Appendix F – Cultural Resources

CULTURAL RESOURCES SURVEY REPORT
FOR THE VIDAL ENERGY PROJECT
SAN BERNARDINO COUNTY, CALIFORNIA

Prepared for:

CDH VIDAL LLC
860 Wyckoff Avenue, Suite 200
Mahwah, New Jersey 07430

Prepared by:

CHAMBERS GROUP, INC.
9620 Chesapeake Drive, Suite 202
San Diego, California 92123

Revised March 2022

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NATIONAL ARCHAEOLOGICAL DATABASE INFORMATION

Authors: Richard D. Shultz, M.A., RPA, Sandra Pentney, M.A., RPA, Kellie Kandybowicz, B.A., and Eduvijes Davis-Mullens, B.A.

Firm: Chambers Group, Inc.

Client/Project Proponent: CDH Vidal LLC

Report Date: November 2020; revised March 2022

Report Title: Draft Cultural Resources Survey Report for the Vidal Energy Project San Bernardino County, California.

Type of Study: Cultural Resources Survey

New Sites: 53

New Isolated Occurrences: 11

Updated Sites: None

USGS Quad: *Parker SW* 7.5-minute quadrangle

Acreage: 1,090

Permit Numbers: N/A

Key Words: County of San Bernardino, Colorado River, Solar, Battery Storage, Mojave Desert, Sonoran Desert, Cultural Resources Survey, Positive Survey, Single Reduction Locus, Calzona, Vidal, Desert Training Center, California-Arizona Maneuver Area, World War II, Exercise Desert Strike, Cold War, Elko point, Lake Mojave point, buff ware, red-on-buff.

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SECTION 1.0 – INTRODUCTION

Chambers Group, Inc. (Chambers Group) was contracted by CDH Vidal LLC to complete an archaeological literature review and cultural resources inventory survey for the proposed Vidal Energy Project (Project). The proposed Project consists of an approximately 1,090-acre solar photovoltaic (PV) component and 7.1-acre battery energy component and is located approximately 3 miles southeast of Vidal in San Bernardino County, California (Figure 1). The Project location as depicted in Figure 1 is referred to throughout this report as the Project Area. The survey area for the cultural resources survey is the same as the Project Area. Construction is anticipated to commence in the second quarter of 2021.

Chambers Group submitted a request to the South-Central Coastal Information Center, a member of the California Historical Resources Information System (CHRIS), on July 9, 2020, as part of the Archaeological Literature Review process prior to site survey of the approximately 1,090-acre Project Area. Results of the records search are documented in Section 3 (and Confidential Appendix A). The following study has been conducted in accordance with the Secretary of the Interior Professional Qualification Standards, the National Historic Preservation Act, and the California Environmental Quality Act (CEQA).

1.1 PROJECT DESCRIPTION

CDH Vidal LLC (CORE) plans to construct and operate an approximately 1,090-acre photovoltaic (PV) and battery energy storage system (BESS) facility to generate renewable energy in Vidal, San Bernardino County (the Project). The Project will provide 160 megawatts of alternating current (MW-AC) of renewable energy and would be supported by the existing, adjacent Western Area Power Administration (WAPA) 161 kV overhead transmission corridor. The facility would include the construction of one on-site substation facility which would collect and convert the power generated onsite for transmission in an overhead or underground line to the WAPA transmission system and interconnection location. The Project's permanent facilities would include PV panels, BESS, fencing, service roads, a power collection system, communication cables, overhead and underground transmission lines, electrical switchyards, a Project substation, and operations and maintenance facilities.

The purpose of this investigation is to identify cultural resources and assess their significance and eligibility for listing in the National Register of Historic Places (NRHP).

1.2 PROJECT LOCATION

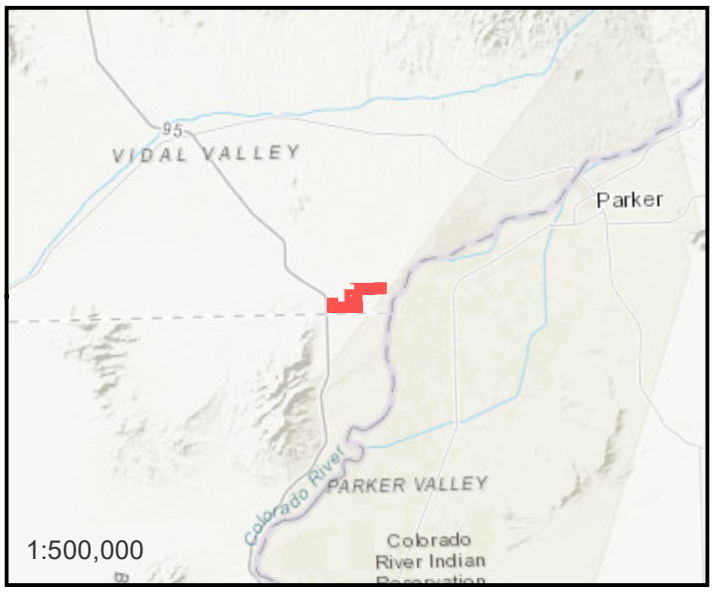
The Project site is located approximately 2.5 miles southeast of Vidal, an unincorporated area of San Bernardino County (County) that is located just east of U.S. Route 95, just north of the Riverside County border, and just west of the Colorado River (Figure 1). The Project site encompasses approximately 1,090 acres within 23 privately-owned parcels (in their entirety and portions of) that are in the process of lease acquisition by CORE (Table 1). The owned parcels encompass approximately 783 acres, property pending ownership covers approximately 120 acres, and properties for sub-lease cover approximately 317 acres. The owned parcels are located on the western side of the Project site and the sub-lease area is located adjacent to the Colorado River Indian Reservation on the eastern side of the Project site. The Project is located on the United States Geological Survey (USGS) *Parker SW*, California, 7.5-minute quadrangle.

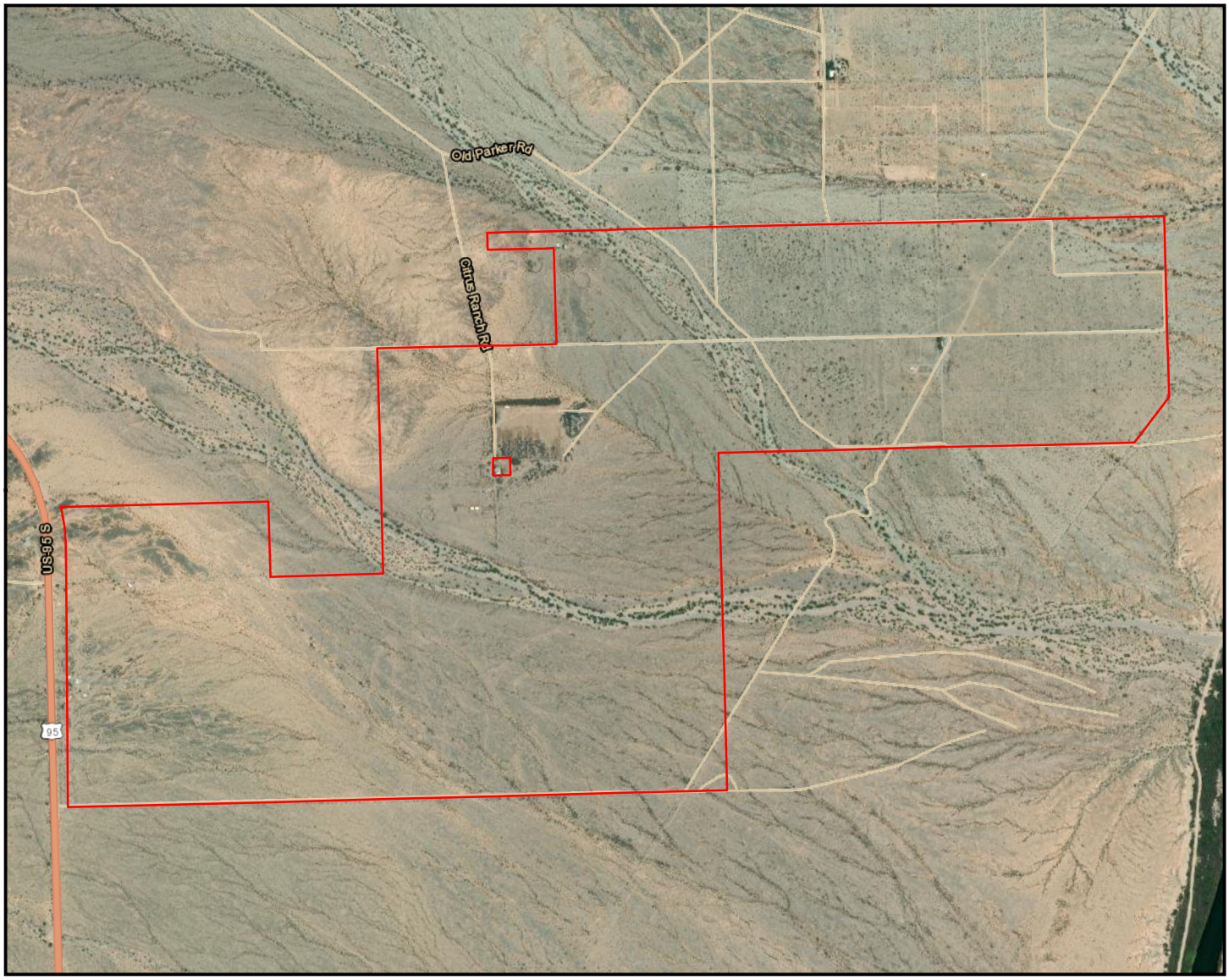
The Project site is located within the Desert Region's East Desert Fundamental Community planning area of the County. The County's Zoning Map identifies the zoning of the Project site as Resource Conservation (RC; County Zoning Map). The RC land use zoning district provides sites for open space and recreational

activities, single-family homes on very large parcels, and similar and compatible uses. Commercial renewable energy facilities are an allowable land use within the RC land use zoning district (County Development Code 2007). Existing development in the area includes rural access roads and scattered rural residences. Current land use within the Project site includes one rural residence and several WAPA towers. Legal descriptions are noted in Table 1 and shown on Figure 2.

Table 1: Assessor's Parcel Numbers Associated with the Project

APN	APN	
064-705-108	064-706-109	064-708-137
064-705-111	064-706-113	064-708-141
064-706-101	064-706-115	064-708-142
064-706-102	064-706-116	064-709-103
064-706-103	064-706-120	064-709-104
064-706-104	064-706-122	064-709-105
064-706-105	064-706-129	064-709-106
064-706-108	064-706-130	





Project Location

Figure 1
Vidal Energy
Project Location & Vicinity

3

N

0 750 1,500 3,000

Feet

Name: 21232 CULT Fig 1 Project Location & Vicinity.Mxd
Print Date: 11/11/2020, Author: pcarlos

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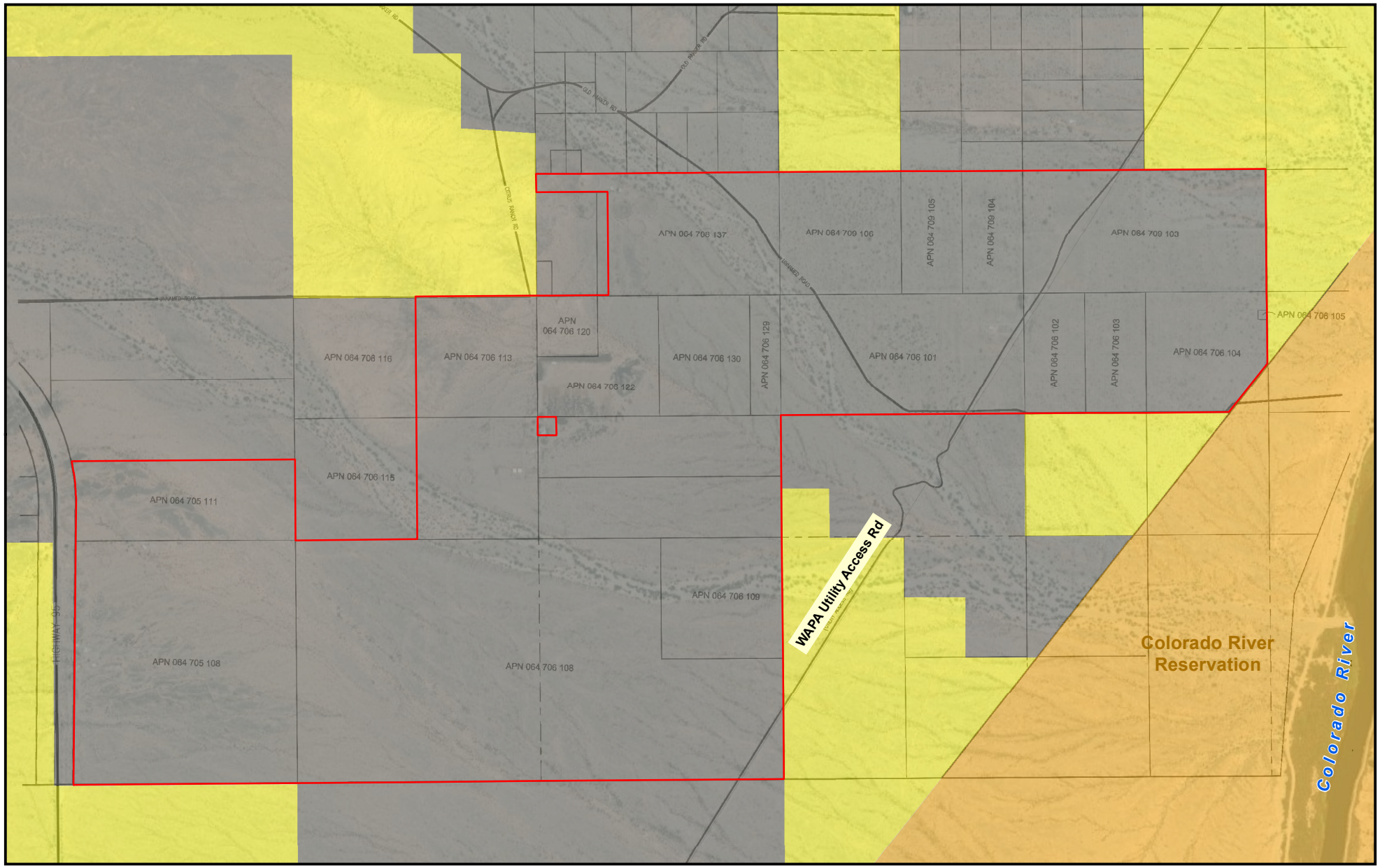

Project Location

Land Ownership

- Bureau of Land Management
- Bureau of Indian Affairs
- Private Land

N

0 500 1,000 2,000

Feet

Figure 2
Vidal Energy Project
Parcel Addition

4

Name: 21232 PROJ Parcel Change.Mxd
Print Date: 3/3/2022, Author: pcarlos

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SECTION 2.0 – SETTINGS

2.1 ENVIRONMENTAL SETTING

As noted in Section 1.0, the proposed Project is in southeastern San Bernardino County, along the western margin of the Colorado River Indian Tribes Reservation, immediately adjacent to the Colorado River, and is approximately 41 miles north of Blythe and 58 miles south of Needles, California. This area is located within the northernmost section of the Sonoran Desert physiography. Average temperatures in nearby Vidal range in January from 41 degrees Fahrenheit (°F) (5 degrees Celsius [°C]) to 67 °F (19 °C), and July average temperatures range from 78 °F (26 °C) to a high of 108 °F (42 °C). The region receives very little rainfall and, on average, receives just 5.17 inches (131 millimeters [mm]) of precipitation per year, with July and January averaging just 0.27 and 0.87 inches (22 mm), respectively.

2.1.1 Geology

During the late Miocene and Pliocene, the Vidal area was submerged in a brackish estuary that reached beyond Needles, California, and resulted in the deposit of the Bouse Formation. Following the retreat of the sea, fluvial deposits issued by the Colorado River backfilled the valley, with older deposits dating to 3.4 to 5.1 m.y, and intermediate age deposits dating to greater than 730,000 years (Carr 1991:17, 19).

Some of the oldest sediments within and immediately adjacent to the Project Area are Old Fluvial deposits (QTr), dating to the Pleistocene and Pliocene. These are described as moderately to poorly indurated clay, silt, sand, pebbles, cobbles, and marl deposited by the Colorado River. Colors are predominantly shades of red and brown. In places riverine ostracods and fossil wood have been identified. Fine-grained deposits near the Mesquite Mountains have normal paleomagnetic polarity, indicating an age younger than 700,000 years. Terraces at different levels exhibit different degrees of soil formation, indicating a wide range of ages. Some deposits channel into underlying units such as the Fanglomerate of Osborne Wash (To), or the Bouse Formation (Tb), or other river deposits. Old Fluvial deposits can be as much as 30 m in thickness. A terrace associated with these deposits occurs at an altitude of 480 ft (144 m) on the west side of the Colorado River (Carr and Dickey 1980).

Some minor fingering of Old Alluvium Unit B (Q2b), dating to the Pleistocene, is mapped in the western-most corner of the Project Area. This deposit is described as consisting of angular to subrounded, fairly well sorted silt, sand, and gravel of local origin. Cobbles and boulders are much less common than in the younger and older units. Surface of Q2b deposits is smooth, darkly varnished, well-sorted, tightly packed pavement. A well-developed soil profile consists of a vesicular silty A2 horizon more than 3 cm thick; a reddish-orange B horizon, usually 10-20 cm thick with very minor day formation; and a Calcium Carbonate horizon as much as 10-12 cm thick containing scattered small soft calcite nodules or filaments, and pebbles coated on the underside with as much as 5 mm of calcite. ^{230}Th-^{234}U and ^{14}C dates in the area of the Whipple Mountains are 61,000 years and 20,000-25,000 years, which is in general agreement with the 11,000--50,000 years age estimated from soil development. Surface is usually less than 5 m above present drainage, except in and near mountains, and deposit thickness is generally less than 3 m (Carr and Dickey 1980).

The majority of the Project Area consists of Young Alluvium (Q3) entwining with Recent Alluvium (Q4) mapped as both Q4+Q3, where the two are interlaced in such detail that separate mapping was impractical (the order of the units listed indicates which unit predominates in areal distribution), and as

$\frac{Q4+Q3}{QTr}$, where a veneer of the younger unit(s) masks, but may not completely conceal, the underlying unit (Carr and Dickey 1980).

Young alluvium (Q3) is a Holocene deposit and is described as a poorly sorted silt, sand, angular to subrounded pebbles, cobbles, and boulders. The deposits form bars and channels and have a slight to occasional dark desert varnish. An incipient soil formation consists of a vesicular, silty A2 horizon, a few centimeters of very light orange-tinted silt and sand with a few pebbles having a very thin partial coating of calcite. In the area south of the Whipple Mountains ^{230}Th-^{234}U and ^{14}C dates gave ages of 6,000 and 7,000 years, respectively, which agree with the age estimated from soil development of 2,000-11,000 years. Q3 deposits are usually less than 1 m higher than unit Q4 except in and very near the mountains, where the elevation difference may be several meters, and deposit thickness is usually less than 2 m (Carr and Dickey 1980).

Recent alluvium (Q4) is a late Holocene deposit and is described as silt, sand, pebbles, cobbles, and boulders located within modern drainage areas. The deposits consist of poorly sorted, angular to subrounded, unconsolidated material of local origin, with deposit depths generally less than 2 m. Age estimates for Q4 deposits range between 0-2,000 years (Carr and Dickey 1980).

2.1.2 Soils

After review of USDA Soil Conservation Service and by referencing the USDA NRCS Web Soil Survey (USDA 2020), it was determined that the Survey Area is located within the Colorado Desert Area (CA803) and the Colorado River Indian Reservation; Parts of La Paz County, Arizona; and Riverside and San Bernardino Counties Area (AZ656). Based on the results of the database search, no digital soil data exists for this area; however, soil data exists just east of the Project Area that visually appears to be contiguous with the soils found within the Project Area. Assuming the soils are the same or similar to adjacent soils, the following three soils types may be present in the Project Area:

- Badland-Torriorthents-Torripsamments complex, 10 to 60 percent slopes is a soil complex composed of 35 percent Badland, 30 percent Torriorthents and similar soils, 20 percent Torripsamments and similar soils, and 15 percent of other minor components. Torriorthents are hillslopes formed from unconsolidated alluvium derived from claystone and/or unconsolidated sediment alluvium derived from sandstone and siltstone with 20 to 45 percent slopes. A typical soil profile consists of very gravelly sandy loam to a depth of 10 inches and extremely gravelly sandy loam below 10 inches. Torriorthents are characterized by high runoff and low water storage profile. Torripsamments are hillslopes formed from the same parent material as Torriorthents with 10 to 30 percent slopes. A typical soil profile consists of fine sand to a depth of 60 inches. Torripsamments are also characterized by high runoff and low water storage profile.

- Carrizo extremely gravelly coarse sand, 0 to 3 percent slopes is a soil found on floodplains and is derived from stratified mixed igneous alluvium. A typical soil profile consists of extremely gravelly coarse sand to a depth of 5 inches, followed by very gravelly coarse sand to a depth of 60 inches. This excessively drained soil type is characterized by low runoff and a very low water storage profile. Carrizo Series soils are used for rangeland and recreation and provide wildlife habitat. Vegetation typical of this soil series includes creosote (*Larrea tridentata*), bur-sage and burrobrush species (*Ambrosia* spp.), and range rhatany (*Krameria erecta*).

- Superstition gravelly loamy fine sand, 0 to 3 percent slopes comprises somewhat excessively drained soils found on terraces and is derived from alluvium and sandy eolian deposits. A typical soil profile consists of gravelly loamy fine sand to a depth of 1 inch followed by loamy fine sand to a depth of 60 inches. This soil type is characterized by very low runoff and a low water storage profile. Superstition Series soils are important for livestock grazing and irrigated cropland. Vegetation typical of this soil series includes creosote and bur-sage.

2.1.3 Habitats / Vegetation Communities

Six vegetation communities in addition to Bare Ground and Developed areas were mapped within the Project Area: Blue Palo Verde – Ironwood Woodland, Creosote Bush Scrub, Rigid Spineflower – Hairy Desert Sunflower Desert Pavement Sparsely Vegetated Alliance, Disturbed Creosote Bush Scrub, Disturbed, and Tamarisk Thickets. The dominant vegetation community within the Project Area is Creosote Bush Scrub, with two large washes dominated by Blue Palo Verde – Ironwood Woodland.

Blue Palo Verde – Ironwood Woodland

Blue Palo Verde – Ironwood Woodland as described by Sawyer et al. (2009), is dominated by blue palo verde (*Parkinsonia florida*), ironwood, or smoke tree (*Psorothamnus spinosa*) less than 60 feet in height. The tree canopy is continuous to open where shrubs are common, and seasonal annuals are present in the herbaceous layer. Blue Palo Verde – Ironwood Woodland habitat occurs along desert arroyo margins, seasonal watercourses and washes, bottomlands, middle and upper bajadas and alluvial fans, and lower slopes that are occasionally flooded or saturated at elevations between 30 and 1,600 feet above mean sea level (amsl). Blue Palo Verde – Ironwood Woodland is consistent with Desert Dry Wash Woodland as described by Holland (1986).

Blue Palo Verde – Ironwood Woodland is present within the Project Area along two large washes that generally flow from west to east in the northern and central portions of the Project Area. In addition, this habitat is associated with a number of smaller drainages along the southern border of the Project Area. Plant species found on the Project Area typical of this vegetation community include: white bur-sage (*Ambrosia dumosa*), cheesebush (*Ambrosia salsola* var*. salsola),* sweetbush (*Bebbia juncea* var. *aspera*), silver cholla (*Cylindropuntia echinocarpa*), brittlebush (*Encelia farinosa*), desert lavender (*Condea emoryi*), creosote bush, Anderson's wolfberry (*Lycium andersonii*), and cat's claw (*Senegalia greggii*). There are 81.44 acres of Blue Palo Verde – Ironwood Woodland in the Project Area.

