CULTURAL RESOURCES INVENTORY AND ASSESSMENT: LILAC HILLS RANCH ESCONDIDO, SAN DIEGO COUNTY, CALIFORNIA

PDS2012-3800-12-001 (GPA); PDS2012-3810-12-001 (SP); PDS2012-3600-12-003 (REZ); PDS2012-3500-12-005 (STP); PDS2012-TM-5571;PDS2012-TM-5572

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NATIONAL ARCHAEOLOGICAL DATA BASE INFORMATION

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Report Title:	Cultural Resources Inventory and Assessment: Lilac Hills Ranch, Escondido, San Diego County, California. *PDS2012-3800-12-001 (GPA); PDS2012-3810-12-001 (SP); PDS2012-3600-12-003 (REZ); PDS2012-3500-12-005 (STP); PDS2012*-TM-5571; PDS2012-TM-5572
Type of Study:	Archaeological survey and testing/assessment
New Sites:	CA-SDI-20,436, P-37-032243, P-37-032550, P-37-032551, P-37-032552, P-37-032553, P-37-032554, P-37-032555, P-37-032555, P-37-032557
Updated Sites:	CA-SDI-12,551, CA-SDI-12,553H, CA-SDI-18,362, CA-SDI-18,363, CA-SDI-18,364, CA-SDI-18,365, P-37-028486
USGS Quadrangles:	Bonsall and Pala (7.5' series)
Acreage:	608 acres
Keywords:	Positive archaeological survey and assessment; Valley Center, County of San Diego; Township 10 South, Range 3 West, Section 24, and Township 10 South, Range 2 West, Sections 19 and 30; APNs 127-072-14, 20, 38, 40, 41, 46, 47; 128-280-10, 27, 37, 42, 46; 128-290-07, 09, 10, 11, 51, 54, 55, 56, 57, 58, 59, 60, 69, 70, 71, 72, 74, 75; 128-440-01, 02, 03, 05, 06, 07, 11, 14, 15, 17, 18, 19, 20, 21, 22 23; 129-010-62, 68, 69, 70, 71, 72, 73, 74, 75, 76; 129-011-15, 16; 129-300-09, 10

LIST OF ACRONYMS

APN	Assessor's Parcel Number
CEQA	California Environmental Quality Act
NAHC	Native American Heritage Commission
RPO	Resource Protection Ordinance
SCIC	South Coastal Information Center
STP	Shovel Test Pit

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CONFIDENTIAL APPENDICES

(Bound Separately -- Not for Public Review)

A Records Search Map
B Locations of Cultural Resources
C Site Records
D Native American Correspondence

EXECUTIVE SUMMARY

The proposed Lilac Hills Ranch community is approximately 608 acres, located in northern unincorporated San Diego County. The project site is located to the south and west of West Lilac Road with State Route 76 to the north, and Interstate 15 and Old Highway 395 to the west. The Lilac Hills Ranch project is located entirely in the Escondido zip code (92026) and occurs primarily within the westernmost portion of the Valley Center Community Planning Area (CPA) although a small portion is within the Bonsall Subregional Plan Area. The project is within Township 10 South, Range 3 West, Section 24, and Township 10 South, Range 2 West, Sections 19 and 30, on the USGS 7.5' Pala and Bonsall quadrangles.

The Lilac Hills Ranch project proposes the development of a new mixed use master planned community. The proposed Specific Plan includes a maximum of 1746 new dwelling units with varying lot sizes, commercial/mixed use, a neighborhood-serving commercial Town Center, retail uses, park and private recreation uses, a senior center, and a school site. Also proposed on-site are a waste recycling facility, a wastewater reclamation facility, active orchards, and other supporting infrastructure.

The archaeological project consisted of a cultural resources survey of the project area, evaluation of the archaeological sites identified, and documentation of buildings over 45 years old.

Portions of the current project area were surveyed for cultural resources by Affinis archaeologists and representatives of the San Luis Rey Band of Luiseño Mission Indians in May 2007. The remaining project parcels were surveyed for cultural resources by Affinis staff and Native American monitors from Saving Sacred Sites (representing the San Luis Rey Band) between February 2011 and March 2012. Proposed off-site improvements were surveyed in July 2012.

Seven archaeological sites and two isolates have been recorded within the project area (CA-SDI-12,551, CA-SDI-12,553H, CA-SDI-18,362, CA-SDI-18,363, CA-SDI-18,364, CA-SDI-18,365, CA-SDI-20,436, P-37-028486, and P-37-032243). However, one of the previously recorded sites (CA-SDI-12,551) was mismapped and is not located within the project area. Another previously recorded site (CA-SDI-12,553H) appears to have been removed by residential development, although subsurface features or deposits may remain beneath the existing residences. The five extant sites include a stacked stone rock feature (apparently historic) with two milling features nearby, a possible rock shelter or oven feature, a lithic scatter, and three milling stations, one with an associated lithic scatter. A testing program was conducted in July 2012 to assess site significance and the significance of project impacts.

One site (CA-SDI-18,363) was determined not to be cultural in nature; two sites (CA-SDI-18,364 and CA-SDI-18,365) do not meet the criteria for significance under CEQA or RPO. The stacked stone feature at CA-SDI-18,362 is a very good example of the rock construction typical of late nineteenth and early twentieth century ranching features. The

feature is in excellent condition. Given these factors, the feature is considered a significant resource under CEQA; the stacked stone feature also qualifies as a significant resource under RPO. The remainder of site CA-SDI-18,362 does not meet the criteria of a significant cultural resource under CEQA or RPO. CA-SDI-20,436 possesses the research potential necessary to meet the threshold of significance under CEQA. While CA-SDI-20,436 is a significant resource under CEQA, it does not reach the higher threshold of significance under RPO.

The two isolates are not considered important resources and are not significant resources under CEQA, nor are they RPO-significant; their research potential has been fulfilled through their documentation.

The Native American Heritage Commission indicated that no Native American cultural resources were identified within ½ mile of the project area, but there are Native American cultural resources in proximity to the project area.

Eight houses within the project area are potentially over 45 years old, based on maps and aerial photographs. With the exception of P-37-032554 (9007 West Lilac Road), all the residences were built between 1953 and 1964, based on aerial photographs. The precise age of P-37-032554 is unknown, as addressed in detail in the report. None of the houses are significant resources under CEQA, and none meet the significance criteria of RPO.

Two of the extant sites (CA-SDI-18,364 and CA-SDI-18,365) are within the proposed development footprint and would be subject to direct impacts from the project. These sites have been sufficiently recorded, documented, and tested to reduce the impacts to below a level of significance. CA-SDI-18,363 is within the development footprint, but it was determined not to be an archaeological resource. The mapped location of CA-SDI-12,553H is also within the development footprint, but as addressed previously, no evidence of this site was found during the current survey. The two isolates (P-37-028486 and P-37-032243) are outside the development footprint, in proposed open space easements.

CA-SDI-18,362 is within a dedicated open space easement and would not be subject to direct impacts. CA-SDI-20,436 is outside the proposed grading footprint, but the site is not located within dedicated open space, so direct and indirect impacts to the site are possible. If impacts to this site cannot be avoided, a data recovery program would be developed and implemented in order to mitigate project impacts.

The eight buildings in the project area that are over 45 years old are all within the proposed development footprint; it is assumed they all would be subject to direct impacts from the project. Impacts would not be significant, as these are not significant historic resources.

1.0 INTRODUCTION

1.1 Project Description

The proposed Lilac Hills Ranch community is approximately 608 acres, comprised of 60 contiguous properties and is located in northern unincorporated San Diego County ¼ mile from the Interstate 15 corridor on the east side with freeway access off the Old Highway 395 Interchange (Figure 1). The project site is located to the south and west of West Lilac Road with State Route 76 to the north, downtown Valley Center 10 miles to the east, downtown Escondido 16 miles to the south, and Interstate 15 and Old Highway 395 to the west (Figure 2). The Lilac Hills Ranch project is located entirely in the Escondido zip code (92026) and occurs primarily within the westernmost portion of the Valley Center Community Planning Area (CPA) although a small portion is within the Bonsall Subregional Plan Area. From the northwest project corner, West Lilac Road serves as the northern and eastern boundary of the project site, while Circle R Drive is less than 1/2 mile south of the project boundary. From the southwest project corner, the western boundary of the project runs along Shirey Road and extends to Standel Lane, which serves as the northwestern project boundary. The project is within Township 10 South, Range 3 West, Section 24, and Township 10 South, Range 2 West, Sections 19 and 30, on the USGS 7.5' Pala and Bonsall quadrangles (Figure 2).

The Lilac Hills Ranch project proposes the development of a new mixed use master planned community. The proposed Specific Plan includes a maximum of 1746 new dwelling units with varying lot sizes, commercial/mixed use, a neighborhood-serving commercial Town Center, retail uses, park and private recreation uses, a senior center, and a school site. Also proposed on-site are a waste recycling facility, a wastewater reclamation facility, active orchards, and other supporting infrastructure. The project also proposes a General Plan Amendment to change the Regional Category to Village, the Land Use Designation to Village Residential 2.9 and Village Core Mixed Use (C-5). A Rezone is proposed to implement the Specific Plan by changing the existing Use Regulations, Development Regulations, and Special Residential Land Use Designation and the A70 (Limited Agricultural) Zoning. The project would also include the submittal of a Master Tentative Map, Implementing Tentative Map, Site Plan (s), and/or Major Use Permit(s). The project plan is illustrated in Figure 3. Off-site improvements are addressed in Appendix A.

The archaeological project consisted of a cultural resources survey of the project area, assessment of the archaeological sites identified, and documentation of buildings over 45 years old. Affinis Director of Cultural Resources, Mary Robbins-Wade, served as the project manager/principal investigator. Andrew Giletti was the field director. Cami Mojado of Saving Sacred Sites and the San Luis Rey Band of Luiseño Mission Indians was the Native American representative.

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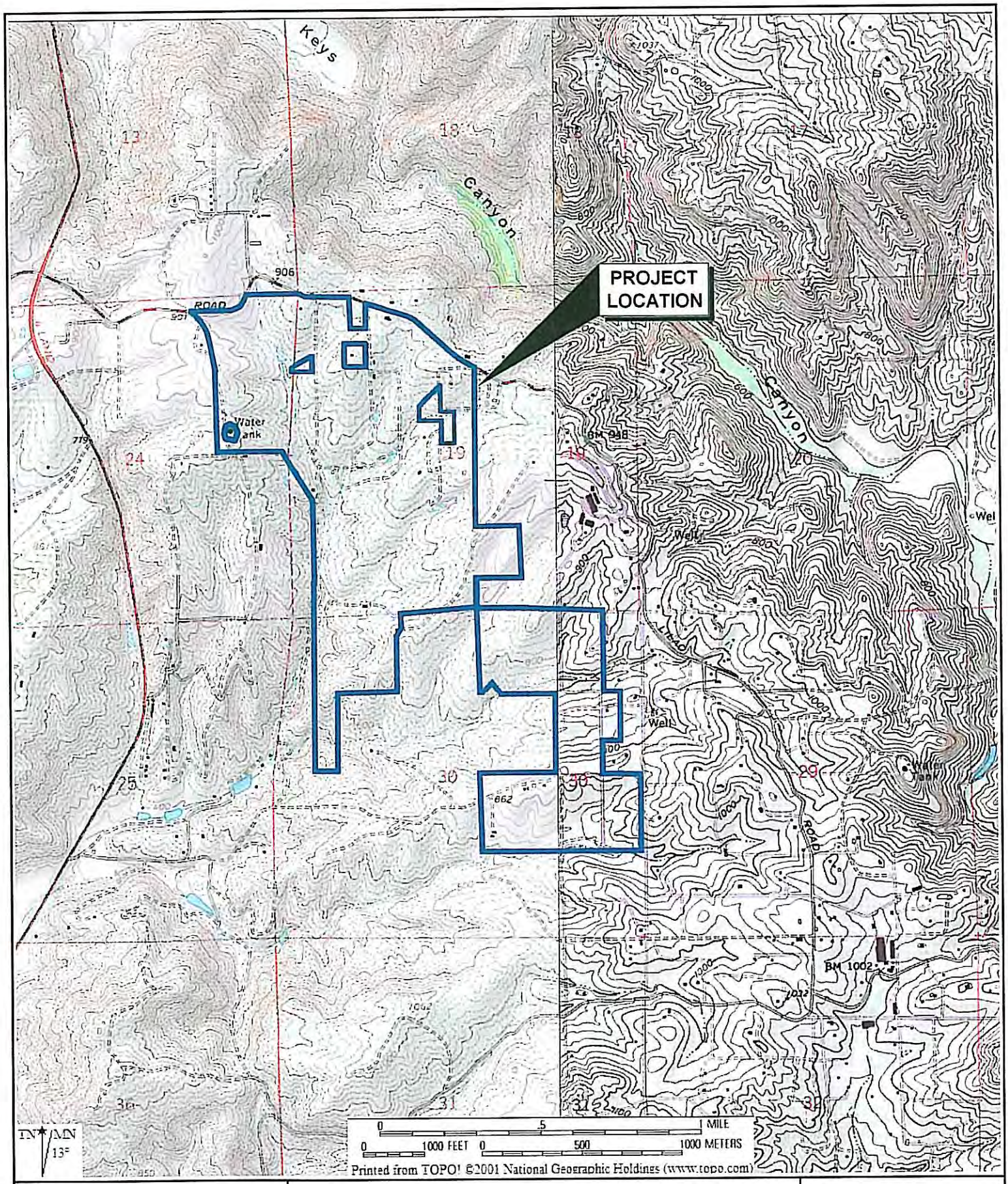
Regional location in San Diego County

Figure 1



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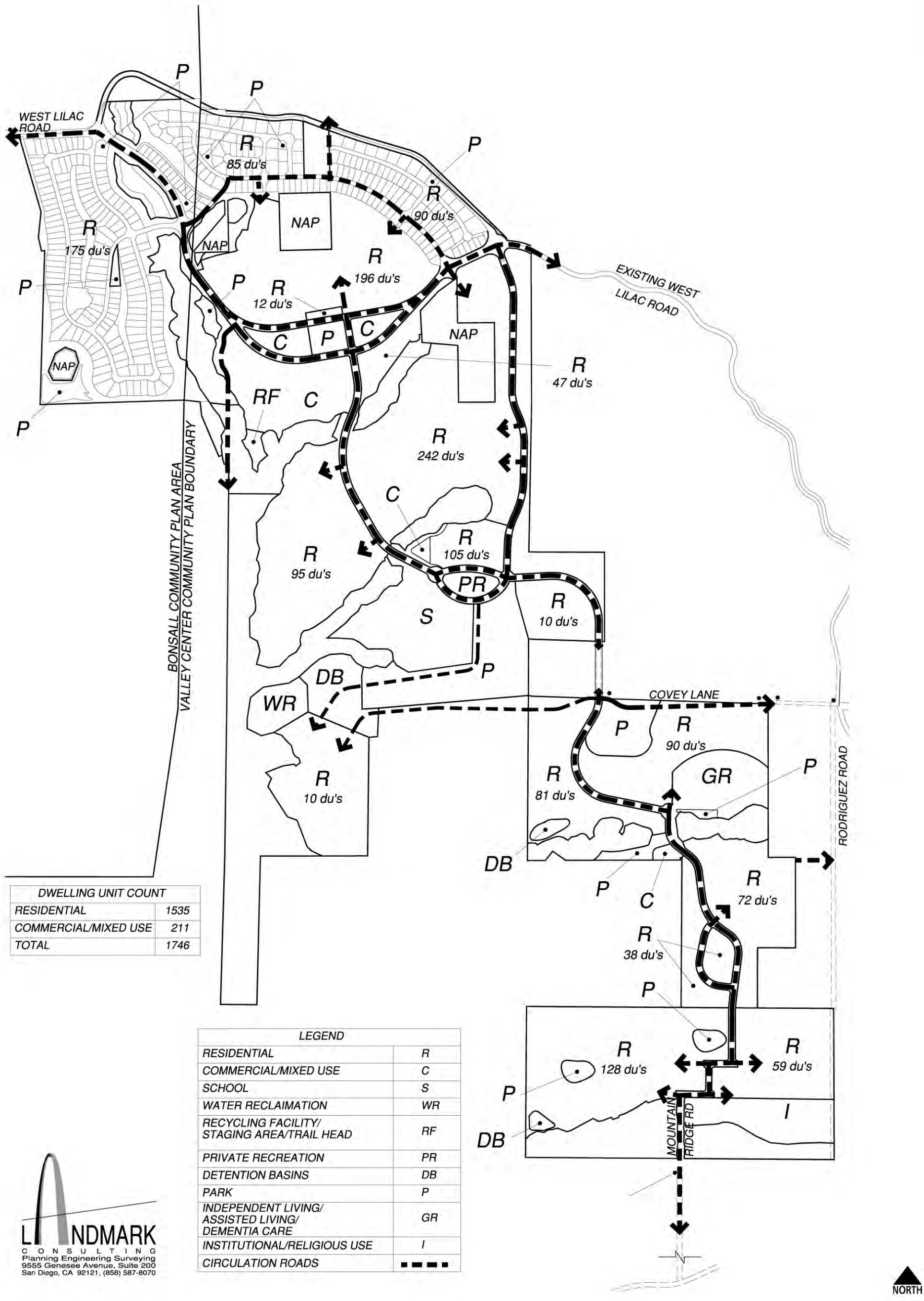
Project location on USGS 7.5'
Bonsall and Pala quadrangle

Figure 2



DWELLING UNIT COUNT	
RESIDENTIAL	1535
COMMERCIAL/MIXED USE	211
TOTAL	1746

LEGEND	
RESIDENTIAL	R
COMMERCIAL/MIXED USE	C
SCHOOL	S
WATER RECLAIMATION	WR
RECYCLING FACILITY/ STAGING AREA/TRAIL HEAD	RF
PRIVATE RECREATION	PR
DETENTION BASINS	DB
PARK	P
INDEPENDENT LIVING/ ASSISTED LIVING/ DEMENTIA CARE	GR
INSTITUTIONAL/RELIGIOUS USE	I
CIRCULATION ROADS	▬ ▬ ▬

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Project Plan

Figure 3

1.2 Existing Conditions

1.2.1 Environmental Setting

Natural Environment

The project is in the western portion of the Valley Center Community Planning Area, in northwestern San Diego County. The project is in the foothills, in an area characterized as "Mediterranean hot summer" (Griner and Pryde 1976:Figure 3.4). The average January low temperature for the area is approximately 40° F (Griner and Pryde 1976:Figure 3.2), and the average July high temperature is between 85 and 90° (Griner and Pryde 1976:Figure 3.1). Average annual rainfall is 15 in (Griner and Pryde 1976:Figure 3.3). Geologically, the project area is underlain by igneous rocks mapped as Tonalite of Couser Canyon (Cretaceous) (Kennedy 2000; Tan 2000). Regarding this formation, the geologic maps note, "contains some granodiorite and is characterized by an abundance of pegmatitic dikes" (Kennedy 2000; Tan 2000). The granitic bedrock would have provided surfaces for milling, and granitic cobbles were used for grinding implements (manos). Quartz found in pegmatite dikes was used for stone tool manufacture. The soil associations mapped for the area are the Fallbrook-Vista association, rocky, and the Cieneba-Fallbrook association, very rocky (Bowman 1973). Soil types mapped within and adjacent to the project include Cieneba coarse sandy loams, Fallbrook sandy loams, Greenfield sandy loam, and steep gullied land (Bowman 1973).

The project area is made up of a number of ridge fingers separated by drainages of various sizes, several of which are shown as blueline streams on the USGS map (Figure 2). While there are areas of slopes and old vegetation, there are many areas of gentle topography. The San Luis Rey River valley is less than 2 miles northwest of the project, and Moosa Canyon is a short distance southwest of the project; Keys Canyon is a short distance to the northeast (Figure 2).

The project study area supports numerous plant resources that would have attracted native populations. Sage scrub, chaparral, and riparian communities occur within the project area. Plant species noted during the survey include coast live oak, black sage, elderberry, buckwheat, California sagebrush, yucca, coyote bush, scrub oak, laurel sumac, lemonade berry, prickly pear, manzanita, chamise, poison oak, willow, cattail, and sycamore. These and other species common in the vegetation communities are known to have been used by native populations for food, shelter, tools, ceremonial uses, etc. The vegetation communities would have supported a number of animal species also used by native people (see Bean and Shipek 1978; Hedges and Beresford 1978; Sparkman 1908).

Cultural Environment

General Culture History

Several summaries discuss the prehistory of San Diego County and provide a background for understanding the archaeology of the general area surrounding the project. Moratto's (1984) review of the archaeology of California contains important discussions of Southern California, including the San Diego area, as does a recent book by Neusius and Gross (2007). Bull (1983, 1987), Carrico (1987), Gallegos (1987), and Warren (1985, 1987) provide summaries of archaeological work and interpretations, and a relatively recent paper (Arnold et al. 2004) discusses advances since 1984. The following is a brief discussion of the culture history of the San Diego region.

Carter (1957, 1978, 1980), Minshall (1976) and others (e.g., Childers 1974; Davis 1968, 1973) have long argued for the presence of Pleistocene humans in California, including the San Diego area. The sites identified as "early man" are all controversial. Carter and Minshall are best known for their discoveries at Texas Street and Buchanan Canyon. The material from these sites is generally considered nonartifactual, and the investigative methodology is often questioned (Moratto 1984).

The earliest accepted archaeological manifestation of Native Americans in the San Diego area is the San Dieguito complex, dating to approximately 10,000 years ago (Warren 1967). The San Dieguito complex was originally defined by Rogers (1939), and Warren published a clear synthesis of the complex in 1967. The material culture of the San Dieguito complex consists primarily of scrapers, scraper planes, choppers, large blades, and large projectile points. Rogers considered crescentic stones to be characteristic of the San Dieguito complex as well. Tools and debitage made of fine-grained green metavolcanic material, locally known as felsite, were found at many sites that Rogers identified as San Dieguito. Often these artifacts were heavily patinated. Felsite tools, especially patinated felsite, came to be seen as an indicator of the San Dieguito complex. Until relatively recently, many archaeologists felt that the San Dieguito culture lacked milling technology and saw this as an important difference between the San Dieguito and La Jolla complexes. Sleeping circles, trail shrines, and rock alignments have also been associated with early San Dieguito sites. The San Dieguito complex is chronologically equivalent to other Paleoindian complexes across North America, and sites are sometimes called "Paleoindian" rather than "San Dieguito". San Dieguito material underlies La Jolla complex strata at the C. W. Harris site in San Dieguito Valley (Warren, ed. 1966).

The traditional view of San Diego prehistory has the San Dieguito complex followed by the La Jolla complex at least 7000 years ago, possibly as long as 9000 years ago (Rogers 1966). The La Jolla complex is part of the Encinitas tradition and equates with Wallace's (1955) Millingstone Horizon, also known as Early Archaic or Milling Archaic. The Encinitas tradition is generally "recognized by millingstone assemblages in shell middens, often near sloughs and lagoons" (Moratto 1984:147). "Crude" cobble tools, especially choppers and scrapers, characterize the La Jolla complex (Moriarty 1966). Basin metates, manos, discoidals, a small number of Pinto series and Elko series points, and flexed burials are also characteristic.

Warren et al. (1961) proposed that the La Jolla complex developed with the arrival of a desert people on the coast who quickly adapted to their new environment. Moriarty (1966) and Kaldenberg (1976) have suggested an in situ development of the La Jolla people from the San Dieguito. Moriarty has since proposed a Pleistocene migration of an ancestral stage of the La Jolla people to the San Diego coast. He suggested this Pre-La Jolla complex is represented at Texas Street, Buchanan Canyon, and the Brown site (Moriarty 1987).

Since the 1980s, archaeologists in the region have begun to question the traditional definition of San Dieguito people simply as makers of finely crafted felsite projectile points, domed scrapers, and discoidal cores, who lacked milling technology. The traditional defining criteria for La Jolla sites (manos, metates, "crude" cobble tools, and reliance on lagoonal resources) have also been questioned (Bull 1987; Cárdenas and Robbins-Wade 1985; Robbins-Wade 1986). There is speculation that differences between artifact assemblages of "San Dieguito" and "La Jolla" sites reflect functional differences rather than temporal or cultural variability (Bull 1987; Gallegos 1987). Gallegos (1987) has proposed that the San Dieguito, La Jolla, and Pauma complexes are manifestations of the same culture, with differing site types "explained by site location, resources exploited, influence, innovation and adaptation to a rich coastal region over a long period of time" (Gallegos 1987:30). The classic "La Jolla" assemblage is one adapted to life on the coast and appears to continue through time (Robbins-Wade 1986; Winterrowd and Cárdenas 1987). Inland sites adapted to hunting contain a different tool kit, regardless of temporal period (Cárdenas and Van Wormer 1984).

Several archaeologists in San Diego, however, do not subscribe to the Early Prehistoric/Late Prehistoric chronology (see Cook 1985; Gross and Hildebrand 1998; Gross and Robbins-Wade 1989; Shackley 1988; Warren 1998). They feel that an apparent overlap among assemblages identified as "La Jolla," "Pauma," or "San Dieguito" does not preclude the existence of an Early Milling period culture in the San Diego region, whatever name is used to identify it, separate from an earlier culture. One problem these archaeologists perceive is that many site reports in the San Diego region present conclusions based on interpretations of stratigraphic profiles from sites at which stratigraphy cannot validly be used to address chronology or changes through time. Archaeology emphasizes stratigraphy as a tool, but many of the sites known in the San Diego region are not in depositional situations. In contexts where natural sources of sediment or anthropogenic sources of debris to bury archaeological materials are lacking, other factors must be responsible for the subsurface occurrence of cultural materials. The subsurface deposits at numerous sites are the result of such agencies as rodent burrowing and insect activity. Recent work has emphasized the importance of bioturbative factors in producing the stratigraphic profiles observed at archaeological sites (see Gross 1992a). Different classes of artifacts move through the soil in different ways (Bocek 1986; Erlandson 1984; Johnson 1989), creating vertical patterning (Johnson 1989) that is not culturally relevant. Many sites, which have been used to help define the culture sequence of the San Diego region, are the result of just such nondepositional stratigraphy.

The Late Prehistoric period is represented by the San Luis Rey complex in northern San Diego County and the Cuyamaca complex in the southern portion of the county. The San Luis Rey complex is the archaeological manifestation of the Shoshonean predecessors of the ethnohistoric Luiseño (named for the San Luis Rey Mission). The Cuyamaca complex represents the Yuman forebears of the Kumeyaay (Diegueño, named for the San Diego Mission). Agua Hedionda is traditionally considered to be the point of separation between Luiseño and Northern Diegueño territories.

The San Luis Rey complex (SLR) is divided into two phases, SLR I and SLR II. Elements of the SLR complex include small, triangular, pressure-flaked projectile points (generally Cottonwood series, but Desert side-notched series also occurs); milling implements: mortars and pestles, manos and metates, and bedrock milling features; bone awls; *Olivella* shell beads; other stone and shell ornaments; and cremations (Meighan 1954; Moratto 1984; True et al. 1974). The later SLR II complex also includes several elements not found in the SLR I complex: "pottery vessels, cremation urns, red and black pictographs, and such nonaboriginal items as metal knives and glass beads" (Meighan 1954:223).

SLR I was originally thought to date from A.D. 1400 to A.D. 1750, with SLR II dating between A.D. 1750 and A.D. 1850 (Meighan 1954). However, that division was based on the assumption that the Luiseño did not practice pottery manufacture until just prior to the arrival of the Spanish. The chronology has since been revised due to evidence that pottery may have been introduced to the Luiseño circa A.D. 1200-1600. Ceramics were probably introduced from the Luiseños' southern neighbors, the Kumeyaay (True et al. 1974).

While Juan Rodriguez Cabrillo visited San Diego briefly in 1542, the beginning of the historic period in the San Diego area is generally given as 1769. It was that year that the Royal Presidio and the first Mission San Diego were founded on a hill overlooking Mission Valley. The Mission San Diego de Alcala was constructed in its current location five years later. The Spanish Colonial period lasted until 1821 and was characterized by religious and military institutions bringing Spanish culture to the area and attempting to convert the Native American population to Christianity. Mission San Diego was the first mission founded in Southern California. Mission San Luis Rey, in Oceanside, was founded in 1798. *Asistencias* (chapels) were established at Pala (1816) and Santa Ysabel (1818).

The Mexican period lasted from 1821, when California became part of Mexico, to 1848, when Mexico ceded California to the United States under the treaty of Guadalupe Hidalgo at the end of the Mexican-American War. Following secularization of the missions in 1834, mission lands were given as large land grants to Mexican citizens as rewards for service to the Mexican government. The society made a transition from one dominated by the church and the military to a more civilian population, with people living on ranchos or in pueblos. The Pueblo of San Diego was established during the period, and transportation routes were expanded. Cattle ranching prevailed over agricultural activities.

The American period began in 1848, when California was ceded to the United States. The territory became a state in 1850. Terms of the Treaty of Guadalupe Hidalgo brought about the creation of the Lands Commission in response to the Homestead Act of 1851, which

was adopted as a means of validating and settling land ownership claims throughout the state. Few of the large Mexican ranchos remained intact, due to legal costs and the difficulty of producing sufficient evidence to prove title claims. Much of the land that once constituted rancho holdings became available for settlement by immigrants to California. The influx of people to California and to the San Diego region resulted from several factors, including the discovery of gold in the state, the end of the Civil War, the availability of free land through passage of the Homestead Act, and later, the importance of San Diego County as an agricultural area supported by roads, irrigation systems, and connecting railways. During the late nineteenth and early twentieth centuries, rural areas of San Diego County developed small agricultural communities centered on one-room schoolhouses. Such rural farming communities consisted of individuals and families tied together through geographical boundaries, a common schoolhouse, and a church. Farmers living in small rural communities were instrumental in the development of San Diego County. They fed the growing urban population and provided business for local markets. Rural farm school districts represented the most common type of community in the county from 1870 to 1930. The growth and decline of towns occurred in response to boom and bust cycles in the 1880s. At the turn of the twentieth century residents of the project area were listed in under the Bonsall post office. In the 1910s known residents of the area were listed under the Lilac post office.

Native American Perspective

In addition to the point of view discussed above, it is acknowledged that other perspectives exist to explain the presence of Native Americans in the region. The Native American perspective is that they have been here from the beginning as described by their creation stories. Similarly, they do not necessarily agree with the distinction that is made between different archaeological cultures or periods, such as “La Jolla” and “San Dieguito”. They instead believe that there is a continuum of ancestry, from the first people to the present Native American populations of San Diego.

Ethnography

The name Luiseño derives from Mission San Luis Rey de Francia and has been used to refer to the native people associated with the mission. The Luiseño language belongs to the Cupan group of the Takic subfamily, which has also been called Southern California Shoshonean, and is part of the widespread Uto-Aztecan language family (Bean and Shipek 1978; Sparkman 1908; White 1963). Neighboring groups that speak Cupan languages are Cupeño, Cahuilla, and Gabrielino. The native people associated with Mission San Juan Capistrano, called Juaneño by the Spanish, are sometimes described as a separate group. The language, culture, and territory of the Luiseño and Juaneño are so closely related that the two are often considered to be a single ethnic nationality (Bean and Shipek 1978; White 1963). However, Cameron (1987:319-321) has noted archaeological differences between the two groups, and many individuals within the Luiseño and Juaneño communities consider the two to be separate groups.

The territory of the Luiseño people is generally described as extending along the coast from Agua Hedionda Creek on the southwest to Aliso Creek on the northwest. On the

north this boundary extended east beyond Santiago Peak to the eastern side of the Elsinore Fault Valley, continuing southeast to Palomar Mountain, then around the southern slope above the valley of San Jose. The southern boundary follows westerly to Agua Hedionda Creek (Bean and Shipek 1978; White 1963).

Ethnographic and ethnohistoric studies of the Luiseño include Bean and Shipek (1978), Boscana (1947), Kroeber (1976), Robinson (1947), Shipek (1977), Sparkman (1908), Talley (1982), and White (1963). Archaeological studies addressing the Late Prehistoric San Luis Rey complex include McCown (1955), Meighan (1954), True et al. (1974), and Wallace (1960). Most of the ethnographic studies, as well as the "classic" archaeological studies of the Luiseño, have concentrated on the Pauma Valley and the Palomar Mountain area, although Wallace's (1960) study was an archaeological survey of the Buena Vista Creek watershed.

1.2.2 Records Search Results

Records searches for the project area and a one-mile radius were obtained from the South Coastal Information Center (SCIC) at San Diego State University for the original survey of a portion of the project area in 2007 (Robbins-Wade 2007). An updated records search was conducted at SCIC for the current project in February 2011. Records search maps are included in Confidential Appendix A. Eighteen sites and three isolates have been recorded within a one-mile radius of the project area (Table 1). Six of the previously recorded sites and one isolate are within the current project area: CA-SDI-12,551, CA-SDI-12,553H, CA-SDI-18,362, CA-SDI-18,363, CA-SDI-18,364, CA-SDI-18,365, and P-37-028486. The latter four sites and the isolate were recorded during the survey of a portion of the project area by Affinis archaeologists in 2007.

Of the 18 archaeological sites recorded within a one-mile radius of the project area, 2 are historic and 16 are pre-contact Native American sites. Three-fourths of the pre-contact sites (12) included bedrock milling features; five of these sites had only bedrock milling features with no other cultural characteristics noted. Three of the sites included milling features and lithic artifacts. At one site bedrock milling features were found with a stacked stone feature, apparently a rock room. Stacked stone granaries were recorded at another site, with milling features, lithic artifacts, and ceramics. One site record noted bedrock milling features and habitation debris; another recorded milling features, lithics, ceramics, faunal material, a rock overhang, and a subsurface deposit. Of the pre-contact sites that lacked milling features, two were scatters of lithic artifacts, one included lithics and ceramics, and one was a rock shelter with no artifacts observed. The two historic sites consisted of a historic trash scatter and a historic foundation with a trash scatter and non-native trees.

Table 1. Previously Recorded Sites Within a One-Mile Radius

Site Number (CA-SDI-#)	Site Type	Site Dimensions	Site Recorder (Report Reference, when available)
4809	Bedrock milling station	5 m by 5 m	Cupples, Cook, Gray, Easland 1976
5211	Bedrock milling station, habitation debris	Not on record	Cowper 1977; Ashkar 2000 (report – Jones & Stokes 2000)
11,426	Bedrock milling station, lithic scatter	30 m by 20 m	Eighmey 1989 (report – Clevenger, no date given)
11,427	Bedrock milling station, lithic scatter	50 m by 30 m	Eighmey 1989
11,428	Bedrock milling station, lithic and ceramic scatter, prehistoric granaries	100 m by 30 m	Eighmey 1989
11,429	Bedrock milling station, lithic scatter	40 m by 25 m	Eighmey 1989
11,430	Lithic scatter	10 m by 0.5 m	Eighmey 1989
11,431	Bedrock milling station	40 m by 15 m	Not on record
12,551	Bedrock milling station	4 m by 2 m	Strudwick, Linehan, McIntosh and Sespe 1991
12,553	Historic foundation, historic trash scatter, non-native trees	40 m by 20 m	Kyle, Linehan and Sespe 1991
12,580	Lithic and ceramic scatter	30 m by 20 m	Briggs and Kyle 1992
18,362	Bedrock milling station, prehistoric stone architecture	80 m by 30 m	Robbins-Wade, Giletti, Sivba, Mullen and Mojado 2007 (report – Robbins-Wade 2007)
18,363	Rock shelter	2 m by 2 m	Robbins-Wade, Giletti, Sivba, Mullen and Mojado 2007 (report – Robbins-Wade 2007)

Site Number (CA-SDI-#)	Site Type	Site Dimensions	Site Recorder (Report Reference, when available)
18,364	Lithic scatter	20 m by 60 m	Robbins-Wade, Giletti, Sivba, Mullen and Mojado 2007 (report – Robbins-Wade 2007)
18,365	Bedrock milling station	5.5 m by 3.5 m	Robbins-Wade, Giletti, Sivba, Mullen and Mojado 2007 (report – Robbins-Wade 2007)
19,368	Bedrock milling station	9 m by 6 m	Clowery-Moreno 2009 (report – Smith and Clowery-Moreno 2008)
19,369	Bedrock milling station, ceramic scatter; lithic, ceramic, and faunal bone subsurface deposit; rock overhang	17 m by 20 m	Clowery-Moreno 2009 (report – Smith and Clowery-Moreno 2008)
19,502	Historic trash scatter	77 m by 10 m	De Barros and Paulson 2009 (report – de Barros 2009)

P-37-	Site Type	Site Dimensions	Site Recorder (Report Reference, when available)
028486	Lithic Isolate	N/A	Robbins-Wade, Giletti, Sivba, Mullen and Mojado 2007 (report – Robbins-Wade 2007)
030478	Lithic Isolate	N/A	Clowery-Moreno 2009 (report – Smith and Clowery-Moreno 2008)
030479	Lithic Isolate	N/A	Clowery-Moreno 2009 (report – Smith and Clowery-Moreno 2008)

In general, the sites are recorded along drainages: seven of the sites are recorded in Keys Canyon; several others are along an unnamed drainage that runs through the project area and eventually into Moosa Creek.

Previous Studies

The SCIC has a record of 15 archaeological studies that have been conducted within a one-mile radius of the study area (Table 2). Eight of these studies are negative surveys. The other seven studies each resulted in recording between one and 31 resources.

Table 2. Previous Studies Within a One-Mile Radius

Report Name	Author, Year	Report Type	Results
Archaeological Resources of Lake Rancho Viejo	Bull 1981	Overview and Assessment	One resource found
Cultural Resource Records Search and Site Visit Results for T-Mobile Candidate	Bonner and Aislin-Kay 2006	Overview, Assessment and Evaluation Study	"Unknown Findings"
A Cultural Resource Study for the Champagne Lakes RV Park Project	Clowery-Moreno and Smith 2009	Overview, Assessment and Evaluation Study	6 resources found
Cultural Resource Survey Report for the Sukup Property	Gallegos 2000	Other	No resources found
Archaeological Survey Report for a Portion of Proposed Interstate 15	Cupples 1977	Archaeological Identification Study	4 resources found
Archaeological Survey Report for a Portion of Proposed Interstate 15	Cupples 1977	Archaeological Identification Study	No resources found
Cultural Resources Survey Report for: Robinson	Shalom 2008	Overview, Assessment and Evaluation Study	No resources found
Cultural Resources Survey Report for Ganga Valli	Shalom 2007	Overview, Assessment and Evaluation Study	No resources found
Negative Cultural Resources Survey Report for Avowick Tentative Parcel Map	Beddow 2003	Other	No resources found

Report Name	Author, Year	Report Type	Results
Negative Cultural Resources Survey Report for Avowick Tentative Parcel Map	Beddow 2003	Overview and Assessment	Not on record
An Archaeological Survey for Stone 210-Acre TPM	Hatley 1978	Archaeological Identification Study	No resources found
Cultural Resource Inventory for Proposed Pipeline 2/2A Alternative Alignments	Gallegos 1992	Archaeological Evaluation Study	No resources found
Cultural Resources Study at Sites CA-SDI-684 and CA-SDI-9854	Smith 1990	Cultural Resources Management Plan & Archaeological Evaluation Study	2 resources found
Cultural Resource Evaluation of Prehistoric and Historic Sites at Rancho Lilac	Clevenger, Phillips, and Gallegos 1990	Archaeological Evaluation Study	31 resources found
Cultural Resource Evaluation of Prehistoric and Historic Sites at Rancho Lilac	Clevenger, Phillips, and Gallegos 1990	Overview, Assessment and Evaluation Study	"Positive Survey"

Previous Recorded Sites Adjacent to the Study Area

While there are several sites recorded within the project area, there are no resources recorded adjacent to it.

1.3 Applicable Regulations

Resource importance is assigned to districts, sites, buildings, structures, and objects that possess exceptional value or quality illustrating or interpreting the heritage of San Diego County in history, architecture, archaeology, engineering, and culture. A number of criteria are used in demonstrating resource importance. Specifically, criteria outlined in CEQA, RPO, and the San Diego County Local Register provide the guidance for making such a determination. The following sections detail the criteria that a resource must meet in order to be determined important.

1.3.1 California Environmental Quality Act (CEQA)

According to CEQA (§15064.5a), the term "historical resource" includes the following:

(1) A resource listed in, or determined to be eligible by the State Historical Resources Commission, for listing in the California Register of Historical Resources (Pub. Res. Code SS5024.1, Title 14 CCR. Section 4850 et seq.).

(2) 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.

(3) Any object, building, structure, site, area, place, record, or manuscript which a lead agency determines to be historically significant or significant in the architectural, engineering, scientific, economic, agricultural, educational, social, political, military, or cultural annals of California may be considered to be an historical resource, provided the lead agency's determination is supported by substantial evidence in light of the whole record. Generally, a resource shall be considered by the lead agency to be "historically significant" if the resource meets the criteria for listing on the California Register of Historical Resources (Pub. Res. Code SS5024.1, Title 14, Section 4852) including the following:
   (A) Is associated with events that have made a significant contribution to the broad patterns of California's 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.

(4) The fact that a resource is not listed in, or determined eligible for listing in the California Register of Historical Resources, not included in a local register of historical resources (pursuant to section 5020.1(k) of the Public Resources Code), or identified in an historical resources survey (meeting the criteria in section 5024.1(g) of the Public Resource Code) does not preclude a lead agency from determining that the resource may be an historical resource as defined in Public Resources Code section 5020.1(j) or 5024.1.

According to CEQA (§15064.5b), a project with an effect that may cause a substantial adverse change in the significance of an historical resource is a project that may have a significant effect on the environment. CEQA defines a substantial adverse change as:

(1) Substantial adverse change in the significance of an historical resource means physical demolition, destruction, relocation, or alteration of the resource or its immediate surroundings such that the significance of an historical resource would be materially impaired.

(2) The significance of an historical resource is materially impaired when a project:

(A) Demolishes or materially alters in an adverse manner those physical characteristics of an historical resource that convey its historical significance and that justify its inclusion in, or eligibility for, inclusion in the California Register of Historical Resources; or

(B) Demolishes or materially alters in an adverse manner those physical characteristics that account for its inclusion in a local register of historical resources pursuant to section 5020.1(k) of the Public Resources Code or its identification in an historical resources survey meeting the requirements of section 5024.1(g) of the Public Resources Code, unless the public agency reviewing the effects of the project establishes by a preponderance of evidence that the resource is not historically or culturally significant; or

(C) Demolishes or materially alters in an adverse manner those physical characteristics of an historical resource that convey its historical significance and that justify its eligibility for inclusion in the California Register of Historical Resources as determined by a lead agency for purposes of CEQA.

Section 15064.5 8 of CEQA applies to effects on archaeological sites and contains the following additional provisions regarding archaeological sites:

(1) When a project will impact an archaeological site, a lead agency shall first determine whether the site is an historical resource, as defined in subsection (a).

(2) If a lead agency determines that the archaeological site is an historical resource, it shall refer to the provisions of Section 21084.1 of the Public Resources Code, and this section, Section 15126.4 of the Guidelines, and the limits contained in Section 21083.2 of the Public Resources Code do not apply.

(3) If an archaeological site does not meet the criteria defined in subsection (a), 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. The time and cost limitations described in Public Resources Code Section 21083.2 (c-f) do not apply to surveys and site evaluation activities intended to determine whether the project location contains unique archaeological resources.

(4) If an archaeological resource is neither a unique archaeological nor an historical resource, the effects of the project on those resources shall not be considered a significant effect on the environment. It shall be sufficient that both the resource and the effect on it are noted in the Initial Study or EIR, if one is prepared to address impacts on other resources, but they need not be considered further in the CEQA process.

Section 15064.5 (d) & (e) contain additional provisions regarding human remains. Regarding Native American human remains, paragraph (d) provides:

(D) When an initial study identifies the existence of, or the probable likelihood, of Native American human remains within the project, a lead agency shall work with the appropriate Native Americans as identified by the Native American Heritage Commission as provided in Public Resources Code §5097.98. 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. Action implementing such an agreement is exempt from:

(1) The general prohibition on disinterring, disturbing, or removing human remains from any location other than a dedicated cemetery (Health and Safety Code Section 7050.5).

(2) The requirement of CEQA and the Coastal Act.

1.3.2 San Diego County Local Register of Historical Resources (Local Register)

The County requires that resource importance be assessed not only at the State level as required by CEQA, but at the local level as well. If a resource meets any one of the following criteria as outlined in the Local Register, it will be considered an important resource.

(1) Is associated with events that have made a significant contribution to the broad patterns of San Diego County's history and cultural heritage;

(2) Is associated with the lives of persons important to the history of San Diego County or its communities;

(3) Embodies the distinctive characteristics of a type, period, San Diego County region, or method of construction, or represents the work of an important creative individual, or possesses high artistic values; or

(4) Has yielded, or may be likely to yield, information important in prehistory or history.

1.3.3 San Diego County Resource Protection Ordinance (RPO)

The County of San Diego's RPO protects significant cultural resources. The RPO defines "Significant Prehistoric or Historic Sites" as follows:

Sites that 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 include, but not be limited to:

(1) Any prehistoric or historic district, site, interrelated collection of features or artifacts, building, structure, or object either:

(aa) Formally determined eligible or listed in the National Register of Historic Places by the keeper of the National Register; or

(bb) To which the Historic Resource ("H" Designator) Special Area Regulations have been applied; or

(2) One-of-a-kind, locally unique, or regionally unique cultural resources which contain a significant volume and range of data and materials, and

(3) Any location of past or current sacred religious or ceremonial observances which is either:

(aa) Protected under Public Law 95-341, the American Indian Religious Freedom Act or Public Resources Code Section 5097.9, such as burial(s), pictographs, petroglyphs, solstice observatory sites, sacred shrines, religious ground figures or

(bb) Other formally designated and recognized sites which are of ritual, ceremonial, or sacred value to any prehistoric or historic ethnic group.

The RPO does not allow non-exempt activities or uses damaging to significant prehistoric or historic lands on properties under County jurisdiction. The only exempt activity is scientific investigation. All discretionary projects are required to be in conformance with applicable County standards related to cultural resources, including the noted RPO criteria on prehistoric and historic sites. Non-compliance would result in a project that is inconsistent with County standards.

2.0 GUIDELINES FOR DETERMINING IMPACT SIGNIFICANCE

For the purposes of this technical report, any of the following will be considered a potentially significant environmental impact to cultural resources:

1. The project causes a substantial adverse change in the significance of a historical resource as defined in §15064.5 of the State CEQA Guidelines. This shall include the destruction, disturbance, or any alteration of characteristics or elements of a resource that cause it to be significant in a manner consistent with the Secretary of Interior Standards.
2. The project causes a substantial adverse change in the significance of an archaeological resource pursuant to §15064.5 of the State CEQA Guidelines. This shall include the destruction or disturbance of an important archaeological site or any portion of an important archaeological site that contains or has the potential to contain information important to history or prehistory.
3. The project disturbs any human remains, including those interred outside of formal cemeteries.
4. The project proposes activities or uses damaging to significant cultural resources as defined by the RPO and fails to preserve those resources.

The significance guidelines listed above have been selected for the following reasons:

Guidelines 1 and 2 are derived directly from CEQA. Sections 21083.2 of CEQA and 15064.5 of the State CEQA Guidelines recommend evaluating historical and archaeological resources to determine whether or not a proposed action would have a significant effect on unique historical or archaeological resources. Guideline 3 is included because human remains must be treated with dignity and respect and CEQA requires consultation with the “Most Likely Descendant” as identified by the Native American Heritage Commission (NAHC) for any project in which human remains have been identified.

Guideline 4 was selected because cultural resources are protected under the RPO. Any project that would have an adverse impact (direct, indirect, and cumulative) on significant cultural resources as defined by this Guideline would be considered a significant impact. The RPO does not allow non-exempt activities or uses damaging to significant prehistoric lands on properties under County jurisdiction. The only exempt activity is scientific investigation.

All discretionary projects are required to be in conformance with applicable County standards related to cultural resources, including the noted RPO criteria on prehistoric and historic sites, as well as requirements listed in the Zoning Ordinance, General Plan, and the Grading, Clearing and Watercourses Ordinance (§87.429). Non-compliance would result in a project that is inconsistent with County standards.

3.0 RESEARCH DESIGN

For the reconnaissance survey the basic question addressed was "Where are the archaeological sites?" The research design was expanded for the testing program to include three topics: chronology, settlement pattern, and bedrock milling. In addition, Traditional Cultural Properties and Native American Heritage Values are addressed.

3.1 Chronology

Chronology, or questions dealing with when things happened in the past, is one of the major areas investigated by archaeologists. Understanding the time of occupation of sites is critical for making progress in most of the other areas that are important to archaeologists. The basic question in this topic is "When was each site occupied?" Several lines of evidence can be brought to bear on this question, including radiocarbon dating, obsidian sourcing and hydration analysis, and the occurrence of time-sensitive artifacts.

3.2 Settlement Pattern

This topic deals with how people arranged themselves on the landscape. Throughout the Archaic and Late Prehistoric periods people are expected to have created both habitation sites (villages or long-term camps) and resource extraction and processing sites. Of the 16 pre-contact Native American sites recorded within a one-mile radius of the Lilac Hills Ranch project, 12 included bedrock milling features; five of these sites had only bedrock milling features with no other cultural constituents noted. Based on these data, we know that bedrock milling was an important activity in the project vicinity. The bedrock milling is addressed as a separate research question, but a basic question in the realm of settlement pattern is "Can base camps and resource extraction and processing sites be identified in the Lilac Hills Ranch project area?" Habitation sites or base camps should be indicated by extensive midden deposits and may also have bedrock milling elements. Extraction or processing sites should, on the other hand, have little midden and may or may not have milling elements, depending on the resource being exploited. In the Archaic period in inland areas base camps might be expected to be a little less intensively used than on the coast, but use intensity is expected to increase in the Late Prehistoric period. Intensity of use can be measured, at least in part, by the density of artifacts in the site soil matrix.

3.3 Bedrock Milling

Bedrock milling is a common type of feature in the San Diego area wherever suitable outcrops are found. The likelihood of finding bedrock milling apparently increases when the rock outcrops occur in relatively close proximity to surface water and resources that could be processed by grinding. Several different types of elements are found at bedrock milling sites. These include mortars, shallow round basins, oval basins, cupules, and slicks or areas where the rocks are worn smooth but that do not have a noticeable depression associated with them; slicks tend to follow the topography of the boulder's surface and

often have irregular outlines. Cupules are small depressions ground into the surface of the rock, sometimes on surfaces that are not horizontal.

Questions for this topic include:

1. What bedrock milling elements occur at each site that has bedrock milling?
2. Do the combinations of elements differ between habitation or camp sites and resource processing sites?
3. Is there any change through time in the occurrence of different types of bedrock milling elements?

This last question arises from a pattern noted by Gross and Ezell (1972) in the lower Sweetwater drainage, where sites with mortars always had ceramics associated with them, but some sites without mortars (sites having only basins and slicks) were found to be aceramic. A similar pattern was noted in a study for the Oak Country Estates project in Ramona, which investigated what appears to be the village of *Pa'mu* (Cooley and Barrie 2004).

3.4. Traditional Cultural Properties and Native American Heritage Values

Federal and state laws mandate that consideration be given to the concerns of contemporary Native Americans with regard to potentially ancestral human remains, associated funerary objects, and items of cultural patrimony. Consequently, an important element in assessing the significance of the study site has been to evaluate the likelihood that these classes of items are present in areas that would be affected by the proposed project.

Also potentially relevant to prehistoric archaeological sites is the category termed Traditional Cultural Properties in discussions of cultural resource management (CRM) performed under federal auspices. According to Patricia L. Parker and Thomas F. King (1998), "Traditional" in this context refers to those beliefs, customs, and practices of a living community of people that have been passed down through the generations, usually orally or through practice. The traditional cultural significance of a historic property, then, is significance derived from the role the property plays in a community's historically rooted beliefs, customs, and practices. Examples of properties possessing such significance include:

1. A location associated with the traditional beliefs of a Native American group about its origins, its cultural history, or the nature of the world;
2. A rural community whose organization, buildings and structures, or patterns of land use reflect the cultural traditions valued by its long-term residents;
3. An urban neighborhood that is the traditional home of a particular cultural group, and that reflects its beliefs and practices;

4. A location where Native American religious practitioners have historically gone, and are known or thought to go today, to perform ceremonial activities in accordance with traditional cultural rules of practice; and
5. A location where a community has traditionally carried out economic, artistic, or other cultural practices important in maintaining its historic identity.

A traditional cultural property, then, can be defined generally as one that is eligible for inclusion in the National Register because of its association with cultural practices or beliefs of a living community that (a) are rooted in that community's history, and (b) are important in maintaining the continuing cultural identity of the community.

4.0 ANALYSIS OF PROJECT EFFECTS

4.1 Methods

4.1.1 Survey Methods

Portions of the current project area were surveyed for cultural resources by Affinis archaeologists and representatives of the San Luis Rey Band of Luiseño Mission Indians in May 2007. The remaining project parcels were surveyed for cultural resources by Affinis staff and Native American monitors from Saving Sacred Sites (representing the San Luis Rey Band) between February 2011 and March 2012. Rights-of-way for off-site improvements were surveyed in July 2012 by Affinis and Saving Sacred Sites, as addressed in Appendix A. Figure 4 shows which parcels were surveyed in 2007 and which were surveyed in 2011 and 2012. Personnel are listed in Chapter 8.0, List of Preparers and Persons and Organizations Contacted.

