Draft
Environmental Impact Report

SCH# 2025071048

Volume 4

Appendix D5 through Appendix H (part 1 of 3)

Discovery Solar PV and Storage Project

Discovery Solar PV and Storage Project by Discovery Solar Storage, LLC (PP24408); ZCC No. 56, Map 197; ZCC No. 71, Map 198; ZCC No. 29, Map 214; ZCC No. 16, Map 215; CUP No. 22 Map 197; CUP No. 47, Map 198; CUP No. 50, Map 214; CUP No. 51, Map 214; CUP No. 19, Map 215; ZV No. 20, Map 197; ZV No. 36, Map 198; ZV No. 15, Map 214; ZV No. 3, Map 215; GPA No. 18, Map 197 (Circulation); GPA No. 5, Map 198 (Circulation); GPA No. 10, Map 214 (Circulation); GPA No. 7, Map 215 (Circulation); Multiple Vesting Tentative Parcel Maps (VTPM)

Kern County
Planning and Natural Resources Department
Bakersfield, California

January 2026

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Appendices—Volume 4

NOTE TO REVIEWER OF ELECTRONIC FILES:

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Appendix D5
Desert Kit Fox Survey Report

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DESERT KIT FOX SURVEY REPORT

Discovery Solar PV and Storage Project
Kern County, California

October 2025

Prepared for

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EXECUTIVE SUMMARY

A desert kit fox (DKF, *Vulpes macrotis arsipus*) habitat assessment and burrow survey were performed for the proposed Discovery Solar PV and Storage Project (Project). Although the Project site is approximately 7,700 acres, the larger 8,606-acre Study Area encompasses the 7,700-acre Project site, the proposed gen-tie corridor, and temporary offsite construction laydown yard. The DKF habitat assessment was performed in fall 2022 and fall 2025 and the burrow survey was performed in spring 2023, fall 2023, and spring 2024 to assess the potential presence of DKF within the Study Area (Figure 1). During the habitat assessment and burrow survey, 293 DKF dens were observed within the Study Area, including 21 known dens (with DKF sign), one natal/pupping den, and 271 potential dens that would be considered suitable for DKF use. The one natal/pupping den was a den complex consisting of multiple entrances, was observed in the western portion of the Study Area, and contained recent sign (e.g., recent scat and tracks) and evidence of prey items (e.g., feathers and rabbit fur). The vegetation around the natal den complex was highly trampled. This report includes measures recommended to avoid and minimize potential impacts to DKF.

Potential impacts to DKF can be reduced through implementation of recommended avoidance and minimization measures, as described below.

- A qualified biologist or their designee (i.e., a biologist with the ability to identify the species and possessing previous mammal survey and avoidance and minimization protection experience) will be onsite during initial grading and construction, pre-construction ground-disturbing activities, and decommissioning activities.
- A qualified biologist or their designee will conduct pre-construction surveys of all areas that would be permanently or temporarily impacted, plus a 500-foot (152-meter) buffer to the extent property access is authorized, to locate unoccupied and occupied dens. Pre-construction surveys will be conducted within a maximum of 30 days of the start of ground-disturbing activities. Surveys need not be conducted for all areas of suitable habitat at one time; they may be phased so that surveys occur within 30 days of the portion of the Project site that would be disturbed.
- If the qualified biologist determines that the den(s) are inactive, den(s) will be collapsed by a qualified biologist to prevent occupation of the den(s) between the time of the preconstruction survey and construction activities.
- If the qualified biologist determines that the den(s) are active, construction activities will not occur within 50 feet of an active badger den or 100 feet of an active kit fox den, unless otherwise approved by the qualified biologist.
- If the qualified biologist determines that potential den(s) outside of the pupping season may be active, a passive relocation program can occur. The pupping season is defined as February 1-August 1 for desert kit fox. The program will consist of determining status of the den(s) (confirming it is a nonmaternity den through remote camera monitoring), excluding desert kit fox from the occupied nonmaternity den(s) by installation of one-way doors at burrow

entrances, monitoring of the den for a minimum of 48 hours to confirm usage has been discontinued, and excavation and collapse of the den.

- To prevent inadvertent entrapment of DKF, all excavated steep-walled holes or trenches more than 2 feet deep will be covered with plywood or similar materials at the close of each working day. If holes or trenches cannot be covered, one or more escape ramps constructed of earthen fill or wooden planks, no less than 12 inches wide and secured at the top, will be placed a minimum of every 100 feet within the open trench. Covered and non-covered holes or trenches will be thoroughly inspected for trapped animals by a qualified biologist at the beginning and end of each working day. Immediately before such holes or trenches are filled, they will again be thoroughly inspected by trained Staff approved by the qualified biologist or their designee.

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Acronyms and Abbreviations

Applicant	Discovery Solar PV and Storage, LLC
BUOW	burrowing owl
CDFW	California Department of Fish and Wildlife
DKF	desert kit fox
Esri	Environmental Systems Research Institute
gen-tie	generation tie line
kV	kilovolt
LADWP	Los Angeles Department of Water and Power
MW	megawatts
Project	Discovery Solar PV and Storage Project
PV	photovoltaic
quad	quadrangle
SCE	Southern California Edison
SR	State Route
UPRR	Union Pacific Railroad
USFWS	United States Fish and Wildlife Service
USGS	U.S. Geological Survey

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1.0 INTRODUCTION

Tetra Tech was retained by Discovery Solar PV and Storage, LLC (Applicant) to conduct a desert kit fox (DKF, *Vulpes macrotis arsipus*) habitat assessment and burrow survey for the proposed Discovery Solar PV and Storage Project (Project). This Desert Kit Fox Survey Report presents the methodology, results, and recommendations from the habitat assessment and burrow survey conducted for the Project during the period of November 2022 through September 2025.

2.0 PROJECT DESCRIPTION AND LOCATION

The Project includes development of a photovoltaic (PV) solar facility and associated infrastructure necessary to generate up to 1,400 megawatts (MW) of renewable electrical energy with up to 8 gigawatt-hours of energy storage capacity (approximately 1,000 MW) on an approximately 7,700-acre Project site in an unincorporated area of southeastern Kern County, California. Approximately 2,426 acres within the 7,700-acre Project site are designated for zone changes only and would not be disturbed(Figure 1).

Major components of the Project consist of PV solar panels, a power collection system, including medium-voltage lines that connect the solar facilities, inverters, a switchyard, foundations, and transformers that will be installed onsite. Associated Project infrastructure includes an operations and maintenance facility, telecommunication facilities, energy storage system(s), up to three onsite collector substations, interconnection and transmission systems, and temporary laydown yards. The Project may be constructed in multiple phases.

The Project will interconnect to the existing Windhub Substation, which is owned and operated by Southern California Edison (SCE). The interconnect will be via a newly constructed 230-kilovolt (kV) generation tie line (gen-tie) that will extend north from the Project site towards the Windhub Substation from on-site collector substations. A portion of the Project 230-kV gen-tie would be co-located within an existing gen-tie corridor (controlled by the Applicant and/or its affiliates). A high-voltage switchyard located immediately north of the Union Pacific Railroad (UPRR) rail line will also be constructed.

The Project is generally on undeveloped and privately owned land, along the northern edge of the Antelope Valley. The Project site is located approximately 6 miles southwest of the unincorporated community of Mojave, approximately 9 miles southeast of the City of Tehachapi, and approximately 8 miles northwest of the unincorporated community of Rosamond. State Route (SR)-58 is north of the Project site, SR-14 is east of the Project site, and Tehachapi Willow-Springs Road runs between the Project site's boundaries (Figure 1). A network of existing named and unnamed dirt roads traverses the Project site. The Los Angeles Department of Water and Power (LADWP) aqueduct roughly bisects the Project site (Figures 2 and 3). On-site, adjacent, and nearby uses include renewable energy development, rural residential development, livestock grazing, heavy industrial and mining uses, and undeveloped lands. The Project site is regularly used for sheep (*Ovis aries*) grazing and sheep were observed onsite. Elevations across the Project site are relatively flat, ranging from approximately 2,970 to 3,760 feet above mean sea level. The Project site is located within the *Monolith, Willow*

Springs, and *Soledad Mountain* U.S. Geological Survey (USGS) 7.5-Minute Topographic Quadrangles (quads).

3.0 LITERATURE REVIEW

This section describes the methods and results of the literature review.

3.1 Methods

Relevant literature, including the California Department of Fish and Wildlife (CDFW) California Wildlife Habitat Relationships and the United States Fish and Wildlife (USFWS) *Standardized Recommendations for Protection of the Endangered San Joaquin Kit Fox Prior to or During Ground Disturbance*, were reviewed (CDFW 2024; USFWS 2011). Only species information relevant to all kit fox subspecies that occur in California was included. Soils data within the Study Area from the United States Department of Agriculture Natural Resources Conservation Service Web Soil Survey were also reviewed (USDA NRCS 2024).

3.2 Results

3.2.1 Species Information

Although the DKF is not federally or state listed, it is protected under the California Fish and Game Code Section 4000 et seq. and CDFW regulations as a fur-bearing mammal and under the California Code of Regulations, Title 14, Chapter 5, Section 460, prohibiting the take of DKF at any time. This species is considered vulnerable to displacement because of development within its habitat. DKF typically prefers open desert, often with sparse shrubs (e.g., creosote bush [*Larrea tridentata*]) and/or grass. DKF is nocturnal and forages at night, residing in a den during the day. DKF is known to change dens often, so the status of a given den may change frequently and abruptly. The pup-rearing season for this species is from February 1 to August 1.

3.2.2 Soils

Soils found in the Study Area primarily consisted of friable loamy sand and sandy loam soil types. Friable soils can occur in all series associated with the soil types found in the Study Area. The Study Area includes 13 types of soil (Table 1).

Table 1. Soil Types

Soil Type	Study Area	
	Acres	Percent
Adelanto loamy sand, 2 to 5 percent slopes	290	3
Cajon loamy sand, 2 to 9 percent slopes	1,289	15
Greenfield sandy loam, 2 to 9 percent slopes	409	5
Hanford coarse sandy loam, 2 to 9 percent slopes	300	4
Ramona coarse sandy loam, 5 to 9 percent slopes	740	9
Ramona sandy loam, 9 to 30 percent slopes, eroded	29	0
Arizo gravelly loamy sand, 2 to 9 percent slopes	18	0

Soil Type	Study Area	
	Acres	Percent
Cajon loamy sand, 0 to 5 percent slopes	3,271	38
Cajon gravelly loamy sand, 0 to 9 percent slopes	1,056	12
Garlock loamy sand, 2 to 9 percent slopes	830	10
Randsburg sandy loam, 2 to 15 percent slopes	245	3
Rosamond clay loam	127	1
Torriorthents-Rock outcrop complex, very steep	2	0
Total	**8,606**	**100**

4.0 FIELD SURVEY

This section describes the field methods and results of the DKF habitat assessment and burrow survey.

4.1 Methods

Although the Project site is approximately 7,700 acres, the larger 8,606-acre Study Area encompasses the 7,700-acre Project site, the proposed gen-tie corridor, and temporary offsite construction laydown yard.

The Study Area is in the known distributional range of DKF and contains suitable habitat for the species. Therefore, it was determined that a DKF survey was needed. The habitat assessment was conducted in fall 2022 and fall 2025, and the burrow survey was conducted in spring 2023, fall 2023, and spring 2024.

4.1.1 Habitat Assessment and Burrow Survey

The DKF habitat assessment and burrow survey occurred concurrently with a burrowing owl (BUOW, *Athene cunicularia*) and Mojave desert tortoise (*Gopherus agassizii*) habitat assessment and subsequent burrow survey. As part of the habitat assessment, biologists ascertained existing site conditions and referenced vegetation mapping data, collected in accordance with the *Manual of California Vegetation* (Sawyer et al. 2009), and located habitat in the Study Area suitable for DKF. Dens documented during the habitat assessment in November 2022 were revisited during the burrow survey in 2023.

During the burrow survey, biologists surveyed suitable habitat in the Study Area for DKF dens by walking 10-meter (33-foot) interval transects. Transects were walked during optimal weather conditions (i.e., no heavy rain or fog) to allow for the greatest visibility possible.

DKF can occupy an individual den or a den with multiple entrances, known as a den complex (USFWS 2011). Observed dens were classified into three categories: known dens, natal/pupping dens, and potential dens. Definitions of these den categories are based on the *USFWS Standardized Recommendations for Protection of the Endangered San Joaquin Kit Fox Prior to or During Ground Disturbance* (USFWS 2011) since guidance specifically for the desert kit fox does not exist. Known dens are dens that are being used or have been used at any time in the past by DKF. Evidence of use may

includes DKF sign such as tracks, scat, and/or prey remains. Natal/pupping dens are used by DKF to whelp and/or rear their pups and have more tracks, scat, and/or prey remains present. Natal/pupping dens may have a broader apron of matted dirt and/or trampled vegetation at one or more entrances. Potential dens are subterranean holes within the DKF species range that have entrances with appropriate dimensions but also have insufficient evidence to conclude that these holes are being used or have been used by a DKF (USFWS 2011). The following paragraphs provide more characteristics of each of these DKF den categories.

Known DKF dens typically include one or more of the following characteristics:

- One or more entrances of appropriate dimensions, often with dirt berms adjacent to the entrances;
- DKF tracks, scat, and/or prey remains in the vicinity of the den; and
- Matted dirt and/or vegetation adjacent to den entrances.

Natal/pupping DKF dens typically include one or more of the following characteristics:

- Larger den complexes with more numerous entrances;
- Presence of more sign, including tracks, scat, and/or prey remains in the vicinity of the den/den complex; and
- Broader apron of matted dirt and/or trampled vegetation at one or more entrance.

Potential DKF dens typically include one or more of the following characteristics:

- Any suitable underground hole that has entrances of approximately 5 to 8 inches in diameter with insufficient evidence to conclude that it is being used or has been used by DKF;
- Any den or burrow of another species (e.g., coyote, badger, red fox, or ground squirrel) that has appropriate dimensions for DKF use; and
- Atypical dens such as pipes, culverts, canal banks, and other man-made features with no DKF sign present.

Known, natal/pupping, and potential DKF dens observed during the habitat assessment or burrow survey were mapped using the Environmental Systems Research Institute (Esri) ArcGIS Field Maps on a tablet with a Global Positioning System and documented on a datasheet. Datasheets from the survey are provided in the Project Biological Resources Summary Technical Report (Tetra Tech 2025). Signs of use, such as tracks, scat, and prey remains, were documented. Details on the known, natal/pupping, and potential dens mapped in the Study Area are included in Appendix B. The table in Appendix B reflects the most updated and accurate data following the habitat assessment and burrow survey.

Table 2 provides more information on the details of the habitat assessment and burrow survey completed within the Study Area. A comprehensive list of wildlife observed or detected by the presence of sign was compiled from surveys within the Study Area. The wildlife list only includes species observed and detected within the Study Area.

Table 2. Habitat Assessment and Burrow Survey

Survey	Date(s)	Biologists	Notes
Habitat Assessment	November 3-4, 2022 November 7-11, 2022 September 3-4, 2025	Taylor Dee Lauren Jennings Ari Naiman Alden Lovaas	In 2025, a habitat assessment was conducted in acres that had previously not been surveyed.
Burrow Survey	April 10-14, 2023 April 17-21, 2023 April 24-28, 2023 May 1-5, 2023 May 8-12, 2023 May 15-18, 2023 September 25-29, 2023 October 5, 2023 April 11-12, 2024	Matt Adams Sarah Baden Nikki Bottum Chelsie Brown Taylor Dee Alivia De Luz Alexandra Dorough Shelby Dunn Caroline Garcia Joshua Harris Daniel JacquesJulie Kaplan Annie Lightell Maribel Lopez Alden Lovaas Eliza McLean Carly Martenson Ari Naiman Madison Panzino Jamie Perigo Victoria Prado Verity Richardson Adam Schroeder Lauren Simpson Derek Siver Corrina Tapia Wendy Turner Sarah Wagner Carter Warwick Jennifer West Rachel Woodard	Survey in 2023 was performed in the acres within the Study Area at that time. Acres added after October 2023 were surveyed in 2024. Dens observed during the habitat assessment in 2022 were revisited in 2023.

4.2 Results

This section describes the results of the DKF habitat assessment and burrow survey.

4.2.1 Vegetation Communities

Table 3 lists the vegetation communities found and their acreage within the Study Area. Results of the vegetation mapping are shown in Figures 4a and 4b.

Table 3. Vegetation Communities

Vegetation Communities	Acres within Study Area
Allscale scrub (*Atriplex polycarpa* Shrubland Alliance)	20
Brittle bush scrub (*Encelia farinosa* Shrubland Alliance)	206
California buckwheat scrub (*Eriogonum fasciculatum – Viguiera parishii* Shrubland Alliance)	465
California juniper woodland (*Juniperus californica* Woodland Alliance)	354
Cheesebush scrub (*Ambrosia salsola – Bebbia juncea* Shrubland Alliance)	773
Creosote bush scrub (*Larrea tridentata* Shrubland Alliance)	5,737
Desert needlegrass grassland (*Stipa speciosa* Herbaceous Alliance)	246
Developed	57
Disturbed	35
Disturbed creosote bush scrub	340
Rubber rabbitbrush scrub (*Ericameria nauseosa* Shrubland Alliance)	344
Scalebroom scrub (*Lepidospartum squamatum* Shrubland Alliance)	29
Total	**8,606**

Nine natural vegetation communities were found within the Study Area: allscale scrub (*Atriplex polycarpa* Shrubland Alliance), brittle bush scrub (*Encelia farinosa* Shrubland Alliance), California buckwheat scrub (*Eriogonum fasciculatum – Viguiera parishii* Shrubland Alliance), California juniper woodland (*Juniperus californica* Woodland Alliance), cheesebush scrub (*Ambrosia salsola – Bebbia juncea* Shrubland Alliance), creosote bush scrub (*Larrea tridentata* Shrubland Alliance), desert needlegrass grassland (*Stipa speciosa* Herbaceous Alliance), rubber rabbitbrush scrub (*Ericameria nauseosa* Shrubland Alliance), and scalebroom scrub (*Lepidospartum squamatum* Shrubland Alliance). These vegetation communities provide habitat for DKF. The three other communities within the Study Area contained developed and disturbed areas and disturbed creosote bush scrub.

Vegetation communities as well as disturbed and developed areas observed within the Study Area are described below:

Allscale scrub (*Atriplex polycarpa* Shrubland Alliance): This alliance is dominated by allscale, which comprises more than 2 percent absolute cover and more than 50 percent relative cover in the shrub canopy. Other plant species present in this community include creosote bush and winterfat (*Krascheninnikovia lanata*). Some scattered western Joshua trees are present. Shrubs are generally less than 3 meters in height, and the canopy is open to continuous.

Brittle bush scrub (*Encelia farinosa* Shrubland Alliance): This alliance is dominated by brittle bush (*Encelia farinosa*), which comprises more than 1 percent absolute cover in the shrub canopy and more than 50 percent relative cover. Other plant species present in this community include white bursage (*Ambrosia dumosa*), creosote bush, desert needlegrass (*Stipa speciosa*), and cheesebush (*Ambrosia salsola*). Shrubs are generally less than 2 meters in height, and the canopy is open to intermittent.

California buckwheat scrub (*Eriogonum fasciculatum – Viguiera parishii Shrubland* Alliance): This alliance is dominated by Mojave desert California buckwheat (*Eriogonum fasciculatum* var. *polifolium*). California buckwheat is present at more than 5 percent absolute cover in the shrub canopy and Parish's goldeneye (*Viguiera parishii*) was not observed. In some areas, California buckwheat is

codominant with Cooper's goldenbush (*Ericameria cooperi* var. *cooperi*). White bursage, desert needlegrass, creosote bush, cheesebush, Nevada ephedra (*Ephedra nevadensis*), desert fiddleneck (*Amsinckia tessellata* var. *tessellata*), and rayless goldenhead (*Acamptopappus sphaerocephalus)* are also present in this community. Shrubs are generally less than 2 meters in height, and the canopy is open to intermittent open.

California juniper woodland (*Juniperus californica* Woodland Alliance): This alliance is dominated by California juniper (*Juniperus californica*), which is present at more than 3 percent absolute cover over lower shrubs. No other tree species are present. Other plant species present in this community include creosote bush, Nevada ephedra, and desert needlegrass. Trees are generally less than 5 meters in height, and the canopy is open to intermittent.

Cheesebush scrub (*Ambrosia salsola – Bebbia juncea* Shrubland Alliance): This alliance is dominated by cheesebush, which is present at more than 2 percent cover in the shrub canopy with other shrubs comprising less cover in the shrub canopy. Sweetbush (*Bebbia juncea*) is not present in this community. Other plant species observed include creosote bush, white bursage, desert needlegrass, desert fiddleneck, Nevada ephedra, Acton Encelia (*Encelia actoni*), rubber rabbitbrush (*Ericameria nauseosa*), cheatgrass (*Bromus tectorum*), and rayless goldenhead. Shrubs are less than 2 meters in height, and the canopy is open to intermittent.

