout this diverse area. By example: a review of the archaeological sites within the upper Salado Creek watershed would form a local sequence within a relatively small, circumscribed territory. The resulting chronology and local sequence, when correlated to other sequences from adjacent localities, would present a regional picture more applicable to the ecotone of the Balcones Escarpment than to the overall Edwards Plateau. By extension, if the subdivision of the Balcones Escarpment can more accurately be defined as a cultural-geographical region ("a minor physiographic territory," as defined by Willey and Phillips [**ibid.**]), its integration into the larger picture of the Edwards Plateau environmental system would cause the latter to be described as a culturally defined subarea distinct from but related to the southern and lower extension of the North American Great Plains. Alternatively, the cultural scope of Willey and Phillips (1958) can be modified regionally to incorporate the concept of subregions (described here as cultural-geographical provinces): these are distinctive, major, environmentally related systems that are included within the region and which may have had individual and significant effects upon the general pattern of hunting and gathering cultures within the cultural-geographical region. Such environmental influences would, by their nature, have caused specific adaptations to the environmental systems.

This is not to suggest a case for environmental determinism but for environmental causality. As an example, Story (1980:4) suggests that ecotones (like the Balcones Escarpment) in modern times receive more moisture than surrounding areas during droughts. Under similar prehistoric conditions, escarpments may have served as refuge for human populations. Adaptations of hunting and gathering groups to this subregion would have been qualitatively distinct from similar groups elsewhere. This assumption can be related to a subregional manifestation of Maruyama's (1963) "Local Group Equilibrium System" in which the characteristics of hunters and gatherers are extensively modified by concentrations of local resources.

The importance of defining central Texas as a cultural-geographical unit is directly related to Willey and Phillips's (1958) observations on the building of temporal cultural series. To define a regional cultural sequence, a series of phases must be integrated within the geographical limits of the defined region. However, if the central Texas area (the Edwards Plateau and associated margins) is considered as a subarea or a region subdivided, then the perspective of phase-building must necessarily change. In either of the latter cases, the concepts of subareas or subregions gain interpretative importance. Chronological phases derived from local sequences will reflect subregional chronologies similar in general pattern and direction to the regional chronology but qualitatively distinct because of localized or subregional influences. We suggest that, while the "regional" pattern of past hunting and gathering groups may reflect generalized trends, the sensitive dependence of these groups upon natural resources creates a complex of specific adaptive strategies on a subregional and sometimes local level.

The most current "phase" concept, as applied by Prewitt (1981) to central Texas, is based upon previous works. He suggests that the key to identifying the complex set of traits that defines a phase is comprised of a series of (chronological) index markers. Prewitt comments, "the full configuration of a phase need not be recognized, and key index markers are useful, indeed essential for such recognition." In Prewitt's work, each phase is summarized by representative components, site types, representative artifacts, features, mortuary practices, subsistence, external relations, and estimated age. Unfortunately, many of these traits can only be broadly defined because of lack of data or because of unclear evidence. By far, his most consistent and most reliable indicators are chronologically diagnostic projectile points. Prewitt (ibid.) infers changes in cultural patterns with the frequency (ratio) of projectile point types to other lithic tools, as well as with the diversity of the former within any given phase. The applicability of this information to the upper Salado Creek watershed chronological sequence will be discussed below.

CHRONOLOGICAL SEQUENCE OF THE UPPER SALADO CREEK WATERSHED

Data from five recently excavated major prehistoric occupation sites and information from other previously tested sites were used to establish a preliminary chronological sequence. This sequence is compared to inter-regional paleoenvironmental and chronological data in Table 55. The sequence does not establish phases as defined by Willey and Phillips (1958) or Prewitt

TABLE 55. UPPER SALADO CREEK WATERSHED, LOCAL SEQUENCE

Regional Designations	Period	Approximate Dates	Local Period	Chronological Indicators	Local Sites
Toyah Phase	LATE PREHISTORIC	A.D. 1300	11	**Perdiz**, ceramics, beveled knives	41 BX 228 41 BX 369
Austin Phase	LATE PREHISTORIC	A.D. 900	10	**Scallorn**, **Edwards**, ceramics	41 BX 228
Transitional Archaic Twin Sisters Phase	ARCHAIC	A.D. 250	9	**Ensor**, **Frio**, **Fairland**, **Darl**	41 BX 228
Late Archaic San Marcos Phase	ARCHAIC	650 B.C.	8	**Montell**, **Castroville**, **Marcos**, **Williams**	41 BX 228
Middle Archaic Round Rock Phase	ARCHAIC	2000 B.C.	7	**Pedernales**, **Langtry**, **Kinney**(?)	41 BX 228
Early Archaic Clear Fork Phase	ARCHAIC	3000 B.C.	6	**Nolan**, **Travis**, **La Jita**, **Pandale**, **Clear Fork** tool(?), "thinned-base early triangular"	41 BX 228
Pre-Archaic San Geronimo Phase	ARCHAIC	4000(?) B.C.	5	"early expanding stem," **Martindale**, **Bell**, unifacial **Clear Fork** tool, **Guadalupe** tool, "thinned-base early triangular"	41 BX 228 41 BX 271
Pre-Archaic San Geronimo Phase	ARCHAIC	5000(?) B.C.	4(?)	**Gower**, **Guadalupe** tool(?), **Angostura**(?), unifacial **Clear Fork** tool	41 BX 271
Late Paleo-Indian	PALEO-INDIAN	8000(?) B.C.	3	**Plainview**, **Golondrina**, **Angostura**(?), bifacial **Clear Fork** tool	41 BX 229 41 BX 369
Early Paleo-Indian	PALEO-INDIAN	9000(?) B.C.	2	**Folsom**	41 BX 52 41 BX 229 41 BX 369
Early Paleo-Indian	PALEO-INDIAN	9700(?) B.C.	1	**Clovis**	41 BX 52 41 BX 228(?)

(1981); instead, the term local period is to distinguish time spans defined by the widespread occurrence of horizon markers (primarily projectile points). Projectile points are horizon markers, since they are thought to represent a specified widely distributed cultural continuum of a recognizable, highly specialized artifact type (over a short period of time). The associated horizons are only approximately contemporaneous with such archaeological units as phases; as Willey and Phillips (1958:33-34) point out, horizons based on such cultural criteria may have considerable temporal depth, depending upon the amount of time required for the spread of the horizon style markers. The term "period," as used in this volume, represents only the apparent climax of style in terms of intensity of use and of individuality within the relative chronological sequence. The associated data reflecting the distinguishing cultural traits of a phase are thought to be too indeterminate (small sample size with inadequate temporal control) to determine local phases. The differing perspectives (of Prewitt [1981] and of this report) limit the applicability of the term phase; in this case, Prewitt's work may be used for comparison between sequences of key index markers and his general observations on prehistoric activity patterns.

A brief description of each period of the local chronological sequence of the upper Salado Creek watershed is presented below. Artifact types represent a stratigraphic distribution of materials, and radiocarbon dates are noted when applicable. The general dates of the Archaic chronology are derived from the works of Sorrow, Shafer, and Ross (1967), Weir (1976a), and Prewitt (1981). The local sequence generally agrees with those of earlier works, but also adds additional data to the elements of the Late Prehistoric and Early Archaic (Table 56).

Local Periods 1 and 2 represent infrequent Paleo-Indian activities in the upper Salado Creek watershed. Local Period 1 is the hypothesized Early Paleo-Indian occupation (**Clovis**) which may be represented by a **Clovis**-like point found beneath the lowest well-defined cultural stratum at 41 BX 228. No definite occurrences of **Clovis**-related occupations were identified in the drainage system; this is unusual, considering the number of recorded sites and the intensity of past archaeological survey work in recent years. A similar situation occurs with **Folsom**-related occupations; only two such sites, 41 BX 229 and 41 BX 338, are noted in the area.[1] Both sites are high overlook sites near former (extensive) springs.

Local Period 3 represents a series of roughly contemporaneous Late Paleo-Indian complexes that include **Plainview**, **Golondrina**, and **Angostura**-related materials. The **Angostura** materials occur most frequently within the study area and are represented at 41 BX 229, 41 BX 512, possibly at 41 BX 271, and 41 BX 36. **Plainview** materials have been identified at 41 BX 229 and 41 BX 338.

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[1]Site 41 BX 52, located on the Leon Creek drainage and in the vicinity of Salado Creek, also included both **Folsom** and **Clovis** materials.

TABLE 56. SELECTED RADIOCARBON ASSAYS OF LOCAL HORIZON MARKERS

Local Period	Approximate Date of Local Period: 41 BX 228	Horizon Markers	Site Number	Assay Sample Number	Radiocarbon Date	Reference
11		Perdiz, ceramics	41 BX 36	TX-2815	A.D. 1520-1610	Gerstle, Kelly, and Assad 1978:253
		Perdiz	41 LK 201	TX-4667	A.D. 1470-1500	Highley 1985
		Perdiz	41 LK 201	TX-4668	A.D. 1510-1590	Highley 1985
		Perdiz	41 BX 36	RL-817	A.D. 1440	Gerstle, Kelly, and Assad 1978:253
		Perdiz, ceramics	41 JW 8	TX-4652	A.D. 1430	Black 1985
		Perdiz, ceramics	41 JW 8	TX-2207	A.D. 1370	Hester 1977
	A.D. 1300	untyped	41 MC 222	-	A.D. 1290	Hall, Black, and Graves 1982:521
		Edwards	41 BX 377	TX-2771	A.D. 1100	Gerstle, Kelly, and Assad 1978:253
		Perdiz	41 BX 36	RL-816	A.D. 1090	Gerstle, Kelly, and Assad 1978:253
		Perdiz, ceramics	41 BX 228	TX-2811	A.D. 1050	
		Perdiz, ceramics	41 BX 228	TX-3856	A.D. 1020	
		Perdiz, ceramics(?)	41 BX 228	TX-3855	A.D. 1000	
10		Scallorn	41 BX 228	TX-3854	A.D. 980	
	A.D. 900	Scallorn	41 BX 228	TX-2812	A.D. 910	
9		burials	41 BX 1	TX-3993	100 B.C.-A.D. 260	Lukowski n.d.
	A.D. 250					
8		Fairland, Ensor(?)	41 LK 67	TX-3024	370-210 B.C.	Brown et al. 1982:167
		Fairland, Ensor	41 LK 67	TX-2911	400 B.C.	Brown et al. 1982:167
	650 B.C.	Ensor, Frio, Castroville	41 BX 1	TX-3989	400-130 B.C.	Lukowski n.d.
7						
		Marcos(?)	41 LK 67	TX-2909	780 B.C.	Brown et al. 1982:167
		Marcos(?)	41 LK 67	TX-2910	730-660 B.C.	Brown et al. 1982:167
		Pedernales(?)	41 BX 228	TX-3852	800 B.C.	
		Zorra(?)	41 LK 67	TX-3021	1590-1520 B.C.	Brown et al. 1982:167
		Travis, Nolan(?)	41 BX 1	TX-2927	1950-1920 B.C.	Assad 1979:21
		Kinney	41 BX 1	TX-3992	2460-1690 B.C.	Lukowksi n.d.
	2000 B.C.					
6		-	41 BX 228	TX-3853	2920 B.C.	
	3000 B.C.					
5		Guadalupe tools	41 BX 228	TX-3912	3380 B.C.	
		Bell(?)	41 BX 271	TX-3606	3450-3390 B.C.	Data on file, CAR-UTSA
	4000 B.C.					
4						
	5000 B.C.					
3		Plainview, Angostura	41 BX 229			
	8000(?) B.C.					
2		Folsom	41 BX 52			
	9000(?) B.C.					
1	9700(?) B.C.	Clovis	41 BX 52			

Local Periods 4 and 5 represent the "Pre-Archaic" (Sollberger and Hester 1972), the San Geronimo phase (Weir 1976a), the Early Archaic (Story 1980), and the San Geronimo, Jarrell, and Oakalla phases (Prewitt 1981). Local Period 4 is very poorly represented in the upper Salado Creek drainage; it is a tentative period marked by early occurrences of **Clear Fork** tools and **Gower** points.

Local Period 5 is well represented in the area with intact components at 41 BX 228 and 41 BX 271. This period is marked by **Guadalupe** and **Clear Fork** tools, "early thinned-base triangular" bifaces, "early expanding stem" dart points, and **Bell** points. Radiocarbon dates from 41 BX 228 and 41 BX 271 average 3400 B.C. (MASCA calibrated).

Local Period 6 contains cultural deposits that include **Nolan, Travis, La Jita,** and **Pandale** projectile points, as well as "early thinned-base triangular" bifaces and possibly **Clear Fork** tools. Burned rock midden accumulation begins during Local Period 6. A pit oven (ring midden) was constructed at 41 BX 228 during this period. A **Nolan**-associated sample from 41 BX 1, along Olmos Creek in San Antonio, was assayed at "1920-1950 B.C." (MASCA calibrated; Assad 1979:21). This date appears to be late in comparison to the regional chronologies. A MASCA calibrated date of 2920 B.C. was assayed from the lowest level of Area C at 41 BX 228 and is thought to represent the Local Period 6 occupation.

Local Period 7 is characterized by the widespread occurrence of burned rock middens and **Pedernales** and **Langtry** projectile points. A radiocarbon date from a burned rock midden (Midden 2) at 41 BX 228 was assayed at 800 B.C. (MASCA calibrated). While burned rock middens also occur in adjacent Local Periods 6 and 8, major occupational activities centering on this phenomenon are believed to be associated with Local Period 7. **Marshall** points were poorly defined stratigraphically, since they were noted both in lower levels of Local Period 8 and upper levels of Local Period 7.

Local Period 8 contains **Montell, Castroville, Marcos,** and **Williams** projectile points and is associated with a series of occupations of the Late Archaic in central Texas. The distinctive "corner tang knife" may fall within this period.

Local Period 9, reflected by a series of **Ensor, Frio, Fairland,** and **Darl** projectile points, is thought to represent lithic materials of later Archaic lifeways.

The Late Prehistoric Local Periods 10 (**Scallorn** arrow points) and 11 (**Perdiz** arrow points) mark the initial appearance of ceramics. While undecorated ceramics have long been associated with **Perdiz** materials (Local Period 11), Feature 1 at 41 BX 228 strongly suggests that ceramics may also be associated with **Scallorn** materials. This feature has been radiocarbon dated at A.D. 980 (MASCA calibrated). **Edwards** points, poorly established stratigraphically within the upper Salado Creek drainage, have been radiocarbon dated at the Camp Bullis site of 41 BX 337 at A.D. 1100 ± 100 and A.D. 1090 ± 120. **Perdiz**-associated materials from 41 UV 21 (the La Jita site in Uvalde County) have been dated at A.D. 1240 ± 70 (uncalibrated assay; Hester 1971:114).

A comparison of Prewitt's (1981) interpretation of widespread cultural patterns and of the local sequence derived from 41 BX 228 and other sites is presented in Table 57.

The major excavated sites within the upper Salado Creek watershed exhibit long, continuous periods of intermittent occupations. A paucity of Paleo-Indian materials is noted, in spite of the intensity of archaeological research and the frequency and intensity of later occupations. The lack of sites may be a result of the hydraulic "scouring" of the drainage channels and terraces during the deposition of the previously mentioned massive Pleistocene gravel deposits. Early Archaic materials (associated with occupational Local Periods 4 and 5) are sporadically scattered throughout the drainage and are usually found in the lowest levels of extensively occupied, long-lived sites. Although Gerstle, Kelly, and Assad (1978) suggest that there has been a distinct trend toward water-proximate locations from the Early Archaic to the Late Prehistoric, this trend does not exist within the upper Salado Creek watershed. Preliminary distributional data suggest that specific site locations were exploited extensively from post-Pleistocene times to the end of the prehistoric period.

SUMMARY

The sequence of prehistoric occupations within the upper Salado Creek watershed of northern Bexar County generally follows the regional chronologies proposed by Weir (1976a) and Prewitt (1981). Because of the diversity of environmental systems (particularly, the Balcones Escarpment), which significantly and qualitatively affect localized and subregional hunter-gatherer patterns in central Texas, the phase concept as defined by Prewitt (1981) and Weir (1976a) is not used in the local chronological sequence. Using a more conservative interpretation of the phase concept as discussed in Willey and Phillips (1958), the local sequence does not attempt to identify the complex series of traits on which phases are based. Instead, local periods represent the apparent climax of horizon markers (i.e., diagnostic projectile points, ceramics, specific features). Horizon markers are discussed in terms of intensity of use and chronological distribution. Our approach to a preliminary definition of the local chronology will permit further research and the integration of further information. We emphasize that this report considers the interpretation of local data critical in defining "regional" chronologies. It is only by recognizing and understanding the limitations of such preliminary work that broader patterns of aboriginal hunting and gathering systems can be understood. Thus, it is felt that refined regional chronologies can only be accurately constructed after sensitive local chronologies have been firmly established.

XII. SITE 41 BX 228 WITHIN THE PANTHER SPRINGS AND SALADO CREEKS CONFLUENCE OCCUPATION ZONE

The location of the Panther Springs Creek site within the Salado Creek drainage represents prehistoric patterns of hunting and gathering subsistence. Such ideas as resource seasonality and exploitation strategies are

TABLE 57. LOCAL CULTURAL SEQUENCE COMPARED TO INFERRED, WIDESPREAD, REGIONAL CULTURAL PATTERNS

Local Period Salado Creek Watershed	Regional Chronology (Weir 1976a)	Regional Chronology (Prewitt 1981)	Widespread Archaic Cultural Patterns (according to Prewitt 1981)
11	Toyah	Toyah	
10	Austin	Austin Driftwood	bison hunting important; arrow points, cemeteries, ceramics
9	Twin Sisters	Twin Sisters Uvalde	broad-based exploitation peak; prolif-eration of tool types
8	San Marcos	San Marcos	"well-balanced diversity" proliferation of point styles
7	Round Rock	Round Rock Marshall Ford	population peak
6	Clear Fork	Clear Fork	increased population; more sites, burned rock middens = intensive food processing less diffuse, less projec-tile point diversity; specialization of food gathering activites; group inter-action
5		Oakalla	
	San Geronimo	Jarrell	
4		San Geronimo	
3		Circleville	broad-based hunting and gathering, pro-liferation of projectile points; small, dispersed bands
2	Paleo-Indian	Paleo-Indian	
1			

all integrally related to the concept of site distributions throughout the landscape. Site 41 BX 228 represents a locality that reflects a gradual procession of changing cultures that make specific adaptations toward basically unchanging natural resources. To better understand the behavior of the people once associated with the site, 41 BX 228 must be viewed as part of an exploitation pattern that encompasses at least the upper Salado Creek drainage and probably a much wider area.

Like many other identified sites intensively occupied in Archaic times, 41 BX 228 is located on a stream terrace and is situated near both ancient water resources and broad floodplain and/or stream valley exploitation areas. Unlike other sites further to the south along the stream valley, the Panther Springs Creek site is located within an extensive prehistoric activity zone that includes the confluence of Panther Springs and Salado Creeks and the springs once located just upstream at Higgins Waterhole. As an integral part of this system of prehistoric activities, 41 BX 228 may be viewed as one of a number of sites located specifically to exploit these local resources.

Site 41 BX 228 is located within 300 m of both 41 BX 197 and 41 BX 198, two other large Archaic campsites along Panther Springs Creek. Each of these three occupation sites is located approximately 600 m south of the former springs. A series of smaller sites is situated both north and south of these occupations along the stream terraces (Fig. 58). The artifact assemblages from these smaller sites are characterized by a lack of projectile points and by a moderate to high frequency of modified lithic debitage, as well as unifacial and bifacial tools. These sites apparently represent satellite activity areas. At present, only one other major prehistoric occupation site, 41 BX 338, is identified within 600 m of the former springs locality. Site 41 BX 338, the Haase site, is situated northwest of the springs approximately 300 m. While this site has never been tested to the extent of 41 BX 228 or 41 BX 197, the site does contain an unusually large Late Prehistoric component characterized by hundreds of sherds (some of which may represent nonlocal [Caddoan?] ceramics).

It is apparent that activities within the Panther Springs Creek confluence area date to at least 8500 B.C. (with the occurrence of a Folsom point found at 41 BX 338) and probably earlier.[1] Very little evidence of Paleo-Indian materials (Local Periods 1, 2, and 3) is found; this may in part be related to the massive scouring of stream channels and terraces during the late Pleistocene.

Archaic occupations predominate the cultural components of prehistoric sites in the area; these sites are situated on terraces adjacent to the modern stream channels. Early Archaic materials (associated with Local Periods 4 and 5) are, at least in part, more generally linked to southern rather than central Texas (see the distributions of the Guadalupe tool, Fig. 29). All of

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[1]A fluted, Paleo-Indian-like projectile point fragment was recovered from the upper gravel deposits at 41 BX 228; however, since no other materials were associated with this point, its context is unclear.

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the more recent occupations (related to Local Periods 6-11) are characterized by artifacts more strongly associated with central Texas. Minor influences from the lower Pecos River area are also thought to have occurred particularly during Local Periods 6 and 7, as reflected by the distribution of **Langtry** and **Pandale** projectile points. A major shift in the locality of occupation sites in the Salado Creek watershed is thought to have occurred during the Late Prehistoric (Local Periods 10 and 11). This is reflected by relatively small collections of materials overlying Archaic deposits at 41 BX 228, 41 BX 197, and 41 BX 198, but an intensive Late Prehistoric component at 41 BX 338, ca. 300-400 m northwestward. The relocation of extensive occupational activities during this time cannot be clearly explained; both locations have overlapping zones of exploitation. It is speculated that the extensive ceramic deposits at 41 BX 338 may provide a clue: the raw materials for pottery making may have been more easily accessible from soils of the more clayey Tarrant-associated soils (Taylor, Hailey, and Richmond 1966:31) surrounding 41 BX 338 than from the alluvium-associated Patrick soils at 41 BX 228, 41 BX 197, and 41 BX 198.

As noted, the local chronological sequence can be compared only superficially to the current regional archaeological framework. The diversity of environmental systems within the central Texas area, the shortcomings of regional cultural-unit concepts to date, and the complex record of prehistoric peoples all limit the integration of archaeological data regionally.

It has been the purpose of this study to form a clearer picture of local prehistoric occupations by documenting and interpreting the cultural materials and features from 41 BX 228. This study of aboriginal activities was then refocused to view the site as an integral part of much wider subsistence and exploitation patterns. The authors believe it is this perspective that is the basis for a more accurate and substantial contribution to the prehistory of hunters and gatherers in south-central Texas.

XIII. 41 BX 228 AS A CASUALTY OF SUBURBAN DEVELOPMENT

The Panther Springs Creek site, 41 BX 228, was a center for prehistoric occupations for over 5000 years. Situated along the margins of a broad stream valley rich in natural resources, the site's actual location was not determined by, but certainly influenced by, its proximity to substantial water sources. The natural setting of 41 BX 228, including a variety of hard and soft woods and associated floral and faunal resources, contributed greatly to the site's locus as an area of preferred occupation for millenia along the Balcones Escarpment.

Today, the vicinity of the Panther Springs Creek site is still a preferred occupation locality, but in vastly different, contemporary perspective. The margins of the Salado and Panther Springs Creeks have become the expanding hub of rapidly developing suburban communities. The once tranquil setting of the ancient springs (now dry) is, in modern times, overlooked by tennis courts, multistoried homes, and privacy fences. Overlooks where prehistoric hunters once surveyed a meandering floodplain are now occupied by the dishes of satellite TV antennas directed toward more distant horizons. Dirt trails, blazed by recreationalists (trespassers) in the National Register Historic District, crisscross both the site and its environs. Rampant vandalism and relic collecting have reduced the once significant campsite of prehistoric hunters and gatherers into a jigsaw pattern of hastily dug trenches and pits. A 20th-century collection of empty beer cans and fast food refuse lies scattered among ancient stone tools, between the uprooted remains of persimmon and oaks. Tree stumps across 41 BX 228 testify to the effectiveness of gas-powered chainsaws and the audacity of their owners. Most recently, bulldozer tracks now tear through the upturned remains of 50 centuries of occupations.

Despite constant monitoring by CAR-UTSA personnel over the years, as well as attempts at public awareness through local newspaper and television programs, the rate of destruction not only at 41 BX 228 but at neighboring sites increases ominously and concurrently, with the rate of suburban expansion.

In November 1982, David Hendricks, **San Antonio Express-News** urban affairs reporter, presented a series of feature articles on 41 BX 228 and general sites destruction (Hendricks 1982a, 1982b, 1982c, 1982d). The features focused on the types and activities of prehistoric populations in the San Antonio area, particularly at the Panther Springs Creek site. The articles concluded with comments on the impact of suburban expansion and the secondary effects of increased vandalism and sites destruction. Prior to publication of the articles, Hendricks himself visited 41 BX 228 and was amazed to see several separate groups of relic collectors casually excavating the remains of the site.

In January 1984, the San Antonio PBS television station KLRN presented "Salado Trek," a Cityscape documentary, which reviewed the massive impacts of suburbanization on the natural setting of the Salado Creek drainage. Various naturalists, scientists, contractors, city officials, and this author were interviewed to present contrasting perspectives on the past and future of the drainage, with its rich legacy of natural and cultural resources.

The influence of this publicity caused, unfortunately, only a temporary respite at best. The severity of destruction at 41 BX 228 has been illegal, uncontrolled, and conducted by relic collecting trespassers almost without interruption since 1975.

The identity, but more importantly, the motives and the effects of these individuals and others like them, are a real concern of federal and state regulatory agencies, as well as to the public as a whole. Relic collecting in Texas, like in many other areas of North America, is both a prevalent hobby and a lucrative enterprise (Hester 1980:2). The indiscriminate collection of Indian relics by individuals often originates from a real interest in the past, an interest strong enough to allow a considerable expenditure of time, money, and energy in the pursuit of the buried arrowhead. It is unfortunate that this enthusiasm is misdirected; this hobby, more often than not, results in the irreversible destruction of information basic to our understanding of human history.

The attitude behind such relic collecting, for the most part, is easily understood: a curiosity about the unknown past and the self-satisfaction of discovering a recognizable artifact created in ancient times. The misconception inherent in this attitude is that it is not the single artifact that in the end, is important, but should be instead the better understanding of the human past. Hunters who have perished without a trace, techniques which have vanished into prehistory, social and religious mores that have long disappeared--these are most useful to our understanding of past people. This, in part, is a contribution of archaeology and a discredit of relic collecting. As Marc Bloch (1976:52) has pointed out in the **Historian's Craft**,

> There is no true understanding without a certain range of comparison . . . based upon differing, and at the same time, related realities . . . Certainly we no longer consider today, as Machiavelli wrote or as Hume or Bonald thought, that there is, in time, "at least something which is changeless: that is man."

It is this potential for discovering human change, as well as its causes and effects, lost in prehistory, that has made 41 BX 228 a significant archaeological site, not the certainty of a productive day at artifact collecting.

What can be done to protect 41 BX 228 and other nearby archaeological sites under imminent destruction? Objectively very little. The value of the Panther Springs Creek site cannot be measured by the extent of its reviews of lithic materials, statistical data of burned rock, or descriptions of the material culture. Perhaps, as importantly, its destruction should serve as a serious example of what a lack of public awareness and official disinterest will do to the legacy of our cultural resources.

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APPENDIX I*

PRELIMINARY BIOSILICA ANALYSIS OF THE PANTHER SPRINGS CREEK SITE, 41 BX 228, BEXAR COUNTY, TEXAS

(Ralph L. Robinson)

Phytoliths, microscopic opal from the tissues of plants, were extracted from a sample of archaeological midden matrix dating from Local Period 6 (cf. Clear Fork phase, Weir 1976). Wildrye, a shade-tolerant, cool-season grass with edible seeds, or a closely related genera was present. This is the first report of one type of grass phytolith from sediment. This site is unusual in that a high percentage frequency of cool-season grass phytoliths were present. At least five genera of grasses were found in the midden matrix.