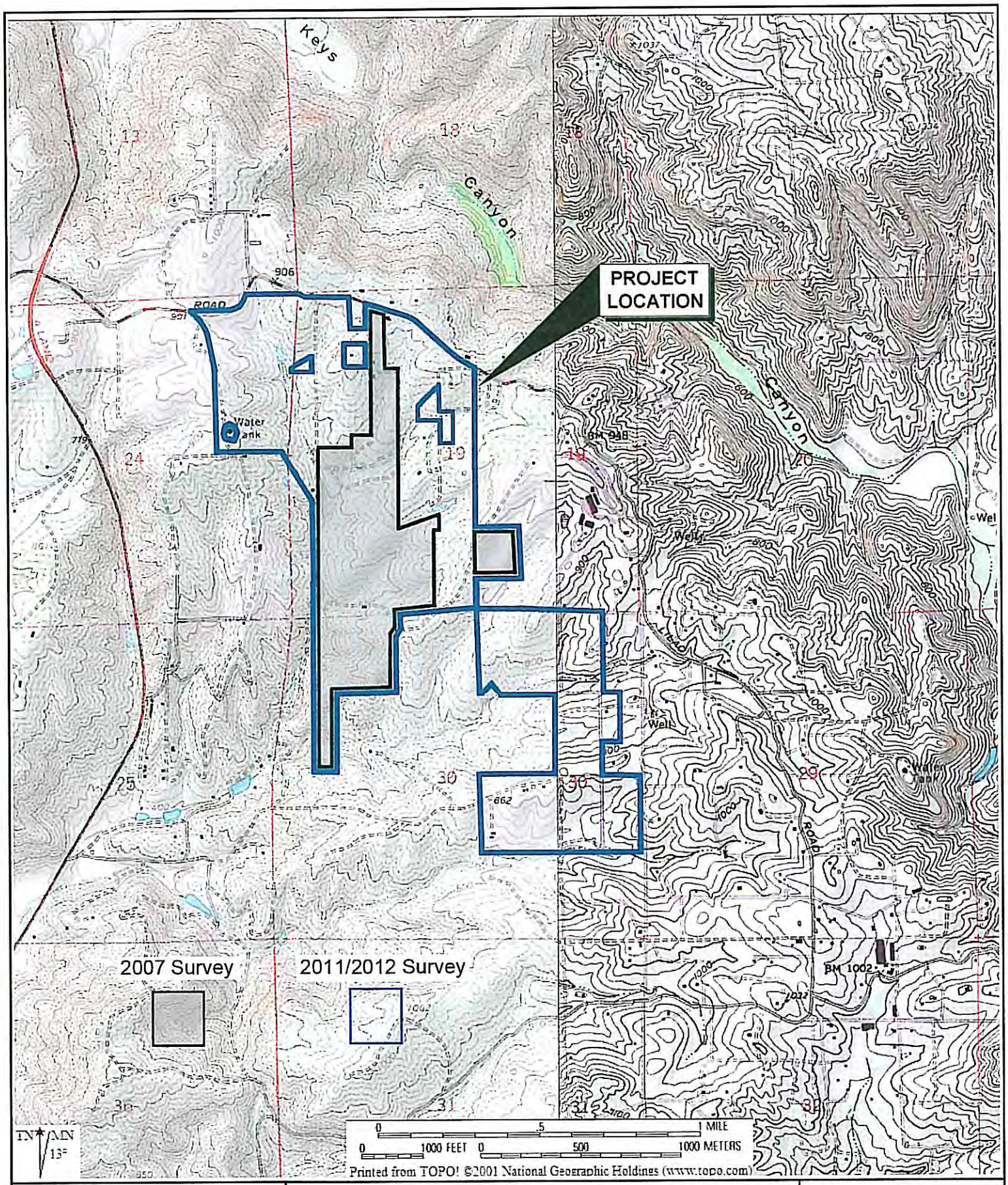
To the extent feasible, the project area was surveyed by walking parallel transects spaced 10 m to 15 m apart. In some areas, survey was limited by slopes or vegetation or both. In these areas, the archaeological survey crew walked dirt roads, paths, and any cleared areas that could be reached. Exposed bedrock was examined for evidence of bedrock milling or pictographs. Visibility was sometimes limited, as bedrock was often overgrown with vegetation or covered with soil and leaf duff. Figure 4 illustrates the limitations of survey coverage.

Saving Sacred Sites provided Native American monitors, who participated in the field surveys. Monitors are listed in Chapter 8.0, List of Preparers and Persons and Organizations Contacted.

All cultural resources identified during the survey were plotted on a project topographic map, photographed, and recorded with SCIC.

4.1.2 Testing Methods

Five archaeological sites would potentially be subject to impacts from project development. A testing plan was prepared by Affinis and approved by County staff prior to beginning fieldwork to evaluate these five sites. Due to the presence of sensitive vegetation at two of the sites, a *de minimus* Habitat Loss Permit (HLP) exemption was required. The loss of habitat associated with the testing program was 0.01 acre, and no nesting birds were found by a qualified biologist. The conditions of the *de minimus* HLP exemption were met, and the exemption was granted on June 29, 2012. The testing program was implemented between July 3 and July 19, 2012. The results of the testing program for each site are discussed in detail under Results, Section 4.2.1.



Affinis

Shadow Valley Center
847 Jamacha Road
El Cajon, CA 92019

Survey Coverage

Figure 4

CA-SDI-18,362

This site includes a rock room and bedrock milling features. Given the square shape of the stacked stone feature and the fact that no bedrock outcrops are used as anchors, the feature appears to be historic in age. Three 1-m-by-1-m units were excavated in the interior of the feature, two in corners and one in the center. The units sought to identify a packed earth floor, as well as artifactual material. Two shovel test pits (STPs) were excavated on the outside of the feature as well. Four STPs were initially proposed just outside the walls of the feature, but the topography made it difficult to excavate more than two. In addition, there was a general lack of cultural material or a packed earthen floor in the units. The stacked stone feature was drawn, photographed, and mapped.

The bedrock milling features were drawn, photographed, and mapped. A total of four STPs were excavated at the milling features.

CA-SDI-18,363

This site was recorded as a possible filled-in rock shelter or an oven feature, located south of CA-SDI-18,362. There was only about 30 cm of height inside the rock shelter, due to a build-up of soil and leaf duff. This soil and duff were cleared from the rock shelter and screened. The feature was drawn, photographed, and mapped. One STP was excavated in front of the feature, and a 50-cm-by-50-cm unit was excavated inside the feature following removal of the soil and duff. The site was determined not to be cultural in nature, as discussed under Results, Section 4.2.1 Archaeological Resources.

CA-SDI-18,364

CA-SDI-18,364 is a lithic scatter in an area that has been graded in the past. When the site was revisited in February 2011 it was found to be covered with wood chips, so visibility was obscured. Based on this, the testing plan proposed that 3-m-by-3-m areas at 20 m intervals would be raked and screened, in an effort to locate surface artifacts. This proved unnecessary, as the wood chips and duff were removed prior to the start of the testing program. Surface artifacts were mapped and collected. Eight STPs were initially excavated across the site. Due to the amount and depth of cultural material encountered in several of the STPs, additional STPs were excavated, for a total of 13. One test unit was excavated as well.

CA-SDI-18,365

CA-SDI-18,365 consists of several milling slicks on a single boulder just south of a dirt road; no artifacts were observed at the site during the survey or during the testing program. The bedrock milling feature was drawn, photographed, and mapped. Four STPs were excavated at the feature, all of which were sterile.

CA-SDI-20,436

This site was initially recorded as a single milling slick on a large granitic outcrop with an associated low-density lithic scatter. The testing plan proposed two STPs adjacent to the milling feature and four additional STPs in the area of the lithic scatter. Due to some clearing of vegetation prior to the start of the testing program, an additional bedrock milling feature was noted, as well as a greater number of surface artifacts. The amount and depth of cultural material in the STPs necessitated the excavation of additional STPs (for a total of 16) and two test units. Surface artifacts were mapped and collected. The bedrock milling features were drawn, photographed, and mapped.

Methods for Avoiding Impacts to Biological Resources

Affinis field director Andrew Giletti visited the sites with biologist Gerry Scheid in April 2012 to determine the placement of units and STPs so as to avoid impacts to sensitive biological resources. They also determined the locations for screening excavated soil in order to avoid impacts to biological resources. As previously noted, two of the sites (CA-SDI-18,362 and CA-SDI-18,363) are in areas of coastal sage scrub. As such, an HLP was required. Due to the extremely small area of coastal sage scrub that would potentially be affected (0.01 acre), a *de minimus* exemption to the HLP process was requested. The testing program qualifies for this exemption for the following reasons: the project proposes the removal of less than one acre of coastal sage scrub habitat, the site is not occupied by the California gnatcatcher, the project occurs in low value habitat or medium value habitat, the habitat loss would not preclude the design or prevent the preparation of the subregional NCCP reserve system, and the habitat loss is counted towards the five percent allowance of loss for the County of San Diego.

The following conditions were placed on the testing program by the County:

Habitat compensation: Mitigation for impacts to coastal sage scrub habitat in accordance with CEQA and the NCCP Conservation Guidelines and Process Guidelines consist of purchase, preservation, and management of 0.01 acres of CSS mitigation land in the draft NCMSCP Pre Approved Mitigation Area. This mitigation will be added to the CSS mitigation for the Lilac Hills Development project.

Resource avoidance: In order to avoid impacts to nesting birds under the Migratory Bird Treaty Act, a Resource Avoidance Area (RAA), shall be implemented over all native habitat that will be cleared. There shall be no brushing, clearing and/or grading within Resource Avoidance Area (RAA) during the migratory bird breeding season from February 15 to August 15. The Director of Planning and Land Use may waive this condition provided that no migratory bird breeding is occurring in the vicinity of the brushing, clearing or grading based upon a biological monitor's verification to the DPLU Project Manager by email no less than 24 hours and no more than 72 hours prior to disturbance. The email shall request a waiver of this condition with evidence that no nesting occurs within the RAA proposed for

clearing. The bird survey was conducted by Mr. Scheid on July 2, 2012, and no nest birds were identified.

General Methods for All Sites

STPs measured 50 cm north-south by 30 cm east-west. Excavation units measured 1 m on a side. Test units and STPs were oriented to true north and were excavated in 10-cm contour levels. Soils were passed through 1/8-in mesh rocker screens. Standard record forms were completed for each unit and level, recording artifact recovery, soil characteristics, and other information about the unit. Native American monitors from Saving Sacred Sites participated in all fieldwork.

4.1.3 Laboratory and Cataloging Procedures

All cultural material found during the testing program was taken to the Affinis lab, where it was cleaned, sorted, and cataloged. Standard catalog forms were completed for the collection that recorded provenience, artifact type, material, dimensions, and selected other attributes. The artifact catalogs are included as Appendix B of this report.

The archaeological sites were mapped on the project topographic map (Confidential Appendix B), and updated site records were submitted to the South Coastal Information Center (Confidential Appendix C).

4.1.4 Curation

Cultural material collected will be curated at the San Diego Archaeological Center or other appropriate curatorial facility. Alternatively, cultural material may be repatriated to the appropriate Luiseño Tribe, as determined by agreement among the Tribes, the Principal Investigator, and County staff.

4.1.5 Native American Participation/Consultation

The Native American Heritage Commission (NAHC) was contacted for a search of their Sacred Lands Files (see Confidential Appendix D). Individuals and groups identified by the NAHC were contacted regarding the project (see Confidential Appendix D). County staff sent letters to the Native American community notifying them of the project and requesting their participation in the SB 18 consultation process (see Confidential Appendix D). Five tribes responded to the request for SB-18 consultation: Soboba, Pechanga, San Luis Rey, Rincon, and Pala. An initial consultation was held at the County with each of these tribes. Consultation will be on-going as the project progresses throughout the application process.

Native American monitors from Saving Sacred Sites participated in the survey and testing program. Cami Mojado, the cultural resources representative of the San Luis Rey Band of

Luiseño Mission Indians, was consulted throughout the survey and testing program and coordinated the Native American monitors.

4.2 Results

Seven archaeological sites and two isolates have been recorded within the project area, as summarized in Table 3 and illustrated in Figure 5 (Confidential Appendix B). Site records are included as Confidential Appendix C. As addressed in Section 4.2.1, one of the previously recorded sites was mismapped and is not located within the project area. Another previously recorded site appears to have been removed by residential development, although subsurface features or deposits may remain beneath the existing residences. A testing program was conducted at the five extant sites within the project. As a result of the testing program, one of the sites was determined not to be cultural in origin. One site includes a stacked stone feature and bedrock milling; one site is a bedrock milling feature with no associated artifacts; one site is a lithic scatter with some subsurface cultural material; and one site is a temporary camp or processing location. The sites are described individually in Section 4.2.1. A discussion of how research avenues in the research design (Section 3.0) can be addressed at the tested sites in included at the end of Section 4.2.1.

Historic maps and aerial photographs were reviewed to determine the potential for historic archaeological resources in a subsurface context that were not observed during the field survey. This research is addressed under the discussions of houses over 45 years old and the section “Historic Maps” in Section 4.2.2.

Eight houses within the project area are potentially over 45 years old, based on maps and aerial photographs (Table 4). None of these residences are architecturally or historical significant, as addressed in Section 4.2.2.

Table 3. Archaeological Resources within Lilac Hills Ranch Project Area

CA-SDI-#	Site Description	Comments	Tested?	Significance Evaluation
12,551	Bedrock milling station – three slicks on one outcrop. 4 m by 2 m	Originally recorded by Strudwick, Linehan, McIntosh, and Sespe 1991. Mismapped; not in project area	No; outside project area	Not determined; site outside project area
12,553H	Remnants of building foundation, historic debris eroding out of hillside, large non-native trees. 40 m by 20 m	Originally recorded by Kyle, Linehan, and Sespe 1991	No; site appears to have been destroyed or obscured by residences	Not significant; destroyed or obscured by residences
18,362	Stacked stone feature (rock room), milling slicks on three outcrops. 55 m by 15 m	Originally recorded by Affinis 2007	Yes	Overall site is not significant under CEQA or RPO. Rock structure is significant under CEQA and is RPO-significant
18,363	Recorded as probable rock shelter, no artifacts observed. 2 m by 2 m. Determined not to be cultural	Originally recorded by Affinis 2007	Yes	Determined not to be cultural
18,364	Lithic scatter in area that has been graded in the past; some subsurface material. 75 m by 60 m	Originally recorded by Affinis 2007	Yes	Not significant under CEQA or RPO
18,365	Bedrock milling station with several slicks on one boulder. 6.5 m by 4.5 m	Originally recorded by Affinis 2007	Yes	Not significant under CEQA or RPO

CA-SDI-#	Site Description	Comments	Tested?	Significance Evaluation
20,436	Temporary camp or processing site with bedrock milling, an artifact scatter, and a subsurface deposit. . 65 m by 60 m	Recorded by Affinis 2011	Yes	Significant under CEQA, not RPO-significant

P-37-#	Site Description	Comments	Tested	Significance Evaluation
028486	Lithic isolate	Originally recorded by Affinis 2007	NA	Isolate; not significant under CEQA or County guidelines
032243	Isolated mano	Recorded by Affinis 2011	NA	Isolate; not significant under CEQA or County guidelines

SENSITIVE MATERIAL – IN CONFIDENTIAL APPENDIX B

Affinis Shadow Valley Center 847 Jamacha Road El Cajon, CA 92019	Locations of Archaeological Resources	Figure 5

Table 4. Buildings Over 45 Years Old in Lilac Hills Ranch Project Area

P-37-#	Description	Comments	Evaluated	Significance Evaluation
032550	Residence	Recorded by Affinis 2011	Yes	Not significant under CEQA or County guidelines
032551	Residence	Recorded by Affinis 2011	Yes	Not significant under CEQA or County guidelines
032552	Residence	Recorded by Affinis 2011	Yes	Not significant under CEQA or County guidelines
032553	Residence	Recorded by Affinis 2011	Yes	Not significant under CEQA or County guidelines
032554	Residence	Recorded by Affinis 2011	Yes	Not significant under CEQA or County guidelines
032555	Residence	Recorded by Affinis 2011	Yes	Not significant under CEQA or County guidelines
032556	Residence	Recorded by Affinis 2011	Yes	Not significant under CEQA or County guidelines
032557	Residence	Recorded by Affinis 2011	Yes	Not significant under CEQA or County guidelines

4.2.1 Archaeological Resources

Seven archaeological sites and two isolates have been recorded within the project area, as summarized in Table 3 and illustrated in Figure 5 (Confidential Appendix B). Site records are included as Confidential Appendix C. As addressed below, one of the previously recorded sites (CA-SDI-12,551) was mismapped and is not located within the project area. Another previously recorded site (CA-SDI-12,553) appears to have been removed by residential development, although subsurface features or deposits may remain beneath the

existing residences. A discussion of how the sites in the project area can address the questions in the research design is at the end of this section, following the individual site discussions.

CA-SDI-12,551

This site was originally recorded in 1991 as a bedrock milling station consisting of "one low, flat, sheet-like bedrock outcrop with three grinding slicks" (site record, on file at SCIC). The outcrop was noted as measuring 4 m by 2 m. The site was recorded in conjunction with a pipeline project, and the site record noted the "potential for site to extend to knoll(s) on either side of feature" (site record, on file at SCIC). However, CA-SDI-12,551 was apparently mismapped and is not within the project area. The UTM coordinates and Township, Range, and Section information on the site record do not match the Lilac Hills Ranch project area, and the description of the feature as between two knolls does not match the area in which the site is mapped. No evidence of the site was found during the current survey.

CA-SDI-12,553H

CA-SDI-12,553H was recorded in 1991 as remnants of an old foundation on a knoll top surrounded by vegetable fields. Large non-native trees present on the knoll top include Torrey Pines, pepper trees, and a pine tree. Glass, metal, and pieces of a canning jar were noted eroding out of cuts for the fields (site record, on file at SCIC). The site was recorded as covering an area of about 40 m by 20 m. During the current survey in February 2011, CA-SDI-12,553H was not found. It may have been removed by home construction subsequent to 1991, or it could simply be obscured by the house and associated landscape and hardscape.

CA-SDI-12,553H is mapped in the approximate area in which a house is shown on the 1901 USGS map and a windrow and grove appear on 1928 aerial photographs. No house is shown in that location on the 1948 USGS map, but there are three buildings there by 1968. A relatively new house now stands in the area where the site was recorded in 1991, and no historic archaeological material was found during the current survey.

CA-SDI-18,362

This site was recorded in 2007 during the Affinis survey of portions of the current project area. It consists of a rock room and bedrock milling features and measures approximately 55 m by 15 m. During the 2011 survey, the site was found essentially as previously recorded. The testing program conducted in July 2012 consisted of drawing and photographing the rock structure and bedrock milling features, as well as the excavation of three test units and six STPs, as described below. The site location is shown in Figure 5; Figure 6 is the site map.

SENSITIVE MATERIAL – IN CONFIDENTIAL APPENDIX B

Affinis Shadow Valley Center 847 Jamacha Road El Cajon, CA 92019	CA-SDI-18,362, Site Map	Figure 6

The rock room is made up of stacked stone walls in an approximate square. The feature measures 5 m north-south by 5 m east-west, approximately 70 cm high (the interior height is 60 cm, exterior height is 90 cm), made up of five to eight courses of unmortared dry-stacked stones (Figures 7 and 8). An apparent entryway was noted on the east side of the structure. Three 1-m-by-1-m units were excavated inside the structure and two STPs were excavated just outside the walls. The units were placed in an effort to identify a packed earth floor, as well as artifactual material. No floor or foundation could be discerned, and no historic period artifacts were recovered. (Artifact recovery is discussed below, following discussion of the feature itself.) The lack of nails and other construction materials/ construction debris suggest that there were no wood walls or roof on the structure, and the height of the extant rock walls appears to represent the total height of the structure. The feature does not appear on any topographic maps.

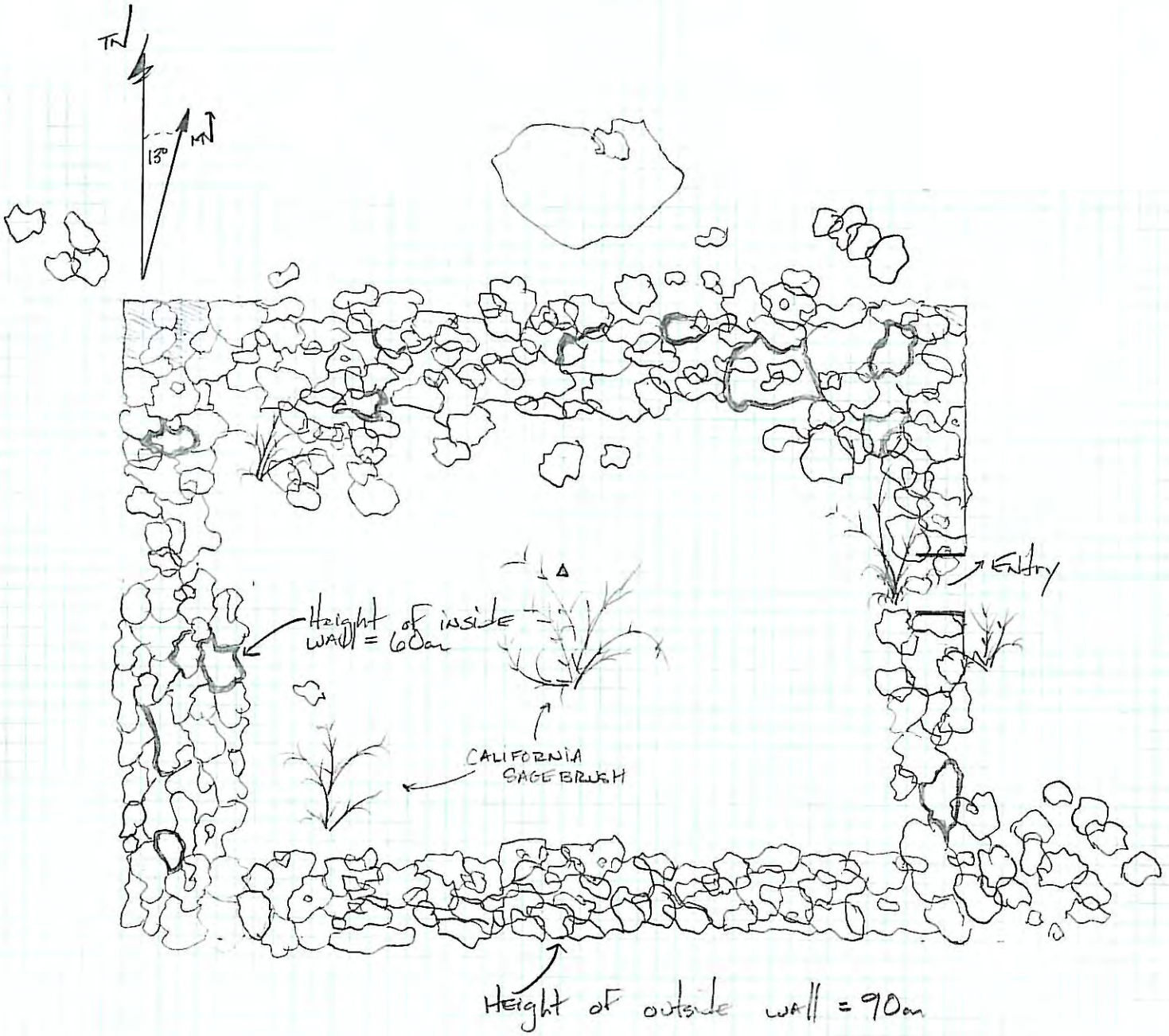
The true nature of the stacked stone room is ambiguous. Although Native Americans made and used stacked stone structures during the pre-contact period, given the square shape of the stacked stone feature and the fact that no bedrock outcrops are used as anchors, the feature appears to be historic in age. During the historic period, Native Americans used dry-stacked stone walls as bases for rectangular and square shaped thatch houses (Luomala 1978:598). This stacked stone construction also is typical of late nineteenth and early twentieth century rock work for animal pens and other ranching/ farming structures.

CA-SDI-18,362 is located in the southwest quarter of Section 19. San Diego County township and range plat maps from 1892, 1895, and 1896 show Section 19 under the ownership of August Schwartz. August Schwartz is listed in the 1899-1900 County directory under Bonsall; no occupation is given. (The 1890 General Land Office [GLO] map has no ownership shown in Section 19.) The 1912 Alexander plat maps show the parcel on which the site is located as owned by I.I. Irwin. Irwin is not listed in any of the County directories for the 1900s and 1910s under Bonsall, Lilac, or Valley Center, suggesting that he was an absentee owner. A 1910 newspaper article references an I. Isaac Irwin as a hay dealer, but the area of his ranch or residence is not given (San Diego Union 7/26/1910). Other newspaper articles from the 1920s and 1930s reference I. Isaac Irwin as the president (and later, former president) of California Savings & Commercial Bank. There is not enough information to associate the rock feature with a specific property owner.

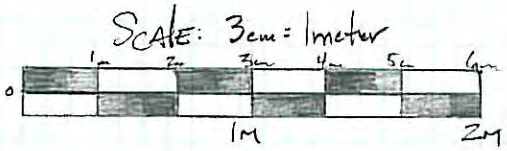
A total of seven artifacts were recovered at CA-SDI-18,362, as summarized in Table 5. Unit 1, located in the southwest corner of the stacked stone structure, yielded three pieces of debitage and a retouched flake. One of the pieces of debitage came from the 30-40 cm level; the other artifacts were from 10-20 cm. Unit 3, in the southeast corner of the rock feature, produced a rejuvenation flake from a battered core or flaked stone hammer from the 0-10 cm level. The other two pieces of debitage were recovered from STPs in proximity to bedrock milling features A and B (see below). No surface artifacts were noted, but ground visibility was generally quite poor, due to thick vegetation over most of the site.

CA-SDI-18,362

Rock Room



JN 2414
Andrew Giletti
July 5, 2012



Affinis Shadow Valley Center 847 Jamacha Road El Cajon, CA 92019	CA-SDI-18,362, Rock Room Plan View	Figure 7

Rock room, interior profile of south and west walls, looking southwest, showing Unit 1 in southwest corner

Rock room, interior profile of south wall, looking south, showing Unit 3 in southeast corner

Affinis Shadow Valley Center 847 Jamacha Road El Cajon, CA 92019	CA-SDI-18,362, Rock Room Profile Views	Figure 8

Table 5. CA-SDI-18,362, Summary of Artifact Recovery

Artifact Class	Item	Count	Percent
Flaked stone	Debitage	5	71.4%
Flaked stone	Rejuvenation flake	1	14.3%
Flaked stone	Retouched/utilized flake	1	14.3%
Total		**7**	**100.0%**

The retouched flake exhibits bifacial retouch and use on at least two edges (the limit of what is measured under the catalog system). The edge angles are classified as 66-75° and 76-85°. Use wear noted is micro-step flaking, and the edge shapes are concave and straight. The flake itself is diverging in shape and has no cortex. The rejuvenation flake is linear in shape with no cortex. Both the retouched flake and the rejuvenation flake are medium- to coarse-grained metavolcanic and are patinated. Four of the five pieces of debitage recovered at CA-SDI-18,362 are angular debris. The fifth is a flake, diverging in shape (that is, the flake widens out from the platform). The flake exhibits grinding on the platform as a form of platform preparation; it is patinated medium- to coarse-grained metavolcanic.

Of the seven artifacts recovered at CA-SDI-18,362, four (57 percent) are medium- to coarse-grained metavolcanic and three (43 percent) are quartz. The rejuvenation flake and the retouched flake both exhibit a great deal of patination, as do both pieces of metavolcanic debitage. This suggests some degree of antiquity, as the patina develops slowly over time; however, there is no accurate measure for this process and many factors that affect it. (This is addressed under the discussion of Chronology at the end of Section 4.2.1.) It is interesting to note that the rejuvenation flake appears to have three separate episodes of use, based on the degree of weathering. The original flake, with the battering from use as a hammer, has a heavy patina. One edge has some flaking and apparent use, with a lesser degree of patination. A third edge exhibits flake removal and apparent use and has no obvious patination. The flake appears to have been reused by different people at least three times over a long span of time.

Two milling slicks were noted on two bedrock outcrops to the south of the stacked stone walls feature. Another outcrop with one milling slick was noted on the south side of a small drainage; the remainder of the site is on the north side of this drainage (Figure 6). Milling feature documentation is included in Appendix C. Four STPs were excavated in proximity to the milling features; two near Features A and B (STPs 1 and 2) and two at Feature C (STPs 3 and 4). Two pieces of debitage were recovered: one from STP 1 (10-20 cm) and one from STP 2 (20-30 cm). The artifact catalog is included in Appendix B.

Unit 1 was excavated to a depth of 50 cm; Units 2 and 3 were each excavated to 40 cm. STPs 1 through 5 were excavated to 30 cm; STP 6 only went to 10 cm before encountering bedrock. The units and STPs were terminated when either bedrock or compact and sterile decomposing granite was encountered.

CA-SDI-18,363

CA-SDI-18,363 was also recorded during the 2007 survey by Affinis. The site was originally described as a probable rock shelter located south of CA-SDI-18,362. No artifacts were observed, but the interior of the rock shelter appears to be fire blackened. The feature is 130 cm wide by 130 cm deep and 60 cm tall at the entrance. There is only about 30 cm of height inside the rock shelter, due to a buildup of soil and leaf duff. When the site was revisited in 2012 it appeared that the feature might be an oven, rather than a filled-in rock shelter. During the testing program one STP was excavated in front of the possible rock shelter. The soil, duff, and other material inside the feature was removed and screened, and a one-quarter unit (50 cm by 50 cm) was excavated inside. No cultural material was encountered. Based on this, the feature appears to be natural, rather than cultural. The Native American monitor concurs with this interpretation. The dark staining may be water staining, rather than fire-blackening. The site map is Figure 9.

CA-SDI-18,364

This site, recorded by Affinis in 2007, is a lithic scatter in an area that has been graded in the past. At least 10 flakes were found during the original survey, including quartz and metavolcanic material, covering an area of about 70 m by 60 m. Fire-affected rock was noted, but there was also lumber and modern debris that had been burned. One large piece of abalone was also found, but given the amount of recent debris and lack of other marine shell, this piece is probably recent. The 1968 USGS map shows a “ruin” or other non-dwelling structure in this area. A 1964 aerial photograph shows a building and a number of smaller features; it may be a house but is probably an agricultural building. Nothing is shown here on the 1948 USGS map or in a 1953 aerial photograph (historicaerials.com). No evidence of a foundation was found during the survey or the testing program. When the site was revisited in February 2011 it was found to be covered with wood chips, so visibility was obscured, and only one flake was found at that time. The wood chips and debris on the site had been removed prior to the July 2012 testing program.

Eight STPs were initially excavated across the site. Due to the amount and depth of cultural material encountered in several of the STPs, additional STPs were excavated, for a total of 13 (see Figure 10). Surface artifacts were collected, and one test unit was excavated. The central part of the site has been graded in the past, but areas of intact soil were encountered to the east and west of this graded area. The site boundaries are based on the results of the STPs, as well as topography. The maximum length of the site is 75 m (east-west), and the maximum width is approximately 60 m, but the site has been subject to a great deal of disturbance, and it is difficult to determine what its original configuration was.

SENSITIVE MATERIAL – IN CONFIDENTIAL APPENDIX B

Affinis Shadow Valley Center 847 Jamacha Road El Cajon, CA 92019	CA-SDI-18,363, Site Map	Figure 9

SENSITIVE MATERIAL – IN CONFIDENTIAL APPENDIX B

Affinis Shadow Valley Center 847 Jamacha Road El Cajon, CA 92019	CA-SDI-18,364, Site Map	Figure 10

As summarized in Table 6, 80 artifacts (78 debitage and 2 manos) were recovered at CA-SDI-18,364, as well as 1.1 g of animal bone (none of which appears to be cultural). The artifact catalog is included in Appendix B. The surface collection consisted of five artifacts: three pieces of debitage and two manos. Unit 1 yielded 31 pieces of debitage and 0.2 g of animal bone. The STPs produced 44 pieces of debitage and 0.9 g of bone. Four of the 13 STPs were sterile, and two yielded only a single piece of debitage.

Table 6. CA-SDI-18,364, Summary of Artifact and Ecofact Recovery

Artifact Class	Item	Count	Percent
Ground stone	Mano	2	2.5%
Flaked stone	Debitage	78	97.5%
Bone, non-human	Unmodified bulk	*1.1 g	--
Total		**80**	**100.0%**
*Bone not included in count total or percent			

As summarized in Table 6, 78 pieces of debitage, 2 manos, and 1.1 g of animal bone were collected at CA-SDI-18,364 during the testing program. One of the manos is a granitic unifacial mano exhibiting light use, with no shaping, shouldering, or thermal alteration. This artifact, which is whole, does show battering. The other is a bifacial mano fragment of medium- to coarse-grained metavolcanic material. This piece exhibits variable use wear, and it is too fragmentary to identify the degree of manufacturing input. No shaping, shouldering, battering, or thermal alteration was noted on the mano fragment.

A total of 78 pieces of debitage were collected during the testing at CA-SDI-18,364. As summarized in Table 7, slightly more than 30 percent of the debitage is medium- to coarse-grained metavolcanic, and slightly less than 30 percent is fine-grained metavolcanic. Another one-fourth of the debitage assemblage is quartz, some of which is very fine quality. Piedra de lumbre chert accounts for about 12 percent of the debitage from the site, and one piece of chalcedony (1 percent) was found.

As shown in Table 7, over half of the debitage is angular debris, but it is interesting to note that 14 percent of the debitage assemblage is microflakes. This suggests that tool manufacture and maintenance were conducted at the site; however, no flaked stone tools were found. The lack of cortex on any of the debitage, as well as the absence of cores, indicates that early stage lithic production was not done at the site. Platform preparation was visible on only about 20 percent of the debitage, but this variable was not noted for microflakes. All of the metavolcanic debitage exhibits patination. As addressed under CA-SDI-18,362 and discussed further under Chronology at the end of Section 4.2.1, patination is generally taken as an indication of some antiquity, although there is no measure for this.

Table 7. CA-SDI-18,364, Summary of Debitage Attributes

Variable	Value	Count	Percent
Morphology	Linear	5	6.4%
	Diverging	18	23.1%
	Converging	1	1.3%
	Other	0	0.0%
	Angular debris	43	55.1%
	Microflake	11	14.1%
Cortical variability	None	78	100.0%
	1-30%	0	0.0%
	31-90%	0	0.0%
	91-99%	0	0.0%
	100%	0	0.0%
Cortex type	No cortex	78	100.0%
	Tabular/nodular	0	0.0%
	Cobble	0	0.0%
	Indeterminate	0	0.0%
Platform preparation	Not applicable, no platform	56	71.7%
	Cortex, no preparation	0	0.0%
	Grinding visible	5	6.4%
	Flaking visible	9	11.5%
	Plain, no cortex or flaking	8	10.3%
	Step platform	0	0.0%
	Central beak	0	0.0%
	Chapeau de gendarme	0	0.0%
Patination	Unpatinated	29	37.2%
	Patinated	49	62.8%
Material	Medium- to coarse-grained metavolcanic	25	32.0%
	Fine-grained metavolcanic	23	29.5%
	Quartz	20	25.6%
	Piedra de Lumbre chert	9	11.5%
	Chalcedony	1	1.3%

The bone consisted of eight fragments, weighing a total of 1.1 g. Five fragments (0.3 g) were cataloged as unclassified rodentia. Three of these pieces (0.1 g) were categorized as "micro" in size (e.g., rat or mouse); two (0.2 g) were categorized as small (e.g., rabbit). The remaining three pieces (0.8 g) were cataloged as unclassified bone. These fragments were categorized as medium in size (e.g., coyote). The bone fragments do not exhibit burning or any other modification, so it is difficult to determine whether they are cultural in origin.

As previously noted, five surface artifacts were collected, including both manos found at the site and three pieces of debitage. Unit 1 was excavated to a depth of 60 cm, with the western half taken down to 70 cm. The presence of decomposing granite across the unit floor prevented further excavation. The unit produced a total of 31 pieces of debitage and 0.2 g of animal bone (1 piece). The single piece of bone was collected in the 10-20 cm level. The recovery of debitage by level is summarized in Table 8. As shown in this table, 29 percent of the debitage recovered in Unit 1 was from the 0-10 cm level, and one-fourth came from the 10-20 cm level. While the recovery numbers decline below 20 cm, they do not show a straight decline in each level.

Table 8. CA-SDI-18,364, Unit 1, Summary of Debitage by Level

Level (cm)	Total	Percent
0-10	9	29.0%
10-20	8	25.8%
20-30	4	12.9%
30-40	5	16.1%
40-50	2	6.5%
50-60	3	9.7%
Total	**31**	**100.0%**

Forty-four pieces of debitage and 0.8 g of animal bone were recovered in the STPs. Table 9 summarizes recovery by STP, and Table 10 summarizes recovery of debitage by STP and level. The bone came from STP 1, 30-40 cm (3 pieces, 0.7 g) and STP 6, 40-50 cm (1 fragment, 0.1 g). As indicated in Tables 9 and 10, STPs 6 and 7 were the most productive, yielding 11 and 9 artifacts respectively. Cultural material was found to a depth of 40 cm in STP 6 and to 30 cm in STP 7. These two STPs are on opposite sides of the site (STP 6 on the east side and STP 7 on the west; see Figure 10). Other relatively productive STPs are in proximity to STP 6 as well (see Figure 10). No cultural material was found below the 30-40 cm level in any of the STPs, although three were excavated to a depth of 50 cm, and STP 6 was excavated to 60 cm. Forty-five percent of the cultural material recovered in the STPs came from the 10-20 cm level, with another 20 percent from the 20-30 cm level (Table 10), followed by the 0-10 cm and 30-40 cm levels, respectively. Sterile STPs were excavated to a minimum depth of 30 cm. Productive STPs were excavated to at least one sterile level.

Table 9. CA-SDI-18,364, Summary of Artifact and Ecofact Recovery by STP

Artifact Class/Item	1	2	3	4	5	6	7	8	9	10	11	12	13	Total	Percent
Flaked stone/ debitage	5	0	3	0	6	11	9	0	0	6	1	2	1	44	100.0%
Bone, non-human/ unmodified bulk	*0.7 g	--	--	--	--	*0.1 g	--	--	--	--	--	--	--	*0.8 g	100.0%
Total	**5**	**0**	**3**	**0**	**6**	**11**	**9**	**0**	**0**	**6**	**1**	**2**	**1**	**44**	**100.0%**
Percent	**11.4%**	**0.0%**	**6.8%**	**0.0%**	**13.6%**	**25.0%**	**20.5%**	**0.0%**	**0.0%**	**13.6%**	**2.3%**	**4.5%**	**2.3%**		**100.0%**
*Bone not included in count total or percent															

Table 10. CA-SDI-18,364, Summary of Debitage Recovery by STP and Level

Level (cm)	1	2	3	4	5	6	7	8	9	10	11	12	13	Total	Percent
0-10	0	0	0	0	0	1	1	0	0	3	0	2	1	8	18.2%
10-20	0	0	3	0	4	5	5	0	0	3	0	0	0	20	45.5%
20-30	1	0	0	0	0	4	3	0	0	0	1	0	0	9	20.5%
30-40	4	--	--	--	2	1	0	0	--	0	0	0	--	7	15.9%
40-50	0	--	--	--	0	0	--	--	--	--	0	--	--	0	0.0%
50-60	--	--	--	--	--	0	--	--	--	--	--	--	--	0	0.0%
Total	**5**	**0**	**3**	**0**	**6**	**11**	**9**	**0**	**0**	**6**	**1**	**2**	**1**	**44**	**100.0%**
Percent	**11.4%**	**0.0%**	**6.8%**	**0.0%**	**13.6%**	**25.0%**	**20.5%**	**0.0%**	**0.0%**	**13.6%**	**2.3%**	**4.5%**	**2.3%**		**100.0%**
- Indicates level not excavated															

Although some subsurface cultural material was recovered at CA-SDI-18,364, the amount of cultural material overall is rather small, and the range is quite limited: only debitage and two manos were found. The presence of microflakes suggests that tool manufacture and maintenance were undertaken at the site, but no formal tools were recovered. Perhaps tools made here were used at another site, such as CA-SDI-20,436. Alternatively, recognizable tools might have been collected by individuals using the land over the years. All the metavolcanic debitage collected at CA-SDI-18,364 is patinated, suggesting the site is probably older than the Late Prehistoric period (although this is somewhat speculative), but there are no diagnostic artifacts and no organic material suitable for radiocarbon dating (the small amount of bone recovered does not appear to be cultural). In addition, the site has been subject to a great deal of disturbance, including removal of topsoil across a portion of the site through grading, apparently in the late 1950s or early 1960s. Based on these factors, the research potential of the site has effectively been exhausted by the level of work conducted for the testing program.

CA-SDI-18,365

CA-SDI-18,365, which was recorded by Affinis in 2007, consists of three milling slicks on a single boulder just south of a dirt road. The rock measures about 6.5 m north-south by 4.5 m east-west. No artifacts were observed at the site. At the time of the survey ground visibility was poor on the south side of the road, due to vegetation. During the 2011 survey, the site was found essentially as recorded in 2007. Since the time of the initial survey, some of the vegetation has been cleared and some of the grasses have died, making for better visibility during the testing program in July 2012. Four STPs were excavated here (Figure 11); no artifacts were recovered either from the surface or in the STPs. Milling feature documentation is included in Appendix C.

CA-SDI-20,436

CA-SDI-20,436 was found during the 2011 survey. At that time, it was noted as a single milling slick on a large granitic outcrop with an associated low-density lithic scatter. Eight metavolcanic flakes and one quartz core fragment were observed during the survey. The total site area was noted as 50 m north-south by 20 m east-west. The site is situated on a gentle east-facing slope, adjacent to a seasonal drainage, and in a small nursery. The site has been subject to a great deal of disturbance, as the site area has been altered for the existing nursery.

Prior to the start of the 2012 testing program, some vegetation on the site was cleared, and a number of potted plants were removed, thus greatly increasing the ground visibility. One additional bedrock milling feature was noted, as well as many more surface artifacts. Based on surface collection and positive STPs, the site size was expanded to approximately 65 m north-south by 60 m east-west (Figure 12). A total of 16 STPs were

SENSITIVE MATERIAL – IN CONFIDENTIAL APPENDIX B

Affinis Shadow Valley Center 847 Jamacha Road El Cajon, CA 92019	CA-SDI-18,365, Site Map	Figure 11

SENSITIVE MATERIAL – IN CONFIDENTIAL APPENDIX B

Affinis Shadow Valley Center 847 Jamacha Road El Cajon, CA 92019	CA-SDI-20,436, Site Map	Figure 12

excavated in order to define the site boundaries. Two 1-m-by-1-m test units were excavated at the site, and 32 surface artifacts were collected (Figure 12). Subsurface cultural material was found across the site, with five STPs yielding cultural material below 50 cm, one of them to 90 cm. Unit 1 yielded artifacts to a depth of 120 cm, and cultural material was found in Unit 2 to 80 cm.

Each of the bedrock milling features includes a single slick. Feature A, located at the north end of the site, has a slick on a boulder at a height of about 1.3 m. The STPs placed adjacent to this feature (STPs 1 and 2) were both negative. Feature B, located on the western edge of the site, is a boulder at ground level. The STP adjacent to this feature (STP 8) was also sterile. Milling feature documentation is included in Appendix C.

As summarized in Table 11, 325 artifacts and 0.3 g of animal bone were recovered at CA-SDI-20,436. One piece of plastic and three fragments of glass were also collected, but they are of recent age and are not discussed further. Charcoal samples were collected from the 40-50 cm and 110-120 cm levels of Unit 1.

Table 11. CA-SDI-20,436, Summary of Artifact and Ecofact Recovery

Artifact Class	Item	Count	Percent
Ground stone	Mano	1	0.3%
Ground stone	Metate	1	0.3%
Flaked stone	Debitage	316	97.2%
Flaked stone	Core	1	0.3%
Flaked stone	Retouched/utilized flake	3	0.9%
Flaked stone	Retouched/utilized tool	1	0.3%
Flaked stone	Hammer	1	0.3%
Flaked stone/biface	Cottonwood leaf-shaped point	1	0.3%
Bone, non-human	Unmodified bulk	*0.3 g	--
Total		**325**	**100.0%**
*Bone not included in count total or percent			

Two ground stone artifacts were found during the testing at CA-SDI-20,436: a mano fragment and a metate fragment. The mano, which is granitic, is bifacial, shouldered through use but not shaped. There is no evidence of battering or thermal alteration. The mano shows medium intensity of use, but manufacturing input could not be determined. The metate fragment has use on a single surface. The piece shows heavy use wear, but manufacturing input could not be determined. No shaping, battering, thermal alteration, or shouldering was noted on the metate fragment.

One flaked stone hammer fragment was recovered at the site. This small fragment, which is of fine-grained metavolcanic material, has edge angles ranging from 66-75° to 86-95°. The hammer has crushing and micro-step flaking use wear. Hammers and hammerstones are generally considered to have been used in flint knapping, but hammers are sometimes thought to be associated with plant processing as well. Large edge angles, approaching

90°, are useful on hammers used in flint knapping, and more acute edge angles may have been used for pecking grinding surfaces to resharpen them (cf. Shackley 1989). The hammer fragment found at this site may have been used for any of these activities: flint knapping, resharpening milling surfaces, or some type of food processing.

One biface was collected at the site; it is classified as a Cottonwood leaf-shaped point. The biface is cataloged as a late stage preform; it is whole but does not appear to be finished. The biface is made of chert and measures 33 mm (axial length) by 20 mm (basal width) by 7 mm. This projectile point type is discussed further under Chronology.

Three retouched/utilized flakes and one retouched/utilized tool were collected. The three retouched/utilized flakes all exhibit retouch: two are unifacial and one is bifacial. The bifacial retouched flake has an edge angle of $36\text{-}45^o$ on a convex edge but does not show any use wear. The flake morphology is diverging, and the piece is fine-grained metavolcanic with no cortex. One unifacial retouched flake is of fine-grained metavolcanic with edge angles of $66\text{-}75^o$ and $76\text{-}85^o$. Both edges are convex with use wear noted as rounding. This artifact was also made on a flake diverging in morphology with no cortex. The third retouched flake is unifacial with a single retouched/utilized edge. The edge angle is $66\text{-}75^o$ with micro-step flaking on a straight edge. This medium-to coarse-grained metavolcanic piece is also a flake of diverging shape, but it has cortex over 30-90 percent of the dorsal surface. The retouched/utilized tool is flake-based; it is not retouched but exhibits utilization on at least two edges (the maximum number measured in the catalog system). The used edges are relatively acute: $26\text{-}35^o$. Use wear noted is micro-step flaking. One used edge is straight and one is concave. This tool is made from very fine quality clear quartz.

One small quartz core was recovered at CA-SDI-20,436. This multidirectional core has edge angles ranging from 83° to 97°. The core measures 31 mm by 28 mm by 26 mm and weighs 20.3 g.

Over 300 pieces of debitage were collected at CA-SDI-20,436. Material types of debitage are summarized in Table 12. Medium- to coarse-grained metavolcanic material makes up over one-third of the debitage assemblage. Fine-grained metavolcanic and quartz each accounts for one-fourth of the debitage. Piedra de lumbre chert makes up another 9 percent of the debitage, with other chert accounting for about 2 percent. One piece of quartzite and one piece of obsidian debitage were collected. Due to time constraints, debitage attributes were recorded for only a portion of the debitage assemblage. Of the 183 pieces of debitage for which the attributes were noted, 160 (87.4 percent) are angular debris, and 22 (12.0 percent) are microflakes. The only attribute recorded for angular debris and microflakes in the catalog system is patination. For the 94 microflakes and angular debris that are metavolcanic, all but one exhibit patination. The single flake from this sample that is not either angular debris or a microflake is diverging in shape. It is medium- to coarse-grained metavolcanic with no cortex and is patinated. Grinding is visible as platform preparation, and the flake has a step fracture termination.

Table 12. CA-SDI-20,436, Summary of Material Types of Debitage

Material	Count	Percent
Medium- to coarse-grained metavolcanic	119	37.7%
Fine-grained metavolcanic	80	25.3%
Quartzite	1	0.3%
Quartz	79	25.0%
Obsidian	1	0.3%
Chert	7	2.2%
Piedra de Lumbre chert	29	9.2%
Total	**316**	**100.0%**

A single piece of animal bone (0.3 g) was collected at CA-SDI-20,436. The bone was cataloged as unclassified rodentia and categorized as small (e.g., rabbit) in size. It appears to be a fragment of a tibia and shows no evidence of butchering or burning; it is probably not cultural in origin.

As summarized in Table 13, approximately one-tenth of the artifacts recovered at CA-SDI-20,436 are from surface collection. Another 22 percent came from the 16 STPs. Unit 1 yielded almost 40 percent of the cultural material collected, and Unit 2 produced almost 30 percent. The 32 artifacts in the surface collection include the only mano, metate, and core found at the site, as well as 29 pieces of debitage. One retouched/utilized flake was recovered in the STPs; the other 71 artifacts found in the STPs are all debitage. Recovery by STP is summarized in Table 14, and Table 15 lists recovery by level within the STPs.

Table 13. CA-SDI-20,436, Summary of Recovery by Provenience

Artifact Class	Item	Surface	STPs	Unit 1	Unit 2	Total
Ground stone	Mano	1	0	0	0	1
Ground stone	Metate	1	0	0	0	1
Flaked stone	Debitage	29	71	124	92	316
Flaked stone	Core	1	0	0	0	1
Flaked stone	Retouched/utilized flake	0	1	1	1	3
Flaked stone	Retouched/utilized tool	0	0	1	0	1
Flaked stone	Hammer	0	0	1	0	1
Flaked stone/biface	Cottonwood leaf-shaped point	0	0	1	0	1
Total		**32**	**72**	**128**	**93**	**325**
Percent of Total		**9.8%**	**22.2%**	**39.4%**	**28.6%**	**100.0%**

Table 14. CA-SDI-20,436, Summary of Artifact Recovery by STP

	STP																	
Artifact Class/Item	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**	**13**	**14**	**15**	**16**	**Total**	**Percent**
Flaked stone/debitage	0	0	1	18	11	3	0	0	1	9	12	3	7	0	6	0	71	98.6%
Flaked stone/retouched/utilized flake	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	1	1.4%
Total	**0**	**0**	**1**	**18**	**12**	**3**	**0**	**0**	**1**	**9**	**12**	**3**	**7**	**0**	**6**	**0**	**72**	**100.0%**
Percent	**0.0%**	**0.0%**	**1.4%**	**25.0%**	**16.7%**	**4.2%**	**0.0%**	**0.0%**	**1.4%**	**12.5%**	**16.7%**	**4.2%**	**9.7%**	**0.0%**	**8.3%**	**0.0%**	**100.0%**	

Table 15. CA-SDI-20,436, Summary of Artifact Recovery by STP and Level

	STP																	
Level	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**	**13**	**14**	**15**	**16**	**Total**	**Percent**
0-10	0	0	1	0	0	0	0	0	1	4	0	0	0	0	0	0	6	8.3%
10-20	0	0	0	3	0	1	0	0	0	1	1	1	1	0	0	0	8	11.1%
20-30	0	0	0	1	1	1	0	--	0	4	1	2	2	0	4	0	16	22.2%
30-40	0	--	0	4	0	1	0	--	0	0	5	0	2	--	1	--	13	18.1%
40-50	0	--	0	0	1	0	0	--	0	--	2	--	1	--	1	--	5	6.9%
50-60	--	--	--	3	0	0	--	--	0	--	3	--	1	--	--	--	7	9.7%
60-70	--	--	--	5	5	--	--	--	--	--	0	--	0	--	--	--	10	13.9%
70-80	--	--	--	2	4	--	--	--	--	--	--	--	--	--	--	--	6	8.3%
80-90	--	--	--	--	1	--	--	--	--	--	--	--	--	--	--	--	1	1.4%
90-100	--	--	--	--	0	--	--	--	--	--	--	--	--	--	--	--	0	0.0%
Total	0	0	1	18	12	3	0	0	1	9	12	3	7	0	6	0	72	100.0%
Percent	**0.0%**	**0.0%**	**1.4%**	**25.0%**	**16.7%**	**4.2%**	**0.0%**	**0.0%**	**1.4%**	**12.5%**	**16.7%**	**4.2%**	**9.7%**	**0.0%**	**8.3%**	**0.0%**	**100.0%**	
-- indiates level not excavated																		

Six of the STPs at CA-SDI-20,436 were negative, and two produced only a single piece of debitage. As seen in Table 14, STP 4, located on the eastern edge of the site, was the richest STP, yielding fully 25 percent of the cultural material from all the STPs. STPs 5 and 11 each account for 16.7 percent of the cultural material collected in the STPs, and another 12.5 percent came from STP 10. STP 5 is in the center of the site, and STP 11 is a short distance southwest of it; STP 10 is on the southeast corner (Figure 12). STP 4 yielded cultural material to a depth of 80 cm, and STP 5 had artifacts to the 80-90 cm level. Cultural material was found to a depth of 60 cm in STPs 11 and 13 (see Table 15). The highest concentrations of artifacts were found in the 20-30 cm and 30-40 cm levels (22.2 percent and 18.1 percent , respectively), but the 60-70 cm and 10-20 cm levels each yielded over 10 percent of the material from the STPs, and the 50-60 cm level produced almost 10 percent (Table 15). Given the amount of disturbance from the nursery, the subsurface deposit does not appear to be an intact deposit. Material could have reached its current depth via bioturbation, as well as from the soil being manipulated in conjunction with the nursery uses. Probably both of these factors have been at work on the site deposits.