Creosote bush scrub (*Larrea tridentata* Shrubland Alliance): This alliance was the most encountered vegetation community in the Study Area. This alliance is dominated by creosote bush, which exceeds other shrubs in cover. In some areas, emergent western Joshua trees are present. Other small shrubs such as white bursage, winterfat, Nevada ephedra, cheesebush, rayless goldenhead, and peach thorn (*Lycium cooperi*) were observed alongside creosote in some areas, but in this alliance, their cover is less than three times the cover of creosote bush.

Desert needlegrass grassland (*Stipa speciosa* Herbaceous Alliance): This alliance is dominated by desert needlegrass, which is present at more than 50 percent relative cover in the herbaceous layer. Emergent western Joshua trees and shrubs, including cheesebush, rubber rabbitbrush, creosote bush, desert wishbone bush (*Mirabilis laevis*), and desert fiddleneck are present at low percent cover. Herbs are generally less than 1 meter in height, and the canopy is open to intermittent.

Developed: Areas mapped as developed include existing wind energy generating infrastructure, existing buildings, structures, hard paved roads, and railroads. The existing Windhub substation is located off Oak Creek Road. Other areas mapped as developed include buildings on the Windswept Ranch Petting Zoo property as well as a graded gravel lot with trailers and fenced yard on Tehachapi Willow Springs Road. Multiple abandoned and/or previously occupied structures as well as associated non-occupied accessory structures within the western half of the Study Area and roads including Oak Creek Road, Santa Fe Railroad, and Tehachapi Willow Springs Road were also considered to be developed.

Disturbed: Areas described as disturbed are characterized by the presence of anthropogenic disturbances such as trash, off-road vehicle tracks, and non-native species. Areas mapped as disturbed include areas along Oak Creek Road with existing infrastructure associated with the Windhub Substation, part of the southeastern section of the Study Area adjacent to the Holliday Rock

Mine, an abandoned illegal grow operation in the middle of the Study Area north of the LADWP aqueduct, and abandoned encampments with no structures in the middle of the Study Area north of the LADWP aqueduct and in the southwestern section of the Study Area south of the LADWP aqueduct.

Disturbed creosote bush scrub: This community is characterized by anthropogenic disturbances to the ground and vegetation. Disturbed creosote bush scrub in the northernmost section of the Study Area is disturbed due to historical ground and vegetation disturbance, road construction, and/or has been burned in a wildfire. The section south of the LADWP aqueduct is disturbed due to a large burn scar, because of which it exhibits characteristics different than creosote bush scrub in other areas of the Study Area. Dead creosote bush and western Joshua trees, relatively low vegetation cover, and large areas of bare soil were observed in this burned area. In the area north of the LADWP aqueduct and south of Tehachapi Willow Springs Road, anthropogenic disturbances and historical grading were observed.

Rubber rabbitbrush scrub (*Ericameria nauseosa* Shrubland Alliance): This alliance is dominated by rubber rabbitbrush, which is present at more than 50 percent relative cover in the shrub canopy. Shrubs are generally less than 3 meters in height, and the canopy is open to continuous.

Scalebroom scrub (*Lepidospartum squamatum* Shrubland Alliance): This alliance is dominated by scalebroom (*Lepidospartum squamatum*), which is present at more than 1 percent cover in alluvial environments. This alliance was observed along a dry streambed that runs across the Study Area. Rubber rabbitbrush and desert needlegrass were also present in this community. Shrubs are less than 2 meters in height, and the canopy is open to continuous and two-tiered.

4.2.2 Habitat Assessment and Burrow Survey

The results from the habitat assessment and burrow survey performed in the Study Area in fall 2022, spring 2023, fall 2023, spring 2024, and fall 2025 are described below.

- A total of 293 DKF dens were detected. A total of 21 known dens (with DKF sign), one natal/pupping den, and 271 potential dens that would be considered suitable for DKF use were mapped within the Study Area.
  - Of the 293 total DKF dens in the Study Area, 263 were located within the Project site.
- DKF sign in the form of scat and tracks was observed at 21 known dens.
  - Of these, 21 known dens were located within the Project site.
- One natal/pupping den complex was detected in the western portion of the Study Area (Figure 5). This den complex contained nine entrances and recent sign (e.g., recent scat and tracks). Evidence of prey items (e.g., feathers and rabbit fur) was observed, and the vegetation around the complex was highly trampled.
  - This natal/pupping den was located within the Project site.
- In addition to the known and natal/pupping dens, 271 potential dens with no sign of DKF were detected.
  - Of these, 241 potential dens with no sign were located within the Project site.

- One DKF skull was observed on April 18, 2023, under a transmission tower located in the western portion of the Study Area within the Project site (Figure 5). The skull mostly consisted of bone, with nose tissue present.

Appendix B contains a table with more information on dens mapped within the Study Area. Table 4 summarizes the known, natal/pupping, and potential dens observed during the habitat assessment and burrow survey.

Table 4. Summary of Known, Natal/Pupping, and Potential Dens/Den Complexes

Den Type	Study Area			Project Site		
	Known	Natal/Pupping	Potential	Known	Natal/Pupping	Potential
Individual den	13	0	252	13	0	228
Den complex	8	1	19	8	1	13
Total	**21**	**1**	**271**	**21**	**1**	**241**

Table 5 lists wildlife species observed and detected in the Study Area. Special-status species are indicated with bold text in Table 5.

Table 5. Wildlife Species Observed and Detected Within the Study Area

Scientific Name	Common Name	Federal/State Status
Invertebrates		
Acrididea	Grasshopper	None
Apis mellifera	European honeybee	None
Bombus sp.	Bumblebee	None
Camponotus sp.	Carpenter ant	None
Diplopoda	Millipede	None
Hadrurus arizonensis	Desert hairy scorpion	None
Hyles lineata	White lined sphynx moth	None
Latrodectus mactans	Black widow	None
Lytta magister	Master blister beetle	None
Manduca quinquemaculata	Hornworm	None
Pogonomyrmex sp.	Harvester ant	None
Pompilidae	Tarantula hawk	None
Tenebrionidae	Darkling beetle	None
Vanessa cardui	Painted lady butterfly	None
Reptiles[1/, 2/]		
Aspidoscelis tigris tigris	Great basin whiptail	None
Crotalus scutulatus	Mojave green rattlesnake	None
Dipsosaurus dorsalis	Desert iguana	None
Gambelia wislizenii	Long nosed leopard lizard	None
Masticophis flagellum testaceus	Coachwhip	None
Pituophis catenifer	Gopher snake	None
Sceloporus magister	Desert spiny lizard	None
Sceloporus uniformis	Yellow backed spiny lizard	None
Uta stansburiana	Side blotch lizard	None

Scientific Name	Common Name	Federal/State Status
Xantusia vigilis	Night lizard	None
Birds		
Aegithalus flaviceps	Verdin	None
Accipiter cooperii	**Cooper's hawk**	**None/WL**
Aeronautes saxatalis	White-throated swift	None
Agelaius phoeniceus	Red-winged blackbird	None
Amphispiza bilineata	Black-throated sparrow	None
Ardea alba	Great egret	None
Ardeidae	Heron	None
Artemisiospiza belli belli	**Bell's sparrow**	**None/WL**
Athene cunicularia	**Burrowing owl**	**None/Candidate and SSC**
Bubo virginianus	Great horned owl	None
Buteo jamaicensis	Red-tailed hawk	None
Callipepla californica	California quail	None
Campylorhynchus brunneicapillus	Cactus wren	None
Cathartes aura	Turkey vulture	None
Catharus guttatus	Hermit thrush	None
Chondestes grammacus	Lark sparrow	None
Chordeiles acutipennis	Lesser nighthawk	None
Circus hudsonius	**Northern harrier**	**None/SSC**
Columba livia	Rock pigeon	None
Contopus cooperi	**Olive-sided flycatcher**	**None/SSC**
Corvus corax	Common raven	None
Dendroica townsendi	Townsend's warbler	None
Dryobates scalaris	Ladder-backed woodpecker	None
Eremophila alpestris	Horned lark	None
Falco sparverius	American kestrel	None
Geococcyx californianus	Greater roadrunner	None
Haemorhous mexicanus	House finch	None
Hirundo rustica	Barn swallow	None
Icterus bullockii	Bullock's oriole	None
Icterus parisorum	Scott's oriole	None
Junco hyemalis	Dark eyed junco	None
Lanius ludovicianus	**Loggerhead shrike**	**None/SSC**
Laridae	Gull	None
Mimus polyglottos	Northern mockingbird	None
Myiarchus cinerascens	Ash-throated fly catcher	None
Numenius phaeopus	Whimbrel	None
Oreoscoptes montanus	Sage thrasher	None
Oreothlypis celata sordida	Orange-crowned warbler	None
Passerculus sandwichensis	Savannah sparrow	None
Passerella iliaca	Fox sparrow	None
Passerina amoena	Lazuli bunting	None

Scientific Name	Common Name	Federal/State Status
Petrochelidon pyrrhonota	Cliff swallow	None
Phalaenoptilus nuttallii	Common poorwill	None
Pheucticus melanocephalus	Black-headed grosbeak	None
Pipilo maculatus	Spotted towhee	None
Piranga ludoviciana	Western tanager	None
Poecile gambeli	Mountain chickadee	None
Polioptila caerulea	Blue-gray gnatcatcher	None
Regulus calendula	Ruby-crowned kinglet	None
Salpinctes obsoletus	Rock wren	None
Sayornis saya	Say's phoebe	None
Setophaga coronata	Yellow-rumped warbler	None
Setophaga petechia	**Yellow warbler**	**None/SSC**
Sialia currucoides	Mountain bluebird	None
Spinus psaltria	Lesser goldfinch	None
Spinus tristis	American goldfinch	None
Spizella breweri	Brewer's sparrow	None
Spizella passerina	Chipping sparrow	None
Stelgidopteryx serripennis	Northern rough-winged swallow	None
Sturnella neglecta	Western meadowlark	None
Sturnus vulgaris	European starling	None
Tachycineta bicolor	Tree swallow	None
Tachycineta thalassina	Violet-green swallow	None
Toxostoma lecontei	Le Conte's thrasher	None
Trochilidae	Hummingbird	None
Turdus migratorius	American robin	None
Tyrannus verticalis	Western kingbird	None
Vireo cassinii	Cassin's vireo	None
Vireo gilvus	Warbling vireo	None
Xanthocephalus xanthocephalus	**Yellow-headed blackbird**	**None/SSC**
Zenaida macroura	Mourning dove	None
Zonotrichia leucophrys	White-crowned sparrow	None
Mammals		
Ammospermophilus leucurus	White-tailed antelope squirrel	None
Antilocapra americana	Pronghorn	None
Bos taurus [3/]	Domestic cow	None
Canis latrans [3/]	Coyote	None
Canis lupus familiaris	Domestic dog	None
Dipodomys deserti	Desert kangaroo rat	None
Lepus californicus	Black tailed jackrabbit	None
Lynx rufus	Bobcat	None
Neotoma lepida [3/]	Desert woodrat	None
Otospermophilus beecheyi	California ground squirrel	None
Ovis aries [3/]	Domestic sheep	None
Sylvilagus audubonii	Desert cottontail	None

Scientific Name	Common Name	Federal/State Status
Taxidea taxus [3/]	**American badger**	**None/SSC**
Vulpes macrotis arsipus [1/]	**Desert kit fox**	**None/CA Title 14**

Notes:
1/ Only one Mojave desert tortoise adult male carcass was found in the Study Area; this carcass had physical characteristics consistent with those observed in captive individuals, which likely indicates previous captivity.
2/ A fresh adult female leopard tortoise carcass was observed within the Study Area. This species is native to central and southern Africa and known in the pet trade and therefore, was likely a captive individual that was released into the wild.
3/ Only sign of these species observed.

Species in **bold** have a federal or State status.
WL = Watch list; SSC = Species of special concern; CA Title 14 = Protected under California Code of Regulations Title 14, Chapter 5, Section 460.

5.0 DISCUSSION AND RECOMMENDATIONS

DKF occupancy has been confirmed by the presence of 21 known DKF dens with sign (e.g., scat and tracks), one natal/pupping den complex, 241 potential dens, and a DKF skull within the Project site. The natal/pupping den complex was observed in the western portion of the Study Area and had nine entrances, recent sign (e.g., recent scat and tracks), evidence of prey items (e.g., feathers and rabbit fur), and heavily trampled vegetation around the complex.

Due to the high tendency of DKF to move between dens, the status and occupation of a den may change abruptly and frequently. DKF is also nocturnal, so observing live individuals in or out of a den during a diurnal survey is unlikely. While DKF occupancy could not be confirmed in the potential dens due to the lack of DKF sign, DKF may attempt to colonize these dens, or other suitable habitat on the Study Area, prior to the commencement of construction activities.

The results of these surveys have been used to develop recommendations for pre-construction surveys and avoidance and minimization measures.

Use of heavy machinery, construction noise, and/or ground disturbance during construction activities have the potential to impact DKF within the Study Area. The Applicant proposes implementation of the following measures to ensure potential impacts on DKF resulting from Project construction, operations and maintenance, and decommissioning activities would be avoided and minimized:

- A qualified biologist or their designee (i.e., a biologist with the ability to identify the species and possessing previous mammal survey and avoidance and minimization protection experience) will be onsite during initial grading and construction, pre-construction ground-disturbing activities, and decommissioning activities.
- A qualified biologist or their designee will conduct pre-construction surveys of all areas that would be permanently or temporarily impacted, plus a 500-foot (152-meter) buffer to the extent property access is authorized, to locate unoccupied and occupied dens. Pre-construction surveys will be conducted within a maximum of 30 days of the start of ground-disturbing activities. Surveys need not be conducted for all areas of suitable habitat at one time; they may be phased so that surveys occur within 30 days of the portion of the Project site that would be disturbed.
- If the qualified biologist determines that the den(s) are inactive, den(s) will be collapsed by a qualified biologist to prevent occupation of the den(s) between the time of the preconstruction survey and construction activities.

- If the qualified biologist determines that the den(s) are active, construction activities will not occur within 50 feet of an active badger den or 100 feet of an active kit fox den, unless otherwise approved by the qualified biologist.
- If the qualified biologist determines that potential den(s) outside of the pupping season may be active, a passive relocation program can occur. The pupping season is defined as February 1-August 1 for desert kit fox. The program will consist of determining status of the den(s) (confirming it is a nonmaternity den through remote camera monitoring), excluding desert kit fox from the occupied nonmaternity den(s) by installation of one-way doors at burrow entrances, monitoring of the den for a minimum of 48 hours to confirm usage has been discontinued, and excavation and collapse of the den.
- To prevent inadvertent entrapment of DKF, all excavated steep-walled holes or trenches more than 2 feet deep will be covered with plywood or similar materials at the close of each working day. If holes or trenches cannot be covered, one or more escape ramps constructed of earthen fill or wooden planks, no less than 12 inches wide and secured at the top, will be placed a minimum of every 100 feet within the open trench. Covered and non-covered holes or trenches will be thoroughly inspected for trapped animals by a qualified biologist at the beginning and end of each working day. Immediately before such holes or trenches are filled, they will again be thoroughly inspected by trained Staff approved by the qualified biologist or their designee.

6.0 REFERENCES

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Sawyer, J., T. Keeler-Wolf, and J. Evens. 2009. *A Manual of California Vegetation*. Second Edition. California Native Plant Society.

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USDA NRCS (United States Department of Agriculture Natural Resources Conservation Service). 2024. Web Soil Survey. https://websoilsurvey.nrcs.usda.gov/app/. Accessed January 2024.

USFWS (U.S. Fish and Wildlife Service). 2011. Standardized Recommendations for Protection of the Endangered San Joaquin Kit Fox Prior to or During Ground Disturbance. January.

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FIGURES

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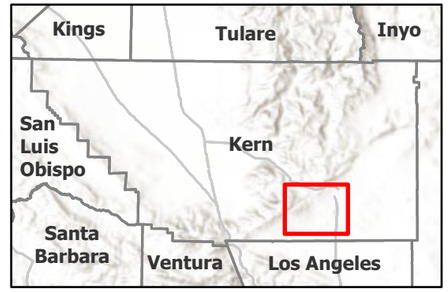
Discovery Solar PV and Storage Project

Kern County, CA

Figure 1. Regional Overview



Windhub High-voltage Substation (Existing)

Watercourse

Proposed Project Features

Project Site

Study Area

Gen-tie Line (New)

Medium-voltage/Transmission/Access Easements

Other Applicant and/or Affiliate Controlled*

Step-up HV substation

Gen-tie Corridor

*Already approved under separate projects.

N

0 0.75 1.5 3 Miles

Scale is 1:116,800 when printed at 11"x17"

Not for Construction

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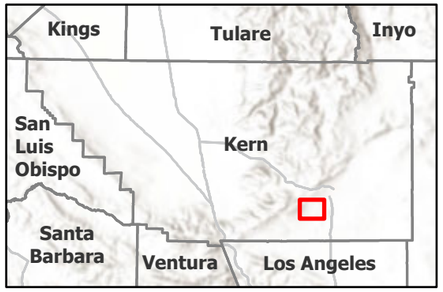
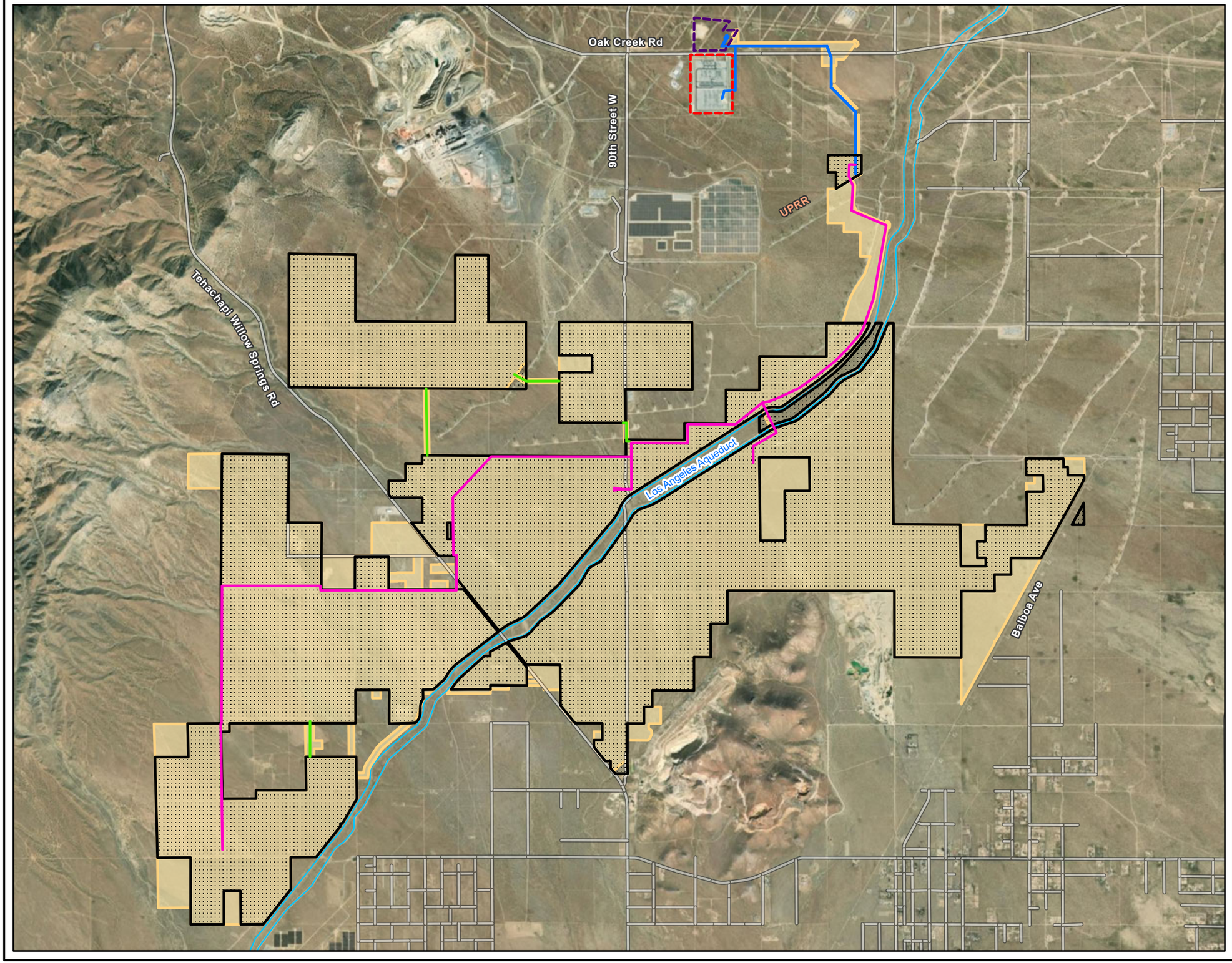
Discovery Solar PV and Storage Project

Kern County, CA

Figure 2. Project Location





Windhub High-voltage Substation (Existing)

Roads

Watercourse

Proposed Project Features

Project Site

Study Area

Gen-tie Line (New)

Medium-voltage/Transmission/Access Easements

Other Applicant and/or Affiliate Controlled*

Step-up HV substation

Gen-tie Corridor

*Already approved under separate projects.

