

APPENDIX I

**Professional Archaeological Services
2007 Survey Report by Dr. Philip de Barros**

**Cultural Resources Inventory of a 50-Acre Parcel
Off Palm Canyon Drive and Hoberg Road
Tentative Map 5511
Borrego Springs, San Diego County, California**

**APN 141-080-05
Log No. 06-05-003**

**By
Philip de Barros, Ph.D., SOPA, RPA
Principal Investigator**

Prepared for:

**David Goode
KSD Hawaii
8 Kiopa'a Street, Suite 201
Pukalani, Hawaii 96768**

Prepared by:

**PROFESSIONAL ARCHAEOLOGICAL SERVICES
137310 Via Cima Bella
San Diego, CA 92129
760-807-9489**

February 2007

National Archaeological Data Base Information

Type of Study: Cultural Resources Inventory

Sites: P-37-028079; CA-SDI-18266 through 18274

USGS Quadrangle: 1959 (1974 photorevision) 7.5' *Borrego Palm Canyon* quadrangle

Township & Range and Sections: Section 31 of T10S, R6E (SBBM).

Area: 50 Acres

Keywords: Borrego Springs, San Diego County, Borrego Valley, Palm Canyon Drive, Hoberg Road, survey, Late Prehistoric, Brownware pottery, Obsidian Butte, obsidian, Cottonwood arrow point, water tank, water conveyance system, rock ring, foundation, wooden structure ruins, well heads, water spicket, irrigation fittings, SCA glass, bottle glass, sanitary cans, hole-in-top can, brick fragments, wire nails, hotelware, maker's mark, stoneware, inkwell, South Coastal Information Center.

TABLE OF CONTENTS

<u>Section</u>	<u>Page</u>
<u>MANAGEMENT SUMMARY</u>	v
<u>SECTION 1 – INTRODUCTION</u>	
1.1 PROJECT DESCRIPTION AND LOCATION	1
1.2 PROJECT SCOPE AND PERSONNEL	1
1.3 NATIVE AMERICAN INVOLVEMENT	1
<u>SECTION 2 – NATURAL AND CULTURAL SETTING</u>	
2.1 NATURAL SETTING	5
2.1.1 <u>Topography, Hydrology, Geology and Soils</u>	5
2.1.2 <u>Climate, Vegetation and Fauna</u>	5
2.1.3 <u>Previous and Current Land Use</u>	6
2.2 CULTURAL SETTING	7
2.2.1 <u>Prehistory</u>	7
2.2.2 <u>Ethnography</u>	12
2.2.3 <u>History of Borrego Springs</u>	20
2.2.4 <u>The Subject Property</u>	27
2.3 PREVIOUS ARCHAEOLOGICAL RESEARCH	27
2.3.1 <u>Results of Records Search</u>	27
<u>SECTION 3 – RESEARCH DESIGN AND METHODS</u>	
3.1 BASIC RESEARCH DESIGN	30
3.2 FIELD METHODS	30
<u>SECTION 4 – FINDINGS</u>	
4.1 ARCHAEOLOGICAL SITES	31
4.1.1 <u>SDI-18266 – Prehistoric Artifact Scatter</u>	31
4.1.2 <u>SDI-18267 – Former Water Tank with Well Head and Support Debris</u>	31
4.1.3 <u>SDI-18268 – Prehistoric Artifact Scatter</u>	32
4.1.4 <u>SDI-18269 – Historic Artifact Scatter with Water Spicket</u>	32
4.1.5 <u>SDI-18270 – Linear Cement Foundation with Associated Artifact Scatter</u>	32
4.1.6 <u>SDI-18271 – Small, Partially Buried Historic Can Scatter</u>	33
4.1.7 <u>P-37-028079 – Two Pipeline Segments, One with Irrigation Fittings</u>	33
4.1.8 <u>SDI-18272 – Remnants of a Large Trash Dump</u>	34
4.1.9 <u>SDI-18273 – Stone Hearth or Rock Ring and Four Historic Trash Loci</u>	34

4.1.10	<u>SDI-18274 – Collapsed Wooden Structure, Well Head and Trash Scatter</u>	34
--------	--	----

SECTION 5 – SIGNIFICANCE EVALUATION AND RECOMMENDATIONS

5.1	APPLICABLE LEGISLATION, STATUTES AND ORDINANCES	36
5.1.1	<u>CEQA Guidelines; the California Register of Historical Resources</u>	36
5.1.2	<u>Resource Protection Ordinance (RPO)</u>	37
5.1.3	<u>Human Remains</u>	37
5.1.4	<u>Applicable CHRP Evaluation Criteria for the Current Project</u>	38
5.1.5	<u>Criterion D of the CHRP in San Diego County</u>	38
5.2	PRELIMINARY SIGNIFICANCE EVALUATION AND RECOMMENDATIONS FOR FURTHER STUDY	38
5.2.1	<u>SDI-18266</u>	39
5.2.2	<u>SDI-18267</u>	39
5.2.3	<u>SDI-18268</u>	39
5.2.4	<u>SDI-18269</u>	39
5.2.5	<u>SDI-18270</u>	40
5.2.6	<u>SDI-18271</u>	40
5.2.7	<u>P-37-028079</u>	40
5.2.8	<u>SDI-18272</u>	40
5.2.9	<u>SDI-18273</u>	41
5.2.10	<u>SDI-18284</u>	41
5.3	SUMMARY OF MANAGEMENT RECOMMENDATIONS	42

SECTION 6 – REFERENCES 43

- APPENDIX A – Resume of Principal Investigator
- APPENDIX B – Proof of Records Search
- APPENDIX C – Native American Report by Carmen Lucas

CONFIDENTIAL SITE RECORDS APPENDIX

List of Figures

	Page
Figure 1: Project Vicinity Map	2
Figure 2: Project Location Map	3
Figure 3: Site Plan	4
Figure 4: Aerial Photo Showing Location of Former Air Strip	8
Figure 5: Brigandi's Map of Historic Sites in Borrego Springs	23

List of Tables

Table 1:	Cultural Resources Studies Within One Mile of the Project Area	28
Table 2:	Previously Recorded Sites Within One Mile of the Project Area	29
Table 3:	Summary of Management Recommendations	42

MANAGEMENT SUMMARY

INTRODUCTION

At the request of Jo MacKenzie of the MacKenzie Group and the owner's representative, David Goode, Professional Archaeological Services (PAS) surveyed a 50-acre property off Palm Canyon Drive in Borrego Springs, San Diego County, California (Tentative Map 5511). The plan is to subdivide the property into 17 lots – 16 residential lots about 2 acres in size and an 11.6-acre commercial parcel along Palm Canyon Drive. The property is about 1.5 miles west of Borrego Springs Road and Christmas Circle in Section 31 of Township 10 South, Range 6 East (San Bernardino Base Meridian) as shown on the 1959 (photorevised 1974) USGS *Borrego Palm Canyon* quadrangle.

Dr. Philip de Barros of PAS served as Principal Investigator. A records search was conducted at the South Coastal Information Center on October 13th, 2006. The field survey was done on October 22nd.

Carmen Lucas, a Kwaaymii Indian of the Laguna Band, participated in the survey as a consultant. She provided insights into the cultural landscape and the prehistoric sites and features encountered during the survey. On December 29, 2006, Gail Wright from the Department of Planning and Land Use (DPLU) told the author that the County will request a sacred lands file check from the Native American Heritage Commission after they receive the cultural resources report. The County will also consult with appropriate Indian tribes regarding the two prehistoric Indian sites found on the property.

FINDINGS

Eight prehistoric and historic archaeological sites, remnants of a water conveyance system, and one collapsed historic structure with associated artifacts were recorded. A prehistoric isolate (Brownware sherd) was not recorded.

SDI-18266: Prehistoric Artifact Scatter

This site consists of an artifact scatter made up of 15 Brownware pottery sherds, a secondary obsidian flake, and a fragment of Cottonwood arrow point made of obsidian. The site is 20 x 15 m in size.

SDI-18267: Former Water Tank Site with Well Head and Support Debris

The site consists of a well head and associated pipes, a collapsed wooden lattice support structure for a now-removed water tank, and some associated artifacts. The site measures 17 x 15 m in size.

SDI-18268: Prehistoric Artifact Scatter

This site consists of a tight cluster of five prehistoric Brownware pottery sherds. Several fragmentary historic glass artifacts were also found nearby. The site measures 4 x 0.5 m in size.

SDI-18269: Historic Artifact Scatter with Water Spicket

This site consists of a dispersed scatter of historic artifacts grouped in ten clusters plus a water spicket. The water spicket is not far from a buried pipeline that originates from the well head and water tank to the south (see SDI-18267). Its presence suggests some kind of agricultural or habitation activity in the past. The artifacts date primarily to the 1940s-1960s. The site measures 65 x 30 m in size.

SDI-18270: Linear Cement Foundation with Associated Artifact Scatter

This site consists of a low, U-shaped, partial(?), linear cement foundation with an attached cement, trough-like feature and a potentially associated trash deposit to the north. The overall cement feature is 15 feet long (EW) and 13 feet wide (NS). A clear glass bottle fragment is within the trough-like feature. A potentially associated trash feature, about 2 x 1 m in size, is located about 14 m to the north; it contains can fragments, a burnt animal bone, a machine-made brown bottle top, a clear screw-top jar, a tuna or olive can, and another can four meters to the east. It is likely that most of these artifacts also date primarily between the 1940s and 1960s. The overall site measures 15 x 10 m.

SDI-18271: Small, Partially Buried Historic Can Scatter

This site consists of a small, partially buried can scatter about one meter in diameter. It contains a partially burned hole-in-top (milk?) can and at least two other partially buried cans. Given that hole-in-top or vent-hole milk cans continued well after the 1920s, the dating of this artifact cluster is uncertain.

P-37-028079: Two Pipeline Segments, One with Irrigation Fittings

This system consists of two exposed pipeline segments, Locus A and Locus B, both aligned north-south. Locus A is the southernmost pipe segment. It consists of a 3-inch diameter water pipe segment with vertical irrigation fittings. The main pipe probably connects to the well head and former water tank about 550 m to the south (SDI-18267). Locus B is the northernmost pipe segment. It is about 6.5 m long and is broken off at the southern edge of small intermittent wash that is a tributary of the main wash that exits from Hellhole Canyon to the southwest and passes just north of the subject property. The two loci are separated by a distance of about 210 meters.

SDI-18272: Remnants of a Large Trash Dump

The site consists of the remnants of a large trash dump that could date back to as early as the 1920s. Much of the dump was recently taken away as part of a hazardous waste removal mandate from the County prior to the cultural resources survey; however, scattered artifact deposits remain. Two large bulldozer scars currently indicate where the major trash deposits were once located. Artifacts present include linear edge hotelware plates and bowls, a ceramic inkwell fragment, stoneware fragments, melted sun-colored amethyst glass, and diverse glass bottle debris. The dump is 105 x 60 m in size.

SDI-18273: Stone Hearth or Rock Ring and Four Historic Trash Loci

This site consists of four dispersed historic loci: 1) a probable historic rock ring feature measuring 90 x 80 cm that contains 12 granitic rocks that are probably fire-altered; 2) a few shards from a sun-colored amethyst (SCA) mason jar; 3) a large pail 15 inches in height; and, 4) a small scatter of cans 23 m south of the pail. These features were grouped together for site management purposes, but they are unlikely to be contemporaneous. The SCA glass indicates deposition no later than 1920-1925. The site measures 40 x 25 m.

SDI-18274 – Collapsed Wooden Structure, Well-Head and Trash

This site consists of a collapsed wooden structure that was probably a one room cabin or shed, a well head, and associated surface artifacts. The site straddles the northern boundary of the parcel, with the collapsed wooden structure located within the parcel boundaries and the well head located just outside to the north. The associated trash scatter includes fragments of a toilet tank, metal cans, a wine/champagne bottle, metal parts and fasteners, wood debris, a galvanized iron garbage can, and bottle fragments. No SCA glass or square nails were noted, suggesting occupation after 1920. The overall site measures 30 x 20 m.

RECOMMENDATIONS

Given the new County regulations, all of these sites are viewed as significant resources that can yield information about the prehistoric and historic past. Given the scope of work authorized by the project developer, this report limits itself to site recordation and recommendations as to which sites require further studies to extract the information they contain. Section five of this report spells out in detail the kinds of archival studies, field work, and artifact analytical studies recommended. Historic facts associated with several of the historic artifact scatters can be identified in the field without collection. Other sites will require test excavations and artifact collection and analysis. The methods, findings, and interpretation of these studies will need to be presented in a final report. All collected artifacts must then be curated. Below is a table which summarizes these recommendations.

Recommendations for Further Study

Site	Type	Archival Research	Field Artifact Study	STPs	Test Units or Trenches	Lab Analysis
SDI-18266	prehistoric artifact scatter	NO	NO	YES	YES	YES
SDI-18267	well head & remnants of water tower with associated artifacts	minimal	YES	NO	NO	NO
SDI-18268	small prehistoric and historic artifact scatter	NO	YES historic	NO	NO	YES pottery
SDI-18269	historic scatter & spicket	YES	YES	YES	only if SDP	only if SDP
SDI-18270	cement foundation & historic artifact scatter	YES	YES	YES	YES	only if SDP
SDI-18271	small can scatter	NO	NO	NO	YES	YES
P-37-028079	water conveyance system	minimal	NO	NO	NO	NO
SDI-18272	remnants large trash dump	YES	NO	YES	YES	YES
SDI-18273	historic hearth or rock ring & other historic trash	NO	YES	YES	only if SDP	only if SDP
SDI-18274	collapsed wooden structure, well head and historic trash	YES	YES	YES	only if SDP	only if SDP

STP - Shovel Test Pit; SDP - Subsurface Deposit Present

SECTION 1 – INTRODUCTION

1.1 PROJECT DESCRIPTION AND LOCATION

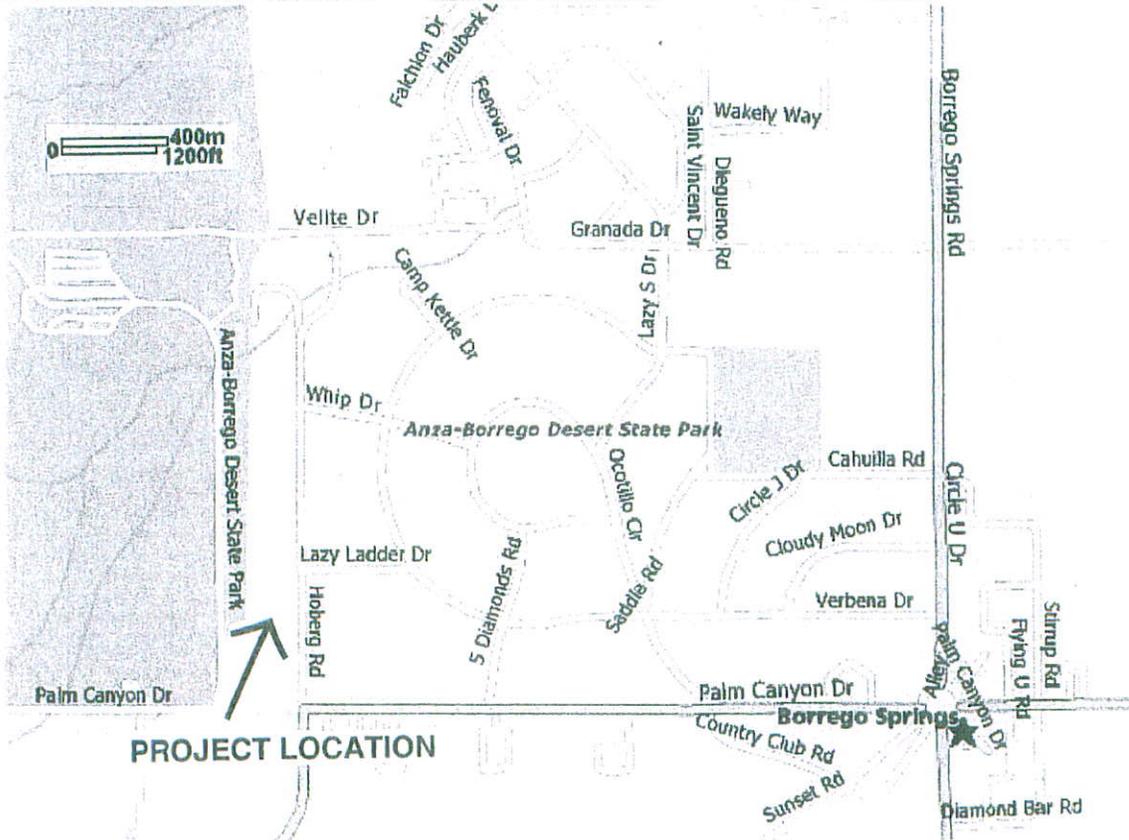
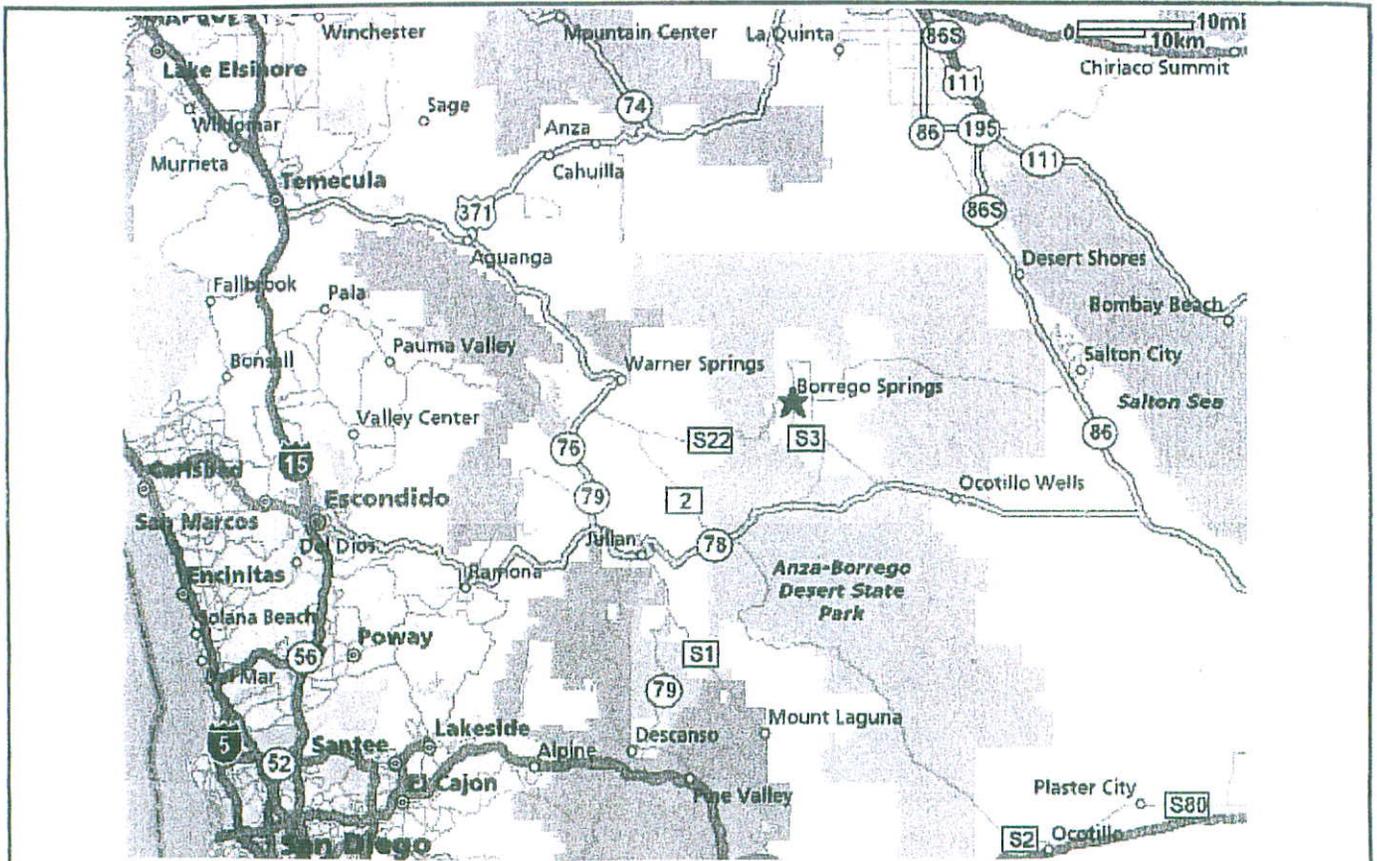
At the request of Jo MacKenzie of the MacKenzie Group and the owner's representative, David Goode, Professional Archaeological Services (PAS) surveyed a 50-acre property off Palm Canyon Drive in Borrego Springs, San Diego County, California (Tentative Map 5511). The parcel is bounded by a vacant lot that was formerly a motel to the north, Hoberg Road to the east, Palm Canyon Drive to the south, and Anza-Borrego Desert State Park to the west. The plan is to subdivide the property into 17 lots – 16 residential lots about 2 acres in size and an 11.6-acre commercial parcel along Palm Canyon Drive. An 8-foot wide trail is proposed along Palm Canyon Drive to the south and a 10-foot wide trail along the northern boundary from Hoberg Road to the State Park. The property is situated about 1.5 miles west of Borrego Springs Road and Christmas Circle in Section 31 of Township 10 South, Range 6 East (San Bernardino Base Meridian) as shown on the 1959 (photorevised 1974) USGS *Borrego Palm Canyon* quadrangle (see Figures 1-3). The assessor parcel number is APN 141-080-05. The process of subdividing the property and the construction of residential homes and commercial buildings would result in the destruction of any archaeological sites that might be present.

1.2 PROJECT SCOPE AND PERSONNEL

Dr. Philip de Barros of PAS served as Principal Investigator (Appendix A). He conducted a records search at the South Coastal Information Center at San Diego State University on October 13th, 2006 (Appendix B), and supervised the field survey on October 22nd. He was assisted by Tanya Duer, Shelby Gunderman, Tim Wolfe, and Scot Golia, all advanced students of the Palomar College Archaeology Program. Carmen Lucas, a Kwaaymii Indian of the Laguna Band, served as Indian consultant and participated in the survey.

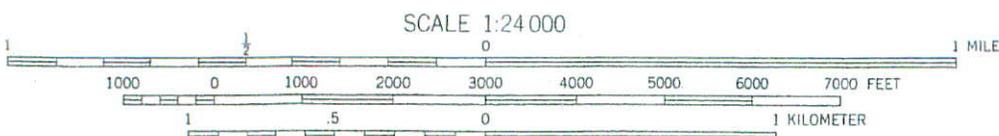
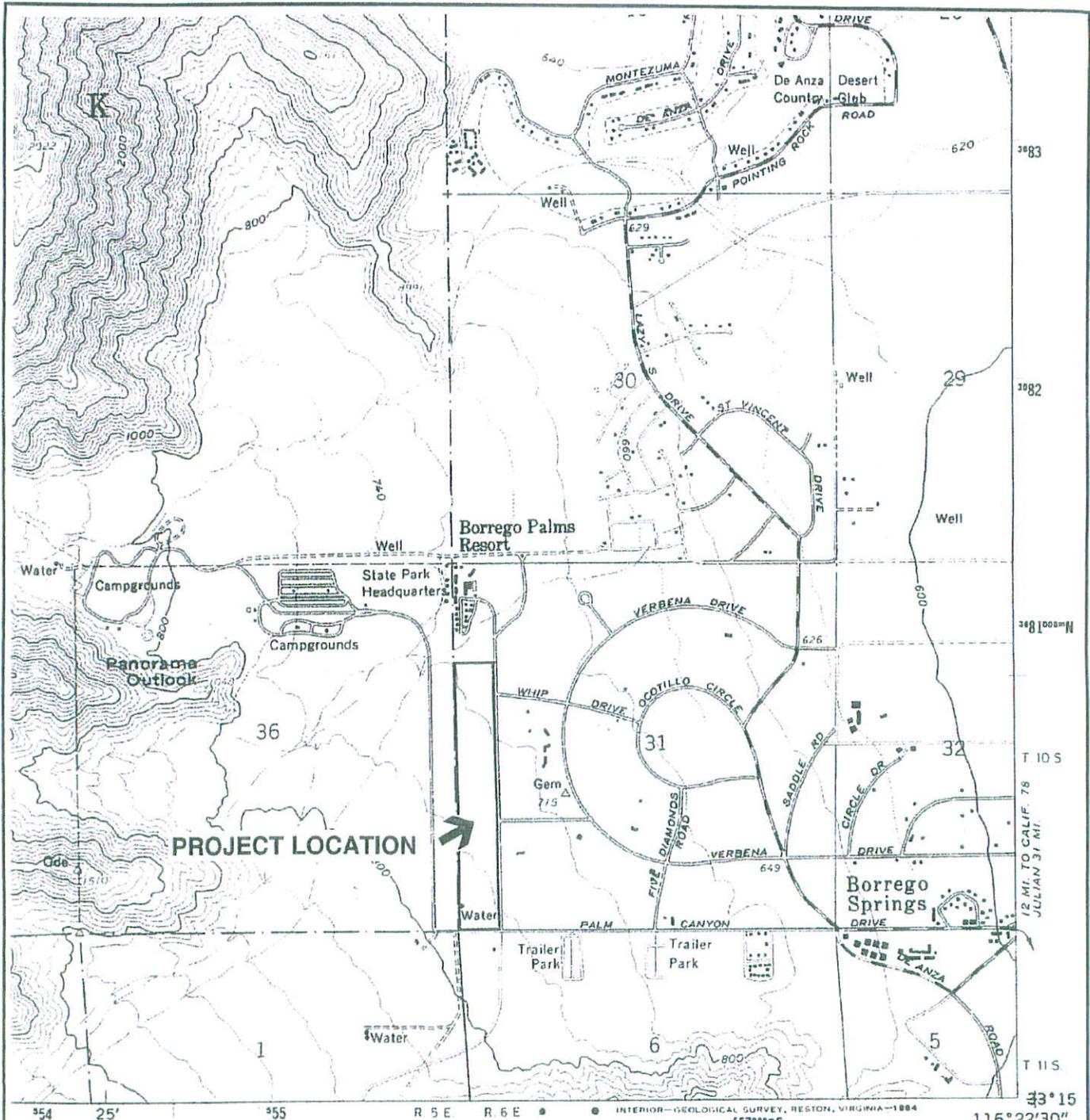
1.3 NATIVE AMERICAN INVOLVEMENT

As noted above, Carmen Lucas, a Kwaaymii Indian of the Laguna Band, participated in the survey as a consultant. She provided insights into the cultural landscape and the prehistoric sites and features encountered during the survey (Appendix C). On December 29, 2006, Gail Wright from the Department of Planning and Land Use (DPLU) told the author that the County will request a sacred lands file check from the Native American Heritage Commission after they receive the cultural resources report. The County will also consult with appropriate Indian tribes regarding the two prehistoric Indian sites found on the property.



PROJECT LOCATION

Figure 1: Project Vicinity Maps (adapted from Mapquest)



CONTOUR INTERVAL 40 FEET
 DOTTED LINES REPRESENT 20-FOOT CONTOURS

BORREGO PALM CANYON, CALIF.
 SW/4 CLARK LAKE 15' QUADRANGLE
 N3315—W11622.5/7.5

Figure 2: Project Location Map

1959
 PHOTOREVISED 1974

SECTION 2 – NATURAL AND CULTURAL SETTING

2.1 NATURAL SETTING

2.2.1 Topography, Hydrology, Geology and Soils

The subject property is on the western edge of Borrego Valley, about 0.75 miles east of San Ysidro Mountain and 1.5 miles southeast of Borrego Palm Canyon, both situated within the confines of Anza Borrego Desert State Park (Figure 2). Elevations on the parcel range between 710 and 790 feet above sea level, with the land sloping gently upwards toward the southwest. The regional topography attains a maximum elevation of 6147 feet about 5.6 miles to the west at Ysidro Point in the San Ysidro Mountains. The mountainous topography west of the project area continues for many miles to the north of Ysidro Peak, but gradually declines in elevation to 1520 feet in Collins Valley seven miles to the northwest and to 1200 feet in Coyote Canyon and Ocotillo Flat to the north. Five to six miles across Borrego Valley to the northeast is Coyote Mountain with elevations as high as 3192 feet at Coyote Peak.