As shown in Table 13, almost 40 percent of the cultural material at the site was recovered in Unit 1, including debitage, a retouched/utilized flake, the single retouched/utilized tool, the hammer fragment, and the projectile point. This unit, located in the center of the site, near STP 5, produced cultural material to a depth of 120 cm (Table 16). The 90-100 cm level had the greatest amount of material, followed by the 50-60 cm level, but 40-50 cm, 0-10 cm, and 60-70 cm levels each yielded 10 to 12 percent of the total material from Unit 1. As noted for the STPs, there has been a great deal of disturbance to the site, so the subsurface deposits do not appear to be intact, but they do contain a great deal of information potential.

Table 16. CA-SDI-20,436, Unit 1, Artifact Recovery by Level

Level (cm)	Debitage	Ret./util. flake	Ret./util. Tool	Hammer	Point	Total	Percent
0-10	14	0	0	0	0	14	10.9%
10-20	6	0	0	0	0	6	4.7%
20-30	8	0	0	0	0	8	6.3%
30-40	10	0	0	0	0	10	7.8%
40-50	13	1	0	0	1	15	11.7%
50-60	15	0	1	0	0	16	12.5%
60-70	13	0	0	0	0	13	10.2%
70-80	9	0	0	0	0	9	7.0%
80-90	6	0	0	0	0	6	4.7%
90-100	16	0	0	1	0	17	13.3%
100-110	11	0	0	0	0	11	8.6%
110-120	3	0	0	0	0	3	2.3%

Level (cm)	Debitage	Ret./util. flake	Ret./util. Tool	Hammer	Point	Total	Percent
Total	**124**	**1**	**1**	**1**	**1**	**128**	**100.0%**
Percent	**96.9%**	**0.8%**	**0.8%**	**0.8%**	**0.8%**	**100.0%**	

Unit 2 was placed in proximity to STP 4, at the eastern edge of the site. One retouched/ utilized flake was recovered, along with 93 pieces of debitage. As summarized in Table 17, this unit produced cultural material to a depth of 80 cm; the 80-90 cm level was sterile. The greatest concentration of artifacts came from the 70-80 cm level, followed by 20-30 cm, but the 30-40 cm and 40-50 cm levels each produced about 15 percent of the cultural material from the unit. The 0-10 cm level was the least productive, with just 3 pieces of debitage recovered. The single retouched/utilized flake came from the 40-50 cm level.

Table 17. CA-SDI-20,436, Unit 2, Summary of Artifact Recovery by Level

Level (cm)	Debitage	Ret./util. flake	Total	Percent
0-10	3	0	3	3.2%
10-20	8	0	8	8.6%
20-30	18	0	18	19.4%
30-40	16	0	16	17.2%
40-50	12	1	13	14.0%
50-60	8	0	8	8.6%
60-70	8	0	8	8.6%
70-80	19	0	19	20.4%
80-90	0	0	0	0.0%
Total	**92**	**1**	**93**	**100.0%**
Percent	**98.9%**	**1.1%**	**100.0%**	

In summary, CA-SDI-20,436 is a temporary camp or processing site with bedrock milling features and a variety of artifacts. The range of artifacts is not great, but there are flaked stone tools, ground stone implements, a core, and debitage. The debitage includes microflakes. A range of material types are found at the site, including Piedra de lumbre chert, other types of chert, quartzite, and one piece of obsidian, in addition to the more common metavolcanic material and quartz. The site has been subject to a great deal of disturbance from use as a nursery for many years, but there is cultural material to a depth of over a meter in places, and the site possesses cultural material that could be used to address a variety of research questions. No faunal material was found that would be suitable for radiocarbon dating, but charcoal was collected from two levels in Unit 1. The single piece of obsidian collected might be too thin for obsidian sourcing and hydration analysis, but there may well be more obsidian at the site.

P-37-028486

This isolate was found during the 2007 survey. The artifact is a good quality quartz flake that appears to have been bifacially shaped. It was not collected. The isolate was found in a grove, south of a large drainage that is tributary to Moosa Canyon (Figure 5).

P-37-032243

P-37-032243 is an isolated mano found during the 2011 survey. The isolate is a bifacial coarse-grained metavolcanic mano with shouldering. It was found approximately 10 m south of a small seasonal drainage adjacent to a dirt road maintained for the citrus groves surrounding it (Figure 5). The isolate was not collected.

Addressing the Research Design

Chronology

Four of the five sites tested had no temporally diagnostic artifacts and no organic material suitable for radiocarbon dating. The majority of metavolcanic lithic artifacts recovered at CA-SDI-18,362, CA-SDI-18,364, and CA-SDI-20,436 exhibited patination. In this context, "patina applies only to chemical alternation of mineral constituents, and might better be termed *oxidation*" (Rogers 1966:31). Patination has often been used in San Diego archaeology as a mark of antiquity; patinated metavolcanic material has often been attributed to the San Dieguito complex regardless of whether the object has other diagnostic attributes. However, a variety of factors affect the rate at which rocks patinate, including rock type (for this study, only oxidation of metavolcanic rock was considered patination) and post-depositional factors such as heat, moisture, exposure, and soil chemistry (see Laylander, ed. 2005). Caution must be exercised when using patination as a relative dating technique. In excavations at a site in Fairbanks Ranch, two halves of a large biface were found in separate excavation units and different levels. The two fragments exhibited very different degrees of patination. Norwood noted that this example "demonstrates that differential patination cannot be used with any degree of reliability to assign relative dates to artifacts, even when they occur in the same site and are made of the same material" (Norwood 1980:176). Until further research is conducted on this topic, patination should not be totally disregarded as a temporal indicator, but it must be used with caution. It is probably safe to say that the tool at CA-SDI-18,362 that has three flaked surfaces with differing degrees of patination was reused over time. However, there is no indication of how far apart these episodes of use may have been. It also seems reasonable that the artifacts recovered during testing that exhibit patination predate the Late Prehistoric period. This becomes problematic when addressing CA-SDI-20,436, however, as addressed below.

CA-SDI-20,436 is the only site in the Lilac Hills Ranch project area at which any temporally diagnostic artifacts were found. The single Cottonwood leaf-shaped point recovered is of Late Prehistoric (San Luis Rey complex) age. Small projectile points, such as Cottonwood

series points, reflect the use of bow and arrow technology, replacing the earlier large dart points used with atlatls. These small points are considered indicative of the Late Prehistoric period. Koerper et al. (1996) used the correlation of Cottonwood points with associated radiocarbon dates to suggest that "the inception of the Cottonwood series on the coast provided a convenient, if somewhat arbitrary, circa A.D. 600±200 (1,350 B.P.) line for separating the Late Prehistoric Period from the Intermediate Period" (Koerper et al. 1996:271). They also suggested that Cottonwood leaf-shaped points flourished at a slightly earlier time than Cottonwood triangular points, which are much more common in southern California.

> In the Santa Monica Mountains, the leaf-shaped type appears to give way to the triangular type (King et al. 1968:93). A culture chronology chart for the Santa Barbara/Catalina area (Finnerty et al. 1970:15) illustrates a long temporal overlap of leaf-shaped and concave base triangular points, but with the former flourishing earlier. ... Van Horn (1990:35) reported that the Loyola site, which was abandoned about A.D. 400 to 500, yielded Cottonwood Leaf-shaped arrow points exclusively, evidence that these points preceded Marymount (or Rose Spring-like) types, as well as Cottonwood Triangular points in Los Angeles County [Koerper et al. 1996:270].

This suggests use of CA-SDI-20,436 during the early part of the Late Prehistoric period, i.e., San Luis Rey I.

The lack of ceramics at CA-SDI-20,436 could indicate preceramic use of the site or that activities carried out at the site were not ones for which ceramic vessels would be used. Food processing appears to have been one of the activities conducted at the site, based on the presence of bedrock milling slicks, as well as ground stone implements. Some of the flaked stone tools may have been used for food processing as well. Ceramics are generally associated with such processing sites unless the sites predate the introduction of ceramics. Basketry items would also have been used at food processing sites, but these are rarely found in an archaeological context. Ceramic use by the forebears of the Luiseño began much later than the introduction of small projectile points. McCowan (1955) estimated that ceramics were first used at Temeku in the Temecula area around A.D. 1350. Meighan (1954) originally suggested that pottery was not used in the San Luis Rey River area until A.D. 1500 at the earliest. Later work by True, Meighan, and Crew (1974) suggested that ceramics were probably introduced circa A.D. 1400-1600. The lack of ceramics is consistent with the Cottonwood leaf-shaped point at CA-SDI-20,436; together they suggest use of the site during the early part of the Late Prehistoric period, indicative of the San Luis Rey I complex.

The single temporally diagnostic artifact recovered at CA-SDI-20,436 has a suggested beginning date of circa A.D. 500, with no end date suggested, although Koerper et al. (1996) do indicate that leaf-shaped points flourished earlier in the Late Prehistoric period than Cottonwood triangular points. If patination is taken as a measure of antiquity of the debitage from the site, it is in conflict with the Late Prehistoric date of the projectile point. It could be that the site was used during both Archaic and Late Prehistoric times. It is also

possible that the point is intrusive, dropped by someone passing through at a later date than actual use of the site. The point was recovered in the 40-50 cm level, but the deposits seem to be the result of bioturbation and other post-depositional factors, so stratigraphy is probably not too meaningful. These questions should be addressed further as part of the data recovery program.

One piece of obsidian was collected at CA-SDI-20,436. The artifact appears to be too thin to be used for obsidian sourcing and hydration, but that analysis could be pursued as part of the data recovery program. There may be other obsidian artifacts recovered during further excavation as well. Although no faunal material was recovered that could be used for radiocarbon analysis (none of the bone collected during the testing appeared to be cultural), charcoal was collected from two levels of Unit 1 at CA-SDI-20,436. The charcoal has not been submitted for radiocarbon dating, but questions of chronology can be addressed further with material from this site.

Settlement Pattern

One of the sites at Lilac Hills Ranch (CA-SDI-18,363) was determined through testing not to be cultural. The other four sites tested are processing locations, rather than habitation sites. Only seven artifacts were found at CA-SDI-18,362 and no artifacts were found at CA-SDI-18,365, only bedrock milling. The 80 artifacts collected at CA-SDI-18,364 include debitage and a single mano. At CA-SDI-20,436, a somewhat wider range of artifact types was recovered. But even at this site, with cultural material found to 120 cm in one unit and to almost a meter in a few other units/STPs, the soils are not midden soils, and the amount (325 artifacts) and density of material is not that found at habitation sites.

At CA-SDI-18,364 75 artifacts were recovered in 1.43 cubic meters of excavated soil, including one unit and 13 STPs (four of which were sterile). This yields an artifact density of 52.45 artifacts/m^3. The STPs have an artifact density of 56.41 artifacts/m^3, and the unit has a density of 47.69 artifacts/m^3.

At CA-SDI-20,436, 3.345 cubic meters of soil were excavated in the 16 STPs and two units. A total of 293 artifacts were collected in the unit and STP excavation. Thus, the subsurface artifact density at the site is 87.59 artifacts/m^3. Unit 1 had the greatest artifact density (106.67 artifacts/m^3), followed by Unit 2 (103.33 artifacts/m^3). The STPs have a total artifact density of 57.83 artifacts/m^3; this includes the six STPs that produced no cultural material.

These numbers contrast significantly with sites identified as camps or habitation sites, such as CA-SDI-4798 (an Archaic period site in Alpine) with a subsurface artifact density of 262.097 artifacts/m^3 and CA-SDI-17,197 (a Late Prehistoric site also in Alpine) with a subsurface density of 842.810 artifacts/m^3 (Gross and Robbins-Wade 2010). At the four major loci at the Sabre Springs site, density of debitage ranges from 338.533/m^3 at Locus A to 800.936/m^3 at Locus D. That site also yielded ceramics, ground stone, flaked stone tools, bone, and shell (Gross 1992b).

Late Prehistoric/ethnohistoric villages have been identified to the north along the San Luis Rey River (Tomkav) and to the south in Moosa Canyon (Pamusa). The processing sites at Lilac Hills Ranch may be associated with these villages or with other habitation sites of earlier (Archaic) age. Questions related to the relationship of CA-SDI-20,436 to other sites in the vicinity could be addressed as part of the data recovery program.

Bedrock Milling

Three of the five sites at Lilac Hills Ranch include bedrock milling features. All of the milling features contain only slicks; no basins, mortars, or cupules were found. The bedrock milling feature at CA-SDI-18,365 has three slicks on one boulder. The other five milling features (three at CA-SDI-18,362 and two at CA-SDI-20,436) each contained a single slick. Slicks are the bedrock milling equivalent to slab metates. While a number of ethnographic and ethnohistoric accounts address grinding acorns in mortars, less is much less information regarding use of metates. Hedges and Beresford (1986) indicated that metates were used in preparing wild oats, cracking acorns for processing, and for grinding pottery clay. While (1963) recorded that the Luiseño word *ila* refers to "smooth bedrock metates" (White 1963:125), but he did not describe the use of this type of feature. Hedges and Beresford (1986) noted that wild oats (*Avena fatua*) were hulled on a metate, and mesquite beans could be ground on a metate or pounded in a mortar. Seeds of white sage (*Salvia apiana*) were described by Hedges and Beresford as being ground, but no mention was made of the implement used. Thistle sage (*Salvia carduaceae*) and chia (*Salvia columbariae*) were noted as having similar uses to white sage, but grinding of these seeds was not mentioned (Hedges and Beresford 1986:39-41). Although no specific grinding implement was noted for the processing of these seeds, the authors used the word "ground", as opposed to "pounded". Throughout the text, ground was used to refer to processing with a metate, and pounded or pulverized was used when speaking of processing in a mortar. The presence of slicks and lack other types of milling features suggests the types of seeds discussed above were processed at the sites in the Lilac Hills Ranch project.

Question #2 -- Do the combinations of elements differ between habitation or camp sites and resource processing sites? – cannot be addressed simply using data from Lilac Hills Ranch, since there are no habitation sites in the project, and all the milling features have only slicks. Question #3, regarding changes in the occurrence of milling feature types through time, also cannot be addressed with data only from this project.

4.2.2 Historic Resources

Eight houses within the project area are potentially over 45 years old, based on maps and aerial photographs (Table 4). With the exception of P-37-032554 (9007 West Lilac Road), all the residences were built between 1953 and 1964, based on aerial photographs. P-37-032554 is addressed in detail below. None of the houses are architecturally or historically significant. At least one house (P-37-032554) has been substantially remodeled in recent years. None are eligible for the California Register of Historical Resources or the National

Register of Historic Places. Therefore, none are significant resources under CEQA, and none meet the significance criteria of RPO. The locations of the houses are shown in Figure 13, and they are described individually below. Standard forms (Primary Records and Building, Structure, Object Records) were completed for each of the houses and submitted to SCIC. These forms are included as Appendix D.

P-37-032550 (9983 West Lilac Road)

This single-family home is in the eastern portion of the project and is reached via a long driveway from Covey Lane. It is also in the mapped area of CA-SDI-12,553H. The small, single story wood-framed house has a flat roof and wood-framed double-hung sash windows. It is covered with board and batten wood siding. It appears to be supported by a mudsill foundation. A single house appears here on the 1968 USGS map; two other houses have been constructed in the immediate area since that time. This house is not shown on an aerial photograph from 1953 but is present in an aerial photograph taken in 1964 (historicaerials.com), making it over 45 years old.

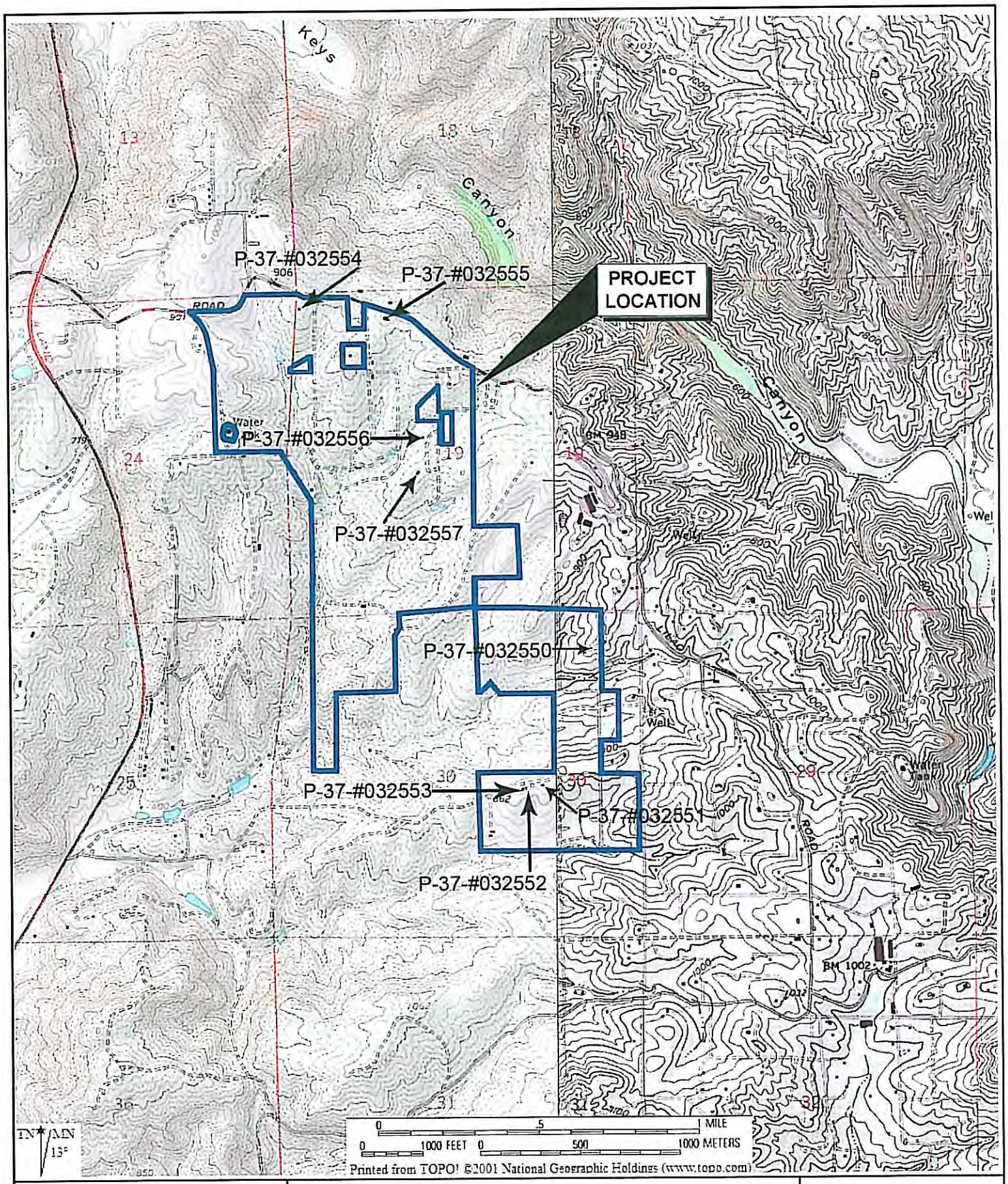
This resource lacks qualifying associations or design elements necessary to qualify for the California Register or RPO.

P-37-032551 (8965-8999 Nelson Way)

This is a single-family house in a complex with two others (P-37-032552 and P-37-032553); P-37-032551 is the farthest east of the three. This single story L-shaped California Ranch style house is supported by a concrete slab foundation. It has a Spanish tile-covered cross-gabled roof. Various sizes of aluminum-framed sliding windows are placed on all sides of the building. A carport is located on the east side. The three houses and an outbuilding are all shown on the 1968 USGS map. The houses are all shown on an aerial photograph taken in 1964, but none of them are on an aerial photograph from 1953 (historicaerials.com), indicating the houses are at least 47 years old (as of 2011). This resource lacks qualifying associations or design elements necessary to qualify for the California Register or RPO.

P-37-032552 (8965-8999 Nelson Way)

As described above, this single-family house is in a complex with two others (P-37-032551 and P-37-032553). It is closest to P-37-032553; P-37-032551 is farther to the east. This single story vernacular style wood-framed house appears to be supported by a mudsill foundation. It has a combination moderately sloped end-gabled and shed roof and is covered with wood board and batten siding. Access is gained through a single entry door on the north side. Aluminum-framed sliding windows of various sizes are located along all



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Locations of Buildings at least 45 years old

Figure 13

sides of the building. The three houses (P-37-032551, P-37-032552, and P-37-032553) are all shown on the 1968 USGS map and are on an aerial photograph taken in 1964, but none of them are on an aerial photograph from 1953 (historicaerials.com), indicating the houses are at least 47 years old.

This resource lacks qualifying associations or design elements necessary to qualify for the California Register or RPO.

P-37-032553 (8965-8999 Nelson Way)

P-37-032553 is the farthest west of the three single-family houses in the complex; it is quite close to P-37-032552. This small rectangular wood-framed house appears to be supported by a pier and beam foundation. It has a shed roof and aluminum-framed sliding windows. The solid single main entry door with a narrow rectangular light is accessed by a wooden porch and stairs. As addressed above, all three houses (P-37-032551, P-37-032552, and P-37-032553) appear on the 1968 USGS map and are shown on an aerial photograph taken in 1964, but they do not appear on a 1953 aerial photograph (historicaerials.com), indicating the houses are over 45 years old.

This resource lacks qualifying associations or design elements necessary to qualify for the California Register or RPO.

P-37-032554 (9007 West Lilac Road)

This single-family home is located in the northwestern corner of the project (Figure 13), on the south side of West Lilac Road, west of Shirey Lane. This single story, irregular-shaped, wood-framed, stucco-covered, California Ranch style house is supported by a concrete slab foundation. It has a moderately pitched cross-gabled roof covered with asphalt shingles. It has modern plastic-framed double pane windows. Single entry doors are centered on the front and the ends for access.

As addressed below in the discussion of historic maps, a house is shown in this location on every USGS map from 1901 to the present. The existing house was remodeled around 1980, but the configuration of the current house is the same as that shown in an aerial photograph from 1964. It is difficult to be certain that the current house is the same one shown on the 1953 and 1938 aerial photographs (historicaerials.com), but that does appear to be the case. Given this, it is interesting to note that the current tenant, who purchased the property in the 1970s, was told by a neighbor that the house was moved to that location from somewhere else.

Without definitive evidence to the contrary, it must be assumed that the house is 45 years old. Due to the extensive remodeling, the house no longer retains integrity, however. The house is not architecturally significant, and there is no known association with a significant individual or event. The lack of integrity makes the house ineligible for the National

Register of Historic Places or the California Register of Historical Resources. That is, it is not a significant resource under CEQA or RPO.

P-37-032555 (9167 West Lilac Road)

This single-family home is located in the northernmost portion of the project. The irregular-shaped, single story wood-framed house sits on a concrete slab and has a moderately pitched cross-gabled roof covered with asphalt roofing material. The sides of the house are finished with wooden shingles. Rectangular windows are irregularly placed around the sides of the building. A modern Craftsman style two story addition has been added to the back of the house. This house appears on the 1968 USGS map. It is not shown on an aerial photograph from 1953 but is present in an aerial photograph taken in 1964 (historicaerials.com), making it at least 47 years old at the time of the survey.

This resource lacks qualifying associations or design elements necessary to qualify for the California Register or RPO.

P-37-032556 (Lilac Walk)

P-37-032556 is a single-family home located in the center of Section 19. The house is used by workers and is associated with 9553 Lilac Walk (P-37-032557) but has no address of its own. This single story rectangular house appears to be constructed on a concrete slab. It has a steeply pitched end-gabled roof with a shed roofed rear addition. Both sections are covered with asphalt roofing material. The exterior is finished with wood board and batten siding. Rectangular aluminum-framed sliding windows are irregularly spaced on all four sides. The house is shown on the 1968 USGS map. While the house does not appear on an aerial photograph from 1953, it is present in an aerial photograph taken in 1964 (historicaerials.com), making it at least 47 years old at the time of the survey.

This resource lacks qualifying associations or design elements necessary to qualify for the California Register or RPO.

P-37-032557 (9553 Lilac Walk)

This house is located south of P-37-032556, near the end of Lilac Walk. The address is displayed on the house itself. This rectangular, single story, California Ranch House style home is supported by a concrete slab foundation and constructed of concrete block. It has a wooden shingle-covered cross-gabled roof. The building exhibits large plate glass windows, and double wood-framed glass doors. The house at P-37-032557 appears on the 1968 USGS map. It is not shown on an aerial photograph from 1953 but is present in an aerial photograph taken in 1964 (historicaerials.com), making it at least 47 years old at the time of the survey.

This resource lacks qualifying associations or design elements necessary to qualify for the California Register or RPO.

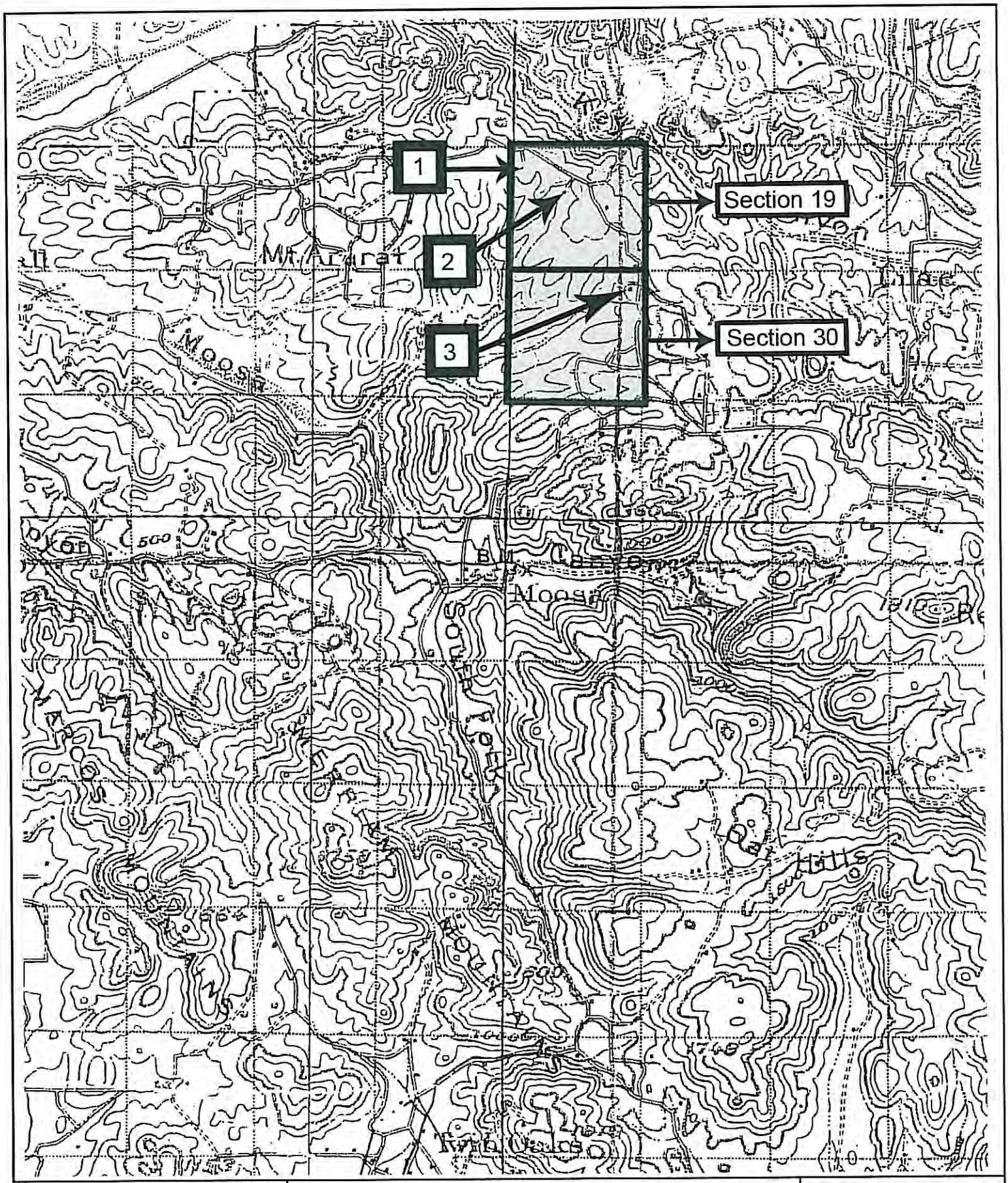
Historic Maps

Historic maps and aerial photographs were reviewed to help determine the age of existing buildings and to assess the potential for historic cultural resources that were not observed during the survey, for instance, root cellars or privy pits. There are five buildings in the immediate vicinity of the project on the 1901 USGS 30' San Luis Rey quadrangle (Figure 14). Two of these locations are outside the project area: one is on the north side of West Lilac Road, and one is at the far southeastern corner of Section 19, adjacent to West Lilac Road. Two house locations shown on the 1901 map are in the northern portion of the project area (Figure 14), and one mapped house might be within the project area, as described below.

A house is shown in the northwestern portion of the project area on the 1901 USGS map, in the approximate location of the current house at 9007 West Lilac Road (P-37-032554); it is shown as number 1 on Figure 14. The map shows a driveway or short road to the house from West Lilac Road. A building is shown in this location on the 1948 USGS 7.5' Bonsall quadrangle, as well as on the 1968 USGS 7.5' Bonsall quadrangle. A 1928 tax factor aerial photograph was not available for this location, but buildings are visible here on aerial photographs from 1938, 1953, and 1964 (historicaerials.com). Given this information, there is a potential for historic features or deposits in a subsurface context here.

A second house is shown on the 1901 USGS map in the northern portion of Section 19, also connected to West Lilac Road by a driveway or short road (Figure 14, number 2). Nothing is visible in that area on the 1928 aerial photograph (tax factor aerial photograph 17C1, on file at SCIC), and no house is shown there on the 1948 USGS map. So, apparently the house that was present at the turn of the twentieth century was gone by 1928. Based on the map data, there is a potential for historic features or deposits in a subsurface context in this area.

As noted above, under the discussion of CA-SDI-12,553H, that site is mapped in the approximate area in which a windrow and grove appear on 1928 aerial photographs (tax factor aerial photographs 17C1 and 17B2, on file at SCIC). A house is shown on the 1901 USGS map just to the east of this, just west of Rodriguez Road, south of the junction with West Lilac Road (Figure 14, number 3). Although the house appears to be just outside the project area, as it is mapped on the 1901 USGS map, CA-SDI-12,553H was described as an old foundation, with historic debris present. No age was suggested for the historic material or the foundation. No house is visible on the 1928 aerial photographs; however, one of them is of poor quality and the other is cut off and does not cover the entire parcel. No house is shown in that location on the 1948 USGS map. Given the scale of the 1901 USGS map (1:125,000), it is reasonable that the map location represents the house whose foundation is recorded as CA-SDI-12,553H. No historic cultural material was found in this



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1901 30' USGS San Luis Rey Quadrangle
(enlarged to show detail)

Figure 14

area during the current survey, but there is recent residential development here. There is a potential for subsurface cultural material.

No historic archaeological material was found during the current survey, including at any of these map locations.

4.2.3 Native American Participation/Consultation

The initial correspondence from the Native American Heritage Commission (NAHC) in 2007 indicated that there are cultural resources listed in their Sacred Lands File in the immediate project area (see Confidential Appendix D). Due to the confidential nature of the project at that time, the Native American community was not contacted, other than the San Luis Rey Band of Luiseño Mission Indians who provided monitors during the survey. The project area studied in 2007 was somewhat different from that for the current study. The NAHC was contacted regarding the currently proposed project area in February 2011. At that time, the NAHC indicated that no Native American cultural resources were identified within ½ mile of the project, but there are Native American cultural resources in proximity to the project area.

Letters regarding the project were sent to individuals and groups identified by the NAHC. Native American correspondence is included as Confidential Appendix D. The Pala Band of Mission Indians indicated that the project is "within the boundaries of the territory that the tribe considers its Traditional Use Area". They recommended archaeological monitoring. The San Luis Rey Band of Mission Indians noted that they are always concerned about the preservation and protection of cultural, archaeological and historical sites within their traditional territory, which includes the cites of Oceanside, Carlsbad, Vista, San Marcos, and Escondido, and the communities of Fallbrook and Bonsall. County staff sent letters to Luiseño contacts requesting their participation in the SB 18 consultation process. The Soboba Band of Luiseño Indians replied, indicating the need for Native American monitors during any ground-disturbing activities and requesting continued government-to-government consultation. Although the letter from the Soboba Band requested that they be the lead monitoring entity, Joseph Ontiveros of the Soboba Cultural Resource Department explained to Merri Lopez-Kiefer, attorney for the San Luis Rey Band of Mission Indians, that the letter sent in response to the County's SB 18 consultation request actually was meant to ensure that Luiseño monitors be present for all ground-disturbing activity. Monitors representing the San Luis Rey Band have been involved in the project since 2007 and were present for all fieldwork conducted by Affinis throughout the project.

The County has also received requests for SB 18 consultation from the Pechanga, Rincon, and San Luis Rey Bands (in addition to the Soboba and Pala Bands addressed above). County staff conducted initial SB 18 consultation with these five tribes between August and October 2012 (see Confidential Appendix D). Consultation will be ongoing throughout the review and evaluation of the project application.

5.0 INTERPRETATION OF RESOURCE IMPORTANCE AND IMPACT IDENTIFICATION

5.1 Resource Importance

5.1.1 Resource Importance -- Archaeological and Native American Resources

Seven archaeological sites and two isolates have been recorded within the project boundaries. The County's Guidelines for Determining Significance indicate that any site that yields information or has the potential to yield information is considered an important site. The isolates are not considered important resources under County Guidelines and are not significant resources under CEQA, nor are they RPO-significant; their research potential has been fulfilled through their documentation.

Two previously recorded sites, CA-SDI-12,551 and CA-SDI-12,553H were found not to be present in the project area, as discussed above. A testing program was conducted at the five extant sites within the project boundaries (CA-SDI-18,362, CA-SDI-18,363, CA-SDI-18,364, CA-SDI-18,365, and CA-SDI-20,436) in July 2012. As summarized in Table 18, one site (CA-SDI-18,363) was determined not to be cultural in nature; two sites (CA-SDI-18,364 and CA-SDI-18,365) do not meet the criteria for significance under CEQA or RPO.

The stacked stone feature at CA-SDI-18,362 is a very good example of the rock construction typical of late nineteenth and early twentieth century ranching features. The feature is in excellent condition. Given these factors, the feature is considered a significant resource under Criterion C of CEQA: "Embodies the distinctive characteristics of a type, period, region, or method of construction". The stacked stone feature also qualifies as a significant resource under RPO. The remainder of site CA-SDI-18,362 does not meet the criteria of a significant cultural resource under CEQA or RPO. CA-SDI-20,436 possesses the research potential necessary to meet the threshold of significance under Criterion D of CEQA: "Has yielded, or may be likely to yield, information important in prehistory or history". While CA-SDI-20,436 is a significant resource under CEQA, it does not reach the higher threshold of significance under RPO.

5.1.2 Resource Importance – Historic Resources

Eight single-family homes within the project area are at least 45 years old. All of these houses lack the qualifying associations or design elements necessary to qualify for the California Register. They are not significant resources under CEQA or RPO.

Table 18 Project Impacts

CA-SDI- #	Description	Significance Evaluation	Direct Impacts
12,551	Bedrock milling station – three slicks on one outcrop.	NA – outside project	None – outside project
12,553H	Remnants of building foundation, historic debris eroding out of hillside, large non-native trees.	Site not relocated, possibly destroyed	None anticipated; possible impacts if subsurface deposits exist
18,362	Stacked stone feature (rock room), milling slicks on three outcrops.	Overall site is not significant under CEQA or RPO guidelines. Rock structure is significant under CEQA and RPO-significant	None; site is within proposed biological open space
18,363	Recorded as a probable rock shelter, no artifacts observed. Site determined not to be cultural.	Not significant; determined not to be cultural	Yes
18,364	Lithic scatter in area that has been graded in the past; some subsurface cultural material.	Not significant under CEQA or RPO	Yes
18,365	Bedrock milling station with three slicks on one boulder.	Not significant under CEQA or RPO	Yes
20,436	Temporary camp or processing site with bedrock milling, artifact scatter, and subsurface deposit.	Significant under CEQA, not RPO-significant	Possible, none anticipated; site is outside the grading footprint, although it is not within dedicated open space
P-37-#	**Description**	**Significance Evaluation**	**Direct Impacts**
028486	Lithic isolate	Isolate; not significant under CEQA or County guidelines	No
032243	Isolated mano	Isolate; not significant under CEQA or County guidelines	No
032550	House	Not significant under CEQA or County guidelines	Yes

CA-SDI- #	Description	Significance Evaluation	Direct Impacts
032551	House	Not significant under CEQA or County guidelines	Yes
032552	House	Not significant under CEQA or County guidelines	Yes
032553	House	Not significant under CEQA or County guidelines	Yes
032554	House	Not significant under CEQA or County guidelines	Yes
032555	House	Not significant under CEQA or County guidelines	Yes
032556	House	Not significant under CEQA or County guidelines	Yes
032557	House	Not significant under CEQA or County guidelines	Yes

5.1.3 Native American Heritage Resources

No information has been obtained through Native American consultation or communication with the Native American monitor during fieldwork that any of the evaluated sites are culturally significant. No Traditional Cultural Properties that currently serve religious or other community practices are known to exist within the project area. During the current archaeological evaluation, no artifacts or remains were identified or recovered that could be reasonably associated with such practices. All prehistoric archaeological material consisted of common flaked stone and ground stone items, and those in very limited quantities at all sites except CA-SDI-20,436.

5.2 Impact identification

5.2.1 Impact Identification -- Archaeological and Native American Resources

Figure 15 illustrates the locations of cultural resources in relation to the proposed project plan, and project impacts are summarized in Table 18. Two of the five extant sites (CA-SDI-18,364 and CA-SDI-18,365) are completely or partially within the proposed development footprint; it is assumed that these sites would be subject to direct impacts from the project. CA-SDI-18,363 is within the development footprint, but it was determined not to be an archaeological resource. CA-SDI-18,362 is within a dedicated open space easement and would not be subject to direct impacts. CA-SDI-20,436 is outside the proposed grading footprint, but the site is not located within dedicated open space, so direct impacts to the site are possible. The mapped location of CA-SDI-12,553H is within the development footprint, but as addressed previously, no evidence of this site was found during the current survey. The two isolates (P-37-028486 and P-37-032243) are outside the development footprint, in proposed biological open space easements.

The significance of project impacts is assessed based on the County's Guidelines for Determining Impact Significance, as presented in Chapter 2.

Guideline 1: No significant historical resources have been identified within the project.

Guideline 2: As summarized in Table 18, the project would cause a substantial change in the significance of three archaeological resources pursuant to Section 15064.5 of the State CEQA Guidelines. Two of these sites (CA-SDI-18,364 and CA-SDI-18,365) have been sufficiently recorded, documented, and tested to reduce the impacts to below a level of significance. The third site, CA-SDI-20,436, is a significant resource under CEQA but does not meet the higher threshold of significance under RPO. CA-SDI-20,436 is outside the grading footprint, and no direct impacts are anticipated. However, the site is not within a dedicated open space easement, so direct impacts are possible. A data recovery program would be developed and implemented in order to mitigate potential impacts to the site, as addressed under Management Considerations – Mitigation Measures and Design Considerations.

Guideline 3: The project is not expected to disturb any human remains, including those interred outside of formal cemeteries.

Guideline 4: The project does not propose activities or uses damaging to significant cultural resources as defined by RPO. As addressed above, a portion of CA-SDI-18,362 is a significant resource under RPO; the entire site is within dedicated open space.

5.2.2 Impact Identification -- Historic Resources

The eight buildings in the project area that are over 45 years old are all within the proposed development footprint; it is assumed they all would be subject to direct impacts from the project.

SENSITIVE MATERIAL – IN CONFIDENTIAL APPENDIX B

Affinis Shadow Valley Center 847 Jamacha Road El Cajon, CA 92019	Locations of Cultural Resources in Relation to Project Plans	Figure 15

6.0 MANAGEMENT CONSIDERATIONS – MITIGATION MEASURES AND DESIGN CONSIDERATIONS

Impacts to cultural resources have been identified for the proposed Lilac Hills Ranch project. As addressed in the previous section, three archaeological sites (CA-SDI-18,364, CA-SDI-18,365, and CA-SDI-20,436) and eight houses over 45 years old would potentially be subject to direct impacts from project implementation. One additional site is within a dedicated open space lot (CA-SDI-18,362). A fifth recorded site was determined not to be cultural. Impacts to CA-SDI-18,364 and CA-SDI-18,365 have been reduced to a level below significant through testing, recording, and documentation. CA-SDI-18,362 will be preserved in a permanent open space easement. During any grading or construction activities, temporary fencing will be placed on the perimeter of the open space area around CA-SDI-18,362 to ensure that workers and equipment do not inadvertently encroach into the archaeological site.

If direct impacts to CA-SDI-20,436 cannot be avoided through project design, a data recovery program would be developed and implemented at the site prior to approval of any grading or improvement plans that would cause the direct impact. The research design and data recovery plan would be approved by County staff. The data recovery program would be implemented prior to any grading and/or improvements, and prior to the approval of the Final Map. All data recovery shall include a Native American monitor.

The Lilac Hills Ranch project is in an area with a great deal of archaeological and cultural sensitivity. Therefore, a monitoring program must be implemented for any grading or other-ground-disturbing activity.

Prior to approval of grading or improvement plans, the applicant shall:

Implement a grading monitoring and data recovery program to mitigate potential impacts to undiscovered buried archaeological resources on the Lilac Hills Ranch project to the satisfaction of the Director of Planning and Development Services. This program shall include, but shall not be limited to, the following actions:

a. Provide evidence to the Department of Planning and Development Services that a County approved archaeologist has been contracted to implement a grading monitoring and data recovery program to the satisfaction of the Director of Planning and Development Services. A letter from the Principal Investigator shall be submitted to the Director of Planning and Development Services. The letter shall include the following guidelines:

    (1) The project archaeologist shall contract with a Luiseño Native American monitor to be involved with the grading monitoring program as outlined in the County of San Diego Report Format and Content Guidelines (2006).

(2) The County certified archaeologist/historian and Native American monitor shall attend the pre-grading meeting with the contractors to explain and coordinate the requirements of the monitoring program as outlined in the County of San Diego Report Format and Content Guidelines (2007).

(3) The project archaeologist shall monitor all areas identified for development including off-site improvements.

(5) During the original cutting of previously undisturbed deposits, the archaeological monitor(s) and Native American monitor(s) shall be onsite as determined by the Project Archaeologist of the excavations. Inspections will vary based on the rate of excavation, the materials excavated, and the presence and abundance of artifacts and features. The frequency and location of inspections will be determined by the Project Archaeologist in consultation with the Native American monitor. Monitoring of cutting of previously disturbed deposits will be determined by the Principal Investigator.

(6) Isolates and clearly non-significant deposits will be minimally documented in the field and the monitored grading can proceed.

(7) In the event that previously unidentified potentially significant cultural resources are discovered, the archaeological monitor(s) shall have the authority to divert or temporarily halt ground disturbance operations in the area of the discovery to allow evaluation of potentially significant cultural resources. The Principal Investigator shall contact the County Archaeologist at the time of the discovery. The Principal Investigator, in consultation with County staff archaeologist, shall determine the significance of the discovered resources. The County Archaeologist must concur with the evaluation before construction activities will be allowed to resume in the affected area. For significant cultural resources, a Research Design and Data Recovery Program to mitigate impacts shall be prepared by the consulting archaeologist and approved by the County Archaeologist, then carried out using professional archaeological methods.

(8) If any human bones are discovered, the Principal Investigator shall contact the County Coroner. In the event that the remains are determined to be of Native American origin, the Most Likely Descendant, as identified by the Native American Heritage Commission, shall be contacted by the Principal Investigator in order to determine proper treatment and disposition of the remains.

(9) Before construction activities are allowed to resume in the affected area, the artifacts shall be recovered and features recorded using professional archaeological methods. The Principal Investigator shall determine the amount of material to be recovered for an adequate artifact sample for analysis.

(10) In the event that previously unidentified cultural resources are discovered, all cultural material collected during the grading monitoring program shall be processed and curated at a San Diego facility that meets federal standards per 36 CFR Part 79, and therefore would be professionally curated and made available to other archaeologists/researchers for further study. The collections and associated records shall be transferred, including title, to an appropriate curation facility within San Diego County, to be accompanied by payment of the fees necessary for permanent curation. Evidence shall be in the form of a letter from the curation facility identifying that archaeological materials have been received and that all fees have been paid. Alternatively, cultural material collected will be repatriated to the appropriate Luiseño band(s), per the project's pre-excavation agreement;

(11) Monthly status reports shall be submitted to the Director of Planning and Development Services starting from the date of the notice to proceed to termination of implementation of the grading monitoring program. The reports shall briefly summarize all activities during the period and the status of progress on overall plan implementation. Upon completion of the implementation phase, a final report shall be submitted describing the plan compliance procedures and site conditions before and after construction.

(12) In the event that previously unidentified cultural resources are discovered, a report documenting the field and analysis results and interpreting the artifacts and research data within the research context shall be completed and submitted to the satisfaction of the Director of Planning and Development Services prior to the issuance of any building permits. The report will include Department of Parks and Recreation Primary and Archaeological Site forms.

(13) In the event that no cultural resources are discovered, a brief letter to that effect shall be sent to the Director of Planning and Development Services by the consulting archaeologist that the grading monitoring activities have been completed.

b. Provide evidence to the Director of Public Works (DPW) that the following notes have been placed on the Grading Plan:

(1) The County certified archaeologist/historian and Native American monitor shall attend the pre-construction meeting with the contractors to explain and coordinate the requirements of the monitoring program.

(2) The project archaeologist shall monitor all areas identified for development including off-site improvements.

(3) During the original cutting of previously undisturbed deposits, the archaeological monitor(s) and Native American monitor(s) shall be onsite as

determined by the Principal Investigator of the excavations. Inspections will vary based on the rate of excavation, the materials excavated, and the presence and abundance of artifacts and features. The frequency and location of inspections will be determined by the Project Archaeologist in consultation with the Native American monitor. Monitoring of cutting of previously disturbed deposits will be determined by the Principal Investigator.

(4) In the event that previously unidentified potentially significant cultural resources are discovered, the archaeological monitor(s) shall have the authority to divert or temporarily halt ground disturbance operations in the area of the discovery to allow evaluation of potentially significant cultural resources. The Principal Investigator shall contact the County Archaeologist at the time of the discovery. The Principal Investigator, in consultation with County staff archaeologist, shall determine the significance of the discovered resources. The County Archaeologist must concur with the evaluation before construction activities will be allowed to resume in the affected area. For significant cultural resources, a Research Design and Data Recovery Program to mitigate impacts shall be prepared by the Principal Investigator and approved by the County Archaeologist, then carried out using professional archaeological methods.

(5) The archaeological monitor(s) and Native American monitor shall monitor all areas identified for development.

(6) If any human bones are discovered, the Principal Investigator shall contact the County Coroner. In the event that the remains are determined to be of Native American origin, the Most Likely Descendant, as identified by the Native American Heritage Commission, shall be contacted by the Principal Investigator order to determine proper treatment and disposition of the remains.

(7) The Principal Investigator shall submit monthly status reports to the Director of Planning and Development Services starting from the date of the notice to proceed to termination of implementation of the grading monitoring program. The reports shall briefly summarize all activities during the period and the status of progress on overall plan implementation. Upon completion of the implementation phase, a final report shall be submitted describing the plan compliance procedures and site conditions before and after construction.

(8) Prior to rough grading inspection sign-off, provide evidence that the field grading monitoring activities have been completed to the satisfaction of the Director of Planning and Development Services. Evidence shall be in the form of a letter from the Project Investigator.

(9) Prior to Final Grading Release, submit to the satisfaction of the Director of Planning and Development Services, a final report that documents the

results, analysis, and conclusions of all phases of the Archaeological Monitoring Program. The report shall also include the following:

- Department of Parks and Recreation Primary and Archaeological Site forms.

- Evidence that all cultural material collected during the grading monitoring program has been curated at a San Diego facility that meets federal standards per 36 CFR Part 79, and therefore would be professionally curated and made available to other archaeologists/ researchers for further study. The collections and associated records shall be transferred, including title, to an appropriate curation facility within San Diego County, to be accompanied by payment of the fees necessary for permanent curation. Evidence shall be in the form of a letter from the curation facility identifying that archaeological materials have been received and that all fees have been paid. Alternatively, cultural material collected will be repatriated to the appropriate Luiseño band(s), per the project's pre-excavation agreement.

Or

In the event that no cultural resources are discovered, a brief letter to that effect shall be sent to the Director of Planning and Development Services by the Principal Investigator that the grading monitoring activities have been completed.

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8.0 LIST OF PREPARERS AND PERSONS AND ORGANIZATIONS CONTACTED

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9.0 LIST OF MITIGATION MEASURES AND DESIGN CONSIDERATIONS

As addressed in Section 5.0, the following mitigation measures and design considerations will serve to mitigate project impacts to below a level of significance.

Table 19 Mitigation Measures and Design Considerations

CA-SDI- #	Direct Impacts	Mitigation Measures
12,551	None – outside project	None
12,553H	None anticipated; possible impacts if subsurface deposits exist	Construction monitoring, curation of any cultural material collected during monitoring
18,362	None; site is in dedicated open space	Temporary fencing during construction. Construction monitoring, curation of any cultural material collected during monitoring
18,363	Yes	None; site determined not to be cultural.
18,364	Yes	Construction monitoring, curation of any cultural material collected during monitoring
18,365	Yes	Construction monitoring, curation of any cultural material collected during monitoring
20,436	Yes	Open space easement or development and implementation of data recovery program. Construction monitoring, curation of any cultural material collected during monitoring
P-37-#	**Direct Impacts**	**Mitigation Measures**
028486	No	None; isolate is not a significant resource under CEQA or RPO
032243	No	None; isolate is not a significant resource under CEQA or RPO
032550	Yes	None; not a significant resource under CEQA or RPO
032551	Yes	None; not a significant resource under CEQA or RPO
032552	Yes	None; not a significant resource under CEQA or RPO
032553	Yes	None; not a significant resource under CEQA or RPO
032554	Yes	None; not a significant resource under CEQA or RPO
032555	Yes	None; not a significant resource under CEQA or RPO
032556	Yes	None; not a significant resource under CEQA or RPO
032557	Yes	None; not a significant resource under CEQA or RPO

APPENDIX A

OFF-SITE IMPROVEMENTS

LILAC HILLS RANCH OFF-SITE IMPROVEMENTS

INTRODUCTION

Several off-site improvements are proposed in conjunction with the Lilac Hills Ranch project. These include roadway improvements at the I-15 ramps at Gopher Canyon Road, the Gopher Canyon Road-Old Highway 395 intersection, the Circle R Road-Old Highway 395 intersection, the West Lilac Road-Old Highway 395 intersection, West Lilac Road between Old Highway 395 and the project (both east and west of I-15, Covey Lane, and a private road to the south of Covey Lane between the project and Rodriguez Road (see Figures A-1 through A-5). In addition, off-site wastewater and recycled water lines are proposed to the existing Moosa Canyon Wastewater Treatment Plant (see Figures A-1 and A-6).

METHODS

Cultural resources surveys of these areas that could be disturbed during construction of off-site facilities were conducted in July 2012. With the exception of Covey Lane and the small private road, the Area of Potential Effects (APE) for the off-site improvements was surveyed by Andrew Giletti and Kristina Davison of Affinis and Cami Mojado of Saving Sacred Sites (Native American monitor) on July 2, 2012. The APE for improvements on Covey Lane was surveyed by Giletti and Jay Castaneda (Saving Sacred Sites) on July 31, 2012. The small private road between the project and Rodriguez Road had been surveyed in March 2012 as part of the survey of a parcel that was later removed from the project. To the extent feasible, the APE for each proposed improvement was walked using parallel transects spaced no more than 10 m apart. In some areas, such as on Old Highway 395 at Gopher Canyon Road (Moosa Creek), ground visibility was poor, due to vegetative cover. Because the proposed improvements are along existing roads, much of the APE has been graded or is covered with paving; other areas support orchards or are landscaped.

RESULTS

Records Search/Previous Research

A records search was conducted at the South Coastal Information Center for the off-site improvement areas not included in the records search conducted for the project itself. No archaeological resources have been recorded in proximity to the APE for proposed improvements along West Lilac Road, Covey Lane, or the private road. A number of sites have been recorded in proximity to Circle R Drive and Gopher Canyon Road in conjunction with studies for the construction of I-15 and the proposed development of Circle R Ranch. The 15 cultural resources recorded within a half mile of the off-site improvements APE are listed in Table A-1. Of these 15 resources, one is mapped just north of the sewer APE (CA-SDI-5067) and one (CA-SDI-5072) is located adjacent to and partially within the off-site road improvements at Old Highway 395-Circle R Drive, Old Highway 395-Gopher Canyon Road, and the I-15 ramps at Gopher Canyon Road.