Investigation of the biosilica record at the Panther Springs Creek site, 41 BX 228, began with test excavations by a field school group from The University of Texas at San Antonio in July 1977. A column of sediment samples was collected from Test Pit A. Sample 1 from a depth of 60 cm was selected for three reasons: (1) it was the deepest and therefore the oldest sample; (2) it appeared to be from a burned midden deposit (Midden 2), since it was very dark in color and contained snail shell and mammal bone fragments, indicating a high organic content; (3) a **Nolan** projectile point had been found in the same level of the test pit, giving Sample 1 a tentative chronological value of Local Period 6 (Clear Fork phase), approximately 4000 B.P to 3300 B.P.

The process used to extract phytoliths from the burned rock midden matrix of August 1977 is adapted from Rovner (1971) and has been found to be extremely dangerous and relatively ineffective in concentrating phytoliths from sediments containing clay and fine silt:

1. 1 g of sediment was dispersed with Calgon and distilled water, centrifuged and decanted.

2. 30% hydrogen peroxide was added and heated in a hot water bath to remove the organic material.

3. Carbonates were removed with 10% hydrochloric acid in a hot water bath.

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*Editorial Note: This appendix is based on the analysis of only one sample collected in 1977. Robinson agreed to process additional samples that were specifically collected from important midden and nonmidden contexts in 1979. This work has not been completed. Thus, the interpretations presented here are of limited value.

4. After rinsing to remove the hydrochloric acid, absolute ethyl alcohol was added and decanted to remove excess water and the remaining soluble resins.

5. The sample was then dried in a low temperature oven and pulverized with a glass rod.

6. Phytoliths were separated from the sample by heavy density separation using a mixture of tetrabromoethane and absolute ethyl alcohol. A chip of Australian black opal was used to adjust the specific gravity of the heavy liquid to 2.3. This step was repeated once because of problems with the centrifuge brake and the clay fraction.

7. The light fraction, which contained the phytoliths and clay, was then rinsed with absolute ethyl alcohol and oven dried.

8. The light fraction was then pulverized with a glass rod and mounted on a microscope slide with Permount.

9. The slide was microscopically scanned at 200X and 400X; the phytoliths were identified, counted, and compared to an extensive comparative collection of phytoliths extracted from modern plants. This sample was reanalyzed in September 1981 using the facilities of the Palynology Laboratory at Texas A&M University.

10. No attempt was made to extrapolate the counts (step 9) for the calculation of the concentration of diagnostic phytoliths per gram of sediment because:

    (a) the sample was not oven dried prior to processing so that the sample weight was actually less than one gram (step 1);

    (b) part of the sample was lost during step 2 due to overheating of the hydrogen peroxide;

    (c) part of the sample was lost during step 3 due to the reaction of the hydrochloric acid with the very high carbonate content;

    (d) as mentioned above, Rovner's processing method was unsuited for concentrating phytoliths from sediments containing particles less than 4 microns in size. The small particles remain in the light fraction regardless of their specific gravity and trap larger, heavy particles within a compact pluglike mass. The excessive amount of clay in the light fraction made it impossible to mount all of the phytoliths onto one slide and more difficult to identify and count.

Graminae phytoliths were the only type of biosilica observed in this sample. The various types and counts of phytoliths are shown in Table 58. When the results of this analysis were compared to the hundreds of samples examined during the past four years, the outstanding difference was the high percentage frequency of the festucoid phytolith types. Only 8% of the species of native grasses in Texas today contain the festucoid phytoliths

(Gould 1968). Only three other Texas sites have yielded such frequencies; 41 LK 31/32 and 41 LK 201 in the Choke Canyon Reservoir and 41 LU 1, the Lubbock Lake site. No modern soil samples from Texas have yielded such frequencies; in fact, the festucoid phytolith types are usually rare. As shown in Table 59, festucoid phytolith types are common in areas of the United States where environments are cooler. In the southern states, the grasses with festucoid phytoliths are usually cool-season grasses (Gould 1975).

The festucoid phytolith types from the burned rock midden matrix at the Panther Springs Creek site are most similar to those from 41 LK 201 (from an archaeological zone radiocarbon dated at 3250 B.P.) and least similar to those from the Late Pleistocene and Early Holocene deposits at the Lubbock Lake site. Several festucoid phytoliths present in the Panther Springs Creek site sample are very similar to the comparative samples of **Elymus canadensis** (Wildrye). **Elymus canadensis** is a cool-season grass with edible seeds found in shaded, moist environments in Texas (**ibid.**). One of these phytolith types is a very distinctive spinous trichome. This is the first report of this type of trichome from plants and/or sediment. A very closely related genera, **Agropyron** spp. (Wheatgrass), has a spinous short cell, which has now been reported from a sediment sample from Wyoming.

As shown in Table 59, the panicoid and chloridoid phytolith types were also present at the Panther Springs Creek site. At least two genera of grasses with panicoid phytolith types and one genera of grass with the chloridoid phytolith type were observed. The frequencies of panicoid phytoliths also suggest moist growing conditions.

It is very tempting to speculate that (1) at approximately 4000-3300 B.P. the environmental conditions were cooler and/or more moist than the present; (2) the burned rock midden was in use during a cool season; (3) the Salado

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TABLE 58. PERCENTAGE FREQUENCIES OF GRAMINAE PHYTOLITHS FROM 41 BX 228

Panicoid	3	(10%)	(27%)
Chloridoid	1	(3%)	(9%)
Festucoid	7	(23%)	(64%)
Subtotal	11	(36%)	(100%)
Trichome	14	(47%)	
Bulliform cell	5	(17%)	
TOTAL	30	(100%)	

TABLE 59. COMPARISON OF PERCENTAGE FREQUENCIES OF GRAMINAE SHORT CELL PHYTOLITHS FROM ARCHAEOLOGICAL SITES CONTAINING FESTUCOID PHYTOLITH TYPES

State	Site	Sample Number	Age	Percentage of Phytolith Present		
				Panicoid	Chloridoid	Festucoid
Texas	41 BX 228	1	4000-3300 B.P.	27	9	64
Texas	41 BX 31/32	3	5330 B.P.	10	50	40
Texas	41 BX 31/32	5	4300 B.P.	25	25	50
Texas	41 BX 31/32	6	4300 B.P.	25	50	25
Texas	41 BX 31/32	7	younger than 4300 B.P.	8	17	75
Texas	41 LK 201	1	older than 3250 B.P.	33	0	67
Texas	41 LK 201	3	3250 B.P.	31	6	62
Texas	41 LU 1	p127	8500-8000 B.P.	29	14	57
Texas	41 LU 1	p121	older than 11,500 B.P.	34	0	66
Arkansas	3 LN 42	Mound E	1600-1200 B.P.	22	0	78
Mississippi	22 LO 530	12923-3	3500-2000 B.P.	50	12	38
Mississippi	22 LO 530	12923-4	5000-3500 B.P.	78	0	22
Alabama	1 PI 503	2124	11,500 B.P.	55	25	15
Wyoming	Wy 63b	Modern	2000-0 B.P.	0	0	100

Creek was very near the site when Sample 1 was deposited; and (4) the grasses were introduced into the midden matrix for economic reasons, such as the protection of food while being cooked in an earth oven or simply the use of grasses to start a fire. If economic usage is the case, the grasses were collected from a riparian environment. I saw no evidence of the use of grass seed, although it was certainly a valuable resource. This negative evidence should not be considered, since my comparative collection of lemmas, glumes, and paleas (parts of the "husk" which enclose grass seed) is limited.

It is possible that none of the above or a combination of all four speculations may be fact. The value of one sample is highly questionable, although in this instance, the evidence is intriguing. Further biosilica research at the Panther Springs Creek site, based on the carefully collected sediment samples from the extensive excavations of 1979-1980, will help resolve some of the questions raised by this very limited analysis.

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APPENDIX II

SAMPLE FORMS

THE UNIVERSITY OF TEXAS AT SAN ANTONIO
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SUBSTRATUM UNIT FORM

Part 1. Fill out all blanks except those marked LAB. Zero=Missing Data

4 1 B X 2 2 8 Site Number
0 2 Card Number
1 Card Sequence Number
_ _ _ _ _ Lot Number LAB
3 Phase
_ _ _ Block LAB
_ _ _ Field Unit LAB

Field Inspection __
Lab Inspection __

Excavators ____________________
Screeners ____________________

__ Area
__ Datum
__ Level/Feature Form (IF FEATURE SKIP TO Consolidation)
_ _ _ _._ _ East Coordinate
_ _ _ _._ _ North Coordinate
_ _ _._ _ Depth to Top of Unit
._ _ Thickness
_ _ Substratum/Level
__ Unit/Size 1=1 m^2
__ Screen Size 1=1/4" 2=1/8"
__ Number Debris Bags
_ _ Recorder
_ _-_ _-_ _ Date
__ Feature(s) Count
_ _ Feature Number (if more than one ____________________)
_ _ Feature Type (if more than one ____________________)

__ Consolidation 1=Loose, 2=Friable, 3=Compact, 4=Tightly Compacted
__ Moisture 1=Wet, 2=Moist, 3=Dry
__ Disturbances 1=Animal, 2=Human, 3=Vegetal, 4=1&2, 5=1&3, 6=2&3, 7=1,2,&3
_ _ _ Total Number of Burned Limestone
_ _._ _ Total Weight of Burned Limestone

Part 2. Soil Composition. Fill out each blank with percentage number. The total should=100%. Field Estimate ONLY.

_ _ Cobbles
_ _ Pebbles
_ _ Sand
_ _ Silt/Clay

Part 3. Complete each entry with either: 1=Absent/Not Taken or 2=Present/Taken

0 2 Card Number
2 Card Sequence Number

__ Black and White Photo(s)
__ Color Photo(s)
__ Plan Drawing
__ Profile Drawing

SAMPLE #'S

__ Charcoal (C^{14} & species ID) ____________________
__ Flotation ____________________
__ Soil Chemistry ____________________
__ Phytolith ____________________
__ Other ______________ ____________________

Figure 59. **Substratum Unit Form.**

Part 3. (continued)

HISTORIC ARTIFACTS

__ Ceramics
__ Metal
__ Glass

PREHISTORIC ARTIFACTS

__ Ceramics
__ Lithics
__ Ground Stone
__ Fire-cracked Chert
__ Other ______________________________

ECOFACTS

__ Limestone
__ Sandstone
__ Quartz
__ Chert
__ Hematite
__ Other ______________________________

FAUNAL/VEGETAL

__ Bone unburned
__ Bone burned
__ Seeds unburned
__ Seeds burned
__ Land Snails
__ Mussel Shell
__ Charcoal Flecks
__ Other ______________________________

Part 4. Answer questions as applicable:

SOILS: Briefly compare this level with: (1) previous levels and (2) surrounding units. Discuss: Color, texture, composition, mottling, disturbances, etc.

CULTURAL MATERIALS: Briefly compare as above: relative abundance, unusual materials, patterning, diagnostics, etc.

Use continuation sheet or back of page to add comments or sketch artifacts.

Use back of page to draw plan or profiles of unit or Feature.

For ALL Features fill out and attach FEATURE SHEET.

Figure 59. (continued)

Be sure to include a scale, a north arrow, and unit provenience(s).

Figure 59. (continued)

Part 5. Fill out all blanks. Zero=Missing Data.

__ __ Feature Number
__ __ Feature Type

__ __.__ __ Maximum Dimension
__ __ __ Maximum Dimension Axis Orientation (°E of N)
__ __.__ __ Minimum Dimension
__ __ __ Minimum Dimension Axis Orientation (°E of N)
__.__ __ Maximum Thickness
__.__ __ Minimum Thickness
__ __ __.__ __ Top Elevation
__ __ __.__ __ Bottom Elevation

Part 6. Answer ALL Questions.

Why is this a Feature? Compare to surrounding soils.

____
____
____
____
____
____
____
____
____

What excavation units/levels contain Feature?

____
____

Is the Feature completely exposed? If NOT, why?

____
____
____

What artifacts are associated with Feature? Contrast relative quantities with surrounding soils.

____
____
____
____
____
____
____
____
____

Compare Matrix to surrounding soil. Note differences in compactness, color, composition, etc.

____
____
____
____
____
____
____

Figure 59. (continued)

Part 6. (continued)

Detailed Feature Description.

Feature Interpretation. Why is it, what it is?

Remember to draw plan map and profile of Feature.

Figure 59. (continued)

THE UNIVERSITY OF TEXAS AT SAN ANTONIO
CENTER FOR ARCHAEOLOGICAL RESEARCH
MATERIAL ANALYSIS FORM - 41 BX 228

EAST ______________ NORTH ______________
LEVEL _________ FEATURE _______ LOT # ____
ELEV ___________-_____-_____-___________
DATE __-__-__ PEOPLE__________________
SORTED BY: ______________________________

Item	Format		
1.	I2	__ __	Card Number
2a.	14	__ __ __ __ __	Unique Number
2b.	IX		Card Sequence No.

UNMODIFIED ROCK

3. I7 0 0 1 __ __ __ __ __ Hematite Count
4. I7 0 0 2 __ __ __ __ __ Hematite Weight (g)
5. I7 0 0 3 __ __ __ __ __ Ochre Count
6. I7 0 0 4 __ __ __ __ __ Ochre Weight
7. I7 0 0 5 __ __ __ __ __ Fossils Count
8. I7 0 0 6 __ __ __ __ __ Fossils Weight
9. I7 0 0 7 __ __ __ __ __ Chert Cobbles Count
10. I7 0 0 8 __ __ __ __ __ Chert Cobbles Weight (g)
11. I7 0 0 9 __ __ __ __ __ Quartzite Cobbles Count
12. I7 0 1 0 __ __ __ __ __ Quartzite Cobbles Weight (g)
13. I7 0 1 1 __ __ __ __ __ Silicified Wood Count
14. I7 0 1 2 __ __ __ __ __ Silicified Wood Weight (g)
15. I7 0 1 3 __ __ __ __ __ Sandstone Count
16. I7 0 1 4 __ __ __ __ __ Sandstone Weight (g)

BURNED ROCK

17. I7 0 1 5 __ __ __ __ __ Burned Limestone Count
18. I7 0 1 6 __ __ __ __ __ Burned Limestone Weight (g)
19. I7 0 1 7 __ __ __ __ __ Misc. Burned Rock Count
20. I7 0 1 8 __ __ __ __ __ Misc. Burned Rock Weight (g)
21. I7 0 1 9 __ __ __ __ __ Sandstone Count
22. I7 0 2 0 __ __ __ __ __ Sandstone Weight (g)
23. I7 0 2 1 __ __ __ __ __ Clay Count
24. I7 0 2 2 __ __ __ __ __ Clay Weight (g)

MUSSEL SHELL

25. I7 0 2 3 __ __ __ __ __ Umbo Count
26. I7 0 2 4 __ __ __ __ __ Umbo Weight (g)
27. I7 0 2 5 __ __ __ __ __ **Helisoma** Count
28. I7 0 2 6 __ __ __ __ __ Other Aquatic Snails Count

LAND SNAILS

29. I7 0 2 7 __ __ __ __ __ **Rabdotus** Count
30. I7 0 2 8 __ __ __ __ __ **Polygyra** Count
31. I7 0 2 9 __ __ __ __ __ **Praticolella** Count
32. I7 0 3 0 __ __ __ __ __ **Helicina** (Mesodon) Count
33. I7 0 3 1 __ __ __ __ __ **Succinea** Count
34. I7 0 3 2 __ __ __ __ __ Other Land Snail Count

BONE

35. I7 0 3 3 __ __ __ __ __ Total Bone Count
36. I7 0 3 4 __ __ __ __ __ Total Bone Weight (g)
37. I7 0 3 5 __ __ __ __ __ Burned Bone Count
38. I7 0 3 6 __ __ __ __ __ Burned Bone Weight (g)

WORKED MUSSEL SHELL

39. I7 0 3 7 __ __ __ __ __ Worked Mussel Shell Count

MARINE SHELL

40. I7 0 3 8 __ __ __ __ __ Marine Shell Count

ABORIGINAL CERAMICS

41. I7 0 3 9 __ __ __ __ __ Aboriginal Ceramic Count

BIFACES

42. I7 0 4 0 __ __ __ __ __ Complete Count
43. I7 0 4 1 __ __ __ __ __ Proximal Count
44. I7 0 4 2 __ __ __ __ __ Medial Count
45. I7 0 4 3 __ __ __ __ __ Distal Count
46. I7 0 4 4 __ __ __ __ __ Miscellaneous Fragments Count

UNIFACES

47. I7 0 4 5 __ __ __ __ __ Uniface Count

HAMMERSTONES

48. I7 0 4 6 __ __ __ __ __ Hammerstone Count

GROUND STONE

49. I7 0 4 7 __ __ __ __ __ Grooved Abrader
50. I7 0 4 8 __ __ __ __ __ Grinding Slab Fragment
51. I7 0 4 9 __ __ __ __ __ Mano
52. I7 0 5 0 __ __ __ __ __ Incised Limestone

CORES

53. I7 0 5 1 __ __ __ __ __ Core Count

CHARCOAL

54. I7 0 5 2 __ __ __ __ __ Flecks
55. I7 0 5 3 __ __ __ __ __ Wood Species I.D.

CHERT

56. I7 0 5 4 __ __ __ __ __ Debitage Weight
57. I7 0 5 5 __ __ __ __ __ Fire Cracked Weight

MODIFIED FLAKES

58. I7 0 5 6 __ __ __ __ __ Edge Altered/ Trimmed Flakes/ Chips
59. I7 0 5 7 __ __ __ __ __ Modified Flake Weight
60. I7 0 5 8 __ __ __ __ __ Quartz Flake Count
61. I7 0 5 9 __ __ __ __ __ Carbonized Seed and Nut Count

MISCELLANEOUS MATERIALS (2=Present)

62. I4 0 6 0 __ Type 1
63. I4 0 6 1 __ Type 2
64. I7 0 6 2 __ Type 3
65. I4 0 6 3 __ Other ___________________

Comments:

Figure 60. **Material Analysis Form.**

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ARTIFACT ANALYSIS FORM

Area ________
E ________ N ________ L ________

5 Card #
_ _ _ _ _ Lot #

CORES

0 0 1 _ _ _ _ _ C1
0 0 2 _ _ _ _ _ C2
0 0 3 _ _ _ _ _ C3
0 0 4 _ _ _ _ _ C4:1
0 0 5 _ _ _ _ _ C4:2
0 0 6 _ _ _ _ _ C4:3
0 0 7 _ _ _ _ _ C4:4
0 0 8 _ _ _ _ _ C4:5
0 0 9 _ _ _ _ _ C5
0 1 0 _ _ _ _ _ C6

THICK BIFACES

0 1 1 _ _ _ _ _ TK1
0 1 2 _ _ _ _ _ TK2:1
0 1 3 _ _ _ _ _ TK2:2
0 1 4 _ _ _ _ _ TK3
0 1 5 _ _ _ _ _ TK4:1
0 1 6 _ _ _ _ _ TK4:2
0 1 7 _ _ _ _ _ TK5
0 1 8 _ _ _ _ _ TK6
0 1 9 _ _ _ _ _ TK7
0 2 0 _ _ _ _ _ TK8
0 2 1 _ _ _ _ _ TK9
0 2 2 _ _ _ _ _ TK10:1
0 2 3 _ _ _ _ _ TK10:2
0 2 4 _ _ _ _ _ TK11
0 2 5 _ _ _ _ _ TK12
0 2 6 _ _ _ _ _ TK13
0 2 7 _ _ _ _ _ TK14
0 2 8 _ _ _ _ _ TK15

THIN BIFACES

0 2 9 _ _ _ _ _ TN1:1
0 3 0 _ _ _ _ _ TN1:2
0 3 1 _ _ _ _ _ TN2:1
0 3 2 _ _ _ _ _ TN2:2
0 3 3 _ _ _ _ _ TN3:1
0 3 4 _ _ _ _ _ TN3:2
0 3 5 _ _ _ _ _ TN3:3
0 3 6 _ _ _ _ _ TN3:4
0 3 7 _ _ _ _ _ TN4:1
0 3 8 _ _ _ _ _ TN4:2
0 3 9 _ _ _ _ _ TN5:1
0 4 0 _ _ _ _ _ TN5:2
0 4 1 _ _ _ _ _ TN6:1
0 4 2 _ _ _ _ _ TN6:2
0 4 3 _ _ _ _ _ TN7:1
0 4 4 _ _ _ _ _ TN7:2
0 4 5 _ _ _ _ _ TN8:1
0 4 6 _ _ _ _ _ TN8:2
0 4 7 _ _ _ _ _ TN8:3
0 4 8 _ _ _ _ _ TN9
0 4 9 _ _ _ _ _ TN10:1
0 5 0 _ _ _ _ _ TN10:2
0 5 1 _ _ _ _ _ TN11:1
0 5 2 _ _ _ _ _ TN11:2
0 5 3 _ _ _ _ _ TN12:1
0 5 4 _ _ _ _ _ TN12:2
0 5 5 _ _ _ _ _ TN13:1
0 5 6 _ _ _ _ _ TN13:2
0 5 7 _ _ _ _ _ TN14
0 5 8 _ _ _ _ _ TN15:1
0 5 9 _ _ _ _ _ TN15:2
0 6 0 _ _ _ _ _ TN16:1
0 6 1 _ _ _ _ _ TN16:2
0 6 2 _ _ _ _ _ TN16:3

ARROW POINTS

0 6 3 _ _ _ _ _ A1
0 6 4 _ _ _ _ _ A2:1
0 6 5 _ _ _ _ _ A2:2
0 6 6 _ _ _ _ _ A2:3
0 6 7 _ _ _ _ _ A2:4
0 6 8 _ _ _ _ _ A3:1
0 6 9 _ _ _ _ _ A3:2

DART POINTS

0 7 0 _ _ _ _ _ D1:1
0 7 1 _ _ _ _ _ D1:2
0 7 2 _ _ _ _ _ D1:3
0 7 3 _ _ _ _ _ D1:4
0 7 4 _ _ _ _ _ D1:5
0 7 5 _ _ _ _ _ D1:6
0 7 6 _ _ _ _ _ D1:7
0 7 7 _ _ _ _ _ D1:8
0 7 8 _ _ _ _ _ D1:9
0 7 9 _ _ _ _ _ D1:10
0 8 0 _ _ _ _ _ D2:1
0 8 1 _ _ _ _ _ D2:2
0 8 2 _ _ _ _ _ D2:3
0 8 3 _ _ _ _ _ D2:4
0 8 4 _ _ _ _ _ D2:5
0 8 5 _ _ _ _ _ D2:6
0 8 6 _ _ _ _ _ D3:1
0 8 7 _ _ _ _ _ D3:2
0 8 8 _ _ _ _ _ D3:3
0 8 9 _ _ _ _ _ D3:4
0 9 0 _ _ _ _ _ D3:5
0 9 1 _ _ _ _ _ D3:6
0 9 2 _ _ _ _ _ D3:7
0 9 3 _ _ _ _ _ D3:8
0 9 4 _ _ _ _ _ D3:9
0 9 5 _ _ _ _ _ D3:10
0 9 6 _ _ _ _ _ D3:11
0 9 7 _ _ _ _ _ D4:1
0 9 8 _ _ _ _ _ D4:2
0 9 9 _ _ _ _ _ D4:3
1 0 0 _ _ _ _ _ D5:1
1 0 1 _ _ _ _ _ D5:2
1 0 2 _ _ _ _ _ D5:3
1 0 3 _ _ _ _ _ D6:1
1 0 4 _ _ _ _ _ D6:2
1 0 5 _ _ _ _ _ D6:3
1 0 6 _ _ _ _ _ D7
1 0 7 _ _ _ _ _ D8:1
1 0 8 _ _ _ _ _ D8:2

PERFORATORS

1 0 9 _ _ _ _ _ P:1
1 1 0 _ _ _ _ _ P:2
1 1 1 _ _ _ _ _ P:3
1 1 2 _ _ _ _ _ P:4

DISTALLY BEVELED TOOLS

1 1 3 _ _ _ _ _ DB1:1
1 1 4 _ _ _ _ _ DB1:2
1 1 5 _ _ _ _ _ DB1:3
1 1 6 _ _ _ _ _ DB2:1
1 1 7 _ _ _ _ _ DB2:2
1 1 8 _ _ _ _ _ DB3:1
1 1 9 _ _ _ _ _ DB3:2
1 2 0 _ _ _ _ _ DB3:3
1 2 1 _ _ _ _ _ DB4:1
1 2 2 _ _ _ _ _ DB4:2

UNIFACES

1 2 3 _ _ _ _ _ U1:1
1 2 4 _ _ _ _ _ U1:2
1 2 5 _ _ _ _ _ U1:3
1 2 6 _ _ _ _ _ U2:1
1 2 7 _ _ _ _ _ U2:2
1 2 8 _ _ _ _ _ U3:1
1 2 9 _ _ _ _ _ U3:2
1 3 0 _ _ _ _ _ U3:3
1 3 1 _ _ _ _ _ U3:4
1 3 2 _ _ _ _ _ U3:5

HAMMERSTONES

1 3 3 _ _ _ _ _ H:1
1 3 4 _ _ _ _ _ H:2

GROUND AND PECKED STONE

1 3 5 _ _ _ _ _ G1
1 3 6 _ _ _ _ _ G2
1 3 7 _ _ _ _ _ G3
1 3 8 _ _ _ _ _ G4

INCISED STONE

1 3 9 _ _ _ _ _ I1
1 4 0 _ _ _ _ _ I2

CERAMICS

1 4 1 _ _ _ _ _ S1
1 4 2 _ _ _ _ _ S2
1 4 3 _ _ _ _ _ S3
1 4 4 _ _ _ _ _ S4
1 4 5 _ _ _ _ _ S5
1 4 6 _ _ _ _ _ S6

BONE TOOLS

1 4 7 _ _ _ _ _ B1
1 4 8 _ _ _ _ _ B2
1 4 9 _ _ _ _ _ B3
1 5 0 _ _ _ _ _ B4
1 5 1 _ _ _ _ _ B5
1 5 2 _ _ _ _ _ B6
1 5 3 _ _ _ _ _ B7
1 5 4 _ _ _ _ _ B8

MISCELLANEOUS

1 5 5 _ _ _ _ _ ________
1 5 6 _ _ _ _ _ ________
1 5 7 _ _ _ _ _ ________
1 5 8 _ _ _ _ _ ________
1 5 9 _ _ _ _ _ ________
1 6 0 _ _ _ _ _ ________
1 6 1 _ _ _ _ _ ________

Figure 61. **Artifact Analysis Form.**

THE UNIVERSITY OF TEXAS AT SAN ANTONIO
CENTER FOR ARCHAEOLOGICAL RESEARCH

FLAKE ANALYSIS FORM - 41 BX 228

Date ___
Recorder ___

ITEM FORMAT

1. I2 ___ 4 Card Number
2. I4 ___ ___ ___ ___ Unique Number

PRIMARY FLAKES

3. I7 0 0 1 ___ ___ ___ ___ SCP Count
4. I7 0 0 2 ___ ___ ___ ___ SCP Weight
5. I7 0 0 3 ___ ___ ___ ___ LCP Count
6. I7 0 0 4 ___ ___ ___ ___ LCP Weight
7. I7 0 0 5 ___ ___ ___ ___ SSFP Count
8. I7 0 0 6 ___ ___ ___ ___ SSFP Weight
9. I7 0 0 7 ___ ___ ___ ___ LSFP Count
10. I7 0 0 8 ___ ___ ___ ___ LSFP Weight

SECONDARY FLAKES

11. I7 0 0 9 ___ ___ ___ ___ SCP Count
12. I7 0 1 0 ___ ___ ___ ___ SCP Weight
13. I7 0 1 1 ___ ___ ___ ___ LCP Count
14. I7 0 1 2 ___ ___ ___ ___ LCP Weight
15. I7 0 1 3 ___ ___ ___ ___ SSFP Count
16. I7 0 1 4 ___ ___ ___ ___ SSFP Weight
17. I7 0 1 5 ___ ___ ___ ___ LSFP Count
18. I7 0 1 6 ___ ___ ___ ___ LSFP Weight
19. I7 0 1 7 ___ ___ ___ ___ SMFP Count
20. I7 0 1 8 ___ ___ ___ ___ SMFP Weight
21. I7 0 1 9 ___ ___ ___ ___ LMFP Count
22. I7 0 2 0 ___ ___ ___ ___ LMFP Weight
23. I7 0 2 1 ___ ___ ___ ___ SLPF Count
24. I7 0 2 2 ___ ___ ___ ___ SLPF Weight
25. I7 0 2 3 ___ ___ ___ ___ LLPF Count
26. I7 0 2 4 ___ ___ ___ ___ LLPF Weight

TERTIARY FLAKES

27. I7 0 2 5 ___ ___ ___ ___ SSFP Count
28. I7 0 2 6 ___ ___ ___ ___ SSFP Weight
29. I7 0 2 7 ___ ___ ___ ___ LSFP Count
30. I7 0 2 8 ___ ___ ___ ___ LSFP Weight
31. I7 0 2 9 ___ ___ ___ ___ SMFP Count
32. I7 0 3 0 ___ ___ ___ ___ SMFP Weight
33. I7 0 3 1 ___ ___ ___ ___ LMFP Count
34. I7 0 3 2 ___ ___ ___ ___ LMFP Weight
35. I7 0 3 3 ___ ___ ___ ___ SLPF Count
36. I7 0 3 4 ___ ___ ___ ___ SLPF Weight
37. I7 0 3 5 ___ ___ ___ ___ LLPF Count
38. I7 0 3 6 ___ ___ ___ ___ LLPF Weight

CHIPS

39. I7 0 3 7 ___ ___ ___ ___ Corticate Count
40. I7 0 3 8 ___ ___ ___ ___ Corticate Weight
41. I7 0 3 9 ___ ___ ___ ___ Decorticate Count
42. I7 0 4 0 ___ ___ ___ ___ Decorticate Weight

CHUNKS

43. I7 0 4 1 ___ ___ ___ ___ Count
44. I7 0 4 2 ___ ___ ___ ___ Weight

BURNED CHERT

45. I7 0 4 3 ___ ___ ___ ___ Count
46. I7 0 4 4 ___ ___ ___ ___ Weight

Figure 62. **Flake Analysis Form.**

THE UNIVERSITY OF TEXAS AT SAN ANTONIO
CENTER FOR ARCHAEOLOGICAL RESEARCH

ARTIFACT GROUP MEASUREMENTS - 41 BX 228

ARTIFACT TYPE	LOT #	LENGTH	WIDTH	THICKNESS	WEIGHT	COMMENTS

Figure 63. **Artifact Group Measurements Form.**

THE UNIVERSITY OF TEXAS AT SAN ANTONIO
CENTER FOR ARCHAEOLOGICAL RESEARCH

FLOTATION - 41 BX 228

Date ____________
Recorder ____________
Page No. ____________

Sample #	Inventory Number	Sample Volume	Date Processed	Sample Coordinates	Level	Elevation	Comments (include associations, features, site #)

Figure 64. **Flotation Analysis Form.**

PROJECTILE POINT CODING FORM
CENTER FOR ARCHAEOLOGICAL RESEARCH
THE UNIVERSITY OF TEXAS AT SAN ANTONIO

Project ______________________ Coder ________________________

Artifact Class ________________ Date ____(day) ____(month) ____(year)

_ _ _ _ Sequence No.