Springs can be found a number of miles into the mountains to the west, such as Valley of the Thousand Springs near Indian Canyon, 7.5 miles to the northwest, and Santa Catarina Spring between Collins Valley and Coyote Canyon to the north. Water is also present in Borrego Palm Canyon to the west and Hellhole Canyon to the southwest. An intermittent wash flows from Hellhole Canyon to the northeast and passes just north of the property. Finally, the town of Borrego Springs is aptly named as water from mountain sources formerly percolated up in the valley, sometimes as artesian wells just below the surface. Coyote Creek disappears into Borrego Valley about four miles to the northeast of the project.

The local site geology consists of largely metamorphic rocks of probable Cretaceous and older age, mainly schist and gneiss. Granitic bodies also intrude into the local geology at various places (MacArthur 1984:Figure 2.2). Granitic boulders may be found in the major canyon drainages eroding from the granitic landmasses in Hot Springs Mountain to the west. Valley soils are essentially derived from the erosion of the granitic and metamorphic bedrock in the valley and in the mountains to the west. A few small granitic cobbles were noted on the property, including stones that may have been part of an historic hearth. The soils on the property consist of alluvial sands that are not well compacted.

2.2.2 Climate, Vegetation, and Fauna

The local climate is basically a desert climate with very hot summers and moderate winters (see Pryde 1984:Figure 3.4;). The average July maximum daily temperature is about 106 degrees; the average January minimum daily

temperature is about 36.5 degrees (Pryde 1984:35). Rainfall is infrequent and occurs primarily between November and March with smaller amounts falling in August through October. The average annual rainfall at Borrego Springs is about 3.5 inches (Pryde 1984:34-35). Local indigenous vegetation probably consisted of creosote scrub with saltbush, ocotillo, various types of cactus, and agave toward the mountains to the west. Local fauna once included grizzly bear and bighorn sheep in the mountains, jackrabbits, coyote, bobcat, possibly antelope, and many species of rodents, birds and reptiles (Moratto 1984:21-23; Pryde 1984:45-46).

2.1.3 Previous and Current Land Use

The project is within an unincorporated area of San Diego County on the western edge of the community of Borrego Springs. The project area remained in Federal hands until it was obtained by the Southern Pacific Railroad on October 15, 1921. The area was later purchased by private individuals and at one time much of the land was used as an airport landing strip for small planes. Portions of the property were used as a trash dump, perhaps by the airport and/or the motel that once existed just north of the property. A water tank was formerly present at the southern end of the property; it brought piped water northwards, probably to the motel complex and possibly to a local resident or two. The water tank has since been removed. It is not clear to what extent the parcel was ever used for residential and/or minor agricultural purposes.

A study of historic maps revealed the following about the property:

1872 -- *The Official Map of the Western Portion of San Diego County, CA*, by M.C. Wheeler County Surveyor, Scale 1 inch = 2 miles. This map shows no trails or roads or development within the vicinity of the project area.

1955 -- *Historic Stagecoach Routes of San Diego, CA*, by B.B. Moore and R. Henrich, Scale 1 inch = 2.5 miles. This map shows that a stagecoach route passed to the east of Borrego Springs sometime between 1865 and 1885.

1960 -- USGS 15' *Clark Lake* quadrangle, based on aerial photos taken in 1954 and 1956 and land surveys done in 1959-1960. It shows a water tank along the western border of the property about 100 m or so north of Palm Canyon Drive. No other structures are present. However, the Borrego Palms Resort is present just north of the property and there is a structure shown directly adjacent to the western edge of the property within the confines of Anza Borrego State Park.

1959 (photorevised 1974) -- USGS 7.5' *Borrego Palm Canyon* quadrangle, initially based on aerial photographs taken in 1954 and on a field check in 1959. It was then updated using 1974 aerial photographs. It shows the same structures noted for the 15' *Clark Lake* quadrangle above (see Figure 2).

A recent aerial photo (perhaps taken in 2006) shows the outlines of a former airstrip that once occupied the property (see Figure 4). A local informant suggested it was used primarily during the 1940s. It is not shown on the two previous maps derived from 1954 aerial photos.

2.2 CULTURAL SETTING

2.2.1 Prehistory

The Paleoindian or San Dieguito Culture

At present there is no agreed upon sequence for the early prehistory of the San Diego area (Warren et al. 1993). While estimates have been made for early occupation as early as 12,000 B.P. (Jones 1991; Moratto 1984), the earliest radiocarbon date is 9,030 B.P. \pm 350 (Byrd and Serr 1993:9; Higgins 1995:9). This early Paleoindian culture, generally referred to as the San Dieguito culture, was first described by Malcolm Rogers (1945, 1966), and most agree that its appearance in southern California was the result of environmental change leading peoples to migrate westward through Jacumba Pass (Byrd and Serr 1993:9).

While the San Dieguito was initially associated with a hunting complex, it is now seen as a generalized hunting and gathering subsistence pattern, which probably included marine and riverine shellfish (Jones 1991). The moist climate of the early to mid Holocene created a landscape of pinyon-juniper forests and rich riparian communities along major lakes and watercourses where the hunting of large (deer, elk) and small game were central to subsistence (Byrd and Serr 1993:9). One of the earliest San Dieguito occupations was the C.W. Harris Site on the San Dieguito River which dates to 8th millennium B.C. (see Kyle et al. 1990). Warren 1966, Moriarty (1967), Kaldenberg (1982), and Gallegos and Carrico (1984) have reported on other important sites dating to this period or slightly later (see Higgins 1995:9). San Dieguito camps are most commonly found on mesas or ridge tops which enabled hunters to spot game from afar (Byrd and Serr 1993:9).

Byrd and Serr (1993:9), citing Davis et al. (1969), summarize the basic elements of the San Dieguito assemblage as containing

heavy "horsehoof" planes, which were probably used as scrapers, a variety of other kinds of scrapers which may have been hafted, choppers made on large, heavy primary flakes, a variety of large knives or points, rare crescentic stones of unknown use, thick primary flakes and thin trimming and finishing flakes. Flaking was frequently bifacial and of good quality.
(Byrd and Serr 1993:9)

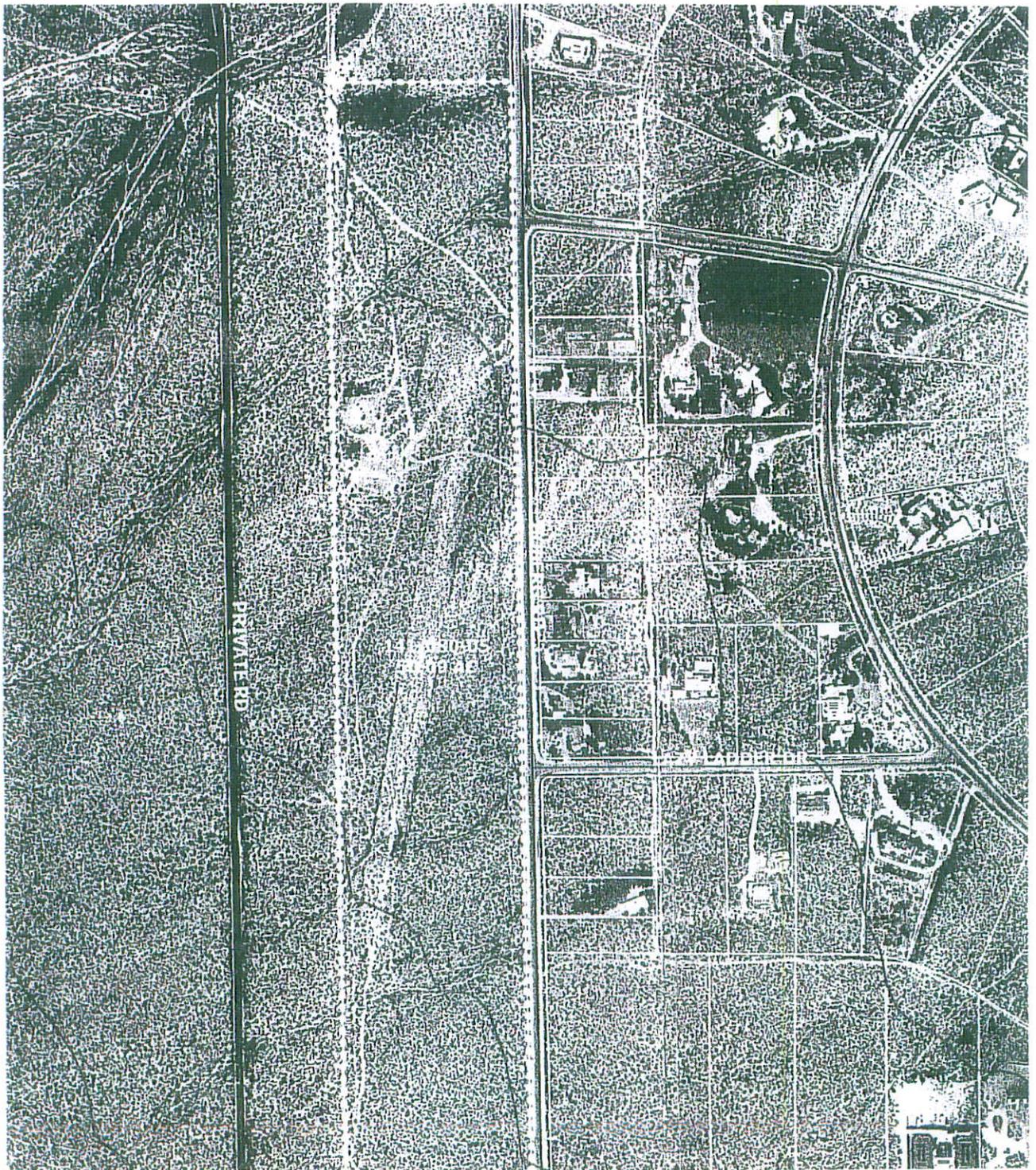


Figure 4: Recent Aerial Photo Showing Outline of Former Airstrip

The San Dieguito occupation is thought to have come to a close somewhere between 8500 and 7500 B.P. (Warren and True 1961).

The La Jolla Culture

The following is summarized primarily from material presented in Higgins (1995) and Byrd and Serr (1993). The La Jolla culture was a local manifestation of the "Milling Stone Horizon" of southern California (see Wallace 1955; Warren 1968). The La Jollans were also hunters and gatherers, but with a heavy emphasis on plant and plant seed processing as evidenced by abundant manos and metates. Coastal groups placed a heavy emphasis on marine resources, especially shellfish, whereas inland groups clearly could not. The assemblages of the inland sites are more heavily dominated by millingsstones. Small mammals were also processed using manos and metates (see Yohe et al. 1991; de Barros 1996). Other tools associated with La Jollan sites include relatively crudely shaped flaked stone tools, polished stone artifacts and drills, and a variety of projectile points. La Jollan sites also indicate burial of the dead first in living areas and later in defined cemeteries (Byrd and Serr 1993:9). Both the La Jollan tradition and its inland manifestation are local representations of the Encinitas Tradition defined by Warren (1968).

By about 3000 B.P., True (1966) believes two separate subsistence patterns are present: an inland pattern (sometimes referred to as the Pauma Complex), and a refined marine-oriented economy on the coast (Byrd and Serr 1993:9). Trade probably flourished between these groups and between them and desert peoples. True (1966) believes these trading contacts were eventually followed by migrations to the coast, leading to the displacement of the Hokan speaking La Jolla populations (see also Byrd and Serr 1993:9).

Some authors have emphasized that the early Late Prehistoric was a period of cultural hiatus or at least reduced activity. Moriarty (1967) suggests this period between 1000 B.C. and A.D. 500, but more recent studies (Moratto et al. 1994:3.3) suggests it was earlier, i.e., ca. 1,500 to 500 B.C. This corresponds to a similar cultural hiatus or reduced activity period during the early Intermediate Period in Orange County (see Mason and Peterson 1994; de Barros 1991, 1993).

Late Prehistoric Period

This period begins around 1,000 B.C. (3000 B.P.) Desert migrants from the east gradually replaced the La Jollan peoples. The actual timing of this transition is in dispute (Warren et al. 1993:III-42 to III-50, as cited in Higgins 1995:10), but certainly the Late Prehistoric culture was well established by A.D. 900.

According to Byrd and Serr (1993):

It is generally accepted that these eastern groups were the ancestors of the historic and present native populations of southern California. The Shoshonean speaking *Luisseño* occupied the northern portion of San Diego County at the time of contact, while the Yuman-speaking *lipay-Kumeyaay* (formerly referred to as the *Diegueño*) occupied the south. The boundary dividing these peoples runs east-west through Escondido, possibly slightly further north.

Meighan (1954) has documented a site occupied by a Late Prehistoric population ancestral to the *Luisseño*. The assemblage is characterized by mortars and pestles, bedrock millingstone sites, manos, portable metates, small pressure-flaked projectile (arrow) points, drilled stone ornaments and *Olivella* beads, and pictographs (see Byrd and Serr 1993:10). Cremation was practiced and pottery production began during this period (see his San Luis Rey II which began ca. A.D. 1700).

According to Byrd and Serr (1993:10), a pre-ceramic Yuman occupation, reflecting *lipay-Kumeyaay* occupation appears at certain La Jollan sites along the coast at about 2000 B.P. Instead of a marine-focused economy, the Yuman subsistence economy focused on acorns and other seeds along with hunting. Food storage was practiced, including food surpluses, using baskets and pottery vessels. Byrd and Serr (1993:10) continue:

lipay-Kumeyaay society was organized around patrilineal residence groups, with hereditary positions of political and ceremonial importance (Luomala 1978). Permanent villages and campsites are located in oak woodland valleys and catchment basins in the coastal zone, the foothills, the Peninsular Range and, to a lesser extent, in the desert beyond. Resource extraction and processing sites are clustered in an optimizing pattern around the settlements. Temporary camps and further extractive sites are located in more distant areas. Seasonal movements within a communally-owned village territory were practiced; these movements were directly related to the changing availability of critical resources.
(Byrd and Serr 1993:10)

The artifact assemblage of the *lipay-Kumeyaay* sites is similar to *Luisseño* sites in many ways. Typical of both cultures are the presence of small triangular and corner-notched, pressure-flaked arrow points, shell and stone ornaments, Tizon Brownware ceramics, and cremated human remains (see Turnbow et 1995:10-11). Ceramic pipes and soapstone arrowshaft straighteners, vessels, and shaman sucking tubes also make their appearance. Exotic pottery includes Colorado Buff and Parker Buff pottery from the Colorado River Basin and obsidian from Obsidian Butte near the Salton Sea.

Ethnohistoric or Contact Period

Prior to Spanish contact, San Diego County was inhabited by four Indian groups: the Yuman-speaking *lipay-Kumeyaay* (*Diegueño*) and the Shoshonean-speaking *Cahuilla*, *Luiseño*, and *Cupeño*. Higgins (1995:11) continues:

These people maintained flexible territories and occupied over 85 villages throughout San Diego County at the time of contact (Carrico 1986:6). The people engaged in a foraging lifestyle . . . Acorns and rabbits were primary resources. Periodic burns were used by the natives to manage the vegetation and maintain oak parklands and grass lands. Tule rafts and plank canoes were used to exploit marine resources. Pottery and finely crafted baskets were made for domestic usage. Elaborate sand paintings and artifacts, such as ornately incised steatite tubes and shell inlaid wands, were fabricated to accompany various curing ceremonies and rituals (Carrico 1986:9). (Higgins 1995:11)

As Byrd and Serr (1993:10) note, the Yuman-speaking peoples were designated as the *Diegueño* because of their association with Mission San Diego; however, they did not have a name that they used themselves to refer to all Yuman-speaking people. The term *Diegueño* has fallen into disuse because of its foreign origin. More recently, the terms *lipay* and *Kumeyaay* have been used to refer to different geographical subdivisions of Yuman-speaking groups (see Ruth Almstedt in Fulmer et al. 1979). The term *lipay* includes those groups previously referred to as the Northern or Northwestern, Coastal, and the northern parts of the Western and Mountain divisions of the *Diegueño*; *Kumeyaay* includes the Southern (or Eastern or Southeastern) *Diegueño*, the *Bajeno* or Mexican *Diegueño*, the *Kamia* and southern portion of the Western and Mountain *Diegueño* (see Byrd and Serr 1993:10).

The Agua Hedionda Lagoon [Carlsbad] is regarded as the northern boundary of *lipay-Kumeyaay* territory; the Todos Santos Bay in Baja California marks the probable southern limit. In the east this territory extends to the Sand Hills. The boundary between the *lipay* and *Kumeyaay* divisions is difficult to precisely define. Economic and ritual cooperation, intermarriage and mixed settlements were common. A village near Santa Ysabel is usually regarded as the northernmost *Kumeyaay* settlement, though *lipay* groups also inhabited this area. (Byrd and Serr 1993:10)

2.2.2 Ethnography

The Kumeyaay by Michael Baksh

Given that Borrego Springs was formerly occupied by the Kumeyaay, this ethnographic overview focuses on the Kumeyaay of southern San Diego County. It is based upon the detailed descriptions and research findings of several important ethnohistorical and ethnographic studies. Important sources that document this region's Native Americans include Spier's *Southern Diegueño Customs* (1923), Kroeber's *Handbook of The Indians of California* (1925), Gifford's *The Kamia of Imperial Valley* (1931), and Lee's *Indians of the Oaks* (1978 [original 1937]). More recent studies that include important ethnographic descriptions and analyses include Hedges' *Santa Ysabel Ethnobotany* (1967), and Shippek's *History of Southern California Mission Indians* (1978). A critical source of ethnographic information is Cuero's *The Autobiography of Delfino Cuero: A Diegueño Women* (1970). Useful overviews of local ethnography include Almstedt's *The Kumeyaay and 'lipay* (1982) and Townsend's *Prehistoric Lifeways in the Jacumba Valley* (1986), and additional bibliographical material on the Kumeyaay is available in Almstedt's *Bibliography of the Diegueño Indians* (1974) and Bean and Vane's *California Indians: Primary Sources* (1977).

At the time of European contact in the late 1700s, ancestors of the modern-day Kumeyaay (Southern Diegueño) Indians occupied an area that presently includes southern San Diego County, the southern two-thirds of Imperial County, and northern Baja California. As noted earlier, a distinction is often made between mountain and desert inhabitants, restricting use of the name "Kumeyaay" to groups living in the mountains and near the coast, and applying the term "Kamia" to the desert-oriented groups.¹ The closely-related Ipai or 'lipay (Northern Diegueño) were to the northwest. According to Spier, the relations of the Southern Diegueño "with the Northern Diegueño were intimate: intermarriage may have been common" (1923:298). Other Yuman-speakers, namely the Quechan and the Cocopah, lived to the east. To the northeast were the Cahuilla, a Shoshonean-language population and occasional enemy of the Diegueño groups.

From a historical perspective, European contact represented the end of the region's archaeologically-known "Late Prehistoric Period". This final period of prehistoric occupation in San Diego and Imperial counties was characterized by a hunting and gathering economy, with a heavy emphasis on the exploitation of acorns in the mountains and mesquite beans in the desert. Unlike most hunter-gatherer populations, the Yuman groups had a ceramic technology, and some made limited use of agriculture. At least a few settlements were "permanently" occupied

¹Forbes does not use the term "Kumeyaay" and instead argues that the Diegueños were "Indians missionized at San Diego, almost all of who were (continued next page) Kamias. The term has sometimes been used as a designation for the western Kamias, but this is unsatisfactory because some Kamias were Luiseños (missionized at San Luis Rey), some were Miguleños, Tomaseños, etc." (1965:345).

(Wallace 1955:221), although settlement practices were clearly dictated by the distribution and availability of critical resources. The overall population density for the region was probably less than one person per square mile, based upon the observation of other forager societies.

Although contact with missionaries, explorers, settlers and others ultimately led to profound changes in adaptation, world view, and other cultural domains, the knowledge and early experiences of many contemporary Kumeyaay give valuable insight to the nature of the "traditional" Kumeyaay culture (see, for example, Cuero 1970). The following summary is an effort to describe Kumeyaay culture as it existed for several hundred years before contact and until major changes occurred in the 1800s.

The southern California region provided Native Americans a source of various foods, construction materials, medicines and other resources. Strategies for procuring wild foods included hunting, fishing, and gathering. Large game such as deer, mountain sheep, and antelope were hunted, but greater reliance was placed upon rabbits, ground squirrels, woodrats, and other small animals, and upon pigeons, doves, larks, robins, quail and other birds (a comprehensive list of faunal resources is provided in Farrell 1978), which provided most of the meat in the diet (Luomala 1978:601; Spier 1923:335, 337).

Game animals and birds were hunted by bow and arrow. Traps, clubs, throwing sticks, and nets (constructed of yucca fiber) were other important items used to capture game, especially small animals (Cuero 1970; Sparkman 1908). For example, traps baited with acorns were used to capture ground squirrels, rats, mice and other small animals, and nets were used to capture rabbits. Most hunting was done alone or by a few individuals, although communal hunts such as rabbit drives were conducted when large numbers of animals were available.

The Kumeyaay also exploited local streams and the Pacific coast. Mountain trout were caught by poisoning pools with the juice of a plant, and an unidentified smaller fresh water fish was caught with a dip net (Sparkman 1908). People living along the coast consumed large amounts of seafood. Clams, abalone, scallops, starfish, octopus and other marine life were collected from lagoons and tide pools (Cuero 1970:28-29, 56-57; Sparkman 1908; Alvarez 1976), and grunion were gathered during runs (Cuero 1970:29-30). Boats made of reeds (Cuero 1970) and wood (Sparkman 1908) were used for offshore fishing; fish were caught with abalone shell hooks and yucca fiber line, as well as with agave or yucca fiber nets and spears made with cactus thorns (Cuero 1970:29; Sparkman 1908).

In addition to exploiting local streams and the Pacific coast, southern California hunter-gatherers also procured resources from along the shoreline of Lake Cahuilla in Imperial Valley. This freshwater lake rose and fell three times in the last 2,000 years, with the most recent stand being about 1300-1500 A.D. (Wilke 1978:45-53). The lake represented an environment rich in aquatic and other resources; shellfish

and several varieties of fish were exploited, as were several varieties of economically important marshland plants (Schaefer 1986:9-10). Land animals and birds attracted to the lake were presumably hunted along the shoreline as well.

As with most forager and other subsistence-based societies, faunal foods provided the Kumeyaay with important supplies of protein and fat, but the bulk of the diet in terms of caloric intake was provided by plant foods. A wide variety of edible seeds, nuts, beans, fruits and other plant foods were available in Kumeyaay territory (see Farrell 1978 for details on plant uses by inland San Diego County Indians). As with most California Indians, the acorn (from several species of *Quercus*) was the single most important food source for the Kumeyaay, at least for groups in the mountains. Acorns are very high in caloric value as well as fat content (Bean and Saubel 1972:125-126). White estimated that for the Luiseño, located to the north and very similar to the Kumeyaay in terms of subsistence practices, acorns provided almost 50 percent of the diet (1963:121). The reliance upon acorns at any given time was largely a consequence of seasonal availability: acorns were gathered in October and November and were eaten in greatest amounts during these and subsequent months, although nuts were also stored (Spier 1923:334) and likely available for most if not the entire year.

Other major plant foods included agave (*Agave deserti*), pine nuts (*Pinus monophylla* and *P. quadrifolia*), and mesquite beans (*Prosopis juliflora* and *P. pubescens*). Agave is abundant in the lower foothills and on the sides of the mountains facing the desert. The plant provides several foods including the flower bud or mescal head, leaves or stalks, blossoms, and seeds. Various parts of the plant are edible and it was exploited as a food resource for much the year, although major collecting and processing activities occurred in the early spring (Bean 1972:41).

For the Kamia Indians (and the Kumeyaay living near the desert), the mesquite bean was the major staple. The tree usually grows at elevations below 3,000 feet and in large sandy wash areas where the water table is high. The blossom, the green pod (which looks much like a pea pod) and the dried pods were all collected from the mesquite trees. Blossoms are available in June and seed pods in July and August, and "the trees yielded large quantities of food on a dependable basis year after year" (Bean 1972:38). Delfina Cuero, who was born at Jamacha around 1900 and resided regularly in the Jamul area, traveled every year with her family to Mexicali, Mexico, to collect mesquite beans (1970:58).

Included among the numerous other plant foods eaten by the Kumeyaay were yucca (*Y. schidigera* and *Y. whipple*), wild plum (*Condaliopsis parryi*), desert apricot (*Prunus fremontii*), various grasses, black and white sage seeds and leaves (*Salvia apiana* and *S. columbariae*), goosefoot (*Chenopodium L. spp.*), beavertail cactus (*Opuntia basilaris*), cholla cactus (*Opuntia spp.*) and prickly pear cactus (*Opuntia spp.*) (Luomala 1978:600; Spier 1923:335-336). Additionally, manzanita and holly-leaf cherry provided a fruit and a seed that could be ground into a meal (Hedges

1967:34; Bean and Saubel 1972:41; Sparkman 1908:194-230); elderberry, toyon berries, and various greens were eaten; and beverages were made from manzanita (Cuero 1970:31; Bean and Saubel 1972:40-41), lemonadeberry (Bean and Saubel 1972:132), cana (Hedges 1967:19; Bean and Saubel 1972:70), and sugar bush and basketweed berries (Bean and Saubel 1972).

Like most hunter-gatherer peoples, the procurement of wild foods by the Kumeyaay was characterized by an opportunistic strategy. That is, whereas hunter-gatherers often set out purposefully to hunt or collect a particular variety of animal, bird, plant or other resource, such trips commonly yielded other foods or raw materials. As recalled by Cuero, "no matter what we were gathering, I always looked for herbs and other greens where ever we were" (1970:58).

The extent to which the Kumeyaay practiced agriculture at the time of European contact has not been established. Gifford (1931) felt that agriculture, which had been well established among the Colorado River groups at the time of Western influence, had diffused into the Imperial Valley and was practiced by all of the Kamia lineages. Similarly, Lawton and Bean (1968) have suggested that certain Cahuilla groups cultivated corn, beans, squash and melons, like the neighboring Colorado River tribes. There is some evidence suggesting that Indians may have planted yucca in the Sycamore Canyon area (Woods 1982:A1-5, A2-9), and crops were at some time planted and irrigated in the Jacumba Valley (Woods 1982:A1-7, A2-13).

Although the Kumeyaay were dependent upon wild foods at European contact, a shift in subsistence had apparently started in the sense that at least some techniques of incipient agriculture were being practiced in some areas. Foragers have rarely practiced irrigation agriculture (the Shoshone were an exception; see Steward 1930), and it may be that the irrigation techniques used by the Kumeyaay were a post-contact influence introduced by Kumeyaay neophytes from Mission San Diego de Alcalá (Gifford 1931). Regardless of whether irrigation and other forms of agriculture were being practiced at the time of contact, agricultural food production techniques were certainly utilized by the Kumeyaay in the 1800s. Of importance, a cached pot dating to this period containing sorted seeds that presumably were intended to be planted was found near Jacumba (Treganza 1947).

Aside from depending upon the local environment for adequate supplies of nutritious food, the Kumeyaay were also dependent upon the availability of local raw materials for the manufacture of critical utilitarian items. Houses, clothes, bows and arrows, containers, and food preparation implements are but a few of the indispensable items that virtually all hunter-gatherer populations must manufacture to achieve and maintain a good quality of life, and the Kumeyaay clearly had both the knowledge and raw materials necessary to make these and other items.