CA-SDI-5067 was originally recorded as a rock enclosure surrounding an area dug out to a depth of 55 cm. No artifacts were observed, and the 1977 site record noted, “the divisions of this enclosure suggest a possible use as a hunting blind”. During the 1979 study for the Circle R Ranch project, other related rock features were noted, and it was determined that these were historic or recent in age, probably drainage features. Although Table 2 in that report indicated that CA-SDI-5067 needed to be preserved, the text of the report indicated that the site was determined not to be a significant resource (Hatley 1979).

CA-SDI-5072 is located adjacent to and partially within the APE for improvements at the I-15 ramps at Gopher Canyon Road, Old Highway 395-Gopher Canyon Road, and Old Highway 395-Circle R Drive. Signalization is proposed at these intersections. The site record was updated in 1980 to include CA-SDI-4808. Originally CA-SDI-4808 was recorded on the west side of Highway 395 and CA-SDI-5072 was recorded on the east side of this roadway. Because the only break between the two sites is the road, which greatly postdates use of the sites, in 1980 they were subsumed under a single site number. In this report the original site number CA-SDI-4808 is used when addressing work conducted by Caltrans under that site number.

CA-SDI-4808 was originally recorded during the archaeological survey for the proposed I-15. It was described as a “small milling site which may be considered a branch of SDi-4807. . . . Some of the boulders on this hill seem to be in their original position, others appear to have been disturbed, perhaps having been dragged up on the hill when the pasture was cleared. . . . On the surface, this site does not appear to have any dark midden soil; however, testing would be necessary to obtain conclusive evidence of the depth or lack of depth of deposit” (Cupples 1977:5). CA-SDI-4808 was tested in 1978 to determine site boundaries and evaluate significance. “It became readily apparent in the field, however, that this site was representative of a far greater range of activities than just milling, yet, less than that of an occupation site (Cook 1978:183). Cook concluded:

> It seems likely that the cultural remains present in SDi-4808 are representative of social interaction and activity between the two villages (SDi-4707 and CR-6 [CA-SDI-5072]) and, perhaps, other villages. In any case the assemblage appears to be much too limited to make a case for any type of site which would be distinct from the two villages during San Luis Rey II times. No hypothesis can be made at this time regarding its function during a possible earlier occupation [Cook 1978:207].

Regarding CA-SDI-4808, as well as CA-SDI-4807 and CA-SDI-4556, Cook noted, “All of these sites have been determined to be of religious value by the Luiseno Indians. Because their belief in the sacred nature of their prehistoric sites and religious value of the artifacts, they have requested that all of the material collected be returned at an undisclosed location” (Cook 1978:ii). The location of the reburied cultural material was later recorded as CA-SDI-7836.

CA-SDI-5072 was recorded during a survey of the Circle R Ranch property. At that time it was considered a separate site from CA-SDI-4808. Eckhardt (1977) classified the site as “major”. He noted that the site was originally thought to be about 100 square meters in area, but upon further inspection the site “is probably closer to 400+ square meters” (Eckhardt 1977).

> Artifactual materials observed at this site consist of bedrock mortars and slicks, salt water shell (Donax, Chione), one Olivella shell bead (see Figure 7), flakes, pestles, pottery fragments (Tizon Brown Ware), burnt bone fragments and a broken cached pot with bone fragment. A midden depth of 60 centimeters was ascertained by measuring the depth of several pits left unfilled – presumably the work of pot hunters. To the southwest there are several stone walls which terrace the southeast face of the knoll down to the level of the water course [Eckhardt 1977].

Eckhardt also noted that “it is highly possible that human burials exist” at CA-SDI-4808. The site records for all of the sites recorded during the Circle R survey note, “Moosa Canyon region is probably the location of Luiseno village of Pamusa” (or Pamoosa, the spelling differs).

The 1979 cultural resources report for the Circle R Ranch project (Hatley 1979) indicated that Native American representatives were contacted as part of the cultural resources study. Regarding the presence of a rancheria (village) encompassing the Circle R Ranch vicinity, Native American representatives Henry Rodriguez and Jim Martinez were unable to provide information regarding specific families or place names. “However, Mr. Rodriguez stated that there are native trails leading from the site vicinity through the river (in Moosa Canyon) to the San Luis Rey River, indicating reoccurring inhabitance of the Circle R Ranch vicinity” (Hatley 1979:22). Mr. Martinez indicated that he didn’t remember the name of the rancheria but “many families camped along the river” and “there would have to have been a rancheria in that area by virtue of the many families inhabiting the area in question” (Hatley 1979:22).

Hatley noted that additional stone features were found at CA-SDI-5072, located 60 to 100 m north of the primary deposit located by Eckhardt. “These features are represented by 11 or more U-shaped stone semi-circles having a consistent size of approximately 1.3 meters in diameter and consistently placed one course high. The area is designated Locus B” (Hatley 1979:148). A series of postholes were excavated to establish the boundaries of the midden deposits; three test units and two feature excavations were performed to “provide more controlled data recovery for determination of material content and site significance” (Hatley 1979: 151).

The cultural material collected at CA-SDI-5072 during the study for the Circle R Ranch project reflected similarities with the other surrounding sites.

> The presence of stacked rock features, milling features, and the extensive midden reflect the importance of this site to the early area inhabitants. The stacked rock features could have been used as storage areas or as dwellings…. The milling features inside the enclosures could argue for usage as a working space. Closer examination of this question should be made prior to nomination of this site to the National Register of Historic Places [Hatley 1979:152].

At the suggestion of the Native American representatives, the U-shaped features were examined further. It had been suggested that the features were used in conjunction with coming of age ceremonies. Dr. James Moriarty suggested that the features were used for growing berry-producing plants. The disturbed feature examined showed evidence of recent campfire use. The undisturbed feature that was excavated had numerous smaller stones, approximately 15-20 cm in diameter (cobble size); no evidence of plant remains was found.

> The smaller stones, located subsurface, could have been for correct drainage or they could represent stone which would have been heated in conjunction with the girl's puberty ceremonies as described by Sparkman in his 1908 publication of the culture of the Luiseno Indians.
>
> Similarities exist between these U-shaped features and sand paintings prepared in conjunction with the female puberty ceremony….There is a possibility that the U-shaped rings are a variant of ceremonial pit and ground painting aspects of the coming of age ceremonial practice, where the two were combined as one feature with the same overall ritual effect. This possibility is conjectural at this time. However, the Native American advisor placed some merit in the feature's association with the now abandoned practice [Hatley 1979:152-153].

The overall integrity of CA-SDI-5072 (the portion of the site within the Circle R Ranch property) was considered high. The site included "such unique features as stacked rock enclosures at Locus A and the numerous U-shaped stone features of Locus B" (Hatley 1979:154). Historic and prehistoric features in association with one another "add to the uniqueness of this site" (Hatley 1979:154). Mitigation measures recommended for the site included: formal designation of an open space easement over Loci A and B of the site; nomination to the National Register of Historic Places; generation of a cost effective plan of an appropriate visitors' center which would allow enjoyment without destruction; solicitation of support and assistance from Department of Parks and Recreation, Caltrans, Native American and archaeological concerns, and other interested parties to facilitate and maintain such a center (Hatley 1979:55-156).

CA-SDI-5072 was addressed again in 1980 during a study in conjunction with proposed left-turn pockets on the east side of what was then the existing I-15 (now Old Highway 395) at Gopher Canyon Road. That study noted that a portion of CA-SDi-5072 Locus B was located within the proposed construction area. In addition, the report noted, "The

location of site SDi-4808 to the immediate west of existing Route 15 opposite SDi-5072 strongly suggests that the two sites were originally one" (White and Corum 1980:1). Based on this, the site record was updated to include both CA-SDI-4808 and CA-SDI-5072 as a single site. The report indicated that the construction of the turn pocket would follow "the 1978 Memorandum of Agreement for sites SDi-4556. 4807, and 4808, i.e. clearing and grubbing by hand and placing a 1 foot layer of D.G. by end dumping using rubber-tired vehicles prior to commencing normal embankment operation" (White and Corum 1980:1).

An additional locus was added to CA-SDI-5072 in 1984. This locus was described as "a midden site on a low knoll on the northern bank of Moosa Creek directly opposite the previously recorded portions of the SDi-5072 village, which has been bisected by the construction of Highway 395" (site record for CA-SDI-5072 Locus C, on file at South Coastal Information Center). This locus is mapped just outside the intersection of Old Highway 395 and Circle R Drive.

Field Survey

The off-site improvements APE was surveyed for cultural resources by Affinis and Saving Sacred Sites in July 2012. No archaeological resources were found during the field survey. No evidence of the previously recorded sites was found. The portion of the APE that is adjacent to and partially within the mapped area of CA-SDI-5072 has been subject to impacts from development of the existing roadway, and no surface artifacts were found; however, there is a high potential for significant subsurface deposits within the APE.

IMPACTS AND SIGNIFICANCE

As illustrated in Figure A-7, proposed improvements at Old Highway 395-Circle R Drive are adjacent to the mapped site boundaries of CA-SDI-5072C, and proposed improvements at the I-15 ramps at Gopher Canyon Road, as well as Old Highway 395-Gopher Canyon Road are within the site boundaries of CA-SDI-5072 (which includes CA-SDI-4808). Improvements in these areas consist of signalization. This site was previously determined to be a significant cultural resource, meeting the significance criteria for the National Register of Historic Places (Cook 1978; Hatley 1979). As such, CA-SDI-5072 is significant under the California Environmental Quality Act (CEQA). Because the off-site APE is within mobility element roads, the project is exempt from the County's Resource Protection Ordinance (RPO). Therefore, impacts to the site would constitute significant effects and would be inconsistent with County standards.

As noted above, the improvements proposed within and adjacent to CA-SDI-5072 consist of the installation of traffic signals. It is anticipated that any trenching required for these signals would be in the fill layer directly beneath the street pavement and would not affect site soils, thus avoiding significant impacts. If this cannot be accommodated, a capping plan would be developed and implemented to preserve site deposits beneath the roadway improvements. The capping plan would be similar to that

implemented for construction of I-15 and associated facilities in the area of this site and consist of the following:

- Any brushing and grubbing required would be done by hand;
- The soil cap would be at least 12 inches thick and would consist of documented fill soil that is free of any cultural material;
- Fill material would be placed by end-dumping using rubber-tired vehicles prior to any other grading operations;
- All work in the vicinity of CA-SDI-5072 would be monitored by an archaeologist and a Native American (Luiseño) monitor;
- There would be no storage or staging of equipment or vehicles within the boundaries of the archaeological site, except in areas that are already paved;
- There would be no encroachment into the archaeological site by workers or vehicles except in areas that are already paved or capped.

The capping program would only be implemented if trenching for signalization could not be accommodated within the existing fill layer above site soils.

Due to the cultural sensitivity of the entire vicinity of the off-site improvements, a cultural resources monitoring program will be implemented for construction of all of the off-site improvements. The monitoring program will be the same as that detailed in the body of the cultural resources report and will include an archaeologist and a Native American (Luiseño) monitor. The monitors will have the authority to temporarily halt or redirect grading in the event that cultural resources are encountered. A monitoring report will be submitted to County staff at the conclusion of the monitoring program.

REFERENCES

Cook, Roger A.

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Eckhardt, William

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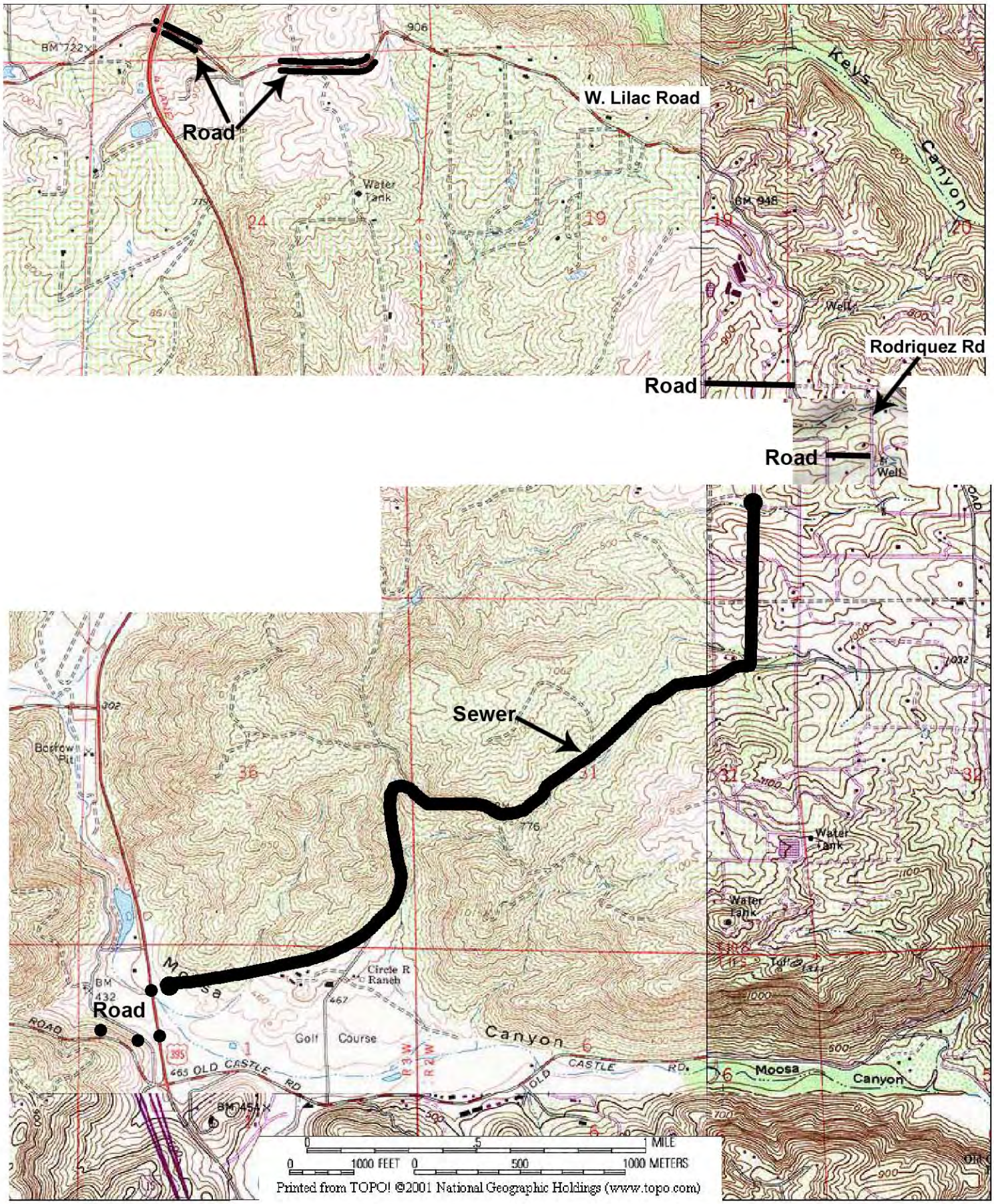
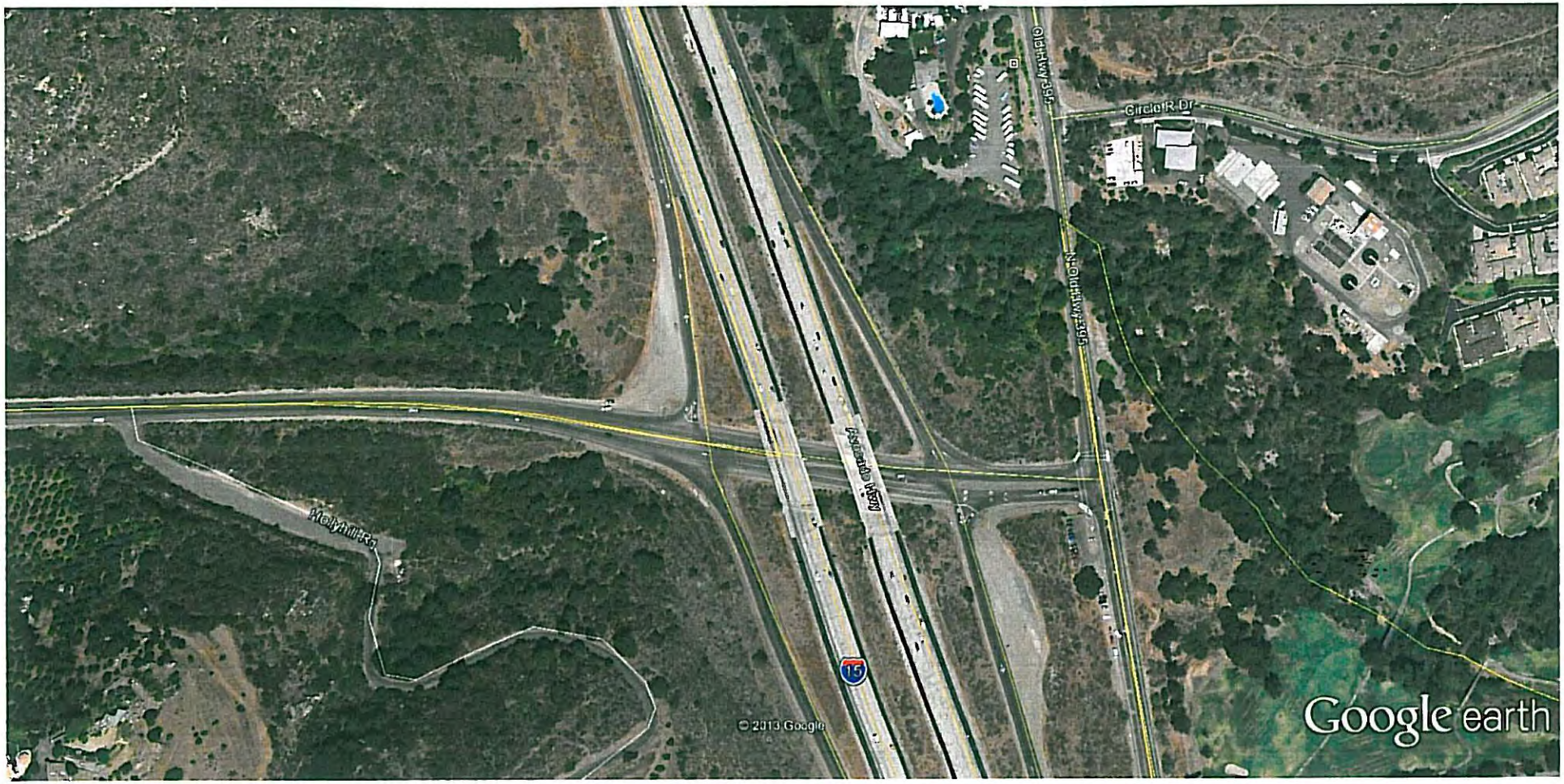


Affinis

Shadow Valley Center
847 Jamacha Road
El Cajon, CA 92019

Off-Site Road and Sewer Improvements
on USGS 7.5' Bonsall and Pala Quadrangles

Figure A-1



Google earth

feet 2000

meters 700

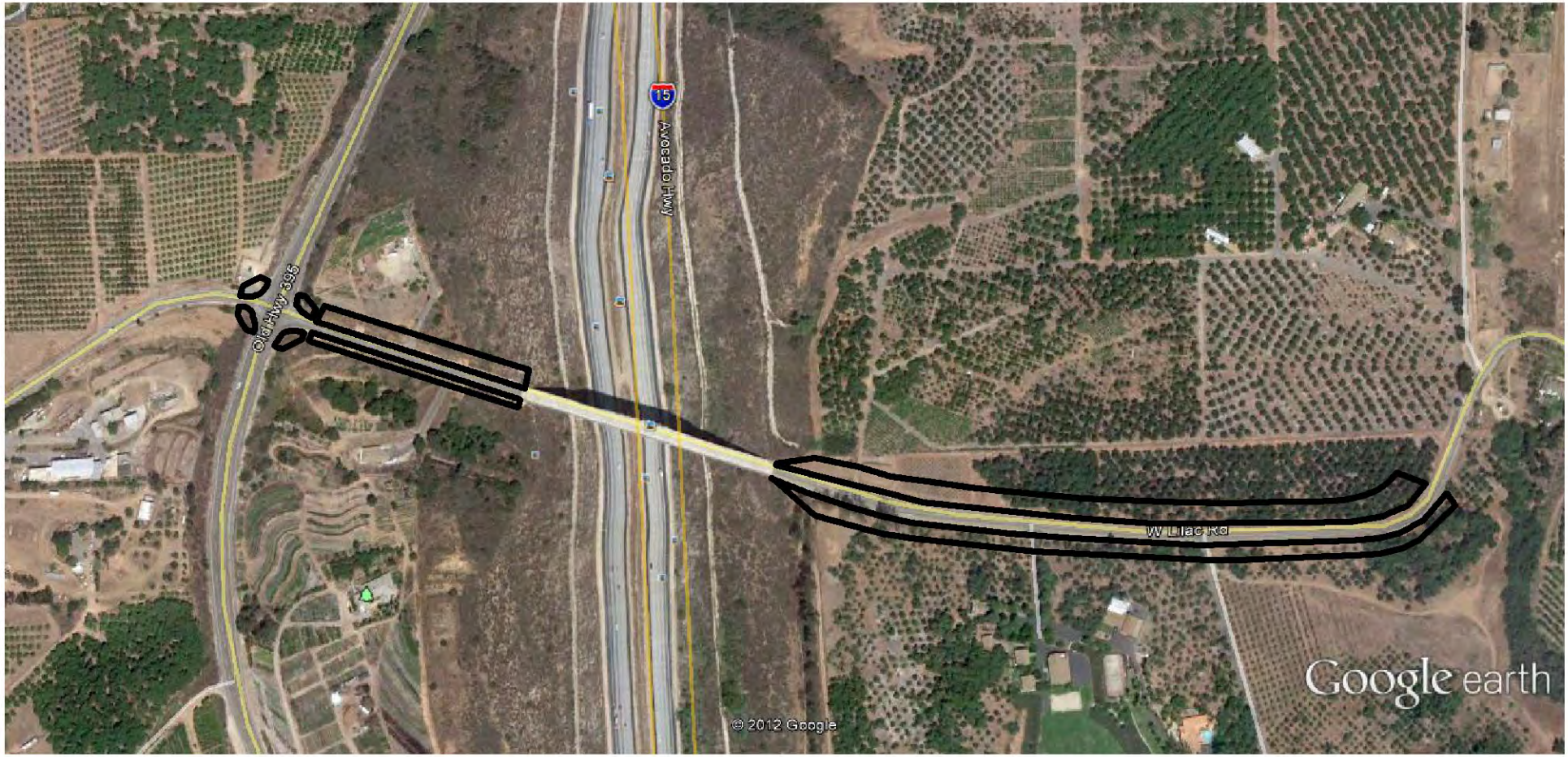
Signalization only

Affinis

Shadow Valley Center
847 Jamacha Road
El Cajon, CA 92019

Off-Site Road Improvements 1 of 4

Figure A-2



Google earth

feet 3000
meters 900

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847 Jamacha Road
El Cajon, CA 92019

Off-Site Road Improvements 2 of 4

Figure A-3

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El Cajon, CA 92019

Off-Site Road Improvements 3 of 4

Figure A-4

Google earth

feet 1000

meters 400

Affinis

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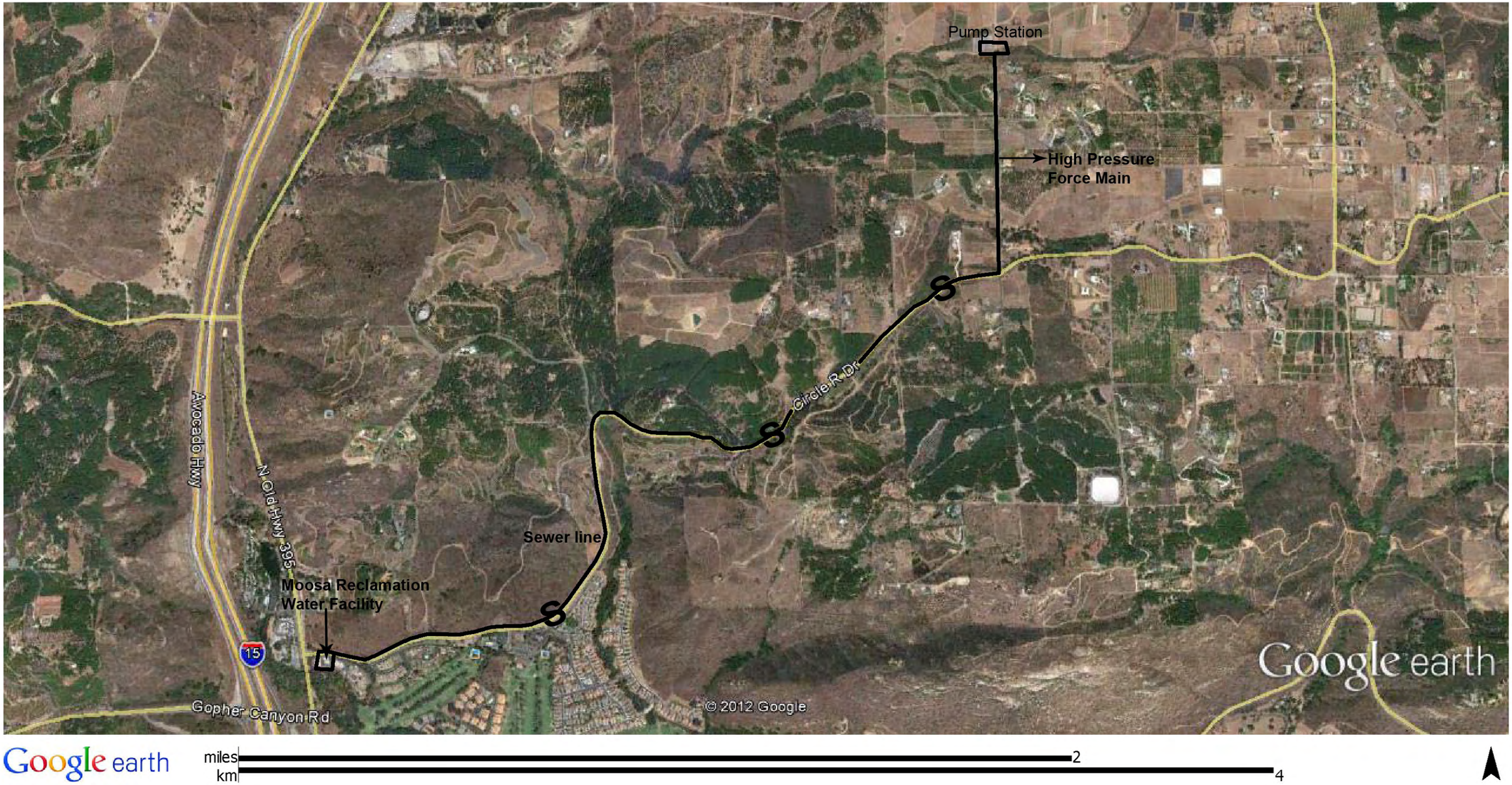
El Cajon, CA 92019

Off-Site Road Improvements 4 of 4

Figure A-5



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El Cajon, CA 92019

Off-Site Sewer Improvements

Figure A-6

SENSITIVE MATERIAL – IN CONFIDENTIAL APPENDIX B

Affinis Shadow Valley Center 847 Jamacha Road El Cajon, CA 92019	CA-SDI-5072 and CA-SDI-5072 C in Relation to Off-Site Road Improvements	Figure A-7

APPENDIX B

ARTIFACT CATALOGS

SITE	ARTNUM	Unit type	Unit number	Upper depth	Lower depth	Class	Item	Material	CNT	WT
CA-SDI-18,362	1	Shovel test pit	1	10	20	Flaked stone	Debitage	Quartz	1	0.1
CA-SDI-18,362	2	Shovel test pit	2	20	30	Flaked stone	Debitage	Quartz	1	0.8
CA-SDI-18,362	3	Shovel test pit	5	20	30	Sample	Radiocarbon,	Undetermined	1	0.3
CA-SDI-18,362	4	1 x 1 m excavat	1	10	20	Flaked stone	Retouched/utilized flake	Medium to coarse grained metavolcanic	1	22.4
CA-SDI-18,362	5	1 x 1 m excavat	1	10	20	Flaked stone	Debitage	Medium to coarse grained metavolcanic	1	0.6
CA-SDI-18,362	6	1 x 1 m excavat	1	10	20	Flaked stone	Debitage	Quartz	1	0.2
CA-SDI-18,362	7	1 x 1 m excavat	1	30	40	Flaked stone	Debitage	Medium to coarse grained metavolcanic	1	1.3
CA-SDI-18,362	8	1 x 1 m excavat	3	0	10	Flaked stone	Rejuvenation flake	Medium to coarse grained metavolcanic	1	53.6

SITE	FIELD	ARTNUM	ARCL	ITM	ANALYSIS	MAT	CNT	COND	WT	LNTH	WDTH	THCK	COMMENTS
CA-SDI-18,362	2	1	02	50	50099000000000	004	1	0	0.1	0	0	0	
CA-SDI-18,362	6	2	02	50	50099000000000	004	1	0	0.8	0	0	0	
CA-SDI-18,362	14	3	11	21	00000000000000	000	1	0	0.3	0	0	0	
CA-SDI-18,362	17	4	02	01	12764431432000	001	1	1	22.4	34	38	19	
CA-SDI-18,362	17	5	02	50	50099000000001	001	1	0	0.6	0	0	0	
CA-SDI-18,362	17	6	02	50	50099000000000	004	1	0	0.2	0	0	0	
CA-SDI-18,362	19	7	02	50	20005204014141	001	1	0	1.3	13	20	5	
CA-SDI-18,362	25	8	02	52	10008412029131	001	1	0	53.6	53	46	21	Patination variable

Field ID	Site	Field	Datum	Locus	Shot	Feature	Unit number	Unit type	Upper depth	Lower depth	Shot distance	Shot direction	NS	Ndist	EW	Edist	Datum description
1	CA-SDI-18,362	1				0	1	Shovel test pit	0	10	0	0		0		0	
2	CA-SDI-18,362	2				0	1	Shovel test pit	10	20	0	0		0		0	
3	CA-SDI-18,362	3				0	1	Shovel test pit	20	30	0	0		0		0	
4	CA-SDI-18,362	4				0	2	Shovel test pit	0	10	0	0		0		0	
5	CA-SDI-18,362	5				0	2	Shovel test pit	10	20	0	0		0		0	
6	CA-SDI-18,362	6				0	2	Shovel test pit	20	30	0	0		0		0	
7	CA-SDI-18,362	7				0	3	Shovel test pit	0	10	0	0		0		0	
8	CA-SDI-18,362	8				0	3	Shovel test pit	10	20	0	0		0		0	
9	CA-SDI-18,362	9				0	4	Shovel test pit	0	10	0	0		0		0	
10	CA-SDI-18,362	10				0	4	Shovel test pit	10	20	0	0		0		0	
11	CA-SDI-18,362	11				0	4	Shovel test pit	20	30	0	0		0		0	
12	CA-SDI-18,362	12				0	5	Shovel test pit	0	10	0	0		0		0	
13	CA-SDI-18,362	13				0	5	Shovel test pit	10	20	0	0		0		0	
14	CA-SDI-18,362	14				0	5	Shovel test pit	20	30	0	0		0		0	
15	CA-SDI-18,362	15				0	6	Shovel test pit	0	10	0	0		0		0	
16	CA-SDI-18,362	16				0	1	1 x 1 m excavat	0	10	0	0		0		0	
17	CA-SDI-18,362	17				0	1	1 x 1 m excavat	10	20	0	0		0		0	
18	CA-SDI-18,362	18				0	1	1 x 1 m excavat	20	30	0	0		0		0	
19	CA-SDI-18,362	19				0	1	1 x 1 m excavat	30	40	0	0		0		0	
20	CA-SDI-18,362	20				0	1	1 x 1 m excavat	40	50	0	0		0		0	
21	CA-SDI-18,362	21				0	2	1 x 1 m excavat	0	10	0	0		0		0	
22	CA-SDI-18,362	22				0	2	1 x 1 m excavat	10	20	0	0		0		0	
23	CA-SDI-18,362	23				0	2	1 x 1 m excavat	20	30	0	0		0		0	
24	CA-SDI-18,362	24				0	2	1 x 1 m excavat	30	40	0	0		0		0	
25	CA-SDI-18,362	25				0	3	1 x 1 m excavat	0	10	0	0		0		0	
26	CA-SDI-18,362	26				0	3	1 x 1 m excavat	10	20	0	0		0		0	
27	CA-SDI-18,362	27				0	3	1 x 1 m excavat	20	30	0	0		0		0	
28	CA-SDI-18,362	28				0	3	1 x 1 m excavat	30	40	0	0		0		0	

SITE	ARTNUM	Shot	Unit type	Unit number	Upper depth	Lower depth	Shot dista	Shot direc	Class	Item	Material	CNT	WT
CA-SDI-18,364	1	0	Shovel test pit	1	20	30	0	0	Flaked stone	Debitage	Medium to coarse grained metavolcanic	1	0.1
CA-SDI-18,364	2	0	Shovel test pit	1	30	40	0	0	Bone, nonhum	Bulk unmodified	Unclassifed Bone	2	0.6
CA-SDI-18,364	3	0	Shovel test pit	1	30	40	0	0	Bone, nonhum	Bulk unmodified	Unclassified Rodentia	1	0.1
CA-SDI-18,364	4	0	Shovel test pit	1	30	40	0	0	Flaked stone	Debitage	Piedra de Lumbre	1	0.1
CA-SDI-18,364	5	0	Shovel test pit	1	30	40	0	0	Flaked stone	Debitage	Quartz	3	0.1
CA-SDI-18,364	6	0	Shovel test pit	3	10	20	0	0	Flaked stone	Debitage	Medium to coarse grained metavolcanic	1	0.1
CA-SDI-18,364	7	0	Shovel test pit	3	10	20	0	0	Flaked stone	Debitage	Quartz	1	0.1
CA-SDI-18,364	8	0	Shovel test pit	3	10	20	0	0	Flaked stone	Debitage	Fine grained metavolcanic	1	0.1
CA-SDI-18,364	9	0	Shovel test pit	5	10	20	0	0	Flaked stone	Debitage	Fine grained metavolcanic	1	0.8
CA-SDI-18,364	10	0	Shovel test pit	5	10	20	0	0	Flaked stone	Debitage	Fine grained metavolcanic	1	0.1
CA-SDI-18,364	11	0	Shovel test pit	5	10	20	0	0	Flaked stone	Debitage	Medium to coarse grained metavolcanic	1	0.1
CA-SDI-18,364	12	0	Shovel test pit	5	10	20	0	0	Flaked stone	Debitage	Quartz	1	0.1
CA-SDI-18,364	13	0	Shovel test pit	5	30	40	0	0	Flaked stone	Debitage	Quartz	1	0.1
CA-SDI-18,364	14	0	Shovel test pit	5	30	40	0	0	Flaked stone	Debitage	Medium to coarse grained metavolcanic	1	0.1
CA-SDI-18,364	15	0	Shovel test pit	6	0	10	0	0	Flaked stone	Debitage	Quartz	1	0.2
CA-SDI-18,364	16	0	Shovel test pit	6	0	10	0	0	Bone, nonhum	Bulk unmodified	Unclassified Rodentia	3	0.1
CA-SDI-18,364	17	0	Shovel test pit	6	10	20	0	0	Flaked stone	Debitage	Fine grained metavolcanic	1	0.2
CA-SDI-18,364	18	0	Shovel test pit	6	10	20	0	0	Flaked stone	Debitage	Fine grained metavolcanic	1	0.1
CA-SDI-18,364	19	0	Shovel test pit	6	10	20	0	0	Flaked stone	Debitage	Quartz	1	0.4
CA-SDI-18,364	20	0	Shovel test pit	6	10	20	0	0	Flaked stone	Debitage	Piedra de Lumbre	2	0.5
CA-SDI-18,364	21	0	Shovel test pit	6	20	30	0	0	Flaked stone	Debitage	Medium to coarse grained metavolcanic	2	2
CA-SDI-18,364	22	0	Shovel test pit	6	20	30	0	0	Flaked stone	Debitage	Fine grained metavolcanic	2	1.6
CA-SDI-18,364	23	0	Shovel test pit	6	30	40	0	0	Flaked stone	Debitage	Fine grained metavolcanic	1	0.5
CA-SDI-18,364	24	0	Shovel test pit	6	40	50	0	0	Bone, nonhum	Bulk unmodified	Unclassified Rodentia	1	0.1
CA-SDI-18,364	25	0	Shovel test pit	7	0	10	0	0	Flaked stone	Debitage	Piedra de Lumbre	1	0.1
CA-SDI-18,364	26	0	Shovel test pit	7	10	20	0	0	Flaked stone	Debitage	Fine grained metavolcanic	1	0.2
CA-SDI-18,364	27	0	Shovel test pit	7	10	20	0	0	Flaked stone	Debitage	Medium to coarse grained metavolcanic	4	1
CA-SDI-18,364	28	0	Shovel test pit	7	20	30	0	0	Flaked stone	Debitage	Fine grained metavolcanic	1	0.1
CA-SDI-18,364	29	0	Shovel test pit	7	20	30	0	0	Flaked stone	Debitage	Quartz	2	0.3
CA-SDI-18,364	30	0	Shovel test pit	10	0	10	0	0	Flaked stone	Debitage	Fine grained metavolcanic	1	0.2
CA-SDI-18,364	31	0	Shovel test pit	10	0	10	0	0	Flaked stone	Debitage	Piedra de Lumbre	1	0.8
CA-SDI-18,364	32	0	Shovel test pit	10	0	10	0	0	Flaked stone	Debitage	Medium to coarse grained metavolcanic	1	0.4
CA-SDI-18,364	33	0	Shovel test pit	10	10	20	0	0	Flaked stone	Debitage	Piedra de Lumbre	1	3.5
CA-SDI-18,364	34	0	Shovel test pit	10	10	20	0	0	Flaked stone	Debitage	Fine grained metavolcanic	1	1.5
CA-SDI-18,364	35	0	Shovel test pit	10	10	20	0	0	Flaked stone	Debitage	Fine grained metavolcanic	1	0.8
CA-SDI-18,364	36	0	Shovel test pit	11	20	30	0	0	Flaked stone	Debitage	Quartz	1	0.1
CA-SDI-18,364	37	0	Shovel test pit	12	0	10	0	0	Flaked stone	Debitage	Medium to coarse grained metavolcanic	1	0.3
CA-SDI-18,364	38	0	Shovel test pit	12	0	10	0	0	Flaked stone	Debitage	Fine grained metavolcanic	1	0.3
CA-SDI-18,364	39	0	Shovel test pit	13	0	10	0	0	Flaked stone	Debitage	Quartz	1	4.8
CA-SDI-18,364	40	0	1 x 1 m excavat	1	0	10	0	0	Flaked stone	Debitage	Medium to coarse grained metavolcanic	4	2.6
CA-SDI-18,364	41	0	1 x 1 m excavat	1	0	10	0	0	Flaked stone	Debitage	Quartz	2	0.2
CA-SDI-18,364	42	0	1 x 1 m excavat	1	0	10	0	0	Flaked stone	Debitage	Medium to coarse grained metavolcanic	1	3.6
CA-SDI-18,364	43	0	1 x 1 m excavat	1	0	10	0	0	Flaked stone	Debitage	Fine grained metavolcanic	1	0.5
CA-SDI-18,364	44	0	1 x 1 m excavat	1	0	10	0	0	Flaked stone	Debitage	Chalcedony	1	0.2
CA-SDI-18,364	45	0	1 x 1 m excavat	1	10	20	0	0	Flaked stone	Debitage	Quartz	1	0.1
CA-SDI-18,364	45	0	1 x 1 m excavat	1	10	20	0	0	Flaked stone	Debitage	Piedra de Lumbre	1	0.2
CA-SDI-18,364	47	0	1 x 1 m excavat	1	10	20	0	0	Flaked stone	Debitage	Fine grained metavolcanic	1	0.1
CA-SDI-18,364	48	0	1 x 1 m excavat	1	10	20	0	0	Flaked stone	Debitage	Piedra de Lumbre	1	0.1
CA-SDI-18,364	49	0	1 x 1 m excavat	1	10	20	0	0	Flaked stone	Debitage	Medium to coarse grained metavolcanic	1	2.5
CA-SDI-18,364	50	0	1 x 1 m excavat	1	10	20	0	0	Flaked stone	Debitage	Fine grained metavolcanic	1	0.4
CA-SDI-18,364	51	0	1 x 1 m excavat	1	10	20	0	0	Flaked stone	Debitage	Medium to coarse grained metavolcanic	1	1.3
CA-SDI-18,364	52	0	1 x 1 m excavat	1	10	20	0	0	Flaked stone	Debitage	Fine grained metavolcanic	1	0.6
CA-SDI-18,364	53	0	1 x 1 m excavat	1	10	20	0	0	Bone, nonhum	Bulk unmodified	Unclassifed Bone	1	0.2
CA-SDI-18,364	54	0	1 x 1 m excavat	1	20	30	0	0	Flaked stone	Debitage	Quartz	1	0.2
CA-SDI-18,364	55	0	1 x 1 m excavat	1	20	30	0	0	Flaked stone	Debitage	Fine grained metavolcanic	1	1.3
CA-SDI-18,364	56	0	1 x 1 m excavat	1	20	30	0	0	Flaked stone	Debitage	Fine grained metavolcanic	1	0.1

CA-SDI-18,364	57	0	1 x 1 m excavat	1	20	30	0	0	Flaked stone	Debitage	Fine grained metavolcanic	1	0.5
CA-SDI-18,364	58	0	1 x 1 m excavat	1	30	40	0	0	Flaked stone	Debitage	Quartz	2	0.4
CA-SDI-18,364	59	0	1 x 1 m excavat	1	30	40	0	0	Flaked stone	Debitage	Medium to coarse grained metavolcanic	2	0.1
CA-SDI-18,364	60	0	1 x 1 m excavat	1	30	40	0	0	Flaked stone	Debitage	Medium to coarse grained metavolcanic	1	0.2
CA-SDI-18,364	61	0	1 x 1 m excavat	1	40	50	0	0	Flaked stone	Debitage	Fine grained metavolcanic	1	0.5
CA-SDI-18,364	62	0	1 x 1 m excavat	1	40	50	0	0	Flaked stone	Debitage	Fine grained metavolcanic	1	0.6
CA-SDI-18,364	63	0	1 x 1 m excavat	1	50	60	0	0	Flaked stone	Debitage	Medium to coarse grained metavolcanic	1	0.4
CA-SDI-18,364	64	0	1 x 1 m excavat	1	50	60	0	0	Flaked stone	Debitage	Medium to coarse grained metavolcanic	1	0.8
CA-SDI-18,364	65	0	1 x 1 m excavat	1	50	60	0	0	Flaked stone	Debitage	Piedra de Lumbre	1	0.8
CA-SDI-18,364	66	1	Mapped point	0	0	0	15	56	Groundstone	Mano	Medium to coarse grained metavolcanic	1	98.4
CA-SDI-18,364	67	2	Mapped point	0	0	0	30	125	Flaked stone	Debitage	Quartz	1	0.4
CA-SDI-18,364	68	3	Mapped point	0	0	0	35	125	Flaked stone	Debitage	Quartz	1	0.7
CA-SDI-18,364	69	4	Mapped point	0	0	0	7	292	Groundstone	Mano	Granitic	1	326.7
CA-SDI-18,364	70	5	Mapped point	0	0	0	32	104	Flaked stone	Debitage	Medium to coarse grained metavolcanic	1	34

SITE	FIELD	ARTNUM	ARCL	ITM	ANALYSIS	MAT	CNT	COND	WT	LNTH	WDTH	THCK	COMMENTS
CA-SDI-18,364	55	54	02	50	50099000000000	004	1	0	0.2	0	0	0	
CA-SDI-18,364	55	55	02	50	50099000000001	002	1	0	1.3	0	0	0	
CA-SDI-18,364	55	56	02	50	60099000000001	002	1	0	0.1	0	0	0	
CA-SDI-18,364	55	57	02	50	20003202006111	002	1	0	0.5	15	10	3	
CA-SDI-18,364	56	58	02	50	50099000000000	004	2	0	0.4	0	0	0	
CA-SDI-18,364	56	59	02	50	60099000000001	001	2	0	0.1	0	0	0	
CA-SDI-18,364	56	60	02	50	20002302005121	001	1	0	0.2	11	9	3	
CA-SDI-18,364	57	61	02	50	20004301006141	002	1	0	0.5	16	16	2	
CA-SDI-18,364	57	62	02	50	20006302008141	002	1	0	0.6	12	16	3	
CA-SDI-18,364	58	63	02	50	20002302008111	001	1	0	0.4	10	14	3	
CA-SDI-18,364	58	64	02	50	10003402007121	001	1	0	0.8	13	17	5	
CA-SDI-18,364	58	65	02	50	50099000000000	018	1	0	0.8	0	0	0	
CA-SDI-18,364	60	66	01	01	02000040000000	001	1	0	98.4	0	0	0	
CA-SDI-18,364	61	67	02	50	50099000000000	004	1	0	0.4	0	0	0	
CA-SDI-18,364	62	68	02	50	50099000000000	004	1	0	0.7	0	0	0	
CA-SDI-18,364	63	69	01	01	01010011000000	010	1	1	326.7	81	58	41	
CA-SDI-18,364	64	70	02	50	50099000000001	001	1	0	34	0	0	0	
CA-SDI-18,364	3	1	02	50	30005402005141	001	1	0	0.1	10	12	2	
CA-SDI-18,364	4	2	05	99	30000000000000	300	2	0	0.6	0	0	0	
CA-SDI-18,364	4	3	05	99	20000000000000	310	1	0	0.1	0	0	0	
CA-SDI-18,364	4	4	02	50	60099000000001	018	1	0	0.1	0	0	0	
CA-SDI-18,364	4	5	02	50	50099000000000	004	3	0	0.1	0	0	0	Crystal
CA-SDI-18,364	10	6	02	50	60099000000001	001	1	0	0.1	0	0	0	
CA-SDI-18,364	10	7	02	50	60099000000000	004	1	0	0.1	0	0	0	
CA-SDI-18,364	10	8	02	50	60099000000001	002	1	0	0.1	0	0	0	
CA-SDI-18,364	16	9	02	50	20005303007121	002	1	0	0.8	14	14	4	
CA-SDI-18,364	16	10	02	50	20004202009111	002	1	0	0.1	9	11	2	
CA-SDI-18,364	16	11	02	50	50099000000001	001	1	0	0.1	0	0	0	
CA-SDI-18,364	16	12	02	50	50099000000000	004	1	0	0.1	0	0	0	Crystal
CA-SDI-18,364	17	13	02	50	50099000000000	004	1	0	0.1	0	0	0	
CA-SDI-18,364	17	14	02	50	50099000000001	001	1	0	0.1	0	0	0	
CA-SDI-18,364	20	15	02	50	50099000000000	004	1	0	0.2	0	0	0	
CA-SDI-18,364	20	16	05	99	10000000000000	310	3	0	0.1	0	0	0	
CA-SDI-18,364	21	17	02	50	20003202006101	002	1	0	0.2	10	10	2	
CA-SDI-18,364	21	18	02	50	60099000000001	002	1	0	0.1	0	0	0	
CA-SDI-18,364	21	19	02	50	50099000000000	004	1	0	0.4	0	0	0	
CA-SDI-18,364	21	20	02	50	50099000000000	018	2	0	0.5	0	0	0	
CA-SDI-18,364	22	21	02	50	50099000000001	001	2	0	2	0	0	0	
CA-SDI-18,364	22	22	02	50	50099000000001	002	2	0	1.6	0	0	0	
CA-SDI-18,364	23	23	02	50	20005304006121	002	1	0	0.5	12	7	4	
CA-SDI-18,364	24	24	05	99	20000000000000	310	1	0	0.1	0	0	0	
CA-SDI-18,364	26	25	02	50	60099000000000	018	1	0	0.1	0	0	0	
CA-SDI-18,364	27	26	02	50	10003301004111	002	1	0	0.2	12	10	1	
CA-SDI-18,364	27	27	02	50	50099000000001	001	4	0	1	0	0	0	

CA-SDI-18,364	28	28 02	50	60099000000001	002	1	0	0.1	0	0	0
CA-SDI-18,364	28	29 02	50	50099000000000	004	2	0	0.3	0	0	0
CA-SDI-18,364	37	30 02	50	50099000000001	002	1	0	0.2	0	0	0
CA-SDI-18,364	37	31 02	50	20003202005120	018	1	0	0.8	21	9	5
CA-SDI-18,364	37	32 02	50	10003000000021	001	1	0	0.4	11	8	4
CA-SDI-18,364	38	33 02	50	50099000000000	018	1	0	3.5	0	0	0
CA-SDI-18,364	38	34 02	50	20001401018121	002	1	0	1.5	19	19	3
CA-SDI-18,364	38	35 02	50	10002401003131	002	1	0	0.8	19	15	3
CA-SDI-18,364	43	36 02	50	50099000000000	004	1	0	0.1	0	0	0
CA-SDI-18,364	46	37 02	50	50099000000001	001	1	0	0.3	0	0	0
CA-SDI-18,364	46	38 02	50	20004403011211	002	1	0	0.3	10	11	3
CA-SDI-18,364	50	39 02	50	50099000000000	004	1	0	4.8	0	0	0
CA-SDI-18,364	53	40 02	50	50099000000001	001	4	0	2.6	0	0	0
CA-SDI-18,364	53	41 02	50	50099000000000	004	2	0	0.2	0	0	0
CA-SDI-18,364	53	42 02	50	20005302010121	001	1	0	3.6	18	26	7
CA-SDI-18,364	53	43 02	50	20002403013111	002	1	0	0.5	9	13	3
CA-SDI-18,364	53	44 02	50	60099000000000	014	1	0	0.2	0	0	0
CA-SDI-18,364	54	45 02	50	50099000000000	004	1	0	0.1	0	0	0
CA-SDI-18,364	54	45 02	50	50099000000000	018	1	0	0.2	0	0	0
CA-SDI-18,364	54	47 02	50	50099000000001	002	1	0	0.1	0	0	0
CA-SDI-18,364	54	48 02	50	10003000000010	018	1	0	0.1	10	6	3
CA-SDI-18,364	54	49 02	50	20003406022111	001	1	0	2.5	19	23	6
CA-SDI-18,364	54	50 02	50	20004302007141	002	1	0	0.4	11	19	2
CA-SDI-18,364	54	51 02	50	20004408007221	001	1	0	1.3	14	17	7
CA-SDI-18,364	54	52 02	50	20003201006101	002	1	0	0.6	15	16	3
CA-SDI-18,364	54	53 05	99	30000000000000	300	1	0	0.2	0	0	0