N

0 0.25 0.5 1 Miles

Scale is 1:45,000 when printed at 11"x17"

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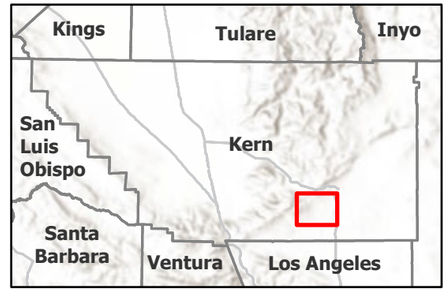
Discovery Solar PV and Storage Project

Kern County, CA

Figure 3. USGS Topographic Map



Windhub High-voltage Substation (Existing)

Proposed Project Features

- Project Site
- Study Area
- Gen-tie Line (New)
- Medium-voltage/Transmission/Access Easements

Other Applicant and/or Affiliate Controlled*

- Step-up HV substation
- Gen-tie Corridor

*Already approved under separate projects.

N

Miles

0 0.5 1 2

Scale is 1:75,000 when printed at 11"x17"

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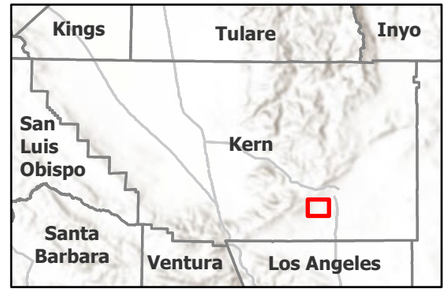
Discovery Solar PV and Storage Project

Kern County, CA

Figure 4a. Vegetation Communities



Oak Creek Rd
90th Street W
UPRR
Tehachapi Willow Springs Rd
Oak Creek
Los Angeles Aqueduct
Holliday Rock Mine
Balboa Ave

Windhub High-voltage Substation (Existing)
Roads
Watercourse

Proposed Project Features

Project Site
Study Area
Gen-tie Line (New)
Medium-voltage/Transmission/Access Easements

Other Applicant and/or Affiliate Controlled*

Step-up HV substation
Gen-tie Corridor

Vegetation Communities

Allscale Scrub
Brittle Bush Scrub
California buckwheat scrub
California juniper woodland
Cheesebush scrub
Creosote bush scrub
Desert needlegrass grassland
Developed
Disturbed
Disturbed - Creosote bush scrub
Rubber rabbitbrush scrub
Scalebroom scrub

*Already approved under separate projects.

N

0 0.2 0.4 0.8 Miles

Scale is 1:39,000 when printed at 11"x17"

Not for Construction

Note: Additional vegetation community mapping and mapping of Joshua trees is in progress and when available, the results will be used to update this report.

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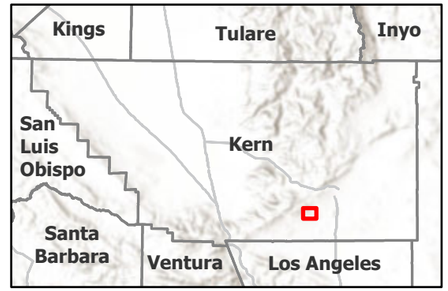
Discovery Solar PV and Storage Project

Kern County, CA

Figure 4b. Vegetation Communities



Roads

Watercourse

Proposed Project Features

Project Site

Study Area

Gen-tie Line (New)

Medium-voltage/Transmission/Access Easements

Vegetation Communities

California buckwheat scrub

California juniper woodland

Cheesebush scrub

Creosote bush scrub

Desert needlegrass grassland

Developed

Disturbed

Disturbed - Creosote bush scrub

Rubber rabbitbrush scrub

Scalebroom scrub

Los Angeles Aqueduct

Oak Creek

Note: Additional vegetation community mapping and mapping of Joshua trees is in progress and when available, the results will be used to update this report.

N

Miles

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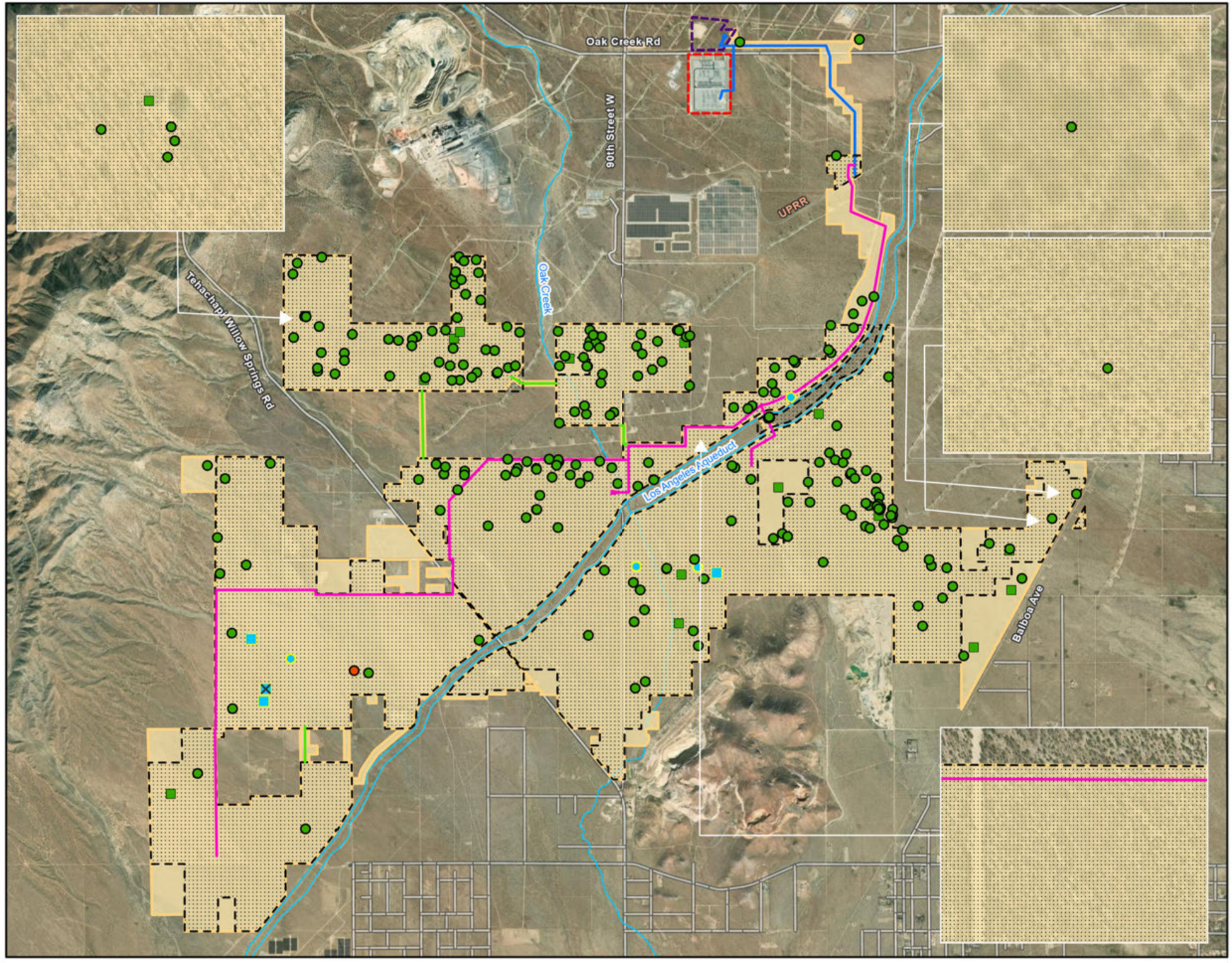
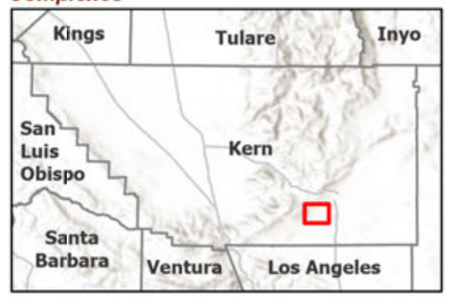
Discovery Solar PV and Storage Project

Kern County, CA

Figure 5. Known, Natal/Pupping, and Potential Desert Kit Fox Dens and Den Complexes





- Windhub High-voltage Substation (Existing)
- Roads
- Watercourse

Proposed Project Features

- Project Site
- Study Area
- Gen-tie Line (New)
- Medium-voltage/Transmission/Access Easements

Other Applicant and/or Affiliate Controlled*

- Step-up HV substation
- Gen-tie Corridor

Desert Kit Fox (*Vulpes macrotis arsipus*) Individual Den

- Known Den with Sign
- Potential Den
- Desert Kit Fox Skull

Desert Kit Fox Den Complex

- Known Den Complex with Sign
- Natal/Pupping Den Complex
- Potential Den Complex

N

0 0.25 0.5 1 Miles

Scale is 1:45,000 when printed at 11"x17"

Not for Construction

APPENDIX A: PHOTOGRAPHS

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Photograph 1 **Notes:** Representative photograph of Study Area showing creosote bush scrub (*Larrea tridentata*) shrubland.	
Photograph 2 **Notes:** Representative potential den for desert kit fox (DKF), consisting of one entrance of suitable size with no sign of DKF.	

Photograph 3 **Notes:** Representative known den, consisting of an entrance with evidence of DKF use, including bleached scat.	
Photograph 4 **Notes:** Representative potential den complex, consisting of several entrances of sizes suitable for DKF with no sign of DKF.	

Photograph 5 **Notes:** Representative known den complex, consisting of several entrances with evidence of DKF use in the form of scat.	
Photograph 6 **Notes:** DKF natal den with evidence of recent DKF use, including large amounts of fresh scat, bleached scat, fresh tracks, and prey remains (feathers and rabbit fur).	

Photograph 7 **Notes:** DKF skull found under a transmission tower.	
Photograph 8 **Notes:** Representative bleached DKF scat, located by a known den.	

Photograph 9 **Notes:** Representative fresh DKF scat, located at the natal den.	
Photograph 10 **Notes:** Evidence of DKF use in the form of prey remains (rodent skull) and DKF scat, located at a known den. Burrowing owl (BUOW) sign in the form of pellets and prey remains was also found at this den and is shown in this picture.	

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APPENDIX B: KNOWN, NATAL/PUPPING, AND POTENTIAL DENS TABLE

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Datasheet Identification (ID)	Date	Den Status	Representative Den Dimensions (inches ["])	Number of Den Entrances	Notes
7002	11/3/2022 4/12/2023	Potential	11" width (w) x 16" height (h) x >72" diameter (d)	1	11/3/22: Single-entrance potential desert kit fox (DKF) den. No sign detected. Likely coyote den due to size and shape. 4/12/23: Single-entrance potential DKF den recorded during habitat assessment in fall 2022. No sign detected.
7003	11/3/2022 4/12/2023	Potential	9"w x 9"h x >24"d	1	11/3/22: Single-entrance potential DKF den. No sign detected. 4/12/23: Single-entrance potential DKF den recorded during habitat assessment in fall 2022, den is in similar condition and is still suitable for DKF, no sign detected.
7006	11/3/2022 4/11/2023	Potential	12"w x 9"h x >72"d	2	11/3/22: Single-entrance potential DKF den. No sign detected. 4/11/23: Two-entrance potential DKF den complex. No sign detected. Previously recorded den is slightly deteriorated but still suitable for DKF, and a new entrance has been dug 1.5' below previously recorded den. New den has American badger (AB) claw marks on side walls.
7009	11/4/2022 4/17/2023	Potential	10"w x 14"h x >36"d	1	11/4/2022: Single-entrance potential DKF den. No sign detected. Den is located in patch of *Lycium* sp. shrubs. Den entrance is under *Lycium* sp. shrub. Other entrances present and potentially connected to den. 4/17/23: Single-entrance potential DKF den. No sign detected. No changes since fall 2022.
7013	11/7/2022	Potential	9"w x 9"h x 60"d	1	Single-entrance potential DKF den. No sign detected. Den is mostly straight but curves slightly to the left. Den apron is not fresh but den is in good condition.

Datasheet Identification (ID)	Date	Den Status	Representative Den Dimensions (inches ["])	Number of Den Entrances	Notes
7015	11/7/2022 4/19/2023	Known	16"w x 10"h x >72"d	2	11/7/2022: Two-entrance known DKF den complex with sign present. Sign includes DKF scat that appears old (no glaze, faded brown and bleached). Complex is under *Lycium* sp. shrub and has two main entrances (south and southwest aspects). Entrance with southwest aspect curved right and left. Several other potential entrances to the southeast and east. 4/19/23: Two-entrance known DKF den complex with no new sign, only bleached scat, complex overgrown with *Amsinckia* sp. but entrances in good condition.
7019	11/8/2022 4/18/2023	Potential	14"w x 10"h x >24"d	1	11/8/22: Single-entrance potential DKF den. No sign observed. Den is under *Lycium* sp. shrub. 04/18/23: Single-entrance potential DKF den. No sign observed. Den is in similar condition as previously described during fall 2022 habitat assessment. Vegetation growing around and in front of the entrance.
7020	11/8/2022 4/18/2023	Potential	9"w x 7"h x >12"d	1	11/8/22: Single-entrance potential DKF den. No sign detected. 4/18/23: Single-entrance potential DKF den. No sign detected. Den is in similar conditions as previously documented during fall 2022 habitat assessment. Annual vegetation growing around and in front of the entrance.
7021	11/8/2022 4/18/2023	Potential	8"w x 7"h x > 24"d	1	11/8/22: Single-entrance potential DKF den. No sign detected. Has a 16" vertical drop until horizontal slope and curves to right. 4/18/23: Single-entrance potential DKF den. No sign detected. Den is in similar condition to fall 2022 habitat assessment; however, apron is no longer fresh. Den is still in good condition.

Datasheet Identification (ID)	Date	Den Status	Representative Den Dimensions (inches ["])	Number of Den Entrances	Notes
7022	11/8/2022 4/18/2023	Potential	8"w x 8.5"h x >60"d	1	11/8/22: Single-entrance potential DKF den. No sign detected. Fresh apron with evidence of tracks but unable to ID tracks due to recent rain. AB claw marks present. 4/18/23: Single-entrance potential DKF den. No sign detected. Den is in similar condition to fall 2022 habitat assessment, no new sign observed. Den is still in good condition.
7023	11/8/2022 4/19/2023	Potential	10"w x 5"h x >72"d	1	11/8/22: Two-entrance potential DKF den complex. No sign detected. 4/19/23: Single-entrance potential DKF den. No sign detected. Northwest aspect entrance is now collapsed; the southwest aspect entrance is in similar condition to the condition it was in during the fall 2022 habitat assessment. Vegetation is growing around the mound the den is on. Located on the same mound as ID 0419BA4JH.
7038	11/11/2022 4/17/2023	Known	6"w x 12"h x 24"d	1	11/11/22: Single-entrance known DKF den with DKF sign including two pieces of scat (one of the pieces is bleached). 4/17/23: Single-entrance known DKF den with DKF sign in the form of old canid scat, likely DKF based on size and shape, observed on den apron. Similar conditions to fall 2022 habitat assessment.
7039	11/11/2022 4/17/2023	Potential	8"w x 5.5"h x >24"d	1	11/11/23: Single-entrance potential DKF den. No sign detected. Occupied burrowing owl (BUOW) burrow; one BUOW was flushed from this location and flew north. 4/17/23: Single-entrance potential DKF den. No sign detected. Den is in similar condition to fall 2022 habitat assessment. Annual vegetation growing around entrance.
0410BA7AL	4/10/2023	Potential	12"w x 14"h x >60"d	1	Single-entrance potential DKF den. No sign detected. Den is in *Lycium* sp. shrub, no sign observed. Nearby den (ID: 0410BA11DS) observed on east side of shrub.

Datasheet Identification (ID)	Date	Den Status	Representative Den Dimensions (inches ["])	Number of Den Entrances	Notes
0410BA2AL	4/10/2023	Potential	15"w x 17"h x >60"d	1	Single-entrance potential DKF den. No sign detected. Den is in the middle of *Lycium* sp. patch. Canid dig next to entrance.
0410BA1TD	4/10/2023	Potential	5"w x 6"h x >18"d	1	Single-entrance potential DKF den. No sign detected. Annual vegetation growing in entrance.
0410BA8DS	4/10/2023	Potential	9"w x 7.5"h x >36"d	1	Single-entrance potential DKF den. No sign detected. Den has a steep slope.
0410BA2TD	4/10/2023	Potential	7"w x 8"h x >24"d	1	Single-entrance potential DKF den. No sign detected.
0410BA6DS	4/10/2023	Potential	8"w x 8.5"h x >36"d	1	Single-entrance potential DKF den. No sign detected. AB dug den with claw marks inside of wall. Den curves to the left.
0410BA3TD	4/10/2023	Potential	12"w x 7.5h x >36"d	1	Single-entrance potential DKF den. No sign detected. Large apron.
0410BA11DS	4/10/2023	Potential	8"w x 15"h x >60"d	1	Single-entrance potential DKF den. No sign detected. Old canid scat present near entrance. Nearby den (ID 0410BA7AL) observed in middle of *Lycium* sp. shrub.
0410BA12DS	4/10/2023	Potential	9"w x 8"h x >18"d	1	Single-entrance potential DKF den. No sign detected. Den curves to the left. Dig with a fresh apron observed approximately 2.5 feet south of den.
0410BA13DS	4/10/2023	Potential	7"w x 9"h x >24"d	1	Single-entrance potential DKF den. No sign detected. Den curves to the left.
0410BA14DS	4/10/2023	Potential	8"w x 7.5"h x >36"d	1	Single-entrance potential DKF den. No sign detected. Den curves to the left and has a steep slope.
0410BA8AL	4/10/2023	Potential	8"w x 6"h x >24"d	1	Single-entrance potential DKF den. No sign detected. AB dug den with claw marks inside. Den has a steep slope and appears to be recently dug, fresh soil on apron. Den curves to the left.
0410BA9AL	4/10/2023	Potential	8"w x 8"h x >36"d	1	Single-entrance potential DKF den. No sign detected. AB dug den with claw marks inside. Den curves to the left.
0410BA4TD	4/10/2023	Potential	11"w x 10"h x >12"d	1	Single-entrance potential DKF den. No sign detected. AB dug den with steep vertical drop down into den before curving to left.

Datasheet Identification (ID)	Date	Den Status	Representative Den Dimensions (inches ["])	Number of Den Entrances	Notes
0411BA1MP	4/11/2023	Potential	6"w x 7"h x 18"d	1	Single-entrance potential DKF den. No sign detected. Den begins to narrow after 1.5 feet.
0411BA2AL	4/11/2023	Potential	9"w x 8"h x >24"d	1	Single-entrance potential DKF den. No sign detected. AB dug den with claw marks inside. Den curves to the left.
0411BA2MP	4/11/2023	Potential	8"w x 7"h x >48"d	1	Single-entrance potential DKF den. No sign detected. Old/collapsed dens and canid digs adjacent to this den. Canid tracks (possibly coyote) observed nearby, den curves to the left.
0411BA1TD	4/11/2023	Potential	8.5"w x 6"h x >18"d	1	Single-entrance potential DKF den. No sign detected. AB dug den.
0411BA4AL	4/11/2023	Potential	10"w x 15"h x >48"d	1	Single-entrance potential DKF den. No sign detected. Located on the east side of a *Lycium* sp. shrub, den curves to the left.
0411BA2TD	4/11/2023	Potential	9.5"w 8.5"h x >36"d	1	Single-entrance potential DKF den. No sign detected. Curves to the right.
0411BA3TD	4/11/2023	Potential	8.5"w x 7"h x > 24"d	1	Single-entrance potential DKF den. No sign detected.
0411BA4MP	4/11/2023	Potential	10"w x 11"h x >36"d	1	Single-entrance potential DKF den. No sign detected. Den curves to the right. Old bleached canid scat (likely coyote) observed near den apron.
0411BA4TD	4/11/2023	Potential	7.5"w x 6"h x >12"d	1	Single-entrance potential DKF den. No sign detected. Under perennial bunch grass.
0411BA5AL	4/11/2023	Potential	9"w x 8"h x >24"d	1	Single-entrance potential DKF den. No sign detected. AB dug den with claw marks inside. Den curves to the right.
0411BA6AL	4/11/2023	Potential	10"w x 9"h x >24"d	1	Single-entrance potential DKF den. No sign detected. Den curves sharply to the left.
0411BA7AL	4/11/2023	Potential	9"w x 6"h x 24"d	1	Single-entrance potential DKF den. No sign detected. Den curves to the right.
0411BA5MP	4/11/2023	Potential	10"w x 11"h x >18"d	1	Single-entrance potential DKF den. No sign detected. AB dug den with claw marks inside. Den curves to the left. Canid scat (likely coyote) on den apron.
0411BA1VR	4/11/2023	Potential	10"w x 10"h x >12"d	1	Single-entrance potential DKF den. No sign detected. Curves to the right.