Creosote Bush Scrub

Creosote Bush Scrub as described by Sawyer et al. (2009) consists of widely spaced shrubs less than 10 feet in height dominated by creosote bush or co-dominant with white bur-sage, cheesebush, and/or brittlebush, frequently with bare ground between shrubs. Growth occurs from winter to early spring if rainfall is sufficient. Ephemeral herbs typically flower from late February to March. Creosote Bush Scrub can be found on alluvial fans, bajadas, upland slopes, and minor intermittent washes with well-drained secondary soils and sometimes desert pavement at elevations between 245 and 4,256 feet amsl. Creosote Bush Scrub is consistent with the Sonoran Creosote Bush Scrub and Mojave Creosote Bush Scrub communities as described by Holland (1986).

Creosote Bush Scrub habitat is located in the northeastern portion of the Project Area that was previously used for dry-land and irrigated farming and contains a high amount of non-native species; however, the level of disturbance and non-native species cover does not rise to the level of being considered a disturbed

form of this habitat. Plant species found within the Project Area that are typical of this vegetation community include: cheesebush, sweetbush, pencil cholla (*Cylindropuntia ramosissima*), silky dalea (*Dalea mollissima)*, barrel cactus (*Echinocactus polycephalus)*, brittlebush, and bush encelia (*Encelia frutescens*). Emergent trees or tall shrubs may be present at low cover. There are 913.57 acres of Creosote Bush Scrub within the Project Area.

A disturbed form of this habitat is located in proximity to two now-abandoned residential areas. This vegetation type has been disturbed by human activities such as off-road vehicle use, the introduction of non-native species, past development, compaction, and/or littering; and it is considered of lower quality than the Creosote Bush Scrub habitat described above. Non-native, weedy species found in these areas include: Saharan mustard (*Brassica tournefortii*), foxtail brome (*Bromus rubens*), and Mediterranean schismus (*Schismus barbatus*). A total of 30.75 acres of Disturbed Creosote Bush Scrub is located within the Project Area.

Rigid Spineflower – Hairy Desert Sunflower Desert Pavement Sparsely Vegetated Alliance

The Rigid Spineflower – Hairy Desert Sunflower Desert Pavement Sparsely Vegetated Alliance as described by Sawyer et al. (2009) can be found in broad alluvial fans and lower slopes in the desert and are associated with areas of desert pavement. The ground surface is sandy and gravelly mixed alluvium, with various rocks and gravel along with interstitial fine sediments. The herb layer is sparse to intermittent, and the non-vascular (cryptogamic crust) layer is sparse to intermittent. The shrub layer is often sparse or non-existent. Rigid spineflower (*Chorizanthe rigida*) and/or hairy desert sunflower (*Geraea canescens*) is characteristically present in the herbaceous layer. Rigid Spineflower – Hairy Desert Sunflower Desert Pavement Sparsely Vegetated Alliance is consistent with Sonoran Desert Scrub or Mojave Creosote Bush Scrub communities as described by Holland (1986).

Rigid Spineflower – Hairy Desert Sunflower Desert Pavement Sparsely Vegetated Alliance is present within the Project primarily along the western edge of the Project Area and within 0.5 mile of US-95. Plant species found on the Project Area typical of this vegetation community include: rigid spineflower with lesser amounts of trailing windmills (*Allionia incarnata*), Saharan mustard, foxtail brome, primrose (*Camissonia* spp.), pincushion (*Chaenactis* spp.), spurge (*Euphorbia* spp.), brittle spineflower (*Chorizanthe brevicornu*), cryptantha (*Cryptantha* spp.), and common Mediterranean grass (*Schismus* spp.). Shrub cover is very sparse, if present at all, and when present includes bur-sage, desert holly (*Atriplex hymenelytra*), silver cholla, brittlebush sunflower, white rhatany (*Krameria grayi*), creosote bush, beavertail cactus (*Opuntia basilaris*), and/or honeysweet (*Tidestromia suffruticosa*). There are 20.26 acres of this vegetation type located within the Project Area.

Tamarisk Thickets

Tamarisk Thickets as described by Sawyer et al. (2009) can be located in a variety of riparian and upland areas and is generally dominated by any number of tamarisk species. Tamarisk are known to be strongly phreatophytic, and they often supplant native vegetation following a major disturbance. Soil is usually sandy or gravelly in braided washes or intermittent streams, often in areas where high evaporation increases the stream's salinity. Tamarisk Thickets is consistent with the Tamarisk Scrub community described by Holland (1986).

Tamarisk Scrub is present as a windbreak along the northern and western edges of a former agricultural area in the central portion of the Project Area. Plant species found within the Project Area typical of this vegetation community include a nearly monotypic makeup dominated by Mediterranean tamarisk

(*Tamarix ramosissima*) with scattered annual species including schismus, Saharan mustard, and cryptantha along the periphery of the habitat. There are 1.53 acres of Tamarisk Thickets within the Project Area.

Disturbed

Areas classified as Disturbed habitat tend to be dominated by pioneering herbaceous species that readily colonize disturbed ground and that are typically found in temporary, often frequently disturbed habitats (Barbour et al. 1999) that have a high percentage of non-native weedy species (i.e., greater than 25 percent of the species cover). The soils in Disturbed areas are typically characterized as heavily compacted or frequently disturbed. The vegetation in these areas is adapted to living in compacted soils where water does not readily penetrate the soil. Plant species found within the Project Area typical of this vegetation community include non-native annual species such as Arabian schismus, Mediterranean schismus, sand peppergrass (*Lepidium lasiocarpum* subsp. *lasiocarpum*), and Saharan mustard. This habitat is associated with areas along the extreme western edge of the Project Area along US-95 as well as within a previous agricultural area within the central portions of the Project Area. There are 24.95 acres of Disturbed habitat within the Project Area.

Bare Ground

Bare Ground areas are devoid of vegetation. These areas are generally associated with the existing dirt access roads located throughout the Project Area. A total of 16.61 acres of Bare Ground are located within the Vegetation Survey Area.

Developed

Developed areas are areas that have been altered by humans and now display man-made structures such as houses, paved roads, buildings, parks, and other maintained areas.

Developed areas are present within the Project Area and are associated with existing residential structures located along the western edge and eastern-central portions of the Project Area. There are 1.79 acres of Developed areas within the Project Area.

Table 2 below summarizes the vegetation communities within the Project Area and the acreage of each community.

Table 2: Vegetation Communities within Project Area

Vegetation Community	Project Area (acres)
Blue Palo Verde – Ironwood Woodland	81.44
Creosote Bush Scrub	913.57
Disturbed Creosote Bush Scrub	30.75
Rigid Spineflower – Hairy Desert Sunflower Desert Pavement Sparsely Vegetated Alliance	20.26
Tamarisk Thickets	1.53
Disturbed	24.95
Total Vegetation Communities	***1,072.50***
Bare Ground	16.61

Table 2: Vegetation Communities within Project Area

Vegetation Community	Project Area (acres)
Developed	1.79
Total	**1,090.90**

*Data from biological survey and detailed in the biological report for this project.

2.2 CULTURAL SETTING

2.2.1 PREHISTORY

The Vidal Solar Project Area is situated at the northern edge of the Sonoran Desert, near its intersection with the Mojave Desert. At this location, the Mojave Desert encompasses a thin wedge of Sonoran Desert extending along the Colorado River, stretching only a few miles west of the river. The Sonoran Desert is composed of several subregion deserts for which this aspect is defined as part of the Colorado Desert.

Because the Project Area is situated near the convergence of these two great desert systems, the cultural sequences that have been developed for these two deserts are best described individually. However, these sequences do not have clear lines of demarcation within the vicinity of the Project Area; desert evolution and human occupation in the desert region have been varied and dynamic over the course of millennia, and no delineation of where one ends and the other begins has been definitively established.

As one of the first researchers in the Southern California deserts, Malcolm Rogers and his cultural chronologies have influenced and confounded subsequent researchers for decades. Rogers (1966) was among the first to synthesize and propose a regional overview; but because he frequently added new data to his thesis, several revisions—often contrary to a previous iteration—were produced (Warren 1984; Weide 1976; Schaefer 1994; Hall 2000). Rogers proposed a sequence beginning with the San Dieguito Complex, which he subdivided into San Dieguito I, II, and III. This cultural complex spanned from 11000 to 9000 before present (B.P.). After a 2000-year hiatus, the Amargosa Complex (Amargosa I–III) followed, dating from 7000 to 1950 B.P. Rogers then proposed the introduction of Basketmaker III and Pueblo II Periods, dating from 1950 to 1450 B.P. This was then followed by Prehistoric Yuman and Shoshonean Groups from approximately 1450 to 450 B.P., and then by the Paiute and Mojave groups after 450 B.P. Numerous additional regional chronologies have followed Rogers's original work, some of which are presented here (Figure 3).

Mojave Desert

The Mojave Desert cultural sequence had been divided into five major periods by Warren (1984:413-424) and Warren and Crabtree (1986). This sequence includes Lake Mojave, Pinto, Gypsum, Saratoga Springs, and Shoshonean/Protohistoric periods. Warren (1984:413) describes the Lake Mojave period, from 10000 to 7000 B.P., as being "a generalized hunting and gathering subsistence system." The Pinto Period which follows, dating approximately from 7000 to 4000 B.P., is defined by its characteristic Pinto-style projectile point as well as by scrapers and knives. Warren also suggested that this period lacked ground stone implements. Schroth [1994:79], however, states "Ground stone, principally cobble manos and block metates, are present at 16" of 22 Pinto-period sites in the Pinto Basin. Campbell and Campbell (1935:28-29) also noted ground stone at Pinto Basin sites, though they could not necessarily place these within the Pinto-period. Nevertheless, Campbell and Campbell noted that given the numerous associations of ground stone within these sites they could not disclaim their contemporaneity with the other Pinto-period artifacts. These factors suggest that Pinto-period occupation comprised small bands of people, as evidenced by the non-intensive seasonal encampments that date to this period. By 4000 B.P. Humboldt Concave Base, Gypsum Cave, Elko Eared, and Elko Corner-notched projectile points are evident in the archaeological record. Additionally, ground stone tools suggest a shift toward a changing economy based on processing hard seed goods.

Figure 3: Cultural Sequence Concordance

<table>
<tr><td>100 B.P.</td><td rowspan="3">Paiute and Mojave</td><td rowspan="2">Shoshonean/ Protohistoric</td><td rowspan="2">Late Prehistoric</td><td>Tecopa</td><td rowspan="3">Late Prehistoric</td><td rowspan="3">Patayan I-III</td><td rowspan="3">Yuman I-III</td><td rowspan="2">Increased population growth</td><td rowspan="2">Late Prehistoric</td></tr>
<tr><td>450</td><td rowspan="4">Prehistoric Yuman and Shoshonean Groups</td><td rowspan="3">Saratoga Springs</td><td rowspan="3">Saratoga</td></tr>
<tr><td></td><td rowspan="2">Rose Springs</td><td rowspan="2">Sporadic occupation</td></tr>
<tr><td>950</td><td rowspan="3">Very little archaeological remains; low population densities</td></tr>
<tr><td></td><td rowspan="3">Late Archaic</td><td rowspan="3">Amargosa</td><td rowspan="3">Early period II</td></tr>
<tr><td>1450</td><td rowspan="2">Basketmaker III and Pueblo II</td><td rowspan="3">Gypsum</td><td rowspan="3">Gypsum</td><td rowspan="3">Newberry</td><td rowspan="3">Late Archaic</td></tr>
<tr><td>1950</td><td rowspan="6">Amargosa</td></tr>
<tr><td></td><td rowspan="3">Pinto</td><td rowspan="3">Pinto</td><td>?</td><td rowspan="3">Early Archaic</td><td rowspan="3">Pinto</td><td rowspan="3">Early period I</td></tr>
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<tr><td>date based on 1950 14C baseline</td><td>Rogers' (1966) sequence for the Central Aspect</td><td>Warren's (1984) chronology for the Mojave Desert</td><td>Sutton's (1996) update of Warren's (1984) chronology</td><td>Hall's (2000) sequence for the Mojave Desert</td><td>Schaefer's (1994) sequence for the Colorado Desert</td><td>A second sequence for the Colorado Desert (Altschul 1994)</td><td>A second version of Rogers' cultural se-quence (Weide 1976)</td><td>Weide's (1976) chronology for the Yuha Desert</td><td>Sequence for the Indian Hill Rockshelter site (McDonald 1992)</td></tr>
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After Love and Dahdul, 2002

Indications of long-range trade or travel are also suggested, based on coastal California shell ornaments (Warren 1984:419). By 1450 B.P. use of ground stone and bow and arrow technologies suggests further shifts in desert adaptations. With the introduction of the Rose Spring and Eastgate projectile points through much of the desert region and brownware and buffware ceramics as well as Cottonwood and Desert Side-notched projectile points in the southern desert region, Warren proposed the Saratoga Springs Period. Dating from 1450 to 750 B.P. this period is characterized by "more complex settlement-subsistence system with large permanent villages" (Warren 1984:424) and increased long-distance networks. Warren further suggests that the artifact types associated with the Saratoga Springs Period see continued use through the Shoshonean/Protohistoric time period, from 750 B.P. up to the historic period.

Following on from Warren, Sutton (1996:225-240) presents a slightly altered chronology for the Mojave Desert region. Though claims for a very early "Pre-Projectile Point" occupation of the desert region have been made (Simpson 1958; Davis et al. 1980), Sutton suggests that evidence for these claims is wanting. The first clearly definable period of occupation occurs during the Paleoindian Period. Dating from 12,000 to 10,000 B.P, the Paleoindian Period is characterized by Clovis, or Clovis-style, fluted points, which have been associated with the Big Game Hunting Tradition. Sutton notes, however, that while taking megafauna may have been the primary subsistence strategy, smaller game as well as vegetal foods would have also been procured. Sutton's Pre-Projectile Period cultural sequence is followed by Warren's outline for the Lake Mojave, Pinto, and Gypsum Periods. Sutton nuances Warren's Saratoga Springs Period with his own Rose Springs Period. Dating from 1450 to 950 B.P., the Rose Spring Period follows the Gypsum Period and is characterized by Rose Springs and Eastgate projectile points. These point types—indicating use of bow and arrow technologies along with the use of ground stone tools, imported marine shell artifacts and obsidian, and evidence of more developed middens within sites—suggest more intensive and extensive use of desert resources. Sutton's Late Prehistoric Period, from 950 B.P. to contact, is an extension of the previous Rose Springs Period with a continuation of similar subsistence strategies, but with a replacement of projectile point forms with Cottonwood Triangular and Desert Side-notched points and the introduction of ceramic technology.

Like others, Hall (2000:14-16) suggests a five-stage chronology. Hall begins with the Lake Mojave Period beginning around 10,000 B.P. and extending to 7500 B.P. Hall suggests that during this period the Mojave Desert region was occupied by small bands of hunters and gatherers. Great Basin stemmed points and flaked stone crescents mark this period (Hall 2000:14). Continuing on into the Pinto Period (approximately 7500 B.P. to 4500 B.P.), these mobile bands evidenced an intensified occupation with the advent of ground stone tools, a reliance on large and small game, and an assortment of vegetal resources. Long-range travel or trade is also noted for this period, as illustrated by the presence of *Olivella* sp. spire-lopped beads in archaeological sites.

Following a brief hiatus, a culture adopting a different strategy emerges. Hall (2000:16) describes the Newberry Period, dating from 4000 to 1450 B.P., as one which has "geographically expansive land-use pattern[s]…involving small residential groups moving between select localities." As with the Pinto Period, there is evidence of long-distance trade or travel, along with a diffusion of trait characteristics from other groups. Defining artifact types from this period include Elko and Gypsum contracting stem points and split oval beads. Hall then adopts Warren's Saratoga Springs Period (1450 to 750 B.P) and adds a Tecopa Period (750 B.P to contact) as defining the last 1500 years of cultural development. Like Warren's Saratoga Springs Period, Hall (2000:17) notes an apparent restriction in geographic use area as a consequence of an increasing population. Anasazi grayware ceramics and Rose Springs and Eastgate projectile points are characteristic artifact types for the period. The Tecopa Period sees a continuation of similar patterns noted during the Saratoga Springs Period; and, like Sutton's Late Period, Cottonwood Triangular and Desert Side-

notched projectile points replace earlier iterations. Furthermore, buff and brownwares are introduced into the archaeological record, as well as beads of steatite, glass, and *Olivella* sp., including Thin Lipped, Tiny Saucer, Cupped, and Cylinder styles.

Colorado Desert

Schaefer (1994), using numerous northern Colorado Desert area studies, presents a four-period cultural sequence. Incorporating Rogers' earlier definition of the Malpais Pre-Projectile Period (Rogers 1939:6-7), Schaefer identifies a Paleoindian Period, dating prior to 10,000 B.P. and lasting to 8000 B.P. It is characterized by settlements atop mesas and terraces occupied by small, mobile bands of hunters and gatherers who subsisted on small and large game and a variety of vegetal materials. Key indicators of this period include cleared circular areas in the desert gravels, sometimes called "house sites" or "sleeping circles" (Rogers 1939:6-7; 1966:45-47); gravel pictographs of both the rock alignment and intaglio type (Rogers 1939:9-16); and very simple stone tools.

Schaefer next describes an Early Archaic Period dating from 8000 B.P. to 4000 B.P. and a Late Archaic Period dating from 4000 to 1450 B.P. Both periods appear to have been thinly populated with a population decline beginning in the Early Archaic. Both periods indicated highly flexible group sizes that practiced a seasonally adjusted settlement pattern based on available food resources. Ground stone tool production and use greatly expands during this period. In a work presented by Altschul (1994:27-23), Schaefer elaborates on these periods, shifting the time frame out to 10,000 B.P. and 1350 B.P. and inserting a Middle Archaic Period. While both Early and Late Archaic periods are indicated by low population densities, Schaefer suggests that the Middle Archaic witnessed a population increase. Based on interpretations of increased projectile point variability, some have suggested that social group membership, resource competition, and development of defenses along territorial borders were taking place during this period. Following a return to warmer and drier conditions, the Late Archaic Period appears to indicate a return to small, mobile groups focusing on ground stone technology and seasonally available resources. Characteristic artifact types include large spear and dart points, basketry, nets, traps, split-twig figurines (which were also noted in Warren's Gypsum Period), and other perishable items (Altschul 1994:29).

Schaefer's last cultural phase, the Late Prehistoric, has been termed the Patayan and has been subdivided into Patayan I, II, and III. Particular characteristic features of this period are the use of ceramic technology, cremation funerary patterns, and an extensive trail system. Schaefer dates Patayan I from 1150 to 900 B.P., noting that people organized in small mobile groups along the Lower Colorado River and utilized a Hohokam-style tool kit. The Patayan II Period is dated from 900 to 450 B.P. and is notable for the infilling of Lake Cahuilla. The lake encouraged population shifts toward the floodplain and along the western and eastern regions of the desert. Ceramic production also shifted from the Lower Colorado River toward a more local manufacture. Subsequent desiccation of Lake Cahuilla (Altschul 1994:30) marks the Patayan III Period (approximately 450 B.P. to historic times). Populations return to the Lower Colorado River as small, mobile bands subsisting on seasonal hunting and gathering as well as on small-scale agriculture. During this period contact with European explorers is made, giving rise to the Protohistoric Period.

2.2.2 ETHNOGRAPHY

The Project Area is located within the ancestral territory of the Mohave and the Chemehuevi. The Colorado River Indian Tribe is the closest reservation to the Project, though the reservation is a modern construct of the American government and does not reflect the culture history of the area. The population

of the reservation comprises people from the Mohave, Chemehuevi, Hopi, and Navaho. While the Hopi and Navaho were forced into the reservation from further east, both the Mohave and Chemehuevi have been in this region since the tribe split off from the Southern Paiute in the area of current-day Las Vegas (Bean and Vane 2002). Although the origins of the Chemehuevi are of the Southern Paiute, their culture has been heavily influenced by the Mohave (Deur and Confer 2012), testifying to the close relationship between the two tribes. Relationships between the Chemehuevi and the Mohave have not always been peaceful; however, the Mohave retained the rights to travel through the newly established Chemehuevi territory (Bean and Vane 2002).

The subsistence pattern of the Chemehuevi was agriculturally based. Maize, squash, melons, gourds, beans, cowpeas, winter wheat, and some grasses were key crops grown in the floodplain areas along the Colorado River. Hunting and gathering were also important elements of the subsistence strategy undertaken by younger adults while the elderly stayed in the village to tend to the crops (Deur and Confer 2012).

Spiritually, the Chemehuevi were tied to their land, with spiritual power coming from particular landmarks within their territory such as mountain peaks, caves, or springs. Puha trails link the landmarks together and are also considered to have spiritual power (Deur and Confer 2012). The manner in which ceremonies were practiced showed the tribe's close ties with the Mohave. Hunting and gathering traditions followed the traditional Paiute pattern, as did burial practices. Other ceremonial practices testify to the Mohave influence (Deur and Confer 2012).

The Mohave were agrarian and had a reliance on fishing in the Colorado River. It should be noted that the Chemehuevi deferred fishing rights to the Mohave (Deur and Confer 2012). The Mohave people during the protohistoric and historic times were semi-sedentary. Floodplain farming was common, and the Colorado River made up the center of their territory. The extent of their territory extended on either side of the Colorado River to the east as far as the highest crest of the Black Mountains, the Buck Mountains, and the Mohave Mountains, and to the west to the Sacramento, Dead, and Newberry Mountains. From north to south their territory ran from the Mohave Valley to south of what is now the City of Blythe (Bean and Vane 2002).

The Mohave peoples were nationalistic, considering their home territory to be their own country (Deur and Confer 2012). Frequently warring with the Halchidoma, the Mohave and Quechan joined forces to evict the Halchidoma from their territory. The Mohave then encouraged the Chemehuevi to move into the river area (Russell et al. 2002). Trade was of particular importance to the Mohave, who had extensive trail networks to take them to the Pacific Coast in the west, and with the Cahuilla in the south and east (Bean and Vane 2002).

In the spring and summer months the Mohave lived along the banks of the Colorado River to tend to crops and to fish. Crops were planted in the spring as the river, swollen from the winter rains, receded. Seeds were planted in the newly exposed and saturated mud. While the Mohave peoples relied on their crops, their major food staple was mesquite and screwbean pods, which were gathered. In the winter they moved their settlement areas to rises above the river to avoid seasonal flooding (Russell et al 2002).

The closest aspect of the Project Area is approximately 1,800 feet (0.34 mile) from the Colorado River, as presently aligned, and is situated on a mesa terrace approximately 85 feet above the river and approximately 75 feet above the adjacent sandy river margin. It is not expected that riverine farmlands at the higher mesa elevations will be identified. Similarly, the closest aspect of Vidal Wash within the Project

Area is approximately 6,200 feet (1.17 miles) from the current river course and is approximately 85 feet higher in elevation. However, this, and an unnamed wash to the north are not noted for supporting mesquite and screwbean habitat, nor are the adjacent lands. Therefore, activity areas associated with these habitats are not expected within the Project Area.

2.2.3 HISTORY

The first significant European settlement of California began during the Spanish Period (1769 to 1821) when 21 missions and four presidios were established between San Diego and Sonoma. Although located primarily along the coastal margin, the missions dominated economic and political life over the greater California region. The purpose of the missions was primarily for political control and forced assimilation into Spanish society and conversion of the Native American population to Catholicism, along with economic support to the presidios (Castillo 1978).

The Mexican Period (1821-1848) began with the success of the Mexican Revolution in 1821, but changes to the mission system were slow to follow. When secularization of the missions occurred in the 1830s, their vast land holdings in California were divided into large land grants called ranchos. The Mexican government granted ranchos throughout California to Spanish and Hispanic soldiers and settlers (Castillo 1978; Cleland 1941). Even after the decree of secularization was issued in 1833 by the Mexican Congress, missionaries continued to operate a small diocesan church. In 1834, the San Gabriel Mission, including over 16,000 cattle, was turned over to the civil administrator (Hoover et al. 1990:150-177).

In 1848, The Treaty of Guadalupe Hidalgo ended the Mexican-American War and marked the beginning of the American Period (1848 to present). The discovery of gold that same year sparked the 1849 California Gold Rush, bringing thousands of miners and other new immigrants to California from various parts of the United States as well as the rest of the world, most of whom settled in the northern gold fields. For those settlers who chose to come to southern California, much of their economic prosperity was fueled by cattle ranching rather than by gold. This prosperity, however, came to a halt in the 1860s as a result of severe floods and droughts as well as legal disputes over land boundaries and property ownership, which put many rancho owners into bankruptcy (Castillo 1978; Cleland 1941).