_ _ _ Type Code No.

4 1 B X 2 2 8 Site No.

_ _ _ _ Lot No.

NOTE: 1=Present; 0=Absent

__ Stem/Base Smoothing

__ Bevelled Blade

__ Bevelled Stem

__ Serrated

_ _ Thickness

_ _ _ Max. Length

_ _ Max. Blade Width

_ _ Base Width

_ _ Haft Length

_ _ Neck Width

_ _ _ Base Depth

(+=Concave; -=Convex;
000=Straight)

_ _ ._ Weight (grams)

_ _ _ _ ._ _ East Coordinate

_ _ _ _ ._ _ North Coordinate

_ _ _ ._ _ Elevation (datum)

_ ._ _ Depth (below surface)

_ _ Substratum/Level

_ _ _ _ _ _ _ _ _ Type Name

OPTIONAL DATA

__ Completeness (1=<90%; 2=99%; 3=100%)

__ Reworking (1=none; 2=distal; 3=other)

__ Finish (1=unfinished; 2=finished)

__ Workmanship (1=poor; 2=average; 3=exceptional)

__ Material (1=chert; 2-chalcedony; 3=quartz; 4= other)

__ Patination (1=none; 2=light; 3=moderate; 4=heavy)

__ Heat Fracture (1=absent; 2=present)

__ Impact Fracture (1=none; 2=possible; 3=probable)

__ Heat Treatment (1=none; 2=possible; 3=probable)

ADD COMMENTS ON REVERSE

Figure 65. **Projectile Point Coding Form.**

APPENDIX III

GLOSSARY OF LITHIC TERMS

(Courtenay J. Jones)

The archaeological work conducted at site 41 BX 228 has employed various terms common to lithic analyses. Since some variations, although slight, can be found among different sources, the following definitions will apply to this analysis. Comparisons with these definitions can be found in Crabtree (1972:33-98) and Tixier (1974). For those interested, more detailed flake characteristics can be found in Shafer (1973:83), Gunn and Mahula (1977:149), and Katz (1976).

ABRADING/GRINDING: Techniques used to alter the striking surface to a desired shape to receive optimum impact. Achieved by passing an abrasive material back and forth across the surface in a rubbing motion.

BEVELING: Removal of bits of flint from a surface to achieve a desired shape or angle.

BURNED CHERT: Any piece of debitage which exhibits characteristics associated with exposure to intense heat, including potlids. If the flake characteristics required for this analysis are present on the piece of chert, it is included in the appropriate flake category.

CHIP: A piece of chert which exhibits some flake characteristics but which lacks a bulb of percussion, a platform, or both.

CHUNK: Distinguished from a chip by its thick, irregular, angular appearance. Exhibits no flake characteristics.

DISTAL END: The end of a flake which is opposite to the end bearing the bulb of percussion (proximal end).

DORSAL SURFACE: The side of the flake which is opposite the side which bears the bulb of percussion. In secondary or primary flakes this would be the cortex-bearing side.

FLAKE: Distinguished from chips and chunks in that it possesses both a bulb of percussion and a striking platform.

HARD HAMMER PERCUSSION: A reduction method which employs the use of a hammerstone or similar material to apply sufficient force to detach a flake from the parent material.

LIP: An extended ridge or lip of the platform which overhangs the ventral side of the flake.

PLATFORM: The surface area of the proximal end which receives the force of impact during flake removal.

PLATFORM WIDTH: The dimension of the platform which is measured from one side of the flake to the other side of the flake on an axis that is perpendicular to the axis extending from the dorsal face to the ventral face.

PRESSURE FLAKING: Removal of flakes by "pressing" a billet or similar tool to a desired location on the artifact and applying enough pressure to detach a flake.

PRIMARY FLAKE: A primary flake possesses cortex on 100% of the dorsal surface. Associated with the initial stages of lithic reduction.

PROXIMAL END: The end of the flake at which the platform is located. Opposite the distal end.

SECONDARY FLAKE: A flake which retains 1-99% of the cortex on the dorsal surface. Evidence of one or more flake removals on the dorsal surface.

SIDE: The outer edges of a flake when viewed with the dorsal or ventral surface toward the observer.

SOFT HAMMER PERCUSSION: A reduction method which is similar to the hard hammer technique but which utilizes a striking instrument of considerably softer material, such as bone, wood, or antler.

TERTIARY FLAKE: A flake which retains no cortex on any surface.

VENTRAL SURFACE: The inner surface of a flake upon which the bulb of percussion is located. Opposite the dorsal surface.

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1973 Lithic Technology at the George C. Davis Site, Cherokee County, Texas. Ph.D. dissertation, The University of Texas at Austin.

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1974 Glossary for the Description of Stone Tools with Specific Reference to the Epipaleolithic of the Maghreb (translated by M. H. Newcomer). **Newsletter of Lithic Technology, Special Publication** 1. Washington State University, Pullman, Washington.

APPENDIX IV

LOT NUMBER INDEX

A sequential list of the 486 lot numbers assigned during the 1979 investigations is presented as Table 60. The previous investigations used different numbering systems. The lot numbers were assigned as materials were received in the laboratory. In a number of circumstances, two bags of cultural material from the same provenience were turned in to the laboratory at different times and were assigned separate lot numbers. As these problems were found during the analysis, the bags were combined, and one of the two lot numbers was used for the remainder of the analysis. In these cases, each lot number is marked "combined w/_____." The lot number used in the final analysis and on the provenience charts is marked with an asterisk (*). This information is provided in case both numbers were inadvertently used.

All lot numbers represent a single excavation unit-level unless given one of the following designations:

ST = Shovel Test (50 cm x 50 cm)

F# = Feature Number (where material is from)

Matrix = Soil Sample

BT = Backhoe Trench

5 m SUR = 5-m^2 surface collection area

SC = Soil Column Sample

Table 60. (continued)

Lot Number	Provenience	Comments
238	E1022 N1008, Level 2	Combined with Lot 241*
239	E997 N1011, Level 3	
240	E1005 N1022, Level 4	
241	E1022 N1008, Level 2	
242	E995 N974, Level 5	
243	E1017 N1018, Level 5	
244	E1020 N1024, Level 1	
245	E1015 N1004, Level 1	
246	E1018 N1019, Level 3	
247	E995 N974, Level 4	
248	E1005 N929, Level 8	
249	E1020 N1029, Level 1	
250	E999 N963, Level 2	
251	E1022 N1008, Level 8	
252*	E1015 N1004, Level 6	Combined with Lot 262
253	E1015 N1004, Level 7	
254	E1010 N1028, Level 1	
255	E1011 N1029, Level 1	
256	E995 N969, Level 1	
257	E999 N963, Level 1	
258	E1022 N1008, Level 9	
259	E999 N963, Level 3	Feature Matrix
260	E995 N974, Level 8	
261	E995 N974, Level 1	
262	E1015 N1004, Level 6	Combined with Lot 252*
263	E1005 N929, Level 2	
264	E1005 N929, Level 3	
265	E1005 N929, Level 6	
266	E995 N969, Level 6	
267	E1010 N940, Level 7	
268	E1005 N929, Level 7	
269	E995 N974, Level 3	
270	E1015 N1004, Level 4	
271	E995 N969, Level 7	
272	E1010 N940, Level 6	
273	E995 N974, Level 7	
274	E1010 N940, Level 4	
275	E1005 N929, Level 5	
276	E1010 N940, Level 5	
277	E1005 N929, Level 4	
278	E995 N974, Level 6	
279	E1005 N929, Level 1	
280	E1010 N940, Level 3	
281	E995 N969, Level 3	
282	E999 N963, Level 6	
283	E999 N963, Level 8	
284	E999 N963, Level 7	
285	E995 N969, Level 4	
286	E999 N963, Level 3	
287	E1010 N940, Level 2	
288	E999 N963, Level 5	
289	E1020 N1024, Level 2	
290	E1010 N940, Level 1	
291	E1020 N1024, Level 3	
292	E999 N963, Level 4	
293	E1011 N1029, Level 2	
294	E995 N969, Level 2	
295	E990 N974, Level 4 NW Quad	Matrix Sample
296	E990 N974, Level 4 SE Quad	Matrix Sample
297	E994 N974, Level 3	
298	E994 N974, Level 2	
299	E995 N968, Level 2	
300	E995 N974, Level 11	
301	E995 N968, Level 1	
302	E994 N974, Level 1	
303	E994 N968, Level 1	
304	E994 N969, Level 2	
305	E994 N968, Level 2	
306	E995 N974, Level 10	
307	E995 N969, Level 8	
308	E995 N974, Level 9	
309	E995 N969, Level 9	
310	E995 N969, Level 10	
311	E994 N969, Level 1	
312	E1010 N950, Level 1	
313	E1010 N950, Level 2	
314	E1010 N950, Level 3	
315	Herb's Knoll, Level 1	ST
316	Herb's Knoll, Level 2	ST
317	Herb's Knoll, Level 3	ST
318	Herb's Knoll, Level 4	ST
319	Herb's Knoll, Level 5	ST
320	E995 N968, Level 5	
321	E995 N968, Level 6	
322	E1010 N950, Level 4	
323	E994 N969, Level 7	
324	E994 N969, Level 6	
325	E994 N968, Level 4	
326	E994 N969, Level 5	
327	E994 N969, Level 8	
328	E995 N968, Level 4	
329	E994 N969, Level 3	
330	E994 N968, Level 3	
331	E995 N968, Level 3	
332	E994 N969, Level 4	
333	E1015 N1004, Level 5	
334	E994 N968, Level 5	
335	E1010 N950, Level 5	
336	E994 N968, Level 6	
337	E995 N969, Level 5	
338	E995 N968, Level 7	Combined with Lot 341*, Ecofact bag
339	E994 N968, Level 8	
340	E994 N968, Level 7	
341	E995 N968, Level 7	Combined with Lot 338
342	Herb's Knoll, Level 7	ST
343	E988 N976, Level 3	
344	E988 N974, Level 4b	
345	E990 N974, Level 4	
346	E988 N974, Level 4a	
347	E988 N976, Level 4	
348	E988 N976, Level 5	Combined with Lot 350*
349	E990 N976, Level 4	
350*	E988 N976, Level 5	Combined with Lot 348
351	E990 N974, Level 5	
352	E988 N976, Level 5	Matrix
353	E988 N976, Level 5	Matrix
354	E990 N974, Level 2	
355	E988 N974, Level 2	
356	E990 N974, Level 1	
357	E990 N976, Level 3	
358	E990 N974, Level 3	Matrix Sample
359*	E990 N976, Level 2	Combined with Lot 362
360	E988 N974, Level 3	Matrix Sample
361	E988 N976, Level 2	
362	E990 N976, Level 2	Combined with Lot 359*
363	E990 N974, Level 3	

Table 60. (continued)

Lot Number	Provenience	Comments
364	E988 N974, Level 3	
365	E1000 N963, Level 1	
366	E1000 N963, Level 2	
367*	E988 N974, Level 5	Combined with Lot 371
368	E1000 N963, Level 3	
369	E994 N969, Level 9	
370	E988 N976, Level 6	
371	E988 N974, Level 5	Combined with Lot 367
372	E995 N968, Level 9	
373	E994 N969, Level 9	
374	SC#2-Sample 1	
375	SC#2-Sample 2	
376	SC#2-Sample 3	
377	SC#1-Sample 1	
378	SC#1-Sample 2	
379	SC#1-Sample 3	
380	E1000 N963, Level 4	
381	SC#1-Sample 4	
382	SC#1-Sample 5	
383	SC#1-Sample 6	
384	SC#1-Sample 7	
385	SC#1-Sample 8	
386	BT 1	
387	BT 2	
388	BT 3	
389	BT 4	
390	BT 5	
391	BT 6	
392	BT 7	
393	BT 8	
394	BT 9	
395	BT 10	
396	BT 11	
397	BT 12	
398	BT 14	
399	BT 17	
400	E1016 N1018, Level 5	Matrix
401	E997 N1010, Level ?	Matrix
402	E997 N1009, Level 3	Matrix
403	E1005 N1024, Level 6	Matrix
404	SC#4-Sample 3	
405	SC#4-Sample 4	
406	SC#4-Sample 1	
407	SC#5-Sample 1	
408	SC#5-Sample 2	
409	SC#5-Sample 3	
410	SC#5-Sample 4	
411	SC#5-Sample 5	
412	SC#3-Sample 1	
413	SC#4-Sample 2	
414	SC#3-Sample 2	
415	SC#3-Sample 3	
416	SC#3-Sample 4	
417	SC#3-Sample 5	
418	SC#?-Sample ?	
419	SC#2-Sample 4	
420	SC#6-Sample 4	
421	SC#6-Sample 3	
422	SC#6-Sample 2	
423	SC#6-Sample 1	
424	BT 20-Sample 3	
425	BT 20-Sample 2	
426	BT 20-Sample 1	
427	E988 N974, Level 6	
428	E990 N974, Level 6	
429	Area K	ST A
430	Area K	ST B
431	E995 N974, Level 2	
432	E1016 N1019, Level 6	
433	E1017 N1020, Level 5	
434	E1015 N1019, Level 3	
435	E1015 N1018, Level 3	
436	E1018 N1018, Level 3	
437*	E1006 N1022, Level 5	Combined with Lot 190
438	E1015 N1018, Level 4	
439	E1015 N1018, Levels 3&4	Feature 5
440	E988 N974, Level 1	
441	E995 N1010	5 m SUR
442	E1000 N1010	5 m SUR
443	E1000 N1015	5 m SUR
444	E1000 N1020	5 m SUR
445	E1000 N1025	5 m SUR
446	E1000 N1030	5 m SUR
447	E1005 N1000	5 m SUR
448	E1005 N1005	5 m SUR
449	E1005 N1010	5 m SUR
450	E1005 N1015	5 m SUR
451	E1005 N1020	5 m SUR
452	E1005 N1025	5 m SUR
453	E1005 N1030	5 m SUR
454	E1010 N1005	5 m SUR
455	E1010 N1010	5 m SUR
456	E1010 N1015	5 m SUR
457	E1010 N1020	5 m SUR
458	E1010 N1025	5 m SUR
459	E1010 N1030	5 m SUR
460	E1015 N1010	5 m SUR
461	E1015 N1015	5 m SUR
462	E1015 N1020	5 m SUR
463	E1015 N1025	5 m SUR
464	Misc. Surf.	
465	Subsurface, Area M	
466	E1040 N1000, Level 2	ST
467	BT 10A	
468	BT 10B	
469	Area M, Midden 2	From overburden removal
470	Area K, Feature 8	Matrix Sample #64 Lower fill of rock feature
471	E990 N976, Level 5	Matrix Sample #65 East of Feature 3
472	E990 N976, Level 5	Matrix Sample #66 North of Feature 2
473	Area K, Feature 8	Matrix Sample #67 Between first layer of rock
474	E990 N976, Level 5	Matrix Sample #68
475	E1008 N995, Level 3	
476	E1008 N995, Level 4	
477	E995 N1009, Level 2	
478	E995 N1008, Level 1	
479	E990 N976, Level 6	
480	E995 N1009, Level 1	
481	E995 N1008, Level 2	
482	E995 N1009, Level 3	
483	E990 N976, Level 5	
484	E990 N976, Level 3	
485	Area K	From Feature 8
486	E988 N974, Level 7 Area M	Partial

TABLE 60. LOT NUMBER INDEX

Lot Number	Provenience	Comments
1	E995 N970, Level 1	ST
2	E995 N970, Level 2	ST
3	E995 N970, Level 3	ST
4	E995 N970, Level 4	ST
5	E995 N970, Level 5	ST
6	E995 N1010, Level 1	ST
7	E995 N1010, Level 2	ST
8	E995 N1010, Level 3	ST
9	E995 N1010, Level 4	ST
10	E1004 N989, Level 1	ST
11	E1004 N989, Level 2	ST
12	E1004 N989, Level 3	ST
13	E1004 N989, Level 4	ST
14	E1005 N1025, Level 1	ST
15	E1005 N1025, Level 2	ST
16	E1005 N1025, Level 3	ST
17	E1010 N1000, Level 1	ST
18	E1010 N1000, Level 2	ST
19	E1010 N1000, Level 3	ST
20	E1010 N1000, Level 4	ST
21	E1015 N1010, Level 1	ST
22	E1015 N1010, Level 2	ST
23	E1015 N1010, Level 3	ST
24	E1015 N1010, Level 4	ST
25	E1015 N1010, Level 5	ST
26	E1010 N1030, Level 1	ST
27	E1025 N1020, Level 1	ST
28	E1025 N1020, Level 2	ST
29	E1025 N1020, Level 3	ST
30	E1025 N1020, Level 4	ST
31	E1045 N1020, Level 1	ST
32	E1045 N1020, Level 2	ST
33	E1045 N1020, Level 3	ST
34	E1040 N1000, Level 1	ST
35	E1020 N1000, Level 1	ST
36	E1020 N1000, Level 2	ST
37	E1020 N1000, Level 3	ST
38	E1015 N1025, Level 1	ST
39	E1015 N1025, Level 2	ST
40	E1015 N1025, Level 3	ST
41	E1015 N1025, Level 4	ST
42	E1015 N1025, Level 5	ST
43*	E1018 N1019, Level 1	Combined with Lot 225
44	E1016 N1019, Level 1	
45*	E1017 N1018, Level 2	Combined with Lot 51
46	E1017 N1018, Level 1	
47	E1018 N1018, Level 1	
48	E1016 N1020, Level 1	
49	E1017 N1019, Level 2	
50	E1015 N1018, Level 1	
51	E1017 N1018, Level 2	Combined with Lot 45*, Feature 1
52*	E1017 N1020, Level 1	Combined with Lot 54, Feature 1
53*	E1018 N1020, Level 1	Combined with Lot 61
54	E1017 N1020, Level 1	Combined with Lot 52*
55*	E1017 N1019, Level 1	Combined with Lot 82
56*	E1018 N1018, Level 2	Combined with Lot 111
57	E1015 N1019, Level 2	
58	E1015 N1019, Level 1	
59	E1015 N1018, Level 2	
60	E1016 N1018, Level 2	
61	E1018 N1020, Level 1	Combined with Lot 53*, Feature 1
62	E1015 N1020, Level 1	
63	E1016 N1018, Level 1	
64*	E997 N1009, Level 1	Combined with Lot 114
65	E998 N1010, Level 2	
66	E998 N1009, Level 1	
67	E998 N1009, Level 2	
68	E996 N1009, Level 1	
69*	E997 N1010, Level 1	Combined with Lot 113
70	E996 N1008, Level 5	
71	E996 N1008, Level 9	
72	E998 N1010, Level 1	
73	E996 N1008, Level 6	
74	E998 N1009, Level 2	
75	E1016 N1020, Level 2	
76	E996 N1008, Level 7	
77	E996 N1008, Level 1	
78	E996 N1008, Level 4	
79	E996 N1008, Level 3	
80	E996 N1008, Level 8	
81	E996 N1008, Level 2	
82	E1017 N1019, Level 1	Combined with Lot 55*
83	E998 N1010, Level 3	
84	E997 N1008, Level 2	
85	E998 N1009, Level 3	
86	E998 N1008, Level 1	
87	E996 N1009, Level 2	
88	E997 N1008, Level 1	
89	E996 N1011, Level 1	
90	E996 N1011, Level 2	
91	E996 N1010, Level 2	
92	E998 N1008, Level 2	
93	E996 N1010, Level 1	
94	E998 N1008, Level 3	
95	E1016 N1020, Level 3	
96	E996 N1009, Level 3	
97	E997 N1008, Level 3	
98	E1016 N1020, Level 4	
99	E996 N1010, Level 3	
100	E1016 N1019, Level 2	
101	E1018 N1020, Level 2	
102	E1015 N1020, Levels 1&2	
103	E1017 N1019, Level 3	
104	E1017 N1019, Level 4	
105	E997 N1009, Level 2	
106	E997 N1011, Level 1	
107	E1017 N1020, Level 2	
108	E997 N1011, Level 2	
109	E1017 N1019, Level 6	
110	E1017 N1019, Level 5	
111	E1018 N1018, Level 2	Combined with Lot 56*
112	E997 N1010, Level 2	
113	E997 N1010, Level 1	Combined with Lot 69*, Feature 2
114	E997 N1009, Level 1	Combined with Lot 64*, Feature 2
115	E1005 N1023, Level 4	
116	E1006 N1024, Level 1	
117	E1016 N1020, Level 6	
118	E1016 N1019, Level 5	

Table 60. (continued)

Lot Number	Provenience	Comments
119	E1005 N1024, Level 1	
120	E1015 N1020, Level 2	
121	E1016 N1018, Level 4	
122	E1015 N1020, Level 3	
123	E1005 N1024, Level 2	
124	E1016 N1019, Level 4	
125	E1015 N1020, Level 4	
126	E1016 N1018, Level 3	
127	E1006 N1024, Level 3	
128	E1018 N1020, Level 3	
129	E1017 N1020, Level 3	
130	E1005 N1023, Level 2	
131	E997 N1010, Level 3	
132	E1010 N1029, Level 6	
133	E997 N1008, Level 4	
134	E998 N1010, Level 5	
135	E997 N1008, Level 5	
136	E1016 N1018, Level 6	
137	E1010 N1029, Level 1	
138	E998 N1009, Level 4	
139	E1004 N987, Level 1	
140	E1016 N1018, Level 5	
141	E1010 N1029, Level 4	
142	E1005 N1023, Level 3	
143	E1006 N1022, Level 1	
144	E1015 N1020, Level 5	
145	E1010 N1029, Level 3	
146	E1010 N1029, Level 2	
147	E1016 N1020, Level 5	
148	E1016 N1019, Level 3	
149	E1015 N1019, Level 4	
150	E1005 N1023, Level 1	
151	E1006 N1024, Level 2	
152	E1004 N987, Level 6	
153	E996 N1011, Level 3	
154	E1004 N987, Level 7	
155	E1005 N1022, Level 2	
156	E998 N1009, Level 5	
157	E1005 N1022, Level 1	
158*	E997 N1009, Level 4	Combined with Lot 168
159	E996 N1010, Level 4	
160	E1004 N987, Level 5	
161	E1004 N987, Level 4	
162	E1004 N987, Level 2	
163	E997 N1008, Level 6	
164	E1004 N987, Level 3	
165	E998 N1008, Level 4	
166	E1010 N1029, Level 5	
167	E997 N1009, Level 3	
168	E997 N1009, Level 4	Combined with Lot 158*
169	E1006 N1023, Level 2	
170	E1006 N1023, Level 1	
171	E998 N1010, Level 4	
172	E1017 N1020, Level 4	
173	E998 N1008, Level 5	
174	E996 N1009, Level 5	
175	E997 N1010, Level 4	
176	E1005 N1024, Level 3	
177	E996 N1011, Level 4	
178	E1006 N1024, Level 4	
179	E997 N1009, Level 5	
180	E1005 N1024, Level 4	
181	E997 N1011, Level 4	
182	E996 N1009, Level 4	
183	E1005 N1022, Level 3	
184	E1006 N1022, Level 2	
185	E996 N1010, Level 5	
186	E998 N1010, Level 6	
187*	E1005 N1024, Level 5	Combined with Lot 196
188	E1005 N1022, Level 5	
189	E1016 N1020, Level 7	
190	E1006 N1022, Level 5	Combined with Lot 437*
191	E1006 N1022, Level 3	
192	E1006 N1023, Level 5	
193*	E1006 N1022, Level 4	Combined with Lot 195
194	E1005 N1024, Level 6	
195	E1006 N1022, Level 4	Combined with Lot 193*
196	E1005 N1024, Level 5	Combined with Lot 187*
197	E996 N1010, Level 4	Matrix Sample Feature 3
198	E998 N1009, Level 2	Matrix Sample Feature 2
199	E997 N1009, Level ?	Matrix Sample Feature 2
200	E998 N1010, Level 2	Matrix Sample Feature 2
201	E997 N1009, Level ?	Matrix Sample Feature 2
202	E1017 N1019, Level ?	Matrix Sample Feature 1
203	E1017 N1019, Level ?	Matrix Sample Feature 1
204	E1017 N1019, Level ?	Feature 1
205	E1005 N1024, Level 3	Matrix Sample Feature 6
206	E1016 N1019, Level ?	Matrix Sample Feature 6
207	E997 N1011, Level ?	Feature
208	E1015 N1018, Level ?	Feature Matrix
209	E1015 N1019, Level 3	Feature
210	E1015 N1019, Level ?	Feature 5
211	E1006 N1023, Level 4	
212	E1006 N1023, Level 3	
213	E1022 N1008, Level 1	
214	E1017 N1018, Level 4	
215	E1005 N1023, Level 5	
216	E1006 N1024, Level 5	
217	E996 N1011, Level 5	
218	E996 N1010, Level 6	
219	E1010 N1029, Level 7	
220	E1010 N1029, Level 8	
221	E1022 N1008, Level 4	
222	E1018 N1018, Level 4	
223	E1015 N1004, Level 3	
224	E998 N1008, Level 6	
225	E1018 N1019, Level 1	Combined with Lot 43* Feature 1
226	E997 N1011, Level 5	
227	E1017 N1018, Level 3	
228	E998 N1009, Level 6	
229	E1018 N1019, Level 2	
230	E996 N1009, Level 6	
231	E1022 N1008, Level 7	
232	E1015 N1004, Level 2	
233	E1022 N1008, Level 3	
234	E997 N1010, Level 5	
235	E1018 N1018. Level 5	
236	E1022 N1008, Level 6	
237	E1022 N1008, Level 5	

APPENDIX V

PROJECTILE POINT DATA

Table 61 contains the metric and nonmetric attribute data recorded for 566 reconstructible projectile points recovered from 41 BX 228. As discussed in the Material Culture section, the attribute data were recorded on a revised version of the Artifact Qualification Coding Form developed by Gunn and Prewitt (1975). A blank copy of the revised form, the Projectile Point Coding Form, is included in Appendix II, Figure 65. Figure 66 illustrates a completed Projectile Point Coding Form for the **Montell** dart point illustrated in Figure 36,a. Each attribute or entry on the Projectile Point Coding Form is defined and discussed below. Many attribute definitions remain unchanged from the coding instructions provided with Gunn and Prewitt's (1975) original form. Each entry is identified by: Table Heading Label (Coding Form Label).