Plant materials, animals, and stone provided the raw materials for most manufactured items. For example, houses, fiber and thatching were constructed from willows, oak, manzanita, deer weed, and chamise (Bean and Saubel 1972:29-31; Lee 1978:59; Cuero 1970:25; Spier 1923:338), and a very durable, multi-purpose fiber was manufactured from yucca (Cuero 1970; Bean and Saubel 1972; Lee 1978; Spier 1923). Clothing such as robes or capes for cold weather, as well as blankets, were made primarily from rabbit skins, although buckskin and sea otter skin were also used (Sparkman 1908; Spier 1923). Shoes and sandals were commonly made of agave or yucca fibers, buckskin, and, since European contact, cowhide (Cuero 1970:56; Spier 1923). Headbands were made of feathers from ravens, owls, hawks, golden eagles, bald eagle, and condors, and other adornments such as necklaces, bracelets, hairpins, and nose plugs were made variously of mammal bones, deer hoofs, bear claws, and several shells including *Donax* (bean clam), *Chione* (Venus clam), *Olivella*, and *Haliotis* (abalone) (Sparkman 1908; Alvarez 1976).

Bows and arrows were indispensable for hunting and, at times, for protection from others. Bows were made from willow (*Salix L.*) (Curtis 1926:44; Spier 1923:350), screw bean mesquite (*Prosopis pubescens*), and mountain ash (Spier 1923:350). According to Spier (1923:351), arrows were "made of arrowweed provided with wooden foreshaft, or entirely of wood. The latter (being) more effective against big game." Fire-hardened greasewood was also used to make arrows for hunting big game (Curtis 1926:45), as were stone projectile points (Spier 1923:352). Quartz and metavolcanics were available throughout much of Kumeyaay territory, whereas obsidian, chert, chalcedony, steatite and other lithics occurred in more localized areas and were sometimes acquired through exchange.²

With a diet based upon acorns and other plant foods that required grinding and pounding as steps of food preparation, stone mortars, pestles, and other milling stones were fashioned from locally available materials. Appropriate lithic materials were generally available throughout Kumeyaay territory; as recalled by Cuero: "As I roamed the mountains looking for food, I have seen lots of grinding holes in the rocks everywhere" (1970:58). Although grinding implements often did not require elaborate preparation, many tools were portable and/or represented such significant investments of manufacture time that they were prized enough to be transported between various settlements and work sites. Again, Cuero: "We always carried some grinding stones and some other tools with us. A lot of stones you could pick up any place and make what you needed." (1970:30). Millingstones are, understandably, one of the most commonplace artifacts found in the Kumeyaay archaeological record.

Carrying devices and containers for storing water, food, and other items are critical for hunting and gathering peoples due to high settlement mobility and the need to carry foods back to the camp or home base (Lee 1979:147). The Kumeyaay made

² According to Spier, arrowheads had another function besides killing; they were "placed under rocks about the camp to prevent its inmates being bewitched" (1923:315).

baskets and thatching from basket weed, bunch or deer grass, willow, and juncus (Merrill 1973), and made storage vessels and granaries from scrub oak, chamise, and coffeeberry (Cuero 1970; Hedges 1967; Bean and Saubel 1972; Lee 1978). Ceramics used for food preparation, storage, and transportation were made from clay obtained from various sources extending from the mountains to the Colorado River area (see Woods 1982:Appendix A, for some local sources). Throughout her autobiography, Cuero refers to an array of food preparation and carrying containers and other devices. In one passage she recounts that "we used to carry loads on our backs with bags made of agave fiber. We used big gourds for dishes and for storing stuff as well as ... clay dishes ... and ollas, and different shaped baskets" (1970:31).

Aside from manufactured items, another critical resource was firewood. Required for both warmth and food preparation, firewood was derived from oak timbers and bark (Bean And Saubel 1972) and from manzanita (Spier 1923). In addition, chamise roots were used in roasting pits and chamise branches were tied together to make torches (Bean and Saubel 1972:30).

All Native Americans used plants for a wide variety of medical purposes including colds, influenza, respiratory problems, fevers, gastric disorders, diarrhea, infections, sprains, sore muscles, minor cuts, and headaches. The Kumeyaay prepared medicines from white sage, California sagebrush, elderberry blossoms, holly-leaf cherry bark, buckwheat leaves and flowers, manzanita leaves, scrub oak, mistletoe, chamise, and cottonwood leaves, among other plants. Details on the medical uses of plants are provided by Hedges (1967) Bean and Saubel (1972), and also by Cuero (1970), Sparkman (1908), and Lee (1978).

As hunter-gatherers, the Kumeyaay moved around a great deal. Such movement was not aimless wandering, but rather, was dependent upon the availability of wild foods and water within one's territory. Seasonality and clan membership were therefore two major factors that influenced one's location at any given time. As described by Almstedt, "each clan was associated with a particular territory which included all the area from which the group derived subsistence during the course of an annual cycle" (1982:13). More specifically, according to Luomala, a clan's

seasonal travel was vertical, following the ripening of major plants from canyon floor to higher mountain slopes.... After months of preserved vegetal food and limited game, March through May provided welcome buds, blossoms, and potherbs from canyons and lower foothills. Some people left in May for agave.... In early June they dried ripening cactus fruits to store in foothill caves. From June through August wild seeds ripened, and at higher altitudes wild plums and other fruits.... Men, women, and children worked far into the night from September to November in higher altitudes to gather and preserve acorns and sometimes piñon nuts (1978:599).

Although clans moved from place to place within their general territory, some locations were occupied for longer periods and by more people than others (Almstedt 1982:13). These settlements, which may be regarded as villages, "were places to which the people returned from their foraging, where they spent winter months, sometimes in association with other clans.... Some larger groups appear to have had sizable summer as well as winter villages" (Almstedt 1982:13). Within each village there was a dance floor, extensive milling stations, family living areas, and possibly a sweathouse and granary. If it was a winter camp, a house would have been set directly on the ground and a fireplace built on the ground by the door (Spier 1923:338). The Kumeyaay did not make summer houses (Spier 1923:338). Instead, "the summer village needed only a windbreak, trees, or a cave fronted with rocks" (Luomala 1978:597).

Group size and the degree of social interaction therefore varied over the course of an annual cycle. The basic unit of production was the family, which was capable of great self-sufficiency, but Kumeyaay families, like other hunter-gatherers, moved in and out of extended family camps or villages opportunistically as problems or opportunities arose. Thus, whereas single families occasionally exploited low-density, dispersed resources on their own, camps or villages of several families formed at other times, particularly when key resources (such as water) were highly localized.

Going beyond the basic social unit of the family, the Kumeyaay were organized by some form of descent system. From the available ethnographic data it is not immediately obvious as to whether they were organized into lineages or clans.³ Indeed, their features of social organization appear to have shared some qualities of both systems, and it may be speculated that the society had begun evolving from a lineage system to a clan system prior to the time of Western contact. In any case, the Kumeyaay traced their descent patrilineally (i.e., through one's father), were exogamous at the level of the descent group (i.e., one had to marry outside one's own lineage or clan), and practiced patrilocal residence (i.e., a married woman lived with her husband's father's relatives). Descent groups apparently "owned" land and certain other resources. According to Kroeber, "It would appear that each "clan" owned a tract and that each locality was inhabited by members of one clan, plus their introduced wives" (1925:720). Regarding other resources, Spier observed that some "gens" (i.e., clans) owned patches of certain trees and "Each gens owned one or more eyries from which eaglets were taken for use in the mourning ceremony" (1923:307). Apparently, however, resource ownership did not

³ The terms "lineage" and "clan" have often been used in different ways by different anthropologists. It is now commonly accepted that, most basically, the members of a lineage can trace their consanguineal (blood) relationship to one another through known links to a common ancestor; a lineage is generally a strong group that owns property and provides other corporate functions. In contrast, members of a clan claim consanguineal relationship with one another through a common ancestor, but cannot trace actual descent; a clan usually does not own property corporately and it lacks the residential unity that is usually characteristic of a lineage.

extend to the oak groves in the mountains (ibid), which probably reflects the extreme importance placed upon this resource for the adaptation and survival of the entire society.

Ethnohistorical and ethnographic data available for the Kumeyaay indicate that they practiced a sexual division of labor typical for hunter-gatherer populations. Most basically, men were hunters and women were gatherers, although it is clear that men sometimes gathered wild foods and women occasionally caught small animals. The female gatherer likely provided the bulk of the calories; women in foraging societies typically provide 60-70% of the diet (Haviland 1987:157). Aside from hunting, men were likely responsible for manufacturing certain tools and other items, and for performing a variety of political, economic, and ceremonial functions. Women were especially responsible for child care, food production, and the manufacture of many indispensable items. One early visitor to Kumeyaay villages described women as the "chief laborers" (Bartlett 1854:122). For certain activities there was overlap or cooperation. For example, "the whole family helped with gathering acorns and pine nuts" (Cuero 1970:57). In any case, men and women both made valuable contributions to survival. As described by Cuero, "the women had to do their work while the men worked too. Either we do this or we starve" (1970:31-32).

Resource exploitation and subsistence includes not only the direct acquisition of raw materials and food but also the distribution of these resources within the camp or local group. Among hunter-gatherers, the extensive sharing of meat in particular serves at least two functions. First, it contributes to a high quality diet by maximizing the occasions that all members in a group are able to consume important amounts of faunal protein and fat. And second, the sharing of meat reinforces the social relationships of a group and eliminates what might otherwise be moments of intense envy and friction when one hunter's success is contrasted with another's failure. The Kumeyaay clearly placed an emphasis on sharing, particularly of meat. For example, Luomala (1978:599) claims that newly arrived families at a campsite would obtain their meat from the permanent residents or those who had been there for a while. In addition, young boys had to give away all their kills, and the first deer-kill of any hunter, even an adult, was distributed. Spier's (1923:336) informant, Jim McCarty, described his memorable hunting experiences with the distribution of big game to others who were present.

The exchange of prized foods and other items between local groups and between tribes is also economically and socially important. The Kumeyaay obtained obsidian and other highly valued lithics from their neighbors, for example. And, as described by Cuero, the Kumeyaay "down near San Diego used to take lots of salt from the bay and trade it for mesquite beans and other things from the desert. They used to go a long way to trade for what they needed. There were no roads then, just trails, and we walked and carried everything on our backs. Dried sea food, pumpkins, and dried greens were traded for gourds, acorns, agave, and honey" (1970: 33).

The Kumeyaay experienced a rich spiritual or religious life. All religions serve to reduce anxiety by explaining the unknown and making it understandable, provide comfort in the belief that supernatural aid is available in times of crisis, sanction a wide range of human conduct by providing notions of right and wrong, maintain social solidarity, and enhance the learning of oral traditions. As hunter-gatherers who saw themselves as being a part of nature rather than superior to it, the Kumeyaay maintained a belief system known as animism. Animism basically involves a belief in spirit beings which are thought to animate nature. Related to this, animals are especially important in mythology, taboos, and ceremonial practices. Specific examples of Kumeyaay supernatural beliefs and characteristics associated with particular animals and birds are provided by Sparkman (1908), Waterman (1910), Spier (1923), and Cuero (1970), but in general little is known about this society's religious beliefs and practices. It is known, however, that their religion was essential to the overall adaptation and well-being of prehistoric and historic Kumeyaay Indians, and that violations of current beliefs, practices, or sites of religious importance could impair the health and well-being of Kumeyaay living today.

The Historic or Contact Period

Spanish contact began with the Cabrillo expedition in 1542 which explored portions of the coast and the Channel Islands to the north. Spanish mission settlement did not begin until 1769 with the founding of the first mission and presidio. California became part of Mexico in 1821 with Mexican independence from Spain, and in 1848 California became part of the United States. According to Schwaderer (1986:4), many of the Yuman villages around the southern end of San Diego Bay continued to be occupied until American homesteaders arrived in about 1870 (Higgins 1995:11). However, the area south of the San Dieguito River toward San Diego Bay contained no recorded ethnographic villages (see Kroeber 1925). This is in part due to missionization which led to the Indians being removed from such areas as Del Mar and taken to Missions San Diego and San Luis Rey (see Richards 1974:6).

The Christianization and Europeanization of southern California (1769-20th century) drastically altered the lives and culture of the Native American populations, "disrupting and reducing native populations with disease, missionization, indentured servitude, and dispersal" (Shipek 1986:13-23).

2.2.3 History of Borrego Springs (adapted from Brigandi 1997)

The place called Borego, as it was once spelled, was San Diego County's last frontier, primarily due to its isolation:

The Borrego Valley is surrounded on three sides by steep, rocky mountains – the Santa Rosas to the north, the San Ysidros to the west, and the Grapevine Hills to the south. To the east, the jumbled mudhills of the Borrego Badlands stretch off towards the Salton Sea. (Brigandi 1997:1)

During the last decades of the 19th century, a few cattlemen started taking their herds to the Borrego Valley for winter pasture. This included the Helms brothers from the Warner Ranch/Montezuma Valley area, who soon came to regard the valley as their own private pasture land. They are said to have driven off a French sheepherder named Bosque who tried to establish a sheep camp at the spring at the valley's lower end. By the early 1880s, this spring was known as Borrego Spring, but first appeared on an 1883 map as Borego, a misspelling of the Spanish word "Borrego" which means a yearling lamb (Brigandi 1997:1-2).

Beginning in the 1880s, it was the cattlemen who made the most use of Borrego Spring. The first were William and John Bunton, father and son, Julian pioneers, who had a cattle camp there as early as 1889. In 1891 William Bunton filed the first water claim on what they always called "Borega" Spring. They were followed by another Julian pioneer, John McCain (1843-1927), who took over the camp around 1895. In 1904 he filed the first homestead at the springs. By the 1890s other cattlemen were also using the valley for winter grazing, including the Clark brothers, Fred and Frank, of Anza (the namesakes of Clark Dry Lake), and the Angel brothers of Mesa Grande who had a camp near the mouth of Borrego Palm Canyon. (Brigandi 1997:2)

However, it was not until 1910 that the first homesteaders began to really settle in Borrego Valley, in part inspired by the Imperial Valley boom which began with its first irrigation water in 1901. Among the first homesteaders were Jack and Katherine French, Bill Schnoke, and Thomas Orland ("Oddie") Fewell and his wife Estella. The Fewells came in 1912 and Estella is thought to have been the first female to live in Borrego. The Frenches discovered a shallow artesian well ("French's Flowing Well") that was a landmark in the valley for years (Brigandi 1997:2).

Early news reports indicated that the valley was 80,000 acres in size and that it had an abundant water supply only 4-35 feet below the surface (*Brawley News* of January 10, 1913, cited in Brigandi 1997:2).

Borego's most famous early settler, Alfred Armstrong ("Doc") Beaty (1871-1949), arrived in 1913. He had been a stage driver, bronc buster, Imperial Valley boomer, resort operator, and miner, and came to Borego to try desert farming, which he eventually did successfully at the mouth of Coyote Canyon to the north, with homesteads in both the middle of the valley and in Coyote Canyon (Brigandi

1997:3). Like a number of early desert pioneers, Beaty cut and hauled mesquite wood for sale in Brawley, the primary supply town for Borrego Valley – a two and a half day journey. By 1917, the family had moved permanently to the ranch in Coyote Canyon where Doc Beaty “dug an irrigation ditch from Coyote Creek, built a reservoir, and began growing alfalfa” (Brigandi 1997:3). Their early home was a semi-walled tent with floorboards.

By 1916 there were 15 registered voters in the Borego Precinct. Local homesteaders tried to create a school and hired a teacher who held classes at the Charles Ferguson home, but the project was abandoned after two months (Brigandi 1997:4).

The first wave of homesteaders into Borrego Valley reached its peak just before the First World War, then followed several years of population decline. In the mid-1920s more and more new homesteaders again began to arrive. Several factors contributed to this next surge of growth. Special homestead laws had made it easier for returning veterans to file and prove up a homestead. Then in 1922 the first automobile road was opened through Sentenac Canyon [now State Highway 78 through the narrow canyon along Felipe Creek], making it easier to reach the valley. The older, rougher Grapevine Canyon road [north and northwest of Sentenac Canyon] fell into disuse as more and more people began coming down the highway from Warner’s Ranch through the San Felipe Valley [along State Route 2 to State Highway 78]. Finally, in 1926 the first deep well in the valley was brought in on the Ensign Ranch, proving that there was an ample supply of water in the aquifer beneath the valley floor. (Brigandi 1997:4)

O.H. Ensign, a former carburetor manufacturer in Los Angeles, was the first large-scale rancher to farm in Borrego Valley. He acquired some land near the center of the valley in 1926 and raised alfalfa, hogs and turkeys, using well water he had drilled for. He added a small date palm nursery in 1927, and later an eight-acre date palm orchard, which he managed to keep pest free. By 1942 he was harvesting more than 40,000 pounds of dates per year. His son, Roy, also developed his own alfalfa and turkey ranch and the two ranches were combined into a 1,160-acre property when O.H. Ensign died in 1935. Dairy farming was added in the 1940s (see Figure 5).

The other major ranch in the valley was Doc Beaty’s in Coyote Canyon to the north. He finally managed to sell the ranch in 1929 and used the money to invest in 20 acres of pecan trees, then cabbages at his original valley homestead. Both efforts were dismal failures, but he managed to build a permanent home in the valley with the Coyote Canyon ranch proceeds (Brigandi 1997:5). In 1936, A.A.

Borego Valley in the mid-1930s

- 1) The Beatty Ranch at the mouth of Coyote Canyon, later called the De Anza.
- 2) Milo and Lelah Porter's homestead.
- 3) Roy Brininger's homestead.
- 4) Harry Oliver's homestead. The other Hollywood homesteaders were all nearby.
- 5) Borego State Park headquarters and campground at the mouth of Borego Palm Canyon.
- 6) Judge Kelsey's homestead.
- 7) Borego Valley School.
- 8) The original Beatty homestead and his home after selling the canyon ranch.
- 9) The Fusign Ranch.
- 10) Borego Post Office and store.
- 11) Dana Burks' ranch, later The Desert Lodge (now La Casa del Zorro).

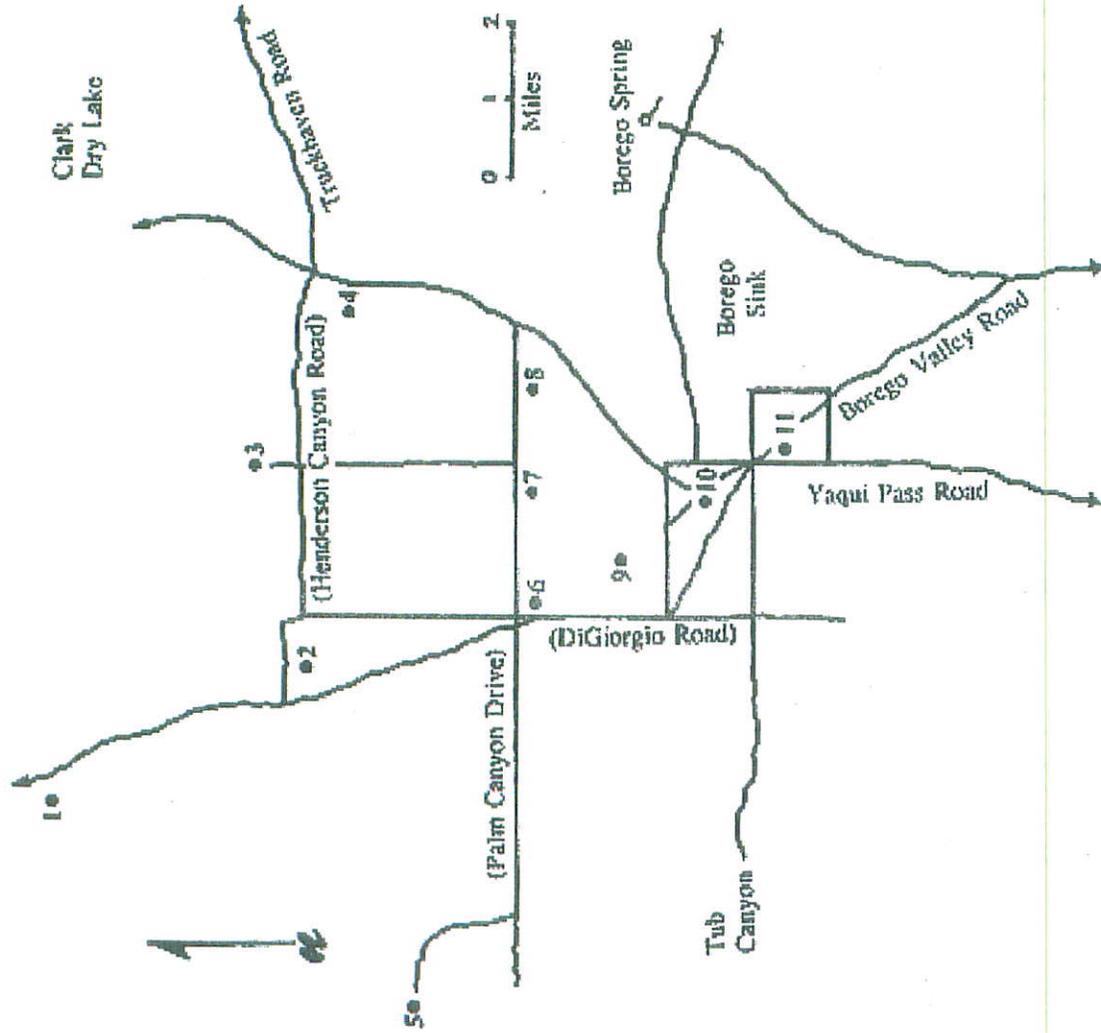
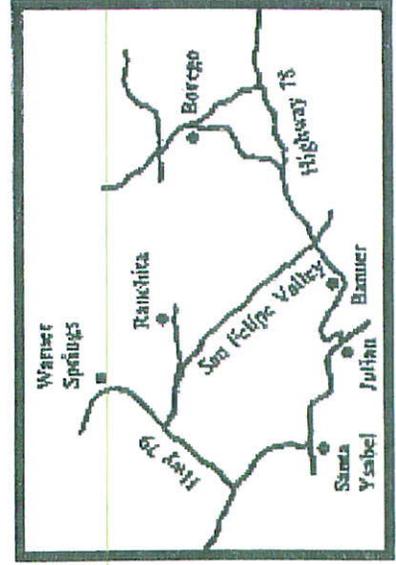


Figure 5: Borego Valley in the mid-1930s (after Brigandi 1997)

Burnand, Jr., bought Beaty's old canyon ranch – renamed the deAnza Ranch – and successfully grew alfalfa, grapes, and tomatoes.

Other important homesteaders of the mid-1920s were Milo and Lelah Porter who homesteaded 160 acres below the mouth of Henderson Canyon in 1927 to the northwest of Borrego Springs. They proved up their homestead by 1930 living in a wooden cabin, but eventually moved to Lee Bower's homestead (an absentee owner), closer to the center of the valley because of the lack of water at their original homestead site. They lived there until they moved to Julian in 1938 (Brigandi 1997:5).

As more people settled in the valley, civic improvements were needed. An emergency school district was created in 1928 and Doc Beaty was one of the three original school trustees. The first classes were held on the Harold Bemis ranch in the southern part of the valley, with 22 students taught by Emily Holland. She continued as teacher for most of the 1930s (Brigandi 1997:6). The Borego School District was officially created in 1931 and in 1934 the school was moved to the Dana Burks ranch where the La Casa del Zorro resort is located today (see below). Kelsey Hall's old homestead built in 1927 was moved to the site and classes began in 1935 and continued there until 1950. It was later moved again and burned down in 1994 (Brigandi 1997:6).

The first post office in Borego was created on March 1, 1928, with Eslie Wynn as the first postmaster. He also opened a grocery store in his home as well, creating the valley's first store in the south side of the valley. Later Wynn built a separate house for the store and post office (Brigandi 1997:6). The mail came by truck from Julian three days a week, and Milo Porter had the contact to haul the mail for \$60/month. Wynn died in 1935 and Glen DuVall, who had become the new postmaster in 1934, bought Wynn's store. His brother Edward (Eddie) took over the store and the post office in 1936 and later built a garage and service station nearby. He ran the Borego Valley Store into the 1950s (Brigandi 1997:7). The post office itself was discontinued in 1940 when many smaller post offices were closed. It was not until 1949 that the Borrego Springs Post Office was created (Brigandi 1997:7).

In 1928, Borrego again became a separate voting precinct and a Borego Judicial Township was created in 1931 by the San Diego County Board of Supervisors (Brigandi 1997:7-8). It included Ocotillo Wells and Tamarisk Grove and its first justice of the Peace was Joseph Kelsey with Milo Porter as constable. Borego's population was 300 at that time with 148 registered voters. In 1932 a new County Charter was created and the constables were replaced with deputy sheriffs (Brigandi 1997:8).

On January 1, 1931, the *San Diego Union* published a detailed article entitled, "Borego Valley Residents Make Many Improvements." The article was full of optimism and spoke of Borego valley becoming the "breadbasket of San Diego."

It talked of Borego Valley Growers, Inc., "a syndicate of Hollywood motion picture directors" that had spent thousands of dollars on a property they planned to turn into a "colony of winter homes for filmland folk and plant grapefruit, dates, alfalfa, and figs." The article continued on about various development projects and new homesteads underway, including the 1000 Palms Ranch at the old Beaty place. A number of people were said to be raising tomatoes in the valley for the Ramona market and elsewhere. It went on to say that the completion of the Julian-Kane Springs highway [State Route 78 to near the Salton Sea at Kane Spring] was stimulating this growth. The article continued:

The valley possesses a live chamber of commerce, headed by Milo C. Porter as president, with Medford Courtney and Mrs. Lloyd McGinnis as vice presidents, Mrs. Medford B. Courtney, treasurer, and Miss Drilla DuVall, secretary. It has a fine elementary school for the grammar grades with an excellent high school nearby at Julian . . .
(as quoted in Brigandi 1997:10).

The Julian-Kane Springs highway began first with the automobile road through Sentenac Canyon just east of the intersection of State Highway 78 and State Route 2 in 1922, and then the road was extended into Imperial County in 1925. The road initially remained relatively primitive. In 1929, the county created its first "Honor Farm" road camp near Yaqui Well.

The site is now an Anza-Borrego Desert State Park campground, and the tamarisk trees planted for the road camp gave its modern name, Tamarisk Grove. Beginning with nothing but hand tools, the prisoners hacked out a roadbed along the south side of San Felipe Creek. Later more equipment was brought in and the road was extended out across the desert. It was not until 1932 that the job was finished. A year later, the state took control of the road and declared it a state highway [SR 78].
(Brigandi 1997:11)

Between 1929 and 1930, another road, called the "Borego Road" was constructed east of Borego Valley toward Truckhaven near the Salton Sea, connecting with State Highway 99 (now Highway 86). It was a very slow road with cars rarely driving more than 20 miles per hour (Brigandi 1997:11-12). Doc Beaty and Lloyd Kelsey were the primary movers behind the creation of this dirt road.

In 1934, Doc Beaty also led the movement to create the Yaqui Pass Road from Tamarisk Grove to the northeast and then north to Borrego Valley. This road was to become the first paved road into the valley in 1942 as the military was holding training exercises in the area. The present Borrego Springs Road (an extension of the Yaqui Pass Road) was built in 1946 into the valley (Brigandi 1997:12).

Finally, the road from Ranchita via Culp Valley and Hellhole Canon (State Route 22) was built. It was first discussed in 1918 but construction on Montezuma Valley Road (as it is now called) only began in 1955 and was not completed until 1964. It links up with State Route 2 to the west (Brigandi 1997:13).

In 1932, Dana Burks, a Los Angeles and Palm Springs real estate developer, bought 13,500 acres in and around the valley with the idea of attracting both resort living and agriculture. But the Depression proved a tough time to launch such an enterprise and Burks sold his adobe home in 1937 to Noel and Ruth Crickmer. They later added some cabins and in 1939 opened The Desert Lodge, Borego's first hotel, now known as La Casa de Zorro (Brigandi 1997:13).