Site	Field	Datum	Locus	Shot	Feature	Unit number	Unit type	Upper depth	Lower depth	Shot distance	Shot direction	NS	Ndist	EW	Edist	Datum description
CA-SDI-18,364	1			0		1	Shovel test pit	0	10	0	0		0		0	
CA-SDI-18,364	2			0		1	Shovel test pit	10	20	0	0		0		0	
CA-SDI-18,364	3			0		1	Shovel test pit	20	30	0	0		0		0	
CA-SDI-18,364	4			0		1	Shovel test pit	30	40	0	0		0		0	
CA-SDI-18,364	5			0		1	Shovel test pit	40	50	0	0		0		0	
CA-SDI-18,364	6			0		2	Shovel test pit	0	10	0	0		0		0	
CA-SDI-18,364	7			0		2	Shovel test pit	10	20	0	0		0		0	
CA-SDI-18,364	8			0		2	Shovel test pit	20	30	0	0		0		0	
CA-SDI-18,364	9			0		3	Shovel test pit	0	10	0	0		0		0	
CA-SDI-18,364	10			0		3	Shovel test pit	10	20	0	0		0		0	
CA-SDI-18,364	11			0		3	Shovel test pit	20	30	0	0		0		0	
CA-SDI-18,364	12			0		4	Shovel test pit	0	10	0	0		0		0	
CA-SDI-18,364	13			0		4	Shovel test pit	10	20	0	0		0		0	
CA-SDI-18,364	14			0		4	Shovel test pit	20	30	0	0		0		0	
CA-SDI-18,364	15			0		5	Shovel test pit	0	10	0	0		0		0	
CA-SDI-18,364	16			0		5	Shovel test pit	10	20	0	0		0		0	
CA-SDI-18,364	17			0		5	Shovel test pit	30	40	0	0		0		0	
CA-SDI-18,364	18			0		5	Shovel test pit	30	40	0	0		0		0	
CA-SDI-18,364	19			0		5	Shovel test pit	40	50	0	0		0		0	
CA-SDI-18,364	20			0		6	Shovel test pit	0	10	0	0		0		0	
CA-SDI-18,364	21			0		6	Shovel test pit	10	20	0	0		0		0	
CA-SDI-18,364	22			0		6	Shovel test pit	20	30	0	0		0		0	
CA-SDI-18,364	23			0		6	Shovel test pit	30	40	0	0		0		0	
CA-SDI-18,364	24			0		6	Shovel test pit	40	50	0	0		0		0	
CA-SDI-18,364	25			0		6	Shovel test pit	50	60	0	0		0		0	
CA-SDI-18,364	26			0		7	Shovel test pit	0	10	0	0		0		0	
CA-SDI-18,364	27			0		7	Shovel test pit	10	20	0	0		0		0	
CA-SDI-18,364	28			0		7	Shovel test pit	20	30	0	0		0		0	
CA-SDI-18,364	29			0		7	Shovel test pit	30	40	0	0		0		0	
CA-SDI-18,364	30			0		8	Shovel test pit	0	10	0	0		0		0	
CA-SDI-18,364	31			0		8	Shovel test pit	10	20	0	0		0		0	
CA-SDI-18,364	32			0		8	Shovel test pit	20	30	0	0		0		0	
CA-SDI-18,364	33			0		8	Shovel test pit	30	40	0	0		0		0	
CA-SDI-18,364	34			0		9	Shovel test pit	0	10	0	0		0		0	
CA-SDI-18,364	35			0		9	Shovel test pit	10	20	0	0		0		0	
CA-SDI-18,364	36			0		9	Shovel test pit	20	30	0	0		0		0	
CA-SDI-18,364	37			0		10	Shovel test pit	0	10	0	0		0		0	
CA-SDI-18,364	38			0		10	Shovel test pit	10	20	0	0		0		0	
CA-SDI-18,364	39			0		10	Shovel test pit	20	30	0	0		0		0	
CA-SDI-18,364	40			0		10	Shovel test pit	30	40	0	0		0		0	
CA-SDI-18,364	41			0		11	Shovel test pit	0	10	0	0		0		0	
CA-SDI-18,364	42			0		11	Shovel test pit	10	20	0	0		0		0	
CA-SDI-18,364	43			0		11	Shovel test pit	20	30	0	0		0		0	
CA-SDI-18,364	44			0		11	Shovel test pit	30	40	0	0		0		0	
CA-SDI-18,364	45			0		11	Shovel test pit	40	50	0	0		0		0	
CA-SDI-18,364	46			0		12	Shovel test pit	0	10	0	0		0		0	
CA-SDI-18,364	47			0		12	Shovel test pit	10	20	0	0		0		0	
CA-SDI-18,364	48			0		12	Shovel test pit	20	30	0	0		0		0	
CA-SDI-18,364	49			0		12	Shovel test pit	30	40	0	0		0		0	
CA-SDI-18,364	50			0		13	Shovel test pit	0	10	0	0		0		0	
CA-SDI-18,364	51			0		13	Shovel test pit	10	20	0	0		0		0	
CA-SDI-18,364	52			0		13	Shovel test pit	20	30	0	0		0		0	
CA-SDI-18,364	53			0		1	1 x 1 m excava	0	10	0	0		0		0	
CA-SDI-18,364	54			0		1	1 x 1 m excava	10	20	0	0		0		0	
CA-SDI-18,364	55			0		1	1 x 1 m excava	20	30	0	0		0		0	
CA-SDI-18,364	56			0		1	1 x 1 m excava	30	40	0	0		0		0	
CA-SDI-18,364	57			0		1	1 x 1 m excava	40	50	0	0		0		0	
CA-SDI-18,364	58			0		1	1 x 1 m excava	50	60	0	0		0		0	
CA-SDI-18,364	59			0		1	1 x 1 m excava	60	70	0	0		0		0	

CA-SDI-18,364	60	1	0	Mapped point	0	0	15	56	0	0
CA-SDI-18,364	61	2	0	Mapped point	0	0	30	125	0	0
CA-SDI-18,364	62	3	0	Mapped point	0	0	35	125	0	0
CA-SDI-18,364	63	4	0	Mapped point	0	0	7	292	0	0
CA-SDI-18,364	64	5	0	Mapped point	0	0	32	104	0	0

SITE	ARTNUM	Unit type	Unit number	Upper depth	Lower depth	Class	Item	Material	CNT	WT
CA-SDI-20436	1	Shovel test pit	3	0	10	Flaked stone	Debitage	Quartz	1	0.1
CA-SDI-20436	2	Shovel test pit	4	10	20	Flaked stone	Debitage	Medium to coarse grained metavolcanic	1	0.1
CA-SDI-20436	3	Shovel test pit	4	10	20	Flaked stone	Debitage	Quartz	1	0.1
CA-SDI-20436	4	Shovel test pit	4	10	20	Flaked stone	Debitage	Medium to coarse grained metavolcanic	1	4.2
CA-SDI-20436	5	Shovel test pit	4	20	30	Flaked stone	Debitage	Piedra de Lumbre	1	0.1
CA-SDI-20436	6	Shovel test pit	4	30	40	Flaked stone	Debitage	Obsidian	1	0
CA-SDI-20436	7	Shovel test pit	4	30	40	Flaked stone	Debitage	Medium to coarse grained metavolcanic	2	0.5
CA-SDI-20436	8	Shovel test pit	4	30	40	Flaked stone	Debitage	Fine grained metavolcanic	1	1
CA-SDI-20436	9	Shovel test pit	4	50	60	Flaked stone	Debitage	Piedra de Lumbre	1	0.1
CA-SDI-20436	10	Shovel test pit	4	50	60	Flaked stone	Debitage	Medium to coarse grained metavolcanic	1	0.2
CA-SDI-20436	11	Shovel test pit	4	50	60	Flaked stone	Debitage	Quartz	1	0.2
CA-SDI-20436	12	Shovel test pit	4	60	70	Flaked stone	Debitage	Quartz	2	1.2
CA-SDI-20436	13	Shovel test pit	4	60	70	Flaked stone	Debitage	Piedra de Lumbre	1	0.1
CA-SDI-20436	14	Shovel test pit	4	60	70	Flaked stone	Debitage	Quartz	1	0.1
CA-SDI-20436	15	Shovel test pit	4	60	70	Flaked stone	Debitage	Fine grained metavolcanic	1	0.2
CA-SDI-20436	16	Shovel test pit	4	70	80	Flaked stone	Debitage	Quartz	1	0.1
CA-SDI-20436	17	Shovel test pit	4	70	80	Flaked stone	Debitage	Fine grained metavolcanic	1	0.1
CA-SDI-20436	18	Shovel test pit	5	20	30	Flaked stone	Debitage	Fine grained metavolcanic	1	0.3
CA-SDI-20436	19	Shovel test pit	5	40	50	Flaked stone	Debitage	Medium to coarse grained metavolcanic	1	8.8
CA-SDI-20436	20	Shovel test pit	5	50	60	Glass	Clear	Undetermined	1	0.1
CA-SDI-20436	21	Shovel test pit	5	60	70	Flaked stone	Debitage	Piedra de Lumbre	1	2
CA-SDI-20436	22	Shovel test pit	5	60	70	Flaked stone	Debitage	Fine grained metavolcanic	1	0.1
CA-SDI-20436	23	Shovel test pit	5	60	70	Flaked stone	Debitage	Medium to coarse grained metavolcanic	3	0.7
CA-SDI-20436	24	Shovel test pit	5	70	80	Flaked stone	Debitage	Quartz	1	0.6
CA-SDI-20436	25	Shovel test pit	5	70	80	Flaked stone	Debitage	Medium to coarse grained metavolcanic	1	1.5
CA-SDI-20436	26	Shovel test pit	5	70	80	Flaked stone	Debitage	Fine grained metavolcanic	1	0.1
CA-SDI-20436	27	Shovel test pit	5	70	80	Flaked stone	Retouched/utilized flake	Fine grained metavolcanic	1	10.5
CA-SDI-20436	28	Shovel test pit	5	80	90	Flaked stone	Debitage	Medium to coarse grained metavolcanic	1	4.9
CA-SDI-20436	29	Shovel test pit	6	10	20	Flaked stone	Debitage	Fine grained metavolcanic	1	0.8
CA-SDI-20436	30	Shovel test pit	6	20	30	Flaked stone	Debitage	Fine grained metavolcanic	1	1
CA-SDI-20436	31	Shovel test pit	6	30	40	Flaked stone	Debitage	Quartz	1	0.2
CA-SDI-20436	32	Shovel test pit	9	0	10	Flaked stone	Debitage	Medium to coarse grained metavolcanic	1	2
CA-SDI-20436	33	Shovel test pit	10	0	10	Flaked stone	Debitage	Quartz	2	0.6
CA-SDI-20436	34	Shovel test pit	10	0	10	Flaked stone	Debitage	Medium to coarse grained metavolcanic	1	0.1
CA-SDI-20436	35	Shovel test pit	10	0	10	Flaked stone	Debitage	Medium to coarse grained metavolcanic	1	0.7
CA-SDI-20436	36	Shovel test pit	10	10	20	Flaked stone	Debitage	Medium to coarse grained metavolcanic	1	0.1
CA-SDI-20436	37	Shovel test pit	10	20	30	Flaked stone	Debitage	Quartz	2	0.1
CA-SDI-20436	38	Shovel test pit	10	20	30	Flaked stone	Debitage	Medium to coarse grained metavolcanic	2	0.3
CA-SDI-20436	39	Shovel test pit	11	10	20	Flaked stone	Debitage	Quartz	1	0.3
CA-SDI-20436	40	Shovel test pit	11	20	30	Flaked stone	Debitage	Medium to coarse grained metavolcanic	1	0.6
CA-SDI-20436	41	Shovel test pit	11	30	40	Flaked stone	Debitage	Quartz	1	0.1
CA-SDI-20436	42	Shovel test pit	11	30	40	Flaked stone	Debitage	Fine grained metavolcanic	1	0.7
CA-SDI-20436	43	Shovel test pit	11	30	40	Flaked stone	Debitage	Medium to coarse grained metavolcanic	2	0.2
CA-SDI-20436	44	Shovel test pit	11	30	40	Flaked stone	Debitage	Fine grained metavolcanic	1	0.6
CA-SDI-20436	45	Shovel test pit	11	40	50	Flaked stone	Debitage	Fine grained metavolcanic	2	8.6
CA-SDI-20436	46	Shovel test pit	11	50	60	Flaked stone	Debitage	Fine grained metavolcanic	1	0.2
CA-SDI-20436	47	Shovel test pit	11	50	60	Flaked stone	Debitage	Medium to coarse grained metavolcanic	2	0.6
CA-SDI-20436	48	Shovel test pit	12	10	20	Flaked stone	Debitage	Chert	1	0.1
CA-SDI-20436	49	Shovel test pit	12	20	30	Flaked stone	Debitage	Fine grained metavolcanic	2	0.5
CA-SDI-20436	50	Shovel test pit	13	10	20	Flaked stone	Debitage	Medium to coarse grained metavolcanic	1	0.1
CA-SDI-20436	51	Shovel test pit	13	20	30	Flaked stone	Debitage	Medium to coarse grained metavolcanic	2	0.2
CA-SDI-20436	52	Shovel test pit	13	30	40	Flaked stone	Debitage	Quartz	2	0.7

CA-SDI-20436	53	Shovel test pit	13	40	50	Flaked stone	Debitage	Quartz	1	0.5
CA-SDI-20436	54	Shovel test pit	13	50	60	Flaked stone	Debitage	Medium to coarse grained metavolcanic	1	2.1
CA-SDI-20436	55	Shovel test pit	15	20	30	Flaked stone	Debitage	Medium to coarse grained metavolcanic	1	0.1
CA-SDI-20436	56	Shovel test pit	15	20	30	Flaked stone	Debitage	Fine grained metavolcanic	1	0.2
CA-SDI-20436	57	Shovel test pit	15	20	30	Flaked stone	Debitage	Fine grained metavolcanic	2	0.1
CA-SDI-20436	58	Shovel test pit	15	30	40	Flaked stone	Debitage	Fine grained metavolcanic	1	0.3
CA-SDI-20436	59	Shovel test pit	15	40	50	Flaked stone	Debitage	Fine grained metavolcanic	1	0.2
CA-SDI-20436	60	1 x 1 m excavation unit	1	0	10	Flaked stone	Debitage	Medium to coarse grained metavolcanic	2	0.4
CA-SDI-20436	61	1 x 1 m excavation unit	1	0	10	Flaked stone	Debitage	Quartz	2	2.7
CA-SDI-20436	62	1 x 1 m excavation unit	1	0	10	Flaked stone	Debitage	Fine grained metavolcanic	7	4
CA-SDI-20436	63	1 x 1 m excavation unit	1	0	10	Flaked stone	Debitage	Fine grained metavolcanic	1	0.1
CA-SDI-20436	64	1 x 1 m excavation unit	1	0	10	Flaked stone	Debitage	Fine grained metavolcanic	2	1.6
CA-SDI-20436	65	1 x 1 m excavation unit	1	10	20	Flaked stone	Debitage	Medium to coarse grained metavolcanic	2	1.5
CA-SDI-20436	66	1 x 1 m excavation unit	1	10	20	Flaked stone	Debitage	Medium to coarse grained metavolcanic	1	0.4
CA-SDI-20436	67	1 x 1 m excavation unit	1	10	20	Flaked stone	Debitage	Fine grained metavolcanic	2	0.1
CA-SDI-20436	68	1 x 1 m excavation unit	1	10	20	Flaked stone	Debitage	Chert	1	0.1
CA-SDI-20436	69	1 x 1 m excavation unit	1	20	30	Flaked stone	Debitage	Medium to coarse grained metavolcanic	2	1.1
CA-SDI-20436	70	1 x 1 m excavation unit	1	20	30	Flaked stone	Debitage	Medium to coarse grained metavolcanic	1	23.7
CA-SDI-20436	71	1 x 1 m excavation unit	1	20	30	Flaked stone	Debitage	Medium to coarse grained metavolcanic	1	0.1
CA-SDI-20436	72	1 x 1 m excavation unit	1	20	30	Flaked stone	Debitage	Fine grained metavolcanic	4	1.8
CA-SDI-20436	73	1 x 1 m excavation unit	1	30	40	Flaked stone	Debitage	Quartz	4	4.7
CA-SDI-20436	74	1 x 1 m excavation unit	1	30	40	Flaked stone	Debitage	Medium to coarse grained metavolcanic	1	0.3
CA-SDI-20436	75	1 x 1 m excavation unit	1	30	40	Flaked stone	Debitage	Medium to coarse grained metavolcanic	2	1.8
CA-SDI-20436	76	1 x 1 m excavation unit	1	30	40	Flaked stone	Debitage	Fine grained metavolcanic	2	0.3
CA-SDI-20436	77	1 x 1 m excavation unit	1	30	40	Flaked stone	Debitage	Piedra de Lumbre	1	0.8
CA-SDI-20436	78	1 x 1 m excavation unit	1	30	40	Glass	Clear	Undetermined	1	0.1
CA-SDI-20436	79	1 x 1 m excavation unit	1	30	40	Plastic	Unknown	Undetermined	1	0.1
CA-SDI-20436	80	1 x 1 m excavation unit	1	40	50	Sample	Radiocarbon,	Undetermined	6	0.7
CA-SDI-20436	81	1 x 1 m excavation unit	1	40	50	Glass	Green	Undetermined	1	0.1
CA-SDI-20436	82	1 x 1 m excavation unit	1	40	50	Flaked stone	Debitage	Quartz	3	2.4
CA-SDI-20436	83	1 x 1 m excavation unit	1	40	50	Flaked stone	Debitage	Medium to coarse grained metavolcanic	4	20.8
CA-SDI-20436	84	1 x 1 m excavation unit	1	40	50	Flaked stone	Debitage	Medium to coarse grained metavolcanic	3	1.6
CA-SDI-20436	85	1 x 1 m excavation unit	1	40	50	Flaked stone	Retouched/utilized flake	Fine grained metavolcanic	1	1.7
CA-SDI-20436	86	1 x 1 m excavation unit	1	40	50	Flaked stone	Debitage	Fine grained metavolcanic	1	0.1
CA-SDI-20436	87	1 x 1 m excavation unit	1	40	50	Flaked stone	Debitage	Quartzite	1	0.2
CA-SDI-20436	88	1 x 1 m excavation unit	1	40	50	Flaked stone	Debitage	Piedra de Lumbre	1	4.4
CA-SDI-20436	89	1 x 1 m excavation unit	1	40	50	Flaked stone	Cottonwood Leaf Shaped	Medium to coarse grained metavolcanic	1	4.4
CA-SDI-20436	90	1 x 1 m excavation unit	1	50	60	Flaked stone	Debitage	Fine grained metavolcanic	3	2.5
CA-SDI-20436	91	1 x 1 m excavation unit	1	50	60	Flaked stone	Debitage	Fine grained metavolcanic	6	11.8
CA-SDI-20436	92	1 x 1 m excavation unit	1	50	60	Flaked stone	Debitage	Medium to coarse grained metavolcanic	1	0.1
CA-SDI-20436	93	1 x 1 m excavation unit	1	50	60	Flaked stone	Debitage	Medium to coarse grained metavolcanic	1	0.7
CA-SDI-20436	94	1 x 1 m excavation unit	1	50	60	Flaked stone	Debitage	Quartz	1	0.1
CA-SDI-20436	95	1 x 1 m excavation unit	1	50	60	Flaked stone	Debitage	Piedra de Lumbre	1	0.4
CA-SDI-20436	96	1 x 1 m excavation unit	1	50	60	Flaked stone	Debitage	Chert	1	0.1
CA-SDI-20436	97	1 x 1 m excavation unit	1	50	60	Flaked stone	Debitage	Chert	1	0.2
CA-SDI-20436	98	1 x 1 m excavation unit	1	50	60	Flaked stone	Retouched/utilized tool	Quartz	1	1.6
CA-SDI-20436	99	1 x 1 m excavation unit	1	60	70	Flaked stone	Debitage	Quartz	1	4.8
CA-SDI-20436	100	1 x 1 m excavation unit	1	60	70	Flaked stone	Debitage	Medium to coarse grained metavolcanic	1	4.6
CA-SDI-20436	101	1 x 1 m excavation unit	1	60	70	Flaked stone	Debitage	Medium to coarse grained metavolcanic	3	1.4
CA-SDI-20436	102	1 x 1 m excavation unit	1	60	70	Flaked stone	Debitage	Fine grained metavolcanic	3	3.4
CA-SDI-20436	103	1 x 1 m excavation unit	1	60	70	Flaked stone	Debitage	Fine grained metavolcanic	1	0.1
CA-SDI-20436	104	1 x 1 m excavation unit	1	60	70	Flaked stone	Debitage	Piedra de Lumbre	2	0.4
CA-SDI-20436	105	1 x 1 m excavation unit	1	60	70	Flaked stone	Debitage	Piedra de Lumbre	1	0.1

CA-SDI-20436	106	1 x 1 m excavation unit	1	60	70	Flaked stone	Debitage	Chert	1	0.1
CA-SDI-20436	107	1 x 1 m excavation unit	1	70	80	Flaked stone	Debitage	Quartz	2	3.6
CA-SDI-20436	108	1 x 1 m excavation unit	1	70	80	Flaked stone	Debitage	Quartz	2	1.7
CA-SDI-20436	109	1 x 1 m excavation unit	1	70	80	Flaked stone	Debitage	Medium to coarse grained metavolcanic	4	3.4
CA-SDI-20436	110	1 x 1 m excavation unit	1	70	80	Flaked stone	Debitage	Medium to coarse grained metavolcanic	1	0.1
CA-SDI-20436	111	1 x 1 m excavation unit	1	80	90	Flaked stone	Debitage	Medium to coarse grained metavolcanic	3	2.4
CA-SDI-20436	112	1 x 1 m excavation unit	1	80	90	Flaked stone	Debitage	Fine grained metavolcanic	3	2.4
CA-SDI-20436	113	1 x 1 m excavation unit	1	90	100	Flaked stone	Debitage	Quartz	1	0.1
CA-SDI-20436	114	1 x 1 m excavation unit	1	90	100	Flaked stone	Debitage	Piedra de Lumbre	3	0.6
CA-SDI-20436	115	1 x 1 m excavation unit	1	90	100	Flaked stone	Debitage	Fine grained metavolcanic	5	1.1
CA-SDI-20436	116	1 x 1 m excavation unit	1	90	100	Flaked stone	Debitage	Medium to coarse grained metavolcanic	4	1.7
CA-SDI-20436	117	1 x 1 m excavation unit	1	90	100	Flaked stone	Debitage	Medium to coarse grained metavolcanic	3	3.1
CA-SDI-20436	118	1 x 1 m excavation unit	1	90	100	Flaked stone	Hammer	Fine grained metavolcanic	1	33.5
CA-SDI-20436	119	1 x 1 m excavation unit	1	100	110	Flaked stone	Debitage	Quartz	2	3.8
CA-SDI-20436	120	1 x 1 m excavation unit	1	100	110	Flaked stone	Debitage	Piedra de Lumbre	1	2.9
CA-SDI-20436	121	1 x 1 m excavation unit	1	100	110	Flaked stone	Debitage	Medium to coarse grained metavolcanic	3	11.8
CA-SDI-20436	122	1 x 1 m excavation unit	1	100	110	Flaked stone	Debitage	Medium to coarse grained metavolcanic	2	0.4
CA-SDI-20436	123	1 x 1 m excavation unit	1	100	110	Flaked stone	Debitage	Fine grained metavolcanic	2	6.4
CA-SDI-20436	124	1 x 1 m excavation unit	1	100	110	Flaked stone	Debitage	Fine grained metavolcanic	1	0.1
CA-SDI-20436	125	1 x 1 m excavation unit	1	110	120	Sample	Radiocarbon,	Undetermined	4	0.4
CA-SDI-20436	126	1 x 1 m excavation unit	1	110	120	Flaked stone	Debitage	Medium to coarse grained metavolcanic	2	5
CA-SDI-20436	127	1 x 1 m excavation unit	1	110	120	Flaked stone	Debitage	Piedra de Lumbre	1	0.1
CA-SDI-20436	128	1 x 1 m excavation unit	2	0	10	Flaked stone	Debitage	Quartz	1	1
CA-SDI-20436	129	1 x 1 m excavation unit	2	0	10	Flaked stone	Debitage	Quartz	2	0.3
CA-SDI-20436	130	1 x 1 m excavation unit	2	10	20	Flaked stone	Debitage	Fine grained metavolcanic	3	0.8
CA-SDI-20436	131	1 x 1 m excavation unit	2	10	20	Flaked stone	Debitage	Quartz	3	1.6
CA-SDI-20436	132	1 x 1 m excavation unit	2	10	20	Flaked stone	Debitage	Piedra de Lumbre	1	0.1
CA-SDI-20436	133	1 x 1 m excavation unit	2	10	20	Flaked stone	Debitage	Chert	1	1.1
CA-SDI-20436	134	1 x 1 m excavation unit	2	20	30	Flaked stone	Debitage	Chert	1	0.2
CA-SDI-20436	135	1 x 1 m excavation unit	2	20	30	Flaked stone	Debitage	Quartz	3	0.3
CA-SDI-20436	136	1 x 1 m excavation unit	2	20	30	Flaked stone	Debitage	Fine grained metavolcanic	2	1.1
CA-SDI-20436	137	1 x 1 m excavation unit	2	20	30	Flaked stone	Debitage	Fine grained metavolcanic	1	0.1
CA-SDI-20436	138	1 x 1 m excavation unit	2	20	30	Flaked stone	Debitage	Medium to coarse grained metavolcanic	5	6
CA-SDI-20436	139	1 x 1 m excavation unit	2	20	30	Flaked stone	Debitage	Medium to coarse grained metavolcanic	6	1.5
CA-SDI-20436	140	1 x 1 m excavation unit	2	30	40	Flaked stone	Debitage	Quartz	1	0.6
CA-SDI-20436	141	1 x 1 m excavation unit	2	30	40	Flaked stone	Debitage	Quartz	6	5.8
CA-SDI-20436	142	1 x 1 m excavation unit	2	30	40	Flaked stone	Debitage	Fine grained metavolcanic	1	0.1
CA-SDI-20436	143	1 x 1 m excavation unit	2	30	40	Flaked stone	Debitage	Medium to coarse grained metavolcanic	4	6.6
CA-SDI-20436	144	1 x 1 m excavation unit	2	30	40	Flaked stone	Debitage	Medium to coarse grained metavolcanic	2	0.2
CA-SDI-20436	145	1 x 1 m excavation unit	2	30	40	Flaked stone	Debitage	Piedra de Lumbre	1	0.1
CA-SDI-20436	146	1 x 1 m excavation unit	2	30	40	Flaked stone	Debitage	Quartz	1	0.1
CA-SDI-20436	147	1 x 1 m excavation unit	2	40	50	Flaked stone	Debitage	Quartz	2	0.8
CA-SDI-20436	148	1 x 1 m excavation unit	2	40	50	Flaked stone	Debitage	Medium to coarse grained metavolcanic	5	3.8
CA-SDI-20436	149	1 x 1 m excavation unit	2	40	50	Flaked stone	Debitage	Medium to coarse grained metavolcanic	1	0.1
CA-SDI-20436	150	1 x 1 m excavation unit	2	40	50	Flaked stone	Debitage	Fine grained metavolcanic	2	0.1
CA-SDI-20436	151	1 x 1 m excavation unit	2	40	50	Flaked stone	Debitage	Fine grained metavolcanic	1	0.2
CA-SDI-20436	152	1 x 1 m excavation unit	2	40	50	Flaked stone	Debitage	Piedra de Lumbre	1	0.8
CA-SDI-20436	153	1 x 1 m excavation unit	2	40	50	Flaked stone	Retouched/utilized flake	Medium to coarse grained metavolcanic	1	17.5
CA-SDI-20436	154	1 x 1 m excavation unit	2	50	60	Flaked stone	Debitage	Quartz	2	1
CA-SDI-20436	155	1 x 1 m excavation unit	2	50	60	Flaked stone	Debitage	Quartz	1	0.4
CA-SDI-20436	156	1 x 1 m excavation unit	2	50	60	Flaked stone	Debitage	Medium to coarse grained metavolcanic	1	1.2
CA-SDI-20436	157	1 x 1 m excavation unit	2	50	60	Flaked stone	Debitage	Medium to coarse grained metavolcanic	2	1.6
CA-SDI-20436	158	1 x 1 m excavation unit	2	50	60	Flaked stone	Debitage	Fine grained metavolcanic	1	0.1

CA-SDI-20436	159	1 x 1 m excavation unit	2	50	60	Flaked stone	Debitage	Piedra de Lumbre	1	0.1
CA-SDI-20436	160	1 x 1 m excavation unit	2	60	70	Flaked stone	Debitage	Quartz	1	0.1
CA-SDI-20436	161	1 x 1 m excavation unit	2	60	70	Flaked stone	Debitage	Piedra de Lumbre	2	0.1
CA-SDI-20436	162	1 x 1 m excavation unit	2	60	70	Flaked stone	Debitage	Piedra de Lumbre	1	0.2
CA-SDI-20436	163	1 x 1 m excavation unit	2	60	70	Flaked stone	Debitage	Medium to coarse grained metavolcanic	3	3.8
CA-SDI-20436	164	1 x 1 m excavation unit	2	60	70	Flaked stone	Debitage	Medium to coarse grained metavolcanic	1	0.1
CA-SDI-20436	165	1 x 1 m excavation unit	2	70	80	Flaked stone	Debitage	Quartz	5	1.5
CA-SDI-20436	166	1 x 1 m excavation unit	2	70	80	Flaked stone	Debitage	Quartz	1	0.1
CA-SDI-20436	167	1 x 1 m excavation unit	2	70	80	Flaked stone	Debitage	Medium to coarse grained metavolcanic	4	0.4
CA-SDI-20436	168	1 x 1 m excavation unit	2	70	80	Flaked stone	Debitage	Medium to coarse grained metavolcanic	1	0.6
CA-SDI-20436	169	1 x 1 m excavation unit	2	70	80	Flaked stone	Debitage	Fine grained metavolcanic	1	1.2
CA-SDI-20436	170	1 x 1 m excavation unit	2	70	80	Flaked stone	Debitage	Piedra de Lumbre	2	0.3
CA-SDI-20436	171	1 x 1 m excavation unit	2	70	80	Flaked stone	Debitage	Piedra de Lumbre	2	0.6
CA-SDI-20436	172	1 x 1 m excavation unit	2	70	80	Flaked stone	Debitage	Piedra de Lumbre	2	0.1
CA-SDI-20436	173	1 x 1 m excavation unit	2	70	80	Flaked stone	Debitage	Quartz	1	0.1
CA-SDI-20436	174	Mapped point	0	0	0	Flaked stone	Debitage	Medium to coarse grained metavolcanic	1	3.9
CA-SDI-20436	175	Mapped point	0	0	0	Flaked stone	Debitage	Quartz	1	1.2
CA-SDI-20436	176	Mapped point	0	0	0	Flaked stone	Debitage	Quartz	1	0.3
CA-SDI-20436	177	Mapped point	0	0	0	Flaked stone	Debitage	Quartz	1	1.4
CA-SDI-20436	178	Mapped point	0	0	0	Flaked stone	Debitage	Quartz	1	20.3
CA-SDI-20436	179	Mapped point	0	0	0	Flaked stone	Debitage	Medium to coarse grained metavolcanic	1	2
CA-SDI-20436	180	Mapped point	0	0	0	Bone, nonhuman	Bulk unmodified	Unclassified Rodentia	1	0.3
CA-SDI-20436	181	Mapped point	0	0	0	Flaked stone	Debitage	Quartz	1	1.3
CA-SDI-20436	182	Mapped point	0	0	0	Flaked stone	Debitage	Quartz	1	0.6
CA-SDI-20436	183	Mapped point	0	0	0	Flaked stone	Debitage	Quartz	2	1.4
CA-SDI-20436	184	Mapped point	0	0	0	Flaked stone	Debitage	Fine grained metavolcanic	2	2.1
CA-SDI-20436	185	Mapped point	0	0	0	Flaked stone	Debitage	Quartz	2	0.5
CA-SDI-20436	186	Mapped point	0	0	0	Flaked stone	Debitage	Quartz	2	2.2
CA-SDI-20436	187	Mapped point	0	0	0	Flaked stone	Debitage	Piedra de Lumbre	1	0.7
CA-SDI-20436	188	Mapped point	0	0	0	Flaked stone	Debitage	Medium to coarse grained metavolcanic	1	8
CA-SDI-20436	189	Mapped point	0	0	0	Flaked stone	Debitage	Quartz	1	1
CA-SDI-20436	190	Mapped point	0	0	0	Flaked stone	Debitage	Fine grained metavolcanic	1	0.1
CA-SDI-20436	191	Mapped point	0	0	0	Flaked stone	Retouched/utilized flake	Fine grained metavolcanic	1	1.6
CA-SDI-20436	192	Mapped point	0	0	0	Flaked stone	Debitage	Medium to coarse grained metavolcanic	1	1.8
CA-SDI-20436	193	Mapped point	0	0	0	Flaked stone	Debitage	Medium to coarse grained metavolcanic	1	0.3
CA-SDI-20436	194	Mapped point	0	0	0	Flaked stone	Debitage	Medium to coarse grained metavolcanic	1	2.3
CA-SDI-20436	195	Mapped point	0	0	0	Flaked stone	Debitage	Quartz	1	0.9
CA-SDI-20436	196	Mapped point	0	0	0	Flaked stone	Debitage	Medium to coarse grained metavolcanic	1	1.8
CA-SDI-20436	197	Mapped point	0	0	0	Flaked stone	Debitage	Medium to coarse grained metavolcanic	1	12
CA-SDI-20436	198	Mapped point	0	0	0	Flaked stone	Debitage	Medium to coarse grained metavolcanic	1	4.1
CA-SDI-20436	199	Mapped point	0	0	0	Flaked stone	Debitage	Medium to coarse grained metavolcanic	1	22.3
CA-SDI-20436	200	Mapped point	0	0	0	Groundstone	Mano	Granitic	1	416.3
CA-SDI-20436	201	Mapped point	0	0	0	Groundstone	Metate	Medium to coarse grained metavolcanic	1	136.2
CA-SDI-20436	202	Mapped point	0	0	0	Flaked stone	Debitage	Fine grained metavolcanic	1	1.4

SITE	FIELD	ARTNUM	ARCL	ITM	ANALYSIS	MAT	CNT	COND	WT	LNTH	WDTH	THCK	COMMENTS
CA-SDI-20436	78	55	02	50	50099000000001	001	1	0	0.1	0	0	0	
CA-SDI-20436	78	56	02	50	00000000000000	002	1	0	0.2	0	0	0	
CA-SDI-20436	78	57	02	50	60099000000001	002	2	0	0.1	0	0	0	
CA-SDI-20436	79	58	02	50	50099000000001	002	1	0	0.3	0	0	0	
CA-SDI-20436	80	59	02	50	00000000000000	002	1	0	0.2	0	0	0	
CA-SDI-20436	84	60	02	50	50099000000001	001	2	0	0.4				
CA-SDI-20436	84	61	02	50	50099000000000	004	2	0	2.7	0	0	0	
CA-SDI-20436	84	62	02	50	00000000000000	002	7	0	4	0	0	0	
CA-SDI-20436	84	63	02	50	60099000000001	002	1	0	0.1	0	0	0	
CA-SDI-20436	84	64	02	50	50099000000001	002	2	0	1.6	0	0	0	
CA-SDI-20436	85	65	02	50	50099000000001	001	2	0	1.5	0	0	0	
CA-SDI-20436	85	66	02	50	00000000000000	001	1	0	0.4	0	0	0	
CA-SDI-20436	85	67	02	50	60099000000001	002	2	0	0.1	0	0	0	
CA-SDI-20436	85	68	02	50	60099000000000	006	1	0	0.1	0	0	0	
CA-SDI-20436	86	69	02	50	50099000000001	001	2	0	1.1	0	0	0	
CA-SDI-20436	86	70	02	50	00000000000000	001	1	0	23.7	0	0	0	
CA-SDI-20436	86	71	02	50	50099000000001	001	1	0	0.1	0	0	0	
CA-SDI-20436	86	72	02	50	00000000000000	002	4	0	1.8	0	0	0	
CA-SDI-20436	87	73	02	50	50099000000000	004	4	0	4.7	0	0	0	
CA-SDI-20436	87	74	02	50	50099000000001	001	1	0	0.3	0	0	0	
CA-SDI-20436	87	75	02	50	00000000000000	001	2	0	1.8	0	0	0	
CA-SDI-20436	87	76	02	50	60099000000001	002	2	0	0.3	0	0	0	
CA-SDI-20436	87	77	02	50	50099000000000	018	1	0	0.8	0	0	0	
CA-SDI-20436	87	78	51	01	00000000000000	000	1	0	0.1	0	0	0	
CA-SDI-20436	87	79	61	00	00000000000000	000	1	0	0.1	0	0	0	
CA-SDI-20436	88	80	11	21	00000000000000	000	6	0	0.7	0	0	0	
CA-SDI-20436	88	81	51	03	00000000000000	000	1	0	0.1	0	0	0	
CA-SDI-20436	88	82	02	50	50099000000000	004	3	0	2.4	0	0	0	
CA-SDI-20436	88	83	02	50	50099000000001	001	4	0	20.8	0	0	0	
CA-SDI-20436	88	84	02	50	00000000000000	001	3	0	1.6	0	0	0	
CA-SDI-20436	88	85	02	01	12300020302000	002	1	0	1.7	16	19	7	
CA-SDI-20436	88	86	02	50	60099000000001	002	1	0	0.1	0	0	0	
CA-SDI-20436	88	87	02	50	00000000000000	003	1	0	0.2	0	0	0	
CA-SDI-20436	88	88	02	50	00000000000000	018	1	0	4.4	0	0	0	
CA-SDI-20436	88	89	03	12	31021033020000	006	1	0	4.4	33	20	7	
CA-SDI-20436	89	90	02	50	50099000000001	002	3	0	2.5	0	0	0	
CA-SDI-20436	89	91	02	50	00000000000000	002	6	0	11.8	0	0	0	
CA-SDI-20436	89	92	02	50	50099000000001	001	1	0	0.1	0	0	0	
CA-SDI-20436	89	93	02	50	00000000000000	001	1	0	0.7	0	0	0	
CA-SDI-20436	89	94	02	50	50099000000000	004	1	0	0.1	0	0	0	
CA-SDI-20436	89	95	02	50	50099000000000	018	1	0	0.4	0	0	0	
CA-SDI-20436	89	96	02	50	00000000000000	006	1	0	0.1	0	0	0	
CA-SDI-20436	89	97	02	50	50099000000000	006	1	0	0.2	0	0	0	
CA-SDI-20436	89	98	02	02	11224413332000	004	1	0	1.6	22	17	5	Crystal

CA-SDI-20436	90	99	02	50	50099000000000	004	1	0	4.8	0	0	0
CA-SDI-20436	90	100	02	50	00000000000000	001	1	0	4.6	0	0	0
CA-SDI-20436	90	101	02	50	50099000000001	001	3	0	1.4	0	0	0
CA-SDI-20436	90	102	02	50	00000000000000	002	3	0	3.4	0	0	0
CA-SDI-20436	90	103	02	50	60099000000001	002	1	0	0.1	0	0	0
CA-SDI-20436	90	104	02	50	50099000000000	018	2	0	0.4	0	0	0
CA-SDI-20436	90	105	02	50	00000000000000	018	1	0	0.1	0	0	0
CA-SDI-20436	90	106	02	50	60099000000000	006	1	0	0.1	0	0	0
CA-SDI-20436	91	107	02	50	00000000000000	004	2	0	3.6	0	0	0
CA-SDI-20436	91	108	02	50	50099000000000	004	2	0	1.7	0	0	0
CA-SDI-20436	91	109	02	50	00000000000000	001	4	0	3.4	0	0	0
CA-SDI-20436	91	110	02	50	50099000000001	001	1	0	0.1	0	0	0
CA-SDI-20436	92	111	02	50	00000000000000	001	3	0	2.4	0	0	0
CA-SDI-20436	92	112	02	50	00000000000000	002	3	0	2.4	0	0	0
CA-SDI-20436	93	113	02	50	00000000000000	004	1	0	0.1	0	0	0
CA-SDI-20436	93	114	02	50	00000000000000	018	3	0	0.6	0	0	0
CA-SDI-20436	93	115	02	50	00000000000000	002	5	0	1.1	0	0	0
CA-SDI-20436	93	116	02	50	00000000000000	001	4	0	1.7	0	0	0
CA-SDI-20436	93	117	02	50	50099000000001	001	3	0	3.1	0	0	0
CA-SDI-20436	93	118	02	12	11687244116342	002	1	1	33.5	44	33	18
CA-SDI-20436	94	119	02	50	00000000000000	004	2	0	3.8	0	0	0
CA-SDI-20436	94	120	02	50	50099000000000	018	1	0	2.9	0	0	0
CA-SDI-20436	94	121	02	50	00000000000000	001	3	0	11.8	0	0	0
CA-SDI-20436	94	122	02	50	50099000000001	001	2	0	0.4	0	0	0
CA-SDI-20436	94	123	02	50	00000000000000	002	2	0	6.4	0	0	0
CA-SDI-20436	94	124	02	50	60099000000001	002	1	0	0.1	0	0	0
CA-SDI-20436	95	125	11	21	00000000000000	000	4	0	0.4	0	0	0
CA-SDI-20436	95	126	02	50	00000000000000	001	2	0	5	0	0	0
CA-SDI-20436	95	127	02	50	50099000000000	018	1	0	0.1	0	0	0
CA-SDI-20436	96	128	02	50	00000000000000	004	1	0	1	0	0	0
CA-SDI-20436	96	129	02	50	50099000000000	004	2	0	0.3	0	0	0
CA-SDI-20436	97	130	02	50	50099000000001	002	3	0	0.8	0	0	0
CA-SDI-20436	97	131	02	50	50099000000000	004	3	0	1.6	0	0	0
CA-SDI-20436	97	132	02	50	00000000000000	018	1	0	0.1	0	0	0
CA-SDI-20436	97	133	02	50	50099000000000	006	1	0	1.1	0	0	0
CA-SDI-20436	98	134	02	50	00000000000000	006	1	0	0.2	0	0	0
CA-SDI-20436	98	135	02	50	50099000000000	004	3	0	0.3	0	0	0
CA-SDI-20436	98	136	02	50	00000000000000	002	2	0	1.1	0	0	0
CA-SDI-20436	98	137	02	50	60099000000000	002	1	0	0.1	0	0	0
CA-SDI-20436	98	138	02	50	00000000000000	001	5	0	6	0	0	0
CA-SDI-20436	98	139	02	50	50099000000001	001	6	0	1.5	0	0	0
CA-SDI-20436	99	140	02	50	00000000000000	004	1	0	0.6	0	0	0
CA-SDI-20436	99	141	02	50	50099000000000	004	6	0	5.8	0	0	0
CA-SDI-20436	99	142	02	50	60099000000001	002	1	0	0.1	0	0	0
CA-SDI-20436	99	143	02	50	00000000000000	001	4	0	6.6	0	0	0

CA-SDI-20436	99	144	02	50	50099000000001	001	2	0	0.2	0	0	0	
CA-SDI-20436	99	145	02	50	50099000000000	018	1	0	0.1	0	0	0	
CA-SDI-20436	99	146	02	50	00000000000000	004	1	0	0.1	0	0	0	
CA-SDI-20436	100	147	02	50	50099000000000	004	2	0	0.8	0	0	0	
CA-SDI-20436	100	148	02	50	00000000000000	001	5	0	3.8	0	0	0	
CA-SDI-20436	100	149	02	50	60099000000001	001	1	0	0.1	0	0	0	
CA-SDI-20436	100	150	02	50	60099000000001	002	2	0	0.1	0	0	0	
CA-SDI-20436	100	151	02	50	00000000000000	002	1	0	0.2	0	0	0	
CA-SDI-20436	100	152	02	50	50099000000000	018	1	0	0.8	0	0	0	
CA-SDI-20436	100	153	02	01	11604010302200	001	1	0	17.5	0	0	0	
CA-SDI-20436	101	154	02	50	50099000000000	004	2	0	1	0	0	0	
CA-SDI-20436	101	155	02	50	00000000000000	004	1	0	0.4	0	0	0	
CA-SDI-20436	101	156	02	50	50099000000001	001	1	0	1.2	0	0	0	
CA-SDI-20436	101	157	02	50	00000000000000	001	2	0	1.6	0	0	0	
CA-SDI-20436	101	158	02	50	00000000000000	002	1	0	0.1	0	0	0	
CA-SDI-20436	101	159	02	50	50099000000000	018	1	0	0.1	0	0	0	
CA-SDI-20436	102	160	02	50	00000000000000	004	1	0	0.1	0	0	0	
CA-SDI-20436	102	161	02	50	00000000000000	018	2	0	0.1	0	0	0	
CA-SDI-20436	102	162	02	50	50099000000000	018	1	0	0.2	0	0	0	
CA-SDI-20436	102	163	02	50	00000000000000	001	3	0	3.8	0	0	0	
CA-SDI-20436	102	164	02	50	50099000000001	001	1	0	0.1	0	0	0	
CA-SDI-20436	103	165	02	50	50099000000000	004	5	0	1.5	0	0	0	
CA-SDI-20436	103	166	02	50	00000000000000	004	1	0	0.1	0	0	0	
CA-SDI-20436	103	167	02	50	50099000000001	001	4	0	0.4	0	0	0	
CA-SDI-20436	103	168	02	50	00000000000000	001	1	0	0.6	0	0	0	
CA-SDI-20436	103	169	02	50	00000000000000	002	1	0	1.2	0	0	0	
CA-SDI-20436	103	170	02	50	50099000000000	018	2	0	0.3	0	0	0	
CA-SDI-20436	103	171	02	50	00000000000000	018	2	0	0.6	0	0	0	
CA-SDI-20436	103	172	02	50	60099000000000	018	2	0	0.1	0	0	0	
CA-SDI-20436	103	173	02	50	50099000000000	004	1	0	0.1	0	0	0	
CA-SDI-20436	105	174	02	50	50099000000001	001	1	0	3.9	0	0	0	
CA-SDI-20436	106	175	02	50	50099000000000	004	1	0	1.2	0	0	0	
CA-SDI-20436	107	176	02	50	50099000000000	004	1	0	0.3	0	0	0	
CA-SDI-20436	108	177	02	50	50099000000000	004	1	0	1.4	0	0	0	
CA-SDI-20436	109	178	02	60	13097083000000	004	1	1	20.3	31	28	26	
CA-SDI-20436	110	179	02	50	50099000000001	001	1	0	2	0	0	0	
CA-SDI-20436	110	180	05	99	20010160000000	310	1	0	0.3	0	0	0	0
CA-SDI-20436	111	181	02	50	50099000000000	004	1	0	1.3	0	0	0	
CA-SDI-20436	112	182	02	50	50099000000000	004	1	0	0.6	0	0	0	
CA-SDI-20436	113	183	02	50	50099000000000	004	2	0	1.4	0	0	0	
CA-SDI-20436	114	184	02	50	00000000000000	002	2	0	2.1	0	0	0	
CA-SDI-20436	114	185	02	50	50099000000000	004	2	0	0.5	0	0	0	
CA-SDI-20436	115	186	02	50	50099000000000	004	2	0	2.2	0	0	0	
CA-SDI-20436	116	187	02	50	50099000000000	018	1	0	0.7	0	0	0	
CA-SDI-20436	117	188	02	50	00000000000000	001	1	0	8	0	0	0	

CA-SDI-20436	118	189	02	50	50099000000000	004	1	0	1	0	0	0	
CA-SDI-20436	119	190	02	50	50099000000001	002	1	0	0.1	0	0	0	
CA-SDI-20436	120	191	02	50	00000000000000	002	1	0	1.6	0	0	0	
CA-SDI-20436	121	192	02	50	20004201005121	001	1	0	1.8	0	0	0	
CA-SDI-20436	122	193	02	50	50099000000001	001	1	0	0.3	0	0	0	
CA-SDI-20436	123	194	02	50	00000000000000	001	1	0	2.3	0	0	0	0
CA-SDI-20436	124	195	02	50	50099000000000	004	1	0	0.9	0	0	0	
CA-SDI-20436	125	196	02	50	00000000000000	001	1	0	1.8	0	0	0	
CA-SDI-20436	126	197	02	50	00000000000000	001	1	0	12	0	0	0	
CA-SDI-20436	127	198	02	50	50099000000001	001	1	0	4.1	0	0	0	
CA-SDI-20436	128	199	02	50	50099000000001	001	1	0	22.3	0	0	0	
CA-SDI-20436	129	200	01	01	02000120000000	010	1	0	416.3	0	0	0	lrg fragment
CA-SDI-20436	129	201	01	03	01000030000000	001	1	0	136.2	0	0	0	
CA-SDI-20436	130	202	02	50	00000000000000	002	1	0	1.4	0	0	0	
CA-SDI-20436	9	1	02	50	50099000000000	004	1	0	0.1	0	0	0	
CA-SDI-20436	15	2	02	50	50099000000001	001	1	0	0.1	0	0	0	
CA-SDI-20436	15	3	02	50	50099000000000	004	1	0	0.1	0	0	0	
CA-SDI-20436	15	4	02	50	00000000000000	001	1	0	4.2	0	0	0	
CA-SDI-20436	16	5	02	50	00000000000000	018	1	0	0.1	0	0	0	
CA-SDI-20436	17	6	02	50	60099000000000	005	1	0	0	0	0	0	
CA-SDI-20436	17	7	02	50	50099000000001	001	2	0	0.5	0	0	0	
CA-SDI-20436	17	8	02	50	00000000000000	002	1	0	1	0	0	0	
CA-SDI-20436	19	9	02	50	00000000000000	018	1	0	0.1	0	0	0	
CA-SDI-20436	19	10	02	50	50099000000001	001	1	0	0.2	0	0	0	
CA-SDI-20436	19	11	02	50	50099000000000	004	1	0	0.2	0	0	0	
CA-SDI-20436	20	12	02	50	50099000000000	004	2	0	1.2	0	0	0	
CA-SDI-20436	20	13	02	50	50099000000000	018	1	0	0.1	0	0	0	
CA-SDI-20436	20	14	02	50	00000000000000	004	1	0	0.1	0	0	0	
CA-SDI-20436	20	15	02	50	00000000000000	002	1	0	0.2	0	0	0	
CA-SDI-20436	21	16	02	50	50099000000000	004	1	0	0.1	0	0	0	
CA-SDI-20436	21	17	02	50	00000000000000	002	1	0	0.1	0	0	0	
CA-SDI-20436	24	18	02	50	00000000000000	002	1	0	0.3	0	0	0	
CA-SDI-20436	26	19	02	50	50099000000001	001	1	0	8.8	0	0	0	
CA-SDI-20436	27	20	51	01	00000000000000	000	1	0	0.1	0	0	0	
CA-SDI-20436	28	21	02	50	00000000000000	018	1	0	2	0	0	0	
CA-SDI-20436	28	22	02	50	00000000000000	002	1	0	0.1	0	0	0	
CA-SDI-20436	28	23	02	50	50099000000001	001	3	0	0.7	0	0	0	
CA-SDI-20436	29	24	02	50	50099000000000	004	1	0	0.6	0	0	0	
CA-SDI-20436	29	25	02	50	50099000000001	001	1	0	1.5	0	0	0	
CA-SDI-20436	29	26	02	50	60099000000001	002	1	0	0.1	0	0	0	
CA-SDI-20436	29	27	02	01	11675522432000	002	1	1	10.5	31	27	10	
CA-SDI-20436	30	28	02	50	50099000000001	001	1	0	4.9	0	0	0	
CA-SDI-20436	33	29	02	50	00000000000000	002	1	0	0.8	0	0	0	
CA-SDI-20436	34	30	02	50	00000000000000	002	1	0	1	0	0	0	
CA-SDI-20436	35	31	02	50	50099000000000	004	1	0	0.2	0	0	0	

CA-SDI-20436	45	32	02	50	50099000000001	001	1	0	2	0	0	0
CA-SDI-20436	51	33	02	50	50099000000000	004	2	0	0.6	0	0	0
CA-SDI-20436	51	34	02	50	50099000000001	001	1	0	0.1	0	0	0
CA-SDI-20436	51	35	02	50	00000000000000	001	1	0	0.7	0	0	0
CA-SDI-20436	52	36	02	50	50099000000001	001	1	0	0.1	0	0	0
CA-SDI-20436	53	37	02	50	50099000000000	004	2	0	0.1	0	0	0
CA-SDI-20436	53	38	02	50	50099000000001	001	2	0	0.3	0	0	0
CA-SDI-20436	56	39	02	50	50099000000000	004	1	0	0.3	0	0	0
CA-SDI-20436	57	40	02	50	50099000000001	001	1	0	0.6	0	0	0
CA-SDI-20436	58	41	02	50	50099000000001	004	1	0	0.1	0	0	0
CA-SDI-20436	58	42	02	50	50099000000001	002	1	0	0.7	0	0	0
CA-SDI-20436	58	43	02	50	50099000000001	001	2	0	0.2	0	0	0
CA-SDI-20436	58	44	02	50	00000000000000	002	1	0	0.6	0	0	0
CA-SDI-20436	59	45	02	50	50099000000001	002	2	0	8.6	0	0	0
CA-SDI-20436	60	46	02	50	00000000000000	002	1	0	0.2	0	0	0
CA-SDI-20436	60	47	02	50	50099000000001	001	2	0	0.6	0	0	0
CA-SDI-20436	63	48	02	50	60099000000000	006	1	0	0.1	0	0	0
CA-SDI-20436	64	49	02	50	00000000000000	002	2	0	0.5	0	0	0
CA-SDI-20436	67	50	02	50	50099000000001	001	1	0	0.1	0	0	0
CA-SDI-20436	68	51	02	50	50099000000001	001	2	0	0.2	0	0	0
CA-SDI-20436	69	52	02	50	50099000000000	004	2	0	0.7	0	0	0
CA-SDI-20436	70	53	02	50	00000000000000	004	1	0	0.5	0	0	0
CA-SDI-20436	71	54	02	50	00000000000000	001	1	0	2.1	0	0	0