Shortly after the turn of the twentieth century, gold and other mineral prospecting in the Riverside Mountains led to a bevy of activity in the vicinity of the Project Area. Gold discoveries in the Calzona mining district during the first decade of the new century brought an influx of people and capital. Per the June 22, 1911, edition of the *Los Angeles Times*, a headline read:

> PROMISING RIVERSIDE MINE
>
> The recent rich strike at the Calzona mine, in Riverside County, seventeen miles from Parker, Arizona, is attracting much attention. The vein is seven feet wide with samples running $200 per gold, with high copper contents. The Calzona is shipping ore to the Humboldt smelter. The Sanborn is also shipping ore, and the Steece is expected to make its first shipment by the end of the month. The mines are located on Riverside Mountain, and promise to become the most important in the Southern section of California. Developments are active at all three properties.

Vredenburgh et al. (1980) discussed the Riverside Mountains mining deposits as part of the Bendigo District. They noted that the Calzona Mines Company took over the McKesson group of claims in 1898,

and by 1911 Calzona property was owned by Dr. Robert Vermilyea of Redlands. Additional deposits were mined by the Steece Mines Company of Springfield, Massachusetts. Ore from the Steece mine were:

> trammed to the river then loaded on boats and floated to Yuma where it was transferred to [railroad] cars … This company [Steece Mines] has had it about 2 years." By May, 1911, the company had sunk a shaft to a depth of 350 feet (other reports put the depth at 800 feet). Sinking of the shaft continued all summer with a large force of men expected to be employed by late November, with the arrival of Mr. Steece from the East Coast. Activity continued at least until the winter of 1913 (Vredenburgh et al. 1980).

At the Calzona mine works a shaft was sunk in September 1911 to a depth of 300 feet, with a cross-cut established at the 100-foot level where an ore body "running $500 per ton" was located. During that year, at the Calzona camp, an assay office, equipment and office buildings as well as a company store were established. Water was pumped 5,000 feet from the Colorado River, providing 10 men working the mine with water during the summer and 30 men during the winter (Vredenburgh et al. 1980).

In October 1912, the Republic Smelting Corporation purchased the Calzona mine, with the Calzona Mines Company continuing to operate the property until 1916, bringing with them several improvement plans. First was a wagon road costing several thousands of dollars. Then they surveyed a spur line route from mine to the Santa Fe tracks in Vidal; this was never constructed. In 1920, the property was sold to the Mountaineer Mining Company of Los Angeles. During 1930s technological improvements in equipment had been brought in, increasing production, and requiring additional labor. By 1934, 12 men were employed in construction and mining. By 1935, with the mill processing 50 tons a day, 26 men worked two shifts at the mine and three shifts at the mill. The improved mill operated only about a month, however, and operations at the mine were suspended in October 1935 due to low recovery of the price of gold. In 1938, 15 men were employed at the mine, with high-grade ore being shipped to the Magna Smelting Company (Vredenburgh et al. 1980).

Some of the results of this mining activity in the area is illustrated on the 1911 USGS topographic map (Figure 4) showing the location of roads in the vicinity of the Project Area, indicating the importance of these travel corridors to the local populations. A number of these roads cross through the Project Area; however, at this scale, it is not possible to trace them exactly on the landscape. The convergence of three of these roads within the mouth of Vidal Wash is interesting as it indicates a possible ferry crossing to a location named Doyle's Landing on the Arizona side of the Colorado River. At the present time no additional information is known describing this possible ferry site. On a 1914 General Land Office (GLO) map, this feature is absent, which is curious given the great amount of detail of other features within and in close proximity to the Project Area. Some interesting information on the GLO map to note is the location of two residences within the Project Area (Figure 5) as well as a telephone line to the Calzona mine (Figure 6) and a multitude of roads to Calzona and other mines and other landmarks (Figure 7). Again, however, at this scale the exact location of particular features can be quite inaccurate, and not infrequently maps included built environment features such as roads and residences more as schematic references, rather than accurate mapping markers. Therefore, it is reasonable to assume that features such as these may be identified on the landscape within the Project Area; however, they also may not.

Figure 4: 1911 USGS Topographic 15-Minute Quadrangle

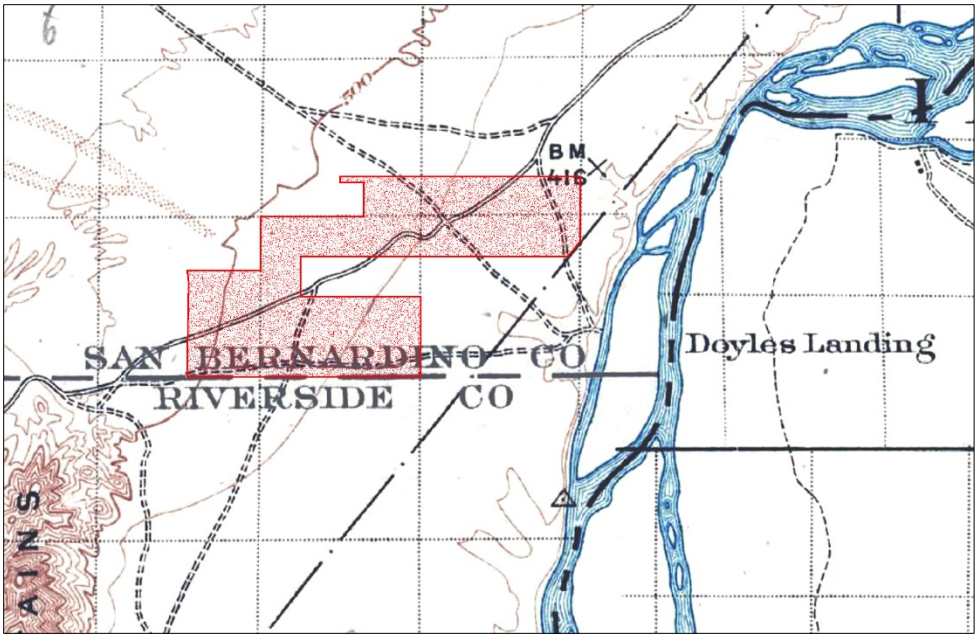


Figure 5: Location of Residences within Project Area on 1914 GLO Map

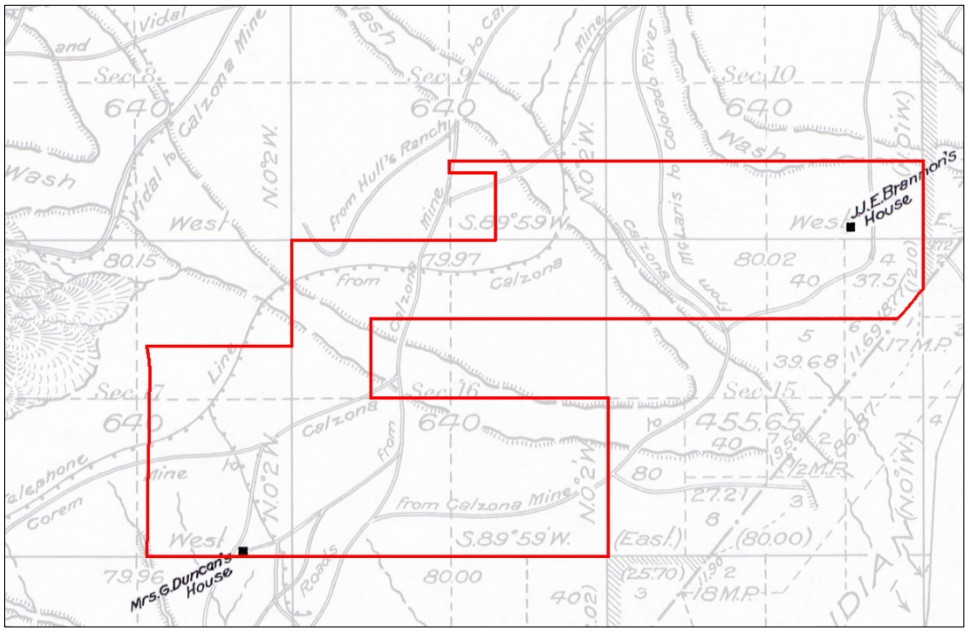


Figure 6: Location of Telephone Line within Project Area on 1914 GLO Map

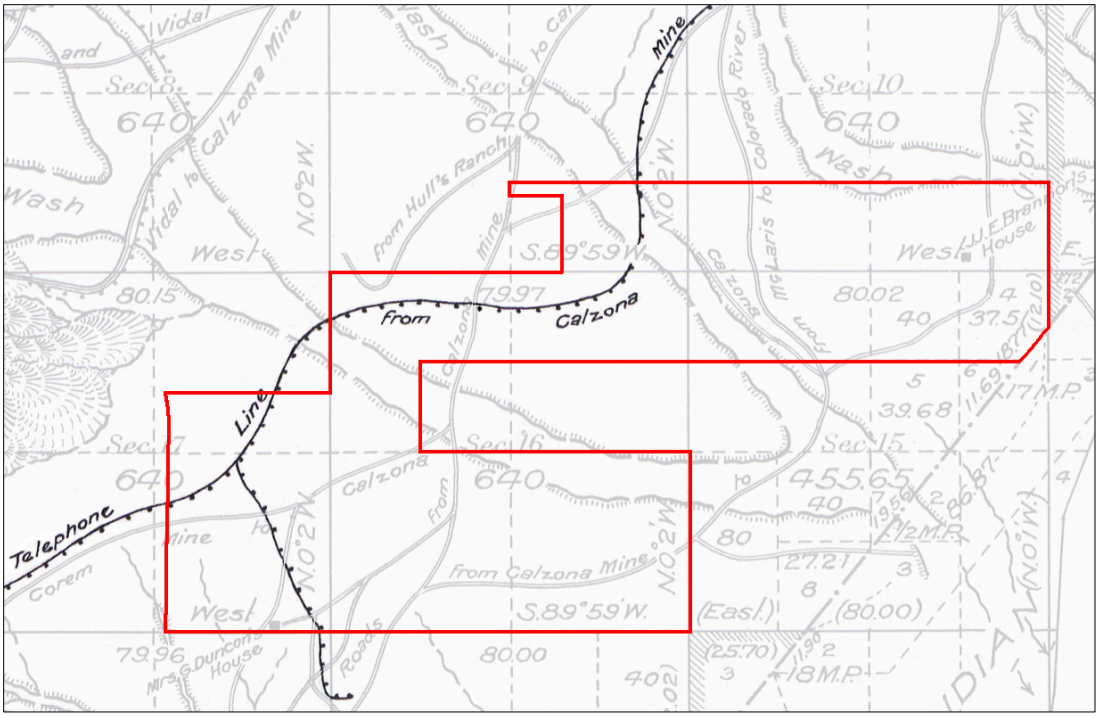
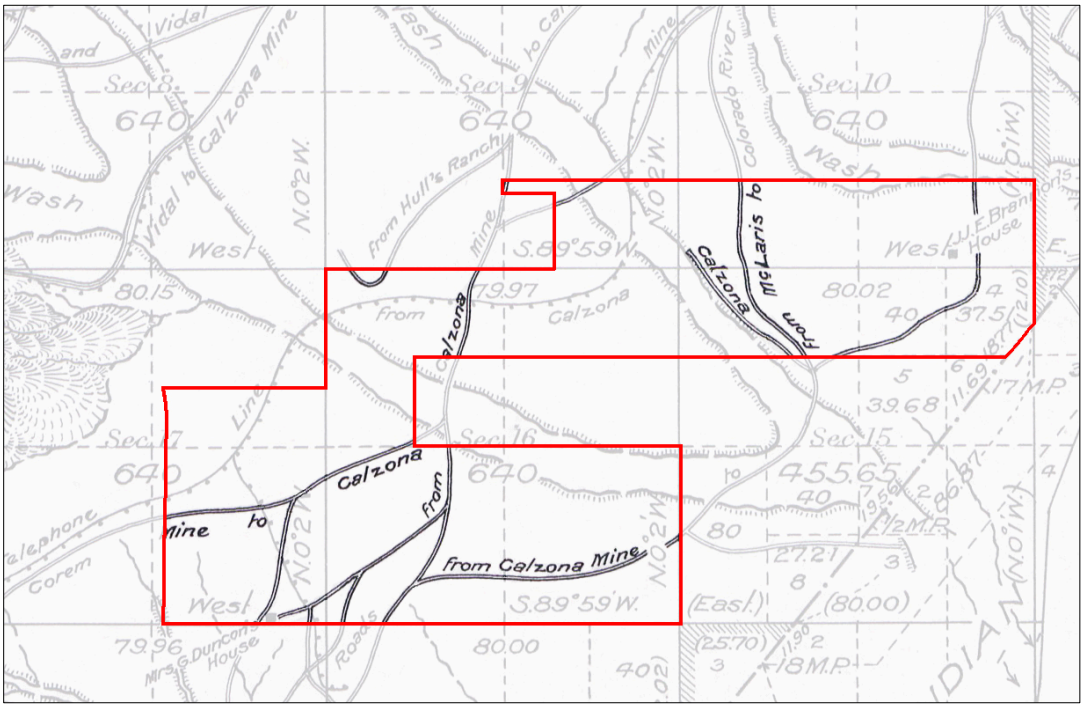


Figure 7: Location of Roads within Project Area on 1914 GLO Map



During this period, a number of speculators filed for patents under the Homestead Act of 1862 on several of the parcels within the Project Area. Limited research of the names of the patent holders did not result in the identification of anyone of note. Most of the Homestead patents were granted between 1919 and 1920, primarily within the area of the northeastern section of the Project Area (the south half of the southwest quarter and southeast quarter of Section 10, and the north half of the northwest quarter and the northeast quarter of Section 15). Additional patents were issued in 1932 and 1935 (the southeast quarter of Section 9 and the southeast quarter of Section 17 respectively). It is not known how the stipulations of the Homestead Act of 1862 were met to enable the landholder to succeed in receiving the patent, as only one parcel appears to have had physical improvements of the kind called for in the act. A farmstead is noted on the 1947 aerial in the middle of the southeast quarter of the southwest quarter of Section 10. It is not known at this time if these two facts are related. By 1969 this property appears to have been demolished and removed and the area reclaimed as agricultural fields.

Very shortly after the United States formally began engagement in the Second World War, the U.S. Army sought to broaden its training capacity outside the eastern states and instructed General George S. Patton to identify training areas in the desert West in an effort to simulate combat situations expected in North Africa and southern Europe. The Desert Training Center (DTC), later the California-Arizona Maneuver Area (CAMA), encompassed an area stretching from Searchlight, Nevada, in the north, to Yuma, Arizona, in the south, just east of Indio, California, in the west, and east to the Colorado River at first, then eastward again along Bill Williams River to Ives Peak and south to Montezuma, north of the Gila River (Figure 8). Over 30,000 square miles of desert was thus encompassed and divided into training areas with camps measuring 3.0 miles by 1.0 mile on average, various small arms ranges, airfields, target areas, and maneuver areas. No official camp, training area, or maneuver area was designated in the Vidal area, but several proximate camps had virtual free range to use the desert region as deemed necessary. The closest camps to the Vidal area are Camp Rice, established in 1942, approximately 18 miles to the west; Camp Granite, established in 1943; and Camp Iron Mountain, established in 1942, 37 and 40 miles to the west, respectively. Camp Rice was in use for only a brief period between August 24 to October 18, 1942, by the 5th Armored Division. Another Division followed, but details for much of Camp Rice is sparse. By 1944 the need for the training center waned as the parameters of the war changed, and the last rotation departed the training center in April 1944. Between its establishment two years earlier until its closure some 2,210,178 military personnel had trained and rotated through the DTC/C-AMA (Bischoff 2008; 2009). It does not appear, despite the proximity of known Divisional Camps and lesser camps and airfields; that any maneuver areas have been designated in or near the Project Area (Figure 9).

In the 1930s large dams were constructed along the Colorado River, supplying both a stable water supply and electric power to the desert southwest. During World War II the electric network was tapped to provide needed power to factories and foundries that supplied war materiel. Following the war, the system continued to be upgraded and built out to supply power to growing metropolitan communities in Arizona and southern California. Among these networks was Parker Dam to Blythe 1 (PAD-BLY 1). This line draws power from Parker Dam, which was constructed by the Bureau of Reclamation between 1934 and 1938. Designed as a diversion dam Parker Dam supplies water from the Colorado River into the Colorado Aqueduct traveling across the Mojave Desert to greater Los Angeles and San Diego, and to the Central Arizona Project for their water needs. Energy generated at the dam was originally designed for irrigation projects and other general usage in southwestern Arizona and southeastern California. PAD-BLY 1 is part of the Parker-Gila Number 2 (PAD-GLA 2) network, which comprises three sections - Parker-Blythe No.1, Blythe-Pilot Knob (Knob), and Gila-Knob segments – all of which are 161-kV transmission lines (Meyer 2014).

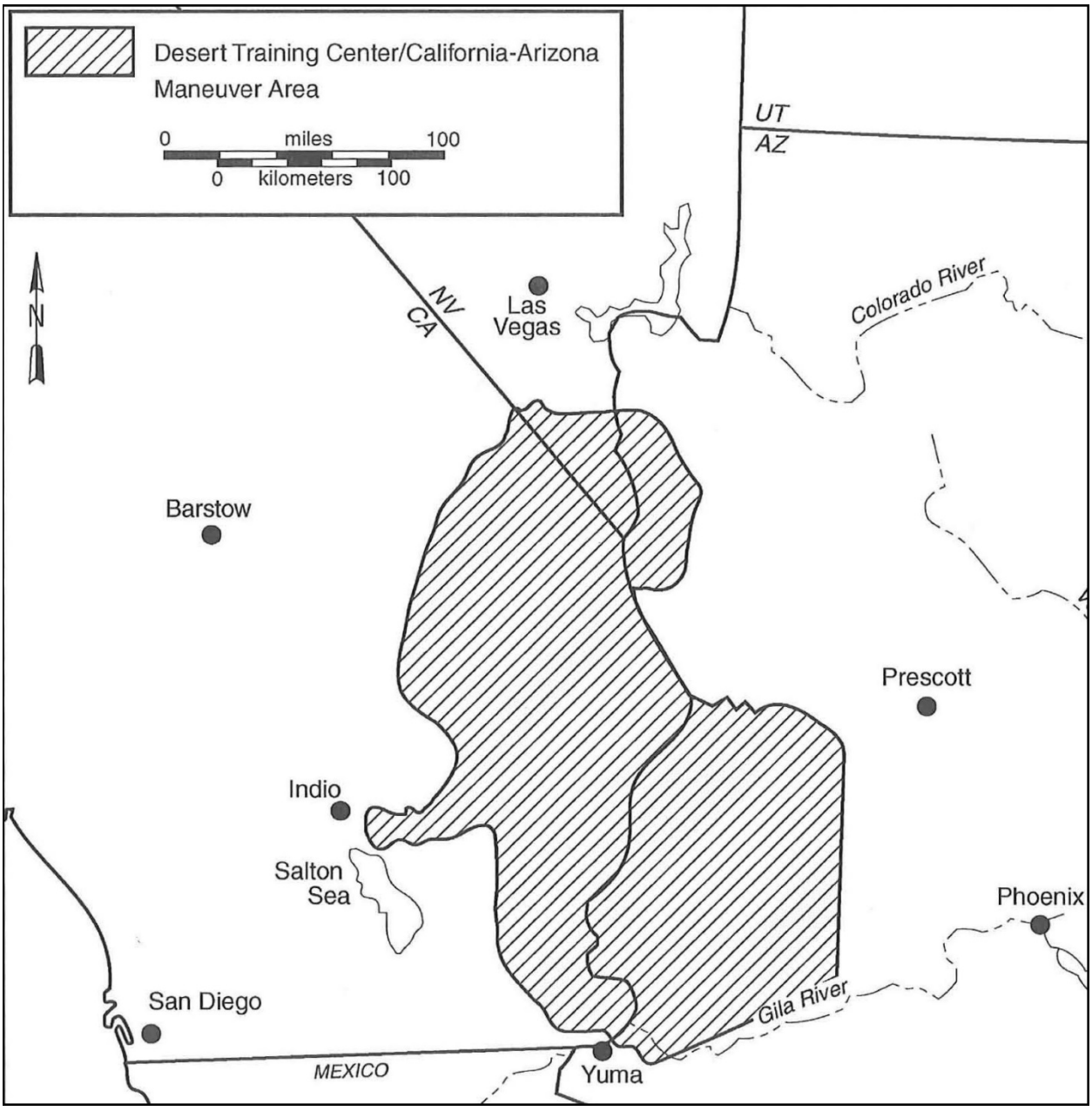
PAD-BLY 1 is an H-frame type line, approximately 60.4 miles long, and was constructed in 1950 by J and J Construction Company. A notice to proceed was received by the contractor on July 1, 1948, and by June 1950, all pole holes had been excavated, H-frames had been erected, and overhead ground wire had been strung. All additional work was completed and accepted on August 31, 1950, and the transmission line was released to operations and maintenance on February 9, 1951. The line was energized and put into service on May 15, 1951. Parker-Blythe No.1 transmission line was eventually interconnected with lines from Hoover, Davis, and Glen Canyon dams as part of the Bureau of Reclamation/Western Area Power Administration system in the Southwest (SWCA 2003).

During the subsequent years the transmission line has undergone routine maintenance and has been updated where needed for continued operations. Loss of structures due to meteorological events have required replacement of poles at 61-3 in 1969, 27-6, 27-7, 53-3, 92-2 through 92-8, and 93-1 in 1970, and 53-3 and 53-4 in 1976. Structures also have been relocated, such as 9-2, 9-3, 9-6, 10-1 and 10-2 or replaced such as at 20-5. In 1977 957 poles were inspected and treated for continued service (Meyer 2014).

In 2003 SWCA analysts evaluated the Parker-Blythe No.1 line noting that it was "built with standard wood-pole, H-frame structures and other standard materials and design that had been in use for many years prior to 1951." SWCA indicated that they did not identify evidence "that the line included features that might be considered innovative or otherwise significant in the history of engineering or the narrower context of electrical transmission." While the "transmission line contributed marginally to the post-World War II industrial and agricultural expansion of the region, …evidence has not been found that the line significantly affected or influenced any historic event or pattern" (SWCA 2003). SWCA recommended the Parker-Blythe No.1 line to be not eligible for the National Register of Historic Places. California State Historic Preservation Officer (SHPO) determined the transmission line as not eligible due to its lack of integrity on July 11, 2018, via a Programmatic Agreement, as well as on February 13, 2019 (CA SHPO WAPA_2019_0123_001), and again on January 31, 2022 (CA SHPO WAPA_2021_1028_001). The Arizona SHPO also determined the line as not eligible on February 19, 2019 (2019-0333(147138)).