SEQ (Sequence Number): Four digit unique number (only 3 digits used with 41 BX 228 points) assigned to each specimen.

TYP (Type Code Number): Three digit code arbitrarily assigned to recognized projectile point types. Type Code Numbers were only assigned to formally defined point types. Table 62 provides a list of the type codes originally defined by Gunn and Prewitt and those added by this author as well as the alphanumeric artifact code equivalencies used in this report.

SITE (Site No.): Self-explanatory.

LOT (Lot No.): Self-explanatory. See Appendix IV.

PRESENT/ABSENT ATTRIBUTES:			
	A (Stem/Base Smoothing)	1 = Present	2 = Absent
	B (Blade Beveling)	1 = Present	2 = Absent
	C (Stem Beveling)	1 = Present	2 = Absent
	D (Serrated)	1 = Present	2 = Absent

METRIC MEASUREMENTS

All metric measurements are expressed in millimeters except weight which is expressed in grams. All measurements except weight were determined by measuring the actual artifact using venier calipers except when incomplete. Incomplete specimens were traced on the graphic space provided on the form, and the missing point segments were projected and sketched in. The measurements of the incomplete specimens were determined by measuring the projected outline with a metric ruler.

TABLE 61. METRIC AND NONMETRIC ATTRIBUTE DATA FOR PROJECTILE POINTS FROM 41 BX 228

SEQ	TYP	SITE	LOT	A	B	C	D	E	F	G	H	I	J	K	L	EAST	NORTH	ELEV	DEP	LEV	M	N	O	P	Q	R	S	T	U
1	14	41BX228	0133	0	0	0	0	5	72	43	32	15	29	+10	0.0	997.40	1008.45	99.37	0.31	4	1	1	2	3	1	1	1	1	3
2	14	41BX228	0181	0	0	0	0	5	70	38	32	14	27	+09	10.8	997.79	1011.80	99.25	0.38	4	3	1	2	3	1	1	1	1	1
3	14	41BX228	0175	0	0	0	0	8	73	35	22	11	20	+07	15.3	997.80	1010.53	99.29	0.36	4	2	1	2	2	1	1	1	1	2
4	14	41BX228	0142	0	0	0	0	5	88	44	29	15	27	+10	0.0	1005.96	1023.17	99.23	0.38	3	1	1	2	3	1	2	1	1	3
5	14	41BX228	0391	0	0	0	0	5	79	43	29	13	27	+09	0.0	0.06	0.0	0.0	9.99	0	1	1	2	3	1	2	1	1	2
6	14	41BX228	0171	0	0	0	0	6	49	37	30	15	28	+08	8.2	998.56	1010.60	99.34	0.35	4	2	2	2	2	1	1	1	1	3
7	14	41BX228	0133	0	0	0	0	5	63	38	27	16	23	+10	8.7	997.38	1008.08	99.39	0.29	4	2	1	2	2	1	1	1	1	1
8	14	41BX228	0182	0	0	0	0	8	82	41	24	12	20	+06	0.0	996.69	1009.51	99.36	0.29	4	1	1	1	2	1	1	1	1	3
9	14	41BX228	0002	0	0	0	0	7	73	39	24	13	22	+06	0.0	0.0	0.0	0.0	0.0	2	1	1	2	3	1	1	1	2	3
10	14	41BX228	0101	0	0	0	0	5	76	38	26	12	24	+05	11.5	1018.47	1020.32	99.91	0.28	2	2	1	1	3	1	1	1	1	2
11	14	41BX228	0159	0	0	0	0	5	62	38	25	11	21	+05	0.0	996.66	1010.37	99.34	0.31	4	1	1	1	3	1	1	1	1	3
12	14	41BX228	0094	0	0	0	0	6	50	32	22	11	20	+07	0.0	998.29	1008.93	99.45	0.27	3	1	1	2	3	1	1	1	1	2
13	14	41BX228	0007	0	0	0	0	6	69	43	28	17	26	+09	13.6	995.00	1010.00	0.0	0.0	2	3	1	2	3	1	1	1	1	1
14	14	41BX228	0394	0	0	0	0	5	60	40	30	16	28	+09	9.9	0.09	0.0	0.0	9.99	0	2	1	2	3	1	1	1	2	3
15	14	41BX228	0097	0	0	0	0	5	57	35	25	13	23	+07	9.3	997.30	1008.52	99.40	0.28	3	3	1	2	3	1	1	2	1	1
16	14	41BX228	0015	0	0	0	0	6	63	33	26	14	22	+08	9.7	1005.00	1025.00	0.0	0.25	2	2	1	2	3	1	1	1	1	2
17	14	41BX228	0396	0	0	0	0	5	58	38	24	14	26	+08	10.0	0.11	0.0	0.0	9.99	0	3	1	2	3	1	1	1	1	2
18	14	41BX228	0181	0	0	0	0	6	72	43	29	17	27	+08	13.1	997.21	1011.63	99.27	0.36	4	2	1	2	2	1	1	1	3	2
19	14	41BX228	0078	0	0	0	0	7	76	38	25	14	22	+04	14.8	996.98	1008.84	99.30	0.35	4	1	1	2	3	1	1	1	1	2
20	14	41BX228	0116	0	0	0	0	8	79	18	26	12	23	+08	17.5	1006.98	1024.24	99.43	0.11	1	2	1	2	3	1	1	1	1	1
21	14	41BX228	0117	0	0	0	0	5	60	39	29	16	27	+10	8.5	1016.66	1020.39	99.59	0.51	6	2	1	2	3	1	1	1	1	1
22	14	41BX228	0391	0	0	0	0	7	63	36	26	11	24	+04	11.6	0.06	0.0	0.0	9.99	0	1	1	2	2	1	1	1	1	1
23	14	41BX228	0096	0	0	0	0	7	68	49	27	15	26	+07	0.0	996.70	1009.56	99.43	0.22	3	1	1	1	2	1	1	1	1	1
24	14	41BX228	0232	0	0	0	0	6	68	45	31	12	29	+07	0.0	1015.39	1004.01	99.90	0.06	2	1	1	2	3	1	1	1	1	3
25	14	41BX228	0091	0	0	0	0	5	60	45	31	13	28	+07	0.0	996.91	1010.50	99.58	0.07	2	1	1	1	2	1	1	1	1	3
26	14	41BX228	0171	0	0	0	0	6	69	43	30	16	27	+09	0.0	998.56	1010.60	99.38	0.31	4	1	1	2	2	1	1	1	1	3
27	14	41BX228	0056	0	0	0	0	5	65	38	30	15	27	+08	0.0	1015.90	1019.86	100.04	0.08	1	1	1	2	3	1	1	1	1	1
28	14	41BX228	0456	0	0	0	0	8	86	48	24	14	23	+09	0.0	1010.00	1015.00	0.0	0.0	0	1	1	2	2	1	1	1	1	3
29	14	41BX228	0127	0	0	0	0	6	56	32	25	12	22	+06	0.0	1006.68	1024.39	99.23	0.31	3	2	1	2	3	1	1	2	2	2
30	14	41BX228	0391	0	0	0	0	5	65	38	27	14	24	+08	0.0	0.06	0.0	0.0	9.99	0	1	1	2	2	1	2	2	1	1
31	14	41BX228	0167	0	0	0	0	6	66	36	25	12	23	+04	0.0	997.57	1009.59	99.35	0.31	3	1	1	2	3	1	1	1	1	2
32	14	41BX228	0390	0	0	0	0	6	66	37	23	13	21	+03	0.0	0.05	0.0	0.0	9.99	0	1	1	2	2	1	1	1	3	2
33	5	41BX228	0391	0	1	0	0	7	96	64	34	15	30	-04	31.8	0.06	0.0	0.0	9.99	0	2	3	2	3	1	1	1	2	2
34	5	41BX228	0391	0	0	0	0	9	67	27	24	14	24	-03	22.3	0.06	0.0	0.0	9.99	0	3	2	2	2	1	1	1	1	1
35	5	41BX228	0226	0	0	0	0	8	63	48	23	9	22	-03	20.0	997.53	1011.87	99.18	0.45	5	3	2	2	2	1	1	1	1	1
36	5	41BX228	0396	0	0	0	0	7	62	46	25	14	21	+02	13.9	0.11	0.0	0.0	9.99	0	3	1	2	3	1	1	1	1	3
37	5	41BX228	0293	1	0	0	0	7	60	49	29	14	26	-04	18.7	1011.28	1029.97	99.47	0.14	2	3	2	2	3	1	1	1	1	3
38	5	41BX228	0330	0	0	0	0	8	84	54	27	11	24	000	22.1	1000.00	963.00	0.0	0.33	4	2	1	2	3	1	2	1	1	1
39	5	41BX228	0325	0	1	0	0	6	59	52	30	12	27	000	16.0	994.40	968.05	98.98	0.33	4	2	2	2	2	1	1	1	1	1
40	5	41BX228	0394	0	0	0	0	7	68	50	30	12	23	-02	18.0	0.09	0.0	0.0	9.99	0	2	1	2	3	1	1	1	1	3
41	5	41BX228	0240	0	0	0	0	9	63	59	26	16	22	-07	38.6	1005.57	1022.06	99.29	0.26	4	2	1	1	2	1	1	1	1	2
42	5	41BX228	0026	0	0	0	0	8	77	46	27	13	22	-04	0.0	1010.00	1030.00	0.0	0.13	1	1	1	2	3	1	1	1	1	1
43	5	41BX228	0004	0	0	0	0	7	70	49	29	12	27	-05	15.0	0.0	0.0	0.0	0.0	4	2	1	2	3	1	1	1	1	3
44	5	41BX228	0040	1	0	0	0	7	106	61	31	15	28	-05	38.1	1015.00	1025.00	0.0	0.49	3	2	3	2	3	1	1	1	1	2
45	5	41BX228	0182	0	0	0	0	6	81	48	31	16	25	-05	16.0	996.02	1009.69	99.39	0.26	4	1	1	2	3	1	1	1	2	3
46	5	41BX228	0077	0	0	0	0	7	80	42	27	14	23	-04	18.9	996.40	1008.90	99.55	0.10	1	2	1	2	3	1	1	1	1	3
47	5	41BX228	0465	0	0	0	0	7	68	49	28	13	26	+03	14.9	0.0	0.0	0.0	9.99	0	3	1	2	3	1	1	1	1	3
48	5	41BX228	0177	0	0	0	0	9	89	55	29	16	28	-05	28.3	996.03	1011.17	99.25	0.34	4	2	1	2	3	1	1	1	1	1
49	5	41BX228	0395	0	1	0	0	9	60	45	22	10	20	-03	13.2	0.01	0.0	0.0	9.99	0	3	1	2	3	1	1	1	1	2
50	5	41BX228	0328	0	0	0	0	16	61	44	25	12	21	000	14.1	995.08	968.68	98.92	0.40	4	3	1	2	3	1	1	1	1	2
51	5	41BX228	0459	0	0	0	0	8	79	47	28	14	25	-04	0.0	1010.00	1030.00	0.0	0.0	0	1	1	2	3	1	1	1	1	3
52	5	41BX228	0180	0	1	0	0	8	59	40	24	11	22	-05	13.1	1005.80	1024.68	99.10	0.36	4	2	3	2	2	1	1	1	1	3
53	5	41BX228	0181	0	0	0	0	6	81	52	31	14	27	+03	0.0	997.68	1011.70	99.25	0.38	4	1	1	2	3	1	1	2	1	1
54	5	41BX228	0438	0	0	0	0	7	70	45	33	15	25	-04	16.2	1015.00	1018.00	0.0	0.37	4	2	1	2	3	1	1	1	1	3
55	5	41BX228	0063	0	0	0	0	7	56	40	28	12	24	-01	10.6	1016.09	1018.45	100.03	0.13	1	2	1	2	3	1	1	2	1	2
56	5	41BX228	0397	0	0	0	0	8	84	57	30	13	28	-03	0.0	0.12	0.0	0.0	9.99	0	1	1	2	2	1	1	1	1	2
57	0	41BX228	0464	0	0	0	0	5	51	22	17	9	12	-02	0.0	0.0	0.0	0.0	0.0	0	1	1	2	3	1	1	1	2	3
58	5	41BX228	0438	0	0	0	0	7	65	44	27	13	24	-04	11.6	1015.39	1018.46	99.75	0.37	4	2	1	2	3	1	1	1	1	2
59	5	41BX228	0097	0	0	0	0	7	45	40	27	12	23	-04	8.2	997.42	1008.52	99.40	0.28	3	2	2	2	3	1	1	1	2	2
60	5	41BX228	0396	0	0	0	0	7	65	45	24	11	21	-04	0.0	0.11	0.0	0.0	9.99	0	1	1	2	3	1	1	1	1	3
61	5	41BX228	0167	1	0	0	0	8	88	45	25	14	22	-04	0.0	997.52	1009.72	99.38	0.28	3	1	2	2	3	1	1	1	1	3
62	5	41BX228	0467	0	0	0	0	6	62	41	28	11	23	000	0.0	0.10	0.01	0.0	9.99	0	1	1	2	3	1	1	1	1	2
63	5	41BX228	0445	1	1	0	0	8	92	57	29	17	26	-03	0.0	1000.00	1025.00	0.0	0.0	0	1	3	2	3	1	1	1	1	3
64	5	41BX288	0095	0	0	0	0	6	54	48	27	12	23	-03	14.0	1016.87	1020.50	99.82	0.28	3	2	2	2	3	1	1	1	1	2
65	5	41BX228	0069	0	0	0	0	8	70	48	30	13	27	-02	0.0	997.20	1010.20	99.55	0.10	1	1	1	2	3	1	1	1	1	3
66	5	41BX228	0465	0	0	0	0	7	57	38	21	8	19	-02	11.3	0.0	0.0	0.0	9.99	0	2	1	2	2	1	2	1	1	3
67	5	41BX228	0395	0	0	0	0	8	72	56	29	11	26	000	0.0	0.10	0.0	0.0	9.99	0	1	1	2	3	1	1	1	1	2
68	5	41BX228	0082	0	0	0	0	9	72	48	25	8	24	-03	0.0	0.0	0.0	0.0	0.0	2	1	1	2	2	1	1	1	1	2
69	5	41BX228	0464	0	0	0	0	6	60	37	23	11	19	-03	10.7	0.0	0.0	0.0	0.0	0	2	1	2	3	1	2	1	1	3
70	5	41BX228	0395	0	0	0	0	9	52	38	25	11	22	-04	16.2	0.10	0.0	0.0	9.99	0	3	2	2	2	1	1	1	3	1
71	5	41BX228	0395	0	0	0	0	10	94	49	14	31	26	-05	0.0	0.10	0.0	0.0	9.99	0	1	3	1	1	1	1	1	1	2
72	5	41BX228	0063	0	0	0	0	7	63	39	24	13	19	-03	0.0	1016.87	1018.96	100.10	0.06	1	1	1	2	3	1	1	2	1	1
73	13	41BX228	0386	0	0	0	0	7	67	32	24	21	21	+18	10.4	0.01	0.0	0.0	9.99	0	3	1	2	2	1	4	1	1	1
74	13	41BX228	0391	0	0	0	0	8	85	39	23	19	21	+09	13.5	0.06	0.0	0.0	9.99	0	2	1	2	3	1	1	1	1	3
75	13	41BX228	0066	0	0	0	0	7	75	34	23	7	26	+23	13.4	0.0	0.0	0.0	0.0	6	2	1	2	2	1	1	1	1	3
76	13	41BX228	0390	0	0	0	0	9	76	40	25	19	5	+23	17.8	0.05	0.0	0.0	9.99	0	2	1	2	2	1	1	1	1	2
77	13	41BX228	0115	0	1	0	0	6	54	25	24	20	21	+06	7.0	1005.45	1023.42	99.15	0.36	4	2	1	2	3	1	2	1	1	2
78	13	41BX228	0456	0	1	0	0	8	65	25	23	6	23	+23	11.5	1010.00	1015.00	0.0	0.0	0	3	1	2	2	1	1	1	1	2
79	13	41BX228	0172	0	1	0	0	8	71	27	23	18	22	+07	11.5	1017.30	1020.83	99.77	0.39	4	2	2	2	2	1	1	1	2	1
80	13	41BX228	0175	0	0	0	0	8	70	30	28	22	25	+08	12.0	997.28	1010.15	99.28	0.37	4	2	1	2	3	1	1	1	2	3
81	13	41BX228	0189	0	0	0	0	8	85	34	18	18	24	+03	19.0	1016.37	1020.11	99.49	0.61	7	2	1	2	3	1	1	1	1	2
82	13	41BX228	0008	0	1	0	0	9	86	29	24	19	22	+05	17.5	995.00	1010.00	0.0	0.43	3	2	1	2	2	1	1	1	1	3
83	13	41BX228	0192	0	1	0	0	7	72	38	23	24	24	+06	12.3	1006.05	1023.47	99.15	0.43	5	2	1	2	2	1	1	1	1	2
84	13	41BX228	0212	0	0	0	0	7	72	27	24	24	23	+04	10.0	1006.98	1023.34	99.31	0.27	3	2	1	2	3	1	2	1	2	3
85	13	41BX228	0453	0	1	0	0	8	64	25	21	19	22	+06	11.2	1005.00	1030.00	0.0	0.0	0	3	2	2	2	1	1	1	1	1
86	13	41BX228	0053	0	1	0	0	7	92	31	18	20	20	+04	16.1	1018.00	1020.00	0.0	0.0	1	2	1	2	2	1	1	1	1	2
87	13	41BX228	0464	0	0	0	0	12	102	38	22	23	22	+06	0.0	0.0	0.0	0.0	0.0	0	1	1	1	2	1	1	1	1	1
88	13	41BX228	0391	0	0	0	0	9	197	36	23	22	21	+01	19.7	0.06	0.0	0.0	9.99	0	3	1	2	2	1	1	1	1	3
89	13	41BX228	0005	0	0	0	0	9	73	36	23	23	20	+20	14.1	0.0	0.0	0.0	0.0	5	3	2	2	2	1	1	1	1	3
90	13	41BX228	0464	0	0	0	0	7	85	37	21	17	19	+04	18.8	0.0	0.0	0.0	0.0	0	2	1	2	2	1	1	1	2	3
91	13	41BX228	0005	0	0	0	0	7	104	37	24	19	6	+23	24.0	0.0	0.0	0.0	0.0	5	2	1	2	2	1	1	1	1	1
92	13	41BX228	0191	0	0	0	0	5	65	42	24	20	7	+20	9.5	1006.47	1022.41	99.34	0.29	3	3	2	2	2	1	1	1	1	3
93	13	41BX228	0396	0	0	0	0	8	100	48	24	23	22	+10	0.0	0.11	0.0	0.0	9.99	0	1	1	2	2	1	1	1	1	1
94	13	41BX228	0001	0	0	0	0	10	92	40	20	19	18	+07	25.2	0.0	0.0	0.0	0.0	1	3	2	2	1	1	3	1	1	1
95	13	41BX228	0388	0	0	0	0	7	84	32	26	22	24	+09	15.7	0.03	0.0	0.0	9.99	0	2	1	2	3	1	3	1	1	1
96	13	41BX228	0395	0	0	0	0	7	61	43	23	17	22	+05	11.1	0.10	0.0	0.0	9.99	0	2	2	2	2	1	1	1	1	3
97	13	41BX228	0386	0	0	0	0	8	67	39	21	22	19	+09	13.9	0.01	0.0	0.0	9.99	0	2	2	2	2	1	1	1	1	3
98	13	41BX228	0081	0	0	0	0	9	83	41	24	20	25	+05	15.0	996.25	1008.23	99.41	0.24	2	2	1	2	2	1	1	1	1	3
99	13	41BX228	0098	0	0	0	0	8	78	47	20	14	20	+06	16.1	1016.72	1020.17	99.72	0.38	4	2	1	2	2	1	1	1	2	3
100	13	41BX228	0386	0	0	0	0	10	102	43	23	22	22	+08	29.0	0.01	0.0	0.0	9.99	0	2	1	1	2	1	1	1	1	3
101	13	41BX228	0396	0	0	0	0	10	99	37	22	15	20	+06	19.0	0.11	0.0	0.0	9.99	0	2	1	1	2	1	1	1	3	1
102	13	41BX228	0396	0	0	0	0	9	75	30	25	18	23	+08	16.2	0.11	0.0	0.0	9.99	0	2	1	2	2	1	3	1	1	2
103	13	41BX228	0339	0	0	0	0	8	59	32	21	21	19	+06	10.9	0.04	0.0	0.0	9.99	0	3	2	2	2	1	1	1	2	1
104	13	41BX228	0005	0	0	0	0	6	65	33	21	19	19	+08	11.2	0.0	0.0	0.0	0.0	5	3	1	2	2	1	1	1	1	2
105	13	41BX228	0006	0	1	0	0	6	68	28	15	12	14	+04	8.9	0.0	0.0	0.0	0.0	6	3	1	2	2	1	1	1	1	3
106	13	41BX228	0214	0	0	0	0	8	82	35	23	19	22	+06	19.2	1017.31	1018.08	99.88	0.33	4	3	1	2	2	1	1	1	1	1
107	13	41BX228	0396	0	0	0	0	7	72	47	24	21	21	+08	13.3	0.11	0.0	0.0	9.99	0	2	1	2	2	1	1	2	1	3
108	13	41BX228	0391	0	1	0	0	8	52	37	23	16	20	+05	11.5	0.06	0.0	0.0	9.99	0	3	2	3	2	1	1	1	1	1
109	13	41BX228	0145	0	0	0	0	7	63	34	20	20	26	+07	11.8	1010.46	1029.11	99.27	0.27	3	2	1	2	2	1	1	1	2	3
110	13	41BX228	0005	0	0	0	0	7	80	46	25	17	22	+06	17.5	0.0	0.0	0.0	0.0	5	2	1	2	2	1	1	1	3	3

Table 61. (continued)