Site	Field	Shot	Feature	Unit #	Unit type	Upper depth	Lower depth	Shot dist.	Shot dir.
CA-SDI-20436	1	0		1	Shovel test pit	0	10	0	0
CA-SDI-20436	2	0		1	Shovel test pit	10	20	0	0
CA-SDI-20436	3	0		1	Shovel test pit	20	30	0	0
CA-SDI-20436	4	0		1	Shovel test pit	30	40	0	0
CA-SDI-20436	5	0		1	Shovel test pit	40	50	0	0
CA-SDI-20436	6	0		2	Shovel test pit	0	10	0	0
CA-SDI-20436	7	0		2	Shovel test pit	10	20	0	0
CA-SDI-20436	8	0		2	Shovel test pit	20	30	0	0
CA-SDI-20436	9	0		3	Shovel test pit	0	10	0	0
CA-SDI-20436	10	0		3	Shovel test pit	10	20	0	0
CA-SDI-20436	11	0		3	Shovel test pit	20	30	0	0
CA-SDI-20436	12	0		3	Shovel test pit	30	40	0	0
CA-SDI-20436	13	0		3	Shovel test pit	40	50	0	0
CA-SDI-20436	14	0		4	Shovel test pit	0	10	0	0
CA-SDI-20436	15	0		4	Shovel test pit	10	20	0	0
CA-SDI-20436	16	0		4	Shovel test pit	20	30	0	0
CA-SDI-20436	17	0		4	Shovel test pit	30	40	0	0
CA-SDI-20436	18	0		4	Shovel test pit	40	50	0	0
CA-SDI-20436	19	0		4	Shovel test pit	50	60	0	0
CA-SDI-20436	20	0		4	Shovel test pit	60	70	0	0
CA-SDI-20436	21	0		4	Shovel test pit	70	80	0	0
CA-SDI-20436	22	0		5	Shovel test pit	0	10	0	0
CA-SDI-20436	23	0		5	Shovel test pit	10	20	0	0
CA-SDI-20436	24	0		5	Shovel test pit	20	30	0	0
CA-SDI-20436	25	0		5	Shovel test pit	30	40	0	0
CA-SDI-20436	26	0		5	Shovel test pit	40	50	0	0
CA-SDI-20436	27	0		5	Shovel test pit	50	60	0	0
CA-SDI-20436	28	0		5	Shovel test pit	60	70	0	0
CA-SDI-20436	29	0		5	Shovel test pit	70	80	0	0
CA-SDI-20436	30	0		5	Shovel test pit	80	90	0	0
CA-SDI-20436	31	0		5	Shovel test pit	90	100	0	0
CA-SDI-20436	32	0		6	Shovel test pit	0	10	0	0
CA-SDI-20436	33	0		6	Shovel test pit	10	20	0	0
CA-SDI-20436	34	0		6	Shovel test pit	20	30	0	0
CA-SDI-20436	35	0		6	Shovel test pit	30	40	0	0
CA-SDI-20436	36	0		6	Shovel test pit	40	50	0	0
CA-SDI-20436	37	0		6	Shovel test pit	50	60	0	0
CA-SDI-20436	38	0		7	Shovel test pit	0	10	0	0
CA-SDI-20436	39	0		7	Shovel test pit	10	20	0	0
CA-SDI-20436	40	0		7	Shovel test pit	20	30	0	0
CA-SDI-20436	41	0		7	Shovel test pit	30	40	0	0
CA-SDI-20436	42	0		7	Shovel test pit	40	50	0	0
CA-SDI-20436	43	0		8	Shovel test pit	0	10	0	0

CA-SDI-20436	44	0	8	Shovel test pit	10	20	0	0
CA-SDI-20436	45	0	9	Shovel test pit	0	10	0	0
CA-SDI-20436	46	0	9	Shovel test pit	10	20	0	0
CA-SDI-20436	47	0	9	Shovel test pit	20	30	0	0
CA-SDI-20436	48	0	9	Shovel test pit	30	40	0	0
CA-SDI-20436	49	0	9	Shovel test pit	40	50	0	0
CA-SDI-20436	50	0	9	Shovel test pit	50	60	0	0
CA-SDI-20436	51	0	10	Shovel test pit	0	10	0	0
CA-SDI-20436	52	0	10	Shovel test pit	10	20	0	0
CA-SDI-20436	53	0	10	Shovel test pit	20	30	0	0
CA-SDI-20436	54	0	10	Shovel test pit	30	40	0	0
CA-SDI-20436	55	0	11	Shovel test pit	0	10	0	0
CA-SDI-20436	56	0	11	Shovel test pit	10	20	0	0
CA-SDI-20436	57	0	11	Shovel test pit	20	30	0	0
CA-SDI-20436	58	0	11	Shovel test pit	30	40	0	0
CA-SDI-20436	59	0	11	Shovel test pit	40	50	0	0
CA-SDI-20436	60	0	11	Shovel test pit	50	60	0	0
CA-SDI-20436	61	0	11	Shovel test pit	60	70	0	0
CA-SDI-20436	62	0	12	Shovel test pit	0	10	0	0
CA-SDI-20436	63	0	12	Shovel test pit	10	20	0	0
CA-SDI-20436	64	0	12	Shovel test pit	20	30	0	0
CA-SDI-20436	65	0	12	Shovel test pit	30	40	0	0
CA-SDI-20436	66	0	13	Shovel test pit	0	10	0	0
CA-SDI-20436	67	0	13	Shovel test pit	10	20	0	0
CA-SDI-20436	68	0	13	Shovel test pit	20	30	0	0
CA-SDI-20436	69	0	13	Shovel test pit	30	40	0	0
CA-SDI-20436	70	0	13	Shovel test pit	40	50	0	0
CA-SDI-20436	71	0	13	Shovel test pit	50	60	0	0
CA-SDI-20436	72	0	13	Shovel test pit	60	70	0	0
CA-SDI-20436	73	0	14	Shovel test pit	0	10	0	0
CA-SDI-20436	74	0	14	Shovel test pit	10	20	0	0
CA-SDI-20436	75	0	14	Shovel test pit	20	30	0	0
CA-SDI-20436	76	0	15	Shovel test pit	0	10	0	0
CA-SDI-20436	77	0	15	Shovel test pit	10	20	0	0
CA-SDI-20436	78	0	15	Shovel test pit	20	30	0	0
CA-SDI-20436	79	0	15	Shovel test pit	30	40	0	0
CA-SDI-20436	80	0	15	Shovel test pit	40	50	0	0
CA-SDI-20436	81	0	16	Shovel test pit	0	10	0	0
CA-SDI-20436	82	0	16	Shovel test pit	10	20	0	0
CA-SDI-20436	83	0	16	Shovel test pit	20	30	0	0
CA-SDI-20436	84	0	1	1 x 1 m excavation unit	0	10	0	0
CA-SDI-20436	85	0	1	1 x 1 m excavation unit	10	20	0	0
CA-SDI-20436	86	0	1	1 x 1 m excavation unit	20	30	0	0
CA-SDI-20436	87	0	1	1 x 1 m excavation unit	30	40	0	0

CA-SDI-20436	88	0	1	1 x 1 m excavation unit	40	50	0	0
CA-SDI-20436	89	0	1	1 x 1 m excavation unit	50	60	0	0
CA-SDI-20436	90	0	1	1 x 1 m excavation unit	60	70	0	0
CA-SDI-20436	91	0	1	1 x 1 m excavation unit	70	80	0	0
CA-SDI-20436	92	0	1	1 x 1 m excavation unit	80	90	0	0
CA-SDI-20436	93	0	1	1 x 1 m excavation unit	90	100	0	0
CA-SDI-20436	94	0	1	1 x 1 m excavation unit	100	110	0	0
CA-SDI-20436	95	0	1	1 x 1 m excavation unit	110	120	0	0
CA-SDI-20436	96	0	2	1 x 1 m excavation unit	0	10	0	0
CA-SDI-20436	97	0	2	1 x 1 m excavation unit	10	20	0	0
CA-SDI-20436	98	0	2	1 x 1 m excavation unit	20	30	0	0
CA-SDI-20436	99	0	2	1 x 1 m excavation unit	30	40	0	0
CA-SDI-20436	100	0	2	1 x 1 m excavation unit	40	50	0	0
CA-SDI-20436	101	0	2	1 x 1 m excavation unit	50	60	0	0
CA-SDI-20436	102	0	2	1 x 1 m excavation unit	60	70	0	0
CA-SDI-20436	103	0	2	1 x 1 m excavation unit	70	80	0	0
CA-SDI-20436	104	0	2	1 x 1 m excavation unit	80	90	0	0
CA-SDI-20436	105	1	0	Mapped point	0	0	20	8
CA-SDI-20436	106	2	0	Mapped point	0	0	4	36
CA-SDI-20436	107	3	0	Mapped point	0	0	8	56
CA-SDI-20436	108	4	0	Mapped point	0	0	5	128
CA-SDI-20436	109	5	0	Mapped point	0	0	5	158
CA-SDI-20436	110	6	0	Mapped point	0	0	14	138
CA-SDI-20436	111	7	0	Mapped point	0	0	16	122
CA-SDI-20436	112	8	0	Mapped point	0	0	12	150
CA-SDI-20436	113	9	0	Mapped point	0	0	21	150
CA-SDI-20436	114	10	0	Mapped point	0	0	30	150
CA-SDI-20436	115	11	0	Mapped point	0	0	275	158
CA-SDI-20436	116	12	0	Mapped point	0	0	72	11
CA-SDI-20436	117	13	0	Mapped point	0	0	15	167
CA-SDI-20436	118	14	0	Mapped point	0	0	14	174
CA-SDI-20436	119	15	0	Mapped point	0	0	11	192
CA-SDI-20436	120	16	0	Mapped point	0	0	9	190
CA-SDI-20436	121	17	0	Mapped point	0	0	7	192
CA-SDI-20436	122	18	0	Mapped point	0	0	4	212
CA-SDI-20436	123	19	0	Mapped point	0	0	3	234
CA-SDI-20436	124	20	0	Mapped point	0	0	4	290
CA-SDI-20436	125	21	0	Mapped point	0	0	6	296
CA-SDI-20436	126	22	0	Mapped point	0	0	11	295
CA-SDI-20436	127	23	0	Mapped point	0	0	26	276
CA-SDI-20436	128	24	0	Mapped point	0	0	10	222
CA-SDI-20436	129	25	0	Mapped point	0	0	27	204
CA-SDI-20436	130	26	0	Mapped point	0	0	30	181

Affinis Catalog Code Sheet Version 2.0

Field Provenance (first 4 spaces):

Artifact Number (next 5 spaces):

Artifact Class (next 2 spaces):

01 = Groundstone	51 = Glass
02 = Flaked Stone	52 = Building Materials
03 = Biface/Point/Preform/Blank	53 = Historic Ceramics
04 = Other Stone	54 = Clothing/Decorative
05 = Bone/Antler/Horn/Tooth/Egg	55 = Historic Bone Artifact
06 = Shell/Exoskeleton	56 = Personal Toiletries
07 = Prehistoric Wood	57 = Historic Wood Artifact
08 = Prehistoric Leather/Hide	58 = Historic Leather
09 = Fiber	59 = Metal, misc.
10 = Native American Ceramics	60 = Can
11 = Sample (Soil, C14, Botanical)	61 = Plastic
12 = Agnostifacts	62 = Rubber
15 = Miscellaneous	63 = Misc. Historic

Item (next 2 spaces):
Designated differently within each artifact class; see below

Analysis (next 14 spaces): Optional
Designated differently within each artifact class; see below

Material/Taxon (next 3 Spaces):
Only for Lithics, Bone (Optional), Shell (Optional), and Prehistoric Ceramics

Count (next 4 spaces):

Condition (next 1 space):
0 = Broken
1 = Whole
2 = Broken, Burned (Optional for Shell, Bone, and Ceramics).
3 = Whole, Burned (Optional for Shell, Bone, and Ceramics).

Weight (next 6 Spaces):
Weight to tenth of gram xxxxx.x <0.1 gm. = 00000.0

Length (next 4 spaces):
Only for Classes 01 and 02 (Optional for Debitage), in mm.

Width (next 4 spaces):
Only for Classes 01 and 02 (Optional for Debitage), in mm.

Thickness (last 4 spaces):
Only for Classes 01 and 02 (Optional for Debitage), in mm.

Comments (12 spaces in margin): Optional

01 Groundstone * = Optional Analysis Below

Item (2 spaces):

00 = Unclassified Artifact	14 = Doughnut Stone
* 01 = Mano	15 = Bowl
* 02 = Pestle	16 = Pipe
* 03 = Metate	17 = Sucking Tube
* 04 = Mortar	18 = Effigy
05 = Heating Stone	19 = Pigment Palette
06 = Axe	20 = Ring
07 = Maul	21 = Ball
08 = Arrow shaft Straightener	21 = Bead, Unclassified
09 = Discoidal	23 = Bead, Disc
10 = Cog Stone	24 = Bead, Cylindrical
11 = Pendant, Unclassified	25 = Bead, Spherical
12 = Pendant, Simple	26 = Incised Stone
13 = Pendant, Geometric design	

Analysis for Mano, Pestle, Metate, and Mortar:

Surface 1.Morphology	2. Shaped	3. Battered	Thermal 4. Alteration	5. Shouldered	Intensity 6. Of Use
00 =Unidentifiable	0=No	0=No	0=No	0=No	0=Fragment
01 =Single Surface	1=Yes 1	=Yes	1=Yes	1=Yes	1=Light
02 =Double Surface					2=Medium
03 =Multi surface				3=Heavy	
					4=Variable

Manufacture 7. Input	Metate (Only) 8. Base
0=Unidentifiable	0=Unclassified
1=Unshaped item 1=Slab	
2=Minimally Shaped < 1/3	2=Basin
3=Moderately Shaped >1/3 ; <2/3	
4=Well Shaped >2/3	

(Last 6 (5 if metate) spaces of Analysis are 0)

Material Types for Lithics:

000 = Undetermined	005 = Obsidian	010 = Granitic	015 = Jasper
001 = Medium to coarse-grained metavolcanic	006 = Chert (see #18)	011 = Tourmaline	016 = Steatite/Talc
002 = Fine-grained metavolcanic	007 = Metamorphic	012 = Feldspar	017 = Petrified Wood
003 = Quartzite	008 = Sedimentary	013 = Mica	018 = Piedra de Lumbre
004 = Quartz	009 = Talcose Rock	014 = Chalcedony	

02 Flaked Stone

* = Optional Analysis Below
& = Mandatory Analysis Below

Item (2 spaces)

& 00 = Unclassified tool fragment
& 01 = Retouched/Utilized flake
& 03 = Chopper
& 04 = Scraper Plane
& 05 = Scraper
& 06 = Knife
& 12 = Hammer
& 13 = Crescentic
* 50 = Debitage (except Rejuvenation flakes)
& 52 = Rejuvenation flake
* 60 = Core

Analysis for Retouched/Utilized Flakes:

Production		Primary Edge Angle	Primary Edge Ware
1. Base	2. Retouch	3. Secondary Edge Angle	4. Secondary Edge Ware
0 = Unknown	0 = None	0 = N/A	0 = No Wear
1 = Flake	1 = Unifacial	1 = < 26°	1 = Faceting
2 = Core	2 = Bifacial	2 = 27-35°	2 = Crushing
3 = Cobble		3 = 36-45°	3 = Abrasion
		4 = 46-55°	4 = Micro-step flaking
		5 = 56-65°	5 = Rounding
		6 = 66-75°	6 = Nibbling
		7 = 76-85°	
		8 = 86-95°	
		9 = > 95°	

Primary Edge Shape	Primary Use Locus		
5. Secondary Edge Shape	6. Secondary Use Locus	7. Flake Morphology	8. Cortical Variability
	0 = Indeterminate	0 = No Cortex	
1 = Straight	1 = Platform	1 = Linear	1 = 1-30%
2 = Convex	2 = Right Lateral	2 = Diverging	2 = 30-90%
3 = Concave	3 = Left Lateral	3 = Converging	3 = 90-99%
4 = Notched	4 = Distal	4 = Other flake shape	4 = 100%
5 = Sharply Protruding		5 = Angular Debris	
6 = Serrated			
7 = Other		9 = Not Flake-based	

Material Types for Lithics:

000 = Undetermined	005 = Obsidian	010 = Granitic	015 = Jaspar
001 = Medium to coarse-grained metavolcanic	006 = Chert (see #18)	011 = Tourmaline	016 = Steatite/Talc
002 = Fine-grained metavolcanic	007 = Metamorphic	012 = Feldspar	017 = Petrified Wood
003 = Quartzite	008 = Sedimentary	013 = Mica	018 = Piedra de Lumbre
004 = Quartz	009 = Talcose Rock	014 = Chalcedony	

02 Flaked Stone

* = Optional Analysis Below
& = Mandatory Analysis Below

Item (2 spaces)

& 00 = Unclassified tool fragment
& 01 = Retouched/Utilized flake
& 03 = Chopper
& 04 = Scraper Plane
& 05 = Scraper
& 06 = Knife
& 12 = Hammer
& 13 = Crescentic
* 50 = Debitage (except Rejuvenation flakes)
& 52 = Rejuvenation flake
* 60 = Core

Analysis for items 00 through 13:

Production	Primary Edge Angle	Primary Edge Wear	Primary Edge Shape	Primary Use Locus
	Secondary Edge Angle	Secondary Edge Wear	Secondary Edge Shape	Secondary Use Locus
1. Base	2. Retouch	3. Tertiary Edge Angle	4. Tertiary Edge Wear	5. Tertiary Edge Shape	6. Tertiary Use Locus

0=N/A	0=None	0= N/A	0= No Wear		
1=Flake	1=Unifacial	1= < 26 degrees	1= Faceting	1= Straight	1= Platform
2=Core	2=Bifacial	2= 26-35 degrees	2= Crushing	2= Convex	2= Right Lateral
3=Cobble		3= 36-45 degrees	3= Abrasion	3= Concave	3= Left Lateral
		4= 46-55 degrees	4= Micro-step flaking	4= Notched	4= Distal
		5= 56-65 degrees	5= Rounding	5= Sharply protruding	5= Dorsal (obtuse angle)
		6= 66-75 degrees	6= Nibbling	6= Serrated	6= Other
		7= 76-85 degrees		7= Other	
		8= 86-95 degrees			
		9= > 95 degrees			

Material Types for Lithics:

000 = Undetermined	005 = Obsidian	010 = Granitic	015 = Jaspar
001 = Medium to coarse-grained metavolcanic	006 = Chert (see #18)	011 = Tourmaline	016 = Steatite/Talc
002 = Fine-grained metavolcanic	007 = Metamorphic	012 = Feldspar	017 = Petrified Wood
003 = Quartzite	008 = Sedimentary	013 = Mica	018 = Piedra de Lumbre
004 = Quartz	009 = Talcose Rock	014 = Chalcedony	

02 Flaked Stone

* = Optional Analysis Below
& = Mandatory Analysis Below

Item (2 spaces)
& 00 = Unclassified tool fragment
& 01 = Retouched/Utilized flake
& 03 = Chopper
& 04 = Scraper Plane
& 05 = Scraper
& 06 = Knife
& 12 = Hammer
& 13 = Crescentic
* 50 = Debitage (except Rejuvenation flakes)
& 52 = Rejuvenation flake
* 60 = Core

Analysis for Debitage:

Flake 1. Morphology	Cortical 2. Variability	Cortex 3. Type	Dorsal 4. Scar Count	Platform 5. Preparation
	0=No Cortex	0=No Cortex	Actual Count	0 = Not Applicable; no platform
1=Linear	1=1-30%	1=Tabular/Nodular	99 = N/A	1 = Cortex Platform, no preparation
2=Diverging	2=30-90%	2=Cobble		2 = Grinding Visible under 10x Magnification
3=Converging	3=90-99%	3=Incipient Cone		3 = Flaking Visible, with or without cortex
4=Other flake shape	4=100%	4=Spalled		4 = Plain Platform, no cortex or flaking
5=Angular Debris		9=Indeterminate		5 = Step Platform
6=Micro flake				6 = Central Beak
				7 = *Chapeau de Gendarme*

Platform 7. Depth	Platform 8. Width	Platform 9. Condition	10. Termination	11. Patinated
(2 spaces)	(3 spaces)	0=Incomplete	0=Indeterminate	0=Unpatinated
In mm.	In mm.	1=Complete	1=Feather	1=Patinated
		2=No Platform	2= Step	
			3= Hinge	
			4= Overshot	

Material Types for Lithics:

000 = Undetermined	005 = Obsidian	010 = Granitic	015 = Jaspar
001 = Medium to coarse-grained metavolcanic	006 = Chert (see #18)	011 = Tourmaline	016 = Steatite/Talc
002 = Fine-grained metavolcanic	007 = Metamorphic	012 = Feldspar	017 = Petrified Wood
003 = Quartzite	008 = Sedimentary	013 = Mica	018 = Piedra de Lumbre
004 = Quartz	009 = Talcose Rock	014 = Chalcedony	

02 Flaked Stone * = Optional Analysis Below

Item (2 spaces) & = Mandatory Analysis Below

& 00 = Unclassified tool fragment
& 01 = Retouched/Utilized flake
& 03 = Chopper
& 04 = Scraper Plane
& 05 = Scraper
& 06 = Knife
& 12 = Hammer
& 13 = Crescentic
* 50 = Debitage (except Rejuvenation flakes)
& 52 = Rejuvenation flake
* 60 = Core

Analysis for Rejuvenation Flakes: (Tools ONLY)

Production 1. Base	2. Retouch	3. Tool Type
0=N/A	0=None	(Use item # above)
1=Flake	1=Unifacial	
2=Core	2=Bifacial	
3=Cobble		

(Last 10 spaces of Analysis are 0)

Analysis for Cores:

1. Condition	2. Core Type	3. Edge Angle (Steepest)	4. Edge Angle (Narrowest)
0=Fragment		In degrees	In degrees
1=Complete	1=Unidirectional	(3 spaces)	(3 spaces)
2=Unknown	2=Bidirectional		
	3=Multidirectional		
	4=Bifacial		
	5=Bipolar		
	6=Polyhedral (including Domed forms)		

(Last 6 spaces of Analysis are 0)

Material Types for Lithics:

000 = Undetermined	005 = Obsidian	010 = Granitic	015 = Jaspar
001 = Medium to coarse-grained metavolcanic	006 = Chert (see #18)	011 = Tourmaline	016 = Steatite/Talc
002 = Fine-grained metavolcanic	007 = Metamorphic	012 = Feldspar	017 = Petrified Wood
003 = Quartzite	008 = Sedimentary	013 = Mica	018 = Piedra de Lumbre
004 = Quartz	009 = Talcose Rock	014 = Chalcedony	

03 Biface/Point/Preform/Blank Analysis Mandatory
Item (2 spaces) See Flow Chart

01 = Cottonwood Concave Base
02 = CW Straight Base
03 = CW Convex Base
04 = Incipient Side-Notched
05 = Desert Side-Notched Concave Base
06 = DSN Straight Base
07 = DSN Convex Base
08 = DSN Concave Notched Base
09 = DSN Straight Notched Base
10 = CW Basal Notched
11 = Coarse Serrated
12 = CW Leaf Shape
13 = Large Leaf Shape
14 = Large Triangular
15 = Large Elko
16 = Large Incipient Notched
17 = Large Notched Point
18 = DSN Cuyamaca Serrated
19 = CW Fine Serrated
20 = Poway Serrated
21 = Pinto
22 = Gypsum Cave
27 = Cottonwood Series
28 = DSN Series
29 = **Untypable** point **fragment**
71 = Drill
72 = Graver
73 = Perforator
74 = Beak
80 = Small Biface/Preform
81 = Large Biface/Preform
98 = Other
99 = Unknown

Analysis for Biface/Point/Preform/Blank:

Production 1. Stage	2. Condition	3. Fracture	4. Edge Shape	5. Patinated	Axial 6. Length	Basal 7. Width
0=Unknown		0=N/A	0=N/A	0 = No	(3 spaces)	(3 spaces)
1=Finished	1=Complete	1=End Shock	1=Straight	1 = Yes	In mm.	In mm.
2=Early Stage Preform	2=Tip	2=Perverse	2=Convex			
3=Late Stage Preform	3=Mid-section	3=Longitudinal	3=Concave			
	4=Tip Missing	4=Split-Feather	4=Serrated (Fine)			
	5=Base	5=Other	5=Serrated			
	6=Base Missing		6=Other			
	7=Essentially Complete					
	8=Incomplete					
	9=Other					

(Last 3 spaces of Analysis are 0)

Material Types for Lithics:

000 = Undetermined
001 = Medium to coarse-grained metavolcanic
002 = Fine-grained metavolcanic
003 = Quartzite
004 = Quartz
005 = Obsidian
006 = Chert (see #18)
007 = Metamorphic
008 = Sedimentary
009 = Talcose Rock
010 = Granitic
011 = Tourmaline
012 = Feldspar
013 = Mica
014 = Chalcedony
015 = Jaspar
016 = Steatite/Talc
017 = Petrified Wood
018 = Piedra de Lumbre

04 Other Stone * = Optional Analysis Below

Item (2 spaces)

00 = Unclassified
01 = Mineral Pigment
02 = Abrading pebble
03 = Crystal, Unmodified
04 = Crystal, Modified
05 = Anvil stone
06 = Exotic Material (Manuport)
07 = Fire Affected Rock

*10 = Hammerstone, Unclassified
*11 = Hammerstone, Angular
*12 = Hammerstone, Spherical

Analysis for Hammerstones:

Finger Polish	Percentage Battered	Primary Edge Shape / Secondary Edge Shape / Tertiary Edge Shape	Primary Use Locus / Secondary Use Locus / Tertiary Use Locus
0 = Absent	(3 Spaces)	1 = Straight	8 = Margins
1 = Present		2 = Convex	9 = Body
		3 = Concave	
		4 = Sharply Protruding	
		5 =	
		6 =	
		7 = Other	

(Last 4 spaces of Analysis are 0)

Material Types for Lithics:

000 = Undetermined	005 = Obsidian	010 = Granitic	015 = Jaspar
001 = Medium to coarse-grained metavolcanic	006 = Chert (see #18)	011 = Tourmaline	016 = Steatite/Talc
002 = Fine-grained metavolcanic	007 = Metamorphic	012 = Feldspar	017 = Petrified Wood
003 = Quartzite	008 = Sedimentary	013 = Mica	018 = Piedra de Lumbre
004 = Quartz	009 = Talcose Rock	014 = Chalcedony	

Material Types for Mineral Pigments:

020 = Unclassified Mineral Pigment	021 = Hematite	022 = Limonite	023 = Manganese

05 Bone/Antler/Horn/Tooth/Egg Optional Analysis Below

Item (2 spaces):

00 = Unclassified Artifact	10 = Hair Pin
01 = Projectile Point	11 = Ring
02 = Needle	12 = Bead
03 = Awl	13 = Pendant
04 = Scraper	14 =
05 = Baton	15 =
06 = Tube	16 =
07 = Saw	
08 = Disc	
09 = Gaming Piece	99 = Unmodified/Bulk

Analysis for Bone, etc.:

1. Size	2. Burned	3. Complete	4. Side	5. Butchering	6. Element
0 = Undetermined	0=Non-Burned	0 = No	0 = Undetermined	0 = None	00=Unclassified
1 = Micro (Rat, Mouse)	1=Burned Brown	1 = Yes	1 = Right	1 = Hand Sawn	01=Tooth
2 = Small (Rabbit)	2=Burned Black		2 = Left	2 = Machine sawn	02=Claw
3 = Medium (Dog, Coyote)	3=Calcined			3 = Cut	03=Eggshell
4 = Large (Deer, Sheep, Goat)	9=Undetermined			9 = Undetermined	04=Otolith
5 = Very Large (Cow, Bison)					05=Vertebra
6 = Reptile/Amphibian					06=Mandible
7 = Bird					07=Pelvis
8 = Fish					08=Tibia/Fibula
					09=Metatarsal
					10=Scapula
					11=Ulna
(Last 7 spaces of Analysis are 0)					12=Maxilla
					13=Femur
Taxon For Bone (3 spaces, in "Material"**):**					14=Sacrum
					15=Auditory bulla
300 = Unclassified bone					16=Tibia
310 = Unclassified Rodentia					17=Humerus
312 = *Perognathus fallax* (San Diego Pocket Mouse)					18=
313 = *Microtus californicus* (California Vole)					19=
315 = Unclassified Sciuridae (Squirrel)					20=Cranial
316 = *Spermophilus beecheyi* (California Ground Squirrel)					
320 = Unclassified Leporidae (Rabbit/Hare)					30=Fish Spine
321 = *Sylvilagus sp.* (Rabbit)					
322 = *Lepus californicus* (Black-tailed Jackrabbit)					
323 = *Sylvilagus audubonii* (Desert Cottontail)					
324 = *Sylvilagus bachmani* (Brush Rabbit)					
325 = *Thomomys bottae* (Southern Pocket Gopher)					
341 = *Ovis canadensis* (Big Horn Sheep)					

350 = Unclassified Bovidae (Cattle/Sheep)
360 = Unclassified Reptile
365 = Unclassified Snake
380 = Unclassified Fish

Remainder to be determined

06 Shell

Item (2 spaces):

00 = Unclassified Artifact

10 = Bead, Unclassified
11 = Bead, Spire-lopped
12 = Bead, Disc
13 = Bead, Cupped
14 = Bead, Cylindrical

20 = Pendant, Unclassified
21 = Pendant, Undecorated
22 = Pendant, Geometric Design

30 = Bracelet, Unclassified
31 = Bracelet, Undecorated
32 = Bracelet, Geometric Design

40 = Fish hook
50 = Ring

98 = Fossil
99 = Unmodified/Bulk

Taxon For Shell (3 Spaces):

Gastropods

100 = Unknown Gastropod
101 = *Acanthina*
102 = *Acmaea*
103 = *Amphissa*
104 = *Astraea*
105 = *Bursa*
106 = *Calliostoma*
107 = *Cerithidea*
108 = *Conus*
109 = *Crepidula*
110 = *Crucibulum*
111 = *Cypraea*
112 = *Diodora*
113 = *Erato*
114 = *Fissurella*
115 = *Fusitriton*
116 = *Haliotis*
117 = *Jaton*

More Gastropods

118 = *Kelletia*
119 = *Littorina*
120 = *Lottia*
121 = *Megathura*
122 = *Mitrella*
123 = *Nassarius*
124 = *Norrisia*
125 = *Ocenebra*
126 = *Olivella*
127 = *Polinices*
128 = *Serpulorbis*
129 = *Tegula*
130 = *Thais*
131 = *Trivia*
132 = *Fusinus*
133 = Fresh water, general
134 = Terrestrial, general
135 = Collisella

Pelecypoda

150 = Unknown Pelecypod
151 = *Anomia*
152 = *Amiantis*
153 = *Chama*
154 = *Chione*
155 = *Donax*
156 = *Glycymeris*
157 = *Laevicardium*
158 = *Macoma*
159 = *Modiolus*
160 = *Mya*
161 = *Mytilus*
162 = *Ostrea*
163 = *Pecten*
164 = *Protothaca*
165 = *Pseudochama*
166 = *Saxidomus*
167 = *Semele*

More Pelecypoda

168 = *Septifer*
169 = *Siliqua*
170 = *Solen*
171 = *Tagelus*
172 = *Tellina*
173 = *Tivela*
174 = *Trachycardium*
175 = *Anodonta*
176 = Fresh water, general

Others

180 = *Chiton*
181 = *Dentalia*
182 = *Echinus*
183 = *Balanus*
184 = *Pollicipes*
185 = Crab
186 = *Dendraster*
197 = Waterworn, mixed
198 = Mixed Fragments
199 = Unidentifiable

07 Prehistoric Wood

Item (2 spaces):

00 = Unclassified Artifact
01 = Split-twig figurine
99 = Unmodified/Bulk

08 Prehistoric Leather/Hide

Item (2 spaces):

00 = Unclassified Artifact
20 = Cordage, Unclassified
21 = Cordage, Woven
22 = Cordage, Twisted
50 = Sandal, Unclassified
51 = Sandal, Woven
52 = Sandal, Twisted

09 Fiber

Item (2 spaces):

00 = Unclassified artifact

10 = Matting, Unclassified
11 = Matting, Woven

20 = Cordage, Unclassified
21 = Cordage, Woven
22 = Cordage, Twisted

30 = Netting, Unclassified
31 = Netting, Woven
32 = Netting, Twisted

40 = Basketry, Unclassified
41 = Basketry, Twined
42 = Basketry, Coiled

50 = Sandal, Unclassified
51 = Sandal, Woven
52 = Sandal, Twisted
53 = Sandal, Coiled

10 Native American Ceramics

Item (2 spaces):

```
00 = Unclassified artifact
01 = Rim Sherd
02 = Body Sherd
03 = Neck Sherd
04 = Basal Sherd

10 = Pipe, Unclassified
11 = Pipe, Bow
12 = Pipe, Straight

20 = Bead, Unclassified
21 = Bead, Disc
22 = Bead, Cylindrical
23 = Bead, Spherical

30 = Pendant, Unclassified
31 = Pendant, Simple
32 = Pendant, Geometric Design

50 = Modified Unclassified Artifact
51 = Modified Rim Sherd
52 = Modified Body Sherd
53 = Modified Neck Sherd
54 = Modified Basal Sherd

60 = Vessel (whole or restorable)
70 = Figurine
70 = Rattle Ball
85 = Sherd Abrader

90 = Clay lump, Unclassified
91 = Clay lump, Unfired
92 = Clay lump, Fired
```

Analysis for Native American Ceramics:

Burned	Carbon Caked Modification	Lip Type		Diameter
0 = No 1 = Yes	0 = No 1 = Yes	0 = No lip 1 = Rounded 2 = Squared 3 = Flattened 4 = Mushroomed 5 = Tapered 6 = Lap Lip 7 = Projecting Asymmetrical Rounded 8 = Projecting Asymmetrical Pointed 9 = Round inside/Square outside	(3 spaces) In mm.	0 = None 1 = Slipped 2 = Burnished 3 = Drilled 4 = Incised 5 = Impressed 6 = Painted

Material types for Native American Ceramics:

500 = Undetermined
501 = Tizon Brown Ware
502 = Buff Ware

11 Sample (Soil, C-14, Botanical)

Item (2 spaces):

10 = Soil sample, Unclassified	40 = Seed, Unclassified
11 = Soil sample, General level	41 = Seed, General level
12 = Soil sample, Strata	42 = Seed, Strata
13 = Soil sample, Feature	43 = Seed, Feature
14 = Soil sample, Flotation	44 = Seed, Flotation
15 = Soil sample, Column	45 = Seed, Column
16 = Soil sample, Vessel interior	46 = Seed, Vessel Interior
20 = C-14 sample, Unclassified	50 = Wood, Unclassified
21 = C-14 sample, General level	51 = Wood, General level
22 = C-14 sample, Strata	52 = Wood, Strata
23 = C-14 sample, Feature	53 = Wood, Feature
24 = C-14 sample, Flotation	54 = Wood, Flotation
25 = C-14 sample, Column	55 = Wood, Column
26 = C-14 sample, Vessel interior	56 = Wood, Vessel interior
30 = Pollen sample, Unclassified	
31 = Pollen sample, General level	
32 = Pollen sample, Strata	
33 = Pollen sample, Feature	
34 = Pollen sample, Flotation	
35 = Pollen sample, Column	
36 = Pollen sample, Vessel interior	

12 Agnostifacts

Item (2 spaces):

00 = Unclassified Artifact	05 = Spalls
01 = Ovate Spalled Item	06 = Tabular Items
02 = Globular Spalled Item	07 = Planar Pebble Pieces
03 = Blocky Item	08 = Broken Pebbles
04 = Angular Chunks	09 = Pot Lid Pieces

15 Miscellaneous

Item (2 spaces):

00 = Unclassified

10 = Unsorted Screen Debris -- Shell Midden

51 Glass

Item (2 spaces):

00 = Unclassified	09 = Iridescent	18 = Opaline
01 = Clear	10 = Amethyst	19 = Delphite
02 = Blue	11 = Peach	
03 = Green	12 = Yellow	
04 = Brown	13 = Amber	
05 = Sun Purpled	14 = Pink	
06 = Aqua	15 = Red	
07 = Milk	16 = Cream	
08 = Dark Green	17 = Grey	

Analysis for Glass:

Use	Modification	Marks
00 = Unknown	0 = Unmodified	0 = Unmarked
01 = Bottle/Jar/Glass	1 = Worked	1 = Marked
02 = Window		
03 = Lighting		
04 = Medicine		
05 = Decorative		
06 = Dishes		
07 = Marbles/Toys		
08 = Slag		
09 = Toiletry		
10 = Bead		
11 = Eyeglasses		
12 = Shelving		

(Last 10 spaces of Analysis are 0)

52 Building Materials

Item (2 spaces):

00 = Unknown	20 = Mission-type Tile, Unknown
01 = Sandstone	21 = Mission-type Tile, Roof
02 = Brick	22 = Mission-type Tile, Floor
03 = Plaster	23 = Mission-type Tile, Brick
04 = Ceramic tile	
05 = Asphalt	
06 = Gypsum	
07 = Concrete	
08 = Sewer Pipe	
09 = Mortar	
10 = Terra Cotta	
11 = Asphalt tile	

12 = Glass tile
13 = Plumbing Ceramic
14 = Terrazzo
15 = Slate

53 Historic Ceramic
Item (2 spaces):

00 = Unknown
01 = Porcelain (general)
02 = Porcelain (blue & white)
03 = Porcelain (other)
04 = Celadon
05 = Tonala
06 = Galara
07 = Olive Jar
08 = Maiolica (Hispanic)
09 = Pearlware
10 = Creamware
11 = Ironstone (general)
12 = Stoneware (general)
13 = Transfer Printedware
14 = Shell-Edge ware
15 = Mocha ware
16 = Blue/Polychrome painted ware
17 = Molded ware
18 = Marbled ware
19 = Gaudy ware
20 = Rockingham ware
21 = Splatterware/spongeware
22 = Earthenware (general)
23 = Annular Grooved ware
24 = Vitrified China
25 = Gold-Banded Earthenware
26 = White ware
27 = Flow blue
28 = Majolica (Victorian)
29 = Terra Cotta (Flowerpot)
30 = Colono - Mission ware
31 = Decalware

Analysis for Historic Ceramics:

Base Color	Primary Decoration Color	Secondary Decoration Color
00 = Unknown	00 = Unknown	00 = Unknown
01 = White	01 = White	01 = White
02 = Blue	02 = Blue	02 = Blue
03 = Green	03 = Green	03 = Green
04 = Brown	04 = Brown	04 = Brown
05 = Grey	05 = Grey	05 = Grey
06 = Black	06 = Black	06 = Black
07 = Orange	07 = Orange	07 = Orange
08 = Yellow	08 = Yellow	08 = Yellow
09 = Cream	09 = Cream	09 = Cream
10 = Red	10 = Red	10 = Red
11 = Mulberry	11 = Mulberry	11 = Mulberry
12 = Gold	12 = Gold	12 = Gold
13 = Pink	13 = Pink	13 = Pink
14 = Purple	14 = Purple	14 = Purple

15 = Terra Cotta	15 = Terra Cotta	15 = Terra Cotta
16 = Mustard	16 = Mustard	16 = Mustard
		20 = Polychrome

(Last 8 spaces of Analysis are 0)

54 Clothing

Item (2 spaces):

00 = Unknown
01 = Buckle
02 = Cloth
03 = Button
04 = Bead
05 = Zipper
06 = Needle
07 = Pin
08 = Jewelry
09 = Hooks/Eyes, etc
10 = Watch/Clock
11 = Decoration/Medal/Metal

55 Historic Bone Artifact

Item (2 spaces):

00 = Unknown

56 Personal Toiletries

Item (2 spaces):

00 = Unknown
01 = Toothbrush
02 = Hairpin
03 = Pipe/Cigar tube, etc.
04 = Hygiene Nozzle/Bag
05 = Toothpaste tube
06 = Make-up

57 Historic Wood Artifact

Item (2 spaces):

00 = Unknown
01 = Lumber
02 =
99 = Bulk

58 Historic Leather

Item (2 spaces):

00 = Unknown
01 = Horse
02 = Shoe
03 = Belt

59 Metal, misc.

Item (2 spaces):

00 = Unknown
01 = Automotive
02 = Machinery
03 = Screws, Bolts
04 = Nails
05 = Cut/“Square” Nails
06 = Tacks, Staples, Brads
07 = Wire
08 = Tools
09 = Gun Parts
10 = Ammunition
11 = Spring
12 = Bottle Cap
13 = Sheet Metal
14 = Spike (i.e., R.R.)
15 = Light Bulb Base
16 = Kitchen (pots etc.)
17 = Horse Tack
18 = Chain
19 = Tubing
20 = Grommets, Snaps, Hooks
21 = Foil
22 = Pipe
23 = Slag
24 = Grid
25 = Solder
26 = Barrel Hoop
27 = Lock
28 = Key
29 = Gas Cylinder/Cartridge
30 = Jar Lid
31 = Screen/Mesh
32 = Rivet
33 = Coin
34 = Barbed Wire

60 Can

Item (2 spaces):

00 = Unclassified
01 = Key/Strip
02 = Lid

61 Plastic

Item (2 spaces):

00 = Unknown
01 = Utensil
02 = Toys
03 = Tape/ Paper
04 = Wrap
05 = Styrofoam
06 = Caps/Lids
07 = Fishing
08 = Hardware

62 Rubber

Item (2 spaces):

00 = Unknown
01 = Hose
02 = Heel
03 = Toy
04 = Ball
05 = Stopper/Seal
06 = Band/Belt

63 Misc Historic

Item (2 spaces):

01 = Battery (non-auto)	06 = Chalk
02 = Electrical (non-bulb)	07 = Cork
03 = Coal	08 = Paint
04 = Paper	09 = Skeet
05 = Pencil/Pen	10 = Toys

APPENDIX C

MILLING FEATURES DOCUMENTATION

State of California — The Resources Agency
DEPARTMENT OF PARKS AND RECREATION

Primary # P-37-028482
Trinomial CA-SDI-18,362 **UPDATE**

MILLING STATION RECORD

Form Prepared by: A. Giletti **Date:** 7/6/2012

Feature	Outcrop Dimensions (m) and Orientation				Bedrock Type and Condition
A	2 (N-S)	**x** 1.2 (E-W)	**x Height**	Ground	Granitic/poor-fair
B	5 (E-W)	**x** 3.3 (N-S)	**x Height**	Ground	Granitic/fair-good
C	4.3 (N-S)	**x** 1.8 (E-W)	**x Height**	Ground	Granitic/fair-good
		x	**x Height**		
		x	**x Height**		

Feature #	Milling Surface #	Type	Length (cm)	Width (cm)	Depth (cm)	Contents	Remarks
A	1	MS	40 (N-S)	22 (E-W)	--		
B	1	MS	30 (N-S)	27 (E-W)	--		
C	1	MS	70 (N-S)	42 (E-W)			

Type Key:

CO Conical mortar
OM Oval mortar
SM Saucer mortar
PM Possible mortar
MS Milling slick
BM Basin milling feature
Other:

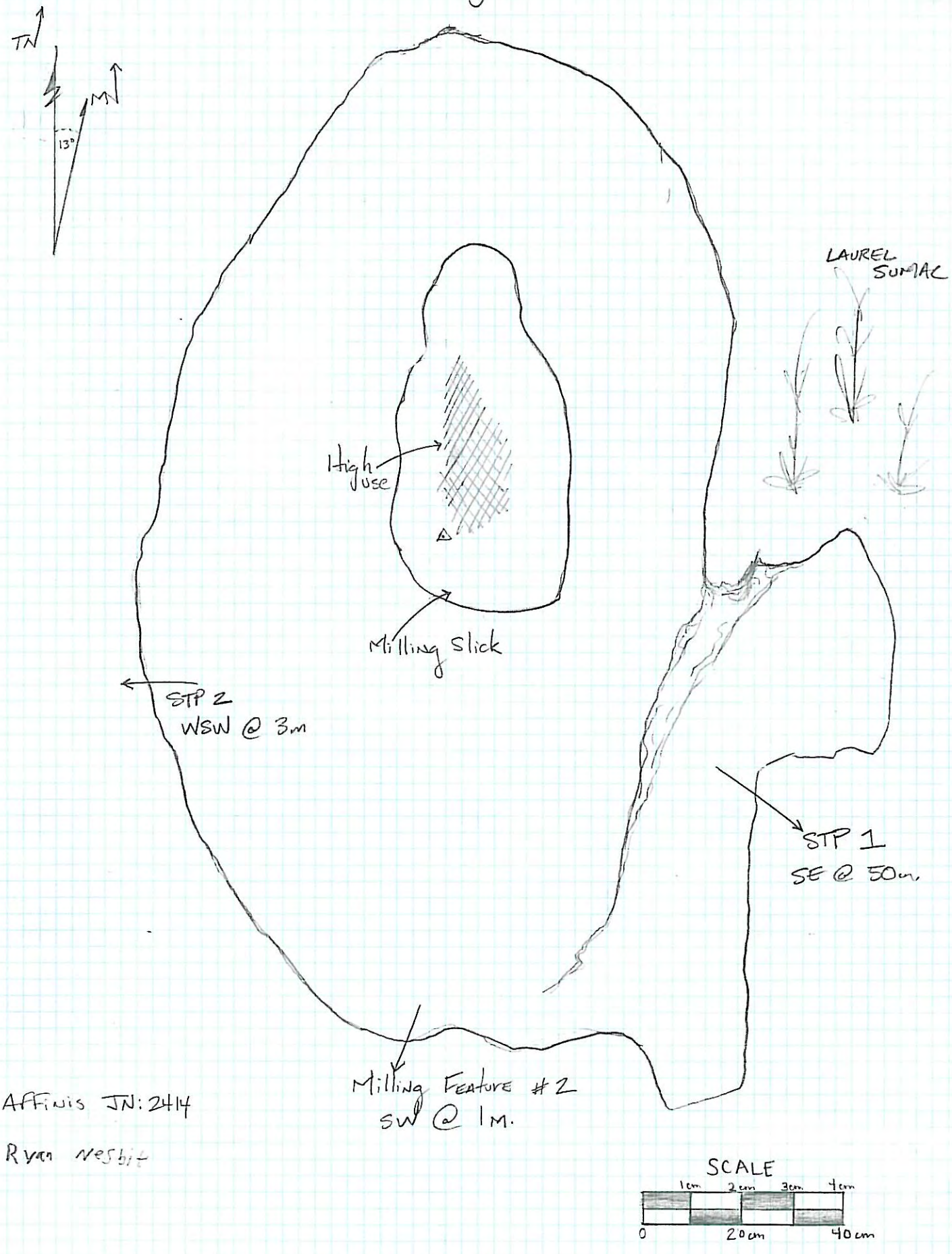
Contents Key:

S Filled with soil
L Filled with leaves
U Unexcavated
R Contains rock
P Contains pestle
M Contains mano
Other:

NOTE: Attach plan(s) of milling stations.

CA-SDI-18,362

Milling Feature A

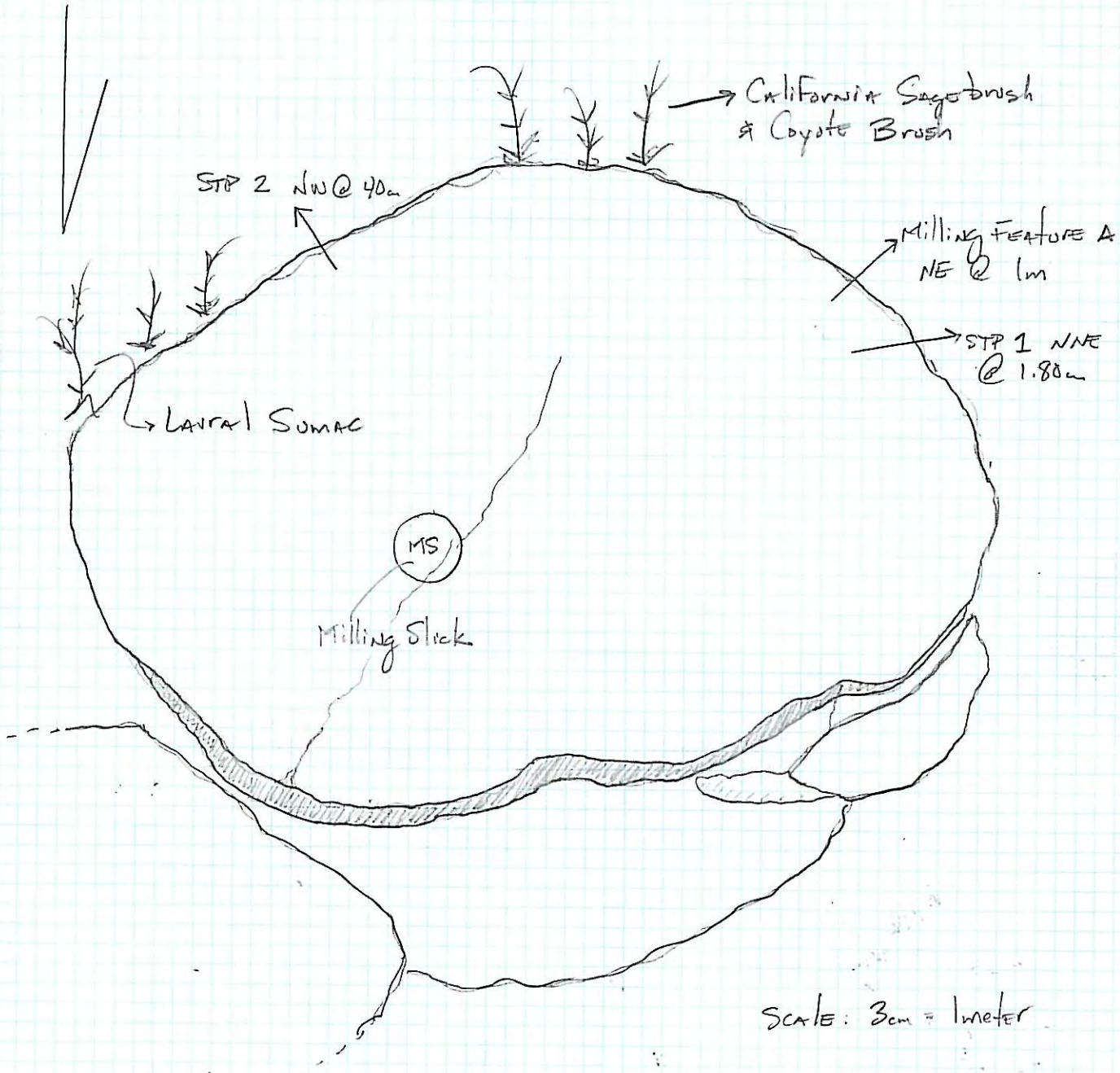


Affinis JN: 2414

Ryan Nesbit

30 x 27
GRANITIC
POOR/FAIR

CA-SDI-18,362
Milling Feature B

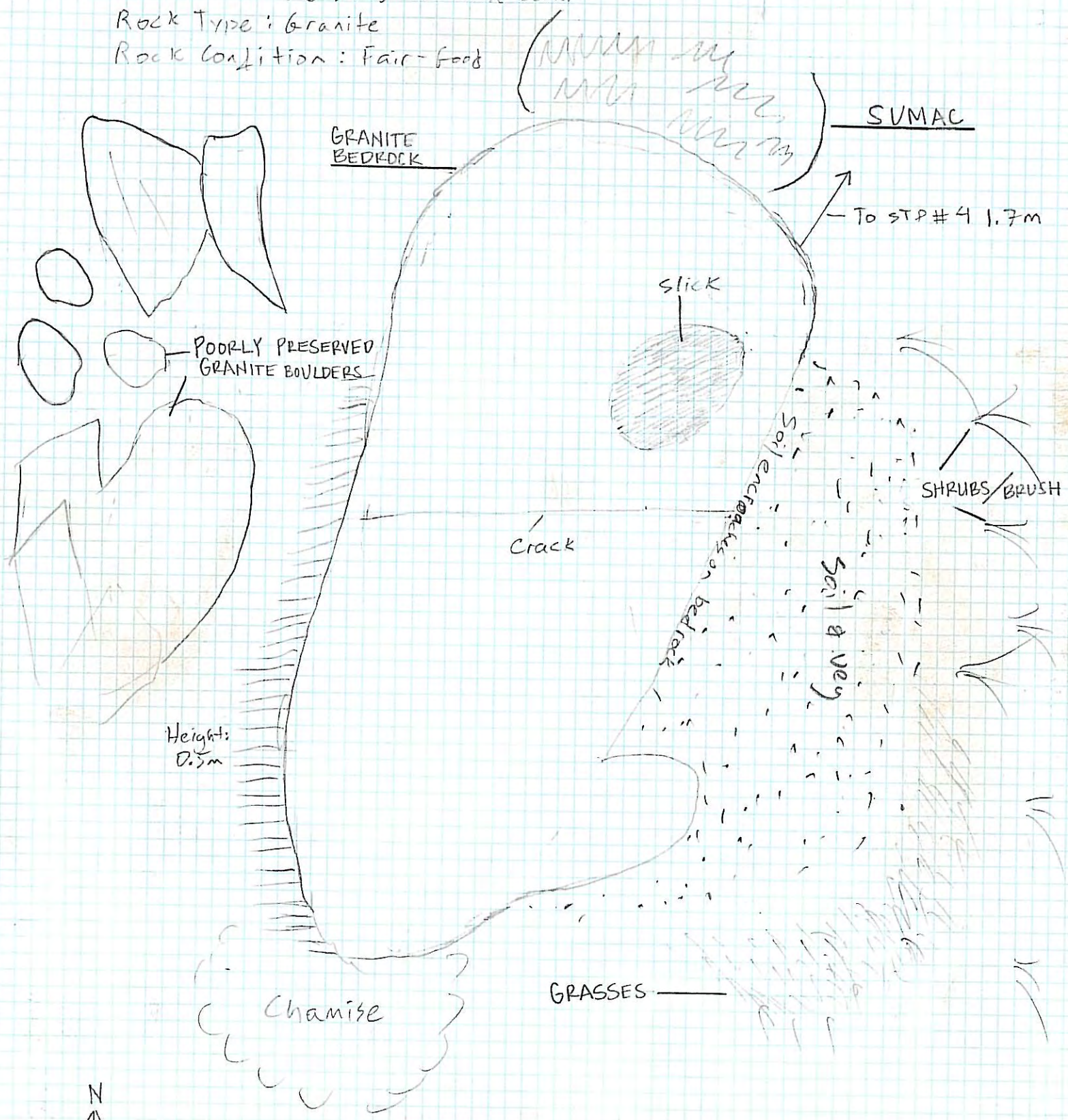


Scale: 3cm = 1meter

JN 2414
Andy Giletti
July 5, 2012

CA-SDI-18,362
MILLING FEATURE C

Slick dimensions: 70cm x 42cm
Rock dimensions (visible) 438cm x 188cm
Rock Type: Granite
Rock Condition: Fair-Good



N

Scale: 1cm: 0.25m • STP#3

0.5m 1m

Key: STP# = Shovel Test Pit No.
= Vegetation
= USE AREA

JN2414 K.KNABB 7/6/12

State of California — The Resources Agency
DEPARTMENT OF PARKS AND RECREATION

Primary # P-37-028485
Trinomial CA-SDI-18,365 **UPDATE**

MILLING STATION RECORD

Form Prepared by: K. Knabb **Date:** 7/17/2012

Feature	Outcrop Dimensions (m) and Orientation				Bedrock Type and Condition
A	6.3 m (N-S)	x 4.3 m (E-W)	x Height	1.1 m	Granitic/ fair-good
		x	x Height		
		X	x Height		
		x	x Height		
		x	x Height		

Feature #	Milling Surface #	Type	Length (cm)	Width (cm)	Depth (cm)	Contents	Remarks
A	1	MS	45 (N-S)	45 (E-W)	--	--	
	2	MS	55 (N-S)	50 (E-W)	--	--	
	3	MS	160 (N-S)	145 (E-W)	--	--	

Type Key:

CO Conical mortar
OM Oval mortar
SM Saucer mortar
PM Possible mortar
MS Milling slick
BM Basin milling feature
Other:

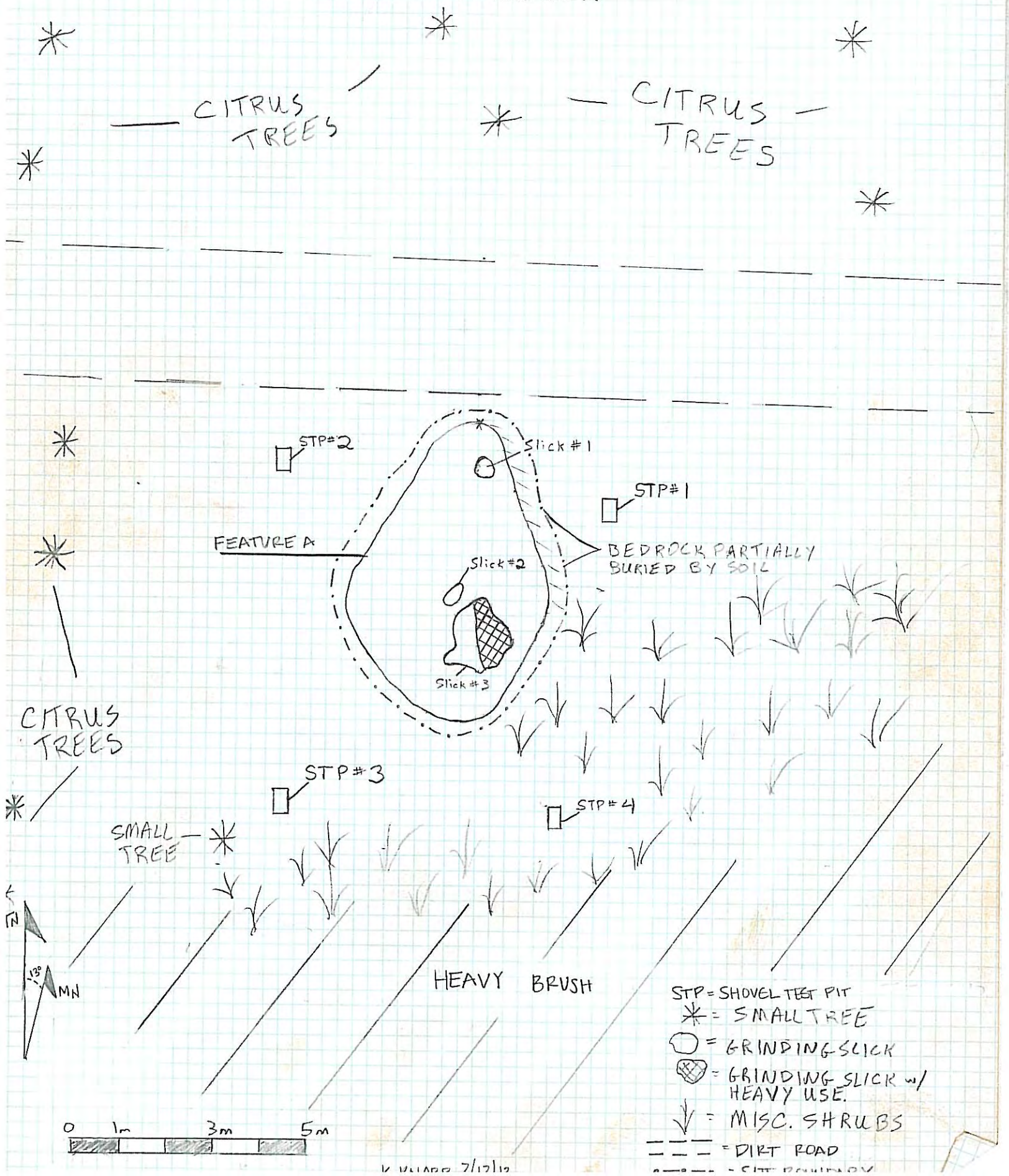
Contents Key:

S Filled with soil
L Filled with leaves
U Unexcavated
R Contains rock
P Contains pestle
M Contains mano
Other:

DPR 523F (1/95)

NOTE: Attach plan(s) of milling stations.