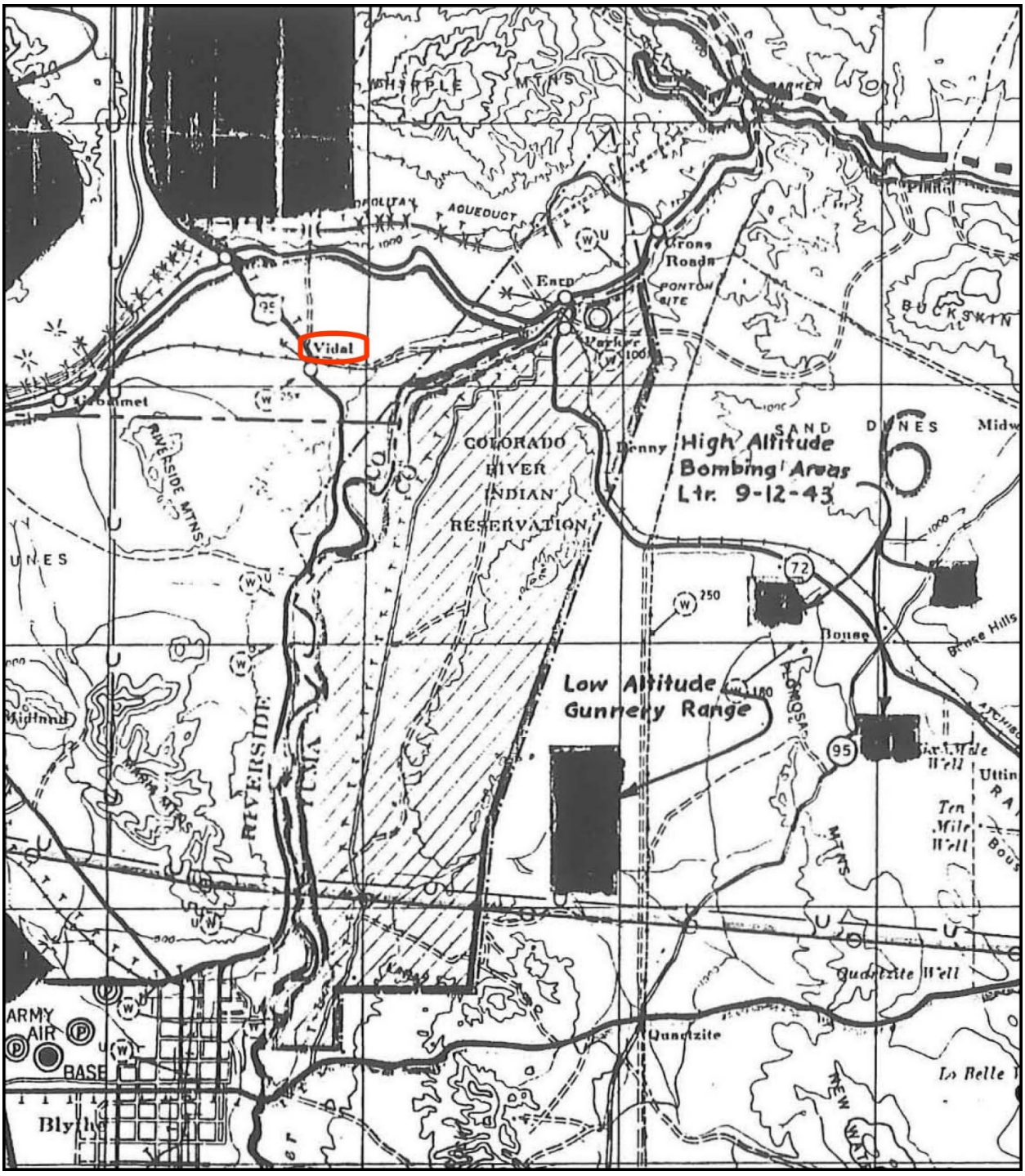
Some 20 years following the close of operations at the DTC a Cold War exercise was implemented within the same general region of the Mojave Desert. Joint Exercise Desert Strike, also known as Operation Desert Strike or simply Desert Strike, was conducted in 1964 as a simulated battlefield exercise located within much of the previous DTC/C-AMA footprint (Figure 10). The ground maneuver area extended from Barstow, California, just east of Edwards Air Force Base, eastward 170 miles to Kingman, Arizona, and from a point approximately 40 miles south of Las Vegas, Nevada, southward 160 miles to Blythe, California. The area was used for "a semi-controlled exercise under the direction of U.S. Strike Command that allowed opposing joint task forces, comprised primarily of armored and mechanized forces with full air support but including airborne units, a maximum of 'free play' initiative to develop, perfect, and test combat techniques and tactics" (USAF 1964a:4). As executed "[t]wo joint task forces with a total of over 100,000 personnel of the U.S. Air Force and Army, over 900 aircraft, and more than 500 tanks battled for nearly two weeks on a ground maneuver area of some 13 million acres in the desert region of southwestern United States. As in past joint exercises, tactical nuclear weapons training was conducted during the play of the exercise" (USAF 1964a:2).

Figure 8: Location and Extent of the DTC/C-AMA, 1942-1944



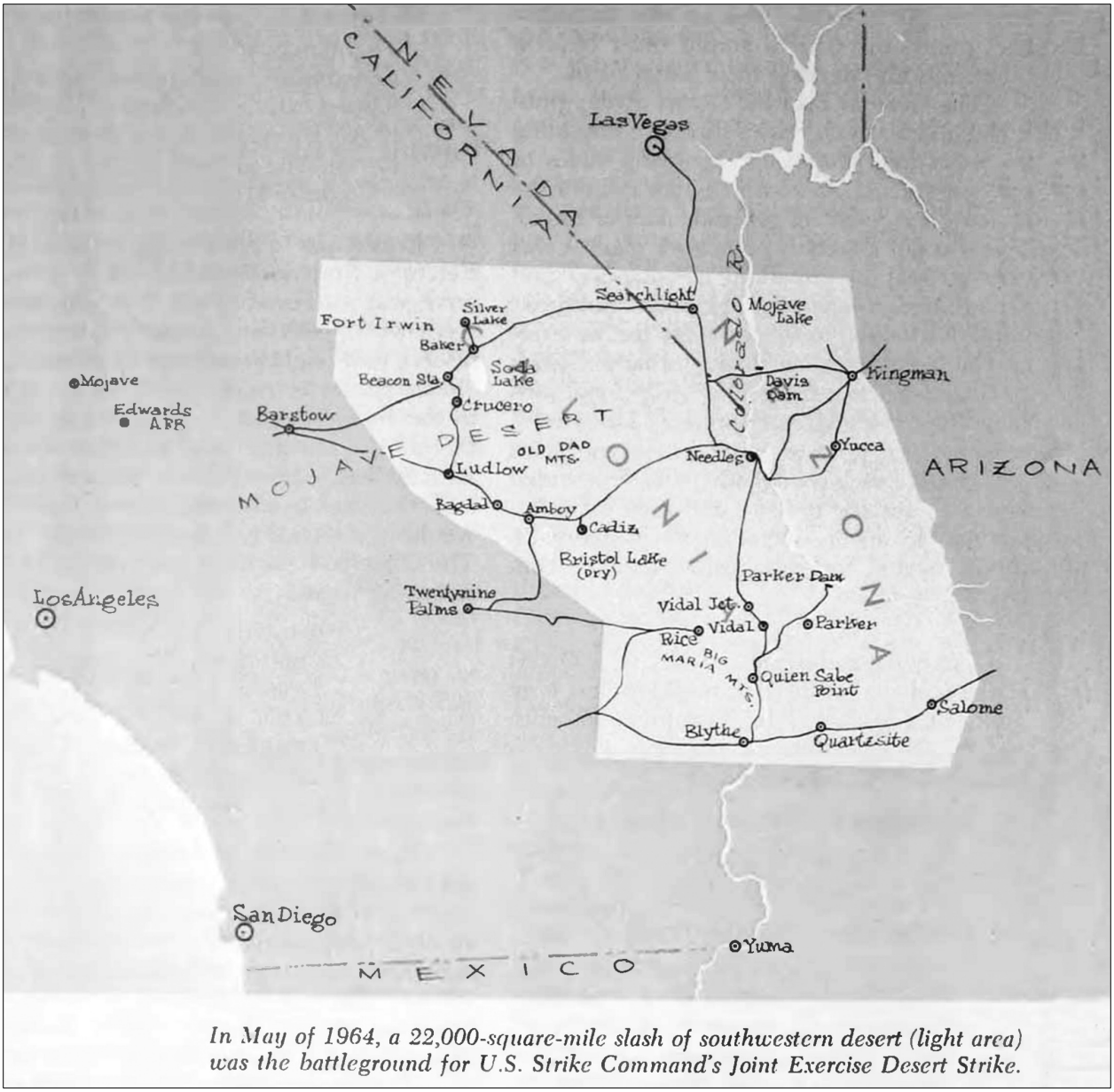
Source: Bischoff 2009:2

Figure 9: Mapped Location of Maneuver and Bombing Areas around Vidal, CA.



Source: Bischoff 2008:116

Figure 10: Location and Extent of the Exercise Desert Strike Battleground



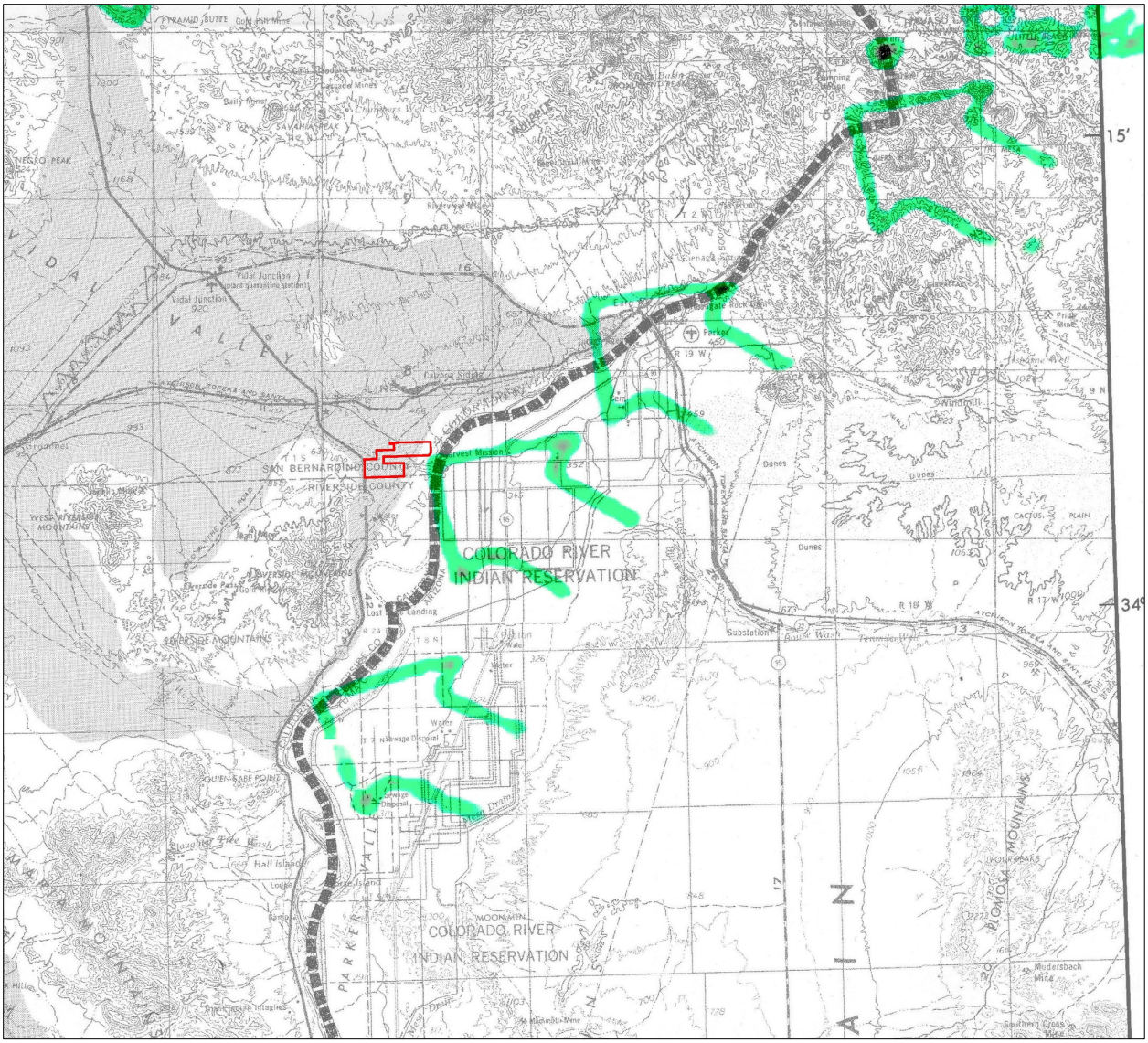
Source: USAF 1964a:6

As part of the exercise JTF Phoenix launched an assault along a front of 140 miles along the Colorado River. Because existing dams and bridges were deemed destroyed or out of bounds by official umpires, attacks across the river were all land-based. Seven tactical crossing sites were chosen, each two to three miles wide (Figure 11) (Kennedy 1964). One such crossing point may have been located opposite the mouth of Vidal Wash as suggested in Figure 11, and certain geographic and built environment features located on the landscape captured in a photograph taken at the time JTF Phoenix staged its invasion of Calonia as part of the Desert Strike war game (Figure 12). These same features, including a three-pole set power line, a single pole set along the shoreline, and a pole-lined road in the background, appear to have been present on a 2012 aerial photograph (Figure 13), which may confirm the crossing area in the 1964 photograph as being opposite Vidal Wash.

Following World War II desert environments began to see an influx of post-war leisure activities such as seasonal sport hunting, rock-hounding, off-road activities such as jeep trailing or dune scaling, and fishing and pleasure crafting on the Colorado River. These activities were and are supported by towns such as Blythe and Needles, California, and Parker, Arizona.

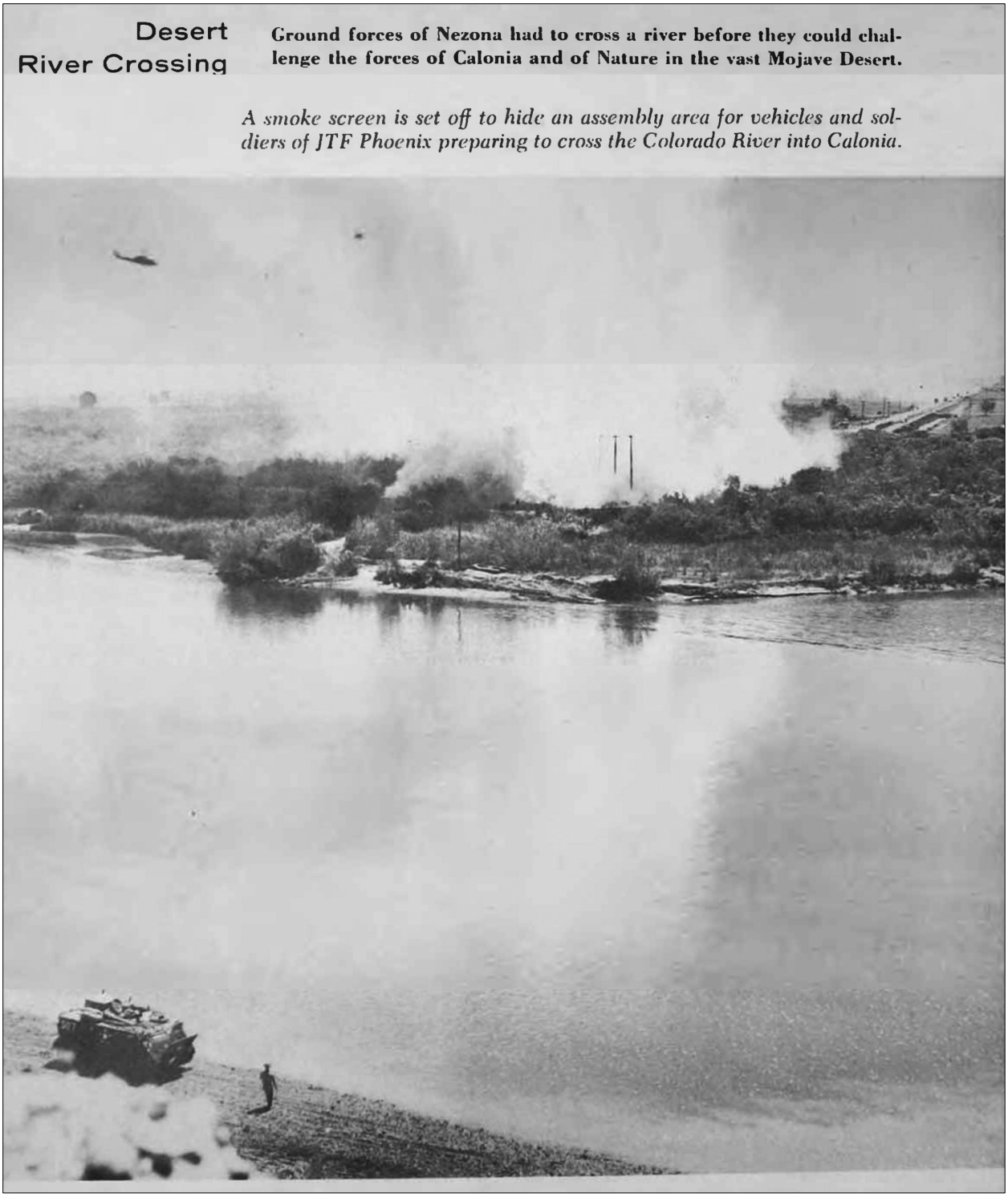
The nearby town of Vidal was named by Hansen Brownell for his son-in-law. The locale was developed as a supply stop for the Arizona and California Railway, also known as the Parker branch of the Atchison, Topeka & Santa Fe Railway, in 1907 (Gudde 1998; Myrick 2001). The line was originally constructed between 1903 and 1910 by the Arizona and California Railway. In 1908 the bridge over the Colorado River near Parker was completed, with the track connecting to Cadiz, California, on June 10, 1910. Service to Cadiz soon followed, starting on July 1 (Myrick 2001). With the completion of the construction of State Route 62 linking Twentynine Palms with Arizona, and the establishment of Vidal Junction at the intersection of US-95, Vidal was bypassed by major east-west traffic and sees only irregular traffic along the US-95 corridor.

Figure 11: Georeferenced Locations of Colorado River Crossing Areas during Exercise Desert Strike



Source: Prose 1986 (base map); USAF 1964a: Map 1 (overlay) with arrows indicating projected crossing points

Figure 12: Preparation for Crossing the Colorado River during Exercise Desert Strike



Source: USAF 1964b:20

Figure 13: Potential Crossing Point on the Colorado River during Exercise Desert Strike

Source: Google Earth 2012

SECTION 3.0 – RESEARCH DESIGN

The primary focus of this effort is to locate and identify all potential cultural resources within the Project Area and to document these finds at the survey level, as part of an environmental document package to be submitted to local decision-makers. The cultural sequence discussed in the previous section and the records search results presented below served as a guiding framework through which cultural resources may be identified.

3.1 REPORTS WITHIN THE STUDY AREA

A records search request was submitted to the South Central Coastal Information Center (SCCIC) at California State University, Fullerton, on July 9, 2020. The records search results were received on August 27, 2020.

The records search indicates that three studies have taken place within the proposed Project Area, and three studies are located within a 1.0-mile radius of the Project Area (Table 3).

Per reports by Killam and Glass (1994) and Moreno et al. (1995) Parker-Blythe #1 traverses the eastern portion of the Project Area. Neither author indicates whether the Parker-Blyth #1 line is an historic resource. Additional research of Meyer's (2014) comprehensive "Western Area Power Administration Desert Southwest Region's Facilities Historic Context Statement" indicates that, while the 1950 transmission line is noted and discussed, it does not appear to have been evaluated.

Heidelberg (2010) reported on a monitoring program associated with a 12 kV pole replacement project that included one pole in the eastern portion of the northern part of the Project Area. Given that the pole was replaced, and no resources were recorded, it is likely that the pole, or the pole line, was not considered significant.

Reports located outside the Project Area were not requested, and their subject matter is not discussed in this report.

Table 3: Reports within a 1.0-Mile Radius

Report Date	Authors	Report No. and Title	Subject Matter
1994	Killam, William R. and Stephen Glass	SB-03665 - *Cultural Resource Investigations for the Parker-Blythe #1 Transmission Line*	Parker-Blythe #1 161 kV Transmission Line: does not appear to have been evaluated
1995	Moreno, Jeryll L., Renee Kolvet, Dawn S. Snell, and Geoff Cunnar	SB-07201 - *Intensive Cultural Resources Inventory for the Western Area Power Administration on the Parker-Blythe #1 161 kV Transmission Line, La Paz County, Arizona, Riverside and San Bernardino Counties, California*	Survey of the Parker-Blythe #1 161 kV Transmission Line: No identified resources within the Project Area
2010	Heidelberg, Kurt	SB-0761 - *Archaeological Survey Report for Southern California Edison's Service Pole Replacements on the Crossing 12 kV Line near Vidal, San Bernardino County, California*	Project appears to have replaced two poles within the northeastern portion of the Project Area. No resources recorded in association with the monitoring report

Table 3: Reports within a 1.0-Mile Radius

Report Date	Authors	Report No. and Title	Subject Matter
2009	Parr, Robert E.	SB-06430 - *Cultural Resource Assessment for the Southern California Edison Company Needles School District Distribution Substation Plan (DSP) Project, San Bernardino County, California*	Outside the Project Area: report not requested
2000	Telus, Carol	SB-05296 - *A Class III Cultural Resources Survey for Routine Bankline Maintenance of Four Areas along the Arizona and California Sides of the Colorado River La Paz County, Arizona Riverside County, California San Bernardino County, California*	Outside the Project Area: report not requested
2004	Lambert, Meranda	SB-05295 - *Invitation to Comment on the Proposed Telecommunications Project: LSANCA8135D/950-044-541D/9250 HWY 95*	Outside the Project Area: report not requested

3.2 PREVIOUSLY RECORDED CULTURAL RESOURCES WITHIN THE STUDY AREA

None of the reported studies within the Project Area, or within a 1.0-mile radius of the Project Area resulted in the identification of cultural resources within the Project Area. One unreported study resulted in the identification of a road segment (P-36-024757) along the eastern margin of US- 95, which is directly connected to a longer dirt road that crosses through the east-west axis of the northern third of the Project Area. No indication as to the status of this road segment on the California Register of Historical Resources (CRHR) is given (Kremkau 2012a). Two other resources were identified (Gardner 1975a and b) outside the Project Area. These include a prehistoric lithic reduction station, which was destroyed during a geological testing program, and three prehistoric sleeping circles, the current status of which are unknown. While no cultural resources were identified within the Project Area, Table 4 summarizes those located within a 1.0-mile radius of the proposed Project.

Table 4: Previously Recorded Resources within a 1.0-Mile Radius

Primary No.	Trinomial	Description	Date Recorded	Recorder	Within Project Area?	Status
P-36-001518	CA-SBR-001518	Site, Prehistoric - lithic scatter	1975	Gardner	Outside	Destroyed
P-36-001519	CA-SBR-001519	Site, Prehistoric – three sleeping circles	1975	Gardner	Outside	Unknown
P-36-024757		Dirt road segment along east margin of U.S. Route 95	2012	Kremkau	Outside, but links to a road that proceeds through Project Area	CRHR* status unknown

Table 4: Previously Recorded Resources within a 1.0-Mile Radius

Primary No.	Trinomial	Description	Date Recorded	Recorder	Within Project Area?	Status
P-36-024758		Dirt road segment along west margin of U.S. Route 95	2012	Kremkau	Outside, and does not link to a road that proceeds through Project Area	CRHR* status unknown

*CRHR: California Register of Historical Resources

3.3 NATIVE AMERICAN HERITAGE COMMISSION AND TRIBAL SCOPING

Sacred Lands File Search

Chambers Group submitted a request for a search of the Sacred Lands Files (SLF) housed at the California Native American Heritage Commission (NAHC) on July 9, 2020. The results of the search were returned on July 10, 2020, and were positive, indicating that sacred areas are known within or around the Project Area that may be impacted by Project development. The NAHC response included a recommendation to reach out to the Chemehuevi Indian Tribe for more information. The NAHC provided contact information for the Chemehuevi Indian Tribe, the Colorado River Indian Tribes, the Fort Mojave Indian Tribe, the Quechan Tribe of the Fort Yuma Reservation, and the Twenty-Nine Palms Band of Mission Indians, who may have information on cultural resources on the Project Area..

Informal project scoping letters requesting information were sent via certified mail on August 14, 2020 (Confidential Appendix B). E-mails were also sent to the contacts in an effort to elicit a quicker response. The Quechan Tribe of the Fort Yuma Reservation responded and has declined involvement. An e-mail was received from the Tribal Historic Preservation Office (THPO) of the Colorado River Indian Tribes requesting information on the Project Area. This response was received on November 11, 2020. Formal Tribal consultation under Section 106 of the National Historic Preservation Act (NHPA) remains the responsibility of the lead federal agency, and is not addressed in this report.