SEC	TYP	SITE	LOT	A	B	C	D	E	F	G	H	I	J	K	L	EAST	NORTH	ELEV	DEP	LEV	M	N	O	P	Q	R	S	T	U
111	13	41BX228	0131	0	0	0	0	7	71	32	18	17	16	+03	14.0	997.11	1010.01	99.37	0.28	3	2	1	2	3	1	1	1	3	2
112	13	41BX228	0289	0	0	0	0	8	86	37	19	19	22	+05	0.0	1020.70	1024.93	99.95	0.16	2	1	1	2	2	1	1	1	1	1
113	13	41BX228	0235	0	0	0	0	8	66	42	21	19	20	+08	0.0	1018.80	1018.23	99.80	0.41	5	1	1	2	2	1	1	1	3	2
114	13	41BX228	0461	0	0	0	0	8	66	30	22	24	20	+08	0.0	1015.00	1015.00	0.0	0.0	0	1	1	2	2	1	1	2	1	1
115	13	41BX228	0104	0	0	0	0	7	72	31	24	19	23	+06	0.0	1017.00	1019.00	0.0	0.39	4	1	1	2	3	1	1	1	1	2
116	13	41BX228	0177	0	0	0	0	7	56	24	22	19	20	+04	7.4	996.00	1011.00	0.0	0.34	4	2	2	2	2	1	1	1	1	2
117	13	41BX228	0292	0	0	0	0	9	58	42	23	25	28	+07	0.0	999.68	963.80	98.93	0.33	4	1	1	2	2	1	3	1	1	1
118	13	41BX228	0118	0	0	0	0	6	71	36	19	21	17	+08	0.0	1016.30	1019.29	99.66	0.47	5	1	1	2	2	1	1	1	1	3
119	13	41BX228	0396	0	0	0	0	8	95	38	26	22	26	+06	21.0	0.11	0.0	0.0	9.99	0	1	1	2	3	1	1	1	2	2
120	13	41BX228	0386	0	1	0	0	8	63	34	25	22	25	+08	15.5	0.01	0.0	0.0	9.99	0	3	2	2	2	1	1	1	2	2
121	13	41BX228	0391	0	1	0	0	6	70	35	30	25	30	+09	15.4	0.06	0.0	0.0	9.99	0	3	2	2	3	1	1	1	2	1
122	13	41BX228	0116	0	0	0	0	9	64	40	23	23	24	+05	15.2	1006.05	1024.71	99.45	0.09	1	2	1	2	2	1	1	1	1	2
123	13	41BX228	0394	0	0	0	0	8	95	40	25	22	24	+06	0.0	0.09	0.0	0.0	9.99	0	2	1	2	2	1	2	1	1	1
124	13	41BX228	0389	0	0	0	0	8	59	44	26	25	24	+08	0.0	0.04	0.0	0.0	9.99	0	1	1	2	2	1	1	1	1	2
125	13	41BX228	0397	0	0	0	0	7	94	46	24	23	21	+09	0.0	0.12	0.0	0.0	9.99	0	1	1	2	2	1	1	1	1	2
126	13	41BX228	0002	0	0	0	0	8	84	42	23	19	22	+05	0.0	0.0	0.0	0.0	0.0	2	1	1	2	2	1	2	1	1	1
127	13	41BX228	0467	0	0	0	0	9	67	43	29	18	24	+07	0.0	0.10	0.01	0.0	9.99	0	1	1	2	2	1	1	1	1	1
128	13	41BX228	0399	0	0	0	0	7	58	42	23	19	23	+09	12.5	0.17	0.0	0.0	9.99	0	2	1	2	2	1	4	1	2	1
129	13	41BX228	0396	0	0	0	0	8	81	31	21	24	21	+09	15.6	0.11	0.0	0.0	9.99	0	2	1	2	2	1	1	1	1	1
130	13	41BX228	0063	0	0	0	0	6	64	30	22	18	21	+04	10.5	1016.55	1018.75	100.04	0.12	1	3	2	2	2	1	1	1	1	1
131	13	41BX228	0115	0	0	0	0	6	56	33	21	11	20	+05	7.7	1005.44	1023.57	99.14	0.37	4	2	1	2	2	1	1	2	1	3
132	13	41BX228	0079	0	0	0	0	7	66	37	21	21	19	+08	11.5	996.00	1008.00	99.38	0.27	3	1	1	2	2	1	1	1	1	2
133	13	41BX228	00C5	0	0	0	0	7	71	36	28	15	26	+08	11.5	0.0	0.0	0.0	0.0	5	2	1	2	2	1	1	1	2	2
134	13	41BX228	0142	0	0	0	0	8	67	41	18	13	18	+04	16.0	1005.65	1023.16	99.21	0.30	3	2	2	2	2	1	1	1	1	2
135	13	41BX228	0395	0	0	0	0	5	67	32	24	17	22	+05	0.0	0.10	0.0	0.0	9.99	0	1	1	2	2	1	1	1	2	2
136	4	41BX228	0397	0	0	0	0	6	51	24	21	9	15	+02	0.0	0.12	0.0	0.0	9.99	0	1	1	2	2	1	1	1	2	3
137	13	41BX228	0301	0	0	0	0	7	70	38	23	19	23	+07	0.0	995.40	968.44	99.22	0.10	1	1	1	2	2	1	1	1	1	2
138	13	41BX228	0464	0	0	0	0	7	56	40	26	18	23	+06	0.0	0.0	0.0	0.0	0.0	0	2	1	2	2	1	1	1	3	2
139	13	41BX228	0397	0	0	0	0	7	78	42	22	21	19	+05	0.0	0.12	0.0	0.0	9.99	0	1	1	2	3	1	1	1	1	3
140	13	41BX228	0010	0	0	0	0	7	65	44	24	18	22	+07	0.0	1004.00	989.00	0.0	0.10	1	1	1	2	2	1	1	1	1	3
141	13	41BX228	0446	0	1	0	0	7	53	26	23	14	22	+09	11.2	1000.00	1030.00	0.0	0.0	0	2	2	2	2	1	1	1	2	2
142	13	41BX228	0391	0	0	0	0	7	87	40	23	24	20	+09	0.0	0.06	0.0	0.0	9.99	0	1	1	2	3	1	1	1	1	2
143	13	41BX228	0396	0	0	0	0	7	83	31	26	21	24	+03	0.0	0.11	0.0	0.0	9.99	0	1	1	2	3	1	1	1	1	1
144	13	41BX228	0002	0	0	0	0	9	71	40	23	21	21	+05	0.0	0.0	0.0	0.0	0.0	2	1	1	2	3	1	1	1	3	1
145	13	41BX228	0465	0	0	0	0	7	67	36	21	22	29	+07	0.0	0.0	0.0	0.0	9.99	0	1	1	2	2	1	1	1	2	1
146	20	41BX228	0391	0	0	0	0	6	43	24	28	10	18	+03	6.0	0.06	0.0	0.0	9.99	0	3	1	2	3	1	1	1	1	2
147	20	41BX228	0003	0	0	0	0	7	42	33	31	11	18	+05	7.0	0.0	0.0	0.0	9.99	3	3	1	2	3	1	1	1	1	2
148	20	41BX228	0085	0	0	0	0	6	58	30	32	13	18	+04	9.3	998.45	1009.18	99.42	0.28	3	2	1	2	3	1	1	1	1	3
149	20	41BX228	0390	0	0	0	0	6	63	30	18	9	20	+03	11.5	0.05	0.0	0.0	9.99	0	2	1	2	3	1	1	1	1	2
150	20	41BX228	0081	0	0	0	0	7	67	35	33	11	22	+05	0.0	996.65	1008.03	99.50	0.15	2	1	1	2	3	1	1	1	1	3
151	20	41BX228	0389	0	0	0	0	7	59	35	30	10	22	+06	10.5	0.04	0.0	0.0	9.99	0	1	2	2	3	1	1	1	1	3
152	0	41BX228	0301	0	0	0	0	7	73	41	27	12	18	+03	15.6	995.73	968.16	99.01	0.31	3	2	1	2	3	1	1	1	1	2
153	20	41BX228	0390	0	0	0	0	6	42	28	31	9	22	+05	5.0	0.05	0.0	0.0	9.99	0	3	1	2	3	1	1	1	1	3
154	20	41BX228	0055	0	0	0	1	4	52	24	25	10	15	+04	3.7	1017.00	1019.00	0.0	0.10	1	2	1	2	3	1	1	1	1	3
155	20	41BX228	00E5	0	0	0	0	6	65	29	27	13	18	+04	8.5	0.0	0.0	0.0	0.0	5	2	1	2	3	1	1	1	2	3
156	20	41BX228	0464	0	0	0	0	7	45	27	25	10	20	+03	6.5	0.0	0.0	0.0	0.0	0	2	1	2	3	1	1	1	3	3
157	20	41BX228	0155	0	0	0	0	7	55	31	29	10	19	+04	0.0	1005.32	1022.81	99.49	0.06	2	1	1	2	2	1	1	1	2	3
158	20	41BX228	0467	0	0	0	0	6	71	33	32	11	20	+03	9.5	0.10	0.01	0.0	9.99	0	1	1	2	3	1	1	1	1	3
159	20	41BX228	0395	0	0	0	1	5	42	27	29	10	18	+03	5.3	0.10	0.0	0.0	9.99	0	3	1	2	3	1	1	1	1	2
160	20	41BX228	0133	0	0	0	0	6	54	31	30	12	20	+04	0.0	997.10	1008.16	99.38	0.30	4	1	1	2	3	1	1	1	3	3
161	20	41BX228	0064	0	1	0	1	5	40	26	24	9	16	+04	4.0	997.61	1008.60	99.56	0.12	2	3	2	2	3	1	1	1	1	3
162	20	41BX228	0395	0	0	0	0	6	55	25	27	10	17	+03	6.0	0.10	0.0	0.0	9.99	0	2	1	2	3	1	1	1	1	1
163	20	41BX228	0191	0	0	0	0	5	40	23	22	9	16	+02	3.5	1006.37	1022.31	99.37	0.26	3	2	1	2	3	1	1	2	3	1
164	20	41BX228	0146	0	0	0	1	5	53	25	24	11	14	+04	0.0	1010.55	1029.55	99.35	0.19	2	1	1	2	3	1	1	1	3	3
165	20	41BX228	0396	0	0	0	0	7	58	32	27	12	12	+02	9.5	0.11	0.0	0.0	9.99	0	2	1	2	3	1	1	1	3	3
166	20	41BX228	0137	0	0	0	1	7	73	27	22	11	14	+03	0.0	1010.85	1029.31	99.41	0.13	1	1	1	2	3	1	1	1	2	3
167	20	41BX228	0391	0	0	0	0	7	60	32	27	12	18	+05	9.0	0.06	0.0	0.0	9.99	0	2	1	2	3	1	1	1	1	3
168	20	41BX228	0041	0	0	0	0	5	46	26	25	10	16	+04	0.0	0.0	0.0	0.0	0.0	1	1	1	2	2	1	1	2	1	1
169	20	41BX228	0153	0	0	0	0	7	58	31	25	11	15	+03	0.0	996.79	1011.04	99.38	0.21	3	1	1	2	2	1	1	1	2	2
170	0	41BX228	0107	0	0	0	0	7	42	41	27	12	19	+03	11.2	1017.40	1020.11	99.92	0.24	2	1	2	2	3	1	1	1	2	2
171	20	41BX228	0191	0	0	0	0	7	52	25	22	12	14	+04	8.4	1006.50	1022.94	99.35	0.28	3	2	2	2	2	1	1	1	2	2
172	20	41BX228	0368	0	1	0	0	6	44	23	24	9	18	+02	4.9	0.03	0.0	0.0	9.99	0	3	2	2	3	1	1	1	1	3
173	4	41BX228	0159	0	0	0	1	5	43	24	25	11	19	000	4.5	996.33	1010.87	99.38	0.27	4	3	2	2	3	1	1	1	1	2
174	4	41BX228	0081	0	0	0	0	5	37	28	27	10	20	000	5.8	996.50	1008.75	99.47	0.18	2	3	2	2	3	1	1	1	1	2
175	4	41BX228	0053	0	0	0	1	6	37	18	19	9	12	-03	3.5	1018.68	1020.68	100.06	0.13	1	3	1	2	3	1	1	1	1	3
176	4	41BX228	0380	0	0	0	0	7	55	22	19	8	14	000	6.5	1000.00	963.00	0.0	0.33	4	3	1	2	2	1	1	1	1	3
177	4	41BX228	0464	0	0	0	0	6	61	27	24	10	19	+02	9.8	0.0	0.0	0.0	0.0	0	2	1	2	3	1	1	1	2	2
178	4	41BX228	0391	0	0	0	0	6	54	25	21	10	14	-03	0.0	0.06	0.0	0.0	9.99	0	1	1	2	3	1	1	2	1	3
179	4	41BX228	0052	0	0	0	0	6	43	24	24	10	18	+03	5.4	1017.00	1020.00	0.0	0.06	1	3	1	2	3	1	1	1	1	3
180	4	41BX228	0050	0	0	0	0	6	60	28	25	11	19	000	0.0	1015.06	1018.10	100.05	0.07	1	1	1	2	3	1	1	2	1	3
181	4	41BX228	0131	0	0	0	0	6	48	29	28	11	16	000	0.0	997.00	1010.00	0.0	0.30	3	1	1	2	3	1	1	1	1	3
182	4	41BX228	0094	0	0	0	0	6	41	27	20	9	15	-03	4.0	998.00	1008.00	0.0	0.27	3	2	1	2	3	1	1	1	1	2
183	4	41BX228	00C5	0	0	0	0	7	38	24	20	1	15	+01	4.9	0.0	0.0	0.0	0.0	5	2	2	2	3	1	1	1	3	3
184	4	41BX228	0312	0	0	0	0	5	28	37	10	22	15	+01	4.0	1010.00	950.00	0.0	0.05	1	2	1	2	2	1	1	1	1	3
185	4	41BX228	0391	0	0	0	0	5	58	25	25	10	14	+02	5.5	0.06	0.0	0.0	9.99	0	2	1	2	3	1	1	1	1	3
186	4	41BX228	0018	0	1	0	0	6	45	29	27	10	19	+01	5.3	1010.00	1000.00	0.0	0.30	2	2	2	2	3	1	1	2	1	1
187	4	41BX228	0396	0	0	0	0	6	52	22	25	9	13	.000	4.6	0.11	0.0	0.0	9.99	0	2	1	2	2	1	1	1	1	2
188	4	41BX228	0303	0	0	0	0	5	42	23	23	8	18	+03	4.4	994.46	968.17	99.24	0.07	1	2	1	2	3	1	1	1	3	3
189	4	41BX228	0368	0	0	0	0	5	31	16	22	10	13	-03	3.1	1000.00	963.00	0.0	0.23	3	3	2	2	2	1	1	1	3	2
190	4	41BX228	0464	0	0	0	0	5	51	32	29	10	22	+01	0.0	0.0	0.0	0.0	0.0	0	1	1	2	2	1	1	1	1	3
191	4	41BX228	0331	0	0	0	0	5	44	27	25	10	18	+01	0.0	995.00	968.00	0.0	0.27	3	1	1	2	3	1	1	1	1	1
192	20	41BX228	0105	0	0	0	0	5	47	23	21	10	15	+02	4.8	997.28	1009.41	99.43	0.22	2	3	1	2	3	1	1	1	1	2
193	20	41BX228	0233	0	0	0	0	6	61	32	28	13	22	+02	9.8	1022.15	1008.65	99.80	0.33	3	2	1	2	3	1	1	1	3	1
194	20	41BX228	0233	0	1	0	0	6	48	27	24	19	19	+01	6.7	1022.44	1008.92	99.89	0.24	3	3	1	2	2	1	1	1	1	1
195	20	41BX228	0395	0	0	0	0	7	42	30	19	9	15	+01	6.0	0.10	0.0	0.0	9.99	0	2	1	2	2	1	1	1	1	1
196	23	41BX228	0391	0	1	0	0	6	43	20	20	13	15	+02	4.8	0.06	0.0	0.0	9.99	0	3	1	2	2	1	1	1	1	2
197	4	41BX228	0391	0	0	0	0	7	57	25	23	12	19	+02	7.5	0.06	0.0	0.0	9.99	0	2	1	2	2	1	1	1	1	1
198	23	41BX228	0049	0	0	0	0	6	40	23	25	11	18	+03	6.5	1017.00	1019.00	0.0	0.24	2	2	2	2	2	1	1	1	3	2
199	23	41BX228	0465	0	0	0	0	5	54	23	27	12	17	+03	4.9	0.0	0.04	0.0	9.99	0	2	1	2	3	1	1	1	1	3
200	0	41BX228	0368	0	0	0	0	6	49	24	17	12	14	+04	5.3	0.03	0.0	0.0	9.99	0	2	1	2	3	1	1	1	3	3
201	0	41BX228	0261	0	0	0	0	6	53	24	23	11	14	+03	5.3	995.00	969.00	0.0	0.21	3	2	1	2	2	1	1	1	3	3
202	0	41BX228	0345	0	0	0	0	6	48	29	29	11	20	+03	7.6	0.10	0.0	0.0	9.99	0	2	1	2	2	1	1	1	3	1
203	0	41BX228	0366	0	0	0	0	5	29	25	24	8	18	+02	3.3	0.01	0.0	0.0	9.99	0	1	2	2	2	1	1	1	1	2
204	20	41BX228	0043	0	0	0	0	5	41	24	26	12	16	+05	4.8	1018.00	1019.00	100.16	0.05	1	2	1	2	3	1	1	1	2	1
205	0	41BX228	0357	0	0	0	0	5	46	21	17	13	12	+03	0.0	0.02	0.0	0.0	9.99	3	1	1	2	2	1	1	2	2	2
206	23	41BX228	0387	0	0	0	0	7	54	32	23	10	22	+04	9.0	0.02	0.0	0.0	9.99	0	2	1	2	2	1	1	1	3	3
207	23	41BX228	0098	0	0	0	0	7	55	25	23	10	16	+03	0.0	1016.30	1020.55	99.79	0.31	4	1	1	2	3	1	1	1	1	1
208	23	41BX228	0388	0	0	0	0	5	46	21	19	13	14	+02	4.6	0.03	0.0	0.0	9.99	0	2	1	2	3	1	1	1	1	2
209	20	41BX228	0033	0	0	0	0	5	42	24	24	8	18	+03	4.3	0.0	0.0	0.0	0.0	3	1	1	2	3	1	1	1	1	2
210	4	41BX228	0293	0	0	0	0	6	56	29	27	12	19	+01	0.0	1011.59	1029.91	99.41	0.20	2	1	1	2	2	1	1	1	1	1
211	23	41BX228	0390	0	0	0	0	6	59	29	27	13	17	+04	0.0	0.05	0.0	0.0	9.99	0	1	1	2	3	1	1	1	1	1
212	0	41BX228	0068	0	0	0	0	7	64	32	31	12	19	+02	0.0	996.61	1009.39	99.63	0.02	1	1	1	2	3	1	1	1	1	3
213	0	41BX228	0048	0	0	0	0	0	55	34	29	12	18	+02	0.0	1016.00	1020.00	0.0	0.01	1	2	1	2	3	1	1	2	1	1
214	0	41BX228	0396	0	0	0	0	7	73	39	36	13	24	+03	0.0	0.11	0.0	0.0	9.99	0	1	1	2	2	1	1	1	1	1
215	4	41BX228	0146	0	0	0	0	6	49	22	20	10	14	+02	0.0	1010.60	1029.81	99.36	0.18	2	1	1	2	3	1	1	2	1	1
216	4	41BX228	0095	0	0	0	0	7	42	25	18	12	13	+02	5.5	996.00	1010.00	0.0	0.20	3	1	2	2	2	1	1	1	1	2
217	0	41BX228	0223	0	0	0	0	5	58	23	20	12	14	+02	0.0	1015.15	1004.78	99.74	0.22	3	1	1	2	3	1	1	1	3	3
218	0	41BX228	0341	0	0	0	0	5	50	20	19	13	16	-02	0.0	995.50	968.84	98.67	0.65	7	1	1	2	3	1	2	1	1	2
219	24	41BX228	0393	0	1	0	0	5	63	36	11	15	18	-01	8.7	0.08	0.0	0.0	9.99	0	3	1	2	3	1	4	1	1	1
220	24	41BX228	0147	0	0	0	0	6	57	40	11	19	16	+03	7.8	1016.84	1020.03	99.70	0.80	5	3	1	2	3	1	1	1	1	2

Table 61. (continued)

SEC	TYP	SITE	LOT	A	B	C	D	E	F	G	H	I	J	K	L	EAST	NORTH	ELEV	DEP	LEV	M	N	O	P	Q	R	S	T	U
221	24	41BX228	0391	C	0	C	C	4	53	34	11	14	14	+01	5.C	0.06	0.0	0.0	9.99	0	2	1	2	3	1	1	1	3	3
222	24	41BX228	0115	0	0	0	0	6	60	44	7	16	26	-02	9.8	1005.86	1023.00	99.18	0.33	4	2	1	1	2	1	1	1	1	3
223	24	41BX228	0122	C	0	0	C	6	55	38	9	14	14	+02	8.2	1015.41	1020.95	99.79	0.30	3	3	2	1	2	1	1	1	1	3
224	24	41BX228	0337	C	0	0	0	5	47	36	9	15	14	+01	5.3	0.02	0.0	0.0	9.99	0	2	1	2	3	1	1	1	1	2
225	1C	41BX228	0391	C	1	1	C	8	74	30	14	19	18	-04	11.5	0.06	0.0	0.0	9.99	0	3	1	2	3	1	1	1	1	3
226	24	41BX228	0174	0	0	0	C	5	51	33	11	13	14	+01	5.2	996.69	1009.79	99.25	0.40	5	2	1	2	2	1	2	2	1	3
227	24	41BX228	0002	0	0	0	0	6	65	37	12	14	15	+01	7.4	995.00	973.00	0.0	0.25	2	1	1	2	2	1	1	1	1	1
228	24	41BX228	0240	C	0	0	C	4	58	34	14	17	14	-05	0.0	1005.95	1022.18	99.20	0.35	4	1	1	2	3	1	1	1	1	1
229	24	41BX228	0391	C	C	0	C	5	60	30	12	17	16	-03	0.C	0.06	0.0	0.0	9.99	0	1	1	2	3	1	2	1	1	3
230	24	41BX228	0390	C	0	0	0	7	64	42	13	20	17	+01	0.C	0.05	C.0	0.0	9.99	0	1	1	2	2	1	1	2	2	1
231	0	41BX228	0298	C	0	0	0	4	48	30	9	11	11	-03	0.C	994.49	974.72	99.38	0.15	2	1	1	1	1	1	1	1	1	2
232	0	41BX228	0222	C	1	0	0	7	57	37	12	16	16	-05	9.7	1018.70	1018.85	99.90	0.31	4	2	1	2	3	1	1	1	1	3
233	24	41BX228	0397	C	C	C	C	7	60	34	11	12	17	-03	7.4	0.12	0.0	0.0	9.99	0	2	1	1	1	1	1	1	1	2
234	0	41BX228	0168	0	0	0	C	6	60	27	11	15	12	-04	0.C	1005.33	1022.50	99.13	0.37	5	1	1	2	2	1	1	2	3	1
235	C	41BX228	0395	0	0	0	0	6	57	31	13	18	15	-04	8.1	0.10	0.0	0.0	9.99	0	3	1	2	2	1	1	1	2	2
236	0	41BX228	0388	C	C	0	0	6	72	32	10	20	15	-04	7.9	0.03	0.0	0.0	9.99	0	2	1	2	2	1	1	2	1	1
237	0	413X228	0082	C	C	0	C	6	70	30	14	18	16	-06	10.7	0.0	0.0	0.0	0.0	2	2	1	2	2	1	1	2	1	1
238	16	413X228	0364	C	0	0	0	5	38	33	17	16	15	+01	4.5	988.00	974.00	98.56	0.0	3	2	2	2	3	1	1	2	1	1
239	16	41BX228	0395	C	0	0	C	6	48	38	17	15	16	000	6.9	0.10	0.0	0.0	9.99	0	2	1	2	3	1	1	1	1	3
240	16	41BX228	0386	C	0	0	0	6	55	34	19	18	18	000	8.4	0.01	0.0	0.0	9.99	0	2	1	2	3	1	3	1	1	3
241	12	41BX228	0393	0	0	C	C	8	59	43	22	17	23	+01	17.3	0.08	0.0	0.0	9.99	0	3	2	2	2	1	1	1	1	3
242	12	41BX228	0465	C	0	0	0	7	65	31	20	17	22	+02	12.7	0.0	0.04	0.0	9.99	0	3	1	2	3	1	1	1	1	2
243	24	413X228	0465	1	1	0	0	7	59	40	19	20	19	+02	11.4	0.0	0.0	C.0	9.99	0	3	2	2	3	1	1	1	1	3
244	12	41BX228	0464	C	0	0	C	1C	57	35	20	18	21	000	15.7	0.0	0.0	0.0	0.0	0	2	1	3	2	1	1	2	1	1
245	12	41BX228	0122	1	1	0	C	7	54	28	20	19	18	+02	9.5	1015.57	1020.52	99.72	0.37	3	2	2	2	2	1	1	1	1	3
246	12	41BX228	0062	C	0	0	C	7	63	35	19	19	20	+02	14.5	1015.00	1020.00	99.94	0.15	1	3	2	2	2	1	1	1	2	3
247	12	41BX228	0300	1	1	0	C	9	48	35	19	20	20	+03	9.5	0.05	0.0	0.0	9.99	0	3	2	2	3	1	2	1	1	2
248	12	41BX228	0397	0	0	0	C	8	50	29	19	18	22	+03	10.7	0.12	0.0	0.0	9.99	0	3	2	2	2	1	1	1	2	3
249	12	41BX228	0005	C	0	0	C	7	59	31	21	15	22	-05	10.1	0.0	0.0	0.0	0.0	5	2	3	2	2	1	1	1	1	3
250	12	41BX228	0187	1	0	0	C	9	52	25	21	22	21	+01	10.6	1005.76	1024.53	99.02	0.44	5	3	2	2	2	1	1	1	1	2
251	16	41BX228	0248	0	0	0	C	6	54	33	15	18	18	+03	8.1	1005.60	929.81	98.58	0.38	8	2	1	2	2	1	1	1	1	3
252	12	413X228	0333	C	1	0	C	7	42	26	18	12	16	000	5.2	1015.56	1004.42	99.54	0.42	5	3	2	2	2	1	1	2	1	2
253	12	41BX228	00C5	C	0	0	C	6	76	35	19	21	23	+01	C.C	0.0	0.0	0.0	0.0	6	1	1	2	1	1	1	1	1	3
254	12	41BX228	0453	1	C	0	0	7	64	44	19	20	20	+C3	0.C	1005.00	1030.00	0.0	0.0	0	1	1	2	2	1	1	1	1	3
255	12	41BX228	0189	1	1	0	0	7	54	25	15	18	17	-03	8.C	1016.00	1020.00	0.0	0.65	7	3	3	2	2	1	1	1	1	2
256	12	41BX228	0069	C	C	0	0	7	67	37	13	13	19	+02	0.C	997.45	1010.90	99.55	0.10	1	1	2	3	2	1	1	1	3	2
257	12	41BX228	0389	1	0	0	0	7	68	35	14	18	19	000	10.6	0.04	0.0	C.0	9.99	0	1	1	2	2	1	1	1	2	1
258	12	413X228	0390	C	0	0	0	7	76	37	18	20	21	000	0.C	0.05	0.0	0.0	9.99	0	1	1	2	2	1	1	1	3	3
259	12	41BX228	0448	C	0	0	0	8	60	27	19	15	21	000	0.0	1005.00	1005.00	0.0	0.0	0	1	1	2	2	1	1	1	1	3
260	12	413X228	0285	C	C	0	C	8	65	39	19	16	20	+C1	0.0	995.85	969.50	99.04	0.32	4	1	1	2	3	1	1	1	1	3
261	25	413X228	0277	C	0	0	0	7	90	45	28	14	22	-05	21.0	1005.58	929.59	98.79	0.17	4	1	1	2	2	1	1	1	3	1
262	25	41BX228	0464	C	0	0	0	6	52	41	22	13	17	-04	11.5	C.0	0.0	0.0	0.0	0	2	1	1	2	1	1	1	1	3
263	26	41BX229	00E5	1	C	0	C	8	77	41	24	14	21	000	21.0	0.0	0.0	0.0	0.0	5	3	1	2	2	1	1	1	3	2
264	6	413X228	0395	0	C	0	0	6	83	38	21	12	19	-04	5.5	0.11	0.0	0.0	0.0	0	2	1	2	2	1	3	1	1	2
265	26	41BX228	0277	C	0	0	0	7	73	42	24	16	22	+02	19.3	1005.71	929.69	98.77	0.21	4	2	1	2	2	1	1	1	1	3
266	15	41BX228	0226	C	0	0	C	6	73	38	23	10	19	+02	16.5	997.88	1011.75	99.20	0.43	5	2	1	2	3	1	1	1	3	3
267	26	41BX228	0218	1	0	0	0	6	74	32	23	16	19	-03	14.8	996.25	1010.72	99.16	0.49	6	2	1	2	3	1	1	1	1	3
268	6	41BX228	0467	C	0	0	C	7	83	47	25	14	19	+02	0.C	0.10	0.01	0.0	9.99	0	1	1	2	2	1	1	2	1	3
269	15	413X228	0081	C	0	0	C	6	64	43	28	12	19	+01	0.C	996.00	1008.00	0.0	0.20	2	1	1	2	3	1	1	1	3	1
270	15	413X228	0233	0	0	0	0	6	63	39	27	11	19	-03	10.2	1022.00	1008.00	0.0	0.28	3	2	1	1	2	1	1	2	3	3
271	15	413X228	0465	C	0	0	C	6	59	41	22	14	16	-03	9.6	0.0	0.04	0.0	9.99	0	2	1	2	2	1	1	1	1	3
272	15	41BX228	0064	C	0	0	0	7	60	26	22	12	15	-05	7.2	997.40	1009.00	99.56	0.10	1	3	1	2	2	1	1	1	1	3
273	0	41BX228	0046	C	0	0	0	6	45	39	24	9	20	+01	8.0	1017.04	1018.03	100.17	0.03	1	2	1	2	2	1	1	1	2	3
274	15	41BX228	0396	C	0	0	0	7	56	38	24	11	19	-05	0.0	0.11	0.0	0.0	9.99	0	1	1	2	2	1	1	1	2	3
275	15	41BX228	0396	C	0	0	0	6	55	35	27	11	21	-03	0.C	0.11	0.0	0.0	9.99	0	1	1	2	3	1	1	1	2	3
276	15	413X228	0392	C	0	0	0	7	54	37	24	11	18	-04	0.C	0.07	0.0	0.0	9.99	0	1	1	2	2	1	1	1	2	3
277	15	41BX228	0105	C	0	0	0	7	63	42	30	11	21	-03	0.0	997.97	1009.24	99.41	0.25	2	1	1	1	2	1	1	1	2	3
278	6	41BX228	0451	C	C	0	0	7	95	55	25	17	22	-02	0.C	1005.00	1020.00	0.0	0.0	0	2	1	1	2	1	1	1	1	3
279	6	413X226	0465	C	C	0	0	8	52	37	17	7	12	-02	10.5	0.0	0.04	0.0	9.99	0	1	1	1	2	1	1	1	1	2
280	6	413X226	00E4	C	0	0	0	9	95	54	24	13	22	-03	0.0	0.0	0.0	0.0	0.0	4	1	1	1	2	1	1	1	2	3
281	6	41BX228	0312	C	0	0	0	6	70	47	23	13	22	+02	C.C	1010.00	950.00	99.21	0.0	1	1	1	2	3	1	1	1	1	3
282	6	41BX229	0464	C	0	0	0	8	74	44	24	14	20	+02	0.0	0.0	0.0	0.0	0.0	0	2	2	1	2	1	1	1	1	3
283	6	41BX228	0128	C	0	0	0	6	64	46	24	11	18	+01	15.C	1018.07	1020.89	99.86	0.33	3	1	1	1	2	1	1	1	1	3
284	6	413X228	0137	C	0	0	0	7	63	45	26	15	23	+03	0.0	1010.87	1029.57	99.41	0.13	1	2	3	2	2	2	1	1	1	1
285	10	41BX228	0356	0	0	1	C	9	63	31	24	15	22	-05	12.C	990.00	974.00	98.75	0.0	1	3	1	2	2	1	1	2	1	3
286	10	41BX226	0019	C	1	1	0	8	60	25	18	19	17	-C3	10.C	1010.00	1000.00	0.0	0.58	3	1	1	2	1	1	1	1	1	2
287	10	41BX228	0252	C	0	1	C	7	74	26	20	20	16	-04	0.C	1015.00	1004.00	99.45	0.51	6	3	2	1	2	1	1	1	1	1
288	10	41BX228	0390	C	0	1	0	9	51	27	21	15	18	-05	10.6	0.05	0.0	0.0	9.99	0	2	1	1	1	1	1	1	1	1
289	10	413X228	0281	0	0	1	0	8	58	29	21	15	20	000	11.5	995.86	969.32	99.18	0.18	3	2	1	1	2	3	1	1	1	1
290	10	413X228	0241	C	0	1	0	9	60	25	21	18	19	+01	11.5	1022.94	1008.53	99.91	0.21	2	3	1	1	1	1	1	1	1	1
291	10	413X228	0104	C	1	0	0	12	59	26	19	22	17	+02	17.3	1017.60	1019.55	99.72	0.47	4	2	1	2	1	1	1	1	1	2
292	10	41BX228	0461	C	1	1	C	7	54	25	20	21	18	+02	9.0	1015.00	1015.00	0.0	0.0	0	3	1	1	1	1	1	2	1	1
293	10	41BX228	0271	C	0	1	C	10	76	29	20	18	16	-05	18.0	995.07	969.51	98.78	0.48	7	1	1	1	1	1	1	1	1	1
294	10	41BX226	0389	C	1	1	C	7	78	26	20	18	19	000	15.9	0.04	0.0	0.0	9.99	0	3	1	1	2	1	1	1	3	1
295	10	413X228	0397	0	0	1	C	11	67	24	19	17	15	-02	4.6	0.12	0.0	0.0	9.99	0	2	1	1	1	1	1	1	1	2
296	10	413X228	0344	C	1	1	0	8	71	34	21	16	20	+02	16.5	988.00	974.00	98.43	0.0	4	3	1	1	3	1	1	1	1	1
297	10	413X228	0355	C	1	1	C	8	53	25	22	15	17	-03	8.8	988.00	974.00	96.64	0.0	2	3	2	1	1	1	1	1	1	1
298	10	413X223	0391	C	1	1	0	1C	77	32	21	20	20	+01	17.8	0.06	0.0	0.0	9.99	0	3	1	2	3	1	1	1	1	2
299	10	41BX228	0386	0	0	1	0	6	59	37	21	17	16	-03	14.4	0.01	0.0	0.0	9.99	0	2	1	2	1	1	2	1	3	1
300	10	413X229	0389	1	0	1	0	8	67	31	26	19	17	-06	12.1	0.04	0.0	0.0	9.99	0	3	1	2	2	1	1	1	1	1
301	10	413X228	0347	0	0	1	0	10	67	34	26	21	23	-08	17.7	988.00	976.00	98.43	0.0	4	3	1	2	1	1	1	2	1	1
302	10	413X228	0467	C	0	1	0	7	63	29	19	18	18	-04	12.6	0.10	0.01	0.0	9.99	0	3	3	1	2	1	1	1	1	2
303	10	41BX228	0058	0	0	1	0	6	67	27	14	18	12	000	9.6	1015.81	1019.16	100.06	0.06	1	3	1	2	2	1	1	1	1	1
304	10	41BX228	0398	0	0	1	C	8	67	28	23	16	20	-02	14.0	1016.86	1020.23	99.71	0.39	4	3	1	2	2	1	1	1	1	2
305	10	41BX228	0393	0	0	1	C	1C	66	26	20	14	16	000	15.1	0.08	0.0	0.0	9.99	0	3	1	2	2	1	4	1	1	1
306	10	413X229	0397	0	0	1	C	6	54	25	17	17	16	+01	7.8	0.12	0.0	0.0	9.99	0	3	1	2	2	1	2	1	3	2
307	10	413X228	0464	C	1	1	C	8	63	27	23	18	20	+02	10.5	0.0	0.0	0.0	0.0	0	3	1	2	2	1	1	1	1	1
308	10	416X229	037C	0	1	1	0	6	65	24	16	12	15	000	10.2	996.43	1008.17	99.15	0.40	5	3	2	1	2	1	1	1	2	1
309	10	413X228	0393	C	0	1	0	7	65	27	19	16	15	-03	11.C	0.0	0.0	0.0	9.99	0	3	1	2	2	1	1	1	1	1
310	10	41BX228	0305	C	0	1	0	8	72	25	18	18	16	000	10.6	994.17	968.90	99.14	0.06	2	3	1	1	2	1	1	1	1	1
311	10	41BX228	0391	C	0	1	0	7	45	23	17	17	17	+01	8.C	0.06	0.0	0.0	9.99	0	3	1	2	2	1	1	1	1	2
312	10	41BX228	0366	C	0	1	0	6	57	22	17	14	16	+01	9.7	1000.12	963.83	99.18	0.10	2	3	2	1	2	1	1	1	2	3
313	10	413X228	0352	C	0	1	C	8	59	26	19	15	16	-05	8.5	1017.00	1020.00	100.00	0.16	1	2	1	1	2	1	1	3	3	2
314	10	413X228	0298	C	0	1	0	7	54	24	22	17	20	+01		994.50	974.72	99.36	0.17	2	2	1	1	2	1	1	1	1	1
315	1C	41BX228	0397	C	0	1	0	8	68	29	22	16	19	-05	13.9	0.12	0.0	0.0	9.99	0	2	1	1	1	1	1	1	1	1
316	10	41BX228	0252	C	0	1	0	8	66	27	19	14	18	000	0.C	1015.00	1004.00	0.0	0.51	6	1	1	1	3	1	1	1	1	3
317	10	413X228	0023	0	0	1	C	8	66	26	21	15	19	+01	0.C	1015.00	1010.00	0.0	0.57	3	1	1	1	1	1	1	1	1	3
318	10	41BX228	0333	0	0	1	C	7	64	28	19	15	17	+01	0.C	1015.11	1004.62	99.59	0.37	5	1	1	2	2	1	1	2	1	1
319	10	413X228	0327	0	0	1	C	8	78	31	22	21	20	000	0.C	994.51	969.17	98.65	0.71	8	1	1	1	1	1	1	1	1	1
320	10	41BX228	0386	0	0	1	C	8	57	36	20	17	18	+02		0.01	0.0	0.0	9.99	0	2	1	1	2	1	1	1	1	1
321	10	413X225	0453	0	0	1	C	10	78	33	24	18	20	-04	19.5	1005.00	1030.00	0.0	0.0	0	1	1	2	2	1	1	1	3	1
322	10	413X228	0002	0	0	1	C	7	59	29	18	13	17	000	0.C	0.0	0.0	0.0	0.0	2	1	1	1	2	1	1	1	3	2
323	10	413X228	0395	0	0	1	C	7	69	29	20	20	18	-03	0.C	0.10	0.0	0.0	9.99	0	1	1	2	2	1	1	1	1	1
324	10	413X229	0165	0	0	1	C	7	55	24	17	17	14	+01	0.C	996.00	1010.00	0.0	0.40	5	1	1	2	3	1	1	2	1	2
325	37	413X228	0180	C	0	0	C	7	77	41	41	0	0	+06	14.5	1005.25	1024.60	99.16	0.30	4	3	1	2	2	1	1	1	1	1
326	38	413X228	0391	C	0	0	C	5	71	33	31	0	0	+09	13.8	0.06	0.0	0.0	9.99	0	3	1	2	3	1	1	1	1	2
327	38	413X228	0118	C	0	0	C	6	71	38	38	0	0	+C8	17.7	1016.50	1019.15	99.65	0.48	5	3	1	2	3	1	1	1	1	3
328	38	41BX228	0165	C	1	0	C	6	61	28	28	0	0	+06	8.4	998.06	1008.03	99.27	0.50	4	3	1	2	3	1	1	1	1	3
329	38	41BX228	0395	C	1	0	0	6	68	29	29	0	0	+05	10.7	0.10	0.0	0.0	9.99	3	3	1	2	3	1	1	1	1	2
330	38	41BX228	0045	C	1	0	0	8	66	29	29	0	0	+04	13.5	1017.80	1018.95	100.09	0.12	2	3	1	2	3	1	1	1	1	3