Datasheet Identification (ID)	Date	Den Status	Representative Den Dimensions (inches ["])	Number of Den Entrances	Notes
0411BA6MP	4/11/2023	Potential	7"w x 6"h x >18"d	2	Two-entrance potential DKF den complex. No sign detected. Old tracks observed on den aprons but unable to ID due to age and condition of tracks.
0411BA6TD	4/11/2023	Potential	8"w x 10"h x >18"d	1	Single-entrance potential DKF den. No sign detected. Annual vegetation growing on den mound/apron but not in entrance or tunnel.
0411BA2VR	4/11/2023	Potential	7"w x 7"h x >24"d	2	Two-entrance potential DKF den complex. No sign detected. Dens located 13 inches apart with the same dimensions and same aspect.
0411BA7TD	4/11/2023	Potential	8.5"w x 6.5"h x >24"d	1	Single-entrance potential DKF den. No sign detected. Curves to the left.
0411BA8TD	4/11/2023	Potential	8"w x 5"h x >24"d	1	Single-entrance potential DKF den. No sign detected. Tunnel is steep and curves left.
0411BA3VR	4/11/2023	Potential	8"w x 7"h x >12"d	1	Single-entrance potential DKF den. No sign detected. Tunnel is steep and curves to the right.
0412BA1JP	4/12/2023	Potential	7"w x 9"h x >48"d	1	Single-entrance potential DKF den. No sign detected. Old AB claw marks present on side walls.
0412BA1AL	4/12/2023	Potential	9"w x 7"h x >36"d	1	Single-entrance potential DKF den. No sign detected. Den curves to the right.
0412BA1VR	4/12/2023	Potential	10"w x 7.5"h x >36"d	1	Single-entrance potential DKF den. No sign detected. Fresh apron (soft soil). Canid scat observed on apron (not identifiable to species). AB claw marks observed on side walls inside tunnel.
0412BA2AL	4/12/2023	Potential	7"w x 6"h x >36"d	1	Single-entrance potential DKF den. No sign detected. Den curves to the left. Fresh sandy apron.
0412BA2VR	4/12/2023	Potential	7.5"w x 6.5"h x >24"d	1	Single-entrance potential DKF den. No sign detected. Canid den. Curves to the left.
0412BA3VR	4/12/2023	Potential	8"w x 8.5"h x >24"d	1	Single-entrance potential DKF den. No sign detected. Fresh and soft soil apron. Curves to the right.
0412BA4JP	4/12/2023	Potential	9"w x 7.5"h x >18"d	1	Single-entrance potential DKF den. No sign detected. AB claw marks present on side walls.

Datasheet Identification (ID)	Date	Den Status	Representative Den Dimensions (inches ["])	Number of Den Entrances	Notes
0412BA3AL	4/12/2023	Potential	9"w x 6"h x >48"d	1	Single-entrance potential DKF den. No sign detected. AB claw marks present on side walls. Den curves to the left.
0412BA4AL	4/12/2023	Potential	8"w x 7"h x >24"d	1	Single-entrance potential DKF den. No sign detected. Den curves to the left.
0412BA4VR	4/12/2023	Potential	8.5"w x 8"h x >12"d	1	Single-entrance potential DKF den. No sign detected. Curves to the right.
0412BA5AL	4/12/2023	Potential	6"w x 5"h x >36"d	1	Single-entrance potential DKF den. No sign detected.
0413BA1TD	4/13/2023	Potential	9"w x 10"h x >30"d	1	Single-entrance potential DKF den. No sign detected. Curves right.
0413BA1SW	4/13/2023	Potential	14"w x 24"h x >48"d	1	Single-entrance potential DKF den. No sign detected. Possibly a coyote den due to size and shape. Den curves to the left.
0413BA1MP	4/13/2023	Potential	8"w x 6.5"h x >36"d	1	Single-entrance potential DKF den. No sign detected. AB claw marks observed on inside side walls. Tunnel curves left.
0413BA2SW	4/13/2023	Potential	8"w x 9.5"h x >48"d	1	Single-entrance potential DKF den. No sign detected. AB claw marks observed on side walls. Den curves to the left.
0413BA3SW	4/13/2023	Potential	10"w x 6"h x >36"d	1	Single-entrance potential DKF den. No sign detected. Den curves to the right.
0413BA2MP	4/13/2023	Potential	10"w x 9"h x >36"d	1	Single-entrance potential DKF den. No sign detected. AB claw marks observed on inside side walls. Curves to the right.
0413BA4SW	4/13/2023	Potential	8"w x 6.5"h x >48"d	1	Single-entrance potential DKF den. No sign detected. Den goes straight back.
0413BA5SW	4/13/2023	Potential	9"w x 11"h x >36"d	1	Single-entrance potential DKF den. No sign detected. AB claw marks observed on side walls. Den has a very steep slope.
0413BA2AL	4/13/2023	Potential	8"w x 9"h x >24"d	1	Single-entrance potential DKF den. No sign detected. AB claw marks observed on side walls. Den curves to the right and has a fresh apron.
0413BA3MP	4/13/2023	Potential	6.5"w x 7.5"h x >24"d	1	Single-entrance potential DKF den. No sign detected. Curves left. Two smaller mammal digs located 1-2 feet away.

Datasheet Identification (ID)	Date	Den Status	Representative Den Dimensions (inches ["])	Number of Den Entrances	Notes
0413BA4MP	4/13/2023	Potential	8"w x 7"h x >24"d	1	Single-entrance potential DKF den. No sign detected. Curves right.
0414BA2TD	4/14/2023	Potential	7"w x 7"h x >24"d	2	Two-entrance potential DKF den complex. No sign detected. Both entrances have fresh powdery apron and steep slope into den.
0413BA3TD	4/13/2023	Potential	8"w x 9.5"h x >12"d	2	Two-entrance potential DKF den complex. No sign detected. Entrances within 3.5 feet of each other. Curves sharply left, steep slopes into dens.
0413BA6MP	4/13/2023	Potential	8"w x 5"h x >36"d	1	Single-entrance potential DKF den. No sign detected. Steep incline into den.
0413BA7MP	4/13/2023	Potential	8"w x 10.5"h x >12"d	1	Single-entrance potential DKF den. No sign detected. Circular entrance and steep incline into den.
0414BA1JP	4/14/2023	Potential	7.5"w x 6"h x 18"d	1	Single-entrance potential DKF den. No sign detected. Fresh and soft soil apron. AB claw marks observed on interior. Steep slope into den.
0414BA3JP	4/14/2023	Potential	8.5"w x 8"h x >24"d	1	Single-entrance potential DKF den. No sign detected. Curves right.
0414BA1AL	4/14/2023	Potential	7"w x 7.5"h x >24"d	1	Single-entrance potential DKF den. No sign detected. Den curves to the right.
0414BA1SW	4/14/2023	Potential	8"w x 10"h x >36"d	1	Single-entrance potential DKF den. No sign detected.
0414BA2AL	4/14/2023	Potential	8"w x 9"h x >24"d	1	Single-entrance potential DKF den. No sign detected. AB claw marks observed on side walls. Den curves to the right.
0414BA1TD	4/14/2023	Potential	8"w x 7"h >24"d	1	Single-entrance potential DKF den. No sign detected. Steep slope into den, curves to right.
0413BA2TD	4/14/2023	Potential	8.5"w x 6.5"h x > 24"d	1	Single-entrance potential DKF den. No sign detected. Steep slope into den.
0414BA3TD	4/14/2023	Potential	8"w x 9.5"h x >36"d	1	Single-entrance potential DKF den. No sign detected. Curves to the left, steep slope into den.
0414BA4TD	4/14/2023	Potential	9"w x 6"h x >36"d	2	Two-entrance potential DKF den complex. No sign detected. Entrances within 3 feet of each other, fresh dirt aprons, steep tunnels and both curve. One of the dens has jackrabbit tracks on apron.

Datasheet Identification (ID)	Date	Den Status	Representative Den Dimensions (inches ["])	Number of Den Entrances	Notes
0414BA4JP	4/14/2023	Potential	7"w x 6.5"h x >36"d	1	Single-entrance potential DKF den. No sign detected.
0414BA3AL	4/14/2023	Potential	10"w x 12"h x >48"d	1	Single-entrance potential DKF den. No sign detected. Den curves to the right.
0414BA5TD	4/14/2023	Potential	7"w x 6"h x >36"d	1	Single-entrance potential DKF den. No sign detected. Steep slope into tunnel.
0414BA6TD	4/14/2023	Potential	7.5"w x 8"h x >24"d	1	Single-entrance potential DKF den. No sign detected. Slightly steep tunnel, curves right.
0414BA4AL	4/14/2023	Potential	9"w x 14"h x >24"d	1	Single-entrance potential DKF den. No sign detected. Curves to the left.
0414BA2SW	4/14/2023	Potential	8"w x 7"h x >36"d	1	Single-entrance potential DKF den. No sign detected. Curves to the right.
0414BA5AL	4/14/2023	Potential	9"w x 6.5"h x >42"d	1	Single-entrance potential DKF den. No sign detected. Curves to the right.
0414BA6JP	4/14/2023	Potential	8"w x 7"h x >24"d	1	Single-entrance potential DKF den. No sign detected.
0414BA8TD	4/14/2023	Potential	8"w x 8"h x >36"d	1	Single-entrance potential DKF den. No sign detected. Has a 2-foot vertical drop into den before curving right.
0414BA7AL	4/14/2023	Potential	8"w x 8"h x >36"d	1	Single-entrance potential DKF den. No sign detected. Curves to the left.
0417BA1AL	4/17/2023	Potential	8"w x 10"h x >24"d	1	Single-entrance potential DKF den. No sign detected.
0417BA2CW	4/17/2023	Potential	9"w x 8.5"h x >24"d	1	Single-entrance potential DKF den. No sign detected. Steep slope into den.
0417BA3CW	4/17/2023	Potential	8"w x 5.5"h x >24"d	1	Single-entrance potential DKF den. No sign detected. Curves down left.
0417BA4CW	4/17/2023	Potential	6.5"w x 8"h x >36"d	1	Single-entrance potential DKF den. No sign detected. Slopes down right. Possible second entrance 4 feet north.
0417BA2AL	4/17/2023	Potential	9"w x 5.5"h x >24"d	1	Single-entrance potential DKF den. No sign detected. Curves to the right and has a fresh apron.
0417BA1TD	4/17/2023	Potential	9.5"w x 7"h x >36"d	1	Single-entrance potential DKF den. No sign detected. Steep slope into den.
0417BA3TD	4/17/2023	Potential	7"w x 7"h x >18"d	1	Single-entrance potential DKF den. No sign detected. Semi-steep slope into den, sharp curve to right.

Datasheet Identification (ID)	Date	Den Status	Representative Den Dimensions (inches ["])	Number of Den Entrances	Notes
0417BA5CW	4/17/2023	Potential	9.5"w x 9"h x >36"d	1	Single-entrance potential DKF den. No sign detected.
0417BA6CW	4/17/2023	Potential	9.5"w x 8.5"h x >36"d	1	Single-entrance potential DKF den. No sign detected. Steep slope. Curves down and to right.
0417BA7CW	4/17/2023	Potential	8"w x 6"h x >36"d	1	Single-entrance potential DKF den. No sign detected. Observed mammal scat (dark brown, no glaze) on mound. Den has semi-steep slope and curves right.
0417BA8CW	4/17/2023	Potential	9"w x 12"h x >48"d	1	Single-entrance potential DKF den. No sign detected. Annual vegetation growing on mound. Observed coyote scat (dry, no glaze) on mound. Den has gradual slope.
0417BA9CW	4/17/2023	Potential	9"w x 10.5"h x >24"d	1	Single-entrance potential DKF den. No sign detected. Steep slope, curves right.
0417BA4AL	4/17/2023	Potential	8"w x 10"h x >48"d	1	Single-entrance potential DKF den. No sign detected. Den curves to the right.
0417BA5AL	4/17/2023	Potential	8"w x 6.5"h x >24"d	1	Single-entrance potential DKF den. No sign detected. Den curves to the left.
0417BA6AL	4/17/2023	Potential	10"w x 16"h x >48"d	1	Single-entrance potential DKF den. No sign detected. Den under *Lycium* sp. shrub. Den goes straight back.
0417BA6TD	4/17/2023	Potential	7"w x 5"h x >36"d	1	Single-entrance potential DKF den. No sign detected. Steep slope into den.
0417BA11CW	4/17/2023	Potential	9.5"w x 13"h x >48"d	1	Single-entrance potential DKF den. No sign detected. Steep slope, turns right, narrows to 5" x 5".
0417BA7AL	4/17/2023	Potential	7"w x 9"h x >24"d	1	Single-entrance potential DKF den. No sign detected. Den under *Lycium* sp. shrub. Canid scat on den apron, likely coyote.
0417BA7TD	4/17/2023	Potential	8"w x 9"h x >36"d	1	Single-entrance potential DKF den. No sign detected. Soft dirt apron and steep slope into den. Tunnel curves left.
0417BA8AL	4/17/2023	Potential	10" w x 7"h x >36"d	1	Single-entrance potential DKF den. No sign detected. AB claw marks on side walls. Den goes straight back. Additional den nearby; this den is located approximately 2 feet south of other den (ID 0417BA9AL).

Datasheet Identification (ID)	Date	Den Status	Representative Den Dimensions (inches ["])	Number of Den Entrances	Notes
0417BA9AL	4/17/2023	Potential	8.5"w x 7"h x >12"d	1	Single-entrance potential DKF den. No sign detected. Den curves to the right. Located 2 feet north of ID 0417BA8AL.
0417BA10AL	4/17/2023	Potential	8.5"w x 8"h x >24"d	1	Single-entrance potential DKF den. No sign detected. Den curves to the right.
0417BA11AL	4/17/2023	Potential	9"w x 5.5"h x >24"d	1	Single-entrance potential DKF den. No sign detected. Den extends straight back.
0418BA1VR	4/18/2023	Potential	17"w x 14"h x >24"d	1	Single-entrance potential DKF den. No sign detected. Curves to the left. Within *Lycium* sp. shrub.
0418BA1CW	4/18/2023	Potential	8"w x 9.5"h x >36"d	1	Single-entrance potential DKF den. No sign detected. Gradual slope, curves right, high apron.
0418BA1AL	4/18/2023	Potential	9"w x 7"h x <24"d	1	Single-entrance potential DKF den. No sign detected. Fresh apron present. Curves to the right.
0418BA2CW	4/18/2023	Potential	8.5"w x 7.5"h x >24"d	1	Single-entrance potential DKF den. No sign detected. Mammal paw print on apron, slight curve left, under old creosote bush and *Amsinckia* sp., high apron.
0418BA2TD	4/18/2023	Potential	7"w x 6"h x >36"d	1	Single-entrance potential DKF den. No sign detected. Steep slope into den, fresh dirt apron, tunnel curves to the left.
0418BA2VR	4/18/2023	Potential	8"w x 9"h x >24"d	1	Single-entrance potential DKF den. No sign detected. Curves to the right and has a gentle slope.
0418BA3TD	4/18/2023	Potential	7"w x 8"h x >18"d	1	Single-entrance potential DKF den. No sign detected. Steep slope and curves to left.
0418BA2AL	4/18/2023	Potential	7.5"w x 8"h x >24"d	1	Single-entrance potential DKF den. No sign detected. Curves to the right.
0418BA3VR	4/18/2023	Potential	8"w x 5"h x >60"d	1	Single-entrance potential DKF den. No sign detected. Curves to the right. Under *Lycium* sp. shrub.
0418BA4TD	4/18/2023	Potential	8"w x 7.5"h x >24"d	1	Single-entrance potential DKF den. No sign detected. Semi-steep slope, curves right then left.
0418BA3AL	4/18/2023	Potential	9"w x 8.5"h x >48"d	1	Single-entrance potential DKF den. No sign detected. Den dug by AB (claw marks present on side walls). Curves to the left.
0418BA4AL	4/18/2023	Potential	9"w x 8"h x >36"d	1	Single-entrance potential DKF den. No sign detected. Den curves to the right.

Datasheet Identification (ID)	Date	Den Status	Representative Den Dimensions (inches ["])	Number of Den Entrances	Notes
0418BA5AL	4/18/2023	Potential	8"w x 8"h x >60"d	1	Single-entrance potential DKF den. No sign detected. Dug by AB (claw marks observed on side walls). Den curves to the left and is on the northeast side of a *Lycium* sp. shrub.
0418BA6TD	4/18/2023	Potential	10"w x 7"h x >24"d	1	Single-entrance potential DKF den. No sign detected. Semi-steep slope, curves left.
0418BA4VR	4/18/2023	Potential	7.5"w x 5.5"h x >24"d	1	Single-entrance potential DKF den. No sign detected. Curves to the right.
0418BA7TD	4/18/2023	Potential	7.5"w x 8.5"h x >24"d	1	Single-entrance potential DKF den. No sign detected. Steep slope into den, multiple AB claw marks in den and AB hair stuck in apron.
0418BA6AL	4/18/2023	Potential	9"w x 9"h x >36"d	1	Single-entrance potential DKF den. No sign detected. Dug by AB (claw marks on side walls). Curves to the right and is steep.
0418BA5VR	4/18/2023	Potential	9"w x 6"h x 36"d	1	Single-entrance potential DKF den. No sign detected. Steep and slightly curves to the right.
0418BA6VR	4/18/2023	Potential	6"w x 5"h x >24"d	1	Single-entrance potential DKF den. No sign detected. Extends straight back.
0418BA7AL	4/18/2023	Potential	9"w x 8"h x >36"d	1	Single-entrance potential DKF den. No sign detected. Den is steep and curves to the left.
0418BA7VR	4/18/2023	Potential	8"w x 9"h x >36"d	1	Single-entrance potential DKF den. No sign detected. Curves to the right, steep slope.
0419BA1JH	4/19/2023	Potential	11"w x 9"h x >72"d	1	Single-entrance potential DKF den. No sign detected. Den located under *Lycium* sp. shrub.
0419BA2JH	4/19/2023	Potential	7"w x 7"h x >24"d	1	Single-entrance potential DKF den. No sign detected. Curves to left.
0419BA3JH	4/19/2023	Potential	9.5"w x 5.5"h x >36"d	1	Single-entrance potential DKF den. No sign detected. Curves to the left.
0419BA1AL	4/19/2023	Potential	5"w x 9"h x >24"d	1	Single-entrance potential DKF den. No sign detected. Curves to the left and is steep.
0419BA4JH	4/19/2023	Potential	8.5"w x 9"h x >48"d	1	Single-entrance potential DKF den. No sign detected. Den goes straight back, on same mound as den observed during habitat assessment (ID 7023).

Datasheet Identification (ID)	Date	Den Status	Representative Den Dimensions (inches ["])	Number of Den Entrances	Notes
0419BA2AL	4/19/2023	Potential	7"w x7.5"h x >72"d	1	Single-entrance potential DKF den. No sign detected. Curves to the left.
0419BA4AL	4/19/2023	Potential	7"w x 6"h x >36"d	1	Single-entrance potential DKF den. No sign detected. Den dug by AB (claw marks observed on side walls). Curves sharply to the left after 3 feet.
0420BA1AD	4/20/2023	Potential	10"w x 7"h x >36"d	1	Single-entrance potential DKF den. No sign detected. Curves right.
0420BA1TD	4/20/2023	Potential	7"w x 6.5"h x >36"d	1	Single-entrance potential DKF den. No sign detected. Gradually curves left, semi-steep slope into den.
0420BA2AD	4/20/2023	Potential	6.5"w x 7"h x >36"d	1	Single-entrance potential DKF den. No sign detected. Curves left and has a steep slope.
0420BA1AL	4/20/2023	Potential	9"w x 9"h x >36"d	1	Single-entrance potential DKF den. No sign detected. Den located in old wood debris pile. Multiple small ground squirrel burrows present throughout debris pile; however, most entrances are too small for target species. Canid scat (likely coyote) present around debris pile.
0421BA1AS	4/21/2023	Potential	8"w x 9"h x >36"d	1	Single-entrance potential DKF den. No sign detected. Curves to left.
0421BA1AL	4/21/2023	Potential	7"w x 9"h x >48"d	1	Single-entrance potential DKF den. No sign detected. Den has a steep slope and curves sharply to the left.
0421BA2AS	4/21/2023	Potential	8"w x 8"h x >36"d	1	Single-entrance potential DKF den. No sign detected. Den dug by AB (claw marks on sides of wall). Curves to the left.
0424BA1AL	4/24/2023	Potential	9"w x 12"h x >36"d	1	Single-entrance potential DKF den. No sign detected. AB claw marks observed on side walls. Curves to the right and has a fresh apron.
0424BA3EM	4/24/2023	Potential	8"w x 6"h x >24"d	1	Single-entrance potential DKF den. No sign detected.
0424BA3AL	4/24/2023	Potential	10"w x 13"h x >72"d	1	Single-entrance potential DKF den. No sign detected. Curves to the right.
0424BA4AL	4/24/2023	Potential	8"w x 14"h x >96"d	1	Single-entrance potential DKF den. No sign detected. Old canid scat observed nearby, likely coyote based on size.