Another important booster for the Borrego Valley was Harry Woods (1874-1964). He was a real estate agent who first came in 1925. He encouraged many homesteaders and developers to come to the valley, such as Dana Burks, A.A. Burnand, G.M. Jones, and the Fearnays. Woods, along with Lloyd Kelsey and Henry Fearney, was one of the most vocal advocates for the creation of the Anza-Borrego Desert State Park. It was first proposed by Clinton Abbot of the San Diego Natural History Museum in 1927, and in 1932 the State of California purchased its first parcel. In 1933, the Borego Palms Desert State Park (as it was first known) was created with the purchase of 185,000 acres of Federal land around the valley (Brigandi 1997:13-14). The park encouraged the growth of tourism, especially during the wildflower season in the spring. "Ocotillo Days" was first started in 1935 to encourage such tourism. Borrego Palm Campground was created in the late 1930s and the Civilian Conservation Corps (CCC) built the first stone ramadas there (Brigandi 1997:14). Yet, despite this important progress, the Depression resulted in the departure of two-thirds of the registered voters of the Borego Precinct – more than 100 people (Brigandi 1997:14).

During World War II, the military took over part of the Ensign Ranch as a training base, bombing ranges were created at Clark and Halfhill dry lakes, and the Borrego Badlands were used for maneuvers (Brigandi 1997:14).

In 1945, non-generator electricity first reached the valley from the outside through the work of Joseph DiGiorgio, an important grape grower from Central California who needed power to begin large-scale ranching in the valley. By 1946, the DiGiorgio Fruit Corporation had planted 2,000 acres of vines in the valley and was soon shipping "early" grapes across the United States (Brigandi 1997:15).

Brigandi concludes:

In 1946, A.A. Burnand Jr., Lawrence Barker, and Paul Grafe formed the Borrego Land and Development Company and subdivided the first 1,800 acres of their new community of Borrego Springs. Telephone service reached the valley that same year, and in 1949 the new Borrego Springs

Post Office was established. It was during this era that the correct double-R spelling of Borrego . . . became common. It was finally made official by a decision of the United States Board of Geographical Names in 1950. A few years later, Burnand's partners were bought out by the DiGiorgio Fruit Corporation, James Copley, and William Black, and they began work on the De Anza Country Club, the first golf resort in the valley. Modern civic development had finally arrived.
(Brigandi 1997:15)

2.2.4 The Subject Property

Little archival research has been done for the subject property. What we do know is that the Southern Pacific Railroad Company obtained a railroad patent on 24,838.55 acres of Federal land, including the subject parcel, on October 15, 1921 (Accession/Serial Number 828446; BLM Serial Number CACAAA 0). The land included parcels in Riverside (Township 7 South, Range 3 East), San Diego (T9S, R6E; T10S, R6E, R7E and R21 E; T11S, R6E; T12S, R6E), and Imperial (T12S, R21E) counties. This purchase was registered at the Los Angeles Land Office. The areas of acquisition in the three counties are not connected and they generally create a checkerboard pattern within townships, suggesting some kind of real estate or mineral investment. The subject property was eventually sold to private individuals. At some point, perhaps during the 1930s and 1940s, the property was used as an airstrip for small private planes (see Figure 4).

A water tank was built on the property prior to 1954 with a pipeline extending northwards to what is known as the Borrego Palms Resort, which was also built before 1954. The presence of a water spicket, a small cement foundation, irrigation fittings along one stretch of the pipeline from the water tank on the property, and a collapsed wooden structure with an associated well head at the northern edge of the property, suggest there were possibly tentative residential and/or agricultural uses, but nothing very permanent. Or perhaps, all this activity was associated with the use of the airstrip. No structures or airstrip are shown on the 1959 USGS 7.5' *Borrego Palm Canyon* quadrangle (based on 1954 aerial photographs). This may indicate such activity took place during the 1930s and 1940s. One local informant suggested it was used primarily in the 1940s.

2.3 PREVIOUS ARCHAEOLOGICAL RESEARCH

2.3.1 Results of Records Search

The results of the record search at the South Coastal Information Center at San Diego State University indicate that eight cultural resource studies have been conducted within one mile of the project area. None of these surveys included the subject property (Tables 1 and 2). The records search revealed that 20

cultural resources have been previously recorded within one mile of the project area. The 13 prehistoric sites or isolates include a large camp site with scattered midden deposits; three bedrock milling sites largely without associated artifacts; a bedrock milling site with an associated rockshelter; three bedrock milling sites with an associated rock circle or roasting area; a roasting area with associated artifacts; a site with rectangular rock constructions (a possible house pit); a possible lookout blind with a rock circle and artifacts; a rock cairn; and an isolated pottery sherd. The seven historic period sites and isolates include an historic bottle, an early 20th century cattle camp area, and five historic structure sites associated with the Anza Borrego Desert State Park. The latter structures were recorded by Steve Van Wormer.

Table 1: Cultural Resources Studies within One Mile of the Project Area

Author Co./Agency	Report Title	Acres/Sites	Year and NADB #
Johnson, Melissa	An Archaeological Survey of the Site for the State Park Visitors Center. San Diego State University.	190/1	1977 1121258
Eckhardt, W.T. Westec Services	Archaeological Survey of the Hazard-Borrego Springs Lot Split. For Nasland Engineering.	42/1	1978 1120626
Smith, Brian F.	Archaeological Survey of the Kuhrts/Borrego Lot Split, Borrego Springs, California. For DiGiorgio Development Corp.	?/0	1984 1129800
Smith, Brian F.	A Report of an Archaeological Survey and Evaluation of Cultural Resources at the Burnand Lot Split Project, Borrego Springs, CA	519/12	1989 1121435
Pigniolo, Andrew Tierra Environ. Serv	An Archaeological Survey of the Borrego Springs Boys and Girls Club. For Kelly-Markham Architecture and Planning	?/0	2000 1123906
Beddow, Donna	Negative Survey Report for Rainbow; REZ01-007; Log No. 01-05-001; APN 198-040-41 through 50, San Diego County. For Borrego Springs Youth and Senior.	?/0	2002 1127513
Mealy, Marla & Karen Shabel	Anza-Borrego Desert State Park Record Search and Site Evaluation. For Anza-Borrego Desert State Park.	?/9 & isolates	2002 1127791
McGinnis, Patrick Tierra Environ. Serv	CDBG: Northeast Rural – Borrego Springs. For Department of Parks and Recreation. [Archaeological Overview and Assessment]	NA	2004 1129458

Table 2: Previously Recorded Sites within One Mile of the Project Area

Site Number or Trinomial	Site Description	Year Recorded
SDI-1943	Eight mortars, two slicks and a small rockshelter; 5 Tizon sherds, 3 pestles, 2 manos. One portable slick 150' further along trail.	1973
SDI-4249	Slick with mano; 13 sherds; 1-2 roasting areas or rings?	1977
SDI-5018	Three slicks on a small boulder. No artifacts noted.	1977
SDI-5019	Bedrock milling outcrops with two mortars and two slicks. No artifacts.	1977
SDI-5603	Limited activity site, 3 loci – roasting pit; manos, sherds and a flake.	1978
SDI-7590	Lookout blind on bedrock; rock circle. End and side scrapers.	1979
SDI-7591	Rectangular rock construction, generally 2 rocks high. No artifacts but there may be a cleared circle nearby.	1979
SDI-10561	Camp site with scattered midden deposits and granitic outcrops with bedrock milling features (mortars and slicks). Sherds (including Colorado Buffware), possible grinding stones, quartzite flakes.	1986,1989
Site Number or Trinomial	Site Description	Year Recorded

SDI-11248	Small rock ring made of 23 stones. Milling feature with one slick. A second possible rock ring and a tin can. No artifacts noted.	1989
SDI-11250	Bedrock milling outcrop with one slick.	1989
SDI-11251	Large house pit made of 100+ rocks arranged in a rectangular pattern 1-2 tiers high with a large boulder in the center. A second rectangular rock room made of 13 irregularly spaced boulders is connected to the first feature by a small rock wall. No associated artifacts.	1989
SDI-11252	Rock cairn made of 30+ cobbles in a circular pattern, 1-2 tiers high. No artifacts noted.	1989
I-266	Isolate – one small fragment of Tizon Brownware pottery	1990
P-37-017964	Borrego Palm Canyon Residences 2 & 3 and garages.	1998
P-37-017966	State Park Office – single story concrete block building.	1998
P-37-017967	State Park District Headquarters	1998
P-37-017968	Camp Ground Entrance/Office	1998
P-37-017971	State Park Restrooms – Combination Buildings	1998
P-37-018293	Palm Creek Cow Camp (Helms, Kelly and Angel Brothers	1997
P-37-024893	Isolate – historic bottle	2002

A study of the South Coastal Information Center's Geofinder Historic Database revealed no significant historic structures within the study area; it also indicated that none of the cultural resources are National or California Register listed or eligible historic properties, California Historic Landmarks or California Points of Historical Interest.

SECTION 3 – RESEARCH DESIGN AND METHODS

3.1 BASIC RESEARCH DESIGN

Research designs for inventory studies of properties which contain potential archaeological sites and/or historic structures consist of the following basic elements:

- Conduct and analyze the results of the records search to:
 - ✓ determine whether the property has been previously surveyed, and whether any previously recorded sites exist on or adjacent to the subject property
 - ✓ help predict what kinds of resources may exist in the area, such predictions assisting the direction of both the field survey and future archival research
 - ✓ help determine whether existing structures may be more than 45 years old
- Conduct a pedestrian field survey to:
 - ✓ check for the presence of archaeological sites
 - ✓ examine and assess the architectural significance of any structures
 - ✓ examine results of, or observe, geotechnical trenching and boring if available
- Conduct additional archival research if historic structures are present to:
 - ✓ provide an historical context for the evaluation of the historic structures
 - ✓ ascertain when the structures were built or moved onto the property
 - ✓ ascertain whether the structures are associated with a significant person(s) or events
- Record all sites on standard DPR site forms
- Present findings and recommendations

3.2 FIELD METHODS

A records search was done on October 13, 2006. It indicated that prehistoric bedrock milling features, rockshelters, rock rings, rectangular rock structures, rock cairns, and roasting areas might be found in the area. In addition, historic structures are or their remnants are also present. The field survey took place on October 22nd. The records search and survey were supervised by Dr. Philip de Barros. He was assisted in the field by Kumeyaay Indian, Carmen Lucas, and by Scot Golia, Tim Wolfe, Shelby Gunderman, and Tanya Duer, advanced students in the Palomar College Archaeology Program. Crew members were spaced 10 meters apart and transects were surveyed in alternating north-south and south-north directions beginning at Palm Canyon Drive. Ground visibility was very good to excellent, ranging from 85-100%. No significant bedrock outcrops were observed. Archaeological sites were recorded on Department of Parks and Recreation (DPR) 523 forms and trinomials were obtained from the South Coastal Information Center (see Confidential Site Record Appendix).

SECTION 4 – FINDINGS

4.1 ARCHAEOLOGICAL SITES

A total of eight prehistoric and historic archaeological sites, remnants of a water conveyance system, and one collapsed historic structure with associated artifacts were recorded. A prehistoric isolate (Brownware sherd) was not noted but not recorded. The recorded sites are described briefly below.

4.1.1 SDI-18266 – Prehistoric Artifact Scatter

This site consists of an artifact scatter made up of 15 Brownware pottery sherds (including a bowl rim and two possible base sherds), a secondary flake made from obsidian from the Obsidian Butte source near the Salton Sea, and the base and mid portions of a slightly concave-based Cottonwood arrow point made of the same obsidian. The site vegetation consists of creosote scrub with saltbush and pencil cactus. The site is 20 x 15 m in size.

4.1.2 SDI-18267 – Former Water Tank Site with Well Head and Support Debris

The site consists of a well head and associated pipes, a collapsed wooden lattice support structure for a now-removed water tank, and some associated artifacts.

The well head has a large, vertical pipe that formerly connected to the water tank and a smaller pipe exiting horizontally to take water to properties to the north, including a now abandoned motel 1.15 km to the north. An exposed portion of this pipe with possible irrigation fittings was recorded as a separate site 500 m to the north. The horizontal pipe extends northward about 11 feet before disappearing into the desert sands. It is 3 inches in diameter. The vertical pipe is on a cement base that is 18 inches (NS) by 17 inches (EW) and four inches high; the pipe itself is extends vertically 52 inches.

A large wooden lattice associated with the water tank structure lies directly adjacent (east) of the well-head. Two red brick fragments are present within and just outside the wooden lattice. The lattice itself measures 16 x 16 feet. There are three wooden cross pieces on the lower portion of the lattice that run north-south that are 109 inches long.

Two clusters of four and three red brick fragments, respectively, are at two nearby locations. A fragment of wood is present in the 4-brick cluster. A third cluster of artifacts includes wire, a cluster of wire nails, and a fragment of a clear bottle. The

entire site measures 17 x 15 m. The local vegetation consists of creosote scrub with saltbush and pencil cactus.

4.1.3 SDI-18268 – Prehistoric Artifact Scatter

This site consists of a tight cluster of five prehistoric Brownware pottery sherds. A fragment of a clear soda bottle with a green applied painted label, a clear glass bottle top that had a twist off cap, and four clear glass bottle fragments (one with white paint on it) are within 1-2 m of the ceramic cluster. The site measures 4 x 0.5 m in size. Local vegetation consists of creosote scrub with saltbush and pencil cactus.

4.1.4 SDI-18269 – Historic Artifact Scatter with Water Spicket

This site consists of a dispersed scatter of historic artifacts grouped in ten clusters plus a water spicket:

- #1: a crushed, probable vegetable can
- #2: a CO₂ cartridge, charcoal lump, and a recent(?) brown bottle fragment
- #3: a pint-sized paint can
- #4: two clear glass bottle fragments
- #5: the water spicket
- #6: a pint-sized paint can and clear soda bottle fragments
- #7: a medium-sized food can
- #8: a red brick fragment, a crushed can, and a probable vegetable can
- #9: a large, recent(?) clear bottle glass fragment
- #10: a sardine can marked in French and English: "Importé de Portugal," then underneath this label and upside down, "Packed in Portugal"
- #11: a probable vegetable can (CANCO on bottom)

All of the cans are sanitary cans. No vent-hole or hole-in-cap cans were noted.

The water spicket is not far from a buried pipeline that originates from the well head and water tank to the south (see SDI-18267). Its presence suggests some kind of agricultural or habitation activity in the past. The artifacts date primarily to the 1940s-1960s. The site measures 65 x 30 m in size. The local vegetation is creosote scrub with saltbush and pencil cactus.

4.1.5 SDI-18270 – Linear Cement Foundation with Associated Artifact Scatter

This site consists of a low, U-shaped, partial(?), linear cement foundation with an attached cement, trough-like feature and a potentially associated trash deposit to the north.

The overall cement feature is 15 feet long (EW) and 13 feet wide (NS). A clear glass bottle fragment is within the trough-like feature. The foundation wall dimensions are as follows: 1) north wall – 15 ft long, 4.7 inches wide (thick), 5 inches high; 2) west wall – 45 inches long, 4.7 inches thick, and at least 1.5" high; 3) east wall – 54 inches long, 4.7 inches thick, and at least 4.5 inches high. The west and east walls are aligned at ca. 343 degrees azimuth (close to magnetic north). A creosote bush is located within the U-shaped feature. The trough-like feature is 105 inches long, 23 inches wide, with walls 4.5 inches thick and up to 8.5 inches high.

A potentially associated trash feature, about 2 x 1 m in size, is located about 14 m to the north; it contains can fragments, a burnt animal bone, a machine-made brown bottle top, a clear screw-top jar, a tuna or olive can, and another can four meters to the east. It is likely that most of these artifacts also date primarily between the 1940s and 1960s.

The overall site measures 15 x 10 m. The site vegetation consists of creosote scrub with saltbush and pencil cactus.

4.1.6 SDI-18271 – Small, Partially Buried Historic Can Scatter

This site consists of a small, partially buried can scatter about one meter in diameter. It contains a partially burned hole-in-top (milk?) can and at least two other partially buried cans. The local vegetation consists of creosote scrub with saltbush and pencil cactus. Given that hole-in-top or vent-hole milk cans continued well after the 1920s, the dating of this artifact cluster is uncertain.

4.1.7 P-37-028079 – Two Pipeline Segments, One with Irrigation Fittings

This system consists of two exposed pipeline segments, Locus A and Locus B, both aligned north-south.

Locus A is the southernmost pipe segment. It consists of a 3-inch diameter water pipe segment with vertical irrigation fittings. The main pipe probably connects to the well head and former water tank about 550 m to the south (SDI-18267). The exposed pipe segment is about 36 m long with two 24-inch high, 1.25-inch diameter vertical fittings that have a 2-inch diameter head for water dispersal.

Locus B is the northernmost pipe segment. It is about 6.5 m long and is broken off at the southern edge of small intermittent wash that is a tributary of the main wash that exits from Hellhole Canyon to the southwest and passes just north of the subject property (see Figure 4).

Site vegetation consists of creosote scrub with saltbush and pencil cactus. Some tamarisks and ocotillo are present in the vicinity of Locus B. The two loci are separated by a distance of about 210 meters.

4.1.8 SDI-18272 – Remnants of a Large Trash Dump

The site consists of the remnants of a large trash dump that could date back to as early as the 1920s. Much of the dump was recently taken away as part of a hazardous waste removal mandate from the County prior to the cultural resources survey; however, scattered artifact deposits remain. Two large bulldozer scars currently indicate where the major trash deposits were once located. Artifacts present include linear edge hotelware plates and bowls (with parallel green or red lines), a ceramic inkwell fragment, stoneware fragments, melted sun-colored amethyst glass, and diverse glass bottle debris. A partial maker's mark is present on a plate fragment indicating production by the Sterling China Company of Liverpool, Ohio, in the 1950s (Lehner 1988:440-441; DeBolt 1994:135). The original dump was about 105 x 60 m in size. The local vegetation consists of creosote scrub with saltbush and some ocotillo.

4.1.9 SDI-18273 – Stone Hearth or Rock Ring and Four Historic Trash Loci

This site consists of four dispersed historic loci: 1) a probable historic rock ring feature measuring 90 x 80 cm that contains 12 granitic rocks that are probably fire-altered; 2) a few shards from a sun-colored amethyst (SCA) mason jar; 3) a large pail 15 inches in height; and, 4) a small scatter of cans 23 m south of the pail. These features were grouped together for site management purposes, but they are unlikely to be contemporaneous. There is no charcoal, stained soil or prehistoric or historic artifacts in the immediate vicinity of the rock ring feature. The local vegetation consists of creosote scrub with saltbush and pencil cactus. The entire site measures 40 x 25 m. The SCA glass indicates deposition no later than 1920-1925.

4.1.10 SDI-18274 – Collapsed Wooden Structure, Well-Head and Trash

This site consists of a collapsed wooden structure that was probably a one room cabin, a well head, and associated surface artifacts. The site straddles the northern boundary of the parcel, with the collapsed wooden structure located within the parcel boundaries and the well head located just outside to the north.

The collapsed wooden structure was attached to horizontal wooden planks. There is no foundation slab present. The small-bore well standpipe to the northeast of the structure suggests it may have been a habitation site.

The associated trash scatter includes fragments of a toilet tank, metal cans, a wine/champagne bottle, metal parts and fasteners, wood debris, a galvanized iron garbage can, and bottle fragments. No SCA glass or square nails were noted, suggesting occupation after 1920.

Based on the historic trash scattered around the collapsed structure, the site measures about 30 x 20 m. The local vegetation consists of creosote scrub with saltbush and pencil cactus; however, there are some tamarisks to the north and south associated with intermittent washes that exit from Hellhole Canyon to the southwest of the project area.

SECTION 5 – SIGNIFICANCE EVALUATION AND RECOMMENDATIONS

5.1 APPLICABLE LEGISLATION, STATUTES AND ORDINANCES

5.1.1 CEQA Guidelines; the California Register of Historical Resources

The creation of the California Register of Historical Resources in 1993 and revisions to the CEQA Guidelines in 1998 resulted in the creation of new criteria for the evaluation of historical resources (including archaeological resources). The former Appendix K was replaced. According to Section 15064.5(a)(3) of the revised CEQA Guidelines, "a resource shall be considered by the lead agency to be 'historically significant' [important] if the resource meets one or more of the criteria for listing on the California Register of Historical Resources (CRHP), as cited in Public Resources Code Section 5024.1, Title 14 CCR, Section 4852, including the following:

- A. Is associated with events that have made a significant contribution to the broad patterns of California history and cultural heritage;
- B. Is associated with the lives of persons important in our past;
- C. Embodies the distinctive characteristics of a type, period, region, or method of construction, or represents the work of an important creative individual, or possesses high artistic values; or
- D. Has yielded, or may be likely to yield, information important in prehistory or history.

In addition, Section 16064.5(a)(2) stipulates that

a resource included in a local register of historical resources, as defined in Section 5020.1(k) of the Public Resources code or identified as significant in an historical resource survey meeting the requirements of Section 5024.1(g) of the Public Resources Code, shall be presumed to be historically or culturally significant. Public agencies must treat any such resource as significant unless the preponderance of evidence demonstrates that it is not historically or culturally significant.

If an archaeological site does not meet one of the criteria defined above, "but does meet the definition of a unique archaeological resource in Section 21083.2 of the Public Resources Code, the site shall be treated in accordance with the provisions of Section 21083.2 [Section 15064(c)(3) of the CEQA Guidelines].

If an archaeological resource is neither a unique archaeological resource nor an important (significant) historical resource, both the resource and the effect on it shall be noted in the Initial Study EIR but need not be considered further in the CEQA process [Section 15064.5(c)(4)].

5.1.2 Resource Protection Ordinance (RPO)

Finally, sites must be evaluated for their significance under the County's Resource Protection Ordinance (RPO). One of the goals of this ordinance is to protect "Environmentally Sensitive Lands," which include significance prehistoric and historic sites. Such sites are defined as follows:

Location of past intense human occupation where buried deposits can provide information regarding important scientific research questions about prehistoric or historic activities that have scientific, religious, or other ethnic value of local, regional, state, or federal importance. Such locations shall included, but not be limited to: any prehistoric or historic district, site, interrelated collection of features or artifacts, building, structure, or object included in or eligible for inclusion in the National Register of Historic Places or the State Landmark Register; or included or eligible for inclusion, but previously rejected, for the San Diego County Historical Site Board list; any area of past human occupation located on public or private land where important prehistoric or historic activities and/or events occurred; any location of past or current sacred religious or ceremonial observances protected under Public Law 95-341, the American Religious Freedom Act or Public Resources Code Section 5097.9, such as burial(s), pictographs, petroglyphs, solstice observatory sites, sacred shrines, religious ground figures, and natural rocks or places which are of ritual, ceremonial, or sacred value to any prehistoric or historic ethnic group.

5.1.3 Human Remains

If Native American human remains are identified within the project area, or there is a probable likelihood of their presence, Section 15064.5(d) & (e) requires the lead agency to work with the appropriate Native Americans as identified by the Native American Heritage Commission as provided in Public Resources Code Section 5097.98. As specified in the code, "the applicant may develop an agreement for treating or disposing of, with appropriate dignity, the human remains and any items associated with Native American burials with the appropriate Native Americans as identified by the Native American Heritage Commission.

5.1.4 Applicable CHRP Evaluation Criteria for the Current Project

For the two prehistoric archaeological sites (SDI-18266 and SDI-18268), neither of which are likely to contain human remains, Criterion D is the most appropriate evaluation criterion to apply, i.e., do any of these sites have the potential to yield information important in prehistory or history. For the seven historical archaeological sites (SDI-18267, SDI-18269 through SDI-18274), none of which contain standing architecture, Criterion D also applies; in addition, it should be determined whether any of these sites are linked to events or people important in local or regional history (Criteria A and B). For the water conveyance system with artifacts, P-37-028079, Criteria A & B may also potentially apply.

5.1.5 Criterion D of the CHRP in San Diego County

In San Diego County, the new County Guidelines (Department of Planning and Land Use or DPLU 2006) emphasize a particular interpretation of evaluation Criterion D of the California Register of Historical Resources. All archaeological resources are viewed as potential sources of information about the past and "most resources will be considered significant because they contain some information that contributes to our knowledge of history or prehistory" (DPLU 2006:16). For sites that contain limited information, such as small lithic or historic can scatters, this information may be "captured during initial recordation and testing of the site" (DPLU 2006:16). For more complex sites, "a full data recovery program or additional treatment/mitigation" may be necessary.

In short, most archaeological sites are considered to be significant, but for many of them, the mere process of recording the site or testing to determine the site boundaries and/or nature of the subsurface deposits may be enough to extract the bulk of the information present. The purpose of the present document is to record the archaeological sites present and to recommend further evaluation studies where needed (testing and/or archival research). In the case where the recordation of the site has essentially extracted the bulk of the information present, no further work will be recommended.

5.2 SIGNIFICANCE EVALUATION AND RECOMMENDATIONS FOR FURTHER STUDY

Given the new County regulations (see above), all of these sites are viewed as significant resources that can yield information about the prehistoric and historic past. Given the scope of work authorized by the project developer, this report limits itself to site recordation and recommendations as to which sites require further studies to obtain the information they contain.

5.2.1 SDI-18266

Site SDI-18266 is a sparse artifact scatter containing Brownware ceramics, an obsidian flake, and an obsidian Cottonwood arrow point fragment. Its significance under Criterion D cannot be evaluated without first conducting limited subsurface testing using a combination of shovel test pits and/or test units to determine whether a subsurface cultural deposit is present. If such a deposit is present, subsurface artifacts should be analyzed in the lab along with the surface ceramics and obsidian artifacts which should be collected. Provenience studies should be conducted on the ceramics and obsidian.

5.2.2 SDI-18267

The site consists of a well head, some structural remnants of a former water tower or tank, and a few associated historic artifacts – some brick fragments, some wire, a few round nails, and some clear, broken bottle glass. This site has little or no information potential beyond that provided in its recordation as a site. Minimal archival research is recommended to determine when the water tank was actually constructed.

5.2.3 SDI-18268

This site consists of five Brownware pottery sherds in a tight cluster and a few nearby historic artifacts: a broken soda bottle with an Applied Painted Label (APL) typical of the 1940s and 1950s; a clear glass bottle with a twist off cap, and four clear glass bottle fragments. The historic artifacts cannot be linked to specific events or people (Criteria A and B) and they provide little information of any historical significance. The prehistoric Brownware pottery sherds should be collected and examined under a microscope to determine whether they are Tizon or Salton Brownware pottery. No subsurface testing is necessary.

5.2.4 SDI-18269

This site consists of ten clusters of various historic artifacts and a water spicket spread over an area 65 x 30 m in size. Basic information can be extracted with the following measures: 1) conduct a detailed field inspection to obtain functional and temporal information from the surface artifacts; 2) excavate a limited number of shovel test pits in the vicinity of clusters two and eight (which contain multiple artifacts) to confirm the absence of a subsurface deposit; and, 3) conduct minimal archival research to determine why a water spicket is present on the property and whether the land had any significant residential or agricultural use or whether its presence was connected to the property's use as an airstrip. This research should try to determine when the airstrip was actually in use.

5.2.5 SDI-18270

This site consists of a partial (?), U-shaped, cement linear foundation and associated trough-like feature, and a nearby artifact scatter that may or may not be historically associated with this feature. It is recommended that archival research be conducted to determine when this structure may have been constructed and by whom, and whether it had any connection with the presence of the airstrip on the property. Additional temporal and functional information should be obtained from the historic trash present. One or two shovel test pits should be excavated to confirm that the trash deposit to the north has no subsurface component. In addition, some limited trenching and/or shovel test pits should be excavated adjacent to the foundation to check for subsurface artifacts and to more clearly define the foundation and trough-like feature.

5.2.6 SDI-18271

This site consists of a small partially buried can deposit, including at least one hole-in-top (vent hole) can (probably a milk can). A 1 x 1 m test unit should be excavated to assess the nature of this trash deposit and its contents. Basic functional and temporal information should be recorded for any artifacts recovered.

5.2.7 P-37-028079

This site consists of two parts of a water conveyance system. There are no associated artifacts. Minimal archival research should be conducted to determine when this system was built and for what purpose irrigation fittings were placed there. Was the 3" water pipe installed for the motel to the north? do the pipe and irrigation fittings have any connections to the airstrip? Additional fieldwork is not warranted.