Table 61. (continued)

SEQ	TYP	SITE	LOT	A	B	C	D	E	F	G	H	I	J	K	L	EAST	NORTH	ELEV	DEP	LEV	M	N	O	P	Q	R	S	T	U
331	39	41BX228	0367	C	1	0	0	11	74	36	36	C	0	+02	27.8	988.00	974.00	98.30	0.0	5	3	1	2	2	1	1	1	1	3
332	39	41BX228	0465	C	0	0	0	8	60	31	31	0	0	000	11.5	0.0	0.04	0.0	9.99	0	3	1	2	2	1	1	1	1	1
333	39	41BX228	0340	C	0	0	0	6	61	37	37	0	0	+02	13.9	994.19	968.41	98.63	0.68	7	3	1	2	3	1	1	1	1	1
334	39	41BX228	0173	C	1	0	1	5	37	27	27	0	0	000	3.9	998.98	1008.57	99.22	0.50	5	3	1	2	3	1	1	1	1	3
335	39	41BX228	0340	C	C	C	C	6	44	38	38	C	0	+01	11.2	994.42	968.47	98.67	0.64	7	2	2	2	2	1	2	1	1	3
336	39	41BX228	0462	C	1	0	C	8	55	28	28	0	0	000	10.8	1015.00	1020.00	0.0	0.0	0	2	3	2	2	1	1	1	2	2
337	39	41BX228	0396	C	1	0	0	7	59	25	25	0	0	000	7.4	0.11	0.0	0.0	9.99	0	3	3	2	3	1	1	1	1	1
338	39	41BX228	0367	C	1	0	0	7	84	28	28	0	0	+02	14.1	988.00	974.00	98.35	0.0	5	3	1	2	2	1	1	1	1	1
339	39	41BX228	0393	1	1	0	0	7	61	35	35	0	0	+02	13.1	0.08	0.0	0.0	9.99	0	3	1	1	3	1	4	1	1	1
340	39	41BX228	0368	C	1	0	C	6	47	32	32	0	0	+02	7.6	0.03	0.0	0.0	9.99	0	3	1	2	2	1	3	1	1	2
341	39	41BX228	0364	0	1	0	0	6	51	33	33	0	0	+01	7.5	988.00	974.00	98.57	0.0	3	3	3	2	2	1	1	1	1	2
342	39	41BX228	0260	C	1	0	C	7	54	31	31	0	0	+02	9.5	995.67	974.13	98.73	0.81	8	3	1	2	3	1	1	1	1	2
343	39	41BX228	0345	C	1	0	C	6	53	31	31	0	0	+01	8.8	990.00	974.00	98.45	0.0	4	3	1	2	2	1	1	1	1	1
344	39	41BX228	0135	C	C	0	C	6	39	29	29	0	0	000	6.7	997.25	1008.19	99.22	0.46	5	3	1	2	3	1	1	1	1	3
345	39	41BX228	0388	C	1	0	0	5	47	35	35	0	0	+01	7.0	0.03	0.0	0.0	9.99	0	3	1	2	2	1	3	2	1	2
346	39	41BX228	0363	0	0	0	C	7	68	39	39	0	0	+02	16.C	990.00	974.00	99.59	0.0	3	2	3	2	2	1	1	1	1	3
347	39	41BX228	0364	0	1	0	0	8	61	40	40	C	0	000	0.0	988.00	974.00	98.55	0.0	3	1	2	2	3	1	1	2	1	3
348	39	41BX228	0135	C	1	0	C	5	32	26	26	C	0	000	3.5	997.00	1008.00	0.0	0.43	5	2	2	2	2	1	1	1	2	2
349	-39	41BX228	0399	0	1	0	0	6	40	38	38	0	0	+01	8.1	0.17	0.0	0.0	9.99	0	3	3	2	2	1	2	1	1	1
350	39	41BX228	0388	C	1	0	C	7	39	48	48	0	0	403	10.7	0.03	0.0	0.0	9.99	0	3	3	2	3	1	1	1	1	2
351	39	41BX228	0346	C	1	0	0	5	43	29	29	0	0	+01	0.C	988.00	974.00	98.48	0.0	4	1	1	2	2	1	1	1	1	2
352	0	41BX228	0397	1	0	1	0	8	82	28	18	21	21	-02	22.6	0.12	0.0	0.0	9.99	0	3	1	2	3	1	1	1	1	1
353	0	41BX228	0344	1	1	1	C	5	74	23	18	1C	17	+C2	16.6	988.00	974.00	98.40	0.0	4	3	1	2	3	1	1	1	1	1
354	C	41BX228	0395	1	0	0	0	7	96	28	18	29	22	000	20.4	0.10	0.0	0.0	9.99	0	3	2	2	3	1	1	1	0	3
355	19	41BX228	0343	C	1	0	C	8	68	21	18	29	21	-03	11.C	990.00	976.00	98.41	0.0	4	3	2	2	2	1	1	1	1	1
356	19	41BX228	0391	0	1	0	C	8	55	23	15	15	20	000	8.5	0.06	0.0	0.0	9.99	0	3	1	2	2	1	1	1	1	2
357	19	41BX228	0395	1	0	1	0	9	74	22	17	21	16	-C4	14.1	0.10	0.0	0.0	9.99	0	3	1	2	2	1	1	1	1	2
358	19	41BX228	0193	C	0	0	0	7	65	28	14	21	22	-03	14.3	1006.03	1022.85	99.21	0.42	4	3	1	2	3	1	1	1	1	3
359	19	41BX228	0393	0	0	0	0	12	73	23	18	19	18	-02	17.8	0.08	0.0	0.0	9.99	0	3	1	1	1	1	4	1	1	1
360	19	41BX228	0395	0	C	1	C	9	81	27	18	18	16	-05	17.6	0.10	0.0	0.0	9.99	0	2	1	2	3	1	1	1	1	1
361	19	41BX228	0334	0	0	0	C	6	55	18	24	21	18	-02	7.6	994.97	968.19	98.81	0.50	5	3	2	2	2	1	1	1	1	2
362	19	41BY228	0132	0	0	0	0	9	62	24	20	16	19	-03	11.9	1010.18	1029.28	98.91	0.63	6	3	1	2	2	1	1	1	2	2
363	19	41BX228	0397	0	0	0	C	8	62	30	23	15	22	-04	14.0	0.02	0.0	0.0	9.99	0	2	1	2	2	1	4	1	1	1
364	19	41BX228	0386	0	0	0	0	8	79	26	21	14	18	-03	11.1	0.01	0.0	0.0	9.99	0	2	1	1	2	1	2	2	1	1
365	19	41BX228	0388	C	C	0	C	9	74	28	23	11	22	000	0.C	0.03	0.0	0.0	9.99	0	1	1	2	1	1	4	1	2	1
366	19	41BX228	0464	0	0	0	0	8	49	21	18	13	16	000	8.9	0.0	0.0	0.0	0.0	0	3	1	2	2	1	3	1	1	1
367	19	41BX228	0391	0	1	0	0	9	57	22	21	12	18	+02	7.5	0.06	0.0	0.0	9.99	0	3	3	2	2	1	1	1	1	1
368	19	41BX228	0252	1	1	1	C	8	63	21	21	19	19	-03	9.0	1015.25	1004.64	99.47	0.49	6	3	1	2	2	1	1	1	1	2
369	19	41BX228	0120	0	1	1	C	9	63	27	20	17	16	+02	12.9	1015.92	1020.05	99.82	0.27	2	3	1	2	2	1	1	1	1	2
370	19	41BX228	0110	0	1	1	C	1C	67	22	22	19	19	000	13.9	1017.18	1019.21	99.65	0.54	5	2	1	2	2	1	1	1	3	1
371	19	41BX228	0340	C	0	1	0	8	58	21	20	14	18	+01	0.C	994.90	968.32	98.62	0.69	7	1	1	2	2	1	4	1	1	1
372	40	41BX228	0487	C	1	0	C	9	86	28	22	17	19	000	15.8	0.0	0.0	0.0	9.99	0	2	1	2	2	1	1	1	1	1
373	40	41BX228	0465	C	1	1	0	9	74	28	22	18	19	-06	15.5	0.0	0.04	0.0	9.99	0	2	1	2	2	1	1	1	2	2
374	C	41BX228	00A8	C	0	0	C	8	42	24	18	15	17	-03	7.5	0.0	0.0	0.0	0.0	8	3	2	2	2	1	1	1	1	2
375	0	41BX228	0354	1	1	0	1	7	43	23	19	14	18	000	6.1	990.00	974.00	98.63	0.0	2	3	2	2	3	1	1	1	1	1
376	C	41BX228	0354	1	1	1	C	7	49	21	17	13	15	+01	6.1	990.00	974.00	98.62	0.0	2	3	1	2	2	1	1	1	1	3
377	0	41BX228	0152	1	0	0	C	7	43	22	19	20	16	-05	6.1	1004.00	987.00	0.0	0.53	6	1	2	2	2	1	2	1	1	3
378	0	41BX228	0354	0	1	1	0	7	38	18	18	15	15	-03	5.C	990.00	974.00	98.64	0.0	2	1	2	2	2	1	1	1	1	2
379	41	41BX228	0308	0	0	0	C	10	69	34	27	15	21	-06	19.1	995.34	974.62	98.70	0.84	9	3	2	2	2	1	1	1	1	2
380	41	41BX228	0282	0	1	1	1	8	61	27	24	14	22	-05	12.2	959.00	963.00	0.0	0.51	6	3	1	2	2	1	3	1	1	2
381	41	41BX228	0271	0	0	0	C	7	56	28	25	13	23	-04	9.6	995.33	969.78	98.75	0.61	7	3	2	2	2	1	1	1	1	1
382	41	41BX228	0386	C	0	1	0	7	59	23	21	16	19	+02	8.4	0.01	0.0	0.0	9.99	0	3	1	2	2	1	2	1	1	3
383	41	41BX228	0391	0	0	0	0	9	73	33	28	14	25	-C3	0.C	0.06	0.0	0.0	9.99	0	2	1	1	1	1	3	1	1	1
384	41	41BX228	0366	0	0	1	C	7	53	31	25	15	21	-04	0.C	1000.80	963.66	99.20	0.08	2	1	1	2	2	1	3	1	1	2
385	42	41BX228	0098	0	0	0	1	3	28	15	14	9	8	+C6	0.C	1016.00	1020.00	0.0	0.35	4	1	1	2	3	1	1	1	1	1
386	1	41BX228	0146	C	C	0	0	3	44	13	5	12	6	-12	1.2	1010.61	1029.34	99.39	0.15	2	2	1	2	2	1	1	1	2	1
387	1	41BX228	0150	C	0	0	0	3	34	18	5	5	7	-05	0.0	0.02	0.0	0.0	9.99	0	3	1	2	2	1	1	1	1	3
388	1	41BX228	0137	C	0	0	C	4	27	19	4	8	5	-C2	C.5	1010.89	1029.64	99.44	0.10	1	3	1	2	2	1	1	1	1	1
389	1	41BX228	0137	C	0	0	0	3	33	13	5	13	6	-C7	0.9	1010.72	1029.46	99.44	0.10	1	1	1	2	2	1	1	1	1	1
390	1	41BX228	0261	C	0	0	0	2	25	18	5	7	6	-03	0.C	995.00	974.00	0.0	0.07	1	1	1	2	3	1	1	1	1	2
391	1	41BX228	0120	C	0	0	1	2	44	25	9	12	9	-03	0.0	1015.29	1020.84	99.87	0.20	2	1	1	2	2	1	1	1	1	2
392	1	41BX228	0397	C	0	0	0	3	40	20	9	10	12	-10	2.C	0.12	0.0	0.0	9.99	0	1	1	2	1	1	1	1	1	1
393	1	41BX228	0246	C	0	0	0	3	30	14	5	5	9	-05	1.3	1018.00	1019.00	0.0	0.36	3	1	1	1	1	1	1	1	1	1
394	1	41BX228	0395	C	0	0	0	3	36	20	5	13	6	-13	1.0	0.10	0.0	0.0	9.99	0	1	1	2	1	1	1	1	1	2
395	1	41BX228	0053	C	0	0	C	3	43	15	6	14	6	-07	0.0	1018.00	1020.00	0.0	0.10	1	3	1	2	2	1	1	1	1	1
396	1	41BX228	0244	C	1	0	0	3	32	14	5	11	6	-03	0.9	1020.26	1024.82	100.05	0.06	1	2	1	2	2	1	1	1	1	1
397	1	41BX228	0245	C	0	0	1	3	34	20	5	13	7	-03	0.C	1015.94	1004.78	99.92	0.04	1	1	1	2	3	1	1	1	1	1
398	1	41BX228	0596	C	0	0	0	2	43	21	5	14	6	-10	0.C	0.11	0.0	0.0	9.99	0	1	1	2	2	1	1	1	1	1
399	1	41BX228	0077	C	0	0	0	3	28	18	6	10	8	-05	1.0	996.00	1008.00	0.0	0.08	1	1	1	2	2	1	1	1	1	2
400	43	41BX228	0395	C	0	0	0	4	34	17	10	6	7	+04	1.6	0.10	0.0	0.0	9.99	0	3	1	2	2	1	1	1	1	3
401	43	41BX228	0003	C	0	0	0	3	37	22	19	9	7	+03	0.C	0.0	0.0	0.0	0.0	3	1	1	2	2	1	1	1	1	2
402	43	41BX228	0464	C	0	0	1	3	35	19	18	8	7	+02	0.C	0.0	0.0	0.0	0.0	0	1	1	2	3	1	1	1	2	3
403	43	41BX228	0105	C	0	0	0	3	29	20	13	7	7	+03	1.2	997.98	1009.64	99.49	0.17	2	2	1	2	3	1	1	1	2	2
404	43	41BX228	0061	C	0	0	1	4	38	18	18	7	8	+C3	2.2	1018.55	1020.45	100.07	0.12	1	3	1	2	3	1	1	1	3	1
405	43	41BX228	0289	C	1	1	0	3	31	20	12	8	5	+02	1.8	1020.98	1024.25	99.99	0.06	2	1	1	2	2	1	2	1	1	3
406	43	41BX228	0002	C	0	0	0	3	32	21	15	9	7	+C2	0.C	0.0	0.0	0.0	0.0	2	1	1	2	2	1	1	1	1	1
407	43	41BX229	0222	C	0	0	0	3	32	15	15	7	7	+02	1.2	1018.00	1018.00	0.0	0.36	4	2	1	2	2	1	1	1	2	2
408	43	41BX228	0057	C	0	0	0	3	33	19	17	7	7	+02	1.5	1015.00	1019.00	0.0	0.17	2	2	1	2	2	1	1	1	2	2
409	43	41BX228	00C2	0	0	0	1	4	36	19	14	8	6	+02	1.8	0.0	0.0	0.0	0.0	2	2	1	2	3	1	1	1	1	3
410	43	41BX228	0232	C	C	0	C	3	32	15	8	6	5	+01	1.2	1015.00	1004.00	0.0	0.11	2	2	1	2	3	1	1	1	3	2
411	43	41BX228	0299	C	0	0	0	3	31	17	15	9	7	+03	1.4	995.00	968.00	0.0	0.17	2	2	1	2	2	1	1	1	1	2
412	43	41BX228	0442	C	0	0	0	4	33	17	12	6	8	-02	0.0	1000.00	1010.00	0.0	0.0	0	1	1	2	3	1	1	1	2	2
413	43	41BX228	0368	0	0	0	0	3	27	15	12	6	7	+02	0.9	1000.00	963.00	0.0	0.23	3	1	1	2	3	1	1	1	3	2
414	4	41BX228	0365	0	0	0	0	6	39	22	20	8	13	+02	0.C	1000.00	963.00	0.0	0.04	1	1	1	2	2	1	4	2	1	1
415	43	41BX228	0058	C	0	0	0	3	28	15	13	8	8	+01	1.C	1015.71	1019.74	100.05	0.07	1	3	1	2	2	1	1	1	2	2
416	43	41BX228	0034	C	0	0	0	4	35	14	12	7	8	+01	1.4	1040.00	1000.00	0.0	0.10	1	3	1	2	2	1	1	1	1	1
417	43	41BX228	00A2	0	0	0	1	3	32	18	14	6	10	+01	1.1	0.0	0.0	0.0	0.0	2	2	1	2	2	1	1	1	3	1
418	43	41BX228	00A1	C	0	0	0	3	23	17	13	7	7	+02	0.6	0.0	0.0	0.0	0.0	1	2	1	2	2	1	1	1	3	2
419	43	41BX228	0148	C	0	0	0	5	33	19	16	7	12	+04	2.C	1016.40	1019.53	99.83	0.30	3	2	1	2	2	1	1	2	1	1
420	2	41BX228	0366	0	0	0	0	3	29	18	18	6	10	+01	1.2	1000.00	963.00	0.0	0.13	2	2	1	2	2	1	2	1	1	1
421	2	41BX228	0082	C	0	0	0	4	34	15	13	7	7	+01	1.5	1017.22	1019.38	100.02	0.17	1	2	1	2	3	1	1	1	2	1
422	2	41BX228	0467	C	0	0	1	3	33	12	11	8	5	+01	1.0	0.10	0.01	0.0	9.99	0	3	1	2	3	1	1	1	2	3
423	2	41BX228	0069	C	0	0	0	3	25	18	15	6	7	+01	0.C	997.00	1010.00	0.0	0.08	1	1	1	2	2	1	1	1	1	2
424	2	41BX228	00E3	C	0	0	0	3	21	17	11	7	7	+01	1.0	0.0	0.0	0.0	0.0	3	2	1	2	2	1	1	2	1	1
425	2	41BX228	0045	C	0	0	1	3	29	15	12	7	7	+C1	0.8	1017.00	1018.00	0.0	0.16	2	3	1	2	2	1	1	1	1	1
426	2	41BX228	0249	C	0	0	C	2	29	18	13	6	8	+01	0.C	1020.32	1029.04	99.81	0.07	1	1	1	2	2	1	1	1	3	3
427	2	41BX228	0075	0	0	0	0	3	36	20	14	8	7	+C1	0.C	1016.09	1020.81	99.96	0.04	2	1	1	2	1	1	1	2	1	1
428	2	41BX228	0062	0	0	0	1	4	38	23	21	8	10	+01	2.2	1015.00	1020.00	0.0	0.10	1	2	1	2	2	1	1	1	1	2
429	2	41BX228	0155	C	0	0	0	5	37	20	16	8	10	000	3.1	1005.61	1022.19	99.48	0.07	2	2	1	2	2	1	1	1	3	2
430	2	41BX228	0431	C	0	0	0	4	25	16	15	6	8	-02	1.1	995.89	974.36	99.35	0.19	2	3	1	2	2	1	1	1	1	3
431	2	41BX228	0046	C	0	0	0	4	34	18	16	8	7	-02	1.5	1017.00	1018.00	100.11	0.10	1	1	1	2	2	1	1	2	1	1
432	2	41BX228	0261	C	0	0	0	4	25	19	12	6	7	-02	1.3	995.00	974.00	0.0	0.07	1	2	1	2	2	1	1	1	2	3
433	2	41BX228	0053	C	C	0	C	4	22	18	13	6	7	+01	0.8	1018.00	1020.00	0.0	0.10	1	1	1	2	2	1	1	1	3	2
434	2	41BX226	0436	C	C	0	C	4	24	13	11	6	6	-02	0.6	1018.32	1018.66	99.98	0.23	3	3	1	2	3	1	1	1	1	1
435	2	41BX228	0063	C	0	0	0	2	28	14	9	6	5	-02	0.6	1016.29	1018.62	100.03	0.13	1	3	1	2	2	1	1	1	1	3
436	6	41BX228	0464	C	0	0	0	8	81	45	23	14	20	-03	0.C	0.0	0.0	0.0	0.0	0	1	1	1	2	1	1	1	1	2
437	0	41BX228	0022	C	C	0	C	0	47	26	18	13	15	+C4	0.C	1015.00	1010.00	0.0	0.0	2	1	1	1	2	1	3	2	1	1
438	0	41BX228	0341	0	0	0	0	7	69	32	24	13	17	+02	11.9	995.20	968.66	98.62	0.70	7	3	1	2	3	1	2	1	1	1
439	0	41BX228	0350	C	C	0	C	7	72	29	20	13	14	+02	11.C	988.00	976.00	98.32	0.0	5	3	1	2	2	1	2	1	1	1
440	0	41BX228	0390	0	C	0	0	7	63	30	21	12	14	+02	9.8	0.05	0.0	0.0	9.99	0	3	1	2	2	1	2	1	3	2