Datasheet Identification (ID)	Date	Den Status	Representative Den Dimensions (inches ["])	Number of Den Entrances	Notes
0424BA5EM	4/24/2023	Potential	9"w x 10"h x >48"d	1	Single-entrance potential DKF den. No sign detected.
0424BA2TD	4/24/2023	Potential	7"w x 6"h x >36"d	2	Two-entrance potential DKF den complex. No sign detected. Burrows within 2 feet of each other.
0424BA3TD	4/24/2023	Potential	9"w x 6"h x 36"d	1	Single-entrance potential DKF den. No sign detected. Semi-steep slope into den.
0424BA7EM	4/24/2023	Potential	8"w x 9"h x >24"d	1	Single-entrance potential DKF den. No sign detected. Nearly vertical drop into den, smaller den right next to it that ends less than 2 feet.
0425BA1EM	4/25/2023	Potential	8"w x 19"h x >48"d	1	Single-entrance potential DKF den. No sign detected. Unidentified mammal scat deep down inside den.
0425BA2EM	4/25/2023	Potential	8.5"w x 9.5"h x >24"d	1	Single-entrance potential DKF den. No sign detected. Steep slope, sharply curves right.
0425BA1VR	4/25/2023	Potential	7"w x 14"h x >60"d	1	Single-entrance potential DKF den. No sign detected. Likely dug by a canid. AB claw marks observed on side walls and old canid scat observed nearby (likely coyote based on size).
0425BA2VR	4/25/2023	Potential	13"w x 19"h x >48"d	1	Single-entrance potential DKF den. No sign detected. Old canid scat (likely coyote based on size) observed near entrance. Den is overgrown with annual vegetation.
0425BA3VR	4/25/2023	Potential	8"w x 10"h x >36"d	1	Single-entrance potential DKF den. No sign detected.
0425BA5TD	4/25/2023	Potential	10"w x 8"h x >36"d	1	Single-entrance potential DKF den. No sign detected. Gradual curve to the left, annual vegetation growing over apron and in entrance, and old/bleached canid scat around apron.
0425BA5EM	4/25/2023	Potential	6"w x 8"h x >36"d	1	Single-entrance potential DKF den. No sign detected. Semi-steep slope. Large entrance but narrows. Curves to left.
0425BA6EM	4/25/2023	Potential	6"h x 7"w x >36"d	1	Single-entrance potential DKF den. No sign detected. Curves slightly right.
0425BA9VR	4/25/2023	Potential	9"w x 10"h x >36"d	1	Single-entrance potential DKF den. No sign detected. Curves to the left.

Datasheet Identification (ID)	Date	Den Status	Representative Den Dimensions (inches ["])	Number of Den Entrances	Notes
0425BA7EM	4/25/2023	Potential	9"w x 8"h x > 48"d	1	Single-entrance potential DKF den. No sign detected. Fluffy fresh apron.
0425BA10VR	4/25/2023	Potential	8"w x 7"h x >36"d	1	Single-entrance potential DKF den. No sign detected. Curves to the right. Canid latrine (likely coyote) observed on apron.
0426BA1TD	4/26/2023	Potential	7.5"w x 6.5"h x >24"d	1	Single-entrance potential DKF den. No sign detected. Steep slope, curves to right, AB claw marks inside wall. Apron is relatively fresh with darker soil but not powdery.
0426BA2TD	4/26/2023	Potential	8.5"w x 8.5"h x >36"d	1	Single-entrance potential DKF den. No sign detected. Semi-steep slope, annual vegetation growing in entrance and on apron.
0426BA1AL	4/26/2023	Potential	8"w x 9.5"h x >48"d	1	Single-entrance potential DKF den. No sign detected. Curves to the right.
0426BA2AL	4/26/2023	Potential	8"w x 6"h x >36"d	1	Single-entrance potential DKF den. No sign detected. AB claw marks on walls. Forks to the right and left.
0426BA1EM	4/26/2023	Potential	9.5"w x 12"h x >48"d	1	Single-entrance potential DKF den. No sign detected. Large apron.
0426BA4TD	4/26/2023	Potential	11"w x 10.5"h x >36"d	1	Single-entrance potential DKF den. No sign detected. Semi-steep slope into den, fresh powdery dirt apron, AB claw marks on side walls.
0426BA6TD	4/26/2023	Potential	9"w x 7.5"h x >36"d	1	Single-entrance potential DKF den. No sign detected. Semi-steep slope, curves to right.
0426BA7TD	4/26/2023	Potential	9"w x 15.5"h x >36"d	1	Single-entrance potential DKF den. No sign detected. Semi-steep slope into curve, curves left, long linear apron.
0426BA8TD	4/26/2023	Potential	8"w x 7.5"h x > 36"d	1	Single-entrance potential DKF den. No sign detected. Annual vegetation growing on apron and in entrance.
0426BA2EM	4/26/2023	Potential	10"w x 14"h x >48"d	1	Single-entrance potential DKF den. No sign detected. Dead snake inside den, bleached mammal scat of various sizes.
0426BA2VR	4/26/2023	Potential	10"w x 18"h x >60"d	2	Two-entrance potential DKF den complex. No sign detected. Canid scat (likely coyote) present on apron. Dens are approximately 5 meters apart and both entrances are the same size.

Datasheet Identification (ID)	Date	Den Status	Representative Den Dimensions (inches ["])	Number of Den Entrances	Notes
0426BA3VR	4/26/2023	Potential	8"w x 4.5"h x >48"d	1	Single-entrance potential DKF den. No sign detected. Curves to the right.
0426BA3EM	4/26/2023	Potential	10"w x 10"h x >24"d	1	Single-entrance potential DKF den. No sign detected. Fresh apron.
0426BA9TD	4/26/2023	Potential	10"w x 13.5"h x >48"d	1	Single-entrance potential DKF den. No sign detected. Semi-steep slope into den.
0426BA10TD	4/26/2023	Potential	10"w x 18"h x >36"d	1	Single-entrance potential DKF den. No sign detected. Canid den. Entrance and apron heavily overgrown.
0426BA11TD	4/26/2023	Potential	10"w x 15"h x >48"d	1	Single-entrance potential DKF den. No sign detected. Canid den with fresh powdery dirt apron.
0427BA1TD	4/27/2023	Potential	8"w x 11.5"h x >36"d	1	Single-entrance potential DKF den. No sign detected. Canid den, fresh powdery dirt apron, curves right.
0427BA1AL	4/27/2023	Potential	8"w x 10"h x >48"d	1	Single-entrance potential DKF den. No sign detected. Curves to the right.
0427BA2TD	4/27/2023	Potential	10"w x 10"h x >48"d	1	Single-entrance potential DKF den. No sign detected. Canid den. Fresh powdery dirt apron.
0427BA3TD	4/27/2023	Potential	10"w x 11"h x >36"d	1	Single-entrance potential DKF den. No sign detected. Fresh powdery dirt apron. Curves to right.
0427BA4TD	4/27/2023	Potential	9"w x 10.5"h x >48"d	1	Single-entrance potential DKF den. No sign detected. Curves left, some annual vegetation growing on apron and in entrance.
0427BA1EM	4/27/2023	Potential	9"w x 23"h x >72"d	1	Single-entrance potential DKF den. No sign detected. Coyote den, large prints on apron, after 6 feet curves to right.
0427BA2EM	4/27/2023	Potential	9"w x 8"h x >24"d	1	Single-entrance potential DKF den. No sign detected. Canid tracks on apron.
0427BA5TD	4/27/2023	Potential	10"w x 14"h x >48"d	1	Single-entrance potential DKF den. No sign detected. Curves left, semi-steep slope.
0427BA3EM	4/27/2023	Potential	9"w x 12"h x >60"d	1	Single-entrance potential DKF den. No sign detected. Annuals growing on apron.
0427BA6TD	4/27/2023	Potential	9.5"w x 12"h x >48"d	1	Single-entrance potential DKF den. No sign detected. Some annual vegetation growing on apron.

Datasheet Identification (ID)	Date	Den Status	Representative Den Dimensions (inches ["])	Number of Den Entrances	Notes
0427BA7TD	4/27/2023	Potential	13"w x 16"h x >60"d	2	Two-entrance potential DKF den complex. No sign detected. West entrance had fresh dirt apron and coyote tracks and fur; east entrance had no sign and annual vegetation on apron and at entrance.
0427BA8TD	4/27/2023	Potential	10"w x 13"h x >36"d	1	Single-entrance potential DKF den. No sign detected. Curves to left.
0427BA11TD	4/27/2023	Potential	11"w x 15"h x >72"d	1	Single-entrance potential DKF den. No sign detected.
0427BA5EM	4/27/2023	Potential	9"w x 14"h x >48"d	1	Single-entrance potential DKF den. No sign detected. Coyote den.
0427BA12TD	4/27/2023	Potential	10"w x 10"h >36"d	1	Single-entrance potential DKF den. No sign detected. Curves left.
0427BA2VR	4/27/2023	Potential	6"w x 8"h x 36"d	2	Two-entrance potential DKF den complex. No sign detected. East aspect den curves to the right and the west aspect den curves to the left, dens possibly connect in the middle.
0427BA13TD	4/27/2023	Potential	8"w x 13"h x >24"d	1	Single-entrance potential DKF den. No sign detected. Curves left. Fresh powdery dirt apron.
0427BA17TD	4/27/2023	Potential	7.5"w x 9"h x >36"d	1	Single-entrance potential DKF den. No sign detected. Fresh apron but not powdery, curves to left. Steep slope into den.
0428BA1EM	4/28/2023	Potential	9"w x 6.5"h x >48"d	1	Single-entrance potential DKF den. No sign detected. Curves to the left.
0428BA1VR	4/28/2023	Potential	9"w x 7"h x >60"d	1	Single-entrance potential DKF den. No sign detected. Den curves to the left.
0428BA2EM	4/28/2023	Potential	10"w x 8"h x >36"d	2	Two-entrance potential DKF den complex. No sign detected. Dens possibly connect. Rodent bones on apron, steep slope in, second entrance curves right and has no sign.
0428BA3EM	4/28/2023	Potential	8.5"w x 8.5"h x >48"d	1	Single-entrance potential DKF den. No sign detected. steep slope, curves to the left.
0428BA5VR	4/28/2023	Potential	11"w x 16"h x >48"d	2	Two-entrance potential DKF den complex. No sign detected. Canid scat (likely coyote) observed on the top of the den.
0428BA6VR	4/28/2023	Potential	6"w x 8"h x >36"d	1	Single-entrance potential DKF den. No sign detected. Goes straight back.

Datasheet Identification (ID)	Date	Den Status	Representative Den Dimensions (inches ["])	Number of Den Entrances	Notes
0428BA5TD	4/28/2023	Potential	8.5"w x 12"h x >24"d	1	Single-entrance potential DKF den. No sign detected. Semi-steep slope into den. Annual vegetation growing in apron. Curves left.
0428BA7VR	4/28/2023	Potential	12"w x 11"h x >36"d	1	Single-entrance potential DKF den. No sign detected. Curves to the left.
0428BA8VR	4/28/2023	Potential	8"w x 7"h x >48"d	2	Two-entrance potential DKF den complex. No sign detected. Northwest aspect den curves to the left and the south aspect den goes straight back. The dens are approximately 10 meters apart.
0501BA1VR	5/1/2023	Potential	11"w x 12"h x >48"d	2	Two-entrance potential DKF den complex. No sign detected.
0501BA1AL	5/1/2023	Potential	11"w x 15"h x >48"d	1	Single-entrance potential DKF den. No sign detected. Dug by AB (claw marks present on side wall). Curves to the right.
0501BA2VR	5/1/2023	Potential	20"w x 12"h x 48"d	1	Single-entrance potential DKF den. No sign detected. AB dug den with claw marks in entrance and tunnel, continues straight back.
0501BA2AL	5/1/2023	Potential	8"w x 8"h x >24"d	1	Single-entrance potential DKF den. No sign detected. Canid scat (likely coyote) observed nearby.
0501BA3AL	5/1/2023	Potential	10"w x 7"h x >36"d	1	Single-entrance potential DKF den. No sign detected.
0501BA4VR	5/1/2023	Potential	10"w x 18"h x >48"d	2	Two-entrance potential DKF den complex. No sign detected. Entrance to dens <1 meter apart. Beneath creosote bush shrubs. One entrance curves up and other curves to the right.
0501BA4AL	5/1/2023	Potential	7"w x 6"h x >36"d	1	Single-entrance potential DKF den. No sign detected. Curves to the left.
0502BA1AL	5/2/2023	Potential	15"w x 15"h x >48"d	1	Single-entrance potential DKF den. No sign detected. Old canid scat (likely coyote) observed on apron.
0502BA1TD	5/2/2023	Potential	12"w x 9.5"h x >60"d	1	Single-entrance potential DKF den. No sign detected. Along bank of incised wash. Curves left after 5 feet.
0502BA3VR	5/2/2023	Known	9"w x 16"h x >24"d	2	Two-entrance known DKF den complex with DKF scat on den aprons. Entrances <3 feet apart.

Datasheet Identification (ID)	Date	Den Status	Representative Den Dimensions (inches ["])	Number of Den Entrances	Notes
0502BA2TD	5/2/2023	Potential	10"w x 13"h x >60"d	1	Single-entrance potential DKF den. No sign detected. Curves left after 5 feet, on bank of incised wash.
0502BA3TD	5/2/2023	Potential	9.5"w x 10"h x >84"d	1	Single-entrance potential DKF den. No sign detected. In bank of incised wash, curves right after 7 feet.
0502BA2AL	5/2/2023	Known	14"w x 16"h x >96"d	1	Single-entrance known DKF den with fresh canid scat (likely DKF) present on apron. Scat is small and likely DKF based on size and shape. A canid latrine (for a large canid) was observed nearby.
0502BA4VR	5/2/2023	Potential	6"w x 5"h x >12"d	1	Single-entrance potential DKF den. No sign detected. Main entrance splits into two.
0502BA5VR	5/2/2023	Known	7"w x 10"h x >36"d	4	Four-entrance known DKF den complex. One den has DKF scat.
0502BA3AL	5/2/2023	Potential	14"w x 17"h x >60"d	1	Single-entrance potential DKF den. No sign detected. Old canid scat (likely coyote) observed on apron.
0502BA6VR	5/2/2023	Potential	12"w x 10"h x >24"d	1	Single-entrance potential DKF den. No sign detected. Curves right.
0502BA7VR	5/2/2023	Potential	9"w x 10"h x >24"d	1	Single-entrance potential DKF den. No sign detected. AB claw marks in entrance and tunnel.
0502BA8VR	5/2/2023	Known	6"w x 9"h x >36"d	1	Single-entrance known DKF den. DKF scat on apron, at least six pieces. Curves slightly right.
0502BA9VR	5/2/2023	Potential	6"w x 9"h x >36"d	1	Single-entrance potential DKF den. No sign detected. Dug by AB with claw marks on edges.
0502BA10VR	5/2/2023	Potential	11"w x 11"h x >36"d	1	Single-entrance potential DKF den. No sign detected. Curves right.
0502BA1CG	5/2/2023	Potential	8"w x 8"h x >24"d	1	Single-entrance potential DKF den. No sign detected. Curves right.
0502BA6TD	5/2/2023	Potential	12"w x 7"h x >36"d	2	Two-entrance potential DKF den complex. No sign detected. Both have semi-steep slopes into den and soft aprons.

Datasheet Identification (ID)	Date	Den Status	Representative Den Dimensions (inches ["])	Number of Den Entrances	Notes
0502BA7TD	5/2/2023	Potential	17.5"w x 10"h x >36"d	1	Single-entrance potential DKF den. No sign detected. Two deteriorated mammal digs within 7 feet. Entrance is old canid den with long linear apron with coyote scat. AB claw marks on walls of den. Curves right. Two mammal digs with deteriorated entrances, both have whitewash at entrances.
0502BA8TD	5/2/2023	Potential	12.5"w x 14"h x >24"d	2	Two-entrance potential DKF den complex. No sign detected. Dens within 7 feet of each other. Soft apron with evidence of mammal tracks. Coyote scat latrine between aprons. Semi-steep slope into dens.
0502BA2CG	5/2/2023	Potential	9"w x 8"h >36"d	1	Single-entrance potential DKF den. No sign detected. Curves left.
0502BA3CG	5/2/2023	Potential	8.5"w x 15"h x >36"d	1	Single-entrance potential DKF den. No sign detected. Curves right.
0502BA12VR	5/2/2023	Known	6"w x 5"h x >48"d	1	Single-entrance known DKF den with DKF scat. Extends straight.
0503BA1AL	5/3/2023	Potential	9"w x 8"h x >48"d	1	Single-entrance potential DKF den. No sign detected. Curves to the left.
0503BA4TD	5/3/2023	Potential	9"w x 7"h x >36"d	1	Single-entrance potential DKF den. No sign detected. Dug by AB, no claw marks observed. Fresh apron. Semi-steep slope into den. Curves right.
0503BA5TD	5/3/2023	Potential	10"w x 15"h x >36"d	1	Single-entrance potential DKF den. No sign detected. Soft apron. Curves left. Semi-steep slope into den.
0503BA7TD	5/3/2023	Known	6"w x 8"h x >36"d	2	Two-entrance known DKF den complex with DKF scat. First entrance; semi-steep slope into den. DKF scat on apron. AB claw marks present inside wall. Second entrance; 7 feet west of den with west aspect.
0503BA8TD	5/3/2023	Known	7"w x 16"h x >48"d	1	Single-entrance known DKF den with bleached DKF scat present on apron. Semi-steep slope, curves left slightly. Soft apron, AB claw marks inside walls.
0503BA3AL	5/3/2023	Potential	18"w x 12"h x >48"d	1	Single-entrance potential DKF den. No sign detected.
0503BA9TD	5/3/2023	Potential	8"w x 9"h x >60"d	1	Single-entrance potential DKF den. No sign detected. Semi-steep slope into den. Straight tunnel.

Datasheet Identification (ID)	Date	Den Status	Representative Den Dimensions (inches ["])	Number of Den Entrances	Notes
0504BA1TD	5/4/2023	Potential	10"w x 12"h x >48"d	1	Single-entrance potential DKF den. No sign detected. Lots of annual vegetation growing on apron. Semi-steep slope into den.
0504BA1JH	5/4/2023	Potential	7"w x 10"h X >36"d	1	Single-entrance potential DKF den. No sign detected. AB claw marks on sidewalls.
0504BA1AL	5/4/2023	Known	10"w x 8"h x >24"d	20	Large multi-entrance known DKF den complex; spanning ~90 feet with approximately 20 entrances (various aspects). Four or five of the entrances have recent DKF sign (dark brown scat and tracks) and fresh soft aprons. The remaining entrances are overgrown with vegetation.
0504BA2TD	5/4/2023	Potential	9"w x 10"h x >48"d	1	Single-entrance potential DKF den. No sign detected. Semi-steep slope into den. Annual vegetation growing in apron.
0504BA3AL	5/4/2023	Known	9"w x 6.5"h x >36"d	1	Single-entrance known DKF den with old DKF scat (bleached) present surrounding apron. Curves to the left. Semi-steep slope.
0505BA1TD	5/5/2023	Potential	7.5"w x 7"h x >24"d	1	Single-entrance potential DKF den. No sign detected. Sharply curves right. Semi-steep slope into den.
0505BA2TD	5/5/2023	Potential	8"w x 7" h > 48"d	1	Single-entrance potential DKF den. No sign detected. Semi-steep slope into den. Curves right.
0505BA3TD	5/5/2023	Known	8"w x 8"h x >60"d	1	Single-entrance known DKF den with multiple pieces of bleached DKF scat on apron. Semi-steep slope into den.
0505BA4TD	5/5/2023	Known	9"w x 9"h x >36"d	1	Single-entrance known DKF den with five pieces of DKF scat (bleached) on apron. Semi-steep slope into den. Long linear apron.
0505BA5TD	5/5/2023	Known	4.5"w x 6"h x >36"d	1	Single-entrance known DKF den with bleached piece of DKF scat on apron, looks like old fox den complex. Semi-steep slope into den.
0505BA6TD	5/5/2023	Potential	7.5"w x 7"h x >36"d	1	Single-entrance potential DKF den. No sign detected. Curves right.
0508BA1WT	5/8/2023	Potential	8"w x 4"h x 24"d	4	Four-entrance potential DKF den complex. No sign detected.
0508BA1JH	5/8/2023	Potential	8"w x 10"h x >36"d	1	Single-entrance potential DKF den. No sign detected. Canid scat present around den (likely coyote).