CA-SDI-18,365
SITE MAP
MILLING FEATURE A



K. KNABB 7/17/12

State of California — The Resources Agency
DEPARTMENT OF PARKS AND RECREATION

Primary # P-37-032245
Trinomial CA-SDI-20,436 **UPDATE**

MILLING STATION RECORD

Form Prepared by: K. Davison **Date:** 7/11/2012

Feature	Outcrop Dimensions (m) and Orientation				Bedrock Type and Condition
A	5.7 m	x 3.6 m	x Height	1.3 m (tapering)	Granitic/fair-good
B	1.9 m	x 1.6 m	x Height	0.1 m	Granitic/fair-good
		x	x Height		
		x	x Height		
		x	x Height		

Feature #	Milling Surface #	Type	Length (cm)	Width (cm)	Depth (cm)	Contents	Remarks
A	1	MS	60	35	--		
B	1	MS	80	50	--		

Type Key:

CO Conical mortar
OM Oval mortar
SM Saucer mortar
PM Possible mortar
MS Milling slick
BM Basin milling feature
Other:

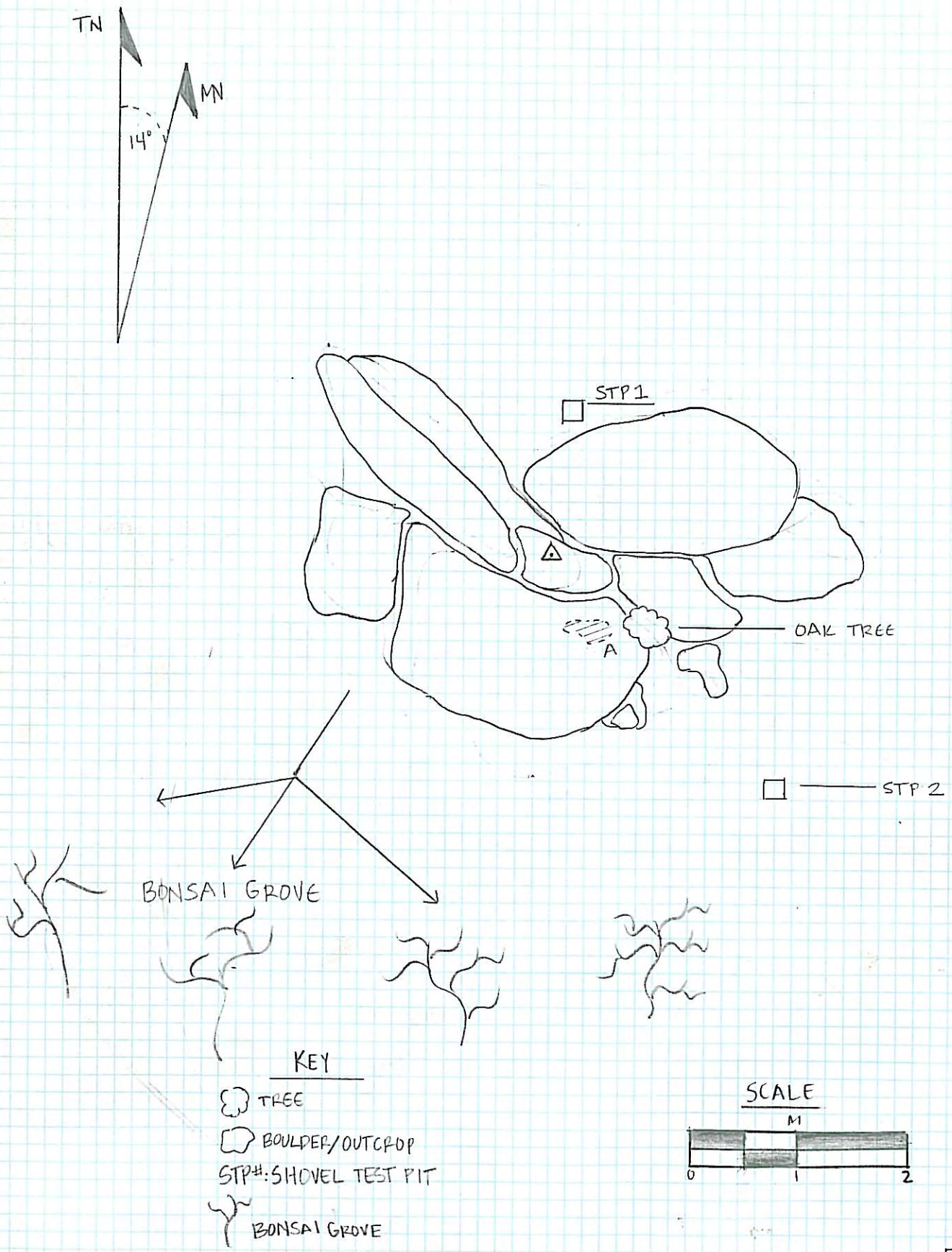
Contents Key:

S Filled with soil
L Filled with leaves
U Unexcavated
R Contains rock
P Contains pestle
M Contains mano
Other:

DPR 523F (1/95)

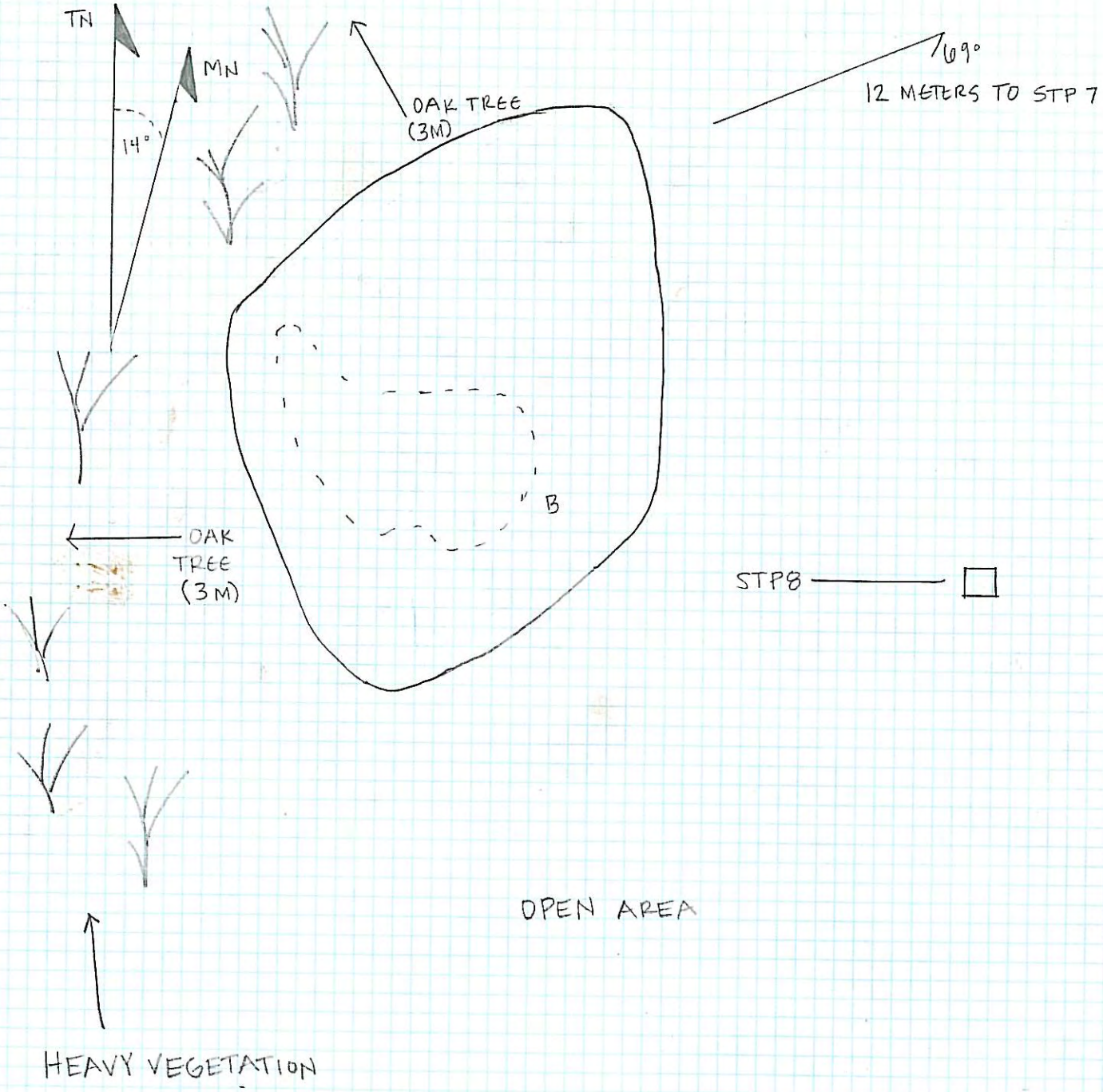
NOTE: Attach plan(s) of milling stations.

CA-SDI-20,436
MILLING FEATURE A



R 7/11/12

CA-SDI-20,436
MILLING FEATURE B



SCALE
METERS
0 2.5 5

R 7/11/12

APPENDIX D

BUILDING, STRUCTURE, OBJECT RECORDS

State of California -- The Resources Agency
DEPARTMENT OF PARKS AND RECREATION
PRIMARY RECORD

Primary # P-37-032550
HRI #
Trinomial
NRHP Status Code

Other Listings
Review Code Reviewer Date

Page 1 **of** 4 ***Resource Name or #:** (Assigned by recorder) 9883 West Lilac Road
P1. Other Identifier: A
***P2. Location:** ☐ Not for Publication ☐ Unrestricted *
a. County San Diego **and** (P2b and P2c or P2d. Attach a Location Map as necessary.)
***b. USGS 7.5' Quad** Pala **Date** 1988 **T** 10S ; **R** 2W ; NE **3 of** NE **3 of Section** 30 B.M .San Bernardino
c. **Address** 9883 W. Lilac Road **City** Escondido **Zip** 92026
d. **UTM: (Give more than one for large or linear resources) Zone** 11 ; 488439 **mE/** 3682772 **mN**
e. **Other locational data (e.g. parcel #, directions to resource, elevation, etc., as appropriate)**

Lilac Hills Ranch Project. East of I-15, south of W. Lilac Rd., Valley Center. The house is reached via a long driveway off Covey Lane.

***P3a. Description (Describe resource and its major elements. Include design, materials, condition, alterations, size, setting, and boundaries**):

This small, single story wood-framed house has a flat root and wood-framed double-hung sash windows. It is covered with board and batten wood siding. It appears to be supported by a mudsill foundation.

***P3b. Resource Attributes: (List attributes and codes)** HP2 (Single Family Housing)

***P4. Resources Present:** ✕ Building ☐ Structure ☐ Object ☐ Site ☐ Distr ☐ Other (Isolates, etc.)

P5a. Photo or Drawing (Photo required for buildings, structures, and objects.)

see continuation sheet

P5b. Description of Photo: (View, date, accession #)

***P6. Date Constructed/Age and Sources:** ✕ Historic ☐ Prehistoric ☐ Both

***P7. Owner and Address:**

***P8. Recorded by (Name, affiliation, and address)**: Andrew Giletti, Steven R. Van Wormer, Affinis, 847 Jamacha Rd., El Cajon, CA 92019

***P9. Date Recorded:** August 2011

***P10. Type of Survey: (Describe)** Intensive survey

P11. Report Citation (Cite survey report and other sources, or enter "none".) Anticipated title: *Cultural Resources Inventory and Assessment: Lilac Hills, Escondido, San Diego County, California. KIVA Project: 09-011253; Case Number 3992-10-025 (MPA)* by Mary Robbins-Wade and Andrew Giletti, Affinis, 2012.

Attachments: ☐ NONE ✕ **Location Map** ☒ **Sketch Map** ☒ **Continuation Sheet** ✕ **Building, Structure, and Object Record**
☐ Archaeological Record ☐ District Record ☐ Linear Resource Record ☐ Milling Station Record ☐ Rock Art Record
☐ Artifact Record ☐ Photograph Record ☐ Other (List):

Primary # P-37-032550
HRI#

BUILDING, STRUCTURE, AND OBJECT RECORD

***Resource Name or #** (Assigned by recorder) 9883 W. Lilac Road (A)

B1. Historic Name: NA
B2. Common Name: 9883 W. Lilac Road
B3. Original Use: Single family residential dwelling B4. Present Use: Single family residential dwelling
***B5. Architectural Style:**
***B6. Construction History:** (Construction date, alterations, and date of alterations)
The house is not present on an aerial photograph taken in 1953, but is present in a 1964 aerial photograph (historicaerials.com).

***B7. Moved?** ☒No ☐Yes ☐Unknown **Date:** NA **Original Location:** NA
***B8. Related Features:**

B9a. Architect: Undetermined b. Builder: Undetermined
***B10. Significance: Theme:** NA **Area:** NA
Period of Significance: NA **Property Type:** Single Family House **Applicable Criteria:** NA
(Discuss importance in terms of historical or architectural context as defined by theme, period, and geographic scope. Also address integrity.)

This resource lacks qualifying association or design elements necessary to qualify for inclusion on the California Register of Historical Resources. It is not a significant resource under CEQA or the County's Resource Protection Ordinance

B11. Additional Resource Attributes: (List attributes and codes)

***B12. References:**

B13. Remarks:

(Sketch Map with north arrow required.)

***B14.**
Evaluator: Andrew Giletti and Stephen R. Van Wormer

***Date of Evaluation:** August 2011

(This space reserved for official comments.)

State of California --- The Resources Agency
DEPARTMENT OF PARKS AND RECREATION

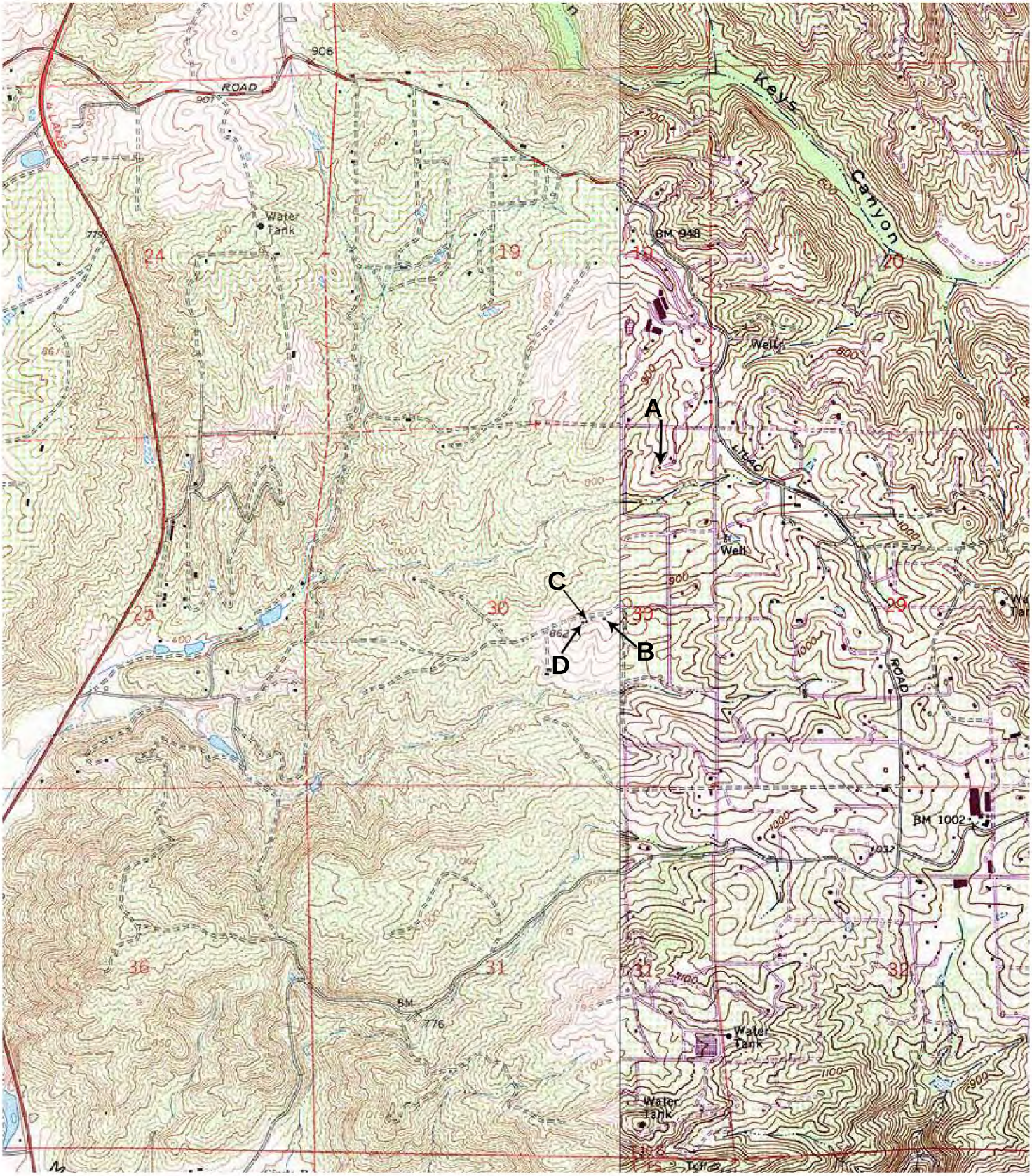
Primary # _____
HRI# _____

LOCATION MAP

Trinomial _____

Page 3 of 4 Resource Name or # (Assigned by recorder) 9883 W. Lilac Rd. (A)

*Map Name: Pala *Scale 1:24,000 (1" = 2000') *Date of Map 1968 (1988)



DPR 523J (1/95)

*Required Information

***Recorded by:** Andrew Giletti, Stephen Van Wormer ***Date:** August 2011 ■ Continuation ☐ Update

View of residence – looking WNW

State of California -- The Resources Agency
DEPARTMENT OF PARKS AND RECREATION
PRIMARY RECORD

Primary # P-37-032551
HRI #
Trinomial
NRHP Status Code

Other Listings
Review Code Reviewer Date

Page 1 **of** 4 ***Resource Name or #:** (Assigned by recorder) 8965-8999 Nelson Way (B)
P1. Other Identifier: B
***P2. Location:** ☐ Not for Publication ☐ Unrestricted *
a. County San Diego **and** (P2b and P2c or P2d. Attach a Location Map as necessary.)
***b. USGS 7.5' Quad** Bonsall **Date** 1975 **T** 10S ; **R** 2W ; NE **3 of** SE **3 of Section** 30 B.M .San Bernardino
c. **Address** 8965-8999 Nelson Way **City** Escondido **Zip** 92026
d. **UTM: (Give more than one for large or linear resources) Zone** 11; 488129 **mE/** 3682112 **mN**
e. **Other locational data (e.g. parcel #, directions to resource, elevation, etc., as appropriate)**

Lilac Hills Ranch Project. East of I-15, south of W. Lilac Rd., Valley Center

***P3a. Description (Describe resource and its major elements. Include design, materials, condition, alterations, size, setting, and boundaries**):

This single story L-shaped California Ranch style house is supported by a concrete slab foundation. It has a Spanish tile - covered cross-gabled roof. Various sizes of aluminum-framed sliding windows are placed on all sides of the building. A carport is located on the east side.

***P3b. Resource Attributes: (List attributes and codes)** HP2 (Single Family Housing)

***P4. Resources Present:** ✕ Building ☐ Structure ☐ Object ☐ Site ☐ Distr ☐ Other (Isolates, etc.)

P5a. Photo or Drawing (Photo required for buildings, structures, and objects.)

see continuation sheet

P5b. Description of Photo: (View, date, accession #)

***P6. Date Constructed/Age and Sources:** ✕ Historic ☐ Prehistoric ☐ Both

***P7. Owner and Address:**

***P8. Recorded by (Name, affiliation, and address)**: Andrew Giletti, Steven R. Van Wormer, Affinis, 847 Jamacha Rd., El Cajon, CA 92019

***P9. Date Recorded:** August 2011

***P10. Type of Survey: (Describe)** Intensive survey

P11. Report Citation (Cite survey report and other sources, or enter "none".) Anticipated title: *Cultural Resources Inventory and Assessment: Lilac Hills Ranch, Escondido, San Diego County, California. KIVA Project: 09-011253; Case Number 3992-10-025 (MPA)* by Mary Robbins-Wade and Andrew Giletti, Affinis, 2012.

Attachments: ☐ NONE ✕ **Location Map** ☒ **Continuation Sheet** ✕ ☐ Building, Structure, and Object Record
☐ Archaeological Record ☐ District Record ☐ Linear Resource Record ☐ Milling Station Record ☐ Rock Art Record
☐ Artifact Record ☐ Photograph Record ☐ Other **(List):**

Primary # P-37-032551
HRI#

BUILDING, STRUCTURE, AND OBJECT RECORD

***Resource Name or #** (Assigned by recorder) 8965-8999 Nelson Wy. (B)

B1. Historic Name: NA
B2. Common Name: 8965-8999 Nelson Wy
B3. Original Use: Single family residential dwelling B4. Present Use: Single family residential dwelling
***B5. Architectural Style:**
***B6. Construction History:** (Construction date, alterations, and date of alterations)
The house is not present on an aerial photograph taken in 1953, but it is present in a 1964 aerial photograph (historicaerials.com).

***B7. Moved?** ☒No ☐Yes ☐Unknown **Date:** NA **Original Location:** NA
***B8. Related Features:**

B9a. Architect: Undetermined b. Builder: Undetermined
***B10. Significance: Theme:** NA **Area:** NA
Period of Significance: NA **Property Type:** Single Family House **Applicable Criteria:** NA
(Discuss importance in terms of historical or architectural context as defined by theme, period, and geographic scope. Also address integrity.)

This resource lacks qualifying association or design elements necessary to qualify for inclusion on the California Register of Historical Resources. It is not a significant resource under CEQA or the County's Resource Protection Ordinance

B11. Additional Resource Attributes: (List attributes and codes)

***B12. References:**

B13. Remarks:

***B14.**
Evaluator: Andrew Giletti and Stephen R. Van Wormer

***Date of Evaluation:** August 2011

(Sketch Map with north arrow required.)

(This space reserved for official comments.)

State of California --- The Resources Agency
DEPARTMENT OF PARKS AND RECREATION

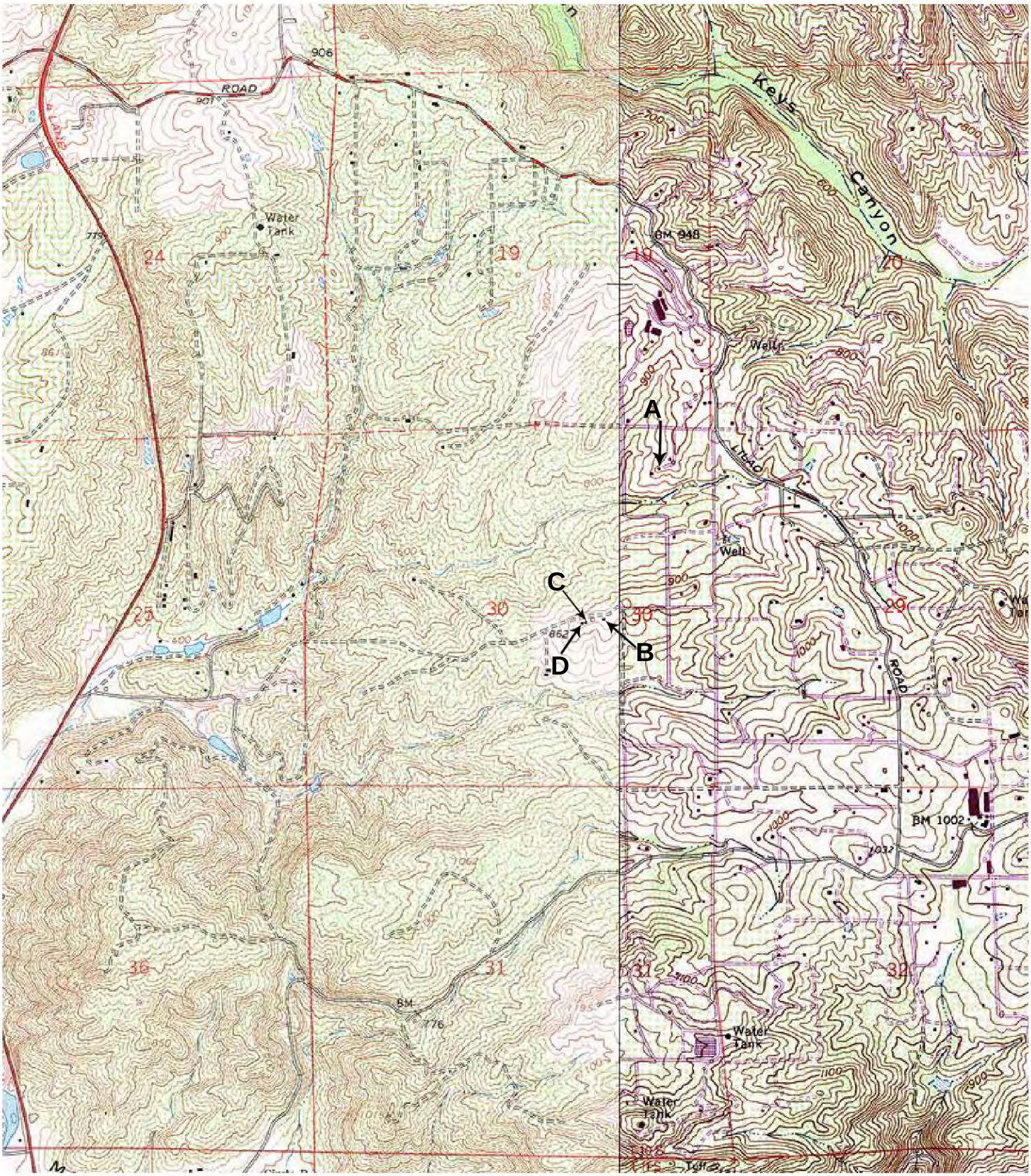
Primary # _____
HRI# _____

LOCATION MAP

Trinomial _____

Page 3 of 4 Resource Name or # (Assigned by recorder) 8965-8999 Nelson Way (B)

*Map Name: Bonsall *Scale 1:24,000 (1" = 2000') *Date of Map 1968 (1975)



DPR 523J (1/95)

*Required Information

*Recorded by: Andrew Giletti and Stephen Van Wormer *Date: August 2011 ■ Continuation ☐ Update

View of residence - looking southwest

State of California -- The Resources Agency
DEPARTMENT OF PARKS AND RECREATION
PRIMARY RECORD

Primary # P-37-032552
HRI #
Trinomial
NRHP Status Code

Other Listings
Review Code Reviewer Date

Page 1 **of** 4 ***Resource Name or #:** (Assigned by recorder) 8965-8999 Nelson Way (C)
P1. Other Identifier: C
***P2. Location:** ☐ Not for Publication ☐ Unrestricted *
a. County San Diego **and** (P2b and P2c or P2d. Attach a Location Map as necessary.)
***b. USGS 7.5' Quad** Bonsall **Date** 1975 **T** 10S ; **R** 2W ; NE **3 of** SE **3 of Section** 30 B.M .San Bernardino
c. **Address** 8965-8999 Nelson Way **City** Escondido **Zip** 92026
d. **UTM: (Give more than one for large or linear resources) Zone** 11; 488129 **mE/** 3682098 **mN**
e. **Other locational data (e.g. parcel #, directions to resource, elevation, etc., as appropriate)**

Lilac Hills Ranch Project. East of I-15, south of W. Lilac Rd., Valley Center. This single-family house is in a complex with two others (B and D). It is closest to D; B is farther to the east.

***P3a. Description (Describe resource and its major elements. Include design, materials, condition, alterations, size, setting, and boundaries**):

This single story vernacular style wood-framed house appears to be supported by a mudsill foundation. It has a combination moderately sloped end-gabled and shed roof and is covered with wood board and batten siding. Access is gained through a single entry door on the north side. Aluminum-framed sliding windows of various sizes are located along all sides of the building.

***P3b. Resource Attributes: (List attributes and codes)** HP2 (Single Family Housing)

***P4. Resources Present:** ✕ Building ☐ Structure ☐ Object ☐ Site ☐ District ☐ Element of District ☐ **Other (Isolates, etc.)**

P5a. Photo or Drawing (Photo required for buildings, structures, and objects.)

see continuation sheet

P5b. Description of Photo: (View, date, accession #)

***P6. Date Constructed/Age and Sources:** ✕ Historic ☐ Prehistoric ☐ Both

***P7. Owner and Address:**

***P8. Recorded by (Name, affiliation, and address)**: Andrew Giletti, Stephen R. Van Wormer, Affinis, 847 Jamacha Rd., El Cajon, CA 92019

***P9. Date Recorded:** August 2011

***P10. Type of Survey: (Describe)** Intensive survey

P11. Report Citation (Cite survey report and other sources, or enter "none".) Anticipated title: *Cultural Resources Inventory and Assessment: Lilac Hills Ranch, Escondido, San Diego County, California. KIVA Project: 09-011253; Case Number 3992-10-025 (MPA)* by Mary Robbins-Wade and Andrew Giletti, Affinis, 2012.

Attachments: ☐ NONE ✕ **Location Map** ☒ **Sketch Map** ☒ **Continuation Sheet** ✕ ☐ Building, Structure, and Object Record
☐ Archaeological Record ☐ District Record ☐ Linear Resource Record ☐ Milling Station Record ☐ Rock Art Record
☐ Artifact Record ☐ Photograph Record ☐ Other (List):

Primary # P-37-032552
HRI#

BUILDING, STRUCTURE, AND OBJECT RECORD

 *NRHP Status Code

*Resource Name or # (Assigned by recorder) 8965-8999 Nelson Wy. (C)

B1. Historic Name: NA
B2. Common Name: 8965-8999 Nelson Wy
B3. Original Use: Single family residential dwelling B4. Present Use: Single family residential dwelling
*B5. Architectural Style:
*B6. Construction History: (Construction date, alterations, and date of alterations)
The house is not present on an aerial photograph taken in 1953, but is present in a 1964 aerial photograph (historicaerials.com).

*B7. Moved? ☒No ☐Yes ☐Unknown Date: NA Original Location: NA
*B8. Related Features:

B9a. Architect: Undetermined b. Builder: Undetermined
*B10. Significance: Theme: NA Area: NA
Period of Significance: NA Property Type: Single Family House Applicable Criteria: NA
(Discuss importance in terms of historical or architectural context as defined by theme, period, and geographic scope. Also address integrity.)

This resource lacks qualifying association or design elements necessary to qualify for inclusion on the California Register of Historical Resources. It is not a significant resource under CEQA or the County's Resource Protection Ordinance

B11. Additional Resource Attributes: (List attributes and codes)

*B12. References:

(Sketch Map with north arrow required.)

B13. Remarks:

*B14.
Evaluator: Andrew Giletti and Stephen R. Van Wormer

*Date of Evaluation: August 2011

(This space reserved for official comments.)

State of California --- The Resources Agency
DEPARTMENT OF PARKS AND RECREATION

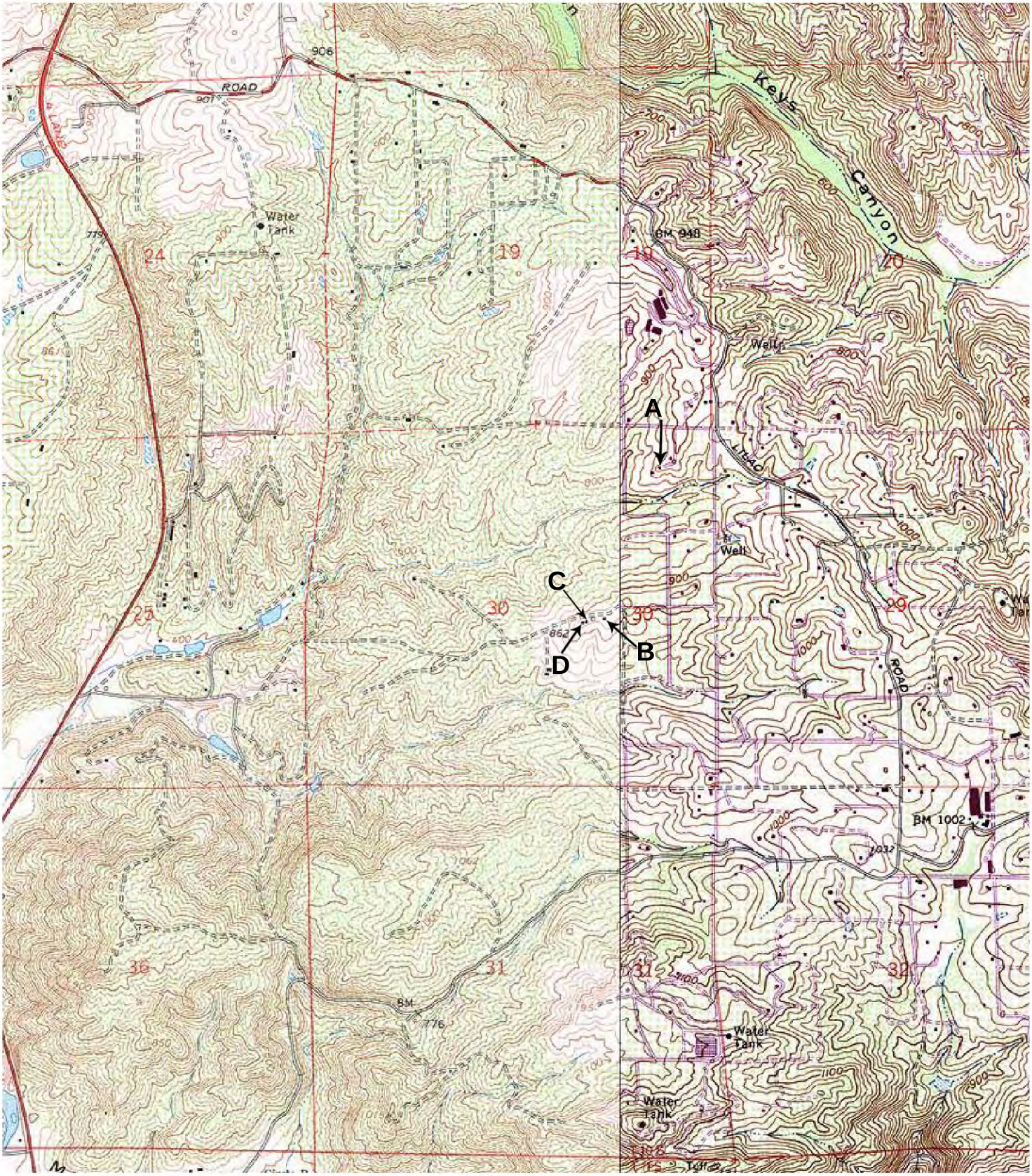
Primary # _____
HRI# _____

LOCATION MAP

Trinomial _____

Page 3 of 4 Resource Name or # (Assigned by recorder) 8965-8999 Nelson Way (C)

*Map Name: Bonsall *Scale 1:24,000 (1" = 2000') *Date of Map 1968 (1975)



*Required Information

***Recorded by:** Andrew Giletti and Stephen Van Wormer ***Date:** August 2011 ■ Continuation ☐ Update

View of residence - looking southeast

State of California -- The Resources Agency
DEPARTMENT OF PARKS AND RECREATION
PRIMARY RECORD

Primary # P-37-032553
HRI #
Trinomial
NRHP Status Code

Other Listings
Review Code Reviewer Date

Page 1 **of** 4 ***Resource Name or #:** (Assigned by recorder) 8965-8999 Nelson Way (D)
P1. Other Identifier: D
***P2. Location:** ☐ Not for Publication ☐ Unrestricted *
a. County San Diego **and** (P2b and P2c or P2d. Attach a Location Map as necessary.)
***b. USGS 7.5' Quad** Bonsall **Date** 1975 **T** 10S ; **R** 2W ; NE **3 of** SE **3 of Section** 30 B.M .San Bernardino
c. **Address** 8965-8999 Nelson Way **City** Escondido **Zip** 92026
d. **UTM: (Give more than one for large or linear resources) Zone** 11; 488111 **mE/** 3682095 **mN**
e. **Other locational data (e.g. parcel #, directions to resource, elevation, etc., as appropriate)**

Lilac Hills Ranch Project. East of I-15, south of W. Lilac Rd., Valley Center. This single-family house is in a complex with two others (B and C). It is closest to C; B is farther to the east.

***P3a. Description (Describe resource and its major elements. Include design, materials, condition, alterations, size, setting, and boundaries**):

This small rectangular wood-framed house appears to be supported by a pier and beam foundation. It has a shed roof and aluminum-framed sliding windows. This solid single main entry door with a narrow rectangular light is accessed by a wooden porch and stairs.

***P3b. Resource Attributes: (List attributes and codes)** HP2 (Single Family Housing)

***P4. Resources Present:** ✕ Building ☐ Structure ☐ Object ☐ Site ☐ District ☐ Other (Isolates, etc.) ☐ Element of District

P5a. Photo or Drawing (Photo required for buildings, structures, and objects.)

see continuation sheet

P5b. Description of Photo: (View, date, accession #)

***P6. Date Constructed/Age and Sources:** ✕ Historic ☐ Prehistoric ☐ Both

***P7. Owner and Address:**

***P8. Recorded by (Name, affiliation, and address)**: Andrew Giletti, Stephen R. Van Wormer, Affinis, 847 Jamacha Rd., El Cajon, CA 92019

***P9. Date Recorded:** August 2011

***P10. Type of Survey: (Describe)** Intensive survey

P11. Report Citation (Cite survey report and other sources, or enter "none".) Anticipated title: *Cultural Resources Inventory and Assessment: Lilac Hills Ranch, Escondido, San Diego County, California. KIVA Project: 09-011253; Case Number 3992-10-025 (MPA)* by Mary Robbins-Wade and Andrew Giletti, Affinis, 2012.

Attachments: ☐ NONE ✕ **Location Map** ☒ **Continuation Sheet** ✕ ☐ Building, Structure, and Object Record
☐ Archaeological Record ☐ District Record ☐ Linear Resource Record ☐ Milling Station Record ☐ Rock Art Record
☐ Artifact Record ☐ Photograph Record ☐ Other (List):

Primary # P-37-032553
HRI#

BUILDING, STRUCTURE, AND OBJECT RECORD

***Resource Name or #** (Assigned by recorder) 8965-8999 Nelson Wy. (D)

B1. Historic Name: NA
B2. Common Name: 8965-8999 Nelson Wy
B3. Original Use: Single family residential dwelling B4. Present Use: Single family residential dwelling
***B5. Architectural Style:**
***B6. Construction History:** (Construction date, alterations, and date of alterations)
The house is not present on an aerial photograph taken in 1953, but is present in a 1964 aerial photograph (historicaerials.com).

***B7. Moved?** ☒No ☐Yes ☐Unknown **Date:** NA **Original Location:** NA
***B8. Related Features:**

B9a. Architect: Undetermined b. Builder: Undetermined
***B10. Significance: Theme:** NA **Area:** NA
Period of Significance: NA **Property Type:** Single Family House **Applicable Criteria:** NA
(Discuss importance in terms of historical or architectural context as defined by theme, period, and geographic scope. Also address integrity.)

This resource lacks qualifying association or design elements necessary to qualify for inclusion on the California Register of Historical Resources. It is not a significant resource under CEQA or the County's Resource Protection Ordinance

B11. Additional Resource Attributes: (List attributes and codes)

***B12. References:**

B13. Remarks:

***B14.**
Evaluator: Andrew Giletti and Stephen R. Van Wormer

***Date of Evaluation:** August 2011

(Sketch Map with north arrow required.)

(This space reserved for official comments.)

State of California --- The Resources Agency
DEPARTMENT OF PARKS AND RECREATION

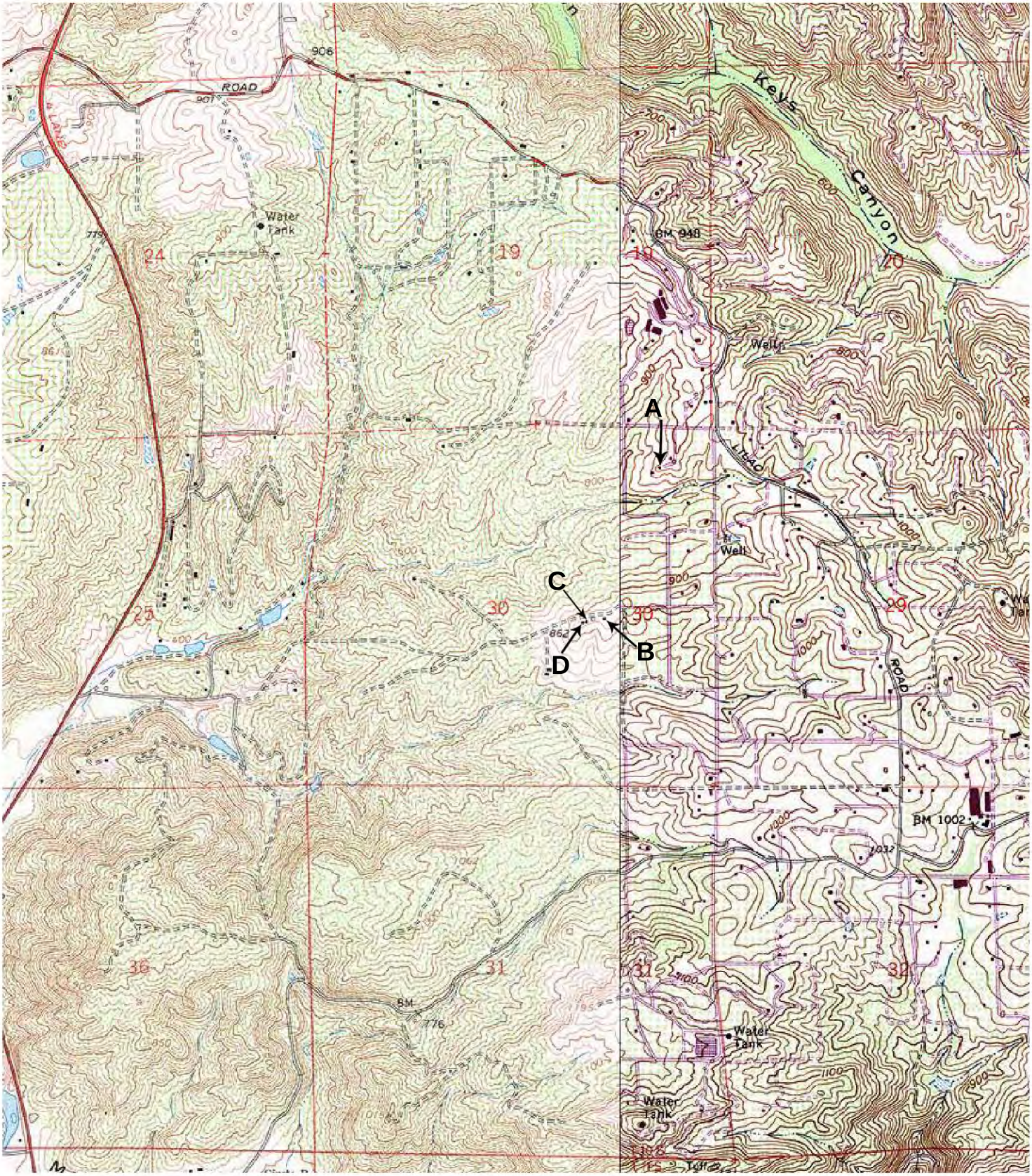
Primary # _____
HRI# _____

LOCATION MAP

Trinomial _____

Page 3 of 4 Resource Name or # (Assigned by recorder) 8965-8999 Nelson Way (D)

*Map Name: Bonsall *Scale 1:24,000 (1" = 2000') *Date of Map 1968 (1975)



*Required Information

*Recorded by: Andrew Giletti and Stephen Van Wormer *Date: August 2011 ■ Continuation ☐ Update

View of residence looking W

State of California -- The Resources Agency
DEPARTMENT OF PARKS AND RECREATION
PRIMARY RECORD

Primary # P-37-032554
HRI #
Trinomial
NRHP Status Code

Other Listings
Review Code Reviewer Date

Page 1 **of** 4 ***Resource Name or #:** (Assigned by recorder) 9007 West Lilac Road
P1. Other Identifier: E
***P2. Location:** ☐ Not for Publication ☐ Unrestricted *
a. County San Diego **and** (P2b and P2c or P2d. Attach a Location Map as necessary.)
***b. USGS 7.5' Quad** Pala **Date** 1988 **T** 10S ; **R** 2W ; NW **3 of** NW **3 of Section** 19 B.M .San Bernardino
c. **Address** 9167 W. Lilac Road **City** Escondido **Zip** 92026
d. **UTM: (Give more than one for large or linear resources) Zone** 11 ; **mE/** **mN**
e. **Other locational data (e.g. parcel #, directions to resource, elevation, etc., as appropriate)**

Lilac Hills Ranch. East of I-15, south of W. Lilac Rd., Valley Center. This single-family home is located in the northernmost portion of the project, on the south side of W. Lilac Rd., west of Shirey Ln.

***P3a. Description (Describe resource and its major elements. Include design, materials, condition, alterations, size, setting, and boundaries**):
This single story, irregular-shaped, wood-framed, stucco-covered, California Ranch style house is supported by a concrete slab foundation. It has a moderately pitched cross-gabled roof covered with asphalt shingles. It has modern plastic-framed double pane windows. Single entry doors are centered on the front and the ends for access.

A house is shown in this location on every USGS map from 1901 to the present. The existing house was remodeled around 1980, but the configuration of the current house is the same as that shown in an aerial photograph from 1964. It is difficult to be certain that the current house is the same one shown on the 1953 and 1938 aerial photographs (historicaerials.com), but that does appear to be the case. Given this, it is interesting to note that the current tenant, who purchased the property in the 1970s, was told by a neighbor that the house was moved to that location from somewhere else.

***P3b. Resource Attributes: (List attributes and codes)** HP2 (Single Family Housing)
***P4. Resources Present:** ✕ Building ☐ Structure ☐ Object ☐ Site ☐ District ☐ Element of District ☐ **Other (Isolates, etc.)**

P5a. Photo or Drawing (Photo required for buildings, structures, and objects.)

see continuation sheet

P5b. Description of Photo: (View, date, accession #)

***P6. Date Constructed/Age and Sources:** ✕ Historic ☐ Prehistoric ☐ Both

***P7. Owner and Address:**

***P8. Recorded by (Name, affiliation, and address)**: Andrew Giletti, Steven R. Van Wormer, Affinis, 847 Jamacha Rd., El Cajon, CA 92019

***P9. Date Recorded:** August 2011

***P10. Type of Survey: (Describe)**
Intensive survey

P11. Report Citation (Cite survey report and other sources, or enter "none".) Anticipated title: *Cultural Resources Inventory and Assessment: Lilac Hills Ranch, Escondido, San Diego County, California. KIVA Project: 09-011253; Case Number 3992-10-025 (MPA)* by Mary Robbins-Wade and Andrew Giletti, Affinis, 2012.
Attachments: ☐ NONE ✕ **Location Map** ☒ **Sketch Map** ☒ **Continuation Sheet** ✕ **Building, Structure, and Object Record**
☐ Archaeological Record ☐ District Record ☐ Linear Resource Record ☐ Milling Station Record ☐ Rock Art Record
☐ Artifact Record ☐ Photograph Record ☐ Other (List):

Primary # P-37-032554
HRI#

BUILDING, STRUCTURE, AND OBJECT RECORD

 *NRHP Status Code

*Resource Name or # (Assigned by recorder) 9007 West Lilac Road (E)

B1. Historic Name: NA
B2. Common Name: 9007 West Lilac Road
B3. Original Use: Single family residential dwelling B4. Present Use: Single family residential dwelling
*B5. Architectural Style:
*B6. Construction History: (Construction date, alterations, and date of alterations)

A house is shown in this location on every USGS map from 1901 to the present. The existing house was remodeled around 1980, but the configuration of the current house is the same as that shown in an aerial photograph from 1964. It is difficult to be certain that the current house is the same one shown on the 1953 and 1938 aerial photographs (historicaerials.com), but that does appear to be the case. Given this, it is interesting to note that the current tenant, who purchased the property in the 1970s, was told by a neighbor that the house was moved to that location from somewhere else.