Table 61. (continued)

SEC	TYP	SITE	LOT	A	B	C	D	E	F	G	H	I	J	K	L	EAST	NORTH	ELEV	CEP	LEV	M	N	O	P	Q	R	S	T	U
441	44	413X228	0354	0	0	0	0	8	67	34	22	14	17	+04	12.9	990.00	974.00	98.62	0.0	2	2	1	2	2	1	1	1	3	2
442	44	413X228	0212	0	0	0	0	9	65	32	22	14	18	+04	12.8	1006.50	1023.94	99.33	0.25	3	2	3	2	1	1	3	1	1	1
443	44	413X228	0282	0	0	0	0	7	50	32	22	12	18	+03	8.5	999.10	963.48	98.71	0.55	6	3	1	2	2	1	3	1	1	2
444	0	413X228	0123	0	0	0	1	5	58	30	24	12	13	+02	7.7	996.61	1011.05	99.34	0.25	3	2	1	2	2	1	1	1	3	3
445	0	413X229	0357	0	1	0	0	6	53	30	20	10	14	+02	6.8	0.12	0.0	0.0	9.99	0	2	1	2	2	1	1	1	2	3
446	0	413X228	0305	0	1	0	0	6	60	34	25	9	17	+03	8.4	0.10	0.0	0.0	9.99	0	2	1	2	2	1	1	1	1	2
447	0	413X228	0350	0	0	0	0	7	38	32	26	12	16	+03	7.1	988.00	976.00	98.33	0.0	5	2	2	2	2	1	1	1	1	1
448	0	413X228	0387	0	0	0	0	7	67	30	18	11	14	+03	13.0	0.02	0.0	0.0	9.99	0	3	1	2	2	1	4	1	1	1
449	0	413X228	0344	1	0	0	0	7	71	34	26	12	15	+01	10.8	988.00	974.00	98.40	0.0	4	1	1	2	2	1	3	1	2	1
450	44	413X229	0350	0	0	0	0	4	45	27	21	14	15	+02	5.4	988.00	976.00	98.35	0.0	5	3	1	2	2	1	2	2	1	1
451	0	413X228	0351	0	0	0	0	7	48	29	16	12	13	+02	5.5	990.00	974.00	98.37	0.0	5	2	1	2	2	1	1	2	1	1
452	44	413X228	0349	0	0	0	0	0	50	28	20	13	15	+03	0.0	990.00	976.00	98.40	0.0	4	1	1	2	2	1	1	2	1	3
453	0	413X228	0350	0	0	0	0	38	47	24	16	12	13	+01	5.0	1005.00	1030.00	0.0	0.0	0	2	1	2	2	1	1	1	2	2
454	0	413X228	0350	0	1	0	0	6	47	26	19	12	13	+03	6.1	988.00	976.00	98.32	0.0	5	3	2	2	2	1	1	1	1	2
455	0	413X229	0346	0	0	0	0	7	68	35	27	12	12	+03	0.0	988.00	974.00	98.46	0.0	4	1	1	2	2	1	1	1	1	1
456	0	413X228	0357	0	0	0	0	3	41	32	19	13	11	+01	6.5	988.00	974.00	98.31	0.0	5	2	1	2	1	1	4	1	3	1
457	0	413X228	0345	0	0	0	0	7	58	45	13	15	14	+03	0.0	990.00	974.00	98.45	0.0	4	1	1	2	1	1	3	1	3	3
458	0	413X228	0345	0	1	0	0	7	56	32	22	10	16	+02	0.0	990.00	974.00	98.49	0.0	4	1	3	2	2	1	1	2	1	2
459	0	413X228	0345	0	0	0	0	6	63	27	17	14	15	+02	0.0	990.00	974.00	98.46	0.0	4	1	1	2	2	1	1	1	3	2
460	0	413X228	0355	0	0	0	0	8	68	21	15	15	12	+03	0.0	988.00	974.00	98.66	0.0	2	1	1	2	2	1	2	2	1	1
461	0	413X229	0404	0	0	0	0	5	66	38	24	8	18	+02	0.0	0.0	0.0	0.0	0.0	0	1	1	2	2	1	3	1	1	2
462	0	413X228	0346	0	0	0	0	6	48	23	13	11	12	+02	0.0	988.00	974.00	98.47	0.0	4	1	1	2	1	1	1	1	1	2
463	0	413X228	0464	0	0	0	0	7	60	28	13	12	13	000	0.0	0.0	0.0	0.0	0.0	0	1	1	2	2	1	3	2	1	2
464	0	413X228	0270	0	0	0	0	7	40	32	13	15	16	+02	6.8	1015.72	1004.40	99.65	0.31	4	3	2	2	2	1	1	1	1	3
465	0	413X228	0397	0	1	0	0	7	47	31	22	12	16	+03	7.6	0.12	0.0	0.0	9.99	0	2	1	2	3	1	1	1	3	3
466	15	413X228	0465	0	0	0	0	6	49	40	35	12	21	+01	0.0	0.0	0.04	0.0	9.99	0	3	1	2	2	1	1	2	1	1
467	0	413X228	0332	0	0	0	0	7	64	32	20	14	18	+03	0.0	994.00	969.00	0.0	0.31	4	1	1	2	2	1	4	2	1	1
468	0	413X228	0337	0	0	0	0	9	51	22	21	11	17	+02	10.3	0.02	0.0	0.0	9.99	0	2	1	2	1	1	4	1	2	1
469	0	413X229	0388	0	0	0	0	7	60	23	16	13	15	+02	9.8	0.03	0.0	0.0	9.99	0	3	1	2	2	1	1	1	1	1
470	0	413X229	0363	0	0	1	0	7	63	19	15	10	13	-03	6.5	1016.72	1018.88	100.10	0.06	1	2	1	2	2	1	1	1	1	1
471	0	413X228	0329	0	0	0	0	6	38	19	20	7	16	+02	3.7	994.64	969.90	99.13	0.23	3	2	1	2	2	1	1	1	3	2
472	0	413X228	0320	0	0	0	0	7	55	37	31	10	28	+01	0.0	995.00	968.00	0.0	0.47	5	1	1	2	1	1	1	1	1	2
473	28	413X229	0391	0	0	0	0	10	70	36	27	15	20	+02	20.8	0.06	0.0	0.0	9.99	0	2	1	1	2	1	1	1	1	1
474	0	413X228	0390	0	0	0	0	7	47	22	18	11	11	+01	6.0	0.05	0.0	0.0	9.99	0	3	1	2	2	1	1	1	1	3
475	0	413X228	0395	0	0	0	0	6	45	20	17	11	12	+01	5.8	0.10	0.0	0.0	9.99	0	3	1	2	2	1	1	1	1	1
476	0	413X228	0286	0	0	0	0	5	40	32	23	13	13	+01	7.0	999.91	963.46	99.08	0.18	3	2	1	2	2	1	1	2	1	1
477	0	413X228	0299	0	1	0	0	6	32	18	16	9	12	+01	2.2	995.00	968.00	0.0	0.17	2	3	1	2	2	1	1	1	1	3
478	0	413X228	0337	0	0	0	0	6	35	18	17	12	11	-03	2.5	0.02	0.0	0.0	9.99	0	2	1	2	2	1	1	1	3	3
479	0	413X228	0389	0	0	0	0	5	31	21	17	10	11	-02	2.1	0.04	0.0	0.0	9.99	0	2	1	2	2	1	1	1	1	1
480	0	413X228	0396	0	0	0	0	7	68	48	19	12	18	000	0.0	0.11	0.0	0.0	9.99	0	1	1	2	2	1	1	2	1	1
481	0	413X228	0131	0	0	0	0	7	51	39	30	10	22	+03	8.6	997.96	1011.30	99.23	0.40	4	3	1	2	3	1	1	1	1	2
482	0	413X229	0333	0	0	0	0	5	50	27	16	17	13	+02	5.1	1015.60	1004.20	99.58	0.38	5	3	1	2	2	1	1	1	1	2
483	0	413X228	0063	0	0	0	0	5	47	38	26	10	18	+01	6.5	0.0	0.0	0.0	0.0	3	3	1	2	3	1	1	1	1	3
484	0	413X228	0464	0	0	0	0	6	59	34	22	9	15	+02	8.5	0.0	0.0	0.0	0.0	0	2	1	2	2	1	1	1	3	2
485	15	413X228	0464	0	0	0	0	5	39	31	22	9	18	000	5.9	0.0	0.0	0.0	0.0	0	2	2	2	2	1	1	1	3	3
486	15	413X228	0153	1	0	0	0	6	55	32	20	10	15	000	7.9	996.61	1011.05	99.34	0.25	3	2	1	2	3	1	1	1	1	1
487	15	413X228	0305	0	0	0	0	6	35	28	24	10	17	000	5.1	994.98	968.91	99.18	0.13	2	3	1	2	2	1	1	1	1	3
488	0	413X228	0388	0	0	0	0	6	49	30	19	8	16	000	6.7	0.03	0.0	0.0	9.99	0	2	1	2	2	1	1	1	2	3
489	0	413X228	0387	0	1	0	0	6	36	29	31	11	19	-02	5.3	0.02	0.0	0.0	9.99	0	1	2	2	2	1	1	2	3	3
490	0	413X228	0453	0	0	0	0	5	49	29	17	7	15	000	5.2	1005.00	1030.00	0.0	0.0	0	2	1	2	2	1	1	1	3	3
491	0	413X228	0161	0	0	0	0	5	35	27	18	8	14	+01	4.2	1004.67	987.15	99.33	0.35	4	2	1	2	2	1	3	1	3	1
492	0	413X229	0365	1	0	0	0	6	51	31	19	10	20	000	0.0	1000.00	963.00	0.0	0.04	1	1	1	2	2	1	1	1	1	3
493	0	413X228	0108	0	0	0	0	6	43	29	21	12	16	+02	0.0	997.61	1011.30	99.43	0.20	2	1	1	2	2	1	1	2	1	2
494	0	413X228	0069	0	0	0	0	7	45	36	25	11	18	+03	0.0	997.57	1010.60	99.52	0.13	1	1	1	2	2	1	1	1	1	2
495	0	413X228	0456	0	0	0	0	5	46	35	18	8	13	+02	0.0	1010.00	1015.00	0.0	0.0	0	1	1	2	1	1	1	2	3	1
496	0	413X228	0164	0	0	0	0	7	57	31	28	9	22	+04	0.0	1004.20	987.20	99.49	0.19	3	1	2	2	1	1	4	1	1	1
497	0	413X228	0390	0	0	0	0	7	84	42	27	13	21	+02	0.0	0.05	0.0	0.0	9.99	0	1	1	2	2	1	1	1	1	2
498	0	413X228	0390	0	0	0	0	5	69	45	23	14	22	+05	0.0	0.05	0.0	0.0	9.99	0	1	1	2	1	1	1	1	3	2
499	15	413X228	0395	0	0	0	0	6	68	38	26	14	20	+02	13.4	0.10	0.0	0.0	9.99	0	1	2	2	2	1	1	1	3	3
500	0	413X228	0338	1	0	0	0	11	88	33	22	25	19	-03	0.0	0.03	0.0	0.0	9.99	0	1	1	1	2	1	1	1	1	1
501	0	413X229	0391	1	0	0	0	9	93	44	22	19	25	-02	0.0	0.06	0.0	0.0	9.99	0	1	1	1	2	1	1	1	1	1
502	0	413X228	0394	0	0	0	0	6	58	31	21	13	19	000	5.2	9.00	0.0	0.0	9.99	0	2	2	2	2	1	2	1	3	1
503	0	413X229	0389	1	0	1	0	11	111	40	21	21	19	-02	0.0	0.04	0.0	0.0	9.99	0	1	1	1	2	1	1	1	1	1
504	0	413X228	0090	0	0	0	0	11	91	41	22	18	18	-04	0.0	996.00	1011.00	0.0	0.14	2	1	1	1	1	1	1	1	1	2
505	0	413X228	0386	0	0	1	0	8	81	31	23	19	18	-03	0.0	0.01	0.0	0.0	9.99	0	1	1	2	2	1	2	1	1	1
506	40	413X228	0391	0	1	1	0	8	80	29	24	17	21	+02	8.3	0.06	0.0	0.0	9.99	0	2	1	2	2	1	1	1	3	1
507	0	413X228	0390	0	0	1	0	11	71	32	21	14	16	+01	0.0	996.95	1011.90	99.44	0.15	2	1	1	1	1	1	1	1	1	1
508	0	413X228	0263	0	0	1	0	8	50	30	23	16	21	000	11.3	1005.00	929.00	0.0	0.11	2	2	1	2	2	1	1	1	2	2
509	0	413X228	0333	1	0	1	0	8	68	26	20	18	18	000	12.0	1015.10	1004.68	99.55	0.41	5	2	1	2	2	1	1	1	3	2
510	0	413X228	0330	1	0	1	0	5	75	31	18	15	15	+01	0.0	1000.00	963.00	0.0	0.33	4	1	1	1	1	1	2	1	2	1
511	0	413X228	0393	1	0	0	0	8	30	28	16	14	13	-01	17.2	0.08	0.0	0.0	9.99	0	3	1	2	1	1	3	1	1	1
512	0	413X228	0323	0	1	1	0	9	65	34	23	18	20	000	13.7	994.40	969.38	98.76	0.60	7	2	2	1	1	1	1	1	1	1
513	0	413X228	0216	0	0	0	0	0	64	25	22	13	21	000	0.0	1006.14	1024.23	99.06	0.48	5	1	1	2	2	1	1	2	1	1
514	0	413X228	0184	0	0	0	0	7	55	34	27	13	20	000	11.5	1006.71	1022.34	99.41	0.22	2	2	1	2	1	1	1	2	1	3
515	0	413X228	0279	0	0	1	0	7	61	34	28	12	23	+02	13.9	1005.68	929.58	98.94	0.02	1	3	2	2	1	1	2	1	1	3
516	0	413X228	0386	0	0	0	0	9	57	26	15	14	14	-02	9.9	0.01	0.0	0.0	9.99	0	3	2	2	1	1	1	1	1	1
517	0	413X228	0282	1	0	0	0	7	58	24	19	14	19	000	8.6	999.53	963.11	98.70	0.56	6	2	1	2	1	1	4	1	1	1
518	0	413X228	0108	0	0	0	0	10	66	28	22	14	19	000	12.6	997.21	1011.50	99.49	0.14	2	2	1	2	1	1	2	1	1	2
519	0	413X228	0395	0	0	0	0	10	71	26	16	14	14	-03	14.0	0.10	0.0	0.0	9.99	0	3	1	2	1	1	1	1	2	2
520	0	413X228	0395	1	0	0	0	7	39	22	18	13	13	+05	5.6	0.10	0.0	0.0	9.99	0	2	1	2	1	1	1	1	2	2
521	12	413X228	0221	0	0	0	0	7	59	26	20	17	18	-03	8.1	1022.59	1008.73	99.72	0.45	4	2	2	2	1	1	1	1	2	3
522	0	413X228	0303	0	0	0	0	6	46	22	12	11	10	+01	4.7	994.80	968.68	99.25	0.06	1	3	1	2	1	1	1	1	1	1
523	12	413X228	0391	1	0	0	0	7	55	28	17	16	16	000	0.0	0.06	0.0	0.0	9.99	0	1	1	2	1	1	1	1	1	3
524	0	413X228	0460	0	0	0	0	5	42	33	18	9	16	+03	5.8	1015.00	1010.00	0.0	0.0	0	1	1	2	1	1	1	1	1	1
525	0	413X228	0391	0	0	0	0	5	60	38	21	11	19	+01	4.8	0.06	0.0	0.0	9.99	0	1	1	2	2	1	3	2	1	1
526	0	413X228	0441	0	0	1	0	7	49	37	20	14	16	+01	9.3	995.00	1010.00	0.0	0.0	0	2	1	2	2	1	1	1	1	1
527	0	413X228	0453	0	0	0	0	5	55	35	24	11	22	000	0.0	1005.00	1030.00	0.0	0.0	0	1	1	2	2	1	1	1	1	2
528	0	413X228	0391	0	0	0	0	6	68	33	23	8	20	000	0.0	0.06	0.0	0.0	9.99	0	1	1	2	2	1	1	1	1	1
529	0	413X228	0388	0	0	0	0	5	52	26	21	12	18	-04	6.0	0.03	0.0	0.0	9.99	0	2	1	2	2	1	1	1	1	1
530	0	413X228	0011	0	0	0	0	5	30	23	18	7	16	000	3.0	0.0	0.0	0.0	0.0	1	3	1	2	3	1	2	1	2	2
531	0	413X228	0448	0	0	0	0	7	55	32	15	9	13	-01	0.0	1005.00	1005.00	0.0	0.0	0	1	1	2	1	1	1	1	1	1
532	0	413X228	0467	0	1	0	0		70	20	18	20	17	+05	10.6	0.10	0.01	0.0	9.99	0	3	3	1	1	1	1	1	1	2
533	0	413X228	0355	0	0	0	0	11	69	19	21	12	16	+02	13.2	988.00	974.00	98.65	0.0	2	3	1	1	1	1	1	1	1	2
534	0	413X228	0467	0	1	0	0		78	26	24	17	17	000	6.0	0.10	0.01	0.0	9.99	0	2	3	2	1	1	1	1	1	2
535	0	413X228	0338	0	0	0	1	6	64	41	25	17	22	+03	8.1	0.14	0.0	0.0	9.99	0	2	1	2	2	1	2	1	1	1
536	0	413X228	0087	0	0	0	0	7	69	31	24	14	17	+02	9.0	996.59	1009.65	99.52	0.13	2	1	1	2	2	1	1	1	3	2
537	0	413X228	0386	0	0	0	0	8	49	25	22	15	19	+02	5.2	0.01	0.0	0.0	9.99	0	3	2	2	2	1	3	1	1	1
538	0	413X228	0394	0	0	0	0	8	52	24	19	10	15	+02	6.0	0.09	0.0	0.0	9.99	0	2	1	2	1	1	1	1	1	2
539	0	413X228	0395	0	0	0	0	5	50	22	20	8	16	+01	2.6	0.10	0.0	0.0	9.99	0	3	1	1	2	1	1	1	1	1
540	0	413X228	0391	0	0	0	0	5	56	28	17	18	15	+01	10.4	0.06	0.0	0.0	9.99	0	3	1	2	2	1	1	1	1	1
541	0	413X228	0153	0	0	0	0	5	73	35	18	16	16	+01	12.8	996.92	1011.56	99.31	0.28	3	3	1	2	2	1	1	1	2	3
542	0	413X228	0386	0	1	0	0	8	61	31	20	18	17	-04	14.5	0.01	0.0	0.0	9.99	0	3	1	2	2	1	2	1	1	1
543	0	413X228	0465	1	0	0	0	5	43	20	19	12	19	+02	4.2	0.0	0.04	0.0	9.99	0	3	1	2	3	1	1	1	1	3
544	39	413X228	0465	1	0	0	0	7	41	26	25	12	25	000	6.9	0.0	0.04	0.0	9.99	0	3	2	1	1	1	1	1	3	2
545	0	413X228	0357	0	0	0	0	7	51	25	23	17	25	+02	8.0	990.00	976.00	98.51	0.0	3	3	1	2	2	1	1	1	1	1
546	38	413X229	0391	0	0	0	0	7	73	39	0	0	0	+02	18.5	0.06	0.0	0.0	9.99	0	3	1	2	2	1	1	1	3	3
547	0	413X228	0464	1	1	0	0	9	37	27	12	40	0	+01	0.0	0.0	0.0	0.0	0.0	0	1	2	2	2	1	1	1	2	2
548	0	413X228	0285	1	0	0	0	5	65	28	27	31	15	000	0.0	1020.33	1024.53	99.93	0.18	2	3	2	2	2	1	1	2	3	1
549	0	413X228	0465	1	0	0	0	7	84	21	11	21	21	+01	12.4	0.0	0.04	0.0	9.99	0	3	1	2	3	1	4	1	1	1
550	5	413X228	0430	0	0	0	0	7	74	46	24	11	23	000	18.8	995.00	1009.00	0.0	0.13	1	2	1	2	2	1	1	1	1	1

Table 61. (continued)

551	14	418X228	0430	0	0	0	0	7	51	47	32	13	27	+05	14.4	995.00	1009.00	0.0	0.15	1	3	2	2	1	1	1	1	1	2
552	14	418X228	0478	0	0	0	0	5	62	30	25	11	23	+06	8.0	995.00	1008.00	0.0	9.99	1	3	1	2	1	1	2	1	1	2
553	13	418X228	0477	0	0	0	0	8	109	58	35	16	24	+10	0.0	995.00	1009.00	0.0	0.34	2	1	1	1	1	1	1	1	1	2
554	10	418X228	0475	0	1	1	0	5	73	30	23	16	17	000	15.8	1008.60	995.22	0.0	0.41	3	3	1	2	2	1	1	1	1	1
555	10	418X228	0475	0	0	1	0	9	57	30	17	15	17	000	12.3	1008.61	995.13	0.0	0.41	3	3	1	2	2	1	1	1	1	3
556	44	418X228	0479	0	0	0	0	6	53	27	21	13	14	+02	0.0	990.00	976.00	98.25	0.0	6	1	1	2	2	1	1	1	1	1
557	0	418X228	0480	0	0	0	0	5	62	24	18	14	14	+04	0.0	990.00	976.00	98.33	0.0	5	1	1	2	2	1	1	1	3	3
558	15	418X228	0475	0	0	0	0	7	53	28	23	12	15	+01	8.5	1008.00	995.00	0.0	0.41	3	3	1	2	3	1	1	1	1	3
559	20	418X228	0480	0	0	0	1	6	50	25	22	9	16	+03	5.1	995.00	1009.00	0.0	0.15	1	2	1	2	3	1	1	1	1	2
560	39	418X228	0433	0	1	0	0	7	69	30	30	0	0	000	8.2	990.00	976.00	98.38	0.0	5	3	1	2	2	1	1	1	1	2
561	10	418X228	0292	0	0	1	0	8	70	28	19	16	17	-06	0.0	999.65	963.91	98.91	0.35	4	1	1	1	1	1	2	1	1	2
562	0	418X228	0300	1	0	0	0	8	73	29	26	0	0	+02	0.0	995.42	974.49	98.47	1.07	11	1	1	1	2	1	4	2	1	1
563	0	418X228	0265	1	1	0	0	8	61	23	17	0	0	+01	0.0	995.81	969.03	99.01	0.35	4	1	1	1	2	1	1	2	2	1
564	0	418X228	0363	1	0	0	0	9	62	26	24	0	0	+03	0.0	990.00	974.00	98.50	0.0	3	1	1	1	3	1	1	1	1	2
565	0	418X228	0387	0	0	0	1	10	64	27	16	0	0	000	15.5	0.02	0.0	0.0	9.99	0	3	1	1	2	1	4	1	1	1
566	39	418X228	0180	0	0	0	0	6	59	42	42	0	0	000	0.0	1005.00	1024.00	0.0	0.31	4	1	1	2	3	1	1	1	1	2

TABLE 62. PROJECTILE POINT TYPE CODES

Type Code	Type Name	41 BX 228 Artifact Code
001	Perdiz	A1
002	Scallorn	A2:2
003	Darl mahomet	N/A
004	Ensor	D1:2
005	Castroville	D2:2
006	Marshall	D2:3
007	Pedernales II	N/A
008	Pedernales I	N/A
009	Bulverde I	N/A
010	Nolan	D3:7
011	Bulverde II	N/A
012	Bulverde	D3:4
013	Pedernales	D3:1
014	Montell	D2:1
015	Marcos	D2:5
016	Bell	D3:11
017	Wells	N/A
018	Darl hoxie	N/A
019	Travis	D3:6
020	Frio	D1:1
021	Gower	N/A
022	Clifton	N/A
023	Fairland	D1:3
024	Langtry	D3:2
025	Williams	D2:6
026	Lange	D2:4
037	Carrizo	D6:2
038	Kinney	D6:1
039	"thinned-base early triangular"	D6:3
040	Pandale	D3:10
041	La Jita	D3:8
042	Toyah	A2:4
043	Edwards	A2:1
044	Martindale	D4:3

E (Thickness): Two digit entry measured at the thickest segment of each specimen.

F (Maximum Length): Three digit entry.

G (Maximum Blade Width): Two digit entry measured at the widest portion of blade.

H (Base Width): Two digit entry measured (1) at the widest extent of the stem for expanding stem points; (2) at the base for parallel stem points and unstemmed triangular points; and (3) at the point where there is a noticeable break which begins the (usually) convex base for contracting stem points.

I (Haft Length): Two digit entry that measures the proximal end of the specimen that is assumed to have been inserted into the distal end of a shaft or foreshaft. On notched and barbed specimens the haft length is measured by drawing a reference line from the top of each notch and measuring the distance between the base and where the reference line meets the centerline of the specimen (see Fig. 66). On shouldered or contracting stem points the reference line should be drawn at the point where a noticeable flare toward the shoulder or barb begins. On unstemmed triangular specimens and unsmoothed lanceolate specimens haft length = 00. On smoothed lanceolate specimens the haft length is measured by drawing a reference line between the points nearest the distal tip on either side where smoothing ends.

J (Neck Width): Two digit entry that is assumed to correspond to the maximum diameter of the host shaft or foreshaft. On notched or shouldered and expanding stem specimens the neck width is measured at the narrowest point of the stem above the base regardless of position along the stem. On contracting stem specimens the neck width is measured at the point where a noticeable flare toward the shoulders or barbs begin; this point usually coincides with the reference line drawn for the haft length measurement.