Datasheet Identification (ID)	Date	Den Status	Representative Den Dimensions (inches ["])	Number of Den Entrances	Notes
0508BA2JH	5/8/2023	Potential	8"w x 7"h x >36"d	1	Single-entrance potential DKF den. No sign detected. AB sign (claw marks present on side wall).
0508BA4WT	5/8/2023	Potential	9"w x 10"h x >48"d	1	Single-entrance potential DKF den. No sign detected. Located under downed western Joshua tree. Den in good condition.
0508BA5WT	5/8/2023	Potential	10"w x 8"h x >72"d	1	Single-entrance potential DKF den. No sign detected. Lots of coyote scat nearby.
0509BA1AL	5/9/2023	Potential	8.5"w x 8.5"h x >72"d	1	Single-entrance potential DKF den. No sign detected. Curves to the right.
0509BA2AL	5/9/2023	Potential	8"w x 7"h x >48"d	1	Single-entrance potential DKF den. No sign detected. Curves to the right.
0509BA1WT	5/9/2023	Potential	7"w x 9"h x >36"d	1	Single-entrance potential DKF den. No sign detected. Fresh dig. Coyote scat present.
0509BA3AL	5/9/2023	Potential	9"w x 8"h x >36"d	1	Single-entrance potential DKF den. No sign detected. Den has steep slope and goes straight back.
0510BA1AL	5/10/2023	Potential	8"w x 9"h x >60"d	1	Single-entrance potential DKF den. No sign detected. AB den with claw marks present on side walls. Large dirt apron.
0510BA1JP	5/10/2023	Potential	7.5"w x 5.5"h x >48"d	1	Single-entrance potential DKF den. No sign detected. AB dug den, no claw marks present. Recently dug. Steep slope.
0511BA1AL	5/11/2023	Potential	9.5"w x 9"h x >36"d	1	Single-entrance potential DKF den. No sign detected. Slightly steep slope. Old tracks (possibly canid) on apron but too deteriorated to determine species.
0511BA1JP	5/11/2023	Known	9"w x 5"h x 30"d	2	Two-entrance known DKF den complex with DKF scat present outside entrance. Dens narrow at ends, not recent and very bleached.
0511BA2AL	5/11/2023	Potential	8"w x 8"h x >24"d	1	Single-entrance potential DKF den. No sign detected. Den has a steep slope and curves very sharply to the left.
0511BA2JP	5/11/2023	Natal	9"w x 6"h x >72"d	9	Nine-entrance natal DKF den complex with tons of DKF scat (dark and wet, recent; also old, bleached scat) and recent tracks. Evidence of prey items (feathers & rabbit fur). Vegetation around complex is highly trampled.

Datasheet Identification (ID)	Date	Den Status	Representative Den Dimensions (inches ["])	Number of Den Entrances	Notes
0511BA3JP	5/11/2023	Known	11"w x 6"h x >48"d	1	Single-entrance known DKF den with multiple pieces of old bleached DKF scat present on apron.
0511BA2TD	5/11/2023	Known	11"w x 8"h x >72"d	1	Single entrance known DKF den, canid den with bleached DKF scat on apron. Very steep slope into den. Bleached coyote scat around apron.
0512BA1WT	5/12/2023	Potential	7"w x 8"h x 36"d	1	Single-entrance potential DKF den. No sign detected. AB dug den with claw marks present on sides of tunnel. Fairly fresh dirt apron, curves slightly to right.
0515BA1TD	5/15/2023	Known	11"w x 7"h x 18"d	1	Single entrance known DKF den with an abundance of DKF scat and prey items (rodent skulls) surrounding the apron. Evidence of old collapsed entrances nearby. Canid den in deteriorated condition, filling in.
0515BA2TD	5/15/2023	Known	6"w x 5"h x 18"d	3	Three-entrance known DKF den complex with old bleached DKF scat on apron. Den is old and deteriorated (filling in and overgrown).
0516BA1TD	5/16/2023	Known	7"w x 7"h x >36"d	6	Six-entrance known DKF den complex with multiple pieces of DKF bleached scat on apron. Deteriorated den complex with at least six entrances, most overgrown.
0516BA2TD	5/16/2023	Known	9"w x 9"h x >48"d	1	Single-entrance known DKF den with bleached and dark brown DKF scat on apron. Curves right.
0516BA3TD	5/16/2023	Potential	14"w x 10"h x >24"d	1	Single-entrance potential DKF den. No sign detected. Semi-steep slope into den. Den is filling in (becoming more shallow).
0928BA1AL	9/28/2023	Potential	8"w x 7.5"h x >36"d	1	Single-entrance potential DKF den. No sign detected. Large sandy apron under a fallen western Joshua tree. Curves to the right.
0928BA2AL	9/28/2023	Potential	8.5"w x 9"h x >36"d	1	Single-entrance potential DKF den. No sign detected. Curves to the right and has a very steep slope.

Datasheet Identification (ID)	Date	Den Status	Representative Den Dimensions (inches ["])	Number of Den Entrances	Notes
0928BA1WT	9/28/2023	Potential	10"w x 12"h x >36"d	3	Three-entrance potential DKF den complex. No sign detected. Old complex with three suitable entrances and several collapsed entrances. All suitable entrances are overgrown with vegetation and filled with debris. Soils are hard and compact, no sign of recent use.
0929BA2AL	9/29/2023	Potential	6"w x 5"h x >36"d	1	Single-entrance potential DKF den. No sign detected. Vegetation present in entrance.
0903BA1LJ	9/3/2025	Potential	8"w x 8"h x >36"d	1	Single-entrance potential DKF den. No sign detected.
0904BA1LJ	9/4/2025	Potential	9"w x 7"h x >36"d	1	Single-entrance potential DKF den. No sign detected.
0904BA2LJ	9/4/2025	Potential	12"w x 7"h x >36"d	1	Single-entrance potential DKF den. No sign detected.
0904BA3LJ	9/4/2025	Potential	10"w x 6"h x >36"d	1	Single-entrance potential DKF den. No sign detected.
0904BA4LJ	9/4/2025	Potential	7"w x 12"h x >36"d	1	Single-entrance potential DKF den. No sign detected.
0904BA5LJ	9/4/2025	Potential	6"w x 7"h x >12"d	1	Single-entrance potential DKF den. No sign detected.
0904BA6LJ	9/4/2025	Potential	6"w x 7"h x >12"d	1	Single-entrance potential DKF den. No sign detected.
0904BA7LJ	9/4/2025	Potential	5"w x 7"h x >12"d	1	Single-entrance potential DKF den. No sign detected. Coyote scat at entrance.

Appendix D6
Swainson's Hawk (*Buteo swainsoni*) and Nesting Raptor Survey Report

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Swainson's Hawk (*Buteo swainsoni*) and Nesting Raptor Survey Report

Discovery Solar PV and Storage Project

Kern County, California

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EXECUTIVE SUMMARY

Swainson's hawk (*Buteo swainsoni*) and nesting raptor surveys were performed for the proposed Discovery Solar PV and Storage Project (Project). The surveys were performed in spring 2023, summer 2023, spring 2024, summer 2024, spring 2025, and summer 2025 to assess the potential presence of Swainson's hawk and nesting raptors within a 5-mile radius of the Project site (Study Area). Three Swainson's hawk nest territories that have been active within the last 5 years (2020-2025) are present within the Study Area. All three territories were active during the 2023 breeding season, while two were active in 2024, and only one was active in 2025. No nests were present within the Project site. The three active Swainson's hawk nest territories within the Study Area are located 2.8, 3.1, and 3.7 miles from the Project site. The survey effort identified 151 nests in the Study Area in 2023, 230 nests in 2024, and 335 nests in 2025 belonging to the following six raptor and raven species: Swainson's hawk, red-tailed hawk (*Buteo jamaicensis*), great horned owl (*Bubo virginianus*), barn owl (*Tyto alba*), long-eared owl (*Asio otus*), prairie falcon (*Falco mexicanus*), and common raven (*Corvus corax*).

Potential impacts to Swainson's hawk can be reduced through implementation of recommended avoidance and minimization measures, as described below.

- If construction activities are scheduled to be initiated during the Swainson's hawk nesting season (March 1 through September 15), a qualified biologist will conduct a preconstruction survey of all accessible areas within 0.5 mile of the planned disturbance area to determine the presence and activity of known or new Swainson's hawk nests. Inaccessible areas will be surveyed by binocular or spotting scope. The preconstruction survey will occur within 30 days prior to the start of construction. If construction is scheduled to commence outside of the Swainson's hawk nesting season (September 16 to February 28), no preconstruction surveys are required. The preconstruction nest survey will follow the protocols set out in the California Energy Commission (CEC) and California Department of Fish and Wildlife (CDFW) Guidance (2010).
- If preconstruction surveys detect a nesting Swainson's hawk within 0.5 mile of the Project site, a 0.5-mile avoidance buffer will be established around the nest by a qualified biologist and no construction within the buffer will be allowed until the qualified biologist has determined the nest is no longer active. Encroachment into the buffer may occur at the discretion of a qualified biologist in consultation with CDFW. If active Swainson's hawk nests are found within a 5-mile radius of the Project site during preconstruction surveys, the Project proponent/operator will mitigate the loss of any moderate quality Swainson's hawk foraging habitat for any portion of the Project site within 5 miles of an active nest at a ratio up to 0.5:1. Mitigation lands may be nested with other compensatory lands provided it meets the necessary biological requirements. Avoided habitat would not count toward impacts in determining compensatory mitigation requirements and may be used to satisfy mitigation requirements if protected by a deed restriction or other conservation mechanism/strategy.
- If avoidance of an active nest is not feasible, the Project proponent/operator will consult with the CDFW regarding the potential for Project activities to result in take of the Swainson's hawk and will comply with all avoidance, minimization, and compensatory mitigation requirements set forth in any incidental take permit issued for the Project by CDFW authorizing take of the species. Documentation of any such CDFW take authorization and mitigation will be provided to the Kern County Planning and Natural Resources Department.

1.0 INTRODUCTION

Bloom Biological, Inc. (BBI) was retained by Tetra Tech, Inc. (Tetra Tech) to conduct California Department of Fish and Wildlife (CDFW) and California Energy Commission (CEC) protocol level surveys for nesting Swainson's Hawk (*Buteo swainsoni*) in the vicinity of the Discovery Solar PV and Storage Project (Project) in southeastern Kern County, California. Following recommendations of the CDFW and CEC *Swainson's Hawk Survey Protocols, Impact Avoidance, and Minimization Measures for Renewable Energy Projects in the Antelope Valley of Los Angeles and Kern Counties, California* (CEC & CDFW Guidance; CEC & CDFW 2010), BBI conducted surveys for Swainson's Hawk between April 3 and July 15 of 2023 through 2025. This report details the methodology and results of the surveys conducted across three years (2023–2025).

2.0 PROJECT DESCRIPTION AND LOCATION

The Project includes development of a photovoltaic (PV) solar facility and associated infrastructure necessary to generate up to 1,400 megawatts (MW) of renewable electrical energy with up to 8 gigawatt-hours of energy storage capacity (approximately 1,000 MW) on an approximately 7,700-acre Project site in an unincorporated area of southeastern Kern County, California. Approximately 2,426 acres within the 7,700-acre Project site are designated for zone changes only and would not be disturbed (Figure 1).

Main components of the Project consist of PV solar panels, a power collection system including medium-voltage lines that connect the solar facilities, inverters, a switchyard, foundations, and transformers that will be installed onsite. Associated Project infrastructure includes an operations and maintenance facility, telecommunication facilities, energy storage system(s), up to three onsite collector substations, interconnection and transmission systems, and temporary laydown yards. The Project may be constructed in multiple phases.

The Project will interconnect to the Windhub Substation, which is owned and operated by Southern California Edison (SCE). The interconnection will be via a newly constructed 230-kilovolt (kV) generation tie line (gen-tie) that will extend north from the Project site towards the Windhub Substation from on-site collector substations. A portion of the Project 230-kV gen-tie line would be co-located within an existing gen-tie corridor (controlled by the Applicant and/or its affiliates). A high-voltage switchyard located immediately north of the Union Pacific Railroad (UPRR) rail line will also be constructed.

The Project is generally on undeveloped and privately owned land, along the northern edge of the Antelope Valley. The Project site is located approximately 6 miles southwest of the unincorporated community of Mojave, approximately 9 miles southeast of the City of Tehachapi, and approximately 8 miles northwest of the unincorporated community of Rosamond. State Route (SR)-58 is north of the Project site, SR-14 is east of the Project site, and Tehachapi Willow-Springs Road runs between the Project site's boundaries (Figure 1). The Los Angeles Department of Water and Power aqueduct roughly bisects the Project site (Figures 2 and 3). On-site, adjacent, and nearby land uses include renewable energy development, rural residential development, livestock grazing, heavy industrial and mining uses, and undeveloped lands. The Project site is regularly used for sheep (*Ovis aries*) grazing and sheep were observed onsite. Elevations across the Project site are relatively flat, ranging from approximately 2,970 feet above mean sea level in the southeast corner to approximately 3,760 feet above mean sea level. The Project site is located within the *Monolith, Willow Springs,* and *Soledad Mountain* U.S. Geological Survey (USGS) 7.5-Minute Topographic Quadrangle Maps.

3.0 METHODS

3.1 Study Area Description

The Study Area, defined as a 5-mile radius survey buffer including and surrounding the Project site and shown in Figure 1, consists of 138,799 acres in southeastern Kern County. The Study Area encompasses large expanses of

existing renewable energy development in the form of large wind and solar facilities between the foothills of the Tehachapi Mountains and the communities of Mojave and Rosamond. Residential development is present surrounding Mojave, Rosamond, and the more rural community of Willow Springs. Vegetation within the Study Area consists primarily of Mojave Desert scrub, native grassland, and California juniper woodland, with some areas containing active and fallow agricultural fields.

Vegetation within the Project site consists primarily of Mojave Desert scrub (allscale scrub, brittle bush scrub, California buckwheat scrub, cheesebush scrub, creosote bush scrub, rubber rabbitbrush scrub, and scalebroom scrub) and native grassland (desert needlegrass grassland), with some California juniper woodland. The native desert within the Study Area has experienced varying degrees of disturbance. Within the Project site, disturbance in the form of development (paved and unpaved roadways, residences, utility transmission lines, wind turbines, mining and industrial use, and other structures), encampments, off-road vehicle recreation, refuse dumping, vegetation clearing, sheep grazing, and colonization by invasive plants is present.

3.2 Species Background

3.2.1 Swainson's Hawk Natural History

Swainson's Hawks breed throughout the wide-open spaces of western North America, spending 6 months on the breeding grounds and six months migrating or wintering, mostly in Argentina (Brown and Amadon 1968, Bechard et al. 2020), though recently they have begun wintering (short stopping) in western Mexico (Airola et al. 2019). The Antelope Valley has a long history of documentation of breeding Swainson's Hawks dating back to specimens collected between 1904 and 1931 near Lancaster and Palmdale (Bloom 1980). Concern over Swainson's Hawk's statewide decline prompted surveys in 1978 and 1979, revealing only one nesting territory remaining in the Antelope Valley. Since 1979, the Antelope Valley nesting population has slowly increased to a maximum of 18 occupied nesting territories in 2023 (Bloom et al. 2023, Bloom and Barton pers. obs.).

In the Antelope Valley, Swainson's Hawks commonly nest in windrows adjacent to agricultural fields and in individual trees within native desert and annual grassland (Bloom et al. 2023). Common tree species include elm (*Ulmus* spp.), Aleppo pine (*Pinus halepensis*), black locust (*Robinia pseudoacacia*), and tamarisk (*Tamarix* spp.). They are also observed nesting in Joshua trees (*Yucca brevifolia*), Fremont cottonwoods (*Populus fremontii*), Arizona cypress (*Cupressus arizonica*), willows (*Salix* spp.), and California junipers (*Juniperus californica*). Common prey observed in Antelope Valley Swainson's Hawk nests include Botta's pocket gopher (*Thomomys bottae*), California vole (*Microtus californicus*), and California ground squirrel (*Otospermophilus beecheyi*). The remains of birds, reptiles, and amphibians are also frequently observed including, but not limited to, horned lark (*Eremophila alpestris*), desert horned lizard (*Phrynosoma platyrhinos*), and western whiptail (*Aspidoscelis tigris*).

3.2.2 Swainson's Hawk Regulatory Status

Swainson's Hawks have been protected as a threatened species under the California Endangered Species Act (CESA) since April 17, 1983. The listing was based on a decreased number of birds as well as habitat loss in much of their range in California (Bloom 1980). CESA defines "threatened" as "a native species or subspecies of bird, mammal, fish, amphibian, reptile, or plant that, although not presently threatened with extinction, is likely to become an endangered species in the foreseeable future in the absence of the special protection and management efforts required by this chapter" (Code section 2050-2068). The listing status has brought attention and resources to the recovery and conservation of Swainson's Hawk along with prohibiting "take" of the species. "Take" is defined by CDFW as "to hunt, pursue, catch, capture, or kill, or attempt to hunt, pursue, catch, capture, or kill."

3.3 Survey Protocol

All surveys were designed to occur in accordance with the 2010 CEC & CDFW Guidance (CEC & CDFW 2010). As specified by the CEC & CDFW Guidance, surveys were conducted during the minimum three survey periods between April 1 and July 15 (Survey Periods II – IV), with three complete surveys per period each consisting of 4 person/days.

3.4 Survey Methods

Swainson's Hawk surveys were conducted in accessible suitable habitat inside the Study Area. Suitable nesting habitat for Swainson's Hawks in the Study Area is defined generally as low-growing agricultural areas, fallow agricultural fields, and native and disturbed desert bordered by or containing suitable nesting trees including, but not limited to, Joshua trees. Surveys for all other nesting raptors were conducted simultaneously, expanding the potential nesting habitat to include all suitable nest trees and structures (i.e., utility poles and towers, buildings, rocks, and cliffs). Nests belonging to ravens were recorded supplementally. All nesting raptors and ravens observed within the Study Area were documented. Surveys were completed by driving slowly on roads through suitable habitat in the Study Area, while searching for Swainson's Hawks and their nests, using the vehicle as a "blind" to minimize disturbance to any hawks detected and pausing frequently to observe or walk within areas inaccessible by vehicle.

Data were collected by utilizing the Environmental Systems Research Institute Field Maps mobile app and included the following information for all raptor and raven nests observed:

- Surveyor Name
- Date
- Time
- Species
- Number of Individuals
- Age
- Sex
- Nesting Status
- Behavior Observed
- Nesting Substrate
- Nest Height
- Nest Location

Prior to conducting surveys, the California Natural Diversity Database (CNDDB) was queried to determine the presence of additional nests not previously known and documented by BBI (CDFW 2023, 2024, 2025).

3.5 Survey Schedule

BBI conducted Swainson's Hawk protocol surveys in accordance with the survey timing outlined in the CEC & CDFW Guidance. Surveys were conducted by biologists Rainey Barton, Kerry Ross, Connor Basile, Alex Eagleton, Karly Moore, Kathya Argueta, Janet Gonzalez, Jocelyn Johnson and Peter Bloom, Ph.D., from April 3 through July 14, 2023, for 36 person/days, from April 3 through June 27, 2024, for 36 person/days, and April 7 through July 15, 2025, for 36 person/days. Over the 3 years, surveys were conducted for 108 person/days (2023–2025). Survey dates and personnel names are provided in Appendix B.

3.6 Species Identification

Biologists determined the species that built or occupied all large stick nests discovered during surveys by observing adults present and exhibiting nesting behavior, the size of the nest, stick size, eggs and chicks, volume and height of excrement, and anthropogenic material if present. These distinctions were based on the experience of principal investigator (Dr. Bloom) and biologists Karly Moore and Alex Eagleton, which includes the entry and inspection of thousands of California raptor nests.

In southern California deserts, Common Raven (*Corvus corax*) and Red-tailed Hawk (*Buteo jamaicensis*) construct the most common large stick nests. Common Raven nests are most notably distinguished from Swainson's Hawk nests by the abundance of anthropogenic materials incorporated into the nest. Red-tailed Hawk nests are commonly

significantly larger in size than Swainson's Hawk nests ranging from 2 to 3 feet in diameter and 1 to 3 feet tall. Great Horned Owls (*Bubo virginianus*) commonly usurp Common Raven, Red-tailed Hawk, and Swainson's Hawk nests, which are best distinguished by the presence of pellets beneath the nest, the straight-down trajectory of fecal excrement, in addition to adults being present on the nest during daylight hours. Long-eared Owls (*Asio otus*) are also commonly observed utilizing stick nests constructed by ravens and hawks. Similarly to Barn Owls (*Tyto alba*), Long-eared Owls will also occasionally nest in tree cavities. Prairie Falcon (*Falco mexicanus*) nest primarily in cavities, crevices, and ledges of cliffs and rocky outcrops, not building their own nests but frequently utilizing stick nests built by Common Ravens, Red-tailed Hawks, and Golden Eagles (*Aquila chrysaetos*) or simply nesting in a small depression scraped clear of debris.