SECTION 4.0 – METHODS

4.1 FIELD METHODS

Chambers Group survey teams are trained in established field methods and adept at identifying the entire range of cultural resources likely to be found for each project. Cultural materials encountered may include prehistoric artifacts (e.g., flaked stone tools, tool-making debris, stone milling tools), historic-period artifacts (e.g., metal, glass, ceramics), sediment discoloration that might indicate the presence of a cultural midden, as well as depressions and other features indicative of the former presence of structures or buildings (e.g., post holes, foundations).

Survey of the Project Area took place over the course of three weeks in two separate rotations. The first rotation occurred between July 27 and July 31, 2020, and included Chambers Group archaeologists Evelyn Hildebrand, B.A.; Kellie Kandybowicz, B.A.; John McDermott, M.A.; Clark Austin, M.S. (Biology); and Richard Shultz, M.A. The second rotation occurred between October 5 and October 14, 2020, and included Chambers Group archaeologists Kellie Kandybowicz; John McDermott; Julian Armen; Sarah Roebel, B.A.; and Richard Shultz. The Project Area was surveyed at 15-meter intervals, and crews were equipped with sub-meter accurate Global Positioning Systems (GPS) units for recording spatial data and to document the survey area and all findings through ArcGIS Collector and Survey 123. A prior visit by Chambers Group biologists – Clark Austin; Brian Cropper, B.S.; Colin Durkin, B.S.; Jessica Calvillo, B.A.; and subconsultant Andrew Pigniolo, M.A. (Anthropology; Laguna Environmental) – conducting targeted plant and desert tortoise surveys earlier in the year, identified approximately 15 historic-period and prehistoric-period resources. All of these possible resources were revisited by the cultural resources survey teams.

The archaeologists examined exposed ground surface for artifacts (e.g., flaked stone tools, tool-making debris, milling tools, ceramics), ecofacts (e.g., marine shell and bone), soil discoloration that might indicate the presence of a cultural midden, and features indicative of the former presence of structures or buildings (e.g., standing exterior walls, postholes, foundations) or historic debris (e.g., metal, glass, ceramics). Ground disturbances such as burrows were visually inspected for archaeological resources. In addition, previously identified possible historic properties were visited and photographed for inclusion in this report. These properties were assessed in the field and through post-field analysis of historic aerial photographs.

4.2 EVALUATIVE METHODS

Resource significance is assigned to districts, sites, buildings, structures, and objects that possess exceptional value or quality or those illustrating or interpreting the heritage of San Bernardino County in history, architecture, archaeology, engineering, and culture. Several criteria are used in demonstrating resource significance. The following section details the criteria that a resource must meet to be determined significant.

4.2.1 National Register of Historic Places

The NRHP was established by the NHPA of 1966 as "an authoritative guide to be used by federal, state, and local governments, private groups, and citizens to identify the Nation's cultural resources and to indicate what properties should be considered for protection from destruction or impairment." The NRHP recognizes properties that are significant at the national, state, and local levels. To be eligible for listing in the NRHP, a resource must be significant in American history, architecture, archaeology, engineering, or

culture. Districts, sites, buildings, structures, and objects of potential significance must also possess integrity of location, design, setting, materials, workmanship, feeling, or association. A property is eligible for the NRHP if it is significant under one or more of the following criteria:

A: It is associated with events that have made a significant contribution to the broad patterns of our history.

B: It is associated with the lives of persons who are significant in our past.

C: It embodies the distinctive characteristics of a type, period, or method of construction; represents the work of a master; possesses high artistic values; or represents a significant and distinguishable entity whose components may lack individual distinction.

D: It has yielded, or may be likely to yield, information important in prehistory or history.

Notwithstanding Criteria Considerations, in general cemeteries, birthplaces, or graves of historic figures; properties owned by religious institutions or used for religious purposes; structures that have been moved from their original locations; reconstructed historic buildings; and properties that are primarily commemorative in nature are not considered eligible for the NRHP unless they satisfy certain conditions.

In addition to the four National Register Criteria noted above, qualifying resources must retain aspects of integrity. Integrity is the ability of a property to convey its significance. "The evaluation of integrity is sometimes a subjective judgment, but it must always be grounded in an understanding of a property's physical features and how they relate to its significance" (NPS 1997:44). The National Park Service Bulletin 15 (1990, revised 1997) identifies seven aspects of integrity that a property should retain, and include: Location, Design, Setting, Materials, Workmanship, Feeling, and Association. While maintenance of all aspects of integrity is not required, a property should possess most of the aspects that are integral to its ability to convey its significance. Understandably, not all aspects of integrity are applicable across the range of buildings, structure, objects, or sites under evaluation. Aspects such as design, workmanship or feeling likely may not be integral to understanding the significance of an archaeological deposit, whereas these would be essential in understanding a significant building, or structure.

The NPS Bulletin 15 further exemplifies how to broadly assess the integrity of eligible resources when applying the qualifying NRHP Criteria. Under Criteria A and B, a property that is significant for its historic association is eligible if it retains the essential physical features that made up its character or appearance during the period of its association with the important event, historical pattern, or person(s). If the property is a site (such as a treaty site) where there are no material cultural remains, the setting must be intact. Eligible archaeological sites must be in overall good condition with excellent preservation of features, artifacts, and spatial relationships to the extent that these remains are able to convey important associations with events or persons.

Under Criterion C, a property important for illustrating a particular architectural style or construction technique must retain most of the physical features that constitute that style or technique. A property that has lost some historic materials or details can be eligible if it retains the majority of the features that illustrate its style in terms of the massing, spatial relationships, proportion, pattern of windows and doors, texture of materials, and ornamentation. The property is not eligible, however, if it retains some basic features conveying massing but has lost the majority of the features that once characterized its style. Eligible archaeological sites must be in overall good condition with excellent preservation of features,

artifacts, and spatial relationships to the extent that these remains are able to illustrate a site type, time period, method of construction, or work of a master.

Properties eligible under Criterion D, including archaeological sites and standing structures studied for their information potential, less attention is given to their overall condition, than if they were being considered under Criteria A, B, or C. Archaeological sites, in particular, do not exist today exactly as they were formed. There are numerous cultural and natural processes that may have altered the deposited materials and their spatial relationships. For properties eligible under Criterion D, integrity is based upon the property's research value to yield important information that addresses important research questions, such as those identified in the historic context documentation, or in the research design, for projects meeting the *Secretary of the Interior's Standards for Archeological Documentation* (NPS 1997:46) or that has yielded important information that furthered our understanding of prehistory.

4.2.2 California Environmental Quality Act (CEQA) and the California Register of Historical Resources

According to CEQA Guidelines (§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 Resister of Historical Resources (CRHR) (Public Resources Code [PRC] §5024.1, Title 14 California Code of Regulations Section 4850 et seq.).

(2) A resource included in a local register of historical resources, as defined in PRC Section 5020.1(k) or identified as significant in an historical resource survey meeting the requirements of PRC Section 5024.1(g), 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 CRHR (PRC §5024.1, Title 14, Section 4852) including the following:

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

(2) Is associated with the lives of persons important in our past;

(3) 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

(4) 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 CRHR, not included in a local register of historical resources (pursuant to PRC Section 5020.1(k)), or identified in an historical resources survey (meeting the criteria in PRC Section 5024.1(g)) does not preclude a lead agency from determining that the resource may be an historical resource as defined in PRC Section 5020.1(j) or 5024.1.

SECTION 5.0 – RESULTS

Chambers Group conducted a cultural resources survey of the Project Area in July and October 2020. The primary goal of the archaeological investigations was to gather and analyze information needed to determine if the Project would impact cultural resources.

An archival records search, background studies, and intensive pedestrian survey of the Project Area were conducted as part of a Phase I cultural resource study. The NAHC SLF search returned a positive result and indicated that there are known sacred sites or tribal cultural resources within the 1.0-mile-search radius. A records search request was submitted to the SCCIC at California State University, Fullerton, on July 9, 2020. The records search results (Confidential Appendix A) were received on August 27, 2020. The results indicate that no cultural resources were previously identified within the Project Area; three resources, however, were identified within a 1.0-mile radius of the Project Area. These results were summarized in Table 4 above. In addition, several cultural resources studies were conducted in the vicinity, with three occurring within the Project Area (Table 3).

As a result of the current cultural resources survey, a total of 53 archaeological resources and 11 isolates (IO, or Isolated Occurrences) were identified (Tables 5 and 6). Twenty-one sites are identified as historic-period resources, and 32 are prehistoric resources. All of the isolates are prehistoric. A California Department of Parks and Recreation (DPR) Form 523 was completed for each site and IO, and are located in Confidential Appendix C. Additionally, each site and IO is located on a 1:24,000 USGS topographic quadrangle Project Area map (Figure 14), and on an aerial photograph (Figure 15) (Confidential Appendix D).

Table 5: Newly Identified Sites and Isolates within Project Area

Temp #	Period	Site Type
PF-004	Prehistoric	Lithic reduction station
PF-005	Prehistoric	Lithic reduction station
PF-008	Historic	Encampment
PF-009	Prehistoric	Lithic reduction station
PF-011	Prehistoric	Ceramic scatter
PF-012	Historic	Mining trash scatter
PF-013	Prehistoric	Lithic reduction station
PF-015	Prehistoric	Lithic reduction station
PF-016	Prehistoric	Lithic reduction station
PF-017	Prehistoric	Lithic reduction station
VS-001	Historic	Ranching
VS-002	Historic	Homestead trash scatter
VS-004	Historic	Homestead trash scatter
VS-006	Historic	Homestead
VS-008	Historic	Encampment
VS-010	Historic	Encampment
VS-011	Prehistoric	Desert pavement quarry

Table 5: Newly Identified Sites and Isolates within Project Area

Temp #	Period	Site Type
VS-012	Prehistoric	Lithic reduction station
VS-013	Prehistoric	Lithic reduction station
VS-014	Historic	Survey monument
VS-015	Prehistoric	Lithic reduction station
VS-016	Prehistoric	Lithic reduction station
VS-017	Prehistoric	Ceramic scatter
VS-019	Historic	Trash scatter
VS-020	Historic	Encampment
VS-021	Historic	Encampment
VS-023	Historic	Encampment
VS-025	Historic	Encampment
VS-026	Prehistoric	Lithic reduction station
VS-027	Prehistoric	Lithic reduction station
VS-028	Historic	Encampment
VS-029	Historic	Encampment
VS-030	Prehistoric	Lithic reduction station
VS-031	Prehistoric	Lithic reduction station
VS-032	Historic	Survey monument
VS-033	Prehistoric	Lithic reduction station
VS-034	Historic	WWII DTC*/Cold War EDS**
VS-035	Prehistoric	Artifact scatter
VS-036	Prehistoric	Artifact scatter
VS-037	Prehistoric	Temporary camp
VS-038	Prehistoric	Lithic reduction station
VS-039	Historic	WWII DTC*/Cold War EDS**
VS-040	Prehistoric	Lithic reduction station
VS-041	Prehistoric	Lithic reduction station
VS-042	Prehistoric	Lithic reduction station
VS-043	Prehistoric	Lithic reduction station
VS-044	Historic	Encampment
VS-047	Prehistoric	Lithic reduction station
VS-048	Prehistoric	Lithic reduction station
VS-049	Prehistoric	Lithic reduction station
VS-050	Prehistoric	Lithic reduction station
VS-051	Historic	WWII DTC*/Cold War EDS**
VS-052	Prehistoric	Ceramic scatter
ISO-100620-01	Prehistoric	Red-on-buff ceramic
ISO-100720-02	Prehistoric	White MCQ (chert) core

Table 5: Newly Identified Sites and Isolates within Project Area

Temp #	Period	Site Type
ISO-100720-04	Prehistoric	White MCQ (chalcedony) Elko point
ISO-100720-06	Prehistoric	Rhyolite flake
ISO-100820-01	Prehistoric	Retouched rhyolite flake
ISO-100820-02	Prehistoric	Buffware ceramic
ISO-100820-03	Prehistoric	Basalt bifacial core
ISO-100920-01	Prehistoric	2 unidentified ceramics
ISO-100920-02	Prehistoric	Rhyolite core
ISO-101320-01	Prehistoric	MCQ (chert) flake
ISO-101320-02	Prehistoric	MCQ (chert) edge modified flake
*DTC: Desert Training Center **EDS: Exercise Desert Strike		

Table 6: Count of Resource Type

Period and Type	Number of Resources
Historic	
Encampment	10
Homestead	1
Homestead trash scatter	2
Mining trash scatter	1
Ranching	1
Survey monument	2
Trash scatter	1
WWII DTC/Cold War EDS	3
Total Historic Sites	21
Prehistoric	
Artifact scatter	2
Ceramic scatter	3
Desert pavement quarry	1
Lithic reduction station	25
Temporary camp	1
Total Prehistoric Sites	32
Total Prehistoric Isolates	11
Total All Resources	64

Resource and Isolate Descriptions

The following resource descriptions are recounted in the DPR Form 523 site forms (Confidential Appendix C), and are illustrated in corresponding photographs located in Confidential Appendix E.

PF-004 is a newly identified prehistoric lithic reduction station. The deposit measures approximately 3.0 by 3.0 meters. Materials identified include over 50 pieces of microcrystalline quartz (chert) debitage, one core measuring 63 by 33 by 17 mm, and two edge modified flakes. The deposit is situated on an alluvial terrace with an open aspect, within a Creosote Bush Scrub community. Sediments are Superstition gravelly loamy fine sand, 0 to 3 percent slopes, and comprise soils found on terraces and is derived from alluvium and sandy aeolian deposits.

PF-005 is a newly identified prehistoric lithic reduction station. The deposit measures approximately 3.0 by 3.0 meters. Materials identified include over 30 black vesicular basalt, 25 white quartz, 20 purple rhyolite, ten gray volcanic, five yellow microcrystalline quartz (chert), and one white microcrystalline quartz (chert) debitage. One rhyolite core measures 70 by 55 by 25 mm, and one quartz core measures 65 by 60 by 35 mm. The deposit is situated on an older elevated terrace with a slightly western aspect, within a Creosote Bush Scrub community. Sediments are Superstition gravelly loamy fine sand, 0 to 3 percent slopes, and comprise soils found on terraces and is derived from alluvium and sandy aeolian deposits.

PF-008 is a newly identified historic-period encampment. The deposit measures approximately 19.2 by 10.2 meters. Materials identified include a possible aspirin tin, a razor blade, ceramic table ware, drinking glasses, and bottle glass including manganese, amber, aqua, milk, and clear types. Also identified were at least 100 cans, including rectangular key-wind hole-in-cap meat tins, rectangular key-wind cans from Argentina, 12 oz church key opened all steel cans, an oil can, friction lid paint or fat can, and scores of pint and quart whiskey bottles. Some bottles are manufactured by Owens-Illinois with liquor license code 90, and date code of 1937 or 1947. One amber bottle has a maker's mark for W.J. Latchford Glass Company, Los Angeles, CA, which dates between 1925 and 1938. Milk cans (typically noted as Vent Hole, Solder Dot, or Matchstick Filler [MSF] are tins of evaporated milk requiring Pasteurization and the application of a dot of solder at the venting hole at the top of the can) measuring 215d by 314h (these measurements are used in accordance with the manufacturing industry short-hand whereby 215d is 2 and 15/16ths of an inch in diameter and 3 and 14/16ths of an inch in height – all cans are recognized in 16ths of an inch and are measured diameter by height) were noted, and correspond with Simonis' type 12, dating between 1917 and 1929. Other MSF cans include 208d by 208h Simonis type 8, dating between 1915 and 1925.

The deposit is situated on an alluvial terrace near the southern margin of Vidal Wash, and is within a Creosote Bush Scrub community. Sediments are Superstition gravelly loamy fine sand, 0 to 3 percent slopes, and comprise soils found on terraces and is derived from alluvium and sandy aeolian deposits.

PF-009 is a newly identified prehistoric lithic reduction station. The deposit measures approximately 2.1 by 1.6 meters. Materials identified include 25 pieces of white microcrystalline (chert) debitage, and one rhyolite hammerstone measuring 120 by 80 by 55 mm. The hammerstone exhibits bifacial edge damage. The deposit is situated on a deflated gravel terrace/desert pavement within a Desert Pavement vegetation community. Sediments are Superstition gravelly loamy fine sand, 0 to 3 percent slopes, and comprise soils found on terraces and is derived from alluvium and sandy aeolian deposits.

PF-011 is a newly identified prehistoric ceramic scatter. The deposit measures approximately 1.3 by 1.0 meters. Materials identified include 30 Colorado Red or Palomas buff sherds. The buff ware possesses a red outer slip, a slight carbon streak, with fine attrition, and crushed quartz temper. The deposit is situated on a remnant deflated gravel terrace/desert pavement within a Creosote Bush Scrub community. Sediments are Superstition gravelly loamy fine sand, 0 to 3 percent slopes, and comprise soils found on terraces and is derived from alluvium and sandy aeolian deposits.

PF-012 is a newly identified historic-period trash scatter; two separate periods may be represented. The deposit measures approximately 36.7 by 20.7 meters. Materials identified include approximately 45 pieces of a large manganese clarified glass bottle, the form of which is suggestive of a whiskey container, though the base and finish were not identified, along with a round ferrous pipe that had been beaten at one end to a pinched, chisel-like point. Items of an apparent later period include a quart can of 30 wt. HD oil, two bimetallic pull-tab cans, and a rectangular, key-wind cans. Both the bottle and pipe turned chisel/drift are in close proximity to each other, while the other components are located adjacent but not immediately proximate. An older disused unimproved two-track road is immediately adjacent to the deposit. The road may be representative of a road illustrated on the 1911 topographic map.

The manganese bottle manufacture dates between 1880 and 1920, while the oil can post-dates 1930, and the bimetallic cans post-date 1960. The deposit is situated on an alluvial terrace with an open aspect, within a Creosote Bush Scrub community. Sediments are Superstition gravelly loamy fine sand, 0 to 3 percent slopes, and comprise soils found on terraces and is derived from alluvium and sandy aeolian deposits.

PF-013 is a newly identified prehistoric lithic reduction station. The deposit measures approximately 20 by 20 cm. Materials identified include five basalt flakes; no core was observed. The deposit is situated on an alluvial terrace with an open aspect, within a Creosote Bush Scrub community. Sediments are Superstition gravelly loamy fine sand, 0 to 3 percent slopes, and comprise soils found on terraces and is derived from alluvium and sandy aeolian deposits.

PF-015 is a newly identified prehistoric lithic reduction station. The deposit measures approximately 3.0 by 4.0 meters. Materials identified include 25 pieces of microcrystalline quartz (chalcedony), and one unifacial, multimarginal core measuring 87 by 70 by 45cm. The deposit is situated on a deflated gravel terrace/desert pavement within a Creosote Bush Scrub community. Sediments are Superstition gravelly loamy fine sand, 0 to 3 percent slopes, and comprise soils found on terraces and is derived from alluvium and sandy aeolian deposits.

PF-016 is a newly identified prehistoric lithic reduction station. The deposit measures approximately 90 by 80 cm. Materials identified include approximately 16 microcrystalline quartz (chalcedony) debitage fragments, few of which are flakes. No core was observed. The deposit is situated on a deflated gravel terrace/desert pavement within a Creosote Bush Scrub community. Sediments are Superstition gravelly loamy fine sand, 0 to 3 percent slopes, and comprise soils found on terraces and is derived from alluvium and sandy aeolian deposits.

PF-017 is a newly identified prehistoric lithic reduction station. The deposit measures approximately 1.5 by 1.1 meters. Materials identified include 28 primary and secondary black basalt flakes; no core was observed. The deposit is situated on a deflated gravel terrace/desert pavement within a Creosote Bush Scrub community. Sediments are Superstition gravelly loamy fine sand, 0 to 3 percent slopes, and comprise soils found on terraces and is derived from alluvium and sandy aeolian deposits.

VS-001 is a newly identified historic-period livestock pen complex and trash scatter. The deposit measures approximately 190 by 165 meters. The complex appears to be a livestock feed lot with partial fences and internal pens. An underground weigh scale structure, and a chicken coop are adjacent at the "front" (south side) of the lot. Feed troughs run east-west along the north and south margins of the complex. These have a poured-in-place concrete floors, and a series of 8 by 8-inch posts cut at an angle, supporting stacked 1 by 4 board on knee braces acting as manger troughs. A series of concreted steel posts possibly served as framework for overhead shade, and a series of six water troughs are located throughout the complex. One trough is dated 1953. Two collapsed wood-frame outbuildings were also identified, one in the northeast corner and one in the northwest corner of the complex. Materials identified in a nearby trash scatter include wire nails, shot shell casings, and 1970s era bottles.

Several features comprise VS-001. These are described as a series of seven types, some with multiple examples or parts located across the landscape.

Feature 1 consists of six water troughs (Features 1a through 1f). Although there are variations between each sub-feature, in general each water trough is constructed of unreinforced, poured-in-place, board formed, unrefined concrete cement utilizing on-site or nearby local sand and small gravel aggregate – no sorted round pebble or crushed rock aggregate as found in commercial mix. The trough is rectangular shaped, roughly 15 ft-06 inch long by 4 ft-06 feet wide, sides 2 ft-00 inch high and 7-3/4 inches thick. Water supply pipes are usually located at one end of the feature, with a drainpipe someplace opposite. All features exhibit some damage and subsequent repairs. Feature 1A was date stamped 1953, with an illegible signature. No other troughs indicated dates or signatures.

Feature 2 is a composite device used to provide an efficient means to supply feed to stock animals located inside the pen enclosure. It is composed of a poured-in-place concrete floor approximately 2 feet wide with segments along the southern margin of the lot spanning from the west and east corners of the enclosure to the corners of the central paddock bisecting the southern half of the lot, and a single, dilapidated segment spanning the entire length along the north side of the lot. Along the outer margin of the concrete are a series of 8 by 7 inch (7 by 6-1/4 inches) pressure-treated posts placed in the ground and cut at a steep decline towards the concrete floor – each approximately 21-1/4 inches in height. On either side of the posts are attached 2 by 4 inch stretchers that angle toward the concrete floor in the same manner. Atop the 2 by 4 inch stretchers were place 1 by 4 inch board linking several posts at a time and forming an angled trough margin. Along the inside margin of the concrete floor is another series of pressure treated posts, cut lower to the ground surface, not angled, and which backed a low 2 by 4 inch or 2 by 6 inch board that formed the opposite margin of the feed trough. The northern feed trough appears to have suffered a greater degree of damage and loss, with structural repairs that have resulted in either a different construction of the feature, or a complete loss of the feature in that area.

Feature 3 is a collapsed outbuilding located in the northeast corner of the site, immediately west of a large palo verde tree, at the southern edge of the unnamed wash. It is a collapsed wooden outbuilding whose function remains unknown at this time. It appears to be constructed of 2 by 3 inch dimensional lumber and plywood sheets fastened with wire nails. No foundation or slab is apparent, and the building appears to have been constructed directly on the toe of slope sediments. The disarticulated building could not be measured for size or dimensions.

Feature 4 is a collapsed outbuilding located in the northwest corner of the site, between a pair of a large palo verde trees, at the southern edge of the unnamed wash. The feature appears to be a collapsed wooden outbuilding whose function remains unknown at this time; however, it is also possible that it is a

collected pile of dimensional lumber and plywood, with other miscellaneous site debris. The area has undergone several flooding events and components that may offer additional clues as to form and function may be buried in alluvial sediments. No foundation or slab is apparent, and the building appears to have been constructed directly on the toe of slope sediments. The disarticulated building could not be measured for size or dimensions.

Feature 5 is located in the southwest corner of the feed lot and uses part of the feed lot fence structure as the eastern section of the enclosure. A concrete water trough is located in the southwest corner of the feature, and a series of "8 by 8" pressure-treated posts appear to form a perimeter to which smaller dimensional lumber and "chicken wire" were attached. The function of the feature is unknown, but is suspected to be a poultry coop.

Feature 6 appears to be the remnants of a weigh bridge and associated building, located along the mid-point of the southern margin of the feed lot complex. A portion of the feature is located in an underground concrete structure that houses an industrial sized balance beam scale. Surface aspects of the feature include the wooden weigh bridge, and a foundation structure for a weigh house.