K (Base Depth): Three digit entry. The first digit is a plus (+) symbol if the base is concave, a minus (-) symbol if the base is convex or a zero (0) if the base is straight. The last two digits measure the amount of concavity or convexity. Concave base specimens are measured from the base to the maximum extent of the basal notch or concavity. Convex base specimens are measured from the base width measurement point to the base.

L (Weight): Three digit number that expresses the weight in grams as measured on an **Ohaus** triple beam balance. Only complete specimens were weighed.

PROJECTILE POINT CODING FORM
CENTER FOR ARCHAEOLOGICAL RESEARCH
THE UNIVERSITY OF TEXAS AT SAN ANTONIO

Project Salado Creek Watershed — Coder S. Black

Artifact Class Dart Point — Date 14 (day) 5 (month) 80 (year)

0002 Sequence No.

014 Type Code No.

41BX228 Site No.

0181 Lot No.

NOTE: 1=Present; 0=Absent

0 Stem/Base Smoothing

0 Bevelled Blade

0 Bevelled Stem

0 Serrated

05 Thickness

070 Max. Length

38 Max. Blade Width

32 Base Width

14 Haft Length

27 Neck Width

+09 Base Depth
(+=Concave; -=Convex;
000=Straight)

10.8 Weight (grams)

_997.79 East Coordinate

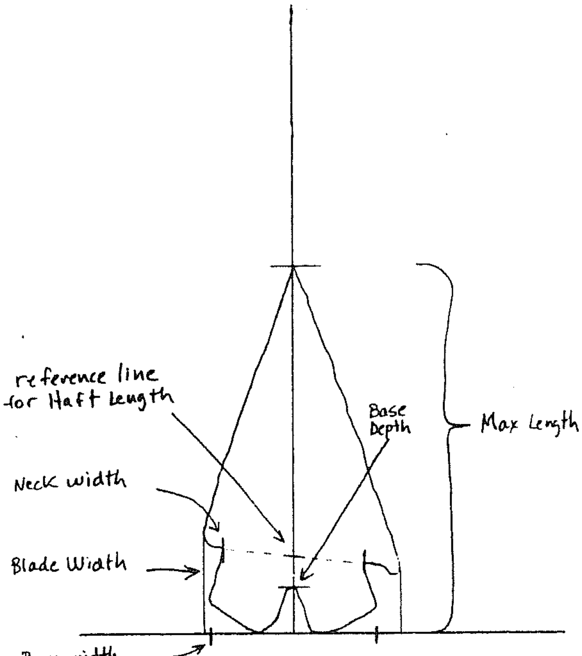
1011.80 North Coordinate

_99.25 Elevation (datum)

_.38 Depth (below surface)

_4 Substratum/Level

__MONTELL Type Name



OPTIONAL DATA

3 Completeness (1=<90%; 2=90-99%; 3-100%)

1 Reworking (1=none; 2=distal; 3=other)

2 Finish (1=unfinished; 2=finished)

3 Workmanship (1=poor; 2=average; 3=exceptional)

1 Material (1=chert; 2=chalcedony; 3=quartz; 4-other)

1 Patination (1=none; 2=light; 3=moderate; 4=heavy)

1 Heat Fracture (1=absent; 2=present)

1 Impact Fracture (1=none; 2=possible;3=prob

1 Heat Treatment (1=none; 2=possible; 3=prob

ADD COMMENTS ON REVERSE

Figure 66. **Projectile Point Coding Form.**

PROVENIENCE ATTRIBUTES

EAST (East Coordinate): Six digit number indicating the horizontal provenience east to west with respect to the site grid system. Numbers to the right of the decimal place indicate the specimen was plotted **in situ.**

NORTH (North Coordinate): Same as EAST except gives north to south provenience.

ELEV (Elevation [datum]): Five digit number indicating vertical provenience with respect to site datum. Elevation is only given for specimens plotted **in situ.**

DEP (Depth [below surface]): Three digit number that measures depth of the specimen in meters from the ground surface. If an elevation is not given, the depth indicated is the midpoint of the level depth. In other words, if an elevation is 000.00 and the depth is 0.36 it means the artifact was not found **in situ**, and the average depth of the excavation level was 36 cm below the surface.

LEV (Substratum/Level): Two digit number expressing the excavation level the specimen was recovered from.

SPECIAL PROVENIENCE CODING: The above described provenience attributes were designed for excavated specimens from standard unit-levels. Projectile points were recovered from various other proveniences. Surface finds from the general site area are given zero (0) values for all provenienced attributes. Surface finds from 5-m^2 surface collection grids are given East and North coordinates only. Backhoe trench specimens are given a trench number to the right of the decimal place in the East coordinate and a depth of 9.99 to indicate unknown subsurface depth. Backhoe Trench 10 specimens with a 1 or 2 in the North coordinate indicate Backhoe Trench 10A or 10B, respectively. Shovel test specimens are given horizontal proveniences and level numbers but no elevation and depth only when plotted **in situ.** All alphanumeric lot numbers are from the 1977 field school (Jaquier **et al.** 1979). Provenience information can be cross-checked by looking up the lot number in Appendix IV.

OPTIONAL DATA ATTRIBUTES

The following nine subjective attributes were added to Gunn and Prewitt's form to add more information pertinent to 41 BX 228 specimens. All are single digit entries.

M (Completeness): Indicates how much of artifact is missing. Coding values: 1 =<90% complete; 2 = 90-99% complete; and 3 = 100% complete. Metric attribute measurements for specimens less than 90% complete should be regarded as approximations only.

N (Reworking): Indicates presence of obvious reworking or resharpening as indicated by changes in edge angle, flaking pattern, or patination. Coding values: 1 = no reworking; 2 = distal reworking; and 3 = reworking of other section(s) of the specimen other than the distal portion.

O (Finish): Indicates whether specimen appears finished or not. About 10% of the coded specimens had irregular edges, asymmetric outlines, unthinned sections, or other indications that the specimen had never been completed. Coding values: 1 = unfinished; 2 = finished.

P (Workmanship): Indicates how well a given specimen is made. Exceptional workmanship results in symmetrical well-thinned artifacts with regular edges and even proportions. Poor workmanship results in uneven poorly thinned artifacts with asymmetrical outlines and irregular edges. Coding values: 1 = poor; 2 = average; and 3 = exceptional.

Q (Material): Indicates material type the specimen is made of. Coding values: 1 = chert; 2 = chalcedony; 3 = quartz; and 4 = other.

R (Patination): Indicates presence and amount of patina. Patination is the formation of a light-colored (opaque), thin layer through chemical weathering, surface exposure, and time. In general at 41 BX 228 the heavily patinated specimens were older than the unpatinated specimens. Coding values: 1 = none; 2 = light; 3 = moderate; and 4 = heavy.

S (Heat Fracture): Indicates whether a specimen has been burned or not. Coding values: 1 = absent (i.e., unburned); 2 = present (burned).

T (Impact Fracture): Indicates whether a specimen has an impact related fracture or not. Impact fractured points have missing distal portions and one or more flake scars that appear to originate from the distal end. Impact fractures are often difficult to positively identify. Coding values: 1 = none; 2 = possible impact fracture(s); and 3 = probably impact fracture(s).

U (Heat Treatment): Indicates whether or not the specimen appears to be made of heat-treated chert (see section VI for a discussion). Heat treatment is often difficult to positively identify. Coding values: 1 = not heat treated; 2 = possibly heat treated; and 3 = probably heat treated.

GRAPHIC DATA: Each specimen was placed with the flattest side down on the Projectile Point Coding Form with the base centered on the horizontal guide and the distal tip centered on the vertical guide. Incomplete and asymmetrical specimens were centered as nearly as possible. The outline of the specimen was then traced with a sharp pencil. Missing portions were then reconstructed by projecting dotted lines based on the intact portion of the specimen and comparison to similar complete specimens. A clear protractor was then used to draw a series of reference lines that indicate where the various metric attributes were measured. Measurements were determined with a pair of venier calipers where possible, otherwise a metric rule was used to measure between the appropriate reference lines. The graphic section was also used to add notes on various interesting features that were otherwise unrecorded.

REFERENCES CITED

Gunn, J. and E. R. Prewitt

1975 Automatic Classification: Projectile Points from West Texas. **Plains Anthropologist** 20(68):139-149.

Jaquier, J. A., F. Valdez, Jr., A. J. McGraw, I. W. Cox, and T. R. Hester

1979 Interim Report on Archaeological Test Excavations at Site 41 BX 228, Walker Ranch, Bexar County, Texas. **Center for Archaeological Research, The University of Texas at San Antonio, Archaeological Survey Report** 46.

APPENDIX VI

ADDITIONAL DATA

Extremely large amounts of information were amassed during the project. It is not possible to reproduce all of this information in this report given the fiscal limitations. Below are listed the types of data which were collected and how the information can be accessed. Table 63 is a list derived from a computer printout of the excavation unit-level provenience information and select material categories. Similar lists could have been done for a variety of data. Interested and qualified researchers can have access to the 41 BX 228 data collections by agreement with the Director of the Center for Archaeological Research, The University of Texas at San Antonio. Where noted, some data are available in photocopy form through the CAR for the cost of duplicating, postage, and handling. All other materials are on file at the CAR-UTSA Archaeological Laboratory.

UNIT-LEVEL PROVENIENCE DATA

Table 63 gives the provenience data for each excavated level at 41 BX 228. Most of the columns are self-explanatory. Lot numbers can be cross-checked in Appendix IV. The **Depth** column is the metric elevation below datum to the top of each level. The last two digits under depth are centimeters (i.e., a decimal point should be placed between the second and third digits). The **Thick** column is the average thickness of each level in centimeters. The actual data tabulations are presented for three categories: burned rock weight, bone weight, and debitage weight. The burned rock weight is presented in kilograms and dekagrams (first two digits from right are dekagrams - add one zero to right to obtain grams). The bone weight and debitage weight are presented in grams.

The raw data used to produce Table 63 are stored on magnetic tape which is housed at the CAR-UTSA. The following files are stored:

BX228 SYSDAT	All raw data from all unit-levels
BX228 AREADAT	Raw data sorted by excavation area
BX228 PROJPT	Projectile point data (Appendix V)
BX228 DEBDAT	Debitage data (see Material Culture section)
BX228 PARAM	Fortran program to select data subsets
BX228 FORTRAN	Program that generates data subsets selected by BX228 PARAM
BX228 EXEC	Program that executes BX228 FORTRAN
HEAD FORTRAN	Program that puts headings on data subset printouts
HEAD EXEC	Program that executes HEAD FORTRAN

It should be noted that the format of the computerized data is similar to that used by the Nueces River project (see Appendix VI in Hall, Black, and Graves 1982). This system is based on somewhat outdated Fortran programs which are notoriously difficult to work with. In the final analysis, we

TABLE 63. UNIT-LEVEL DATA

LOT	EAST	NORTH	DEPTH	THICK	LEVEL	BR WT	BONE WT	DEB WT
50	1015	1018	10012	12	1	1041	90	1300
59	1015	1018	10000	10	2	1775	120	854
435	1015	1018	9990	10	3	1150	19	521
438	1015	1018	9980	10	4	4350	65	1142
58	1015	1019	10012	12	1	475	46	837
57	1015	1019	10000	10	2	1800	133	923
434	1015	1019	9990	10	3	995	44	570
149	1015	1019	9980	10	4	4635	79	1291
62	1015	1020	10009	19	1	1746	102	2193
120	1015	1020	9990	10	2	1570	38	682
122	1015	1020	9980	10	3	4250	47	435
125	1015	1020	9970	10	4	4235	29	1395
144	1015	1020	9960	10	5	3375	25	293
63	1016	1018	10016	16	1	2010	144	1790
60	1016	1018	10000	10	2	2290	60	780
126	1016	1018	9990	10	3	1620	57	845
121	1016	1018	9980	10	4	5460	56	1044
140	1016	1018	9970	10	5	6980	19	1048
136	1016	1018	9960	10	6	6710	6	396
44	1016	1019	10013	13	1	1010	58	997
100	1016	1019	10000	10	2	1160	85	1153
148	1016	1019	9990	10	3	1380	79	562
124	1016	1019	9980	10	4	4355	84	1337
118	1016	1019	9970	10	5	3185	35	742
432	1016	1019	9960	10	6	3220	34	482
48	1016	1020	10010	10	1	440	84	1242
75	1016	1020	10000	10	2	2425	80	1034
95	1016	1020	9990	10	3	1730	29	863
98	1016	1020	9980	10	4	4920	61	1308
147	1016	1020	9970	10	5	3530	15	747
117	1016	1020	9960	10	6	4360	12	739
189	1016	1020	9950	10	7	2460	37	820
46	1017	1018	10021	11	1	1100	92	867
45	1017	1018	10010	10	2	595	170	854
227	1017	1018	10000	10	3	1796	52	436
214	1017	1018	9990	10	4	8785	30	554
243	1017	1018	9980	10	5	6760	10	435
55	1017	1019	10019	19	1	940	220	1800
49	1017	1019	10000	10	2	2530	28	1046
103	1017	1019	9990	10	3	4860	28	576
104	1017	1019	9980	10	4	5350	17	712
110	1017	1019	9970	10	5	6810	6	115
109	1017	1019	9960	10	6	5980	6	19
52	1017	1020	10016	16	1	964	125	1700
107	1017	1020	10000	10	2	2830	45	398
129	1017	1020	9990	10	3	6140	42	737
172	1017	1020	9980	10	4	8250	14	509
433	1017	1020	9970	10	5	7120	1	181
47	1018	1018	10021	11	1	1103	54	1012
56	1018	1018	10010	10	2	1740	67	928
436	1018	1018	10000	10	3	710	63	585
222	1018	1018	9990	10	4	1277	22	625
235	1018	1018	9980	10	5	7720	9	528
43	1018	1019	10021	10	1	6385	138	1710
229	1018	1019	10000	10	2	7245	50	500
246	1018	1019	9990	10	3	8560	55	1175
53	1018	1020	10019	19	1	1026	173	1317
101	1018	1020	10000	10	2	6860	21	415
128	1018	1020	9990	10	3	5510	20	2117
77	996	1008	9965	15	1	622	103	51
81	996	1008	9950	10	2	2620	87	510
79	996	1008	9940	10	3	4610	53	698
78	996	1008	9930	10	4	3060	8	664
70	996	1008	9920	10	5	2650	9	399
73	996	1008	9910	10	6	180	0	45
76	996	1008	9900	10	7	140	0	6
80	996	1008	9890	10	8	0	0	1
71	996	1008	9880	7	9	0	0	0
68	996	1009	9965	5	1	50	0	3
87	996	1009	9960	10	2	380	30	121
96	996	1009	9950	10	3	970	30	621
182	996	1009	9940	10	4	4160	101	925
174	996	1009	9930	10	5	7820	11	997
230	996	1009	9920	10	6	2990	8	602

Table 63. (continued)

LOT	EAST	NORTH	DEPTH	THICK	LEVEL	BR WT	BONE WT	DEB WT
93	996	1010	9965	5	1	30	0	94
91	996	1010	9960	10	2	530	18	457
99	996	1010	9950	10	3	880	22	485
159	996	1010	9940	10	4	4875	183	1013
185	996	1010	9930	10	5	7820	32	1291
218	996	1010	9920	10	6	4523	8	530
89	996	1011	9959	9	1	225	8	51
90	996	1011	9950	10	2	490	24	571
153	996	1011	9940	10	3	2040	112	1199
177	996	1011	9930	10	4	5260	85	1778
217	996	1011	9920	10	5	1715	6	353
88	997	1008	9968	8	1	100	15	324
84	997	1008	9960	10	2	945	23	598
97	997	1008	9950	10	3	2890	77	869
133	997	1008	9940	10	4	6200	49	669
135	997	1008	9930	10	5	5950	16	776
163	997	1008	9920	10	6	500	10	63
64	997	1009	9966	16	1	430	39	910
105	997	1009	9950	10	2	1550	79	703
167	997	1009	9940	10	3	3570	121	981
158	997	1009	9930	10	4	5730	8	759
179	997	1009	9920	10	5	1410	7	287
69	997	1010	9965	15	1	300	52	796
112	997	1010	9950	10	2	1380	27	509
131	1997	1010	9940	10	3	5700	200	1045
175	997	1010	9930	10	4	5300	27	914
234	997	1010	9920	10	5	3980	12	472
106	997	1011	9963	13	1	450	67	543
108	997	1011	9950	10	2	680	30	517
239	997	1011	9940	10	3	3460	90	1173
181	997	1011	9930	10	4	4520	130	1646
226	997	1011	9920	10	5	810	29	639
86	998	1008	9972	12	1	445	115	560
92	998	1008	9960	10	2	1500	34	865
94	998	1008	9950	10	3	3930	137	955
165	998	1008	9940	10	4	4890	45	1169
368	1000	963	9910	10	3	7050	152	1868
380	1000	963	9900	10	4	5080	51	1694
303	994	968	9931	11	1	1460	35	634
305	994	968	9920	10	2	4060	50	502
330	994	968	9910	10	3	1750	62	631
325	994	968	9900	10	4	1080	22	729
334	994	968	9890	10	5	1660	12	928
336	994	968	9880	10	6	2570	19	825
340	994	968	9870	10	7	980	43	1014
339	994	968	9860	10	8	660	5	739
311	994	969	9936	6	1	230	10	313
304	994	969	9930	10	2	820	102	569
329	994	969	9920	10	3	2665	108	875
332	994	969	9910	10	4	765	59	469
326	994	969	9900	10	5	1900	18	599
324	994	969	9890	10	6	2070	0	810
323	994	969	9880	10	7	3430	64	1233
327	994	969	9870	10	8	1480	26	899
373	994	969	9860	10	9	430	25	512
301	995	968	9932	12	1	1860	26	673
299	995	968	9920	10	2	5650	90	798
331	995	968	9910	10	3	1240	135	865
328	995	968	9900	10	4	1270	13	757
320	995	968	9890	10	5	890	30	895
321	995	968	9880	10	6	1215	15	1205
341	995	968	9870	10	7	780	22	885
372	995	968	9860	10	9	480	1	375
256	995	969	9936	6	1	235	18	400
294	995	969	9930	10	2	1995	79	617
281	995	969	9920	10	3	2640	131	637
285	995	969	9910	10	4	2005	8	1067
337	995	969	9900	10	5	5820	18	716
266	995	969	9890	10	6	1190	13	671
271	995	969	9880	10	7	2268	30	974
307	995	969	9870	10	8	665	21	551
309	995	969	9860	10	9	155	0	358
310	995	969	9850	10	10	0	0	1
302	994	974	9953	13	1	520	55	582

Table 63. (continued)

LOT	EAST	NORTH	DEPTH	THICK	LEVEL	BR WT	BONE WT	DEB WT
298	994	974	9940	10	2	620	29	661
297	994	974	9930	10	3	160	8	197
261	995	974	9954	14	1	1420	97	763
431	995	974	9940	10	2	5810	22	346
269	995	974	9930	10	3	9880	8	146
247	995	974	9920	10	4	9999	4	116
242	995	974	9910	10	5	9999	1	38
278	995	974	9900	10	6	9999	2	51
273	995	974	9890	10	7	9999	0	71
260	995	974	9880	10	8	6560	5	413
308	995	974	9870	10	9	1870	7	432
306	995	974	9860	10	10	485	6	353
300	995	974	9850	10	11	785	4	236
355	988	974	9870	10	2	0	22	1510
364	988	974	9960	10	3	0	56	2245
346	988	974	9850	5	41	0	23	1078
344	988	974	9945	5	42	0	12	2255
173	998	1008	9930	10	5	6130	13	870
224	998	1008	9920	10	6	650	1	113
66	998	1009	9970	10	1	200	15	516
67	998	1009	9960	10	2	280	58	491
85	998	1009	9950	10	3	2480	65	1730
138	998	1009	9940	10	4	4050	147	990
156	998	1009	9930	10	5	2750	25	655
228	998	1009	9920	10	6	430	9	181
72	998	1010	9969	9	1	130	36	428
65	998	1010	9960	10	2	680	38	685
83	998	1010	9950	10	3	670	26	817
171	998	1010	9940	10	4	2740	156	1034
134	998	1010	9930	10	5	3060	20	1085
186	998	1010	9920	10	6	1940	2	180
157	1005	1022	9955	5	1	270	7	301
155	1005	1022	9950	10	2	690	48	1530
183	1005	1022	9940	10	3	3290	157	1179
240	1005	1022	9930	10	4	5700	257	1774
188	1005	1022	9920	10	5	3130	50	561
150	1005	1023	9951	11	1	470	139	870
130	1005	1023	9940	10	2	490	30	887
142	1005	1023	9930	10	3	4400	177	2292
115	1005	1023	9920	10	4	3085	105	1330
215	1005	1023	9910	10	5	820	13	1028
119	1005	1024	9946	6	1	210	7	522
123	1005	1024	9940	10	2	750	145	1026
176	1005	1024	9930	10	3	4785	88	894
180	1005	1024	9920	10	4	3910	221	2546
187	1005	1024	9910	10	5	1700	43	817
194	1005	1024	9900	10	6	195	6	297
143	1006	1022	9963	13	1	660	11	837
184	1006	1022	9950	10	2	2793	108	1278
191	1006	1022	9940	10	3	2460	155	1799
193	1006	1022	9930	10	4	4780	29	1057
437	1006	1022	9920	10	5	620	4	102
170	1006	1023	9958	8	1	280	13	348
169	1006	1023	9950	10	2	680	33	858
212	1006	1023	9940	10	3	4265	104	1540
211	1006	1023	9930	10	4	4000	127	2330
192	1006	1023	9920	10	5	5840	25	1328
116	1006	1024	9954	14	1	510	41	1316
151	1006	1024	9940	10	2	650	44	1066
127	1006	1024	9930	10	3	3820	159	1725
178	1006	1024	9920	10	4	2825	33	1296
216	1006	1024	9910	10	5	350	2	165
257	999	963	9926	6	1	180	8	413
250	999	963	9920	10	2	1070	40	650
286	999	963	9910	10	3	4255	73	626
292	999	963	9900	10	4	2155	14	447
288	999	963	9890	10	5	1170	9	961
282	999	963	9880	10	6	1870	5	767
284	999	963	9870	10	7	750	23	817
283	999	963	9860	10	8	500	37	326
365	1000	963	9928	8	1	620	33	1423
366	1000	963	9920	10	2	3610	89	1308
367	988	974	9840	10	5	0	15	3820

Table 63. (continued)

LOT	EAST	NORTH	DEPTH	THICK	LEVEL	BR WT	BONE WT	DEB WT
427	988	974	9830	10	6	0	1	760
361	988	976	9870	10	2	0	22	315
343	988	976	9860	10	3	0	29	444
347	988	976	9850	10	4	0	13	1427
350	988	976	9840	10	5	0	34	2976
370	988	976	9830	10	6	0	7	1704
356	990	974	9884	14	1	0	13	626
354	990	974	9870	10	2	0	23	471
363	990	974	9860	10	3	0	39	2489
345	990	974	9850	10	4	0	28	4899
351	990	974	9840	10	5	0	2	2814
428	990	974	9830	10	6	0	1	741
359	990	976	9870	10	2	0	12	305
357	990	976	9860	10	3	0	52	441
349	990	976	9850	10	4	0	89	1452
254	1010	1028	9958	8	1	75	32	210
137	1010	1029	9954	14	1	230	79	818
146	1010	1029	9940	10	2	1190	46	710
145	1010	1029	9930	10	3	3990	64	707
141	1010	1029	9920	10	4	6035	147	1336
166	1010	1029	9910	10	5	2495	48	1069
132	1010	1029	9900	10	6	1070	16	619
219	1010	1029	9890	10	7	1025	3	333
220	1010	1029	9880	10	8	310	0	170
255	1011	1029	9961	11	1	235	30	260
293	1011	1029	9950	10	2	480	59	658
244	1020	1024	10011	11	1	410	32	582
289	1020	1024	10000	10	2	3854	56	860
291	1020	1024	9990	10	3	8200	35	463
249	1020	1029	9993	13	1	1740	91	521
139	1004	987	9968	8	1	35	22	444
162	1004	987	9960	10	2	220	244	295
164	1004	987	9950	10	3	380	32	434
161	1004	987	9940	10	4	3590	93	922
160	1004	987	9930	10	5	1950	24	711
152	1004	987	9920	10	6	1694	13	1015
154	1004	987	9910	10	7	1960	14	200
213	1022	1008	10013	13	1	910	154	861
241	1022	1008	10000	10	2	4450	125	940
233	1022	1008	9990	10	3	4760	36	398
221	1022	1008	9980	10	4	9425	16	733
237	1022	1008	9970	10	5	8415	12	94
236	1022	1008	9960	10	6	9070	4	235
231	1022	1008	9950	10	7	7390	10	252
251	1022	1008	9940	10	8	3690	4	183
258	1022	1008	9930	10	9	10	1	21
245	1015	1004	9996	6	1	210	3	74
232	1015	1004	9990	10	2	1990	27	837
223	1015	1004	9980	10	3	1980	12	684
270	1015	1004	9970	10	4	2748	29	592
333	1015	1004	9960	10	5	2670	32	1488
252	1015	1004	9950	10	6	6290	6	0
253	1015	1004	9940	10	7	120	0	296
279	1005	929	9896	6	1	170	0	362
263	1005	929	9890	5	2	660	6	340
264	1005	929	9885	5	3	1130	11	432
277	1005	929	9880	5	4	2600	9	449
275	1005	929	9875	5	5	4250	22	516
265	1005	929	9870	5	6	2550	5	699
268	1005	929	9865	5	7	1870	12	732
248	1005	929	9860	5	8	0	1	355
290	1010	940	9916	6	1	185	3	377
287	1010	940	9910	5	2	380	2	278
280	1010	940	9905	5	3	610	5	229
274	1010	940	9900	5	4	1460	4	394
276	1010	940	9895	5	5	2970	16	314
272	1010	940	9890	5	6	1555	5	595
267	1010	940	9885	5	7	0	0	90
312	1010	950	9921	11	1	0	0	350
313	1010	950	9910	10	2	385	0	118
314	1010	950	9900	10	3	1210	3	147
322	1010	950	9890	10	4	1812	2	219
335	1010	950	9880	10	5	110	1	172

spent more time entering in data and getting it out again than we would have if we would have done it all by hand.

41 BX 228 ARTIFACTUAL DATA

All artifacts and other data associated with site 41 BX 228 are stored in the Archaeology Laboratory, CAR-UTSA. Virtually all materials are stored in their final analytical categories. The major exception is the 41 BX 228 Lithic Type Collection. The Type Collection contains examples of most of the lithic artifact types identified from the site. This provides a comparative collection that has examples of most of the lithic artifacts commonly found in south-central Texas. This collection is available for examination to qualified researchers.

Photocopies are available of the artifact inventories of all artifacts described in the Material Culture section. Most inventories of the bifacial artifacts also contain metric measurements of the basic length, width, thickness, and weight. All artifacts are inventoried by lot number. Photocopies are also available of the detailed descriptions and identifications of the faunal materials done by Richard Hulbert, Jr. (Special Studies section). Write to the CAR-UTSA for details.

41 BX 228 FILES

A four-drawer file cabinet housed in the CAR-UTSA Archaeological Laboratory contains the project files. This includes all field and laboratory notes, completed field and laboratory forms, correspondence, draft illustrations, early drafts of this report, photographic notes, inventories, and any other written data collected during the project. These files are accessible only to qualified researchers. In addition, a map cabinet in the laboratory contains all the original maps and illustrations too large for the file cabinet.