5.2.8 SDI-18272

This site formerly contained two large piles of historic trash that were deemed hazardous waste by the County. They were removed by the applicant at the request of the County (Jo MacKenzie, personal communication) before a cultural resources survey was requested by the County. However, remnants of this dump are still present, including linear edge hotelware, stoneware fragments, melted SCA glass, a ceramic inkwell fragment, and a ceramic maker's mark dating to the 1950s. The SCA glass and hotelware indicate some deposition no later than ca. 1920. These dump remnants can potentially provide important information about the socioeconomic status, access to consumer goods, and lifestyle of the pre-1950s inhabitants of Borrego Springs. Archival research and/or oral interviews

should be conducted to find out whether this was an informal municipal dump or whether the dumping was related to the motel to the north and/or the use of the property as an airstrip. A sample of the temporally and functionally diagnostic surface artifacts should be collected and studied. In addition, at least two to four 1 x 1 m test units should be excavated in areas suspected of having subsurface deposits to obtain additional artifacts for study. Historic dumps in southern California have yielded important historical information not available from written sources (de Barros et al. 2002, 2005, 2006; Van Wormer 1991a, 1991b, 1996, 2003, 2004; Van Wormer and Gross 2006).

5.2.9 SDI-18273

This site consists of a probable historic hearth or rock ring with no associated artifacts, stained soil or charcoal; fragments of a sun-colored amethyst (SCA) mason jar; a large pail and a small, historic can scatter. Recommended fieldwork includes: 1) recovery of functional and temporal information from the surface artifacts; 2) the excavation of a 1 x 1 m unit that encloses the hearth or rock ring to check for the presence of subsurface artifactual material and to verify the nature of the feature; 3) the excavation of 1-2 shovel test pits to confirm the absence of a subsurface deposit in the vicinity of the historic can scatter. Functional and temporal information from any subsurface artifacts would be obtained in the lab.

5.2.10 SDI-18274

This site consists of a collapsed wooden structure, a well head, and some associated historic trash. The latter two elements lie just to the north of the subject property. Archival research is recommended to determine the owner, builder and/or resident of the collapsed structure and to determine its function and period of occupation. Was it occupied during the time an airstrip was used on the property? Recommended fieldwork includes: 1) documentation of the size and construction methods for the collapsed wooden structure, and a check for any artifacts that may be beneath the collapsed boards; 2) the collection of functional and temporal information about the artifacts located within the property boundaries; and, 3) the excavation of shovel test pits to check for possible subsurface deposits and the analysis of any recovered subsurface material.

5.3 SUMMARY OF MANAGEMENT RECOMMENDATIONS

A summary of the recommended studies for the sites encountered on the subject property is provided in Table 3 below:

Table 3: Summary of Management Recommendations

Site	Type	Archival Research	Field Artifact Study	STPs	Test Units or Trenches	Lab Analysis
SDI-18266	prehistoric artifact scatter	NO	NO	YES	YES	YES
SDI-18267	well head & remnants of water tower with associated artifacts	minimal	YES	NO	NO	NO
SDI-18268	small prehistoric and historic artifact scatter	NO	YES historic	NO	NO	YES pottery
SDI-18269	historic scatter & spicket	YES	YES	YES	only if SDP	only if SDP
SDI-18270	cement foundation & historic artifact scatter	YES	YES	YES	YES	only if SDP
SDI-18271	small can scatter	NO	NO	NO	YES	YES
P-37-028079	water conveyance system	minimal	NO	NO	NO	NO
SDI-18272	remnants large trash dump	YES	NO	YES	YES	YES
SDI-18273	historic hearth or rock ring & other historic trash	NO	YES	YES	only if SDP	only if SDP
SDI-18274	collapsed wooden structure, well head and historic trash	YES	YES	YES	only if SDP	only if SDP

STP - Shovel Test Pit; SDP - Subsurface Deposit Present

SECTION 6 -- REFERENCES

- Almstedt, Ruth F.
1982 The Kumeyaay and 'lipay. In Clyde Woods' *APS/SDG&E Interconnection Project, Native American Cultural Resources: Miquel to the Colorado River and Miquel to Mission Tap*. Submitted to San Diego Gas & Electric Company. Copies available from Wirth Environmental Services, San Diego.
- 1974 *Bibliography of the Diegueño Indians*. Ramona, CA. Ballena Press.
- Alvarez, Anita Williams
1975 Lifestyle of the Historical Southern California Indian. *The People Cabrillo Met*.
- Barrows, David P.
1900 *The Ethnobotany of the Cahuilla Indians of Southern California*. Chicago Press. (Reprinted 1976 by Malki Museum, Banning).
- Bartlett, John R.
1854 *Personal Narrative of Explorations and Incidents in Texas, New Mexico, California, Sonora, and Chihuahua*. New York: D. Appleton and Company.
- Bean, Lowell J.
1972 *Mukat's People: The Cahuilla Indians of Southern California*. Berkeley: University of California Press.
- 1978 Cahuilla. In *Handbook of North American Indians, California, Volume 8* (R.F. Heizer, ed.), pp. 575-587. William Sturtevant, General Editor. Smithsonian Institution, Washington, D.C.
- Bean, Lowell John and Katherine Saubel
1972 *Temalpakh: Cahuilla Indian Knowledge and Usage of Plants*. Morongo Indian Reservation, California: Malki Museum Press.
- Bean, Lowell John and Sylvia B. Vane
1976 *California Indians: Primary Resources*. A Guide to Manuscripts, Artifacts, Documents, Serials, Music, and Illustrations. Ramona, California: Ballena Press.
- Bean, Lowell John and Florence Shipek
1978 Luiseño. In *Handbook of North American Indians, California, Volume 8* (R.F. Heizer, ed.), pp. 550-563. William Sturtevant, General Editor. Smithsonian Institution, Washington, D.C.

- Berryman, Judy
 1979 Results of a Phase II Archaeological Study on the B&R Property in Crest, California. Archaeological Consulting and Technology. Submitted to B&R Land Investment Co., Inc. Unpublished report on file at the South Coastal Information Center, San Diego State University, San Diego, California.
- Brigandi, Phil
 1997 A Place Called Borego: Homesteader Days in the Borrego Valley *The Journal of San Diego History* 43(1):1-20 (online version). <http://www.sandiegohistory.org/journal/97winter/borrego.htm>
- Byrd, Brian F. and Carol Serr
 1993 *Multi-Component Archaic and Late Prehistoric Camps Along the San Diego River, Rancho San Diego, California*. Brian Mooney and Associates, San Diego. Anthropological Technical Series 1.
- Carrico, Richard
 1986 Before the Strangers: American Indians in San Diego at the Dawn of Contact. In *The Impact of Exploration and Settlement on Local Native Americans*. Cabrillo Historical Association, San Diego.
- Cuero, Delfina
 1970 *The Autobiography of Delfina Cuero: A Diegueño Woman*. Morongo Indian Reservation, California: Malki Museum Press.
- Curtis, Edward S.
 1926 *The North American Indians*, 15:508-543. Cambridge, Massachusetts: Norwood Press.
- Davis, E.L., C.W. Brott, and D.L. Weide
 1969 The Western Lithic Co-tradition. *San Diego Museum Papers* 6. San Diego Museum of Man, San Diego, California.
- de Barros, Philip
 1991 *Archaeological Data Recovery Excavations at CA-ORA-225, Zone 4 and Zone D Booster Pumping Stations Project, Irvine Ranch Water District, Irvine, California*. Chambers Group, Irvine, CA. Submitted to the Irvine Ranch Water District, Irvine, CA.
- 1993 *Specific Data Recovery Plan, Prehistoric Archaeological Sites CA-ORA-125, -225, -689, -736, -1029, and -1295 within the Area of Potential Effects of the Proposed San Joaquin Hills Transportation Corridor, 12-ORA-73, 12-102540*. Chambers Group, Irvine, CA. Submitted to the Federal Highway Administration, Sacramento, CA.

- 1996 *Archaeological Test Excavations at Nine Sites within the Crowder Canyon Archaeological District, Draft Report*. Professional Archaeological Services, San Diego. For Rancho Las Flores.
- de Barros, Philip, S. Crull, W. Bonner, G. Luhnnow, J. McKeehan, S. Van Wormer, S. Walter
 2002 *Evaluation of Prehistoric Archaeological Site CA-ORA-149 and Historical Archaeological Site CA-ORA-1582H [actually ORA-1654H due to Info Center error], Test Excavations and Archival Research, Huntington Beach, Orange County, California, Vols. I and II*. Professional Archaeological Services, San Diego. Prepared for Makar Properties, Newport Beach, CA.
- de Barros, Philip, Scott Crull, Glenda Luhnnow and others
 2005 *Data Recovery Excavations at CA-ORA-149 and CA-ORA-1582H [actually 1654H], Pacific City Project, Pacific Coast Highway, Huntington Beach, CA, Vols. I and II*. Professional Archaeological Services, San Diego, CA. Prepared for Makar Properties, Newport Beach, California.
- de Barros, Philip, S. Crull, S. Walter, P. Mitchell, and S. Van Wormer
 2006 *Final Report on the Huntington Beach Dump Site, CA-ORA-1582H [actually 1654H], Including the Results of Excavations at Newly Discovered Loci B and C, Pacific City Project, Huntington Beach, Orange County, California*. Professional Archaeological Services, San Diego, California. Prepared for Makar Properties, Newport Beach, California.
- DeBolt, Gerald
 1994 *DeBolt's Dictionary of American Pottery Marks: Whiteware & Porcelains*. Collector Books, Paducah, Kentucky.
- Dept. of Planning and Land Use (DPLU), Dept. of Public Works, San Diego County
 2006 *County of San Diego Guidelines for Determining Significance and Report Format and Content Requirements. Cultural Resources: Archaeological and Historic Resources*. September 26, 2006.
- Fulmer, Scott, Ruth F. Almstead, Ann Noah, and Albert C. Oetting
 1979 *Archaeological Reconnaissance, Laguna Mountain Recreation Area*. Report prepared for the U.S. Forest Service, on file, at the South Coastal Information Center, San Diego State University.
- Gallegos, Dennis R. and Richard Carrico
 1984 *Windsong Shores Data Recovery Program for Site W-131, Carlsbad, California*. Ms. on file, South Coastal Information Center, San Diego State University, San Diego.

- Gifford, Edward Winslow
1931 *The Kamia of Imperial Valley*. Washington: Bureau of American Ethnology, Bulletin 97.
- Haviland, William A.
1987 *Cultural Anthropology*. New York: Holt, Rinehart and Winston, Inc.
- Hedges, Ken
1967 Santa Ysabel Ethnobotany. Unpublished manuscript on file with San Diego Museum of Man Scientific Library, San Diego.

1973 Notes on the Kumeyaay: A Problem of Identification. *The Journal of California Anthropology* 2(1):71-83.
- Higgins, Howard C.
1995 Cultural Setting. In *Archaeological Testing of Three Sites for the International Wastewater Treatment Plant Project, San Diego County, California* (C.A. Turnbow, K.A. Adams, J.A. Evaskovich, and H.C. Higgins), pp. 9-18. Mariah Associates, Albuquerque. Submitted to the International Boundary and Water Commission, U.S. Section, El Paso. Contract IBM 91-5, Delivery Order 8.
- Jones, Terry L.
1991 Marine-Resource Value and the Priority of Coastal Settlement: A California Perspective. *American Antiquity* 56(3):419-443.
- Kaldenberg, Russell L.
1982 *Rancho Park North, A San Dieguito-La Jolla Shellfish Processing Site in Coastal Southern California*. Occasional Paper 6. Imperial College Museum Society, El Centro, California.
- Kroeber, Alfred L.
1925 Handbook of the Indians of California. *Bureau of American Ethnology Bulletin* 78. Washington, D.C. Republished in 1976 by Dover Publications, New York.
- Kyle, Carolyn, Adella Schroth, and Dennis Gallegos
1990 *Early Period Occupation at the Kuebler Ranch Site SDI-8654, Otay Mesa, San Diego County, California*. ERC Environmental and Energy Services, San Diego. Submitted to the County of San Diego.
- Lawton, Harry W., and Lowell Bean
1968a Preliminary Reconstruction of Aboriginal Agricultural Technology Among the Cahuilla. *The Indian Historian* 1(5):18-24, 29.

- Lee, Melicent
 1977 *Indians of the Oaks*. Ramona California: Acoma Books.
 [Originally privately published, San Diego, California; 1978]
- Lehner, Lois
 1988 *Lehner's Encyclopedia of U.S. Marks on Pottery, Porcelain & Clay*.
 Collector Books, Paducah, Kentucky.
- Luomala, Katherine
 1978 Tipai-Ipai. In *California.*, Robert F. Heizer, ed., pp. 592-609.
 Handbook of North American Indians, Vol. 8. William C. Sturtevant
 (gen. ed.). Smithsonian Institution, Washington, D.C.
- McArthur, David S.
 1984 Geomorphology of San Diego County. In *San Diego: An Introduction
 to the Region: An Historic Geography of the Natural Environments
 and Human Development of San Diego County. 2nd Edition*, edited
 by P.R. Pryde, pp. 13-24. Kendall/Hunt, Dubuque, Iowa.
- Mason, Roger and Mark Petersen
 1994 *Newport Coast Archaeological Project: Newport Coast Settlement
 Systems: Analysis and Discussion, Volumes I*. The Keith
 Companies, Archaeological Division, Costa Mesa. Submitted to
 Coastal Community Builders, Newport Beach. Copies on file at the
 UCLA Information Center, Los Angeles and at the Keith Companies.
- Meighan, C.W.
 1954 A Late Complex in Southern California Prehistory. *Southwestern
 Journal of Anthropology* 10(2):215-227.
- Merrill, Ruth Earl
 1973 *Plants Used in Basketry by the California Indians*. Ramona, CA:
 Ballena Press.
- Mooney, Brian F. Associates
 1993 *Historic Properties Background Study*. Submitted to the City of San
 Diego Clean Water Program, San Diego, California.
- Moratto, Michael J.
 1984 *California Archaeology*. Academic Press, New York.

Moratto, M.J., A. Schroth, J.M. Foster, D. Gallegos, R.S. Greenwood, G.R. Romani, M.C. Romano, L.H. Shoup, M.T. Swanson, and E.C. Gibson

1994 *Archaeological Investigations at Five Sites on the Lower San Luis Rey River, San Diego County, California: Final Report, Volumes I-III.* INFOTEC, Inc., Fresno, and Greenwood and Associates, Pacific Palisades, California. Submitted to the U.S. Army Corps of Engineers, Los Angeles District. Contract DACW09-90-D-0004.

Moriarty, James R., III

1967 Transitional Pre-Desert Phase in San Diego County. *Science* 155 (3762):553-556.

Pryde, Philip R.

1984 Climate, Soils, Vegetation, and Wildlife. In *San Diego: An Introduction to the Region: An Historic Geography of the Natural Environments and Human Development of San Diego County. 2nd Edition* (P.R. Pryde, ed.), pp. 31-50. Kendall/Hunt, Dubuque, Iowa.

Richards, Elizabeth W.

1974 *Del Mar Decades: A History of Del Mar, California.* Santa Fe Federal Savings, Del Mar, California.

Rogers, Malcolm

1945 An Outline of Yuman Prehistory. *Southwestern Journal of Anthropology* 1(2):157-198.

1966 *Ancient Hunters of the Far West.* Union-Tribune Publishing, San Diego.

Schaefer, Jerry

1982 *Late Prehistoric Adaptations During the Final Recessions of Lake Cahuilla: Fish Camps and Quarries on West Mesa, Imperial County, California.* Report prepared by Mooney-LeVine and Associates for USDI, Bureau of Land Management, El Centro Resource Area.

Schwaderer, Rae

1986 *Archaeological Test Excavations at CA-SDI-4281, Border Field State Park, San Diego County.* Cultural Heritage Section, California Department of Parks and Recreation, Sacramento.

Shipek, Florence

1969 Introduction. *The Autobiography of Delfina Cuero, as Told to Florence Shipek.* Malki Museum Press, Morongo Indian Reservation, California, pp. 7-18.

1978 History of Southern California Mission Indians. In, *California*, Robert F. Heizer (ed.), pp. 610-618. Handbook of North American Indians, Vol. 8, William C. Sturtevant, (gen. ed.) Washington: Smithsonian Institution.

1986 The Impact of Europeans on Kumeyaay Culture. In *The Impact of European Exploration and Settlement on Local Native Americans*. Cabrillo Historical Association, San Diego.

Sparkman, Philip S.

1908 The Culture of the Luiseño Indians. *University of California Publications in American Archaeology and Ethnology* 8: 147-234, Berkeley.

Spier, Leslie

1923 Southern Diegueño Customs. *University of California Publications in American Archaeology and Ethnology* 20(16):292-358.

Steward, Julian

1930 Irrigation without Agriculture. *Papers of the Michigan Society of Science, Acts, and Letters* 12:144-56.

Townsend, Jan

1983 *Prehistoric Lifeways in the Jacumba Valley, California, Volume I*. Prepared for San Diego Gas & Electric by WIRTH Environmental Services, Dames & Moore.

Treganza, A.E.

1945 Possibilities of Aboriginal Agriculture among Southern Diegueño. *American Antiquity* 12:169-173.

True, D.L.

1966 *Archaeological Differentiation of Shoshonean and Yuman Speaking Groups in Southern California*. Ph.D. dissertation. Department of Anthropology, University of California, Los Angeles.

Turnbow, Christopher A., Kathleen A. Adams, John A. Evaskovich, and Howard C. Higgins

1995 *Archaeological Testing of Three Sites for the International Wastewater Treatment Plant Project, San Diego County, California*. Mariah Associates, Albuquerque. Submitted to the International Boundary and Water Commission, U.S. Section, El Paso. Contract IBM 91-5, Delivery Order 8.

Van Wormer, Stephen

1991a *Even the Kitchen Sink: Archaeological Investigations of SDI-10258: The 1908 to 1913 San Diego City Dump*. RECON, San Diego, CA. Prepared for County of San Diego Department of Planning and Land Use.

1991b *Revealing Cultural Status and Ethnic Differences Through Historic Artifact Analysis*. *Proceedings of the Society for California Archaeology* 9:310-323.

1996 *Cultural Resource Mitigation for the Home Avenue Trunk Sewer: Archaeological Data Recovery of a Portion of SDI-10,528H, the 1908 to 1913 City of San Diego Dump*. RECON, San Diego. Prepared for the City of San Diego Water Utilities/Engineering Departments, San Diego, California.

2003 *Conscripts and Convalescents: Historical Report and Archaeological Test Investigations of the Camp Kearny Hospital Dump (SDI-9130H), San Diego, California*. Prepared for Anteon Corporation, San Diego, California.

2004 *Historic Archaeological Investigations of a Late 1920s Dump from the Naval Training Station, San Diego, California*. Prepared for P & D Consultants, San Diego, California.

Van Wormer, Stephen and G. Timothy Gross

2006 *Archaeological Identification of an Idiosyncratic Lifestyle: Excavation and Analysis of the Theosophical Society Dump, San Diego, California*. *Historical Archaeology* 40(1):100-118.

Wallace, William J.

1955 *A Suggested Chronology for Southern California Coastal Archaeology*. *Southwestern Journal of Anthropology* 11:214-230.

Warren, Claude

1966 *The San Dieguito Type Site; M.J. Rogers' 1938 Excavation Site on the San Dieguito River*. San Diego Museum Papers No. 5. San Diego Museum of Man, San Diego.

1968 *Cultural Tradition and Ecological Adaptation on the Southern California Coast*. *Eastern New Mexico University Contributions in Anthropology* 1(3):1-14.

- Warren, Claude and D.L. True
1961 The San Dieguito Complex and its Place in California Prehistory. *Archaeology Survey Annual Report, 1960-1961*, pp. 246-291. University of California, Los Angeles.
- Warren, Claude N., Gretchen Siegler, and Frank Dittmer
1993 Paleoindian and Early Archaic Periods. In *Historic Properties Background Study*, pp. III-1 through III-74. Brian F. Mooney Associates, San Diego. Submitted to tea City of San Diego Clean Water Program, San Diego.
- Waterman, T.T.
1908 The Religious Practices of the Diegueño Indians. *University of California Publications in American Archaeology and Ethnology* 4(6):271-358.
- White, R. C.
1963 Luiseño Social Organization. *University of California Publications in American Archaeology and Ethnography* 48:91-194.
- Wilke, Philip J.
1978 *Late Prehistoric Human Ecology at Lake Cahuilla, Coachella Valley, California*. Contributions of the University of California Archaeological Research Facility, No. 38. Berkeley.
- Woods, Clyde M.
1978 *APS/SDG&E Interconnection Project Native American Cultural Resources: Miquel to the Colorado River and Miquel to Mission Tap*. (Identification and Evaluation of Native American Cultural Resources Situated Within One Mile of the Proposed and Existing Rights-of-Way in California.) Submitted to San Diego Gas & Electric Company. Copies available from Wirth Environmental Services, San Diego.
- Yohe, R., M.E. Newman, and J.S. Schneider
1990 Immunological Identification of Small-Mammal Proteins on Aboriginal Milling Equipment. *American Antiquity* 56(4):659-666.

APPENDIX A

RESUME OF KEY PERSONNEL

**Philip de Barros, Ph.D., R.P.A.
Principal Investigator**

PROFESSIONAL ARCHAEOLOGICAL SERVICES
PHILIP DE BARROS, Ph.D, SOPA/RPA

13730 Via Cima Bella
San Diego, CA 92129
858-484-3478 (phone/FAX)(eve.)
760-761-3516 FAX (day)
760-807-9489 cell phone
atavikodjo@hotmail.com
7/06

Education

M.A., Ph.D. Anthropology (Archaeology), UCLA, 1979, 1985
M.A. Education, Stanford University, 1966
B.A. History, Stanford University, 1965 (cum laude)

Certifications and Secretary of the Interior Standards

- SOPA Certified in Field Research, Collections Research, and Teaching. Certifiable in Historic Archaeology and Archaeological Research Management since 1987.
- Meet Secretary of the Interior Standards for both Prehistoric and Historic Archaeology.
- Member of the Register of Professional Archaeologists (RPA) since inception.
- Certified to work in San Diego, Imperial, Orange, Riverside, San Bernardino, Santa Barbara, Kern, Inyo, and Los Angeles Counties.

Recent and Current Positions

Professor, Anthropology, Palomar College, San Marcos, 1994-present
Coordinator, A.A. Archaeology Degree Program, Palomar College, 1996-present
Research Associate, Cotsen Institute of Archaeology at UCLA, 1986-present
Director of Cultural Resources/Sr. P.I., Chambers Group, Irvine, 1985-1994
Adjunct Instructor, Golden West College, Huntington Beach, 1985-1994
Instructor, Ceramic Analysis, UCLA, 1987-1991, 1999
Chairperson, Native American Programs Committee, Society for California Archaeology, 1992-1999
Chairperson, Multicultural Committee, Palomar College, 1995-2001
Member, San Diego Archaeological Center Board of Trustees, 1996-1999
Member, Poway U.S.D. and Mt. Carmel High School Human Relations Committees, 1998-2000
Ombudsman, Poway Unified School District, 2001
President, Professional Archaeological Services, 1996-present

Cultural Resources Seminars

- As Chair of the Native American Programs Committee of the Society for California Archaeology: taught workshop on CRM laws and archaeology for Salinan Nation, May 1996 (3-days); Pomo Indian groups, March 1998 (3 days); Southern California Indian groups, April 1998 (1 day workshop). Put together CRM and Cultural Heritage Sourcebook for California Native American Communities.
- Preparing Agreement Documents (Tom King), 1991 - 2 days.
- Introduction to Federal Projects and Historic Preservation Law (Tom King and Rob Jackson, instructors, 1989 - 3 days.
- Conservation in Field Archaeology (Getty Institute), 1988 - 5 days.

Experience with GPS and GIS (Geographic Information Systems)

- Teach Introductory GPS and differential correction at Palomar College
- Use GPS in archaeological fieldwork, including setting up own base station
- Introduced GIS to Palomar's Archaeology Program Curriculum
- 160 hours of Training in ArcView GIS through ESRI and other institutions:
 - ✓ Migrating to ArcGIS 8.3; ArcGIS 8.3 Part II, 1 week May and July 2004
 - ✓ GIS Access Workshop, San Diego, 1 week, July 2001
 - ✓ GIS Access Workshop, Pierce College (NSF funded), 2 weeks, July 2000
 - ✓ 1.5 hr classes in ArcView 3.2, ArcView Internet Map Server (IMS), and Producing Quality Maps in ArcView, July 1999
 - ✓ Working w/ ArcView Image Analysis, July 1999, 16 hrs, ESRI (Redlands)
 - ✓ Spatial Analysis in GIS, July 1999, 8 hrs, Michael Goodchild, ESRI User's Conference, Preconference Seminar, San Diego
 - ✓ Working with ArcView 3-D Analyst, June 1999, 6 hrs, ESRI (Palomar CC)
 - ✓ Working w/ ArcView Spatial Analyst, May 1999, 24 hrs, ESRI (Redlands)
 - ✓ Advanced ArcView GIS, April 1999, 24 hrs, ESRI (Redlands)
 - ✓ Intermediate ArcView Training, June 1999, 8 hrs, North Orange County CCD (Glendora College)
 - ✓ Introduction to ArcView GIS, February 1999, 16 hrs, ESRI (Riverside CC)
 - ✓ ESRI User's Conference Instructor's Workshop, January 1998, 40 hrs, North Orange County CCD (San Bernardino Valley College)
- Field experience in California and Africa using integrated GPS-GIS technologies.

Experience in Cultural Resource Management

- Over 25 years experience in the field of archaeology and cultural resource management in California and the Western U.S.
- Principal, Professional Archaeological Services, 1996-present
- Director of Cultural Resources/Senior Principal Investigator at Chambers Group in Irvine, California, from 1985-1994.
- Principal and President of Professional Archaeological Services since 1994.

- Served as Principal Investigator and/or Project Manager on over 125 cultural resources projects since 1985, involving archival research, reconnaissance and intensive surveys, research designs, test excavations, data recovery excavations, cultural resource management plans, HABS/HAER documentation, the preparation of agreement documents (MOAs, PAs, Effects documents), Native American concerns, and Section 106 coordination.
- Experience in Southwestern archaeology under Professor James N. Hill of UCLA (ceramic typology, seriation, and M.A. thesis) and African archaeology (ethnoarchaeology, ethnography, Ph.D. on archaeology of traditional iron smelting in Togo, West Africa).

Section 106 (Federal) Experience

Section 106 experience as P.I. and/or Project Manager in inventory, evaluation, data recovery, historical archaeology, HABS/HAER documentation, the development of historic preservation plans, and agreement documents.

Major Inventory Work Includes:

- Small surveys for the San Diego City Water Department Associated with Barrett Lake and El Capitan Reservoir, 2004-2006
- Over 40 surveys of cellular telephone tower locations in southern California, 2000-2001
- 3,250-acre survey for the Trust for Public Lands, Rancho Jamul, San Diego County in Spring of 1998.
- 24 mile linear survey for the Lucerne Valley to Big Bear 115 kV Transmission Line Project In California for S.C.E. in 1992.
- 1500-acre survey for the BLM Ridgecrest Resource Area, 1989.
- literature search for 3,000 miles of proposed gas pipelines in the Western United States for the Mojave/Kern River Gas Pipeline Project for the Federal Energy Regulatory Commission and California State Lands Commission, 1986-1987.
- extended Phase I inventory and shovel test pit program for prehistoric sites, evaluation of historic structures, and determination of Native American concerns for ARCO's proposed Coal Oil Point Project in Santa Barbara County which ran from Goleta to Gaviota, 1985-1987.

Evaluation Experience Includes:

- testing of prehistoric archaeological site, INY-5887, 2001.
- testing of historical archaeological site in Desert Center, RIV-6513H, 2000.
- testing of two sites in the Imperial Valley, IMP-7804 and -7813H, near Westmorland and Coyote Wells, 2000.
- testing and evaluation of RIV-4707/H in Temecula, Riverside County, for Caltrans District 8, 1996-1997.