The perimeter of the scale machine is constructed with concrete cement, with walls set into the ground approximately 3 ft-04 inch deep, and a concrete floor; all concrete structural items are board-formed and poured-in-place. Large 2 by 8 inch wood plank boards cover part of the assembly and acted as treads for weighing animals as they walked across the scale – weigh bridge. An underground concrete structure to the south allows the balance beam to register the weight on the scale. An at-ground level concrete perimeter foundation is located immediately to the south of these features and likely supported and enclosed wood structure for the scale register assembly and personnel.

The weigh house perimeter foundation measures approximately 22 ft-00 inch east-west by 13 ft-00 inch north-south, with foundations walls approximately 7-3/4 inches thick. The main scale structure measures approximately 18 ft-03 inch east-west by 7 ft-04 inch north-south; the compartment for the beam structure located between the scale and the weigh house is approximately 8 ft-00 inch east-west by 7 ft-03 inch north-south; a series of 2 by 4 inch stringers hold up 2 by 6 inch wood plank boards over the top of the enclosure.

Feature 7 is located south of the feed lot perimeter and consists of a partially dispersed trash scatter. The bulk of the consumer items appear to date to the late 1960s and 1970s based on beverage can construction and bottle base maker's marks. Also noted were wire nails, bailing wire, 12 gauge shot shells, and wood fragments. As the period of use for the feed lot appears to be between 1953 (date stamp on water trough) and the middle 1960s (a 1969 aerial indicates that the lot had been abandoned by that time) the trash scatter may post-date the use of the aforementioned property. Numerous bimetallic pull tab cans indicate the deposit dates as early as the early 1960s and to as late as the early 1970s, prior to the complete phasing out of the bimetallic beverage can. Bases for liquor bottles indicate a 1970s era of deposition based on date codes associated with a number of maker's marks.

The deposit is situated on an alluvial terrace, within a Creosote Bush Scrub community. Sediments are Carrizo extremely gravelly coarse sand, 0 to 3 percent slopes, and comprise soils found in washes and wash margins.

VS-002 is a newly identified historic-period homestead trash scatter. The deposit measures approximately 23.7 by 16.4 meters. Materials identified include household and consumer goods, with items that appear

to be similar to those at observed at VS-004. This suggests that these two deposits are contemporaneous, or at least from the same primary source. Artifacts identified at VS-004 are likely derived from a well-established homestead as seen on a 1947 aerial photograph. Datable items include12 oz all steel church key opened beer cans, glass and ceramic fragments, and undescribed sanitary cans.

The deposit is situated on an alluvial terrace, within a Creosote Bush Scrub community. Sediments are Superstition gravelly loamy fine sand, 0 to 3 percent slopes, and comprise soils found on terraces and is derived from alluvium and sandy aeolian deposits.

VS-004 is a newly identified historic-period homestead trash scatter. The deposit measures approximately 150m by 90m. Materials identified include a sparse scatter of the historic household trash, including a non-ferrous spoon, a manganese medicine bottle finish, broken cast iron plumbing pipe, broken clay pipe, Euro-American ceramic wares, yellow glazed and red glazed counter/bath tile, bottle and plate glass fragments. A 1947 aerial photograph indicates an established homestead immediately south of this location.

The deposit is situated on an alluvial terrace, within a Creosote Bush Scrub community. Sediments are Superstition gravelly loamy fine sand, 0 to 3 percent slopes, and comprise soils found on terraces and is derived from alluvium and sandy aeolian deposits.

VS-006 is a newly identified historic-period homestead and agricultural landscape. The deposit measures approximately 1,613 by 802 meters. This is a large historic-era agricultural site situated in the northeast corner of the Project Area. The designation encompasses all the improved lands, which have been intensively modified to include wellheads, slide-gated 36-inch cast concrete weirs, numerous rows of 12-inch cast concrete valves with Fresno orchard valve gates, a large poured-in-place concrete detention basin used to collect excess water prior to returning it to the Colorado River, perimeter fencing, a poured concrete slab formerly occupied by a shed garage, now occupied by a 1970s single-wide mobile home, the remains of a concrete block house and attendant pump-house and cistern, and two adjacent foundations for no longer extant out buildings, possibly used for ranch hands or extended family.

The site encompasses a trash scatter (VS-004) possibly associated with a house observed on the 1947 aerial. No indications of a residence or other outbuildings, or agricultural improvements outside the immediate area of the homestead are observed on the 1947 aerial, but the majority of the items described as part of VS-006 are observed on the 1969 aerial. No date stamps were observed at any of the associated features; however, based on aerial photographs VS-006 was developed between 1947 and 1969. A 12 oz pull-tab bimetallic beer can scatter is associated with a wellhead located at the western edge of the property. These cans date between 1958 and 1978. The wellhead is located near a power drop pole and irrigation weir. A concrete pad has been formed around the well and probably supported a pony engine. The Parker-Blythe #1 transmission line traverses the property in a northeasterly-southwesterly direction, with structures 23-7, and 24-1 through 24-4 located within the site.

VS-006 encompasses several features related to the function of the ranch in concert with the homestead. The concrete block house (Feature 1), and adjacent house pads (Features 2 and 3) comprise the heart of the homestead. Feature 4 appears to be the garage and repair shop. Feature 5 is a wellhead, pumphouse, and cistern that supplied water to the residential areas. Feature 6 is a large diameter mechanical water pump, drawing either from a well, or a connection to the nearby Colorado River. Feature 7 is another large diameter mechanical water pump, likely drawing from a well. Feature 8 is another large diameter mechanical water pump, drawing from a well. Feature 9 is the location of a former large diameter

mechanical water pump, drawing from a well. Feature 10 is the connected irrigation system connecting 36-inch diameter weirs with smaller 12-inch diameter field gates and valves. Feature 11 is a concrete lined detention basin used to stock water prior to releasing the irrigation excess back to the Colorado River.

Feature 1 appears to be the main residence on the property. It is currently derelict and in ruin. The plan is roughly rectangular, measuring approximately 59 feet east-west by 32 feet north-south, at the widest section, and approximately 26 feet north-south at the narrowest. At the southwest corner the building is constructed with a double 45-degree bevel corner rather than a 90-degree corner. A fireplace is located approximately eight feet east of the west wall along the north side of the building, and an 11-foot-wide bump out is located approximately 15 feet west of the east wall along the north side of the building.

Walls are constructed of concrete cement block in running bond pattern and are located on a concrete cement pad – no apparent footing is noted. Piercings for windows and doors are semi-round with short straight sides in design and fitted with parallel column bars with minor flourish details. In the larger piercings these bars are set in fixed and hinged doors. No evidence of window frames or plate glass was observed in these locations.

No roof is extant, and only ghost lines around the chimney point to a style of construction, which appears to have been a very low-pitched type. Reinforcing bar parades around the perimeter of the top of the walls, and it is not clear how these were used to tie into the roof.

The interior of the building is completely open and is constructed of a concrete cement slab; ghost lines suggest partitions for rooms or partially secluded areas.

Period of construction is between 1947 and 1969, but is likely to pre-date 1969, as the aerial photograph indicates numerous well-established ornamental trees and shrubs adjacent to the building, and a well-established orchard under cultivation. The building appears to be extant in 1980; however, the land use appears to have changed from orchards to grass/hay/alfalfa crop, and some of the sectors of the ranch appear to have been abandoned. By 2002 the building appears to have been partially demolished, and by 2005 the entire property appears to have been abandoned.

Feature 2 is presently the remaining features of a small building, possibly residential in nature. The remaining features consists of a concrete cement block perimeter foundation with remnant posts and piers for joist spans supporting a likely residential building. Lag bolts are set in concrete at intervals around the perimeter. The foundation measures approximately 30 feet east-west by 20 feet north-south. A portion of a step feature is located approximately at midpoint of the southern length of the foundation. A cast-iron sewer/septic connection is observed above ground level within the foundation perimeter. A concrete cement capped concrete block perimeter wall supports remnant fencing forming a yard approximately 71 feet by 71 feet. The six-by-six-inch wire mesh fencing is embedded into the concrete cap of the perimeter block wall.

Period of construction is between 1947 and 1969, but is likely to pre-date 1969, as the aerial photograph indicates numerous well-established ornamental trees and shrubs adjacent to the building, and a well-established orchard under cultivation. The building appears to be extant in 1980, however, the land use appears to have changed from orchards to grass/hay/alfalfa crop, and some of the sectors of the ranch appear to have been abandoned. By 2002 the building appears to have been demolished and the debris appear to have been cleared by 2005.

Feature 3 is presently the remaining features of a small building, possibly residential in nature. The remaining features consists of a concrete cement block perimeter foundation with an intrusively constructed concrete cement pad bisecting the original perimeter foundation. Lag bolts are set in concrete at intervals around the perimeter. The original block foundation measures approximately 35 feet east-west by 30 feet north-south. The intrusive concrete pad measures approximately 10 feet east-west by 36 feet north-south. Lag bolts are noted along the edge suggesting the fastening of sill plates that supported vertical walls. Several ghost lines suggest interior structuring of the former building, including water/sewer services. A concrete cement capped concrete block perimeter wall supports remnant fencing forming a yard approximately 71 feet by 71 feet. The six-by-six-inch wire mesh fencing is embedded into the concrete cap of the perimeter block wall.

Period of construction is between 1947 and 1969, but is likely to pre-date 1969, as the aerial photograph indicates numerous well-established ornamental trees and shrubs adjacent to the building, and a well-established orchard under cultivation. The original building appears to be extant in 1980, but by 2002 that building appears to have been demolished and the concrete intrusive pad and building were located in the central aspect of the original footing. By 2005 the secondary building and former building debris appear to have been cleared away.

Feature 4 is the location of what appears to have been the maintenance shed and ancillary facilities for servicing heavy equipment and farm machinery. Measurements and details of building construction are unknown at this time as none of the buildings are extant. All that remains are concrete cement foundation pads. All pads are board-formed and poured in place, with sill plate anchor bolts inserted during the pour. Cast iron plumbing is also present in the smaller outbuildings. Presently the larger pad, presumably used as a workshop and maintenance shed based on aerial photographs, is supporting a dilapidated mobile home built in the 1970s, and first observed on a 2004 aerial photograph. The pad measures approximately 20 feet east-west by 55 feet north-south. The smaller pads were overladened with stacked debris, making measurements difficult. The southernmost pad measures approximately 10 feet east-west by 10 feet north-south, with the next pad to the north measuring approximately 10 feet east-west by 40 feet north-south, with a 10 feet east-west by 11 feet north-south addition (likely bathroom) immediately adjacent at the midpoint of the west side of the pad.

Feature 5 comprises a wellhead and cistern with two ballast tanks to supply the residential areas with pressure-fed water. No measurements of the feature elements were taken and by all appearances the feature appeared to have been installed or updated not much before abandonment of the property.

Feature 6 is a pumpstation with electrical power drop, like to power an electrical pump drawing water either from subsurface water or directly from the Colorado River. A1969 aerial photograph indicates a linear ground disturbance from the pump location to the river. The feature appears differently from a nearby dirt road, which is less than straight, and soil displacement along the road appears structurally different from the straight line between the pump and river. The Pomona Turbine Pump was manufactured by Fairbanks-Morse of Chicago, Illinois. No date of manufacture was noted but a patent number indicates award in 1944, providing a reliable *terminus post quem*. The pump feeds a 12-inch steel supply pipe, which in turn supplies a series of 36-inch cast concrete pipe weirs with slide gate controls (see Feature 10).

Feature 7 appears to be one of the last operational well heads on the property, and is located along the northern property margin, approximately 1385 feet (422 meters) north of Feature 4, and approximately 2330 ft (710 meters) west of VS-001. The adjacent field (approximately 20 acres) appears to have been

the most recently utilized of all the areas within the site, with aerial photographs indicating a renewed agricultural endeavor sometime between June 2007 and June 2009, at which point the exercise appears to have been abandoned. It is at about this same timeframe that renewed activity is indicated at a nearby residence along the terminus of Citrus Ranch Road.

The feature consists of a recently poured in place concrete pad upon which sits a 12-inch vertical shaft well pump feeding dual 12-inch steel pipes; one to a stacked 36-inch cast concrete pipe weir, and one to an underground feed. Each line is controlled by a Walworth gate valve. The well pump is a Johnson Gear H300 vertical shaft pump which is driven by a GMC 7000 diesel cab and chassis truck utilizing a modified driveshaft as power take off.

Feature 8 is an abandoned well head located along the western property margin, approximately 650 feet (200 meters) south of the northwest corner of the property. A power drop pole supplied power to a no longer extant motor to draw water from the well, which remains open due to missing supporting infrastructure such as the pump base covering the 12-inch steel well encasement and the supply line to the adjacent cast concrete weir. A concrete cement pad bears witness to these infrastructural items. The concrete pad measures approximately 8 ft by 2 ft-06 inch with the long axis running northeast-southwest. The pad appears to have been poured in place, but construction techniques were obscured by surrounding sediments. No period of construction could be determined; however, the feature appears to be contemporaneous with other agricultural infrastructure installed across the landscape.

Feature 9 is an abandoned well head located along the southwestern property margin, approximately 1280 feet (390 meters) west-northwest corner of Feature 11. No power drop was noted nearby. The concrete pad for the no longer extant pump was poured in place using board forms, some of which are still in place, using concrete cement mixed with local aggregate. The pad measures approximately 10 ft-06 inch by 4 ft-06 inch with the long axis running in a 145°/325° bearing. Two metal strips are laid lengthwise into the pad, which likely supported and anchored the pump and ancillary equipment; weld scars are noted on one of the metal strips. A 12-inch steel well encasement is located in the center of the pad, and a nearby four- or six-inch overflow pipe is set at an angle. A partially deconstructed 36-inch cast concrete weir is located approximately four feet to the northeast. The open encasement allowed an elapsed time calculation to measure depth to waterline which revealed an approximate depth of 58 feet. No period of construction could be determined; however, the feature appears to be contemporaneous with other agricultural infrastructure installed across the landscape.

Feature 10 comprises the in-ground irrigation features. These include several widely spaced 36-inch cast concrete segmented pipe weirs with manually controlled slide gates. These weirs supply regularly spaced 12-inch cast concrete irrigation points controlled with Fresno Orchard Valves, which supply water in flood form. The smaller valve boxes form linear features the length of the fields in an east-west fashion. The large weirs are irregularly spaced, presumably based on the volume of head necessary to supply a given number of smaller valves and coverage area. None of these items appear to be manufactured in place, or are of a vernacular nature, and were likely sourced from readily available suppliers.

Feature 11 is a concrete cement retention basin used to collect excess agricultural water and meter its release into a nearby drainage for its return to the Colorado River. The basin measures approximately 75 by 42 feet, with the long axis running in a 145°/325° bearing. It is located along the southern boundary of the property near the center of the agricultural areas. Depth of the basin is approximately six feet. A set of concrete stairs is located at the southern end of the basin where two cast concrete pipes with cast concrete vents located at the bottom direct water out of the feature to the southeast. A smaller cast

concrete pipe is located near the top of the basin and acts as an overflow valve. The construction of the basin appears to be poured-in-place concrete cement with no obvious reinforcement or forms, and illustrates a smooth, but rustic finish.

The resource is situated on an alluvial terrace, within a Creosote Bush Scrub community. Sediments are Superstition gravelly loamy fine sand, 0 to 3 percent slopes, and comprise soils found on terraces and is derived from alluvium and sandy aeolian deposits.

VS-008 is a newly identified historic-period encampment with at least four loci, which may or may not be contemporaneous with one another. The deposit measures approximately 202 by 34 meters. Each locus was located in a siding arroyo draining into the northern unnamed wash. Materials identified include:

Locus A: sanitary can scatter with aqua glass. Welch's Junior (4 oz) bottle with "F" makers mark, a 12oz bimetallic pull-tab beer can (circa 1958-1978), key wind meat cans, a sanitary can measuring 301d by 315h (type No. 1 short), matchstick filler (MSF) can measuring 208d by 206h, coffee cans 500d by 309h, a large square can measuring 309l by 309w by 605h, and a Prince Albert can 301w by 404h. Also noted was an improved whiteware bowl with "K. T. & K / S-----V/China" makers mark.

The 208d by 206h MSF can is representative of Simonis' type 13, dating between 1917 and 1930, or type 17, dating between 1931 and 1948 (Simonis 1997).

The F makers mark is possibly Fairmont Glass, which was in operation between 1889 and 1968. The Welch's embossment style is similar to that observed in a 1915 advertisement.

The 500d by 309h coffee cans are likely 1-pound cans by Folgers, which sold their product in this can size between 1950 and 1958 (Rock 1989).

The China bowl fragment with "K. T. & K / S-----V/China" makers mark relates to Knowles, Taylor & Knowles, who operated out of East Liverpool, Ohio, USA, between 1870 and 1929. The S----V marking was used circa 1925.

Locus B: several sanitary and MSF cans. Sanitary cans, usually punch and pry opened, typically measure 211d by 400h (size No. 1 Picnic), 301d by 411h (size No. 1 Tall) and 307d by 411h, which has no known match. The MSF cans, usually knife opened or pierced, include seven cans measuring 215d by 314h, two measuring 215d by 315h, and one measuring 208d by 208h.

The 208d by 208h MSF can is representative of Simonis' type 8, which date between 1915 and 1925. The 215d by 315h cans are representative of Simonis' type 19, which date between 1930 and 1975. The 215d by 314h are representative of Simonis' type 12, which date between 1917 and 1929.

Locus C: contains approximately 30 cans, both sanitary and milk (MSF). Identification included thirteen milk cans measuring 215d by 404h; one quart- and one pint-sized internal friction lid can; one bimetallic 12oz pull-tab beer (circa 1958-1978); two knife opened sanitary cans measuring 307d by 409h (size No. 2); and two sanitary cans measuring 400d by 411h (size No. 2½). The MSF cans measuring 215d by 404h are representative of Simonis' type 10, which date between 1917 and 1929.

Locus D: Glass and can scatter including bromo seltzer cobalt jar. Four sanitary cans measuring 307d by 409h (size No. 2); a "large tuna" can (possibly size 8Z Short - 7oz); three 64 oz jars; one 20 oz jar; and one-

quart liquor bottle. All bottles were manufactured by Owens-Illinois and used the "Duraglas" designation. Date codes 2 and 3 were observed at the date code location, suggesting a manufacturing date of 1942/3 or 1952/3.

In addition, several isolated cans were observed on the attendant mesa, between the road and the wash. These isolates appear to date to the same period in general, however, later period ejecta is also noted, and are likely representative of people passing through the area via automobile or other conveyance, and not stopping to create a larger deposit of materials.

The deposits are situated on an alluvial terrace margin, overlooking an unnamed wash to the south, within a Creosote Bush Scrub community. Sediments are Superstition gravelly loamy fine sand, 0 to 3 percent slopes, and comprise soils found on terraces and is derived from alluvium and sandy aeolian deposits.

VS-010 is a newly identified historic-period encampment. The deposit measures approximately 19 by 13.2 meters. Materials identified include a manganese medicine bottle (Ben Hur), a teapot with brown interior and white exterior glaze, and brown paste, white porcelain teacup, a manganese glass tumbler, and approximately 30 matchstick filler milk cans measuring 215d by 406h, which correspond to Simonis' type 9 (1915-1930) description. The medicine bottle had been buried for such a time that it was only partially solarized.

The deposit is situated on an older elevated desert pavement terrace with a southern aspect, just below flat of the terrace, and is located within a Creosote Bush Scrub community. Sediments are Superstition gravelly loamy fine sand, 0 to 3 percent slopes, and comprise soils found on terraces and is derived from alluvium and sandy aeolian deposits.

VS-011 is a newly identified prehistoric quarry site with several single reduction loci. The deposit measures approximately 100 by 63 meters. The older elevated terrace contains at least eight loci with numerous individual flakes and cobbles. Materials identified include:

Locus A: approximately 30 microcrystalline quartz (chalcedony) flakes.

Locus B: brown-gray microcrystalline quartz (chert) and white microcrystalline quartz (chert) flakes.

Locus C: at least four fine-grained rhyolite flakes.

Locus D: approximately 50 basalt and two volcanic flakes.

Locus E: at least 30 vesicular basalt flakes.

Locus F: five tan-brown rhyolite flakes.

Locus G: one assayed cobble

Locus H: one microcrystalline quartz (chalcedony) assayed cobble.

The deposit is situated on an elevated older terrace within a Creosote Bush Scrub community. Sediments are Superstition gravelly loamy fine sand, 0 to 3 percent slopes, and comprise soils found on terraces and is derived from alluvium and sandy aeolian deposits.

VS-012 is a newly identified prehistoric lithic reduction station. The deposit measures approximately 1.0 by 1.0 meters. Materials identified include a large, assayed basalt cobble, five basalt debitage and one core in two pieces. The bifacial core measures 36 by 16 by 12 cm. The deposit is situated on an older

elevated desert pavement terrace within a Creosote Bush Scrub community. Sediments are Superstition gravelly loamy fine sand, 0 to 3 percent slopes, and comprise soils found on terraces and is derived from alluvium and sandy aeolian deposits.

VS-013 is a newly identified prehistoric lithic reduction station. One aspect of the deposit measures approximately 50 by 30 cm. Materials identified include six microcrystalline quartz (chert); a previously identified microcrystalline quartz (chalcedony) pebble was not relocated at the time of recording, but it is certain that it had not been lost or moved. The deposit is situated on an older elevated desert pavement terrace within a Creosote Bush Scrub community. Sediments are Superstition gravelly loamy fine sand, 0 to 3 percent slopes, and comprise soils found on terraces and is derived from alluvium and sandy aeolian deposits.

VS-014 is a 1913 brass button on a brass post General Land Office quarter section survey monument. A small mound of pebbles, and an old lath are associated. It is in good condition and unobstructed. The marker is located on an alluvial terrace, within a Creosote Bush Scrub community. Sediments are Superstition gravelly loamy fine sand, 0 to 3 percent slopes, and comprise soils found on terraces and is derived from alluvium and sandy aeolian deposits.

VS-015 is a newly identified prehistoric lithic reduction station. The deposit measures approximately 4.2 by 2.5 meters. Materials identified include 27 pieces of quartz debitage with one core measuring 100 by 74 by 68 mm, and 14 pieces of banded microcrystalline quartz (chert) debitage. The deposit is situated on an elevated older terrace within a Creosote Bush Scrub community. Sediments are Superstition gravelly loamy fine sand, 0 to 3 percent slopes, and comprise soils found on terraces and is derived from alluvium and sandy aeolian deposits.

VS-016 is a newly identified prehistoric lithic reduction station. The deposit measures approximately 1.0 by 1.0 meters. Materials identified include approximately 15 total primary and secondary debitage, and a large core of reddish metavolcanic/rhyolite. The unifacial core measures 48 by 36 by 25 cm. The debitage and core appear to rest on the surface in a manner that suggests that the artifacts were recently created. Their characteristics are suggestive of intentional flaking, as opposed to mechanical manufacture, but few of the debitage are embedded in the surrounding sediments as observed at other lithic reduction sites. The deposit is situated on an alluvial terrace near the southern margin of Vidal Wash, and is within a Creosote Bush Scrub community. Sediments are Superstition gravelly loamy fine sand, 0 to 3 percent slopes, and comprise soils found on terraces and is derived from alluvium and sandy aeolian deposits.

VS-017 is a newly identified prehistoric ceramic scatter. The deposit measures approximately 5.5 by 1.8 meters. Materials identified include 50 Black Mesa/Tumco buff ware sherds. At least two rim sherds are present, which appear to represent a bowl with a direct or pinched finish. The deposit is situated on an alluvial terrace, within a Creosote Bush Scrub community. Sediments are Superstition gravelly loamy fine sand, 0 to 3 percent slopes, and comprise soils found on terraces and is derived from alluvium and sandy aeolian deposits.

VS-019 is a widely dispersed incidental trash scatter composed of a variety of temporally disparate items all in secondary contexts. The deposit measures approximately 333 by 115 meters. Materials are randomly distributed and generally follow hydraulic flow lines such as rivulets, minor drainages, and sheet washes. Materials identified include glass bottles, bimetallic and aluminum cans, church key opened cans both 12 and 16 oz all steel cans, and all aluminum cans. Datable materials identified between 1958 and 1980s. Also includes material from temporary number VS-018, which includes three milk cans, a sanitary can, and

a bimetallic pull-tab. The sanitary can is possibly a key-wind opened C-ration tin. The milk cans are matchstick filler that measure 215d by 315h and are consistent with Simonis' type 19, which date between 1930 and 1975.