3.7 Nest Status

A nest was considered active if any of the following three conditions were met: (1) fresh nesting material such as sticks, grasses, or twigs had been added during the current nesting season, (2) the nest was found to contain eggs or young (dead or alive), or (3) an adult was observed on the nest in an incubating (or brooding) posture. Nests without any of these signs were considered inactive. In addition, CDFW considers a nest active if it was used one or more times in the last 5 years (CEC & CDFW 2010), as indicated in the summary tables below. A failed nest was an active nest that was determined not to have successfully fledged young. A successful nest is one that fledged at least one young (typically assumed if young were greater than 5.5 weeks old during an observation).

4.0 RESULTS

The survey effort identified 151 nests in the Study Area in 2023, 230 nests in 2024, and 335 nests in 2025. belonging to seven raptor and raven species: Swainson's Hawk, Red-tailed Hawk, Great Horned Owl, Barn Owl, Long-eared Owl, Prairie Falcon, and Common Raven. The survey results are discussed in detail in the following sections. Nests are summarized in tabular format in each of the species' sections below with the exception of Common Raven nests, as nests belonging to this species are abundant in the Antelope Valley and were recorded supplementally. Maps displaying the nest locations relative to the Project site and Study Area are provided in Appendix A. As raptor nests are sensitive resources, they are displayed on the maps in 200-acre hexagonal grids to obscure precise locations.

4.1 Swainson's Hawk Observations and Nests

In 2025, 12 individual Swainson's Hawk observations were recorded within the Study Area, two of which were within the Project site (Figure 4). Four were observed perched on Joshua trees or snags, and eight were observed soaring or hunting. Suitable nesting habitat is present within the Study Area in remnant stands of Joshua trees to the southwest of Mojave, and in Tamarisk groves throughout the Study Area. With the exception of developed areas, the Study Area largely consists of Swainson's Hawk foraging habitat.

Three Swainson's hawk nest territories that have been active within the last 5 years (2020-2025) are present within the Study Area. Swainson's Hawk nests nearest to the Project site that were active within the last 5 years (2020–2025) are located 2.8 miles (SWH-KE-012), 3.1 miles (SWH-KE-014), and 3.7 miles (SWH-KE-015) to the southwest of the Project site. Mapped locations of the nearest Swainson's Hawk nest territories are provided in Figure 5. No nests were present within the Project site.

4.1.1 2023 Results

The territory nearest to the Project site (SWH-KE-012) is located 2.8 miles to the south in a Tamarisk (*Tamarix* spp.) tree row adjacent to a fallow alfalfa field. This nest was active early in the 2023 breeding season with adults present on territory. During the final observation of activity in 2023, an adult was observed in an incubating posture

low in the nest on April 13. However, no further activity was observed here after this date indicating that the nest had failed.

Farther south in this row of Tamarisk trees (3.3 miles southeast of the Project site) is an additional Swainson's Hawk nest territory (SWH-KE-014), which was active with a nesting pair consistently present on territory from early April through late June 2023. While this pair had rebuilt a nest and was observed incubating, they did not produce young in 2023 for unknown reasons.

A third Swainson's Hawk nest territory (SWH-KE-015) is present 3.7 miles to the south of the Project site. This territory consisted of two nest locations in 2023, both in Joshua trees approximately 160 meters apart (east to west). In 2023, the more western Joshua tree was utilized for nesting. The adults were observed nest building on May 4 and two nestlings (2–3 weeks old) were present in the nest on June 27. One nestling was found deceased under the nest on July 21 and the second fledgling was found deceased approximately 30 meters north of the nest on July 30, appearing to have perished from heat stress. Thus, this nest failed to produce young during the 2023 breeding season.

4.1.2 2024 Results

The territory nearest to the Project site (SWH-KE-012) was active in 2024. The nesting pair were first observed on April 3 and two fledglings (5.5-week-old young) were observed near the nest at the time of the final observation on June 27. This nest was successful in 2024, producing two offspring.

No nesting activity was observed at the territory located in the southern region of this tamarisk tree row (SWH-KE-014) in 2024. Therefore, it was determined that this territory was inactive this season.

The Swainson's Hawk nest territory farthest south (SWH-KE-015) was active in 2024. The adults built a new nest in a Joshua tree slightly east of the previous nest locations. The nesting pair was first observed nest building on May 15 and a female was observed incubating on several occasions through June 12. However, the survey on June 21 determined that the nest had failed with eggs, likely due to raven predation (one egg was broken open with large beak marks present in the shell). While the adult male continued to be observed in the vicinity of the nest through June 27, there was no further sign of nesting after June 21.

4.1.3 2025 Results

Two of the active Swainson's Hawk territories (SWH-KE-012 and SWH-KE-015) were unoccupied in 2025. On June 10, a female Swainson's hawk (SWH-KE-014) was observed incubating. On July 3, banding efforts confirmed 1 nestling aged about 3 weeks old.

Swainson's Hawk nest summary data are provided in Table 1 and mapped locations of Swainson's Hawk nest territories are provided in Figure 5.

Table 1. Swainson's Hawk nests within the Study Area during 2023 through 2025.

Nest Territory Number	Territory Status (5 year)	2023 Nest Status	2024 Nest Status	2025 Nest Status	Activity at Final Observation in 2025	Distance from Project site (miles)
SWH-KE-012	Active	Active	Active	Inactive	Territory vacant	2.8
SWH-KE-014	Active	Active	Inactive	Active	Nestlings	3.1
SWH-KE-015	Active	Active	Active	Inactive	Territory vacant	3.7

4.2 Red-tailed Hawk Nests

Twenty Red-tailed Hawk nest territories are present within the Study Area, six of which were active in 2023, 13 of which were active in 2024, and 15 of which were active in 2025. No nests were present within the Project site.

4.2.1 2023 Results

Six Red-tailed Hawk nest territories were observed within the Study Area in 2023, all of which were confirmed to be active. The most northern territory (RTH-001) is located in a utility tower just north of the Project site (0.2 miles) and contained an incubating adult on April 17. The nest at RTH-002 is located in a utility tower near the Project site (0.1 miles). An adult was observed feeding two nestlings (4 to 5 weeks-old) at RTH-002 on April 13. An additional nest (RTH-003) is present 1.9 miles southwest of the Project site in an Aleppo pine near several abandoned residences. During the final observation of this nest in 2023, one recently fledged young was observed flying between neighboring trees indicating a successful nesting attempt. To the south of the Project site (0.4 miles) is a nest (RTH-004) in a utility tower that contained an adult and two small nestlings (2 to 2.5 weeks-old) on April 20. The most southern nesting territory observed in 2023 (RTH-005) is located 3.6 miles to the south of the Project site in a utility tower where an adult was observed in an incubating posture on April 14. To the east of the Project site (2.1 miles) is a nest present in a cliff on the southwestern side of Soledad Mountain (RTH-006). This nest successfully produced at least one young in 2023.

4.2.2 2024 Results

The six previously identified Red-tailed Hawk territories were active again in 2024 and an additional seven active territories were detected. Of these 12 territories, at least one nestling was observed at each of the following 9 locations: RTH-001, RTH-002, RTH-003, RTH-005, RTH-008, RTH-009, RTH-010, RTH-011, and RTH-012. An adult was observed brooding at RTH-004, but no young were observed here in 2024. Adults were present at RTH-006 and RTH-007, but no sign of egg laying, incubating, brooding, or nestling presence was detected.

Four of the additional six territories detected in 2024 were located in transmission towers as follows: RTH-007, RTH-008, RTH-010, and RTH-012. The nest at territory RTH-009 is located in a cell tower constructed in the form of a pine tree. While fledglings were observed late in the nesting season at RTH-011, no precise nest location was determined for this territory, but it is presumed to be located nearby.

4.2.3 2025 Results

Seven of the previously identified Red-tailed Hawk territories from 2023 and 2024 were active again in 2025 and an additional seven active territories were detected. Of the 14 active territories, 10 were confirmed to have at least one nestling at each of the following 9 locations: RTH-002, RTH-003, RTH-004, RTH-007, RTH-010, RTH-012, RTH-015, RTH-018, RTH-019. Two of the 15 active nests failed discerned based on abrupt inactivity (RTH-009, RTH-014). The remaining five territories from previous years resulted in being inactive due to vacant territories or inaccessible territories that were unable to be surveyed.

Red-tailed Hawk nest summary data are provided in Table 2 and mapped nest locations are provided Figure 6.

Table 2. Red-tailed Hawk nests within the Study Area during 2023 through 2025.

Nest Territory Number	Territory Status (5 year)	2023 Nest Status	2024 Nest Status	2025 Nest Status	Activity at Final Observation in 2025	Distance from Project site (miles)
RTH-001	Active	Active	Active	Inactive	Territory vacant	0.2
RTH-002	Active	Active	Active	Active	Nestlings	0.1
RTH-003	Active	Active	Active	Active	Nestlings	1.9

Nest Territory Number	Territory Status (5 year)	2023 Nest Status	2024 Nest Status	2025 Nest Status	Activity at Final Observation in 2025	Distance from Project site (miles)
RTH-004	Active	Active	Active	Active	Nestlings	0.4
RTH-005	Active	Active	Active	Unknown	Unknown - no access	3.6
RTH-006	Active	Active	Active	Inactive	Territory vacant	2.1
RTH-007	Active	Unknown	Active	Active	Nestlings	0.1
RTH-008	Active	Unknown	Active	Inactive	Territory vacant	1.1
RTH-009	Active	Unknown	Active	Active	Failed	3.9
RTH-010	Active	Unknown	Active	Active	Nestlings	2.5
RTH-011	Active	Unknown	Active	Inactive	Territory vacant	2.7
RTH-012	Active	Unknown	Active	Active	Nestlings	2.8
RTH-013	Active	Unknown	Unknown	Active	Occupied	0.1
RTH-014	Active	Unknown	Unknown	Active	Failed	3.2
RTH-015	Active	Unknown	Unknown	Active	Nestlings	2.2
RTH-016	Active	Unknown	Unknown	Active	Occupied	2.8
RTH-017	Active	Unknown	Unknown	Active	Occupied	3.7
RTH-018	Active	Unknown	Unknown	Active	Nestlings	3.8
RTH-019	Active	Unknown	Unknown	Active	Nestlings	4.2
RTH-020	Active	Unknown	Active	Inactive	No nest	4.0

4.3 Great Horned Owl Nests

Six Great Horned Owl nest territories are present within the Study Area. Four were active in 2023, two were active in 2024, and two were active in 2025. No nests were present within the Project site.

4.3.1 2023 Results

Four active Great Horned Owl nest territories were documented in 2023 within the Study Area. The most northern territory (GHO-001) is located 4.9 miles north of the Project site in a Fremont cottonwood (*Populus fremontii*). This nest contained an adult and at least two young on April 17. The most eastern territory (GHO-002) was first observed on June 14, when two recently fledged young were found perched in a tamarisk grove west of Mojave, confirming a successful nesting attempt. This nest is located in an abandoned golf course 3.4 miles east of the Project site. Two Great Horned Owl nest territories were observed in the Willow Springs valley (GHO-003 and GHO-004). Great Horned Owl nest GHO-003 is present in a tamarisk tree at the northern end of a tree row 2.5 miles southeast of the Project site. This nesting attempt was successful, as indicated by the presence of three recently fledged young on June 6. The fourth Great Horned Owl nest (GHO-004) was located in an abandoned agricultural building in 2023, 2.7 miles south of the Project site. This nest fledged one young in 2023.

4.3.2 2024 Results

In 2024, two Great Horned Owl nest territories were active (GHO-002 and GHO-004). One recently fledged owl was observed at GHO-002 on June 13, indicating a successful nesting attempt. The precise nest location of GHO-002 was not determined, although it is presumed to be nearby. An adult was observed on a stick nest in an Aleppo pine at GHO-004 on April 26, but no additional nesting activity was detected after this date. This nest appeared to have failed prior to egg laying.

4.3.3 2025 Results

In 2025, two Great Horned Owl nest territories were active (GHO-005 and GHO-006). One nestling was observed on April 24 at nest GHO-005 in a grove of Tamarisk trees south of the Project site. A second nestling was confirmed

during banding efforts on May 14. Nest GHO-006 was in a pine tree southeast of the Project site. It had a nestling present on April 17 and fledged by April 24. The previously occupied nests from 2023 and 2024 were vacant.

Great Horned Owl nest summary data are provided in Table 3 and mapped nest locations are provided in Figure 7.

Table 3. Great Horned Owl nests within the Study Area during 2023 through 2025.

Nest Territory Number	Territory Status (5 year)	2023 Nest Status	2024 Nest Status	2025 Nest Status	Activity at Final Observation in 2025	Distance from Project site (miles)
GHO-001	Active	Active	Inactive	Inactive	Territory vacant	4.9
GHO-002	Active	Active	Active	Inactive	Territory vacant	3.4
GHO-003	Active	Active	Inactive	Inactive	Territory vacant	2.5
GHO-004	Active	Active	Active	Inactive	Territory vacant	2.7
GHO-005	Active	Unknown	Unknown	Active	Fledglings	2.4
GHO-006	Active	Unknown	Unknown	Active	Fledglings	3.7

4.4 Barn Owl Nests

One Barn Owl nest territory is present within the Study Area but was not occupied in 2025. No nests were present within the Project site.

4.4.1 2023 Results

In 2023, no barn owl nests were observed.

4.4.2 2024 Results

In 2024, one Barn Owl nest was detected 2.5 miles south of the Project site and no nests were present within the Project site. On June 25, an adult owl and recently fledged young were in a tamarisk tree row indicating a successful nesting attempt. The precise nest location was not determined, but it was presumed to be nearby. The second Barn Owl nest (BNO-002) failed due to predation after several feathers were found under the nesting cavity, and no activity was observed during later surveys.

4.4.3 2025 Results

The previously active Barn Owl territories were unoccupied in 2025. No additional nesting territories were observed in 2025.

Barn Owl nest summary data are provided in Table 4 and mapped nest locations are provided in Figure 8.

Table 4. Barn Owl nest within the Study Area during 2023 through 2025.

Nest Territory Number	Territory Status (5 year)	2023 Nest Status	2024 Nest Status	2025 Nest Status	Activity at Final Observation in 2025	Distance from Project site (miles)
BNO-001	Active	Unknown	Active	Inactive	Territory vacant	2.5
BNO-002	Active	Unknown	Failed	Inactive	Territory vacant	0.01

4.5 Long-eared Owl Nests

In 2024, three Long-eared Owl nest territories were present within the Study Area. None of these nest territories were occupied in 2025. No nests are present within the Project site.

4.5.1 2023 Results

In 2023, no long-eared owl nests were observed.

4.5.2 2024 Results

In 2024, three Long-eared Owl nests were observed within the Study Area and no nests were present within the Project site. On April 26, an adult was observed incubating at LEO-001 in a tamarisk tree row 2.3 miles south of the Project site. Recently fledged young were observed on June 12. An adult was also observed incubating at LEO-003 on April 26 and fledglings were observed on June 12. While no precise nest location was determined for LEO-002, an adult and at least three recently fledged owls were observed here on June 24, suggesting the presence of a nest nearby.

4.5.3 2025 Results

In 2025, the previously active nests from 2024 were unoccupied. While Long-eared owl is not protected under CESA or the Endangered Species Act (ESA), they have been listed as a species of special concern by CDFW. Long-eared Owl nest summary data are provided in Table 5 and mapped nest locations are provided in Figure 9.

Table 5. Active Long-eared Owl nests within the Study Area during 2023 through 2025.

Nest Territory Number	Territory Status (5 year)	2023 Nest Status	2024 Nest Status	2025 Nest Status	Activity at Final Observation in 2025	Distance from Project site (miles)
LEO-001	Active	Unknown	Active	Inactive	Territory vacant	2.3
LEO-002	Active	Unknown	Active	Inactive	Territory vacant	2.7
LEO-003	Active	Unknown	Active	Inactive	Territory vacant	3.3

4.6 Prairie Falcon Nests

Two Prairie Falcon territories were documented in 2025 that were not previously present in 2023 or 2024.

4.6.1 2023 Results

In 2023, no prairie falcon nests were observed.

4.6.2 2024 Results

In 2024, no prairie falcon nests were observed.

4.6.3 2025 Results

Two Prairie Falcon nest territories were present within the Study Area, but outside the Project site. On April 9, an adult Prairie Falcon perched on an outcropping with several small caves and crevices. After perching on top of the rocks, the individual flew down and out of sight. Also on April 9, an adult Prairie Falcon was observed preening on a rock ledge while a second Prairie Falcon was heard calling from the outcrop. On May 13, the nest was located with an adult sitting in it. Nestlings were observed later that month. Both territories are located in the southwestern

corner of the large rock formation north of Backus Road and east of Mojave Tropico Road. While Prairie Falcon is not protected under CESA or the ESA, they are on CDFW's Watch List.

Prairie Falcon nest summary data are provided in Table 6 and the mapped nest location is provided in Figure 10.

Table 6. Active Prairie Falcon nests within the Study Area during 2023 through 2025.

Nest Territory Number	Territory Status (5 year)	2023 Nest Status	2024 Nest Status	2025 Nest Status	Activity at Final Observation in 2025	Distance from Project site (miles)
PRA-001	Active	Unknown	Unknown	Active	Occupied territory	2.8
PRA-002	Active	Unknown	Unknown	Active	Fledglings	2.5

4.7 Common Raven Nests

In 2023, 138 Common Raven nests were documented within the Study Area, 106 of which were active. In 2024, 207 Common Raven nests were documented within the Study Area, 119 of which were active. In 2025, 282 Common Raven nests were documented, 156 of which were active.

4.7.1 2023 Results

In 2023, 138 Common Raven nests were documented within the Study Area, 106 of which were active. Within the Project site, there were 20 raven nests located primarily in transmission towers and Joshua trees.

4.7.2 2024 Results

In 2024, 207 Common Raven nests were observed within the Study Area, 119 of which were active. The increase in nests recorded between 2023 and 2024 is largely attributed to Common Raven nests noted in more detail in 2024. Similarly to 2023, 20 raven nests are present within the Project site, located primarily in transmission towers and Joshua trees.

4.7.3 2025 Results

In 2025, 282 Common Raven nests were observed within the Study Area. A minimum of 156 raven nests were active this year. Ten raven nests are present within the Project site, four of which are located in Joshua trees and six on a utility pole or tower.

No attempt was made to document nesting success for ravens within the Study Area and nests were often only observed once to verify species occupancy. As raven nests were recorded supplementally, tabular nesting data are not provided for ravens. Common Raven nest locations are provided in Figure 11.

5.0 POTENTIAL IMPACTS AND RECOMMENDATIONS

In general, potential impacts to Swainson's Hawks by solar development consist primarily of loss of foraging and nesting habitat but can also include injury and mortality of adult and young hawks during construction, maintenance, and operation activities. In accordance with standard recommendations for Swainson's Hawks (CEC & CDFW 2010), the following measures should be implemented for the Project:

- If construction activities are scheduled to be initiated during the Swainson's hawk nesting season (March 1 through September 15), a qualified biologist shall conduct a preconstruction survey of all accessible areas within 0.5 mile of the planned disturbance area to determine the presence and activity of known or new Swainson's Hawk nests. Inaccessible areas shall be surveyed by binocular or spotting scope. The preconstruction survey will occur within 30 days prior to the start of construction. If construction is

scheduled to commence outside of the Swainson's hawk nesting season (September 16 to February 28), no preconstruction surveys are required. The preconstruction nest survey shall follow the protocols set out in the CEC & CDFW Guidance (2010).

- If preconstruction surveys detect a nesting Swainson's hawk within 0.5 mile of the Project site, a 0.5-mile avoidance buffer will be established around the nest by a qualified biologist and no construction within the buffer will be allowed until the qualified biologist has determined the nest is no longer active. Encroachment into the buffer may occur at the discretion of a qualified biologist in consultation with CDFW. If active Swainson's hawk nests are found within a 5-mile radius of the Project site during preconstruction surveys, the Project proponent/operator will mitigate the loss of any moderate quality Swainson's hawk foraging habitat for any portion of the Project site within 5 miles of an active nest at a ratio up to 0.5:1. Mitigation lands may be nested with other compensatory lands provided it meets the necessary biological requirements. Avoided habitat would not count toward impacts in determining compensatory mitigation requirements and may be used to satisfy mitigation requirements if protected by a deed restriction or other conservation mechanism/strategy.
- If avoidance of an active nest is not feasible, the Project proponent/operator will consult with the CDFW regarding the potential for Project activities to result in take of the Swainson's hawk and will comply with all avoidance, minimization, and compensatory mitigation requirements set forth in any incidental take permit issued for the Project by CDFW authorizing take of the species. Documentation of any such CDFW take authorization and mitigation will be provided to the Kern County Planning and Natural Resources Department.