- testing and evaluation of nine sites in the Crowder Canyon Archaeological District, San Bernardino County, for Caltrans District 12, 1990-1997.
- testing & evaluation of prehistoric/historic sites associated with the Lucerne Valley to Big Bear 115 kV Transmission Line Project for S.C.E. in 1992.
- testing and evaluation of the Purisima Point sites, the Honda Beach Site, the Barka Slough Site, the Olivera Adobe Site, as well as 7 rock art sites at Vandenberg AFB for the National Park Service, 1992-1996.
- inventory and evaluation of historic archaeological sites and structures along the San Joaquin Hills Transportation Corridor in Orange County, 1993, for Caltrans District 12.
- testing and evaluation of SBR-5096 along Hwy 71 for Caltrans District 8, 1991-1992.
- testing and evaluation of 23 prehistoric sites along the San Joaquin Hills Transportation Corridor in Orange County, Caltrans District 12, 1988-1990.

Data Recovery Experience Includes:

- data recovery excavations at SBR-3803H in Crowder Canyon Archaeological District, 2005 (ongoing)
- data recovery excavations at ORA-1357 in the Aliso Creek drainage, 1993-1994, San Joaquin Hills Transportation Corridor, for Caltrans District 12.
- data recovery excavations at 5 sites for the San Joaquin Hills Transportation in Orange County for Caltrans District 12, 1993-1994.
- data recovery excavations at FRE-64, -632, -633, -1154, and -1155, for Caltrans District 6 and the U.S. Army Corps of Engineers, Sacramento District, 1987-1989.

Historical Archaeology Experience Includes:

- testing/evaluation of SDI-9537/H in Pauma Valley, 2005
- data recovery ORA-1532H in Huntington Beach, 2004 and 2005
- teach course in Historical Archaeology at Palomar College
- testing/evaluation of ORA-1582H, an historic dump (1900-1930), 2001.
- testing of historical archaeological site in Desert Center, RIV-6513H, 2000.
- testing of historical archaeological site, IMP-7928H, near Westmorland, 2001
- inventory and evaluation of Brown's Toll Road and a residence/way station associated with Crowder Canyon, for Caltrans District 8, 1997.
- testing and evaluation of RIV-4707/H in Temecula, a late 19th century trash deposit associated with a domestic residence, Pala Bridge Improvement Project, Riverside County Transportation Department with Caltrans District 12 review.
- inventory and evaluation/testing of historic homestead sites and historic transmission lines associated with the Rancho Las Flores Project, San Bernardino County for U.S. Army Corps of Engineers, 1990, 1994-1995.
- inventory and evaluation/testing of historic sites associated with the San Joaquin Hills Transportation Corridor for Caltrans District 12, 1992-1993.

- evaluation and testing of mid-to-late 19th century winery and homestead, lime and brick kilns, roads, and early 20th century cement and cobble building in Fontana, for U.S. Army Corps of Engineers, 1991-1992.
- evaluation (archival research and testing), data recovery, and preservation/interpretive efforts associated with the Franciscan Plaza Project, Phases I and II, San Juan Capistrano, 1988-1990 (2 volumes reprinted by Coyote Press, Salinas).

as well as the following selected projects done under CEQA:

- burial excavations at ORA-149
- data recovery ORA-149 and ORA-1582H in Huntington Beach, 2004-2006
- testing/evaluation of SDI-9537/H (prehistoric and historic components, 2005
- mitigation monitoring (SDI-195 and SDI-195/H), Gevanthor Residence, City of San Diego, 2004
- surveys at Cuyamaca Rancho State Park by Palomar College for California State Parks, 1996 (Arroyo Seco); 1998, 2000 & 2002 (Green Valley; 2004 (Horse Camp and Green Valley Campgrounds)
- data recovery at ORA-149 and ORA-1582/H, June-July 2004
- mitigation monitoring (SDI-15,093), City of San Diego, 2003
- 1416-acre survey west of Julian, County of San Diego, 2003
- testing at SDI-297 in Valley Center, County of San Diego, 2003
- testing at SDI-16951 in Valley Center, County of San Diego, 2003
- two 300 acre surveys in Menifee area of Riverside County, 2002-2003
- data recovery at SDI-5581, Palomar College, 2000-2002
- testing at prehistoric shell midden site, ORA-149, 2001
- testing of historical archaeological site, ORA-1582H, 2001
- evaluation of DiAmbrogio Winery, Cucamonga, San Bernardino County, 2001
- evaluation (testing) of SDI-15,093, Del Mar Terrace, City of San Diego, 1999
- evaluation (testing) of SDI-5745 and SDI-15,120 in Pine Valley, County of San Diego, 1999
- evaluation of historic structures in Pt. Loma and Del Mar, City of San Diego, 1998-1999, including designation of historic Portuguese fishing family residence the Historic Sites Board
- evaluation (testing) of SDI-47, Ocean Beach, City of San Diego, 1996
- evaluation (archival research and testing) of historic kiln site near Mission San Juan Capistrano, 1988-89 (project manager).
- evaluation (archival research and testing) and data recovery excavations of the foundations of the wall around the Mission gardens in San Juan Capistrano (Sizzler and Plaza del Obispo Projects), 1988-1989.
- evaluation (testing/archival research), data recovery, & interpretive efforts for the late-19th century Mile Square Park Site, Fountain Valley, 1987-89.

HABS/HAER Experience Includes:

- serving as P.I. for a HABS documentation of late 19th century-early 20th century structures in Fontana, San Bernardino County, 1990.
- serving as Project Manager for a major HAER documentation of a Ford Motor Assembly Plant at the Port of Long Beach, 1990-1991.

Cultural Resource Management Plans/Historic Preservation Plans:

- Historic Property Management Plan for the Lake Elsinore Advanced Storage Project (LEAPS) and associated 30 miles of transmission lines and substations. For Federal Energy Regulatory Commission (FERC) and Chambers Group, Inc. Submitted to SHPO, FERC, Cleveland National Forest (CNF), interested Indian Tribes (Federal and unrecognized). February 2005
- Cultural Resources Overview and Management Plan – for 120 sites within the Rancho Las Flores Project, San Bernardino County, 2004. Major revision and expansion of 1990 document. 400 pages.
- Cultural Resource Management Plan -- cultural resources overview, research design, and long-term cultural resource management plan for the 10,000-acre Rancho Las Flores Project, San Bernardino County. Covers 120 sites (lithic scatters, roasting pits, prehistoric camp sites, historic ranch and homestead sites, and large prehistoric/ethnohistoric housepit village sites). Several sites will be preserved in the proposed Serrano Heritage Preserve. 1990.
- work on Historic Preservation Plan for Vandenberg AFB, National Park Service, 1994.

Experience in Preparing Agreement Documents Includes:

- Programmatic Agreement (PA) for the 10,000-acre Rancho Las Flores Project, San Bernardino County, 1994-97, approved by SHPO & ACHP.
- PA for the Playa Vista Project near Marina del Rey, approved, 1991.
- Memorandum of Agreement (MOA), Hunter's Ridge Project, Fontana, 1993.
- all but historic building section of MOA for New Ford Road Project linked to San Joaquin Hills Transportation Corridor Project, Orange County, 1993-94.
- contributions to the development of an MOA for ARCO's proposed Coal Oil Point Project in Santa Barbara County, 1986-1987.
- Finding of Effect (FOE) for the San Joaquin Hills Transportation Corridor Project, 1992; also, for Phase I, Rancho Las Flores Project, 1994.

Experience in Assessing Damage to Archaeological Sites:

- Provided independent assessment of damage to archaeological sites within the Cleveland National Forest under the Archaeological Resource Protection Act (ARPA). This data was for a court case involving the looters.

Experience Working with Native Americans

- served as Chairperson of the SCA's Native American Programs Committee (NAPC) from 1992-1999:
 - ✓ symposia at Asilomar, 1993; Eureka, 1995; Rohnert Park 1997.
 - ✓ workshops for Salinan Nation, 1996; Pomo groups, 1998.
 - ✓ development of MiniSourcebook on CRM for California Indian groups, 1998; revised Sourcebook 1999
 - ✓ CRM workshop at annual SCA meeting, San Diego, 1998
 - ✓ Nov. 2004 – NAPC won the Governor's Heritage Conservation Award.
- featured archaeologist at conference sponsored by the Governor's Office on Community Relations and the California Native American Heritage Commission, July 1992; plus additional conferences.
- articles on Indian issues for Society for California Archaeology (SCA) Newsletter, Society for American Archaeology (SAA) Newsletter, Native American Heritage Commission Newsletter, News from Native California.
- worked with the Juaneño and Gabrielino of Los Angeles, Orange, and San Bernardino Counties; the Serrano and Cahuilla of Riverside and San Bernardino Counties; the Chumash of Santa Barbara and Ventura Counties, the Luiseño of Riverside and San Diego Counties, the Northfork Mono and Choinumne Yokuts of Fresno County, the Kumeyaay of San Diego County, 1985-1997, and the Salinans of Monterey County, 1985-1997.
- worked with Fort Mojave Indian Reservation, the Moapa Reservation of Nevada, and other Native American groups in Arizona, New Mexico, Wyoming, and Colorado, working on the Mojave/Kern River EIR/EIS, Cultural Resources Technical Report, 1986.
- work closely with Native American representatives from southern California on all phases of archaeological research, including research design, and have negotiated several complex burial agreements.

Summary of Work Under CEQA

In addition to the above, served as Project Manager and/or Principal Investigator on over 90 projects since 1985, including inventory, evaluation, and mitigation phases for both prehistoric and historic archaeological sites as well as historic buildings. Wrote guide booklet for cultural resources under CEQA entitled, ***A Guide to Cultural Resource Management for Planners, Developers, Contractors, and Property Owners*** (with Carmen Weber), March 1993, revised 1999. Chambers Group, Irvine. Over 2,000 distributed statewide.

Selected Refereed Publications

- 2006 Steatite Sourcing and Steatite Production and Exchange in the Southern Sierra Foothills. To be resubmitted to the ***Journal of California and Great Basin Anthropology*** (with R.O. Allen and M. Lockhart) (to be submitted)

- 2005 Surprising Results at the Early Iron Site of Dekpassanware, Togo, West Africa. *Backdirt*. Spring/Summer. Cotsen Institute of Archaeology at UCLA .
- 2003 Recent Early Iron Age Research in Bassar, Togo. *Nyame Akuma* 59:76-78.
- 2001 The Effect of the Slave Trade on the Bassar Ironworking Society, Togo In *West Africa During the Atlantic Slave Trade: Archaeological Perspectives*, edited by C. De Corse, pp. 59-80. Leicester University Press, London.
- 2000 Iron Metallurgy: Sociocultural Context. In *Ancient African Metallurgy: The Socio-Cultural Context*, edited by J.O. Vogel, pp. 147-198. AltaMira Press, Walnut Creek, California
- 1999 ***A Sourcebook on Cultural Resource Management, Archaeology, and Cultural Heritage Values for the Native American Communities of California.*** Society for California Archaeology[author & compiler]
- 1998 ***A MiniSourcebook on Cultural Resource Management, Archaeology, and Cultural Heritage Values for the Native American Communities of California.*** Society for California Archaeology. [author and compiler]
- 1997a The Cultural Context of Ironworking. In *Encyclopedia of Precolonial Africa: Archaeology, History, Languages, Cultures, and Environments*, edited by J. Vogel, pp. 135-149. AltaMira Press, Walnut Creek, California.
- 1997b ***Archaeological Investigations at Franciscan Plaza, San Juan Capistrano***, 2 vols. Chambers Group, Santa Ana, CA. Prepared for Redevelopment Agency City of San Juan Capistrano & Franciscan Plaza Investment Group. Reprinted by Coyote Press, Salinas.
- 1993 ***A Guide to Cultural Resource Management for Planners, Developers, Contractors, and Property Owners.*** Chambers Group, Irvine, California (with Carmen Weber).
- 1990 A History of Changing Paradigms, Goals, and Methods in the Archaeology of Francophone West Africa. In *The History of African Archaeology*, edited by P. Robertshaw, pp. 155-172. James Currey, London.

- 1988 Societal Repercussions of the Rise of Large-Scale Traditional Iron Production: a West African Example. *The African Archaeological Review* 6:91-113.
- 1986 Bassar: A Quantified, Chronologically Controlled, Regional Study of a Traditional Ironworking Centre. *Africa* 56(2):148-174.
- 1982 The Effects of Variable Site Occupation Span on the Results of Frequency Seriation. *American Antiquity* 47:291-315.
- 1980 Report on Archaeological Investigations Completed in 1979 on the Santa Fe National Forest by the Pajarito Archaeological Research Project, for the USDA Forest Service, Southwestern Region.

Conference Papers and Symposia

- delivered well over two dozen conference papers for various meetings of the AAA, SAA, SCA, ASA, SAfA, CMSA, and other societies, 1980-2006.
- Most recent papers given at SAfA in Calgary and SAA in Puerto Rico 2006
- organized/chaired symposia on CRM research, Communication Between Native Americans and Archaeologists, and Research at Vandenberg AFB, at various forums, including the SCA and SAA, 1992-1998.
- organized workshop on CRM law for Salinan Nation, Monterey County, 1996.

Professional Affiliations

Society for Professional Archaeologists (SOPA), 1987-1998
 Register of Professional Archaeologists (RPA), 1998-2006
 Society for American Archaeology (SAA), 1977-1985, 1988-2006
 American Anthropological Association (AAA), 1981-1994, 2006
 Society for California Archaeology (SCA), 1987-2006
 Pacific Coast Archaeological Society (PCAS), 1977-1980, 1988-2006
 Society for Conservation Archaeology (SfCA), 1988-1990
 California Mission Studies Association (CMSA), 1989-1990
 Society for Historical Archaeology (SHA), 1990-1992
 Society for Africanist Archaeologists (SAfA), 1992, 2003-2006

Selected Honors and Awards

Governor's Heritage Award, 2004, for Native American Programs Committee, committee that I founded and led from 1992-1999.
 Palomar College Research Award, 2001
 Professorial Fulbright Scholar Award, African Regional Research Program, 2001-2002 – research in Togo West Africa, Jan-July 2002

Commendation Award from Society for California Archaeology for Work as
Native American Programs Committee Chair, 1992-1999
Ahmanson Research Grant, UCLA, 1999
NISOD Teaching Excellence Award, 1998
Palomar College Research Award, 1997
Computer Equipment Grant for Palomar Archaeology Program, 1995
Wenner-Gren Foundation Grant, Togo, West Africa, 1988-1989.
Fulbright Grant - Doctoral Dissertation Research Abroad, 1982.
Teaching Assistant, UCLA, Anthropology Department, 1979-1980.
Research Assistant, UCLA, Pajarito Archaeological Research Project, 1978-80.

Areas of Expertise

- Cultural Resource Management/Section 106
- Prehistoric Hunter-Gatherers of Southern California
- Southern California Historic Archaeology
- Puebloan Cultures of the American Southwest
- Iron Age Cultures of SubSaharan Africa
- Ceramic Typology, Seriation, and Analysis
- Steatite Sourcing in California
- Settlement-Subsistence Patterns in Southern California
- Software: Windows XP; MS Office 2003: Word, Excel, Access, and Front Page web editor; e-mail and Internet
- GPS Trimble Pathfinder
- Geographic Information Systems (GIS), ArcView 3.2, Spatial and Image Analyst Extensions, ArcView IMS; ArcGIS 8.3.

References

CRM/Section 106/CEQA

Barbara Tejada, Stephen Hammond
Caltrans District 8
909-383-5950
barbara_tejada@dot.ca.gov

Laurie Dobson
Riverside County Trans. Dept.
909-275-2016

Mark Thompson, Thure Stedt
TRS Consultants
7867 Convoy Court, Ste 312
San Diego, 92111
858-496-2525

Glenn Russell
San Diego County Archaeologist
858-694-2981
glenn.russell@sdcounty.ca.gov

Margaret Hangan
U.S. Forest Service, Cleveland National Forest
858-674-2973
mhangan@fs.fed.us

Gail Wright
Dept. of Planning & Land Use
858-694-3003
gail.wright@sdcounty.ca.gov

Martin Rosen, Caltrans
District 11
619-688-6751

Steve Dibble, COE
Los Angeles District
213-452-3849

Tom Taylor
Southern California Edison
818-302-9540

Ethen Thacher
Makar Properties
949-255-1100 x 109
714-914-5616 (cell)
ethent@makarproperties.com

Mary Beth Broeren, City Planner
City of Huntington Beach
714-536-5550
broerenm@surfcity-hb.org

Experience with Native Americans

Larry Myers, Executive Secretary
Native American Heritage Commission
Sacramento 916-653-4082

Joyce Perry, David Belardes
Juaneño Band of Mission Indians
714-493-4933

Academic

Dr. Merrick Posnansky, Prof. Emeritus
Professor of History and Archaeology, Emeritus
UCLA 818-986-1381

Larry Spanne, BHPO
Vandenberg AFB
805-732-8232 x50748

Laura Eisenberg
Transportation Corridor Agencies
949-513-3482, -3481

Cliff Hood
Rancho Las Flores, LLC
949-248-2300, x202

Stephen Bouscaren, Ph.D.
San Diego City College
619-271-9139; 230-2609

Katherine Saubel
NAHC 909-849-8304

Gregg Castro
Salinan Nation
408-218-4459

Dr. Joe Vogel, retired
Anth Dept., Univ. of Alabama
707-642-5972

APPENDIX B

PROOF OF RECORDS SEARCH



South Coastal Information Center
College of Arts and Letters
4283 El Cajon Blvd., Suite 250
San Diego CA 92105
TEL: 619 • 594 • 5682

CALIFORNIA HISTORICAL RESOURCES INFORMATION SYSTEM SITE FILES RECORD SEARCH

Company: Professional Archaeological Services
Company Representative: Philip de Barros, Ph.D.
Date of Request: 10/13/2006
Date Processed: 10/13/2006
Project Identification: 50 Acre Survey in Borrego Palm Canyon
Search Radius: 1 mile

Historical Resource(s): SELF **Date:** 10/13/2006

Trinomial (CA-SDI) and Primary (P-37) site maps have been reviewed. All sites within the project boundaries and the specified radius of the project area have been plotted. Copies of the site record forms have been included for all recorded sites.

Previous Archaeological Project Boundarie(s): SELF **Date:** 10/13/2006

Project boundary maps have been reviewed. National Archaeological Database (NADB) citations for reports within the project boundaries and within the specified radius of the project area have been included.

Historic Map(s): SELF **Date:** 10/13/2006

The historic maps on file at the South Coastal Information Center have been reviewed, and copies have been included.

Historic Address(es): SELF **Date:** 10/13/2006

A map and database of historic addresses (formerly Geofinder) has been included.

HOURS: 1

COPIES: 71

RUSH: No

This is not an invoice. Please pay from the monthly Billing Statement.

APPENDIX C

NATIVE AMERICAN REPORT

by

Carmen Lucas

CARMEN LUCAS
FOURTH
P.O. Valley Center, CA 92080

8 January 2007

Phil Debaros Ph., D.
13730 Via Cima Bella
San Diego, California 92129

Reference: Fieldwork, Anza Borrego, on 22 October 2006

Enclosure (1) Photographs taken by Native American Monitor

Dear Phil,

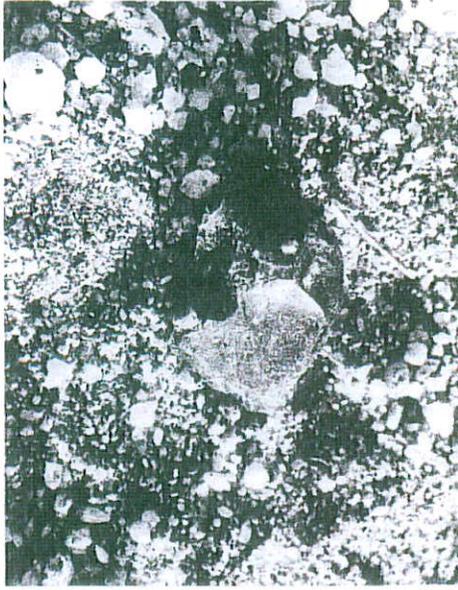
Enclosure (1) reflects what was discovered during the foot survey we conducted on the 22nd of October 2006. As you know there were a number of items, which represent prehistory, such as Obsidian, potsherds, and a few curious rock formations. Unfortunately this property also has the remnants from impacts of modern civilization. See enclosure (1).

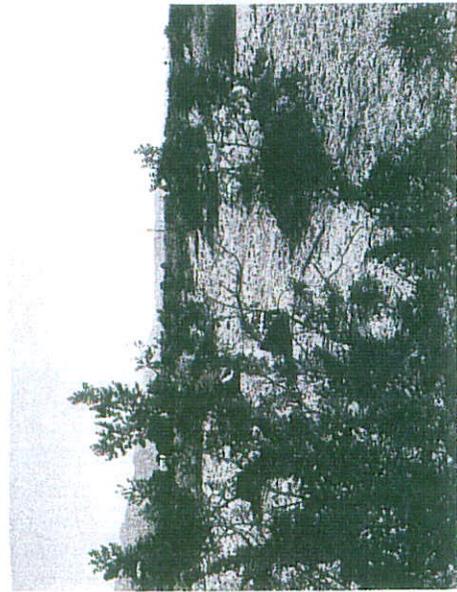
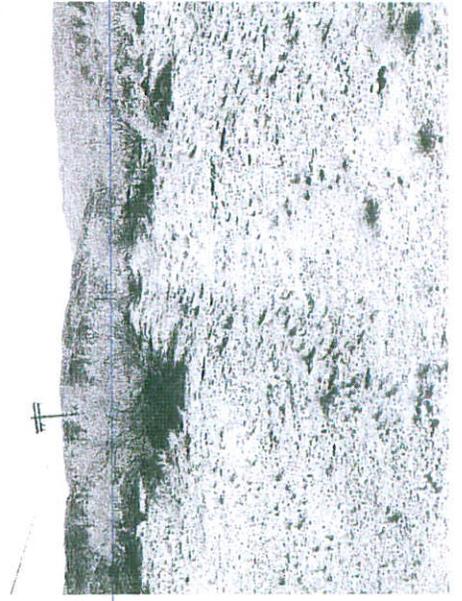
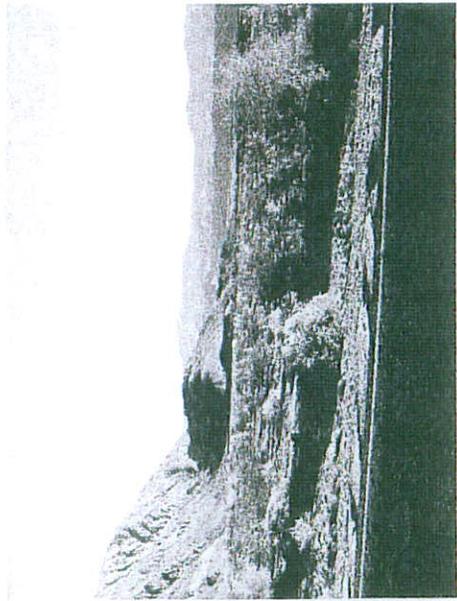
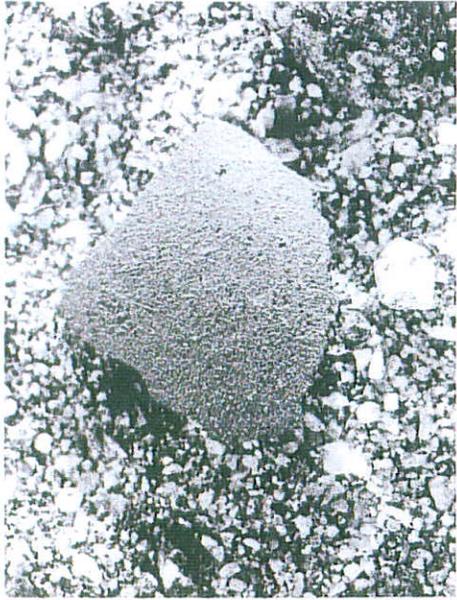
If my memory serves me it seems that the deposit of prehistory was somewhat extinctive. Should this property be developed I would recommend a more thorough "look see", and or testing be conducted prior to any ground disturbance.