*B7. Moved? ☒No ☐Yes ☐Unknown Date: NA Original Location: NA
*B8. Related Features:

B9a. Architect: Undetermined b. Builder: Undetermined
*B10. Significance: Theme: NA Area: NA
Period of Significance: NA Property Type: Single Family House Applicable Criteria: NA
(Discuss importance in terms of historical or architectural context as defined by theme, period, and geographic scope. Also address integrity.)

This resource lacks qualifying association or design elements necessary to qualify for inclusion on the California Register of Historical Resources. It is not a significant resource under CEQA or the County's Resource Protection Ordinance

B11. Additional Resource Attributes: (List attributes and codes)

*B12. References:

B13. Remarks:

(Sketch Map with north arrow required.)

*B14.
Evaluator: Andrew Giletti and Stephen R. Van Wormer

*Date of Evaluation: August 2011

(This space reserved for official comments.)

State of California --- The Resources Agency
DEPARTMENT OF PARKS AND RECREATION

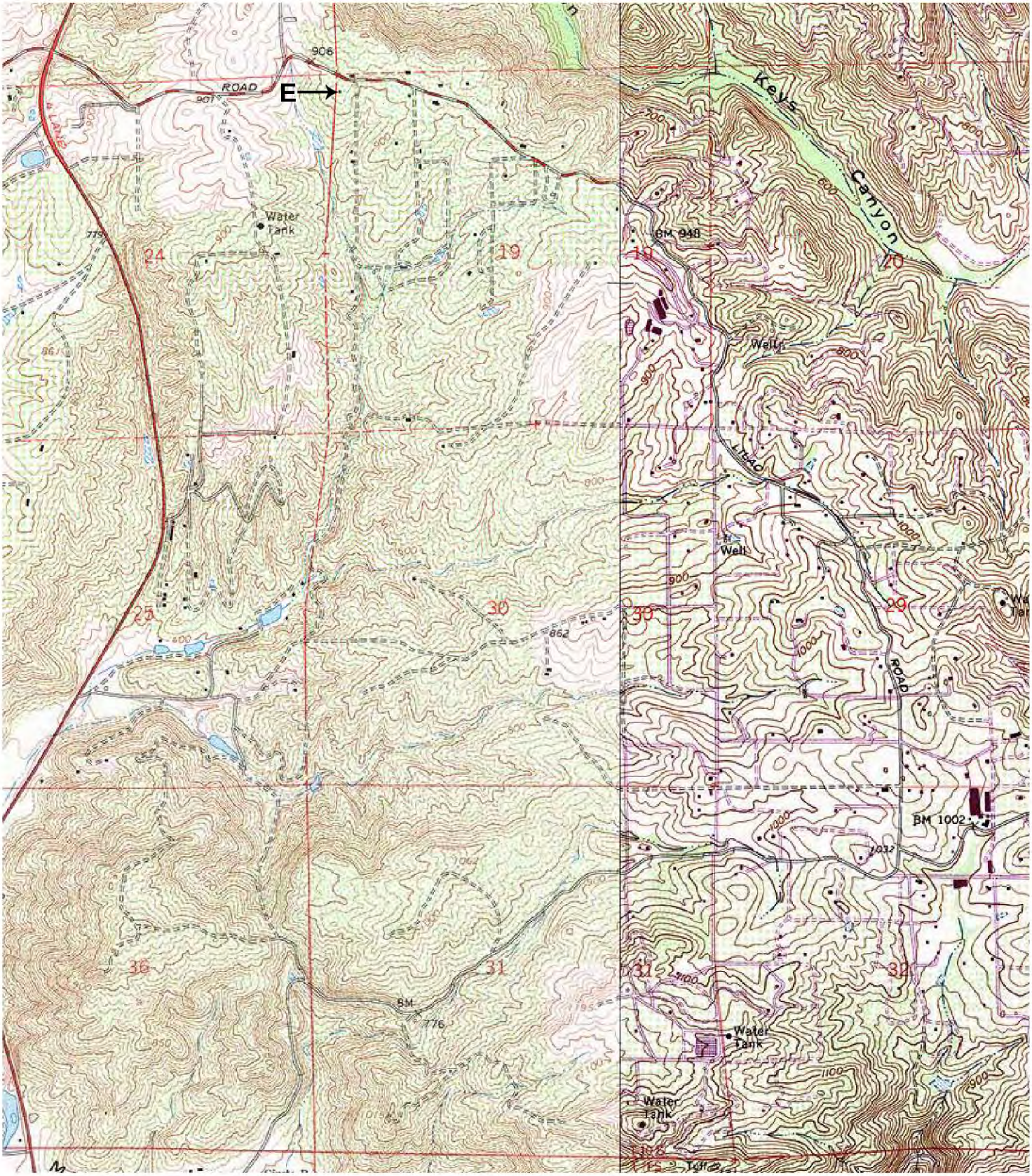
Primary # _____
HRI# _____

LOCATION MAP

Trinomial _____

Page 3 of 4 Resource Name or # (Assigned by recorder) E

*Map Name: Pala *Scale 1:24,000 (1" = 2000') *Date of Map 1968 (1988)



DPR 523J (1/95)

*Required Information

BSO E
9007 W. Lilac Rd.
looking North

State of California C The Resources Agency
DEPARTMENT OF PARKS AND RECREATION
PRIMARY RECORD

Primary # P-37-032555
HRI #
Trinomial
NRHP Status Code

Other Listings
Review Code Reviewer Date

Page 1 **of** 4 ***Resource Name or #:** (Assigned by recorder) 9167 West Lilac Road
P1. Other Identifier: F
***P2. Location:** ☐ Not for Publication ☐ Unrestricted *
a. County San Diego **and** (P2b and P2c or P2d. Attach a Location Map as necessary.)
***b. USGS 7.5' Quad** Pala **Date** 1988 **T** 10S ; **R** 2W ; NE **3 of** NW **3 of Section** 19 B.M .San Bernardino
c. **Address** 9167 W. Lilac Road **City** Escondido **Zip** 92026
d. **UTM: (Give more than one for large or linear resources) Zone** 11 ; **mE/** **mN**
e. **Other locational data (e.g. parcel #, directions to resource, elevation, etc., as appropriate)**

Lilac Hills Ranch. East of I-15, south of W. Lilac Rd., Valley Center. This single-family home is located in the northernmost portion of the project, on the south side of W. Lilac Rd..

***P3a. Description (Describe resource and its major elements. Include design, materials, condition, alterations, size, setting, and boundaries**):

The irregular-shaped, single story wood-framed house sits on a concrete slab and has a moderately pitched cross-gabled roof covered with asphalt roofing material. The sides of the house are finished with wooden shingles. Rectangular windows are irregularly placed around the sides of the building. This house appears on the 1968 USGS map. It is not shown on an aerial photograph from 1953 but is present in an aerial photograph taken in 1964 (historicaerials.com), making it at least 47 years old at the time of the survey.

***P3b. Resource Attributes: (List attributes and codes)** HP2 (Single Family Housing)

***P4. Resources Present:** ✕ Building ☐ Structure ☐ Object ☐ Site ☐ District ☐ Element of District ☐ **Other (Isolates, etc.)**

P5a. Photo or Drawing (Photo required for buildings, structures, and objects.)

see continuation sheet

P5b. Description of Photo: (View, date, accession #)

***P6. Date Constructed/Age and Sources:** ✕ Historic ☐ Prehistoric ☐ Both

***P7. Owner and Address:**

***P8. Recorded by (Name, affiliation, and address)**: Andrew Giletti, Steven R. Van Wormer, Affinis, 847 Jamacha Rd., El Cajon, CA 92019

***P9. Date Recorded:** August 2011

***P10. Type of Survey: (Describe)** Intensive survey

P11. Report Citation (Cite survey report and other sources, or enter "none".) Anticipated title: *Cultural Resources Inventory and Assessment: Lilac Hills Ranch, Escondido, San Diego County, California. KIVA Project: 09-011253; Case Number 3992-10-025 (MPA)* by Mary Robbins-Wade and Andrew Giletti, Affinis, 2012.

Attachments: ☐ NONE ✕ **Location Map** ☒ **Sketch Map** ☒ **Continuation Sheet** ✕ ☐ Building, Structure, and Object Record
☐ Archaeological Record ☐ District Record ☐ Linear Resource Record ☐ Milling Station Record ☐ Rock Art Record
☐ Artifact Record ☐ Photograph Record ☐ Other (List):

Primary # P-37-032555
HRI#

BUILDING, STRUCTURE, AND OBJECT RECORD

***Resource Name or #** (Assigned by recorder) 9167 West Lilac Road (F)

B1. Historic Name: NA
B2. Common Name: 9167 West Lilac Road
B3. Original Use: Single family residential dwelling B4. Present Use: Single family residential dwelling
***B5. Architectural Style:**
***B6. Construction History:** (Construction date, alterations, and date of alterations)
The house is not present on an aerial photograph taken in 1953, but is present in a 1964 aerial photograph (historicaerials.com).

***B7. Moved?** ☒No ☐Yes ☐Unknown **Date:** NA **Original Location:** NA
***B8. Related Features:**

B9a. Architect: Undetermined b. Builder: Undetermined
***B10. Significance: Theme:** NA **Area:** NA
Period of Significance: NA **Property Type:** Single Family House **Applicable Criteria:** NA
(Discuss importance in terms of historical or architectural context as defined by theme, period, and geographic scope. Also address integrity.)

This resource lacks qualifying association or design elements necessary to qualify for inclusion on the California Register of Historical Resources. It is not a significant resource under CEQA or the County's Resource Protection Ordinance

B11. Additional Resource Attributes: (List attributes and codes)

***B12. References:**

B13. Remarks:

***B14.**
Evaluator: Andrew Giletti and Stephen R. Van Wormer

***Date of Evaluation:** August 2011

(Sketch Map with north arrow required.)

(This space reserved for official comments.)

State of California --- The Resources Agency
DEPARTMENT OF PARKS AND RECREATION

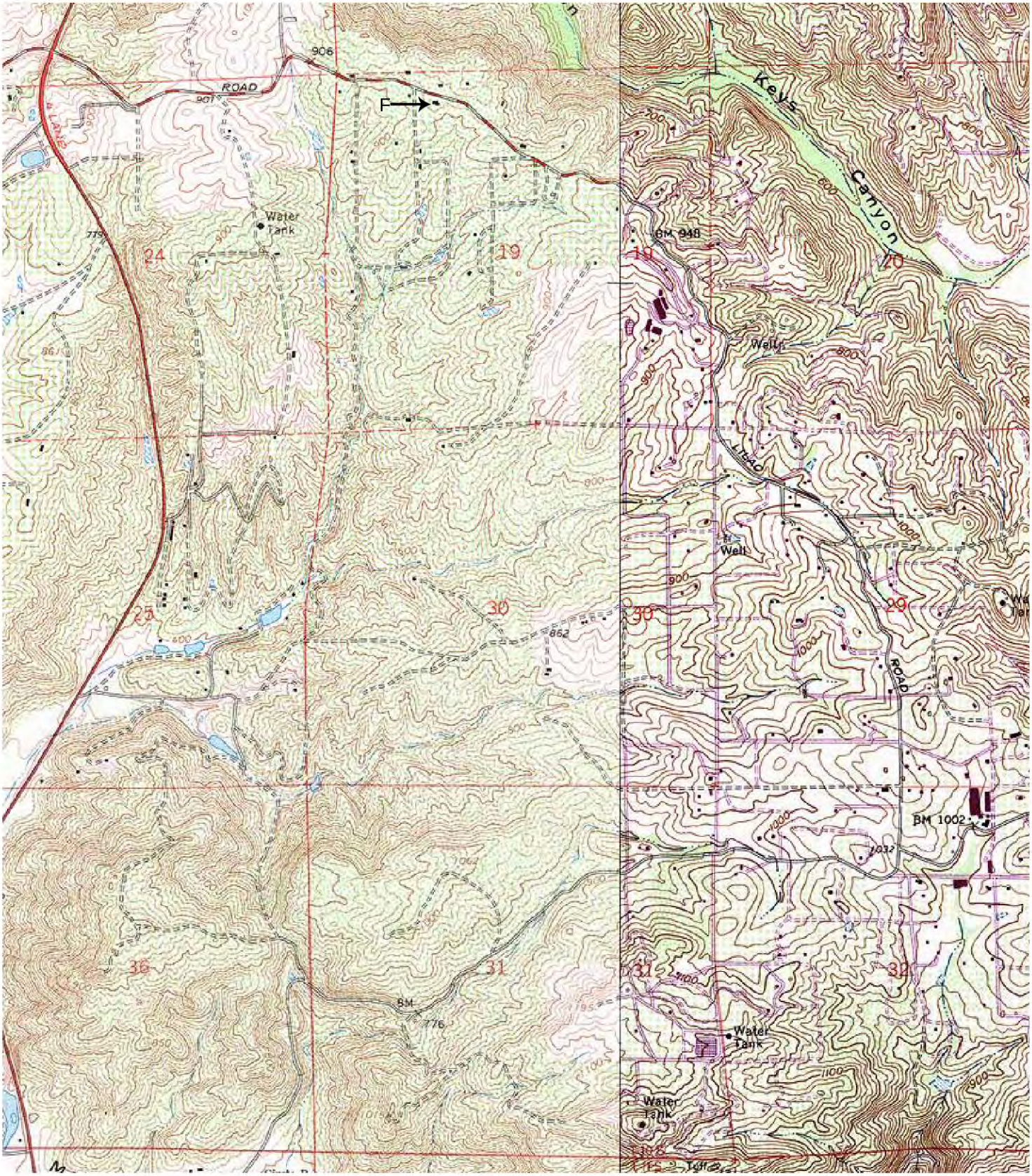
Primary # _____
HRI# _____

LOCATION MAP

Trinomial _____

Page 3 of 4 Resource Name or # (Assigned by recorder) F

*Map Name: Pala *Scale 1:24,000 (1" = 2000') *Date of Map 1968 (1988)



DPR 523J (1/95)

*Required Information

*Recorded by: Andrew Giletti and Stephen Van Wormer *Date: August 2011 ■ Continuation ☐ Update

View of residence looking southwest

State of California -- The Resources Agency
DEPARTMENT OF PARKS AND RECREATION
PRIMARY RECORD

Primary # P-37-032556
HRI #
Trinomial
NRHP Status Code

Other Listings
Review Code Reviewer Date

Page 1 **of** 4 ***Resource Name or #:** (Assigned by recorder) Lilac Walk (G)
P1. Other Identifier: G
***P2. Location:** ☐ Not for Publication ☐ Unrestricted *
a. County San Diego **and** (P2b and P2c or P2d. Attach a Location Map as necessary.)
***b. USGS 7.5' Quad** Pala **Date** 1988 **T** 10S ; **R** 2W ; SE **3 of** NW **3 of Section** 19 B.M .San Bernardino
c. **Address** Lilac Walk **City** Escondido **Zip** 92026
d. **UTM: (Give more than one for large or linear resources) Zone** 11; **mE/** **mN**
e. **Other locational data (e.g. parcel #, directions to resource, elevation, etc., as appropriate)**

Lilac Hills Ranch Project. East of I-15, south of W. Lilac Rd., Valley Center. This single-family home is located in the northernmost portion of the project. The house is used by workers and is associated with 9553 Lilac Walk (H) but has no address of its own.

***P3a. Description (Describe resource and its major elements. Include design, materials, condition, alterations, size, setting, and boundaries**):

The irregular-shaped, single story wood-framed house sits on a concrete slab and has a moderately pitched cross-gabled roof covered with asphalt roofing material. The sides of the house are finished with wooden shingles. Rectangular windows are irregularly placed around the sides of the building. This house appears on the 1968 USGS map. It is not shown on an aerial photograph from 1953 but is present in an aerial photograph taken in 1964 (historicaerials.com), making it at least 47 years old at the time of the survey.

***P3b. Resource Attributes: (List attributes and codes)** HP2 (Single Family Housing)

***P4. Resources Present:** ✕ Building ☐ Structure ☐ Object ☐ Site ☐ District ☐ Element of District ☐ **Other (Isolates, etc.)**

P5a. Photo or Drawing (Photo required for buildings, structures, and objects.)

see continuation sheet

P5b. Description of Photo: (View, date, accession #)

***P6. Date Constructed/Age and Sources:** ✕ Historic ☐ Prehistoric ☐ Both

***P7. Owner and Address:**

***P8. Recorded by (Name, affiliation, and address)**: Andrew Giletti, Steven R. Van Wormer, Affinis, 847 Jamacha Rd., El Cajon, CA 92019

***P9. Date Recorded:** August 2011

***P10. Type of Survey: (Describe)** Intensive survey

P11. Report Citation (Cite survey report and other sources, or enter "none".) Anticipated title: *Cultural Resources Inventory and Assessment: Lilac Hills Ranch, Escondido, San Diego County, California. KIVA Project: 09-011253; Case Number 3992-10-025 (MPA)* by Mary Robbins-Wade and Andrew Giletti, Affinis, 2012.

Attachments: ☐ NONE ✕ **Location Map** ☒ **Sketch Map** ☒ **Continuation Sheet** ✕ **Building, Structure, and Object Record**
☐ Archaeological Record ☐ District Record ☐ Linear Resource Record ☐ Milling Station Record ☐ Rock Art Record
☐ Artifact Record ☐ Photograph Record ☐ Other (List):

Primary # P-37-032556
HRI#

BUILDING, STRUCTURE, AND OBJECT RECORD

 *NRHP Status Code

*Resource Name or # (Assigned by recorder) Lilac Walk (G)

B1. Historic Name: NA
B2. Common Name: Lilac Walk
B3. Original Use: Single family residential dwelling
B4. Present Use: Single family residential dwelling/workers' house
*B5. Architectural Style:
*B6. Construction History: (Construction date, alterations, and date of alterations)
The house is not present on an aerial photograph taken in 1953, but is present in a 1964 aerial photograph (historicaerials.com).

*B7. Moved? ☒No ☐Yes ☐Unknown Date: NA Original Location: NA
*B8. Related Features:

B9a. Architect: Undetermined
b. Builder: Undetermined
*B10. Significance: Theme: NA
Area: NA
Period of Significance: NA
Property Type: Single Family House
Applicable Criteria: NA
(Discuss importance in terms of historical or architectural context as defined by theme, period, and geographic scope. Also address integrity.)

This resource lacks qualifying association or design elements necessary to qualify for inclusion on the California Register of Historical Resources. It is not a significant resource under CEQA or the County's Resource Protection Ordinance

B11. Additional Resource Attributes: (List attributes and codes)

*B12. References:

B13. Remarks:

(Sketch Map with north arrow required.)

*B14.
Evaluator: Andrew Giletti and Stephen R. Van Wormer

*Date of Evaluation: August 2011

(This space reserved for official comments.)

*Required information

State of California --- The Resources Agency
DEPARTMENT OF PARKS AND RECREATION

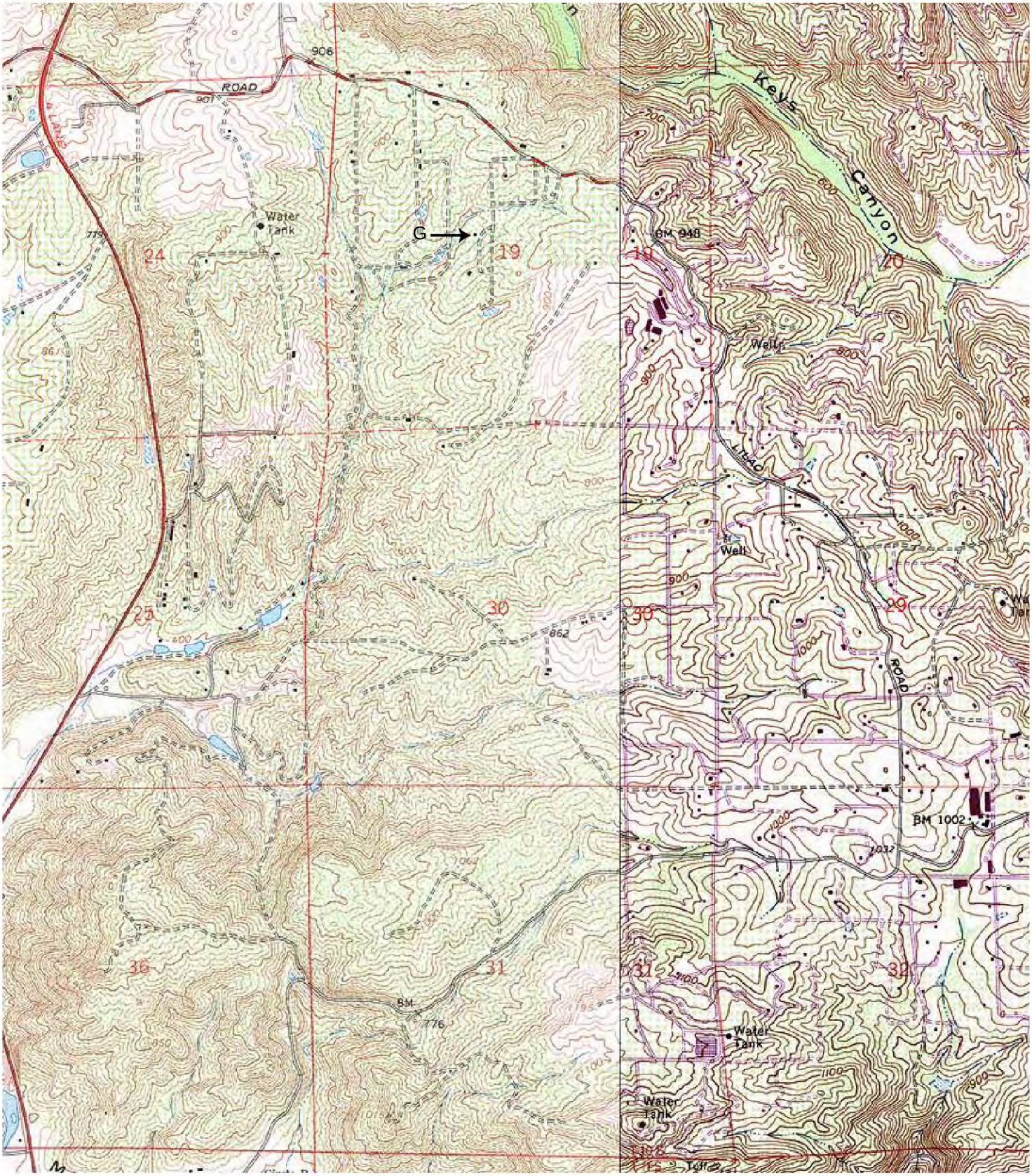
Primary # _____
HRI# _____

LOCATION MAP

Trinomial _____

Page 3 of 4 Resource Name or # (Assigned by recorder) G

*Map Name: Pala *Scale 1:24,000 (1" = 2000') *Date of Map 1968 (1988)



DPR 523J (1/95)

*Required Information

***Recorded by:** Andrew Giletti and Stephen Van Wormer ***Date:** August 2011 ■ Continuation ☐ Update

State of California -- The Resources Agency
DEPARTMENT OF PARKS AND RECREATION
PRIMARY RECORD

Primary # P-37-032557
HRI #
Trinomial
NRHP Status Code

Other Listings
Review Code Reviewer Date

Page 1 **of** 4 ***Resource Name or #:** (Assigned by recorder) 9553 Lilac Walk (H)
P1. Other Identifier: H
***P2. Location:** ☐ Not for Publication ☐ Unrestricted *
a. County San Diego **and** (P2b and P2c or P2d. Attach a Location Map as necessary.)
***b. USGS 7.5' Quad** Pala **Date** 1988 **T** 10S ; **R** 2W ; NE **3 of** SW **3 of Section** 19 B.M .San Bernardino
c. **Address** Lilac Walk **City** Valley Center **Zip**
d. **UTM: (Give more than one for large or linear resources) Zone** 11; **mE/** **mN**
e. **Other locational data (e.g. parcel #, directions to resource, elevation, etc., as appropriate)**

Lilac Hills Ranch Project. East of I-15, south of W. Lilac Rd., Valley Center. This single-family home is located in the northern portion of the project. It is associated with house G, which is used by workers.

***P3a. Description (Describe resource and its major elements. Include design, materials, condition, alterations, size, setting, and boundaries**):

This house is located south of G, near the end of Lilac Walk. The address is displayed on the house itself. This rectangular, single story, California Ranch House style home is supported by a concrete slab foundation and constructed of concrete block. It has a wooden shingle-covered cross-gabled roof. The building exhibits large plate glass windows, and double wood-framed glass doors. The house at H appears on the 1968 USGS map. It is not shown on an aerial photograph from 1953 but is present in an aerial photograph taken in 1964 (historicaerials.com).

***P3b. Resource Attributes: (List attributes and codes)** HP2 (Single Family Housing)

***P4. Resources Present:** ✕ Building ☐ Structure ☐ Object ☐ Site ☐ District ☐ Element of District ☐ **Other (Isolates, etc.)**

P5a. Photo or Drawing (Photo required for buildings, structures, and objects.)

see continuation sheet

P5b. Description of Photo: (View, date, accession #)

***P6. Date Constructed/Age and Sources:** ✕ Historic ☐ Prehistoric ☐ Both

***P7. Owner and Address:**

***P8. Recorded by (Name, affiliation, and address)**: Andrew Giletti, Steven R. Van Wormer, Affinis, 847 Jamacha Rd., El Cajon, CA 92019

***P9. Date Recorded:** August 2011

***P10. Type of Survey: (Describe)** Intensive survey

P11. Report Citation (Cite survey report and other sources, or enter "none".) Anticipated title: *Cultural Resources Inventory and Assessment: Lilac Hills Ranch, Escondido, San Diego County, California. KIVA Project: 09-011253; Case Number 3992-10-025 (MPA)* by Mary Robbins-Wade and Andrew Giletti, Affinis, 2012.

Attachments: ☐ NONE ✕ **Location Map** ☒ **Sketch Map** ☒ **Continuation Sheet** ✕ **Building, Structure, and Object Record**
☐ Archaeological Record ☐ District Record ☐ Linear Resource Record ☐ Milling Station Record ☐ Rock Art Record
☐ Artifact Record ☐ Photograph Record ☐ Other (List):

Primary # P-37-032557
HRI#

BUILDING, STRUCTURE, AND OBJECT RECORD

***Resource Name or #** (Assigned by recorder) 9553 Lilac Walk (H)

B1. Historic Name: NA
B2. Common Name: 9553 Lilac Walk
B3. Original Use: Single family residential dwelling B4. Present Use: Single family residential dwelling
***B5. Architectural Style:**
***B6. Construction History:** (Construction date, alterations, and date of alterations)
The house is not present on an aerial photograph taken in 1953, but is present in a 1964 aerial photograph (historicaerials.com).

***B7. Moved?** ☒No ☐Yes ☐Unknown **Date:** NA **Original Location:** NA
***B8. Related Features:**

B9a. Architect: Undetermined b. Builder: Undetermined
***B10. Significance: Theme:** NA **Area:** NA
Period of Significance: NA **Property Type:** Single Family House **Applicable Criteria:** NA
(Discuss importance in terms of historical or architectural context as defined by theme, period, and geographic scope. Also address integrity.)

This resource lacks qualifying association or design elements necessary to qualify for inclusion on the California Register of Historical Resources. It is not a significant resource under CEQA or the County's Resource Protection Ordinance

B11. Additional Resource Attributes: (List attributes and codes)

***B12. References:**

B13. Remarks:

(Sketch Map with north arrow required.)

***B14.**
Evaluator: Andrew Giletti and Stephen R. Van Wormer

***Date of Evaluation:** August 2011

(This space reserved for official comments.)

State of California --- The Resources Agency
DEPARTMENT OF PARKS AND RECREATION

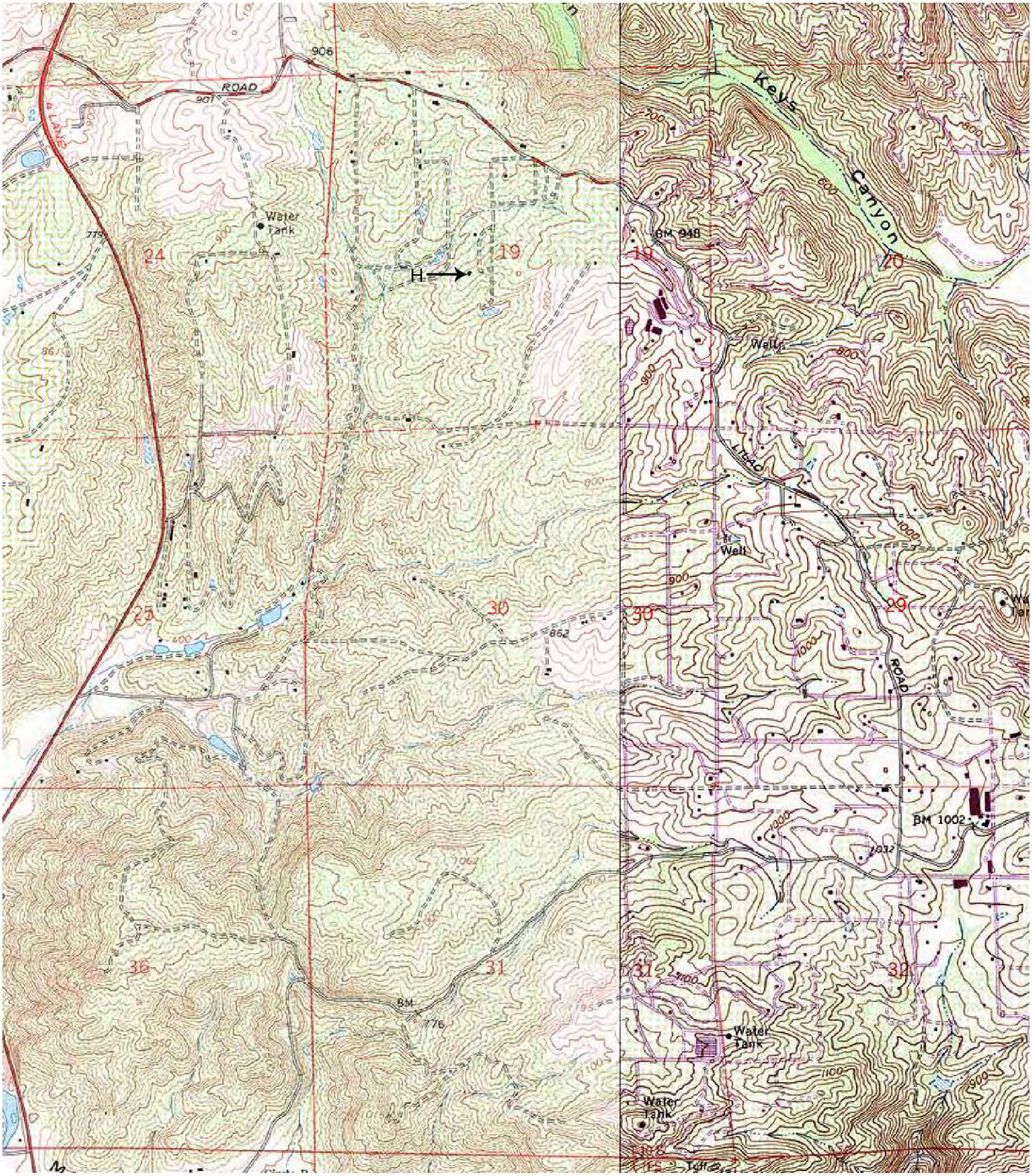
Primary # _____
HRI# _____

LOCATION MAP

Trinomial _____

Page 3 of 4 Resource Name or # (Assigned by recorder) H

*Map Name: Pala *Scale 1:24,000 (1" = 2000') *Date of Map 1968 (1988)



DPR 523J (1/95)

*Required Information

BSO H
9553 Lilac Wk
looking West

APPENDIX E

RESEARCH DESIGN AND DATA RECOVERY PLAN

RESEARCH DESIGN AND DATA RECOVERY PLAN: LILAC HILLS RANCH ESCONDIDO, SAN DIEGO COUNTY, CALIFORNIA

PDS2012-3800-12-001 (GPA); PDS2012-3810-12-001 (SP); PDS2012-3600-12-003 (REZ); PDS2012-3500-12-005 (STP); PDS2012-3100-5571 (TM); PDS2012-3100-5572 (TM)

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March 2013
Affinis Job No. 2414

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INTRODUCTION

CA-SDI-20,436 is a significant archaeological resource under the California Environmental Quality Act (CEQA) and the guidelines of the County of San Diego. The site meets the criteria for listing on the California Register of Historical Resources, due to its scientific research potential, as well as its cultural value to the Native American (Luiseño) community. The proposed Lilac Hills Ranch project would have significant impacts to CA-SDI-20,436, which must be avoided or mitigated. Under the proposed project design, the site is in an area of single-family residential uses. Therefore, a data recovery program is proposed, in order to mitigate impacts to below a level of significant.

This document presents a discussion of the research topics that may be addressed with data from investigations at CA-SDI-20,436. Important topics that could be addressed at the site include chronology subsistence/settlement patterning, and intersite patterning. The data needed to address each of these topics is considered and a program adequate for obtaining those data is outlined.

RESEARCH DESIGN

The research design addressed in the testing program included three basic topics: chronology, settlement pattern, and bedrock milling. In addition, Traditional Cultural Properties and Native American Heritage Values were addressed. That research design, which was included in the extended archaeological study, *Cultural Resources Inventory and Assessment: Lilac Hills Ranch, Escondido, San Diego County, California* (Robbins-Wade 2013), has been expanded for the data recovery program.

Chronology

Chronological control is critical to answering most of the kinds of questions that archaeologists ask. It is necessary to control for time in analysis of both intrasite and intersite patterning, for if the archaeological entities being compared are of different ages, they cannot be part of the pattern that results from the operation of a particular prehistoric cultural system. Several lines of evidence can be brought to bear on this question, including radiocarbon dating, obsidian sourcing and hydration analysis, and the occurrence of time-sensitive artifacts.

Based on the testing program at CA-SDI-20,436 the site appears to date to the early part of the Late Prehistoric period. The only temporally diagnostic artifact recovered at the site was a Cottonwood leaf-shaped point. The lack of ceramics at CA-SDI-20,436 could indicate preceramic use of the site or that activities carried out at the site were not ones for which ceramic vessels would be used. Food processing was done at the site, for which ceramic vessels might have been used, suggesting use of the site prior to the introduction of ceramics. If patination is taken as a measure of antiquity of the debitage from the site, it is in conflict with the Late Prehistoric date of the projectile point. It could

be that the site was used during both Archaic and Late Prehistoric times. It is also possible that the point is intrusive, dropped by someone passing through at a later date than actual use of the site. There remain many questions regarding the chronology of CA-SDI-20,436.

Radiocarbon analysis would be conducted to obtain dates on samples from the site, such as charcoal or faunal material. Submitting individual large shells or large pieces of charcoal for analysis is preferable to submitting bulk samples, to minimize the chance for error by grouping shell or charcoal that may be of different ages. It is important to take into consideration past disturbance at the site and remember that the occurrence of items in proximity to one another does not guarantee that they are associated. A radiocarbon date for a large piece of *Chione* is not necessarily totally applicable to the lithic tool found next to it, but the date obtained for a single specimen is less likely to introduce errors than a date for a bulk sample. Unfortunately, no large pieces of shell were recovered during the testing program, but some may be found during the data recovery program. Some charcoal was recovered during the testing program, and additional charcoal might be found and collected as part of the data recovery program. Accelerator mass spectrometry (AMS) analysis requires substantially less material than conventional radiocarbon dating; this is one option for samples from the site.

Obsidian source and hydration analysis is a form of relative dating that is often quite useful. A single piece of obsidian was recovered during the testing program. If appropriate obsidian specimens are recovered, obsidian analysis would be conducted as part of the data recovery program.

As addressed in the extended archaeological study, a number of the flaked stone artifacts from CA-SDI-20,436 exhibit a great deal of patination, which is often used to suggest antiquity. Additional literature review could be conducted to locate current research on this topic and determine its applicability to the material from this site.

Question: What is the occupational history of CA-SDI-20,436? What is the range of dates of the occupation of the site?

Data requirements: Collection of suitable sample sizes of datable material, such as shell, charcoal, and/or obsidian, would be required. Radiocarbon samples from features, such as hearths, are desirable as they would date the cultural features directly. A series of samples from the same unit would be useful, as would samples from several units across the site. Information from this data recovery project would be compared with data from previous work at sites in the general vicinity to refine the occupational history of the area.

Question: Is CA-SDI-20,436 contemporaneous with other nearby sites, as well as sites in Moosa Canyon, Keys Canyon, and the San Luis Rey River valley?

Data requirements: Datable material at CA-SDI-20,436 and information on chronology from other sites that have been studied would be necessary. Previous studies have

indicated that many of the sites in the area are contemporaneous; additional radiocarbon analysis would help to refine these relationships.

Subsistence/Settlement Pattern

Subsistence strategies and settlement systems are interrelated to such a degree that it is difficult to address one without the other. The study of settlement patterning is dependent upon data from a number of sources, as settlement systems are the result of many interrelated factors. Variables involved include chronology, topographic setting, environmental conditions, essential food and nonfood resources, desirable (but nonessential) resources, and demographic arrangements. Understanding (or simply discerning) settlement patterning is dependent upon the archaeological visibility of elements of the settlement system. Archaeological visibility is a function not only of site type and history of use, but of natural and cultural site formation processes, both depositional and post-depositional.

Analysis of the variety of tools found at the site, as well as animal bone, shellfish, and other food remains, would be used to address subsistence and the types of activities that were undertaken at the site. Pollen, starch, and macrobotanical analyses would be useful in addressing plant resources used. Blood protein residue analysis would complement faunal studies to address animal resources used by inhabitants of the site. Past disturbances must be considered, as they affect what is visible archaeologically. Comparison of the assemblage and location of the site with other sites in the vicinity that have been studied previously will add to our understanding of the settlement system at work. Good chronological data is essential for addressing these research issues.

No faunal material was recovered during the testing program that appeared to be cultural. So, analyses of flaked stone and ground stone tools will be important. Blood protein residue analysis may be productive, as well as analyses on the ground stone, as addressed below.

Data requirements: Faunal remains (shell and bone) and subsistence-related artifacts, such as milling equipment, various flaked stone tools, or projectile points, would be required to address this issue. Pollen, starch, and macrobotanical samples from ground stone could be used to address what plant resources were used at the site. Such samples from hearths or other in situ features would also be of value. Protein residue samples gathered from ground stone surfaces, projectile points, and the edges of various flaked stone tools could be used to address animal resources used by inhabitants of the site.

Question: Did subsistence practices change over time?

Data requirements: Faunal remains; pollen, starch, and macrobotanical samples; protein residue samples; and subsistence-related artifacts would be required for

analysis. Again, good chronological control would be necessary to address the diachronic changes in the assemblage.

Intersite Patterning

As previously discussed, comparison with other contemporaneous sites in the area is the key to addressing settlement and subsistence strategies and how such strategies may have changed through time. A number of sites in relative proximity to CA-SDI-20,436 have been addressed to some degree in conjunction with proposed development project. Comparison of CA-SDI-20,436 with these sites will be important in addressing settlement patterning.

Traditional Cultural Properties and Native American Heritage Values

Federal and state laws mandate that consideration be given to the concerns of contemporary Native Americans with regard to potentially ancestral human remains, associated funerary objects, and items of cultural patrimony. Consequently, an important element in assessing the significance of the study site has been to evaluate the likelihood that these classes of items are present in areas that would be affected by the proposed project.

Also potentially relevant to prehistoric archaeological sites is the category termed Traditional Cultural Properties in discussions of cultural resource management (CRM) performed under federal auspices. According to Patricia L. Parker and Thomas F. King (1998), “Traditional” in this context refers to those beliefs, customs, and practices of a living community of people that have been passed down through the generations, usually orally or through practice. The traditional cultural significance of a historic property, then, is significance derived from the role the property plays in a community's historically rooted beliefs, customs, and practices. Examples of properties possessing such significance include:

1. A location associated with the traditional beliefs of a Native American group about its origins, its cultural history, or the nature of the world;
2. A rural community whose organization, buildings and structures, or patterns of land use reflect the cultural traditions valued by its long-term residents;
3. An urban neighborhood that is the traditional home of a particular cultural group, and that reflects its beliefs and practices;
4. A location where Native American religious practitioners have historically gone, and are known or thought to go today, to perform ceremonial activities in accordance with traditional cultural rules of practice; and
5. A location where a community has traditionally carried out economic, artistic, or other cultural practices important in maintaining its historic identity.

A traditional cultural property, then, can be defined generally as one that is eligible for inclusion in the National Register because of its association with cultural practices or

beliefs of a living community that (a) are rooted in that community's history, and (b) are important in maintaining the continuing cultural identity of the community.

The Luiseño community has expressed interest and concern regarding this site and other cultural resources in the project area; input form the Luiseño community will be incorporated into the data recovery study.

DATA RECOVERY PLAN

Fieldwork

Phase 1

Phase 1 will include hand excavation of a 2-3 percent sample of the site. Placement of units will be guided by the results of the testing program conducted in 2012 (Robbins-Wade 2013). Units will be concentrated in the identified midden area, but some units will be placed outside this area of concentration. Soil will be screened using standard methods (1/8-in. mesh). Sidewall profiles for at least one wall of each excavation unit will be drawn and photographed. Material for special studies will be collected as appropriate and as described below.

The disturbed nature of the site soils argues against intact subsurface features, such as hearths, roasting pits, storage pits, etc., but if such features are encountered, flotation would be undertaken, as these features are discrete units, which are better candidates for this type of analysis than bulk unit samples.

A Native American (Luiseño) monitor will be on-site during field work, and concerns of the local Native American community will be addressed in field work and laboratory analysis.

Phase 2

At the completion of Phase 1 of the fieldwork program, a letter report will submitted to the Director of Planning and Development Services evaluating the issues of site integrity, data redundancy, spatial and temporal patterning, features, and other relevant topics, in order to assess the adequacy of the initial sample. Based on this assessment, the letter report shall recommend the need for and scope of a second phase of field investigations, not to exceed a total hand-excavated sample of 15 percent of the site deposits.

Phase 3

It is anticipated that the site will be destroyed by eventual development of the project; therefore, mechanical stripping will be used following hand excavation to identify, map, and sample buried cultural features. This phase of work (Phase 3) will be conducted regardless of whether Phase 2 excavation is required. Given the level of disturbance from rodent activity, agriculture, and grading associated with use of the site as a nursery, the potential for intact cultural features in a subsurface context is low. However, if such features are found, they would contribute greatly to the research avenues regarding activity areas across the site and differences among sites on the property and in the vicinity. Cultural features encountered may have cultural heritage significance beyond their archaeological value.

If cultural features are identified during Phase 3, flotation analysis would be undertaken. In addition, organic material, such as charcoal, shell, or animal bone, from discrete features would provide more reliable samples for radiocarbon analysis than specimens from a less specific context. Any exotic or potential trade items, such as obsidian, found in association with discrete features would also be good candidates for analysis, as their context is more reliable than those from a general level sample. Features would be drawn and photographed as well.

Human Remains

If human remains or features having cultural heritage significance are encountered, excavation in the area will be halted while the archaeological consultant confers with representatives of the Native American (Luiseño) community to determine the disposition of the cultural material. A Native American (Luiseño) monitor will be on-site during all field work, and any concerns expressed by the monitor will be addressed immediately.

Treatment of human remains and associated grave goods, if encountered, will reflect the traditional religious beliefs and practices of the most likely descended Native Americans, governed by way of applicable law. If human remains and/or grave goods are discovered during project implementation, procedures similar to those outlined below should be followed. Human remains constitute all cremated remains, inhumations, partial and complete, including non-articulated bone fragments, that have been determined by way of non-destructive analysis to be human, or are deemed likely to be human.

1. If evidence of human remains and/or grave goods is discovered during project implementation, all work in the area of the discovery shall be stopped, and the Native American monitor shall be informed immediately, along with all other parties as required by State law or by other agreement.
2. If human remains are discovered, the County Medical Examiner's Office shall be informed. The Medical Examiner's Office will notify the Native American Heritage Commission, who will notify the Most Likely Descendant (MLD).

3. The MLD shall be consulted pursuant to Public Resources Code §5097.98. The MLD may make recommendations regarding the disposition of human remains and grave goods.

Collection Methods for Special Studies

The Paleo Research Institute website (www.paleoresearch.com) provides instructions for the collection and handling of samples for pollen, phytolith, starch, macrofloral, and protein residue analysis. The following field methods are a summary of the collection methods, which are presented in greater detail on the website.

1. Surface samples: a surface sample should be collected at the site prior to clearing or excavation. The surface sample will provide data for comparison of the modern environment with the past environment. Surface soils samples should use the pinch technique, i.e., a spoonful of sediment from various places within a diameter of approximately 30 m (100 ft.) around the site. Surface samples collected in conjunction with a stratigraphic column should be collected in the same manner as the rest of the samples in the column.
2. All ceramic vessels and sherds considered for archaeobotanic analysis and all subsurface ground stone artifacts should be bagged immediately in the field and sent to the lab for removal of extraneous sediment and for pollen, starch, and/or phytolith washing.
3. Projectile points should be bagged and sent to the lab prior to removal of dirt by rubbing or other means.
4. Scrape trowel free of dirt, scrape area to be sampled to remove accumulation of modern pollen.
5. Clean trowel of dirt. Spray trowel with distilled water and wipe with paper towel.
6. Quickly remove pollen sample (150 cc, which is about ¾ cup) or pollen and phytolith sample (300 cc, which is about 1 ½ cup) and place into Whirl-pak or Zip-lok bag and secure. Sand does not contain as much pollen as silty or clay sediments, so the sample sizes given here are larger than those recommended for silty or clay soils.
7. Stratigraphic columns should be sampled so that the shape of the area sampled is rectangular, 2 cm (1 in.) in height. Extend the sample as far to the side as necessary to get an adequate volume of sediment. In general, collect stratigraphic samples every 10 cm. Sample by natural levels, never collecting a sample that crosses level boundaries.
8. Place plastic sample bag into a second plastic bag or a paper bag. Record sample data in pencil on an inventory card placed between the two bags or write on the paper bag using a Sharpie marker. Double bagging will help to protect the bag from puncture and provide a convenient place for recording sample information.
9. All whole vessels, sherds to be sampled, and ground stone artifacts should be bagged in the field prior to the removal of dirt and sent to the lab.

10. Hearths and roasting pits: sample fill from the feature; if the fill is stratified, collect samples from each stratum. Collect samples from the living surface adjacent to the hearth, if it can be defined.
11. Storage cists and pits: the lower portion of the fill of these features should be sampled for macrofloral remains. Collect a scrape from the wall and the bottom of the feature.
12. Metates: When ground stone is found in situ, a suite of samples is desirable. In addition to bagging the metate, pollen/starch and macrofloral samples should be collected in front of, behind, and to each side of the metate from the living surface. If metates are recovered grinding side down, a sample should be collected from sediment in contact with the grinding surface. For protein residue analysis, all flaked lithic specimens should be placed directly in plastic bags with minimal handling. Do not spit, lick, or rub the items, as this may result in positive results for human proteins. Label the outside of the bag, and a second label may be placed inside the bag as well.
13. For protein residue analysis, a soil control sample must be submitted as well. Collect approximately 1 g samples from the soil surrounding each artifact to be analyzed and place in suitable containers, such as film canisters. Other control samples may be collected: 1 g samples from all cultural levels of stratified sites and one to three samples from off-site areas.
14. Handling cigarettes or chewing tobacco contaminates the hands, which then contaminate the work area and any samples collected. The use of tobacco should be avoided on-site; if tobacco products are handled, hands must be washed before collecting samples for analysis.
15. Dogs contaminate the pollen record and make it difficult to analyze animal fibers in the record. If dogs are present on-site for any reason, a sample of dog hair should be saved and sent with the samples to be analyzed.

Laboratory Analysis and Special Studies

The laboratory analysis will start with cleaning, sorting, and cataloging of all cultural material recovered during the data recovery program. Tool and debitage analysis will investigate manufacturing techniques, tool function, style, and breakage patterns, identifying attributes that are diagnostic of specific temporal or cultural patterns, as well as stages of manufacture. Gross differences in manufacturing techniques that may reflect differing time periods or culture groups are not expected. However, variations in manufacturing techniques in different areas of the site, representing discrete activity locations, may indicate use of some areas of the site by different groups of individuals or at different periods of time. Debitage analysis would identify stages of manufacture, mean flake size and mean flake weight, degree and types of platform preparation, and other variables. These attributes are indicative of the types of tools manufactured at the site, the degree of care (or expediency) with which tools were made, the amount of tool finishing (shaping into formal designs, as opposed to more expedient tools), and the degree to which tools were resharpened and reused. These factors reflect site type and the nature of activities undertaken. For example, at a habitation site, we would expect to find more tool finishing and a greater degree of reuse of tools, as people are staying

at the site for longer periods of time and working on a variety of tasks. If a site was simply a milling station or a resource gathering area, we would expect to find more expediently made tools that could be discarded when the task group left the site. If the group was not spending a great deal of time at a specific site or locus, there would not be the need for resharpening or reworking implements; we would expect that at a longer term occupation area. In addition, certain tasks may require more finely made tools and thus result in a different collection of debitage. Variations in the debitage assemblage across the site could thus reflect activity areas and indicate which loci may have been used for longer periods of time.

Neutron activation analysis of metavolcanic artifacts has been used to trace sources of lithic material. Chemical composition (trace element) signatures have been identified for sources throughout San Diego County (see Gross et al. 1998). Analysis of 5 to 10 artifacts from the site is recommended.

Residue analysis would be conducted if appropriate samples are recovered, as discussed above. Some researchers have found that blood residue on tools can be analyzed to indicate what types of animals were processed (butchered, skinned, ground, etc.). However, erroneous results are possible if the analyst does not control for contamination by modern residues, or if the lab is unfamiliar with the native fauna and uses inappropriate controls and comparisons.

Obsidian source and hydration analysis would also be productive if obsidian is recovered (a single piece was recovered during the testing program). Identification of obsidian sources informs the question of trade patterns. Hydration analysis provides relative dating of samples. Although there are problems with many of the hydration rates for converting hydration measurements to calendar dates, comparison of raw hydration measurements from sites that are accurately dated from other sources allows relative dating of material. Five to 10 obsidian specimens would be recommended for analysis; however, it is doubtful that that many pieces will be collected.

Other chronometric analysis, such as radiocarbon dating, would be pursued if appropriate material is recovered. Due to the large amount of rodent activity and other post-occupational disturbance, large, individual pieces of shell or charcoal would be appropriate samples for radiocarbon analysis, but generalized level samples would not be appropriate at this site. During the testing program, no faunal material was found that would be suitable for radiocarbon dating, but charcoal was collected from two levels in Unit 1, so there is a potential that suitable material would be recovered during the data recovery program. At least five radiocarbon samples are recommended for analysis, if large enough samples can be recovered to allow such analysis. The accelerator mass spectrometry technique (AMS) allows use of smaller specimens than traditional radiocarbon analysis.

As discussed above, pollen and macrobotanical analyses are often suggested for addressing subsistence and have been included in the data recovery plan. However, due to the extremely disturbed nature of the site soils, caution must be used in these

analyses. The mixing of the soil matrix would serve to distribute modern pollen throughout the soil profile, potentially causing confusion or invalidating the conclusions of such analysis.

Report

A comprehensive report will be completed addressing the methods and results of the data recovery program and including the results of the 2012 testing program.

The data recovery report will follow the general Archaeological Resources Management Report (ARMR). In order to allow the data recovery report to work as a stand-alone document, a project description will be included, describing the proposed development and the role of the data recovery program in mitigating impacts to below a level of significance. The report will present the research design and a discussion of how the goals of the data recovery program were met (or not met). Field and laboratory methods will be detailed, and technical analyses will be included as appendices to the body of the report. Detailed site maps will be presented, illustrating the locations of shovel test pits and excavation units from the testing program and their spatial relationships to the units excavated for the data recovery program. Illustrations and photographs of representative tools and diagnostic artifacts will be used, including illustrations of diagnostic projectile points and other formal tools, and any unusual items. Photographic overviews of the site will also be included. Graphs or charts of statistical analyses will be included as appropriate.

Curation

Cultural material collected during in conjunction with the data recovery program will be permanently curated at an appropriate facility within San Diego County, such as the San Diego Archaeological Center.

REFERENCES

Gross, G.T., J.A. Hildebrand, A. Pigniolo, J. Schaefer, and S.A. Wade
1997 Studies of Lithic and Ceramic Raw Materials near San Diego, California. Paper presented at the 62nd Annual Meeting of the Society for American Archaeology, Nashville.

Parker, Patricia L., and Thomas F. King
1998 *Guidelines for Evaluating and Documenting Traditional Cultural Properties*. National Register Bulletin 38. U.S. Department of the Interior, National Park Service, Washington, D.C.

Robbins-Wade, Mary
2013 *Cultural Resources Inventory and Assessment: Lilac Hills Ranch, Escondido, San Diego County, California*. Affinis, El Cajon. Report submitted to County of San Diego Department of Planning and Development Services.