The deposit is situated on an alluvial terrace, within a Creosote Bush Scrub community. Sediments are Superstition gravelly loamy fine sand, 0 to 3 percent slopes, and comprise soils found on terraces and is derived from alluvium and sandy aeolian deposits.

VS-020 is a newly identified historic-period encampment. The deposit measures approximately 37.2 by 12.7 meters. Materials identified include at least 35 sanitary and MSF cans, along with plate glass, green glass measuring cup, two condiment jars (Hazel Atlas and Kimble Glass Company). A large percentage of the sanitary cans are open around outside of the cap seam.

Among the measured cans are six sanitary cans measuring 207d by 315h with punch-and-pry opening. One sanitary can measuring 307d by 409h (size No. 2), also punch-and-pry. Five sanitary cans measuring 307d by 409h (size No. 2) with outside rotary cut. The outside perimeter rotary can opener was invented by Edwin Anderson, receiving a patent in 1920.

One sanitary can measuring 300d by 410h (size "1 lb. Salmon."). Two 2-pound, and one 1-pound coffee cans. Four match-stick filler cans measuring 215d by 314h, which corresponds to Simonis' type 12, dating between 1917 and 1929.

Glass container makers marks include H over A (Hazel-Atlas) and K-in-a-hexagon (Kimble Glass Company). H over A was reportedly first used in 1923 and is believed to be last used in 1964. The K-in-a-hexagon mark was first used in 1947.

The deposit is situated on an alluvial terrace with an open aspect, within a Creosote Bush Scrub community. Sediments are Superstition gravelly loamy fine sand, 0 to 3 percent slopes, and comprise soils found on terraces and is derived from alluvium and sandy aeolian deposits.

VS-021 is a newly identified historic-period encampment. The deposit measures approximately 82.3 by 14.9 meters. Materials identified include at least 30 cans, predominantly sanitary, most are punch-and-pry/knife opened, many of which are crushed. At least four Prince Albert-style tobacco tins were noted. Sanitary cans that could be measured include two 307d by 409h (size No. 2), two 300d by 407h (size No. 300), one 301d by 411h (size No. 1 Tall), and two 401d by 411h (size No. 2-1/2). Also identified were five church-key opened 12 oz all steel beer containers, a key wind meat hole-in-cap can, a 1-pound coffee can, and a zinc mason jar lid w/ semi opaque milk glass liner. Seven match-stick filler cans measuring 215d by 315h corresponding to Simonis' type 19, which date between 1930 and 1975, were also identified in the site.

The deposit is situated along a small seasonal channel on an alluvial terrace with an open aspect, within a Creosote Bush Scrub community. Sediments are Superstition gravelly loamy fine sand, 0 to 3 percent slopes, and comprise soils found on terraces and is derived from alluvium and sandy aeolian deposits.

VS-023 is a newly identified historic-period encampment. The deposit measures approximately 42.1 by 13.8 meters. Materials identified include at least four unmeasurable sanitary cans, one knife opened sanitary can measuring 404d by 306h (no known type), one rotary opened sanitary can measuring 401d by 411h (size No. 2-1/2), one can measuring 603d by 700h (size No. 10), and at least one MSF can

measuring 215d by 314h, which corresponds to Simonis' type 12, dating between 1917 and 1929. Other items noted include a crushed paint can (quart), a pry lid, a Prince Albert tin, a citrine glass dish, a red clay brick fragment, a zinc toothpaste tube, and at least two crown bottle caps.

The deposit is situated on the margin of an older alluvial terrace within a Desert Pavement vegetation community. Sediments are Superstition gravelly loamy fine sand, 0 to 3 percent slopes, and comprise soils found on terraces and is derived from alluvium and sandy aeolian deposits.

VS-025 is a newly identified historic-period encampment. The deposit measures approximately 15 by 3.8 meters. Materials identified include six bimetallic 12 oz beer cans with circa 1963 pull-tab openings, and two 215d by 200h (no known size type) rotary opened sanitary cans. The deposit is situated in a minor drainage on an older alluvial terrace within a Desert Pavement vegetation community. Sediments are Superstition gravelly loamy fine sand, 0 to 3 percent slopes, and comprise soils found on terraces and is derived from alluvium and sandy aeolian deposits.

VS-026 is a newly identified prehistoric lithic reduction station. The deposit measures approximately 6.7 by 6.6 meters. Materials identified include 25 black vesicular basalt flakes, two black vesicular basalt assayed cobbles, one tan rhyolite assayed cobble, and one gray rhyolite core measuring 28 by 18 by 10 cm. The deposit is situated on an alluvial terrace near the southern margin of Vidal Wash, and is within a Creosote Bush Scrub community. Sediments are Superstition gravelly loamy fine sand, 0 to 3 percent slopes, and comprise soils found on terraces and is derived from alluvium and sandy aeolian deposits.

VS-027 is a newly identified prehistoric lithic reduction station. The deposit measures approximately 2.0 by 1.2 meters. Materials identified include six black vesicular basalt debitage, without core, one black vesicular basalt assayed cobble, one gray rhyolite assayed cobble, one rhyolite secondary flake, and one gray basalt hammerstone measuring 22 by 15 by 12 cm. The deposit is situated on an alluvial terrace within a Desert Pavement vegetation community. Sediments are Superstition gravelly loamy fine sand, 0 to 3 percent slopes, and comprise soils found on terraces and is derived from alluvium and sandy aeolian deposits.

VS-028 is a newly identified historic-period encampment. The deposit measures approximately 27.0 by 14.5 meters. Materials identified include 16 quart and 15-pint liquor bottles. Nearly all the glass bottles were manufactured by Owens-Illinois and indicated a "101" designation, which was given to Hiram Walker Distillers as part of the U. S. government licensing system between 1933 and 1964. A date code of 8 observed on many of the bottles indicate a year of production of 1938 or 1948 (1958 is also possible but by this time the new maker's mark had already been established). Also identified were at least 16 sanitary cans measuring 300d by 407h (size No. 300), three "tuna"-sized cans, three kipper or fish fillet key-wind cans, of which two are rectangular, and one oval. Ceramics include one porcelain cup and one whiteware bowl fragment. A maker's mark of Poxon China, Vernon, California suggests a production date between 1912 and 1931. Three matchstick filler cans that measure 208d by 206h correspond to Simonis' types 8 (1915-1925) or 13 (1917-1930). Other items include one "quart" size olive green wine bottle, and three or four condiment jars with indecipherable coding data.

The deposit is situated in an arroyo and on an alluvial terrace near the southern margin of Vidal Wash, and is within a Creosote Bush Scrub community. Sediments are Superstition gravelly loamy fine sand, 0 to 3 percent slopes, and comprise soils found on terraces and is derived from alluvium and sandy aeolian deposits.

VS-029 is a newly identified historic-period encampment. The deposit measures approximately 25.9 by 23.4 meters. Materials identified include over 40 rotary opened sanitary cans measuring 300d by 407h (size No. 300) with a debossed "C" on the bottom lid, four rotary opened sanitary cans measuring 211d by 400h (size No. 1 Picnic), and seven rotary opened sanitary cans measuring 404d by 414h (size No. 3). Other cans include a rectangular key-wind fish tin, Prince Albert tins, and one MSF can, measuring 215d by 315h, which corresponds to Simonis' type 19, dating between 1930 and 1975. A whiteware ceramic and a drinking glass were also noted, as was a discarded axe head.

The deposit is situated in an arroyo and on an alluvial terrace near the southern margin of Vidal Wash, and is within a Creosote Bush Scrub community. Sediments are Superstition gravelly loamy fine sand, 0 to 3 percent slopes, and comprise soils found on terraces and is derived from alluvium and sandy aeolian deposits.

VS-030 is a newly identified prehistoric lithic reduction station. The deposit measures approximately 1.2 by 1.0 meters and consists of a collection of assayed cobbles, a core, and flakes. Materials identified include one light gray basalt assayed cobble with two flakes, one dark gray basalt assayed cobble and one flake, and one light tan rhyolite core measuring 32 by 29 by 11 cm with four flakes. The deposit is situated on an alluvial terrace with an open aspect, within a Creosote Bush Scrub community. Sediments are Superstition gravelly loamy fine sand, 0 to 3 percent slopes, and comprise soils found on terraces and is derived from alluvium and sandy aeolian deposits.

VS-031 is a newly identified prehistoric lithic reduction station. The deposit measures approximately 3.3. by 2.8 meters. Materials identified include a fine-grained porphyritic metavolcanic hammerstone measuring 105 by 95 by 90 mm; a rhyolite hammerstone measuring 110 by 115 by 75 mm; a bifacial, bimarginal, rhyolite core measuring 23 by 15.5 by 8.5 cm; a unifacial, bimarginal, rhyolite core measuring 19 by 13 by 8 cm; three basalt and two rhyolite assayed cobbles. The collection of cobbles, cores, and hammerstone appear as if part of a random amalgamation of recently collected cobble artifacts rather than as if part of a prehistoric reduction station; however, the associated 29 flakes, predominantly rhyolite, do appear arrayed as if part of a lithic reduction station. The deposit is situated on an alluvial terrace with an open aspect, within a Creosote Bush Scrub community. Sediments are Superstition gravelly loamy fine sand, 0 to 3 percent slopes, and comprise soils found on terraces and is derived from alluvium and sandy aeolian deposits.

VS-032 is a 1912 brass button on a brass post General Land Office section survey monument, locating the intersection of Sections 15, 16, 21, and 22 of Township 1 South, and Range 24 East. A small mound of pebbles and an old lath are associated. The marker is located on an alluvial terrace, within a Creosote Bush Scrub community. Sediments are Superstition gravelly loamy fine sand, 0 to 3 percent slopes, and comprise soils found on terraces and is derived from alluvium and sandy aeolian deposits.

VS-033 is a newly identified prehistoric lithic reduction station. The deposit measures approximately 2.0 by 1.5 meters. Materials identified include a dark gray rhyolite hammerstone measuring 14.5 by 15 by 10 cm; a dark gray basalt hammerstone measuring 17 by 13 by 9.5 cm; a gray rhyolite hammerstone measuring 15 by 10 by 8 cm; a gray rhyolite hammerstone measuring 12 by 7 by 7 cm. In addition, several fine-grained porphyritic metavolcanic/rhyolite and basalt flakes were observed. The deposit is situated on an alluvial terrace with an open aspect, within a Creosote Bush Scrub community. Sediments are Superstition gravelly loamy fine sand, 0 to 3 percent slopes, and comprise soils found on terraces and is derived from alluvium and sandy aeolian deposits.

VS-034 is a newly identified historic-period trash scatter. The deposit measures approximately 14.8 by 5.9 meters. Materials identified include four key wind opened C-ration cans measuring 306d by 308h. These cans appear to be 12 oz. "B" units, which were standardized in 1940. The deposit is situated on an alluvial terrace with an open aspect, within a Creosote Bush Scrub community. Sediments are Superstition gravelly loamy fine sand, 0 to 3 percent slopes, and comprise soils found on terraces and is derived from alluvium and sandy aeolian deposits.

VS-035 is a newly identified prehistoric artifact scatter. The deposit measures approximately 12.4 by 6.2 meters. Materials identified include a red modified microcrystalline quartz (chert) flake tool, which exhibits bifacial retouching around tip margin and measures 50 by 20 by 7 mm, a buffware sherd, a basalt Lake Mojave projectile point that measures approximately 60 by 25 by 6 mm, one assayed basalt cobble measuring 23 by 17 by 10 cm, and a couple of basalt primary flakes. The deposit is situated on a deflated gravel terrace/desert pavement within a Creosote Bush Scrub community. Sediments are Superstition gravelly loamy fine sand, 0 to 3 percent slopes, and comprise soils found on terraces and is derived from alluvium and sandy aeolian deposits.

VS-036 is a newly identified prehistoric artifact scatter. The deposit measures approximately 19.0 by 10.2 meters. Materials identified include 40 or more Parker buff ceramic sherds, with at least one direct shaped rim sherd that measures a radius of 4 cm with 15 percent of the rim present. Also identified was an assayed cobble. The deposit is situated on an alluvial terrace with an open aspect, within a Creosote Bush Scrub community. Sediments are Superstition gravelly loamy fine sand, 0 to 3 percent slopes, and comprise soils found on terraces and is derived from alluvium and sandy aeolian deposits.

VS-037 is a newly identified prehistoric artifact scatter. The deposit measures approximately 31.0 by 7.8 meters. Materials identified include a basalt assayed cobble, a quartzite secondary flake, and a buff ware ceramic scatter of at least 30 sherds. The deposit is situated on an elevated desert pavement terrace, within a Creosote Bush Scrub community. Sediments are Superstition gravelly loamy fine sand, 0 to 3 percent slopes, and comprise soils found on terraces and is derived from alluvium and sandy aeolian deposits.

VS-038 is a newly identified prehistoric lithic reduction station. The deposit measures approximately 3.8 by 2.1 meters. Materials identified include a tan rhyolite bifacial core that measures 17 by 18 by 15 cm; a basalt assayed cobble measuring 14 by 13 by 9 cm; and six purple vesicular basalt flakes, and one tan rhyolite flake. The deposit is situated on an elevated desert pavement terrace, within a Creosote Bush Scrub community. Sediments are Superstition gravelly loamy fine sand, 0 to 3 percent slopes, and comprise soils found on terraces and is derived from alluvium and sandy aeolian deposits.

VS-039 is a newly identified historic-period trash scatter. The deposit measures approximately 1.0 by 1.0 meters. Materials identified include two 1942 dated Twin Cities head stamped 30 cal. blank cartridges, and a key wind opened C-ration cans measuring 300d by 308h. These cans appear to be 12 oz. "B" units, which were standardized in 1940. The deposit is situated on an alluvial terrace, within a Creosote Bush Scrub community. Sediments are Superstition gravelly loamy fine sand, 0 to 3 percent slopes, and comprise soils found on terraces and is derived from alluvium and sandy aeolian deposits.

VS-040 is a newly identified prehistoric lithic reduction station. The deposit measures approximately 8.2 by 7.1 meters. Materials identified include over 100 pinkish rhyolite and five gray rhyolite flakes; one fine-grained porphyritic metavolcanic flake; one fine-grained porphyritic metavolcanic, bifacial, unimarginal core measuring 135 by 80 by 43 mm; one volcanic, unifacial, unimarginal core measuring 105 by 65 by 75

mm; and one volcanic hammer-core, with bifacial, multimarginal edge damage measuring 18 by 17 by 11 cm. The deposit is situated on an alluvial terrace near the southern margin of Vidal Wash, and is within a Creosote Bush Scrub community. Sediments are Superstition gravelly loamy fine sand, 0 to 3 percent slopes, and comprise soils found on terraces and is derived from alluvium and sandy aeolian deposits.

VS-041 is a newly identified prehistoric lithic reduction station. The deposit measures approximately 1.5 meters by 1.5 meters. Materials identified include 14 black basalt and seven purple rhyolite flakes. The deposit is situated on an alluvial terrace near the southern margin of Vidal Wash, and is within a Creosote Bush Scrub community. Sediments are Superstition gravelly loamy fine sand, 0 to 3 percent slopes, and comprise soils found on terraces and is derived from alluvium and sandy aeolian deposits.

VS-042 is a newly identified prehistoric lithic reduction station. The deposit measures approximately 1.5 by 1.5 meters. Materials identified include more than 25 pieces of debitage consisting of rhyolite and fine-grained metavolcanic primary and secondary flakes, with a few tertiary flakes, and one fine-grained metavolcanic assayed cobble. No core was identified. The deposit is situated on an alluvial terrace near the southern margin of Vidal Wash, and is within a Creosote Bush Scrub community. Sediments are Superstition gravelly loamy fine sand, 0 to 3 percent slopes, and comprise soils found on terraces and is derived from alluvium and sandy aeolian deposits.

VS-043 is a newly identified prehistoric lithic reduction station. The deposit measures approximately 1.4 meters by 0.8 meters. Materials identified include three purple rhyolite debitage, one rhyolite and one basalt assayed cobble, and one grayish-green metavolcanic hammerstone measuring 17 by 14 by 8 cm. The deposit is situated on an alluvial terrace near the southern margin of Vidal Wash, and is within a Creosote Bush Scrub community. Sediments are Superstition gravelly loamy fine sand, 0 to 3 percent slopes, and comprise soils found on terraces and is derived from alluvium and sandy aeolian deposits.

VS-044 is a newly identified historic-period encampment. The deposit measures approximately 34.0 by 6.7 meters. Materials identified include older style, knife-opened, hole-in-cap cans: two 306d by 409h (size No.2), one 400d by 412h (size No.2 ½), one 315d by 606h, one 215d by 303h; two whiteware ceramic sherds, a recently looking metal wire diagonal cutter, bailing wire, and a metal tack strip. This deposit is in the vicinity of the 1914 mapped location of Mrs. G Duncan's House (Figure 5) and does appear to have cans manufactured before the rise of fully machine-made tin cans (after circa 1904), with large, soldered hole-in-cap tops. However, apart from a small measure of steel window screen, typical of older historic-period homes, no foundations or other building material was identified in the area.

The deposit is situated on an alluvial terrace with an open aspect, within a Creosote Bush Scrub community. Sediments are Superstition gravelly loamy fine sand, 0 to 3 percent slopes, and comprise soils found on terraces and is derived from alluvium and sandy aeolian deposits.

VS-047 is a newly identified prehistoric lithic reduction station. The deposit measures approximately 1.0 by 1.0 meters. Materials identified include four white microcrystalline quartz (chert) and two red microcrystalline quartz (chert) flakes, and a red microcrystalline quartz (chert) core measuring 65 by 50 by 40 mm. The deposit is situated on an older elevated desert pavement terrace within a Creosote Bush Scrub community. Sediments are Superstition gravelly loamy fine sand, 0 to 3 percent slopes, and comprise soils found on terraces and is derived from alluvium and sandy aeolian deposits.

VS-048 is a newly identified prehistoric lithic reduction station. The deposit measures approximately 1.8 meters by 1.7 meters. Materials identified include at least 18 pieces of quartz debitage. The deposit is

situated on an older elevated desert pavement terrace within a Creosote Bush Scrub community. Sediments are Superstition gravelly loamy fine sand, 0 to 3 percent slopes, and comprise soils found on terraces and is derived from alluvium and sandy aeolian deposits.

VS-049 is a newly identified prehistoric lithic reduction station. The deposit measures approximately 1.3 by 0.8 meters. Materials identified include 15 vesicular basalt flakes, and no identified core. The deposit is situated on an alluvial terrace with an open aspect, within a Creosote Bush Scrub community. Sediments are Superstition gravelly loamy fine sand, 0 to 3 percent slopes, and comprise soils found on terraces and is derived from alluvium and sandy aeolian deposits.

VS-050 is a newly identified prehistoric lithic reduction station. The deposit measures approximately 1.3 meters by 0.8 meters. Materials identified include more than 25 black vesicular basalt flakes, a gray rhyolite assayed cobble measuring 23 by 18 by 10 cm, and a tan rhyolite assayed cobble measuring 18 by 9 by undetermined thickness (cm). The deposit is situated on an alluvial terrace with an open aspect, within a Creosote Bush Scrub community. Sediments are Superstition gravelly loamy fine sand, 0 to 3 percent slopes, and comprise soils found on terraces and is derived from alluvium and sandy aeolian deposits.

VS-051 is an array of military vehicle tracks traversing the lower latitudes of the Project Area. These appear to be part of a broader array of vehicle tracks visible on the landscape from north of highway 62 to a short distance south of the Project Area. Within the Project Area most of the tracks are in the southern region, though a few tracks are discernable in the northern area as well. The tracks appear in a sweeping syncline arch pinching in the east at a no longer extant fence line gap along the eastern property line near Vidal Wash, broadening within the center of the southern Project Area, and coalescing near the western property line. The direction of travel is not particularly clear and remains equivocal. Similar tracks appear to emanate from, or descend upon, Camp Rice, located approximately 17 miles to the west, and west of Parker, Arizona, north of California 62, approximately 9 miles, northeast. Camp Rice was part of the greater Desert Training Center/California-Arizona Maneuver Area (DTC/C-AMA) developed in the early 1940s (April 1942 to May 1944) to train military personnel in desert, and later, European Theater warfare The DTC/C-AMA is listed as California Historical Landmark No. 985. This area is dominated by Creosote Bush Scrub community. Sediments are Superstition gravelly loamy fine sand, 0 to 3 percent slopes, and comprise soils found on terraces and is derived from alluvium and sandy aeolian deposits.

The tracks, now between 57 and 80 years old, remain visible on the landscape, and in aerial photographs, but details have weathered. Tread width appears to be approximately 22 to 24 inches, with a center-on-center track width of approximately 9.5 feet, and a maximum width of outside edge-to-edge of approximately 12 feet; however, the sample size of these dimensions is small, and additional data may improve the resolution of these measurements.

Very few tracked military vehicles fit this mechanical profile, especially those that date to the early phases of the use of the DTC/C-AMA. Two vehicles that may have been wide enough to create such tracks include the Landing Vehicle, Tracked (LVT) and the M10 Tank Destroyer. It seems unlikely that the LVT would have been utilized at the DTC/C-AMA given that the vehicle was adopted for production by the US Navy and Marines, even though one of the training exercises at the DTC/C-AMA was river crossings, usually along the Colorado River. Thus, the most likely candidate for this era would be the M10 Tank Destroyer – most tanks used at the training center were of the Lee, Stuart, and Sherman Classes, which had a tread width of 16- to 16-9/16-inchs on an 83-inch (6’-11”) track – wider treads were not used until late into the war, and few if any tread-widened M4 tanks would have been located at the DTC in early 1944 given the earlier

proposed decommissioning of the facility by military command. In addition to visible tracks are a few, light scatters of post-1940 C-ration cans, one of which includes a 1942 dated Twin-Cities headstamp 30-06 rifle cartridge case (see VS-039).

Operations at the DTC that involved use of the M10 Tank Destroyer include the 606th and 704th Tank Destroyer Battalions of the IV Armored Corps (8 November 1942 - 29 March 1943), which maneuvered from February 18 to March 6, 1943 (Meller 1946:39); the 5th and 6th Tank Destroyer Groups of IX Corps (29 March - 23 July 1943), which maneuvered from June 27 until July 15, 1943 (Meller 1946:41); the 185th Tank Destroyer Battalion of XV Corps (23 July - 13 November 1943), which maneuvered from October 25 until November 13, 1943 (Meller 1946:42); and the 15th Tank Destroyer Group of X Corps (17 January - 30 April 1944), which maneuvered from February 15 to March 3, 1944 (Meller 1946:43). No locational data has been identified to note where these particular maneuvers took place, and military and Formerly Used Defense Sites (FUDS) maps locating bombing and small arms ranges do not include the Project Area, or areas in the immediate vicinity of Vidal. A 1962 letter noted that a FUDS dedudding program cleared 2,560 acres in the Vidal area; however, none of the recorded cleared sections include the Project Area (USACOE 1996:266-279). A 1986 USGS publication did note, however, that the Project Area was within an area of military operations that may have been part of the DTC/C-AMA, or a subsequent operation called Desert Strike (Prose 1986).

The 1964 Exercise Desert Strike (sometimes also cited as Operation Desert Strike, or simply Desert Strike) was a simulated battlefield exercise conducted within much of the previous DTC/C-AMA footprint. The ground maneuver area extended from Barstow, California, just east of Edwards Air Force Base, eastward 170 miles to Kingman, Arizona, and from a point approximately 40 miles south of Las Vegas, Nevada, southward 160 miles to Blythe, California. “Desert Strike was a semi-controlled exercise under the direction of U.S. Strike Command that allowed opposing joint task forces, comprised primarily of armored and mechanized forces with full air support but including airborne units, a maximum of ‘free play’ initiative to develop, perfect, and test combat techniques and tactics” (USAF 1964a:4). Tracked vehicles used in this operation that may have fit dimensions observed in the field include the M60 Tank, which had a width of 11.9 feet.