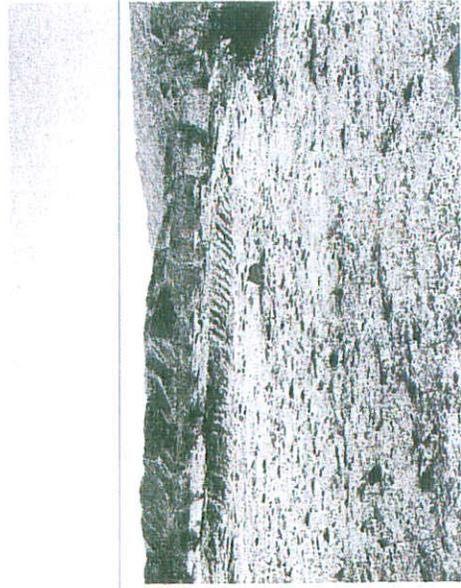
Thank you for the opportunity to work with you again,

Sincerely,


CARMEN LUCAS
Kwaaymii, Laguna, California







APPENDIX II

**Confidential Appendices
from the PAS 2007 Survey Report**

(Confidential Appendix; deleted for public review)

APPENDIX III

Artifact Catalogs

Historic Sites SDI-18,269 and SDI-18,272

Prehistoric Sites SDI-18,266, SDI-18,268 and SDI-18,269

**Appendix III
Historic Artifact Catalog for Sites SDI-18,269 and SDI-18,272 at TM 5511**

Site # (CA-SDI)	Catalog #	Discovery Location	Discovery Number	Depth (cm)	Material Class	Material Type	Functional Category	Artifact Class	Artifact Type	Artifact Subtype	Artifact Final	Manufacturing Method	Shape Closure	Body General	Base	Relative Dimension	Decoration Color Glaze	Quantity	Weight (grams)	Portion Of Artifact	Portion Elaborate	Makers Mark	Brand Product	Final Date	Date Source	Reference
18,269	1	Surface			Glass	Colorless	Domestic Expendable	Bottle	Beverage (Non-Alcoholic)	Milk (milkerturant)	Bottle, fragment(s)	Machine made (1905-1910+)		Cylindrical			Applied color label (1934+)	1	48.6	body	Five pieces refit into fragment		Label says: "VAN NEYS QUALITY DAIRY...HOLLYWO OD..."	1934+	Decoration type	BLM
18,269	2	Surface			Glass	Amber	Domestic Expendable	Caps/ Lids/ Closures/ Accessories	Stopper		Stopper, whole							1	20.5	whole						
18,272	1	Surface			Glass	Colorless	Domestic Expendable	Jar	Beverage (Non-Alcoholic)	Coffee	Jar, whole	Machine made (1905-1910+)	Wide mouth, external thread finish	Cylindrical	Round	6.15"	Stippling on base (1940+)	1	250.9	whole		Embossed: "Froger's" on base; J. A. Folger & Co. (1872+)			BLM	
18,272	2	Surface			Glass	Amber	Domestic Expendable	Bottle	Liquor/ Spirits		Bottle, almost complete	Machine made (1905-1910+)	Small mouth, external thread finish	Cylindrical	Round	11"	Stippling on base (1940+)	1	508.4	almost complete	Two piece refit into one almost complete bottle	Embossed: "FEDERAL LAW FORBIDES SALE OF THIS BOTTLE / ONE QUART" (1935-1960s)	1940-1960's	Decoration type and federal law	BLM	
18,272	3	Surface			Glass	Colorless	Domestic Expendable	Bottle	Liquor/ Spirits		Bottle, almost complete	Machine made (1905-1910+)	Small mouth, external thread finish	Cylindrical	Round	11"	Stippling on base (1940+)	1	448.6	almost complete		Embossed: "101 / O-1 / 59 / D-28 / 4A" on base; Owens-Illinois Glass Co.; mark dates (1954/1959+); unknown plant and manufacture date (1959)	"FEDERAL LAW FORBIDES SALE OR RE-USE OF THIS BOTTLE / ONE QUART" (1935-1960s)	1959	Makers mark	Lockhart
18,272	4	Surface			Glass	Colorless	Domestic Expendable	Jar	Food/ Cooking		Jar, whole	Machine made (1905-1910+)	Wide mouth, external thread finish	Cylindrical	Round	7.45"	Stippling on base (1940+)	1	67.7	whole				1940+	BLM	
18,272	5	Surface			Ceramic	Porcelain	Domestic Non-Expendable	Ceramics	Tableware	Cup	Tableware, fragment(s)						Stenciled, polychrome, floral motif, underglaze	1	39	rim						
18,272	6	Surface			Glass	Colorless	Domestic Non-Expendable	Glassware	Tableware	Glass	Tableware, fragment(s)							1	178.3	base						
18,272	7	Surface			Glass	Amber	Personal	Possessions	Smoking	Ashtray	Ashtray, fragment(s)							1	178.3	fragment(s)						
18,272	8	Test Unit		0-10	Metal	Aluminum	Domestic General	Furnishings	Washing/ Cleaning	Mop	Mop, fragment(s)	Machine made (1905-1910+)						2	63	fragment(s)	Mop head fragment(s)	Embossed: "Merry Mop / PAT. PEND. / CORCORAN MFG. CO. / LONG BEACH, CA"				
18,272	9	Test Unit		0-10	Metal	Tin	Domestic Expendable	Canned Goods	Unknown		Can, fragment(s)		Church key opening (1935+)	Cylindrical	Round			1	14.2	fragment(s)	Top and part of side			1935+		
18,272	10	Test Unit		0-10	Glass	Various	Domestic Expendable	Bottle/Jar	Unknown		Bottle/Jar, fragment(s)	Machine made (1905-1910+)					Applied color label (1934+)	9	55.8	body				1934+	BLM	
18,272	11	Test Unit		0-10	Glass	Colorless	Domestic Expendable	Jar	Unknown		Jar, finish	Machine made (1905-1910+)	Threaded, lug (ca. 1900+)	Cylindrical	Round			1	46.2	finish	Two fragments refit into same finish			ca. 1930+	Closure type	BLM
18,272	12	Test Unit		0-10	Glass	Green	Domestic Expendable	Bottle	Unknown		Bottle, base made (1905-1910+)	Machine made (1905-1910+)		Cylindrical	Round			1	16.7	base		Embossed letters on base, uncreadable		1905-1910+	Manufacture method	BLM
18,272	13	Test Unit		0-10	Glass	Colorless	Domestic Expendable	Bottle	Unknown		Bottle, finish	Machine made (1905-1910+)	Crown finish					2	37.3	finish				1905-1910+	Manufacture method	BLM
18,272	14	Test Unit		0-10	Glass	Colorless	Domestic Expendable	Bottle/Jar	Unknown		Bottle/Jar, base	Machine made (1905-1910+)					Stippling on base (1940+)	3	11.9	base				1940+	Decoration type	BLM

Appendix III
Historic Artifact Catalog for Sites SDI-18,269 and SDI-18,272 at TM 5511

Site # (CA-SDI)	Catalog #	Discovery Location	Discovery Number	Depth (cm)	Material Class	Material Type	Functional Category	Artifact Class	Artifact Type	Artifact Subtype	Artifact Final	Manufacturing Method	Shape Closure	Body General	Base	Relative Dimension	Decoration Color Glaze	Quantity	Weight (grams)	Portion Of Artifact	Portion Elaborate	Makers Mark	Brand Product	Final Date	Date Source	Reference
18,272	15	Test Unit	1	0-10	Glass	Colorless	Domestic Expendable	Bottle	Unknown		Bottle, base made (1905-1910+)	Machine made (1905-1910+)						1	2.5	base			Embossed: "NO DEPOSIT NO RETURNS" dates (1939+)	1939+	Brand product	BLM
18,272	16	Test Unit	1	0-10	Glass	Colorless	Domestic Expendable	Bottle/Jar	Unknown		Bottle/Jar, base (1910+)	Machine made (1905-1910+)		Cylindrical	Round		Stippling on base (1940+)	1	43.4	base		Embossed: "3 FF 1710" on base, Foster-Forbes Glass Co., various locations (1942-c.2000)		1942-c.2000	Makers' mark	MyInsulators.com
18,272	17	Test Unit	1	0-10	Glass	Colorless	Domestic Expendable	Bottle/Jar	Unknown		Bottle/Jar, base (1910+)	Machine made (1905-1910+)		Cylindrical	Round		Stippling on base (1940+)	1	28.1	base		Embossed: "3 FF 1710" on base, Foster-Forbes Glass Co., various locations (1942-c.2000)		1942-c.2000	Makers' mark	MyInsulators.com
18,272	18	Test Unit	1	0-10	Glass	Amber	Domestic Expendable	Bottle	Liquor/Spirits		Bottle, base made (1905-1910+)	Machine made (1905-1910+)		Cylindrical	Round		Stippling on base (1940+)	1	17.5	base		Embossed: "FEDERAL LAW FORBIDES SALE OR RE-USE OF THIS BOTTLE" dates (1935-1960's)	1940-1960's	Decoration type and makers' mark	BLM	
18,272	19	Test Unit	1	0-10	Glass	Colorless	Domestic Expendable	Bottle	Unknown		Bottle, base made (1905-1910+)	Machine made (1905-1910+)		Cylindrical	Round		Stippling on base (1940+)	1	17.6	base		Embossed: "NO DEPOSIT NO RETURNS TO BE REFILLED" dates (1939+)	1940+	Decoration type	BLM	
18,272	20	Test Unit	1	0-10	Glass	Light Green	Domestic Expendable	Bottle	Beverage (Non-Alcoholic)	Soda	Bottle, fragment(s)	Machine made (1905-1910+)		"Hobble-skirt" shape, Coca Cola (1923+)	Round			1	44.7	body			Embossed: "(Coca-Cola) REGISTERED / 6 FL. OZS."	1923+	Body general	Patent Office
18,272	21	Test Unit	1	0-10	Glass	Amber	Domestic Expendable	Bottle	Unknown		Bottle, base made (1905-1910+)	Machine made (1905-1910+)		Cylindrical	Round		Stippling on base (1940+)	1	14.8	base		Embossed: "AW" in oval on base	1940+	Decoration type	BLM	
18,272	22	Test Unit	1	0-10	Glass	Amber	Domestic Expendable	Bottle	Unknown		Bottle, base made (1905-1910+)	Machine made (1905-1910+)		Cylindrical	Round		Stippling on base (1940+)	1	17.3	base		Embossed: "AW" in oval on base	1940+	Decoration type	BLM	
18,272	23	Test Unit	1	0-10	Glass	Amber	Domestic Expendable	Bottle	Unknown		Bottle, base made (1905-1910+)	Machine made (1905-1910+)		Cylindrical	Round		Stippling on base (1940+)	1	11.5	base		Embossed: "NO DEPOSIT NO RETURNS NOT TO BE REFILLED" on base; dates (1939+)	1940+	Decoration type	BLM	
18,272	24	Test Unit	1	0-10	Glass	Amber	Domestic Expendable	Bottle	Unknown		Bottle, base made (1905-1910+)	Machine made (1905-1910+)		Cylindrical	Round			1	62.1	base		Embossed: "64 L / D-963" 352-8" on base	1905-1910+	Manufacture method	BLM	
18,272	27	Test Unit	1	10-20	Glass	Various	Domestic Expendable	Bottle/Jar	Unknown		Bottle/Jar, fragment(s)	Machine made (1905-1910+)					applied color label (1934+)	4	8.7	fragment(s)				1934+	Decoration type	BLM
18,272	26	Test Unit	1	0-10	Metal	Nickel alloy	Personal	Adornment	Jewelry	Ring	Ring, almost complete							1	8.1	almost complete	Complete metal part of ring with a broken centerpiece of unknown material					
18,272	28	Test Unit	1	10-20	Glass	Colorless	Domestic Expendable	Bottle	Liquor/Spirits		Bottle, fragment(s)	Machine made (1905-1910+)						1	5.3	body		Embossed: "FEDERAL LAW FORBIDS SALE OR RE-USE OF THIS BOTTLE" dates (1935-1960's)	1935-1960's	Brand product	BLM	

**Appendix III
Historic Artifact Catalog for Sites SDI-18,269 and SDI-18,272 at TM 5511**

Site # (CA-SDI)	Catalog #	Discovery Location	Discovery Number	Depth (cm)	Material Class	Material Type	Functional Category	Artifact Class	Artifact Type	Artifact Subtype	Artifact Final	Manufacturing Method	Shape Closure	Body General	Base	Relative Dimension	Decoration Color Glaze	Quantity	Weight (grams)	Portion Of Artifact	Portion Elaborate	Makers Mark	Brand Product	Final Date	Date Source	Reference	
18,272	29	Test Unit	1	10-20	Glass	Colorless	Domestic Expendable	Bottle/Jar	Unknown		Bottle/Jar, base	Machine made (1905-1910+)					Stippling on base (1940+)	1	5.5	base				1940+	Decoration type	BLM	
18,272	30	Test Unit	1	10-20	Glass	Colorless	Domestic Expendable	Bottle	Unknown		Bottle, finish	Machine made (1905-1910+)	Crown finish					2	5.5	finish				1905-1910+	Manufacture method	BLM	
18,272	31	Test Unit	1	10-20	Glass	Light Green	Domestic Expendable	Bottle	Beverage (Non-Alcoholic)	Soda	Bottle, fragment(s)	Machine made (1905-1910+)		"Hobble-skirt" shape, Coca Cola (1923+)	Round			1	19.8	body			Embossed: "Coca-Cola" / "MARK... PATENT..."	1923+	Body general	Patent Office	
18,272	32	Test Unit	1	10-20	Glass	Colorless	Domestic Expendable	Bottle	Unknown		Bottle, base	Machine made (1905-1910+)		Cylindrical	Round			1	209.6	base	Four fragments refit into the same base	Embossed: "O-I / 57 D-10 / 54-38" diamond on base; Owens-Illinois Glass Co., mark dates (1929-1954-1959)	Embossed: "ONE HALF GALLON"	1929-1954-1959	Marker's mark	Lockhart	
18,272	33	Test Unit	1	10-20	Ceramic	Porcelain	Domestic Non-Expendable	Ceramics	Tableware	Cup	Tableware, fragment(s)						Clear, colorless glaze	1	36.8	base w/ footring		Stamped with black ink on base: "JACKSON CHINA / FALLS CREEK, PA." dates (1917-1976)		1917-1976	Maker's mark	Lehner	
18,272	34	Test Unit	1	10-20	Metal	Copper alloy	Domestic Non-Expendable	Flatware	Fork		Flatware fork, whole							1	42.2	whole							
18,272	25	Test Unit	1	0-10	Bone	Animal	Ecofact	Bone			Bulk bone, fragment(s)								8.7	fragment (s)							
18,272	35	Test Unit	1	20-30	Glass	Colorless	Domestic Expendable	Bottle	Liquor/ Spirits		Bottle, whole	Machine made (1905-1910+)	Branly finish	Cylindrical	Round	11 3/10"		1	588.1	whole			Embossed: "18 / LOU-D-2 / 57 / GC" on base; Glass Company, Inc. (1933-1988)	Embossed: "FEDERAL LAW FORBIDS SELLING REUSE OF THIS BOTTLE" shoulder (1935-1960s)	1935-1960s	Brand product	My Insulators.com and BLM
18,272	36	Test Unit	1	20-30	Glass	Colorless	Domestic Expendable	Bottle	Unknown		Bottle, whole	Machine made (1905-1910+)	Small mouth, external thread finish	Cone	Round	4 1/2"		1	82.1	whole			Embossed: "5" on base		1905-1910+	Manufacture method	BLM
18,272	37	Test Unit	1	20-30	Glass	Colorless	Domestic Expendable	Bottle	Unknown		Bottle, whole	Machine made (1905-1910+)	Small mouth, external thread finish	Cylindrical	Round	5 1/2"	Stippling on base (1940+)	1	167.1	whole			Embossed: "N 77" in mirror on base; Obese Sester Glass Co., East St. Louis, IL (1915-1980)	Partial paper label says "ECONOMICS LABORATORY..." Economics Laboratory, Inc. (1923-1986)	1923-1980	Maker's mark and brand product	My Insulators.com and www.ecolab.com
18,272	38	Test Unit	1	20-30	Glass	Colorless	Domestic Expendable	Jar	Unknown		Jar, whole	Machine made (1905-1910+)	Small mouth, external thread finish	Cylindrical	Round	2"		1	56.2	whole			Embossed: "10" on base		1905-1910+	Manufacture method	BLM
18,272	39	Test Unit	1	20-30	Glass	Colorless	Domestic Expendable	Bottle	Grooming/ Hygiene	Cologne/ Perfume	Bottle, whole	Machine made (1905-1910+)	Small mouth, external thread finish	Oval	Oval	1 7/10"		1	12.6	whole			Embossed: "10-13" on base		1905-1910+	Manufacture method	BLM
18,272	40	Test Unit	1	20-30	Glass	Colorless	Domestic Expendable	Bottle/Jar	Unknown		Bottle, base	Machine made (1905-1910+)		Cylindrical	Round		Stippling on base (1940+)	1	37.9	base					1940+	Decoration type	BLM
18,272	41	Test Unit	1	20-30	Glass	Light Green	Domestic Expendable	Bottle	Beverage (Non-Alcoholic)	Soda	Bottle, fragment(s)	Machine made (1905-1910+)		"Hobble-skirt" shape, Coca Cola (1923+)	Round			1	19.9	body					1923+	Body general	Patent Office

**Appendix III
Historic Artifact Catalog for Sites SDI-18,269 and SDI-18,272 at TM 5511**

Site # (CA-SDI)	Catalog #	Discovery Location	Discovery Number	Depth (cm)	Material Class	Material Type	Functional Category	Artifact Class	Artifact Type	Artifact Subtype	Artifact Final	Manufacturing Method	Shape Closure	Body General	Base	Relative Dimension	Decoration Color Glaze	Quantity	Weight (grams)	Portion Of Artifact	Portion Elaborate	Makers Mark	Brand Product	Final Date	Date Source	Reference	
18,272	42	Test Unit	1	20-30	Glass	Colorless	Domestic Expendable	Bottle	Unknown		Bottle, fragment(s)	Machine made (1905-1910+)					Applied color label (1934+)	3	6.7	body				1934+	Decoration type	BLM	
18,272	43	Test Unit	1	20-30	Glass	Colorless	Domestic Expendable	Bottle	Unknown		Bottle, whole	Machine made (1905-1910+)	Small mouth, external thread finish	Ovoid with two flat sides	Solar-mander Oval	2.45"	Stippling on base (1940+)	1	41.1	whole	Whole bottle with intact metal screw on cap	Embossed: "2 / O-1 / 6 or 8 / 4" on base; mark dates (1954/1959+), from Fairmount, WV (1950+) and a manufacture date of (1956/1958)		1956-1958	Decoration type	BLM	
18,272	44	Test Unit	1	20-30	Glass	Colorless	Domestic Expendable	Bottle/Jar	Unknown		Bottle/Jar, finish	Machine made (1905-1910+)	Wide mouth, external thread finish					1	20.3	finish				1905-1910+	Manufacture method	BLM	
18,272	45	Test Unit	1	20-30	Glass	Green	Domestic Expendable	Bottle	Unknown		Bottle, base	Machine made (1905-1910+)		Cylindrical	Round		Stippling on base (1940+)	1	49.1	base		Embossed: "...8'...A / ...22'W" on base		1940+	Decoration type	BLM	
18,272	46	Test Unit	1	20-30	Glass	Colorless	Domestic Expendable	Bottle	Grooming/Hygiene	Cologne/Perfume	Bottle, whole	Machine made (1905-1910+)	Small mouth, external thread finish	Ovoid	Excelsior	2.25"		1	19.8	whole		Embossed: "PATD 112708 / 1" on base; patent date (Dec. 27, 1938)		Dec. 27, 1938+	Patent date	Patent Office	
18,272	47	Test Unit	1	20-30	Glass	Colorless	Domestic Expendable	Bottle	Unknown		Bottle, base	Machine made (1905-1910+)		Octagonal	Round			1	71.8	base		Embossed: "23 / O-1 / 8 / 3-B / 1136-2P" on base; Owens-Illinois Glass Co., mark dates (1954/1959+), from Los Angeles plant (1949+), and manufacture date (1958+)		1958+	Makers mark	Lockhart	
18,272	48	Test Unit	1	20-30	Glass	Colorless	Domestic Expendable	Bottle	Unknown		Bottle, finish	Machine made (1905-1910+)	Small mouth, external thread finish					1	77.3	finish	Finish with complete metal screw top cap			1905-1910+	Manufacture method	BLM	
18,272	49	Test Unit	1	20-30	Glass	Colorless	Domestic Expendable	Jar	Unknown		Jar, finish	Machine made (1905-1910+)	Wide mouth, no external thread finish					4	26.1	finish				1905-1910+	Manufacture method	BLM	
18,272	50	Test Unit	1	20-30	Glass	Various	Domestic Expendable	Bottle	Unknown		Bottle, fragment(s)	Machine made (1905-1910+)						2	20.8	body			Embossed: "NO DEPOSIT NO RETURN / NOT TO BE REFILLED" dates (1939+)		1939+	Brand product	BLM
18,272	51	Test Unit	1	20-30	Glass	Colorless	Domestic Expendable	Bottle/Jar	Unknown		Bottle/Jar, base	Machine made (1905-1910+)		Cylindrical	Round		Stippling on base (1940+)	1	96.9	base	Base with a large amount of body; three fragments that refit into one	Embossed: "8 / O-1 / 7 / 1" on base; Owens-Illinois Glass (1954/1959+), from New Orleans plant (1962+), and manufacture date (1967+)		1967+	Makers mark	BLM	
18,272	52	Test Unit	1	20-30	Bone	Animal	Ecofact	Bone			Bulk bone, fragment(s)								10.3	fragment(s)							
18,272	53	Test Unit	1	20-30	Metal	Copper alloy	Domestic Non-Expendable	Flatware	Spoon		Flatware spoon, whole								1	28.9	whole						
18,272	54	Test Unit	1	20-30	Glass	Green	Recreation	Toys/Games	Marble	Glass, machine made (c. 1901+)	Marble, whole								1	4.8	whole			c. 1901+	Manufacture method	Randall	

**Appendix III
Historic Artifact Catalog for Sites SDI-18,269 and SDI-18,272 at TM 5511**

Site # (CA-SDI)	Catalog #	Discovery Location	Discovery Number	Depth (cm)	Material Class	Material Type	Functional Category	Artifact Class	Artifact Type	Artifact Subtype	Artifact Final	Manufacturing Method	Shape Closure	Body General	Base	Relative Dimension	Decoration Color Glaze	Quantity	Weight (grams)	Portion Of Artifact	Portion Elaborate	Makers Mark	Brand Product	Final Date	Date Source	Reference
18,272	55	Test Unit	1	30-40	Glass	Amber	Domestic Expendable	Bottle	Liquor/Spirits			Machine made (1905-1910+)						1	3.7	body			Embossed: "FEDERAL LAW FORBIDES SALE OR RE-USE OF THIS BOTTLE" dates (1935-1960s)	1935-1960's	Brand product	BLM
18,272	56	Test Unit	1	30-40	Glass	Colorless	Domestic Expendable	Bottle	Unknown			Machine made (1905-1910+)		Cylindrical	Round			1	32.4	base			Embossed: "2 / O-1 / Owens-Illinois Glass Co.; mark dates (1954-1959+) from the Fairmont, WV plant (1900+) and a manufacture date of (1958+)	1958+	Makers mark	Lockhart
18,272	57	Test Unit	1	30-40	Glass	Colorless	Domestic Expendable	Bottle	Unknown			Machine made (1905-1910+)						1	94.2	body			Embossed: "NO DEPOSIT NO RETURN / NOT TO BE REFILLED" dates (1939+)	1939+	Brand product	BLM
18,272	58	Test Unit	1	30-40	Glass	Light Green	Domestic Expendable	Bottle	Beverage (Non-Alcoholic)	Soda		Machine made (1905-1910+)		"Hobble-skirt" shape; Coca (1923+)				1	14.4	body				1923+	Body general	Patent Office
18,272	59	Test Unit	1	30-40	Glass	Green	Domestic Expendable	Bottle	Unknown			Machine made (1905-1910+)		Cylindrical	Round			1	39.8	base			Embossed: "20 / O-1 / Owens-Illinois Glass Co.; mark dates (1954-1959+) from the Oakland plant (1946+) with an unknown manufacture date	1954-1959+	Makers mark	Lockhart
18,272	60	Test Unit	1	30-40	Glass	Colorless	Domestic Expendable	Bottle	Unknown			Machine made (1905-1910+)						1	1.8	body			Embossed: "NO DEPOSIT NO RETURN / NOT TO BE REFILLED" dates (1939+)	1939+	Brand product	BLM
18,272	61	Test Unit	1	30-40	Glass	Colorless	Domestic Expendable	Bottle	Unknown			Machine made (1905-1910+)					Applied color label (1934+)	6	2	body				1934+	Decoration type	BLM
18,272	62	Test Unit	1	30-40	Glass	Colorless	Domestic Expendable	Bottle	Grooming/Hygiene	Hair care		Machine made (1905-1910+)					Shipping on base (1940+)	1	56.1	base	Two fragments refit into same base		Embossed: "Caryl Richards" in cursive on the base; Caryl Richards hair care (c. 1930s+)	1940+	Decoration type	BLM
18,272	63	Test Unit	1	30-40	Glass	Colorless	Domestic Expendable	Bottle	Unknown			Machine made (1905-1910+)	Prescription finish (mid 1870s-early 1920s)					1	28.4	finish	Two fragments refit into same base			1905-1910-early 1920's	Manufacture method and closure type	BLM
18,272	64	Test Unit	1	30-40	Glass	Colorless	Domestic Expendable	Caps / Lids / Closures / Access	Stopper			Press mold complete						1	17.2	almost complete	Complete glass component, but missing some type of gasket					
18,272	65	Test Unit	1	30-40	Ceramic	Whiteware	Domestic Non-Expendable	Ceramics	Tableware	Tableware							colorless glaze and stenciled floral motifs	2	10.4	rim						

**Appendix III
Historic Artifact Catalog for Sites SDI-18,269 and SDI-18,272 at TM 5511**

Site # (CA-SDI)	Catalog #	Discovery Location	Discovery Number	Depth (cm)	Material Class	Material Type	Functional Category	Artifact Class	Artifact Type	Artifact Subtype	Artifact Final	Manufacturing Method	Shape Closure	Body General	Base	Relative Dimension	Decoration Color Glaze	Quantity	Weight (grams)	Portion Of Artifact	Portion Elaborate	Makers Mark	Brand Product	Final Date	Date Source	Reference
18,272	66	Test Unit	1	30-40	Bone	Animal	Ecofact	Bone			Bulk bone, fragment(s)							31.3	fragment (s)							
18,272	67	Test Unit	1	30-40	Glass	Colorless	Domestic Expendable	Bottle	Beverage (Non-Alcoholic)	Soda	Bottle, whole	Machine made (1905-1910+)	Crown finish	Cylindrical	Round	8.710"	Applied color label (1934+)	1	394.6	whole		Embossed: "23 / O-1 / 8 / 28 / 454627" on base; Owens-Illinois Glass Co.; mark dates (1954/1959+); Angeles plant (1949+) with a manufacture date (1958+)	Label says: "Vernor's REG. U.S. PAT. OFF / deliciously different / Note - VERNORS / FLAVOR AGED 4 YEARS IN WOOD / CONTENTS 8 FL. OZS. / Bottled under license by NATIONAL DRINKS GARDENIA, CA" Vernors Ginger Ale, logo (1866-late 1950s)	1958-1959	Maker's mark and brand product	Lockhart and wikipedia.com
18,272	68	Test Unit	1	30-40	Glass	Colorless	Domestic Expendable	Bottle	Liquor/Spirits	Bourbon whiskey	Bottle, whole	Machine made (1905-1910+)	Straight brandy finish	Square with rounded corners	Hopkins square	10"	Stippling on base (1940+)	1	495.4	whole		Embossed: "3 FF. / D334 69-59" on base; Foster-Forbes Glass Co.; various locations (1942-c.2000)	Embossed: "BEAM / SINCE 1795" on shoulder; "FEDERAL LAW FORBIDES SALE OR RE-USE OF THIS BOTTLE" on shoulder, dates (1935-1960's); "JAMES B. BEAM DISTILLING COMPANY INCORPORATED / 4.5 QUART" on base; James B. Beam Distillery (1894+)	1942-1960's	Maker's mark and brand product	MyInsulators.com and BLM
18,272	69	Test Unit	1	40-50	Glass	Colorless	Domestic Expendable	Bottle	Beverage (Non-Alcoholic)	Soda	Bottle, fragment(s)	Machine made (1905-1910+)					Applied color label (1934+)	1	16.7	body			Label says: "NEHT" Nebraska line (1924+)	1934+	Brand product	www.wikipedia.com
18,272	70	Test Unit	1	40-50	Glass	Colorless	Domestic Expendable	Bottle/Jar	Unknown		Bottle/Jar, base	Machine made (1905-1910+)		Cylindrical	Round		Stippling on base (1940+)	1	86.9	base		Embossed: "O-1 / D-10 / 56-59 / 14" on base; Owens-Illinois Glass Co. (1954/1959+)	1954-1959+	Maker's mark	Lockhart	
18,272	71	Test Unit	1	40-50	Glass	Amber	Domestic Expendable	Bottle	Unknown		Bottle, finish	Machine made (1905-1910+)	Straight brandy finish					1	40.3	finish			1905-1910+	Manufacture method	BLM	
18,272	72	Test Unit	1	40-50	Glass	Colorless	Domestic Expendable	Bottle	Unknown		Bottle, finish	Machine made (1905-1910+)	Bead finish					1	34.1	finish			1905-1910+	Manufacture method	BLM	
18,272	73	Test Unit	1	40-50	Glass	Amber	Domestic Expendable	Bottle	Liquor/Spirits		Bottle, fragment(s)	Machine made (1905-1910+)						1	58.2	body	Five fragments refit into same bottle	Embossed: "FEDERAL LAW FORBIDS SALE OR RE-USE OF THIS BOTTLE" (1935-1960's)	1935-1960's	Brand product	BLM	
18,272	74	Test Unit	1	40-50	Glass	Colorless	Domestic Expendable	Bottle/Jar	Unknown		Bottle/Jar, base	Machine made (1905-1910+)		Cylindrical	Round			1	57	base	Two fragments refit into same base	Embossed: "23 / O-1 / 59 / 1" on base; Owens-Illinois Glass Co.; mark dates (1954/1959+); Angeles plant (1949+); manufacture date (1959)	1959	Maker's mark	Lockhart	

**Appendix III
Historic Artifact Catalog for Sites SDI-18,269 and SDI-18,272 at TM 5511**

Site # (CA-SDI)	Catalog #	Discovery Location	Discovery Number	Depth (cm)	Material Class	Material Type	Functional Category	Artifact Class	Artifact Type	Artifact Subtype	Artifact Final	Manufacturing Method	Shape Closure	Body General	Base	Relative Dimension	Decoration Color Glaze	Quantity	Weight (grams)	Portion Of Artifact	Portion Elaborate	Makers Mark	Brand Product	Final Date	Date Source	Reference
18,272	75	Test Unit	1	40-50	Glass	Colorless	Domestic Expendable	Bottle	Unknown		Bottle, whole	Machine made (1905-1910+)	Small mouth, external thread finish	Ovoid	Elixir	2.25"		1	41.7	whole	Complete bottle with partial metal screw top cap	Embossed: "W & CO" on base		1905-1910+	Manufacture method	BLM
18,272	76	Test Unit	1	40-50	Bone	Animal	Ecofact	Bone			Bulk bone, fragment(s)								8.5	fragment(s)						
18,272	77	Test Unit	1	40-50	Plant/Food	Eggshell	Ecofact	Produce/Peas/beans	Eggshell		Bulk eggshell, fragment(s)								0	fragment(s)						
18,272	78	Test Unit	1	50-60	Glass	Amber	Domestic Expendable	Bottle	Liquor/Spirits		Bottle, fragment(s)	Machine made (1905-1910+)						1	19.4	body	Three fragments from the same bottle	Embossed: "FEDERAL LAW FORBIDS SALE OR RE-USE OF THIS BOTTLE" dates (1935-1960's)		1935-1960's	Brand product	BLM
18,272	79	Test Unit	1	50-60	Glass	Colorless	Domestic Expendable	Bottle	Unknown		Bottle, fragment(s)	Machine made (1905-1910+)						1	3.7	body		Applied color label (1934+)		1934+	Decoration type	BLM
18,272	80	Test Unit	1	50-60	Glass	Colorless	Domestic Expendable	Bottle	Unknown		Bottle, finish	Machine made (1905-1910+)	Straight brandy finish					1	61.8	finish				1905-1910+	Manufacture method	BLM
18,272	81	Test Unit	1	50-60	Glass	Amber	Domestic Expendable	Bottle	Unknown		Bottle, base made (1905-1910+)	Machine made (1905-1910+)		Cylindrical	Round			1	11.6	base		Embossed: "W. I. O 1/2 1..." on base; Owens-Illinois Glass Co. mark dates (1954-1959+); unknown plant, manufacture date (1962-)		1962+	Makers mark	Lockhart
18,272	82	Test Unit	1	50-60	Glass	Amber	Domestic Expendable	Bottle	Unknown		Bottle, base made (1905-1910+)	Machine made (1905-1910+)		Cylindrical	Round			1	81.5	base		Embossed: "M32B34 / 83 / D-9 6 / GC" on base; Glass Containers, Fullerton, CA (1983-1983)		1940-1983	Decoration type and Mynitions makers mark	BLM and Mynitions com
18,272	83	Shovel Test Pit	1	0-10	Ceramic	Porcelain	Domestic General	Electrical Systems	Fuse	Screw in, with metal threads and metal top	Fuse, almost complete							1	21.9	almost complete						
18,272	84	Shovel Test Pit	1	0-10	Glass	Amber	Domestic Expendable	Bottle	Unknown		Bottle, fragment(s)	Machine made (1905-1910+)						1	4.3	body		Embossed: "NO DEPOSIT NO RETURN NOT TO BE REFILLED" dates (1939+)		1939+	Brand product	BLM
18,272	85	Shovel Test Pit	1	10-20	Glass	Amber	Domestic Expendable	Bottle	Unknown		Bottle, fragment(s)	Machine made (1905-1910+)						1	1.4	body		Embossed: "NO DEPOSIT NO RETURN NOT TO BE REFILLED" dates (1939+)		1939+	Brand product	BLM
18,272	86	Shovel Test Pit	1	10-20	Glass	Amber	Domestic Expendable	Bottle	Unknown		Bottle, base	Machine made (1905-1910+)						1	3.2	base				1940+	Decoration type	BLM
18,272	87	Shovel Test Pit	1	20-30	Glass	Amber	Domestic Expendable	Bottle	Unknown		Bottle, fragment(s)	Machine made (1905-1910+)						1	11.7	body		Embossed: "NO DEPOSIT NO RETURN NOT TO BE REFILLED" dates (1939+)		1939+	Brand product	BLM
18,272	88	Shovel Test Pit	1	20-30	Glass	Amber	Domestic Expendable	Bottle	Unknown		Bottle, finish	Machine made (1905-1910+)	Crown finish					1	24	finish				1905-1910+	Manufacture method	BLM

**Appendix III
Historic Artifact Catalog for Sites SDI-18,269 and SDI-18,272 at TM 5511**

Site # (CA-SDI)	Catalog #	Discovery Location	Discovery Number	Depth (cm)	Material Class	Material Type	Functional Category	Artifact Class	Artifact Type	Artifact Subtype	Artifact Final	Manufacturing Method	Shape Closure	Body General	Base	Relative Dimension	Decoration Color Glaze	Quantity	Weight (grams)	Portion Of Artifact	Portion Elaborate	Makers Mark	Brand Product	Final Date	Date Source	Reference
18,272	89	Shovel Test Pit	1	20-30	Bone	Animal	Ecofact	Bone	Unknown		Bulk bone fragment(s)								0.3	Fragment (s)						
18,272	90	Shovel Test Pit	3	0-10	Glass	Colorless	Domestic Expendable	Bottle/Jar	Unknown		Bottle/Jar base	Machine made (1905-1910+)		Cylindrical	Round			1	96.8	base			1949	Makers mark	Lockhart	
18,272	91	Shovel Test Pit	3	0-10	Glass	Colorless	Domestic Expendable	Bottle	Unknown		Bottle, base made (1905-1910+)	Machine made (1905-1910+)		Cylindrical	Round		Applied color label (1934+); stippling on base (1940+)	1	37.8	base		Embossed: "2916-C" on base	1940+	1940+	BLM	
18,272	92	Shovel Test Pit	3	0-10	Glass	Colorless	Domestic Expendable	Bottle	Unknown		Bottle, fragment(s)	Machine made (1905-1910+)					Applied color label (1934+)	7	23.5	body			1934+	1934+	BLM	
18,272	93	Shovel Test Pit	3	0-10	Glass	Green	Domestic Expendable	Bottle	Beverage (Non-Alcoholic)	Soda	Bottle, fragment(s)	Machine made (1905-1910+)					Applied color label (1934+)	7	61.4	body		Label says: "7-Up" and "You Like It It Likes You". 7-Up slogan dates (1936-1967)	1936-1967	1936-1967	http://www.1up.com/logo_drinkarchive/200510/7up.html	
18,272	94	Shovel Test Pit	3	0-10	Glass	Light Green	Domestic Expendable	Bottle	Beverage (Non-Alcoholic)	Soda	Bottle, fragment(s)	Machine made (1905-1910+)		"Hohle-Schlurp" Coca-Cola (1923+)	Round			1	6.3	body			Embossed: "CONTENTS..."	1923+	1923+	Patent Office
18,272	95	Shovel Test Pit	3	0-10	Glass	Amber	Domestic Expendable	Bottle	Unknown		Bottle, fragment(s)	Machine made (1905-1910+)		Cylindrical	Round		Stippling on base (1940+)	1	16	base		Embossed: "TMC / C/317..." on base; Thatcher Manufacturing Co., various locations; mark dates (1949-1985)	1949-1985	1949-1985	MyInsulators.com	
18,272	96	Shovel Test Pit	3	0-10	Glass	Amber	Domestic Expendable	Bottle	Unknown		Bottle, fragment(s)	Machine made (1905-1910+)		Cylindrical	Round		Stippling on base (1940+)	1	11.5	base		Embossed: ".0 / O-1 / 5 / 9..." on base; Owens-Illinois Glass Co. mark dates (1954-1959+); unknown plant; manufacture date (1955+)	1955+	1955+	Lockhart	
18,272	97	Shovel Test Pit	3	10-20	Glass	Green	Domestic Expendable	Bottle	Beverage (Non-Alcoholic)	Soda	Bottle, fragment(s)	Machine made (1905-1910+)					Applied color label (1934+)	6	75.4	body		Label says: "7-Up" and "You Like It It Likes You". 7-Up slogan dates (1936-1967)	1936-1967	1936-1967	http://www.1up.com/logo_drinkarchive/200510/7up.html	
18,272	98	Shovel Test Pit	3	10-20	Glass	Colorless	Domestic Expendable	Bottle	Unknown		Bottle, fragment(s)	Machine made (1905-1910+)					Applied color label (1934+)	6	36.3	body			1934+	1934+	BLM	
18,272	99	Shovel Test Pit	3	10-20	Glass	Amber	Domestic Expendable	Bottle	Unknown		Bottle, finish	Machine made (1905-1910+)	Crown finish					1	38.5	finish			1905-1910+	1905-1910+	BLM	
18,272	100	Shovel Test Pit	3	10-20	Glass	Amber	Domestic Expendable	Bottle	Unknown		Bottle, base made (1905-1910+)	Machine made (1905-1910+)		Cylindrical	Round			1	19.1	base		Embossed: "...MG..." logo on box on base; Maywood Glass Co., Compton, CA (c. 1958)	c. 1958	c. 1958	Tonhouse	

Appendix III
Historic Artifact Catalog for Sites SDI-18,269 and SDI-18,272 at TM 55II

Site # (CA-SDI)	Catalog #	Discovery Location	Discovery Number	Depth (cm)	Material Class	Material Type	Functional Category	Artifact Class	Artifact Type	Artifact Subtype	Artifact Final	Manufacturing Method	Shape Closure	Body General	Base	Relative Dimension	Decoration Color Glaze	Quantity	Weight (grams)	Portion Of Artifact	Portion Elaborate	Makers Mark	Brand Product	Final Date	Date Source	Reference
18,272	101	Shovel Test Pit	3	10-20	Ceramic	Stoneware	Domestic Non-Expendable	Ceramics	Tableware	Plate	Tableware, fragment(s)						Yellow and gray blocks of color (slip?), underglaze	1	37.8	rim						
18,272	102	Shovel Test Pit	3	20-30	Glass	Various	Domestic Expendable	Bottle	Unknown		Bottle, fragment(s)	Machine made (1905-1910+)					Applied color label (1934+)	5	32.2	body			1934+	Decoration type	BLM	
18,272	103	Shovel Test Pit	3	20-30	Glass	Light Green	Domestic Expendable	Bottle	Unknown		Bottle, finish	Machine made (1905-1910+)	Crown finish						2	31.5	finish			1905-1910+	Manufacture method	BLM
18,272	104	Shovel Test Pit	3	20-30	Glass	Light Green	Domestic Expendable	Bottle	Unknown		Bottle, base made (1905-1910+)	Machine made (1905-1910+)							1	24.2	base		Embossed: "L/O-I" on base; Owens-Illinois Glass Co., mark dates (1954/1959+)	1954-1959+	Maker's mark	Lockhart
18,272	105	Shovel Test Pit	3	20-30	Glass	Colorless	Domestic Expendable	Bottle	Unknown		Bottle, base made (1905-1910+)	Machine made (1905-1910+)		Cylindrical	Round				1	17.2	base		Embossed: "...348-..." on base	1905-1910+	Manufacture method	BLM
18,272	106	Shovel Test Pit	3	20-30	Glass	Colorless	Domestic Expendable	Bottle	Beverage (Non-Alcoholic)	Soda	Bottle, fragment(s)	Machine made (1905-1910+)					Applied color label (1934+)	2	10.1	body		Label for "Canada Dry" with crown and shield, dates (1907+)	1934+	Decoration type	BLM	
18,272	107	Shovel Test Pit	3	30-40	Glass	Colorless	Domestic Expendable	Bottle	Beverage (Non-Alcoholic)	Soda	Bottle, fragment(s)	Machine made (1905-1910+)					Applied color label (1934+)	3	12.6	body		Label for "Canada Dry" with crown and shield, dates (1907+)	1934+	Decoration type	BLM	
18,272	108	Shovel Test Pit	3	30-40	Glass	Light Green	Domestic Expendable	Bottle	Beverage (Non-Alcoholic)	Soda	Bottle, fragment(s)	Machine made (1905-1910+)		"Hobble-skirt" shape, Coca Cola (1923+)	Round		Applied color label (1934+)	1	8.2	body		Label for "Coca-Cola"	1934+	Decoration type	BLM	
18,272	109	Shovel Test Pit	3	30-40	Glass	Green	Domestic Expendable	Bottle	Beverage (Non-Alcoholic)	Soda	Bottle, fragment(s)	Machine made (1905-1910+)					Applied color label (1934+)	6	56.8	body		Label says: "7-Up" and "You Like It Like You", 7-Up slogan dates (1936-1967)	1936-1967	Brand product	http://www.1up.com/food_drink/articles/2005107up.html	
18,272	110	Shovel Test Pit	3	30-40	Glass	Amber	Domestic Expendable	Bottle	Unknown		Bottle, base made (1905-1910+)	Machine made (1905-1910+)		Cylindrical	Round		Stippling on base (1940+)	1	25.4	base		Embossed: "TMC / C/317..." on base; Thatcher Manufacturing Co., various locations, mark dates (1949-1985)	1949-1985	Maker's mark	MyInsulators.com	
18,272	111	Shovel Test Pit	3	30-40	Ceramic	Stoneware	Domestic Non-Expendable	Ceramics	Tableware		Tableware, fragment(s)								1	4.6	base w/ footing					
18,272	112	Shovel Test Pit	4	0-10	Glass	Colorless	Domestic Expendable	Bottle	Unknown		Bottle, finish	Machine made (1905-1910+)	Small mouth, external thread finish						1	30.6	finish			1905-1910+	Manufacture method	BLM
18,272	113	Shovel Test Pit	5	0-10	Glass	Colorless	Domestic Expendable	Bottle	Unknown		Bottle, finish	Machine made (1905-1910+)	Straight brandy finish						1	108.3	finish			1905-1910+	Manufacture method	BLM
18,272	114	Shovel Test Pit	5	0-10	Glass	Various	Domestic Expendable	Bottle	Unknown		Bottle, finish	Machine made (1905-1910+)	Straight brandy finish						2	58.2	finish			1905-1910+	Manufacture method	BLM
18,272	115	Shovel Test Pit	5	0-10	Glass	Amber	Domestic Expendable	Bottle	Unknown		Bottle, base made (1905-1910+)	Machine made (1905-1910+)		Cylindrical	Round		Stippling on base (1940+)	1	6.1	base			1940+	Decoration type	BLM	

**Appendix III
Historic Artifact Catalog for Sites SDI-18,269 and SDI-18,272 at TM 5511**

Site # (CA-SDI)	Catalog #	Discovery Location	Discovery Number	Depth (cm)	Material Class	Material Type	Functional Category	Artifact Class	Artifact Type	Artifact Subtype	Artifact Final	Manufacturing Method	Shape Closure	Body General	Base	Relative Dimension	Decoration Color Glaze	Quantity	Weight (grams)	Portion Of Artifact	Portion Elaborate	Makers Mark	Brand Product	Final Date	Date Source	Reference	
18,272	116	Shovel Test Pit	5	10-20	Glass	Various	Domestic Expendable	Bottle	Unknown		Bottle, finish	Machine made (1905-1910+)	Various finishes					1	14.1	finish				1905-1910+	Manufacture method	BLM	
18,272	117	Shovel Test Pit	5	20-30	Ceramic	Whiteware	Domestic Non-Expendable	Ceramics	Tableware		Tableware, fragment(s)						Stenciled, polychrome, floral motif, underglaze	1	11.4	rim							
18,272	118	Shovel Test Pit	6	0-10	Glass	Colorless	Domestic Expendable	Bottle	Unknown		Bottle, finish	Machine made (1905-1910+)	Double ring finish (1840's-1920's)					3	32.8	finish				1905-1920's	Manufacture method and closure type	BLM	
18,272	119	Shovel Test Pit	6	0-10	Glass	Colorless	Domestic Expendable	Bottle	Unknown		Bottle, finish	Machine made (1905-1910+)	Crown finish					1	5.6	finish				1905-1910+	Manufacture method	BLM	
18,272	120	Shovel Test Pit	6	10-20	Glass	Colorless	Domestic Expendable	Bottle/Jar	Unknown		Bottle/Jar, base	Machine made (1905-1910+)		Cylindrical	Round		Stippling on base (1940+)	1	22.8	base				1940+	Decoration type	BLM	
18,272	121	Shovel Test Pit	6	10-20	Glass	Amber	Domestic Expendable	Bottle	Unknown		Bottle, base made (1905-1910+)	Machine made (1905-1910+)		Cylindrical	Round		Stippling on base (1940+)	1	31.4	base		Embossed: "23 / O-1 / 2 / 10-11 / 20079-GB" on base; Owens Illinois Glass Co., mark dates (1954/1959+), from Los Angeles plant (1949+); manufacture date of (1962+)		1962+	Makers mark	Lockhart	
18,272	122	Shovel Test Pit	6	10-20	Glass	Colorless	Domestic Expendable	Bottle	Unknown		Bottle, finish	Machine made (1905-1910+)	Crown finish					1	13.8	finish				1905-1910+	Manufacture method	BLM	
18,272	123	Shovel Test Pit	6	10-20	Glass	Colorless	Domestic Expendable	Jar	Unknown		Jar, finish	Machine made (1905-1910+)	Wide mouth, external thread finish					1	5.2	finish				1905-1910+	Manufacture method	BLM	
18,272	124	Shovel Test Pit	6	10-20	Glass	Amber	Domestic Expendable	Bottle	Unknown		Bottle, base made (1905-1910+)	Machine made (1905-1910+)		Cylindrical	Round		Stippling on base (1940+)	1	34.5	base	Two fragments refit into same base		Embossed: "20 / O-1 / 2 / 2 EE / 20079-GB" on base; Owens Illinois Glass Co., mark dates (1954/1959+), from Oakland plant (1946+); manufacture date of (1962+)		1962+	Makers mark	Lockhart
18,272	125	Shovel Test Pit	8	0-10	Glass	Colorless	Domestic Expendable	Jar	Unknown		Jar, whole	Machine made (1905-1910+)	Threaded, lug (ca. 1930+)	Cylindrical	Round	3, 2.5"		1	95.8	whole				c. 1940+	Shape closure	BLM	
18,272	126	Shovel Test Pit	8	0-10	Glass	Various	Domestic Expendable	Bottle	Unknown		Bottle, finish	Machine made (1905-1910+)	Various finishes					2	45.8	finish				1905-1910+	Manufacture method	BLM	
18,272	127	Shovel Test Pit	8	0-10	Glass	Colorless	Domestic Expendable	Jar	Unknown		Jar, finish	Machine made (1905-1910+)	Wide mouth, external thread finish					1	23.3	finish				1905-1910+	Manufacture method	BLM	
18,272	128	Shovel Test Pit	8	0-10	Glass	Light Green	Domestic Expendable	Bottle	Unknown		Bottle, base made (1905-1910+)	Machine made (1905-1910+)		Cylindrical	Round			1	43.4	base			Embossed: "FEDERAL LAW FORBIDS SALE OR RE-USE OF THIS [BOTTLE]" dates (1935-1960's)	1935-1960's	Brand product	BLM	

**Appendix III
Historic Artifact Catalog for Sites SDI-18,269 and SDI-18,272 at TM 5511**

Site # (CA-SDI)	Catalog #	Discovery Location	Discovery Number	Depth (cm)	Material Class	Material Type	Functional Category	Artifact Class	Artifact Type	Artifact Subtype	Artifact Final	Manufacturing Method	Shape Closure	Body General	Base	Relative Dimension	Decoration Color Glaze	Quantity	Weight (grams)	Portion Of Artifact	Portion Elaborate	Makers Mark	Brand Product	Final Date	Date Source	Reference	
18,272	129	Shovel Test Pit	8	0-10	Glass	Colorless	Domestic Expendable	Bottle	Liquor/ Spirits		Bottle, fragment(s)	Machine made (1905-1910+)						1	16.1	body		Embossed: "LOS ANGELES / C. ... " on base		1905-1910+	Manufacture method	BLM	
18,272	130	Shovel Test Pit	8	0-10	Ceramic	Stoneware	Domestic Non-Expendable	Ceramics	Tableware	Cup	Tableware, fragment(s)							1	37.6	rim							
18,272	131	Shovel Test Pit	8	0-10	Bone	Animal	Esofact	Bone			Bulk bone, fragment(s)							0.7		fragment(s)							
18,272	132	Shovel Test Pit	8	10-20	Glass	Colorless	Domestic Expendable	Bottle/Jar	Unknown		Bottle/Jar, base	Machine made (1905-1910+)		Cylindrical	Round		Stippling on base (1940+)	1	6.2	base				1940+	Decoration type	BLM	
18,272	133	Shovel Test Pit	8	10-20	Glass	Colorless	Domestic Expendable	Bottle/Jar	Unknown		Bottle/Jar, base	Machine made (1905-1910+)		Cylindrical	Round			1	5.4	base				1905-1910+	Manufacture method	BLM	
18,272	134	Shovel Test Pit	8	10-20	Glass	Colorless	Domestic Expendable	Bottle	Grooming/Hygiene	Hair care	Bottle, base made (1905-1910+)	Machine made (1905-1910+)		Ovoid	Elxir		Stippling on base (1940+)	1	11.8	base			Embossed: "Caryl Richards" on base; Caryl Richards hair care products (c. 1930s)	1940+	Decoration type	BLM	
18,272	135	Shovel Test Pit	8	10-20	Glass	Colorless	Domestic Expendable	Bottle	Unknown		Bottle, finish	Machine made (1905-1910+)	Crown finish					1	6.4	finish				1905-1910+	Manufacture method	BLM	
18,272	136	Shovel Test Pit	8	10-20	Glass	Colorless	Domestic Expendable	Jar	Unknown		Jar, finish	Machine made (1905-1910+)	Wide mouth, external thread finish					1	18	finish					1905-1910+	Manufacture method	BLM
18,272	137	Shovel Test Pit	8	20-30	Glass	Colorless	Domestic Expendable	Bottle/Jar	Unknown		Bottle/Jar, base	Machine made (1905-1910+)						1	12	base				1923-1964	Maker's mark	MyInsulators.com	
18,272	138	Shovel Test Pit	8	20-30	Glass	Colorless	Domestic Expendable	Bottle/Jar	Unknown		Bottle/Jar, fragment(s)	Machine made (1905-1910+)					Applied, color label (1934+)	1	2.5	body			Embossed: "HA" logo on base; Hazel-Atlas Glass Co. (1923-1964)	1934+	Decoration type	BLM	
18,272	139	Shovel Test Pit	8	20-30	Glass	Amber	Domestic Expendable	Bottle	Unknown		Bottle, base made (1905-1910+)	Machine made (1905-1910+)	Crown finish					1	16.8	finish				1905-1910+	Manufacture method	BLM	
18,272	140	Shovel Test Pit	8	30-40	Glass	Amber	Domestic Expendable	Bottle	Unknown		Bottle, base made (1905-1910+)	Machine made (1905-1910+)		Cylindrical	Round			1	10.2	base				1905-1910+	Manufacture method	BLM	
18,272	141	Shovel Test Pit	8	30-40	Glass	Colorless	Domestic Expendable	Bottle/Jar	Unknown		Bottle/Jar, base	Machine made (1905-1910+)		Cylindrical	Round		Stippling on base (1940+)	1	12.9	base				1940+	Decoration type	BLM	
18,272	142	Shovel Test Pit	8	30-40	Glass	Amber	Domestic Expendable	Bottle	Unknown		Bottle, finish	Machine made (1905-1910+)	Crown finish					2	9	finish				1905-1910+	Manufacture method	BLM	
18,272	143	Shovel Test Pit	8	30-40	Ceramic	Stoneware	Domestic Non-Expendable	Ceramics	Tableware		Tableware, fragment(s)						Stippled, polychrome, floral motif, underglaze	1	8.9	base w/ footing							
18,272	144	Shovel Test Pit	8	40-50	Glass	Amber	Domestic Expendable	Bottle	Unknown		Bottle, base made (1905-1910+)	Machine made (1905-1910+)		Cylindrical	Round			1	14.1	base				1905-1910+	Manufacture method	BLM	
18,272	145	Shovel Test Pit	8	40-50	Glass	Amber	Domestic Expendable	Bottle	Unknown		Bottle, base made (1905-1910+)	Machine made (1905-1910+)		Cylindrical	Round		Stippling on base (1940+)	1	12.2	base				1940+	Decoration type	BLM	

**Appendix III
Historic Artifact Catalog for Sites SDI-18,269 and SDI-18,272 at TM 5511**

Site # (CA-SDI)	18,272	Shovel Test Pit	8	Depth (cm)	40-50	Material Class	Glass	Material Type	Colorless	Functional Category	Domestic Expendable	Artifact Class	Bottle	Artifact Type	Unknown	Artifact Subtype		Artifact Final	Bottle, finish	Manufacturing Method	Machine made (1905-1910+)	Shape Closure	Straight brandy finish	Body General		Base		Relative Dimension		Decoration Color Glaze		Quantity	1	Weight (grams)	28.6	Portion Of Artifact	finish	Portion Elaborate		Makers Mark		Brand Product		Final Date	1905-1910+	Manufacture method		Date Source		Reference	B1M
-----------------	--------	-----------------	---	------------	-------	----------------	-------	---------------	-----------	---------------------	---------------------	----------------	--------	---------------	---------	------------------	--	----------------	----------------	----------------------	---------------------------	---------------	------------------------	--------------	--	------	--	--------------------	--	------------------------	--	----------	---	----------------	------	---------------------	--------	-------------------	--	-------------	--	---------------	--	------------	------------	--------------------	--	-------------	--	-----------	-----

Appendix III
Prehistoric Artifact Catalog for Sites SDI-18,266, SDI-18,268 and SDI-18,269 at TM 5511

Site Number (CA-SDI)	Catalog Number	Provenience Type	Provenience #	Material Class	Material Type	Artifact Class	Artifact Type	Quantity	Weight (g)	Portion Of Artifact	Portion Elaborate
18,268	1	Surface	1	Ceramic	Salton Brown Ware	Pottery	Rimsherds	1	-	fragment(s)	
18,268	2	Surface	1	Ceramic	Salton Brown Ware	Pottery	Potsherds	2	-	fragment(s)	
18,269	1	Surface	1	Ceramic	Salton Brown Ware	Pottery	Rimsherds	1	-	fragment(s)	
18,269	2	Surface	1	Ceramic	Salton Brown Ware	Pottery	Potsherds	4	-	fragment(s)	
18,266	1	Surface	1	Ceramic	Salton Brown Ware	Pottery	Rimsherds	1	-	fragment(s)	
18,266	2	Surface	2	Ceramic	Salton Brown Ware	Pottery	Rimsherds	1	-	fragment(s)	
18,266	3	Surface	3	Ceramic	Salton Brown Ware	Pottery	Potsherds	3	-	fragment(s)	
18,266	4	Surface	4	Ceramic	Salton Brown Ware	Pottery	Potsherds	1	-	fragment(s)	
18,266	5	Surface	5	Ceramic	Salton Brown Ware	Pottery	Potsherds	1	-	fragment(s)	
18,266	6	Surface	6	Ceramic	Salton Brown Ware	Pottery	Potsherds	1	-	fragment(s)	
18,266	7	Surface	7	Ceramic	Salton Brown Ware	Pottery	Potsherds	3	-	fragment(s)	
18,266	8	Surface	8	Ceramic	Salton Brown Ware	Pottery	Potsherds	2	-	fragment(s)	
18,266	9	Surface	9	Ceramic	Salton Brown Ware	Pottery	Potsherds	3	-	fragment(s)	
18,266	10	Surface	10	Ceramic	Salton Brown Ware	Pottery	Potsherds	3	-	fragment(s)	
18,266	11	Surface	11	Ceramic	Salton Brown Ware	Pottery	Potsherds	1	-	fragment(s)	
18,266	12	Surface	12	Ceramic	Salton Brown Ware	Pottery	Potsherds	1	-	fragment(s)	
18,266	13	Surface	13	Ceramic	Salton Brown Ware	Pottery	Potsherds	4	-	fragment(s)	

Appendix III
Prehistoric Artifact Catalog for Sites SDI-18,266, SDI-18,268 and SDI-18,269 at TM 5511

Site Number (CA-SDI)	Catalog Number	Provenience Type	Provenience #	Material Class	Material Type	Artifact Class	Artifact Type	Quantity	Weight (g)	Portion Of Artifact	Portion Elaborate
18,266	14	Surface	14	Ceramic	Salton Brown Ware	Pottery	Potsherds	1	-	fragment(s)	
18,266	15	Surface	15	Ceramic	Salton Brown Ware	Pottery	Decorated Rim Sherd	1	-	fragment(s)	Scalloped edge
18,266	16	Surface	16	Ceramic	Salton Brown Ware	Pottery	Rimsherds	1	-	fragment(s)	
18,266	17	Surface	16	Ceramic	Salton Brown Ware	Pottery	Potsherds	1	-	fragment(s)	
18,266	18	Surface	17	Ceramic	Salton Brown Ware	Pottery	Ptsherds	1	-	fragment(s)	

APPENDIX IV

Confidential Site Maps

(Confidential Appendix; deleted for public review)

APPENDIX V

Site Record Update Forms

(Confidential Appendix; deleted for public review)