As part of the exercise Joint Task Force (JTF) Phoenix launched an assault along a front of 140 miles of the Colorado River. Because existing dams and bridges were deemed destroyed or out of bounds by official umpires, attacks across the river were all land-based. Seven tactical crossing sites were chosen, each two to three miles wide (Kennedy 1964) (see Figure 11). “As elements of the 2d Armored Division got across the [pontoon] bridge, they picked up speed immediately and fanned out on roads and on trails into the desert country… [and] as they fanned out in the desert with armored columns in the direction of Rice and Vidal Junction they encountered only sporadic slash-and-run resistance. The Mojave forces fell back in the face of the headlong frontal assault” (USAF 1964a:10).

Perhaps contradicting the supposition that the area was traversed during Operation Desert Strike, with tracks made by M60 tanks, the presence of C-ration can scatters and the occasional 1942 dated 30-06 caliber rifle casing could well argue for use during the earlier training operations associated with the DTC. However, because armories supplying the military during WW II and the Korean conflict produced common calibers in the billions of rounds, these items were likely as available to the military as they were to the general public where they were regularly obtained in military surplus stores well into the 1970s and even into the 1980s. The presence of these items, unfortunately, may be equivocal on the subject of a precise period of deposition.

VS-052 is a newly identified prehistoric ceramic scatter. The deposit measures approximately 75 cm in diameter. Materials identified include 10 Colorado Red or Palomas buff sherds. The buff ware possesses a red outer slip, a slight carbon streak where a fire cloud is observed on the surface, with fine attrition, and crushed quartz temper. The interior surface indicates striae and a slight polish where the surface was scraped as part of the manufacturing process. The deposit is situated on a deflated gravel terrace/desert pavement within a Desert Pavement vegetation community. Sediments are Superstition gravelly loamy fine sand, 0 to 3 percent slopes, and comprise soils found on terraces and is derived from alluvium and sandy aeolian deposits.

In addition to the sites listed above, several isolated items were identified, mostly within that portion of the Project Area south of Vidal Wash. These items are described below.

ISO-100620-01 is a small, ceramic, red-on-buff body sherd with characteristics typical of Black Mesa/Tumco. The buffware sherd exhibits a broad, red paint patterning similar to those observed on Arizona specimens; however, the sherd was too small to readily detect a particular style. The sherd was identified at the southern margin of a slightly elevated desert pavement south of Vidal Wash. Vegetation is Creosote Bush Scrub community. Aspect is open, with a slight gradient to the east.

ISO-100720-02 is a white microcrystalline quartz (chert), multidirectional core, measuring 55 by 53 by 40 mm. The core was identified on a large, open terrace, south of Vidal Wash, consisting of Superstition gravelly loamy fine sand with 0 to 3 percent slopes. Vegetation is Creosote Bush Scrub community. Aspect is open, with a slight gradient to the east.

ISO-100720-04 is an Elko point made of white microcrystalline quartz (chalcedony) with a broken tip and one broken ear, measuring 31 by 31 by 5 mm. Tip damage is suggestive of impact with a hard feature, while ear loss and other damage appear to be the result of trampling with indicative lunate fractures. The point was identified on a large, open terrace, south of Vidal Wash, consisting of Superstition gravelly loamy fine sand with 0 to 3 percent slopes. Vegetation is Creosote Bush Scrub community. Aspect is open, with a slight gradient to the east.

ISO-100720-06 is a secondary rhyolite flake measuring 65 by 45 by 7 mm. The flake was identified on a terrace south of the Vidal Wash consisting of Superstition gravelly loamy fine sand, 0 to 3 percent slopes. Vegetation is Creosote Bush Scrub community. Aspect is open, with a slight gradient to the east.

ISO-100820-01 is a retouched rhyolite flake with unifacial and unimarginal flaking, measuring 68 by 35 by 30 mm. The flake was identified in an open alluvial deposit consisting of Superstition gravelly loamy fine sand, 0 to 3 percent slopes, south of Vidal Wash. Vegetation is Creosote Bush Scrub community. Aspect is open, with a slight gradient to the east.

ISO-100820-02 is a small ceramic body sherd with characteristics typical of Black Mesa/Tumco. The sherd exhibits a slightly burnished interior surface which is light gray in color. The sherd was identified in an open alluvial deposit consisting of Superstition gravelly loamy fine sand, 0 to 3 percent slopes, south of Vidal Wash. Vegetation is Creosote Bush Scrub community. Aspect is open, with a slight gradient to the east.

ISO-100820-03 is a basalt bifacial core measuring 155 by 135 by 30 mm. The core was identified in an open alluvial deposit consisting of Superstition gravelly loamy fine sand, 0 to 3 percent slopes, south of

Vidal Wash. Vegetation is Creosote Bush Scrub community. Aspect is open, with a slight gradient to the east.

ISO-100920-01 consists of two small ceramic body sherds, reddish-brown in color, with characteristics typical of Black Mesa/Tumco. The sherds were identified on a small terrace between two east-sloping drainages consisting of Superstition gravelly loamy fine sand, 0 to 3 percent slopes, south of Vidal Wash. Vegetation is Creosote Bush Scrub community. Aspect is open, with a slight gradient to the east.

ISO-100920-02 is a rhyolite core, with unifacial and unimarginal characteristics, measuring 145 mm by 147 mm by 140 mm. The core was identified on a small terrace between two east-sloping drainages consisting of Superstition gravelly loamy fine sand, 0 to 3 percent slopes, south of Vidal Wash. Vegetation is Creosote Bush Scrub community. Aspect is open, with a slight gradient to the east.

ISO-101320-01 is a secondary, white microcrystalline quartz (chert) flake, located on a small terrace between two south-sloping arroyos consisting of Superstition gravelly loamy fine sand, 0 to 3 percent slopes, north of Vidal Wash. Vegetation is Creosote Bush Scrub community. Aspect is open, with a slight gradient to the south/southeast.

ISO-101320-02 is a microcrystalline quartz (chert) edge-modified flake with multidirectional and multifacial characteristics, measuring 58 mm by 57 mm by 35 mm. It is located on a small terrace between two south/southeast-sloping arroyos consisting of Superstition gravelly loamy fine sand, 0 to 3 percent slopes, north of Vidal Wash. Vegetation is Creosote Bush Scrub community. Aspect is open, with a slight gradient to the south/southeast.

SECTION 6.0 – DISCUSSION/INTERPRETATION

The Project Area exhibits three general periods of use. The earliest is the prehistoric period. The many archaeological sites and isolated artifacts recorded across the Project Area illustrate a pattern of repeated, extensive use of the area by prehistoric Native American populations. The presence of an Elko projectile point reveals human use of the Project Area sometime between 3,500-1,500 BP, while the presence of a Lake Mohave projectile point indicates a presence as far back as 11,000-9,600 BP. The late prehistoric to early contact periods are represented by the numerous pot drops and isolated pot sherds.

The ephemeral nature of the archaeological sites documented indicate that residential habitation areas are located outside of the Project Area. With the Colorado River less than 0.5 miles away, this patterning corresponds to settlements of the Chemehuevi and the Mohave tribes described in section 2.2.2 above. The presence of a Lake Mohave projectile point represents a population utilizing the landscape deep in time. Lake Mohave points are associated with Early Holocene deposits and pre-date any known agricultural or horticulturally based cultures. Even so, Lake Mohave points are commonly found around lakes (currently referred to as playas or dry lakes). It is likely that the Colorado River would have also made for a suitable habitation area, similar to the earlier pluvial lakes of the region.

The middle period of use of the Project Area is represented by sites that date to early twentieth century (e.g., PF-012). The Calzona Mine Road supposedly coursed through the Project Area, as indicated on a 1911 USGS map (Figure 7). Although the mine itself is not within the Project Area, an artifact scatter adjacent to the road was identified and has historic-period tools indicative of mining activities. Historic-period sites situated along the bank of Vidal Wash (e.g., PF-008, VS-028, VS-029), where a hatchet head was identified within one of the sites may also be associated with the mining area, and may represent wood gathering camps supplying wood either for timbering the mines, or supplying fuel for the camps.

The last period of use is representative of World War II and post-war developments. The Project Area may have been subjected to use by General George Patton's Desert Training Center – California/Arizona Maneuver Area. The Project Area does not appear to contain any of the camp areas or other major maneuver areas documented in the region; however, the southern portion of the Project Area has many linear features that appear to have been made by tracked vehicles (VS-051). The tracks have a maximum width of approximately 12 feet and military C-Ration cans dating to that era were found near some of the tracks. The width of the tracked vehicle driven across the Project Area is wider than the Sherman tanks that were commonly used in WWII; however, the tracks may match the width of the LVT-1 vehicles that were used in the Pacific Theater, or the M10 Tank Destroyer, which were also deployed during maneuvers at the DTC. Similarly, the area may have been utilized during the Cold War training exercise named Operation Desert Strike. This military operation was played out across much of the former DTC landscape, operationalized maneuvers across the Colorado River in attack and defensive operations, and used the M-60 tank as part of the exercise; the M-60 tank fits the vehicle profile that may have produced the track traces visible on the landscape.

In addition, the remains of at least two homesteads from the historic era are still present in the Project Area. The oldest one, represented by sites VS-002 and VS-004, is visible on 1947 historic aerials, and may have pre-dated DTC use of the area. The parcel encompassing the homestead on the 1947 aerial was patented by Truesdell L. Locke on July 16, 1919, under the 1862 Homestead Act. It remains unclear if Locke or some other person(s) homesteaded the property. The second homestead, VS-006, dates to approximately 1953, and was abandoned by the 1980s based on aerial photograph evidence. VS-006 encompasses lands patented to Locke, see above, and to Albert J. Munn, and to Nettie E. Munn, who were

individually awarded patents for various parcels on February 27, 1920. Like the Locke homestead, it is unknown if either Munn homesteaded their parcels, or merely acquired the properties through the Homestead Act of 1862. The 1940 census indicates that an Albert J. Nunn and wife Grace Reneck Munn were living in Glendale, California. Nevertheless, given that the latter homestead was occupied in the mid-1960s there may be some possibility of acquiring an oral history of the event if a suitable informant could be identified.

SECTION 7.0 – MANAGEMENT CONSIDERATIONS

7.1 MANAGEMENT CONSIDERATION

The primary lens by which properties are evaluated when a project is a result of a Federal undertaking, (36 CFR § 800.16(y); 42 CFR § 137.289), is through the National Register of Historic Places (NRHP). The NRHP was established under the NHPA. Because the Project requires allowance by Western Area Power Administration to interconnect with the Parker-Blythe #1 161-kV Transmission Line, the proposed Project is considered an undertaking, and subject to Section 106 of the NHPA (36 CFR Part 800). Additionally, the proposed Project is located within San Bernardino County, California, and is subject to CEQA and County regulations. The CEQA Guidelines require consideration of archaeological sites through the lens of answering particular questions, specifically, whether a resource is eligible for the CRHR or the NRHP, or meets the definition of a 'unique archaeological resource' and has the potential to contribute data to previously defined research questions. Several resources can be eliminated from formal evaluation due to their limited nature.

Preliminary analysis of the prehistoric data implies that the Project Area was used ephemerally, likely by people living along the banks of the Colorado River. Dropped and broken ceramic vessels, small lithic reduction areas, and the occasional tool are on par with expectations of land use patterns for the region, in light of the ethnographic data presented earlier in this report.

Table 7 below presents all of the newly identified sites within the Project Area, and eligibility recommendations. A total of 64 new resources were identified and recorded (Table 5). Out of the 64 resources recorded, 11 are identified as IOs, and as such, are recommended as not eligible for inclusion on the NRHP and require no further work. The remaining 53 resources were identified as either historic or prehistoric sites that are further categorized in Table 6 and described above in Section 5. These 53 sites and the associated recommendations are included in Table 7 below. Not included in Table 7 are several IO, which, by their singular nature, lack association and or research value that would further our understanding of prehistory, and are not recommended eligible for inclusion on the National Register. Additionally, the Parker-Blythe #1 161-kV Transmission Line has been previously evaluated and determined not eligible for inclusion on the National Register.

Table 7: Newly Identified Resources Eligibility Recommendations

Temp #	Period	Resource Type	Condition	NRHP/CRHR Recommendation
PF-004	Prehistoric	Lithic reduction station	Good	Not Eligible
PF-005	Prehistoric	Lithic reduction station	Good	Not Eligible
PF-008	Historic	Encampment	Good	Not Eligible
PF-009	Prehistoric	Lithic reduction station	Good	Not Eligible
PF-011	Prehistoric	Ceramic scatter	Fair	Not Eligible
PF-012	Historic	Mining trash scatter	Fair	Not Eligible
PF-013	Prehistoric	Lithic reduction station	Good	Not Eligible
PF-015	Prehistoric	Lithic reduction station	Fair	Not Eligible
PF-016	Prehistoric	Lithic reduction station	Good	Not Eligible
PF-017	Prehistoric	Lithic reduction station	Good	Not Eligible

Table 7: Newly Identified Resources Eligibility Recommendations

Temp #	Period	Resource Type	Condition	NRHP/CRHR Recommendation
VS-001	Historic	Ranching	Fair	Not Eligible
VS-002	Historic	Homestead trash scatter	Fair	Not Eligible
VS-004	Historic	Homestead trash scatter	Poor	Not Eligible
VS-006	Historic	Homestead	Poor	Not Eligible
VS-008	Historic	Encampment	Good	Not Eligible
VS-010	Historic	Encampment	Good	Not Eligible
VS-011	Prehistoric	Desert pavement quarry	Good	Not Eligible
VS-012	Prehistoric	Lithic reduction station	Good	Not Eligible
VS-013	Prehistoric	Lithic reduction station	Fair	Not Eligible
VS-014	Historic	Survey monument	Excellent	Not Eligible
VS-015	Prehistoric	Lithic reduction station	Good	Not Eligible
VS-016	Prehistoric	Lithic reduction station	Good	Not Eligible
VS-017	Prehistoric	Ceramic scatter	Poor	Not Eligible
VS-019	Historic	Trash scatter	Poor	Not Eligible
VS-020	Historic	Encampment	Good	Not Eligible
VS-021	Historic	Encampment	Poor	Not Eligible
VS-023	Historic	Encampment	Good	Not Eligible
VS-025	Historic	Encampment	Poor	Not Eligible
VS-026	Prehistoric	Lithic reduction station	Good	Not Eligible
VS-027	Prehistoric	Lithic reduction station	Good	Not Eligible
VS-028	Historic	Encampment	Good	Not Eligible
VS-029	Historic	Encampment	Good	Not Eligible
VS-030	Prehistoric	Lithic reduction station	Good	Not Eligible
VS-031	Prehistoric	Lithic reduction station	Poor	Not Eligible
VS-032	Historic	Survey monument	Excellent	Not Eligible
VS-033	Prehistoric	Lithic reduction station	Good	Not Eligible
VS-034	Historic	WWII DTC*/Cold War EDS**	Good	Not Eligible
VS-035	Prehistoric	Artifact scatter	Poor	Not Eligible
VS-036	Prehistoric	Artifact scatter	Good	Not Eligible
VS-037	Prehistoric	Temporary camp	Fair	Not Eligible
VS-038	Prehistoric	Lithic reduction station	Good	Not Eligible
VS-039	Historic	WWII DTC*/Cold War EDS**	Good	Not Eligible
VS-040	Prehistoric	Lithic reduction station	Good	Not Eligible
VS-041	Prehistoric	Lithic reduction station	Good	Not Eligible
VS-042	Prehistoric	Lithic reduction station	Good	Not Eligible

Table 7: Newly Identified Resources Eligibility Recommendations

Temp #	Period	Resource Type	Condition	NRHP/CRHR Recommendation
VS-043	Prehistoric	Lithic reduction station	Good	Not Eligible
VS-044	Historic	Encampment	Poor	Not Eligible
VS-047	Prehistoric	Lithic reduction station	Good	Not Eligible
VS-048	Prehistoric	Lithic reduction station	Good	Not Eligible
VS-049	Prehistoric	Lithic reduction station	Good	Not Eligible
VS-050	Prehistoric	Lithic reduction station	Good	Not Eligible
VS-051	Historic	WWII DTC*/Cold War EDS**	Fair	Not Eligible
VS-052	Prehistoric	Ceramic scatter	Fair	Not Eligible

*DTC: Desert Training Center **EDS: Exercise Desert Strike

Survey-level Assessment and Recommendations

Historic-period encampments PF-008, VS-008, VS-010, VS-020, VS-023, VS-028, and VS-029 may contain information related to the historic-period use of the regional landscape during the first decades of the twentieth century. However, while these deposits appear to be intact and retain some aspects of integrity, including setting and feeling, the sites cannot be attributed to a significant event or events, or patterns in history, or to a significant person or craftsman, and the data contained within these deposits are unlikely to significantly further our understanding of history, and therefore, are not recommended eligible for inclusion on the NRHP/CRHR. Historic-period encampment VS-044 contains the oldest historic-period surface deposits within the Project Area, and may have connections to "Mrs. G. Duncan's house" noted on the 1914 USGS GLO map (Figure 5); however, VS-044 is a dispersed deposit of a limited number of items, and does not appear to be representative of a deposit associated with a historic-period homestead, of which little evidence was identified. VS-044 cannot be attributed to a significant event or events, or patterns in history, or to a significant person or craftsman, and the data contained within the deposit is unlikely to significantly further our understanding of history, and therefore, is not recommended eligible for inclusion on the NRHP/CRHR. Historic-period encampments VS-021, and VS-025 lack research value and retain little integrity. Neither deposit appears to be attributable to a significant event or events, or patterns in history, or to a significant person or craftsman, and the data contained within are unlikely to significantly further our understanding of history, and therefore, are not recommended eligible for inclusion on the NRHP/CRHR under any Criteria.

Homestead VS-006 is broadly configured across the northeast quadrant of the Project Area; however, substantive aspects of the ranch, both the domestic and working buildings, and the attendant agricultural infrastructure are lost through dismantlement and destruction. Thus, the site lacks integrity of design, materials, workmanship, and feeling, and is not recommended eligible for inclusion on the NRHP/CRHR under any Criteria.

Homestead trash scatters VS-002 and VS-004 are likely associated based on similar items contained in both deposits. However, neither site is likely to provide important information to better our understanding of history. Both sites lack integrity of association, setting, feeling, and materials, and are in poor condition. Neither are recommended eligible for NRHP/CRHP listing under any Criteria.

The mining trash scatter PF-012 lacks integrity with subsequent deposition of trash deposited over decades. While the condition of the site is fair, it lacks evidence to support significance under any NRHP/CRHP Criteria.

Ranching site VS-001 is in poor condition and retains little integrity of design, workmanship, setting, feeling or association and is therefore recommended not eligible for inclusion on the NRHP/CRHR under any Criteria.

General Land Office survey monuments VS-014 and VS-032 appear to be unaltered, though visited since installation. Condition is defined as excellent. Neither item is considered eligible under any Criteria.

The amorphous trash scatter VS-019 is an amalgamation of detritus flowing across the landscape, and is derived from a general waste stream of castoffs, ejecta, and illicit dumps. The deposit represents no singular event or episode, and contains items across a broad spectrum of time. The deposit lacks integrity of association and is not significant under any NRHP/CRHP Criteria.

Three resources represent sites associated with the World War II-era Desert Training Center or the Cold War-era Exercise Desert Strike, which utilized large portions of the Sonoran and Mojave Deserts. Site VS-051 is the largest and most complex site representing military equipment maneuvers within the Project Area; however, the site is composed mostly of military vehicle tracks created during active maneuvers, and a few C-ration cans, and a couple of 30-06 blank cartridges. While the DTC/C-AMA is listed as California Historical Landmark No. 985, VS-051 does not appear to possess any distinctive elements that would imbue the site with significance leading to eligibility for inclusion on the National Register. The overall condition of the site is poor, retains little integrity with respect to materials, condition, setting and feeling, and the limited extent of the vehicle tracks within the Project Area may not be especially representative of either DTC or EDS activity. Both VS-034 and VS-039 represent bivouacs where C-rations were consumed, and their packaging left behind. It is presumed that these three resources are contemporaneous and not representative of separate events. While the research value of VS-034 and VS-039 is limited, they both retain integrity of location and association. While both the DTC and Exercise Desert Strike are associated with military training in response to momentous global events, these sites are recommended as not eligible under Criterion A.

Prehistoric period artifact scatters are represented by VS-035 and VS-036. The Lake Mojave projectile point and the buffware sherd identified in VS-035 exemplify vastly different time periods of occupation. The flake tool and assayed cobble do not greatly add to the detail. VS-035 does not retain integrity of materials, association, feeling or setting, and lacks evidence to support significance under any NRHP/CRHP Criteria. VS-036, predominately comprises a ceramic scatter with an assayed cobble, indicating a late prehistoric to historic period of occupation. The site is in good condition and retains integrity of location, materials, and setting; however, VS-036 has not been attributed to a significant event or events, or patterns in history, or to a significant person or craftsman, and the data contained within the deposit is unlikely to significantly further our understanding of history, and therefore, is not recommended eligible for inclusion on the NRHP/CRHR.

Prehistoric ceramic scatters PF-011, VS-017, and VS-052 represent a late prehistoric to historic period of occupation. All three deposits have been impacted by property development, use, and vehicle traffic, and are in fair to poor condition. While these retain integrity of materials and location, other aspects of integrity are lacking and the data contained within the deposits are unlikely to significantly further our

understanding of history or prehistory, and therefore, are not recommended eligible for inclusion on the NRHP/CRHR.

VS-011 is an array of single and multi-reduction loci recorded within a desert pavement area described as a quarry. An adjacent road, which marked the Project boundary, cuts across the larger pavement terrace, and additional lithic reduction loci are possibly located thereon. The quarry appears to retain aspects of integrity relating to materials, setting, and location; however, these expedient reduction loci do not appear to represent a significant event or events, or patterns in history, or are related to a significant person or craftsman, and the data contained within the site is unlikely to significantly further our understanding of history, and therefore, is not recommended eligible for inclusion on the NRHP/CRHR.

Some 25 additional lithic reduction stations were identified within the Project Area, including site VS-011 with numerous loci; however, none of these expedient reduction loci are associated with a significant event or events, or patterns in history, or are associated with significant person or craftsman, and the data contained within these sites are unlikely to further our understanding of history, and therefore, are recommended as not eligible for inclusion on the NRHP/CRHR under any Criteria.

VS-037 is interpreted as a temporary camp. The site retains integrity of setting, location and materials; however, the site is not associated with a significant event, or pattern in history, or associated with a significant person or craftsman, and the data contained within the site is unlikely to further our understanding of history, and therefore, the site is recommended not eligible for inclusion on the NRHP/CRHR under any Criteria.

Recommended Conservation Measures

LEGAL REQUIREMENTS – HUMAN REMAINS: In the event that human remains are discovered during ground-disturbing activities, the proposed Project would be subject to California Health and Safety Code 7050.5, CEQA Section 15064.5, and California Public Resources Code Section 5097.98. If human remains are found during ground-disturbing activities, State of California Health and Safety Code Section 7050.5 states that no further disturbance shall occur until the County Coroner has made a determination of origin and disposition pursuant to Public Resources Code Section 5097.98. In the event of an unanticipated discovery of human remains, the County Coroner shall be notified immediately. If the human remains are determined to be prehistoric, the County Coroner shall notify the NAHC, which shall notify a most likely descendant (MLD). The MLD shall complete the inspection of the site within 48 hours of notification and may recommend scientific removal and nondestructive analysis of human remains and items associated with Native American burials (NPS 1983).

SECTION 8.0 – REFERENCES

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CONFIDENTIAL APPENDIX A – CALIFORNIA HISTORICAL RESOURCES INFORMATION SYSTEM RECORDS SEARCH

CONFIDENTIAL APPENDIX B – NATIVE AMERICAN HERITAGE COMMISSION SACRED LAND FILE RESULTS AND TRIBAL SCOPING LETTERS

CONFIDENTIAL APPENDIX C – NEWLY RECORDED CULTURAL RESOURCES SITE FORMS

CONFIDENTIAL APPENDIX D – NEWLY IDENTIFIED CULTURAL RESOURCES ON USGS 7.5’ TOPOGRAPHIC QUADRANGLE, AND AERIAL PHOTOGRAPH

CONFIDENTIAL APPENDIX E – NEWLY IDENTIFIED CULTURAL RESOURCES PHOTOGRAPHS