6.0 LITERATURE CITED

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APPENDICES

Appendix A. Map figures

- Content Appears on Following Page -

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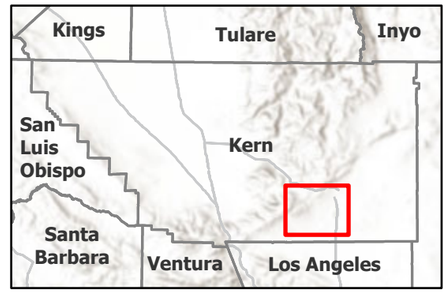
Discovery Solar PV and Storage Project

Kern County, CA

Figure 1. Regional Overview



Windhub High-voltage Substation (Existing)

Proposed Project Features

- Project Site
- Study Area
- Study Area (5-mile buffer)
- Gen-tie Line (New)
- Medium-voltage/Transmission/Access Easements

Other Applicant and/or Affiliate Controlled*

- Step-up HV substation
- Gen-tie Corridor

*Already approved under separate projects.

N

0 1 2 4 Miles

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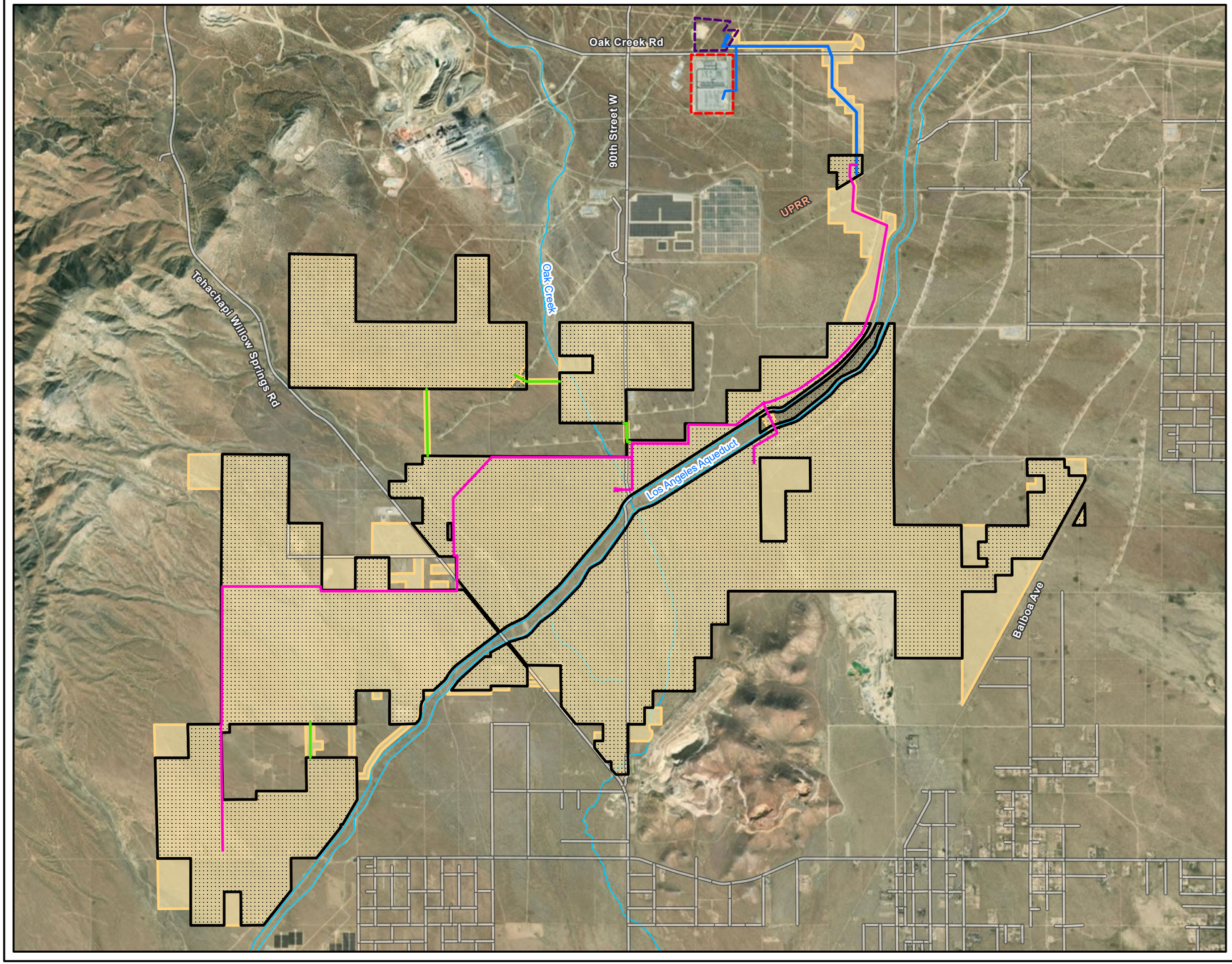
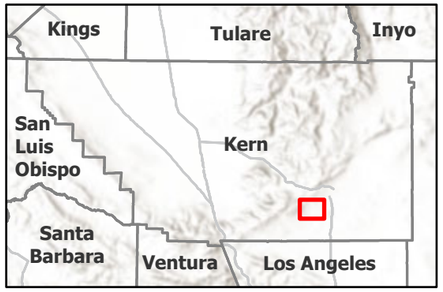
Discovery Solar PV and Storage Project

Kern County, CA

Figure 2. Project Location





Windhub High-voltage Substation (Existing)

Roads

Watercourse

Proposed Project Features

Project Site

Study Area*

Gen-tie Line (New)

Medium-voltage/Transmission/Access Easements

Other Applicant and/or Affiliate Controlled Features**

Step-up HV substation

Gen-tie Corridor

*Refer to Figure 1 for the 2-mile Golden eagle/ California condor and 5-mile Swainson's hawk Study Areas.

**Already approved under separate projects.

N

0 0.25 0.5 1 Miles

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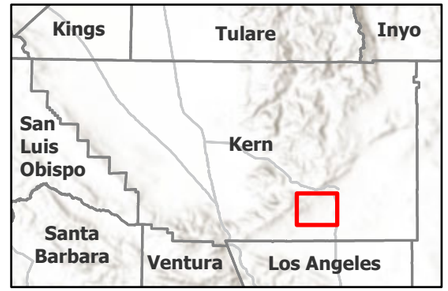
Discovery Solar PV and Storage Project

Kern County, CA

Figure 3. USGS Topographic Map



Windhub High-voltage Substation (Existing)

Watercourse

Proposed Project Features

Project Site

Study Area*

Gen-tie Line (New)

Medium-voltage/Transmission/Access Easements

Other Applicant and/or Affiliate Controlled**

Step-up HV substation

Gen-tie Corridor

*Refer to Figure 1 for the 2-mile Golden eagle/ California condor and 5-mile Swainson's hawk Study Areas.

**Already approved under separate projects.

N

0 0.5 1 2 Miles

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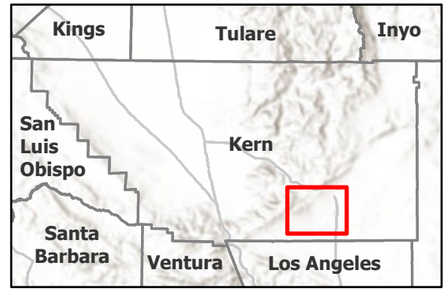
Discovery Solar PV and Storage Project

Kern County, CA

Figure 4. Overview of Swainson's Hawk Observations (2025)



Project Site

Study Area (5-mile buffer)

Swainson's Hawk Observations (12)

N

0 1 2 4 Miles

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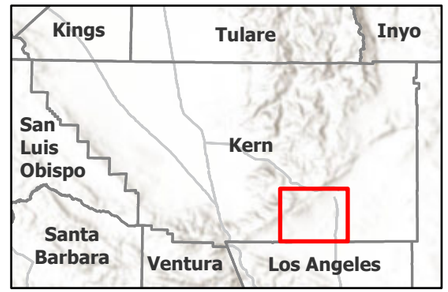
Discovery Solar PV and Storage Project

Kern County, CA

Figure 5. Swainson's Hawk Nest Map (2023-2025)



SWE-KE-012

SWE-KE-014

SWE-KE-015

Project Site

Study Area (5-mile buffer)

Swainson's Hawk nest buffer (5-mile buffer)

Nests per 200-acre Hexagonal Grid

1

N

0 0.75 1.5 3 Miles

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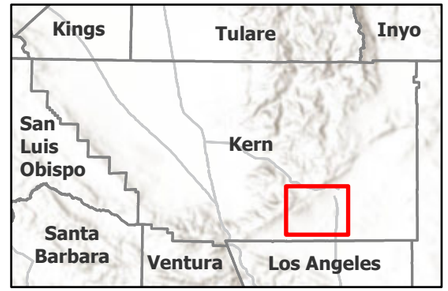
Discovery Solar PV and Storage Project

Kern County, CA

Figure 6. Red-tailed Hawk Nest Map (2023-2025)



RTH-001
RTH-002
RTH-003
RTH-004
RTH-005
RTH-006
RTH-007
RTH-008
RTH-009
RTH-010
RTH-011
RTH-012
RTH-013
RTH-014
RTH-015
RTH-016
RTH-017
RTH-018
RTH-019
RTH-020

Project Site

Study Area (5-mile buffer)

Nests per 200-acres Hexagonal Grid

1

N

0 1 2 4 Miles

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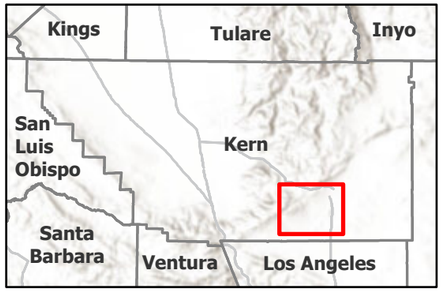
Discovery Solar PV and Storage Project

Kern County, CA

Figure 7. Great Horned Owl Nest Map (2023-2025)



GHO-001

GHO-002

GHO-003

GHO-004

GHO-005

GHO-006

Project Site

Study Area (5-mile buffer)

Nests per 200-acre Hexagonal Grid

1

N

0 1 2 4 Miles

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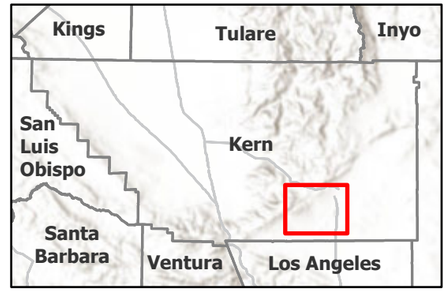
Discovery Solar PV and Storage Project

Kern County, CA

Figure 8. Barn Owl Nest Map (2023-2025)



BNO-002

BNO-001

Project Site

Study Area (5-mile buffer)

Nests per 200-acre Hexagonal Grid

1

N

0 1 2 4 Miles

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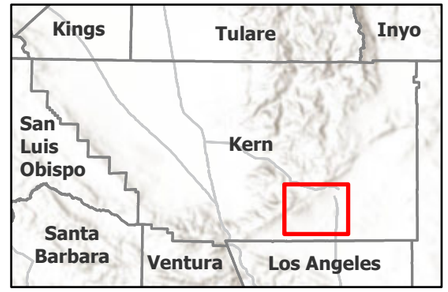
Discovery Solar PV and Storage Project

Kern County, CA

Figure 9. Long-eared Owl Nest Map (2023-2025)



Project Site

Nests per 200-acre Hexagonal Grid

1

LEO-001

LEO-002

LEO-003

N

0 1 2 4 Miles

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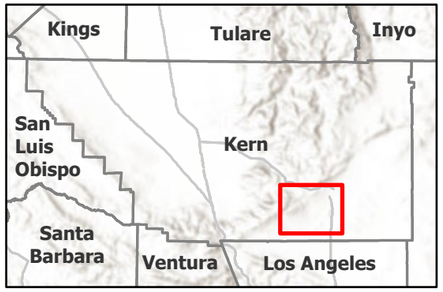
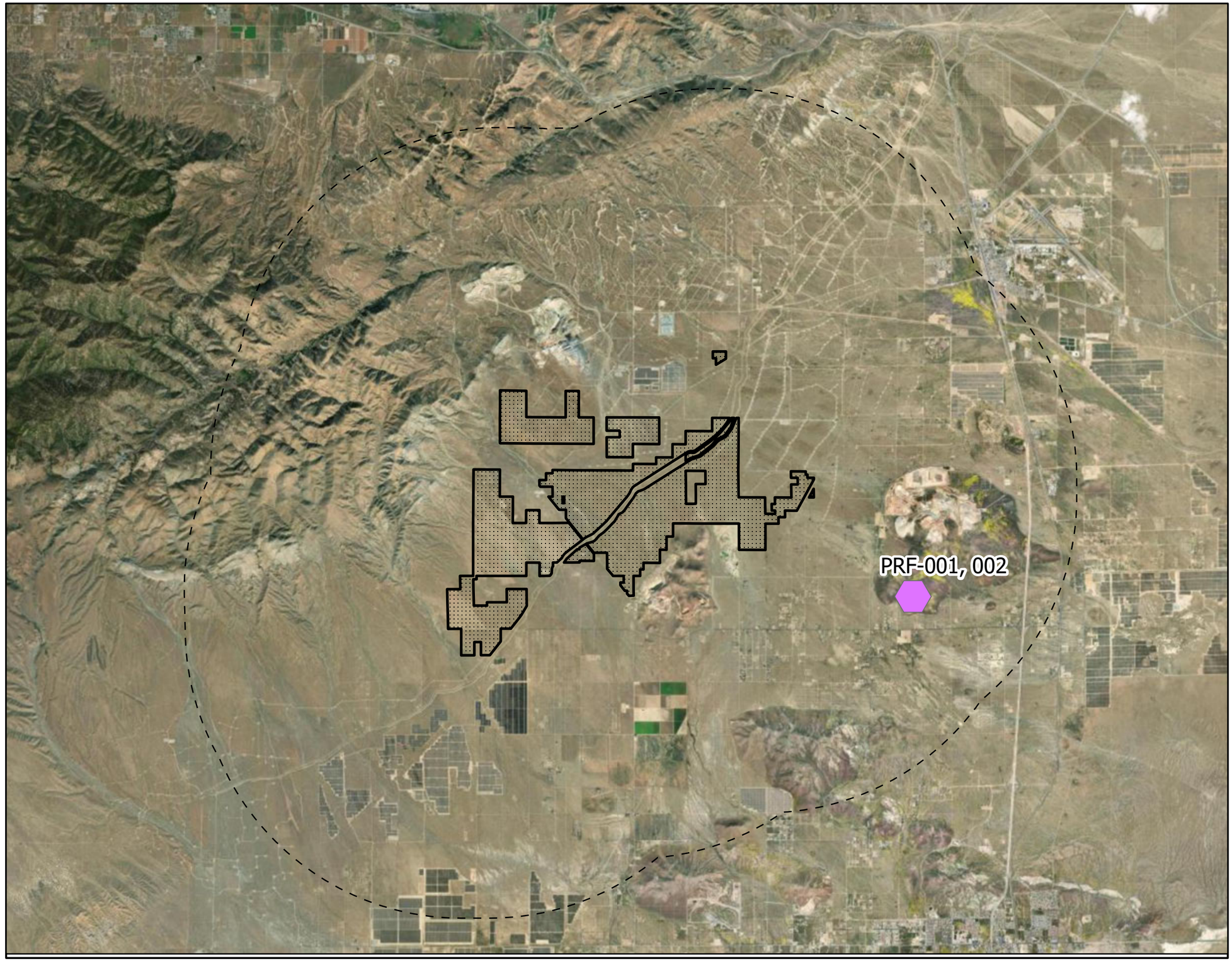
Discovery Solar PV and Storage Project

Kern County, CA

Figure 10. Prairie Falcon Nest Map (2023-2025)





Project Site

Study Area (5-mile buffer)

Nests per 200-acre Hexagonal Grid

2

N

0 1 2 4 Miles

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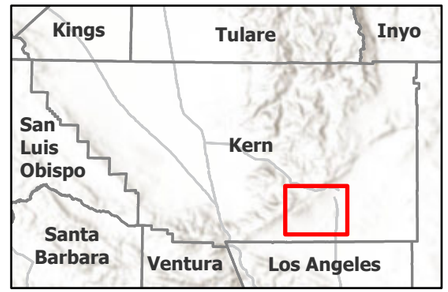
Discovery Solar PV and Storage Project

Kern County, CA

Figure 11. Common Raven Nest Map (2025)



Project Site

Study Area (5-mile buffer)

Nests per 200-acre Hexagonal Grid

1

2

3

5

N

Miles

0 1 2 4

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Appendix B. Survey dates and personnel names

Surveyor	Date	Protocol Survey Period	Protocol Stage
2023 Survey Schedule			
Pete Bloom	4/3/2023	Period II	Arrival & Nest Building
Pete Bloom	4/4/2023		
Pete Bloom	4/5/2023		
Pete Bloom	4/6/2023		
Rainey Barton	4/11/2023		
Rainey Barton	4/12/2023		
Rainey Barton	4/13/2023		
Rainey Barton	4/14/2023		
Rainey Barton	4/17/2023		
Rainey Barton	4/18/2023		
Rainey Barton	4/19/2023		
Rainey Barton	4/20/2023		
Rainey Barton	5/8/2023	Period III	Egg Laying & Incubation
Rainey Barton	5/9/2023		
Rainey Barton	5/11/2023		
Rainey Barton	5/12/2023		
Rainey Barton	5/16/2023		
Rainey Barton	5/17/2023		
Rainey Barton	5/18/2023		
Rainey Barton	5/19/2023		
Kerry Ross	5/22/2023		
Kerry Ross	5/23/2023		
Kerry Ross	5/24/2023		
Kerry Ross	5/25/2023		
Kerry Ross	6/7/2023	Period IV	Fledgling
Rainey Barton	6/7/2023		
Kerry Ross	6/8/2023		
Rainey Barton	6/8/2023		
Kerry Ross	6/22/2023		
Rainey Barton	6/22/2023		
Kerry Ross	6/23/2023		
Rainey Barton	6/23/2023		
Kerry Ross	7/11/2023		
Kerry Ross	7/12/2023		
Kerry Ross	7/13/2023		
Kerry Ross	7/14/2023		
2024 Survey Schedule			
Rainey Barton	4/3/2024	Period II	Arrival & Nest Building
Rainey Barton	4/4/2024		
Connor Basile	4/7/2024		
Pete Bloom	4/8/2024		
Pete Bloom	4/11/2024		

Surveyor	Date	Protocol Survey Period	Protocol Stage
Pete Bloom	4/12/2024		
Pete Bloom	4/15/2024		
Pete Bloom	4/16/2024		
Pete Bloom	4/23/2024		
Pete Bloom	4/24/2024		
Pete Bloom	4/25/2024		
Pete Bloom	4/26/2024		
Rainey Barton	5/8/2024		
Rainey Barton	5/9/2024		
Pete Bloom	5/10/2024		
Pete Bloom	5/11/2024		
Rainey Barton	5/15/2024		
Rainey Barton	5/16/2024		
Connor Basile	5/18/2024	Period III	Egg Laying & Incubation
Connor Basile	5/19/2024		
Pete Bloom	5/25/2024		
Pete Bloom	5/26/2024		
Connor Basile	5/26/2024		
Pete Bloom	5/27/2024		
Kerry Ross	6/3/2024		
Kerry Ross	6/4/2024		
Kerry Ross	6/12/2024		
Kerry Ross	6/13/2024		
Kerry Ross	6/14/2024		
Connor Basile	6/15/2024		
Connor Basile	6/22/2024	Period IV	Fledgling
Connor Basile	6/23/2024		
Kerry Ross	6/24/2024		
Kerry Ross	6/25/2024		
Kerry Ross	6/26/2024		
Kerry Ross	6/27/2024		
2025 Survey Schedule			
Alex Eagleton	4/7/2025		
Karly Moore	4/8/2025		
Alex Eagleton	4/8/2025		
Alex Eagleton	4/9/2025		
Alex Eagleton	4/14/2025		
Alex Eagleton	4/15/2025		
Karly Moore	4/15/2025	Period II	Arrival & Nest Building
Alex Eagleton	4/16/2025		
Karly Moore	4/22/2025		
Kathya Argueta	4/23/2025		
Kathya Argueta	4/24/2025		
Kathya Argueta	4/25/2025		
Kathya Argueta	5/1/2025	Period III	Egg Laying & Incubation

Surveyor	Date	Protocol Survey Period	Protocol Stage
Kathya Argueta	5/2/2025		
Kathya Argueta	5/6/2025		
Kathya Argueta	5/7/2025		
Janet Gonzalez	5/12/2025		
Janet Gonzalez	5/13/2025		
Janet Gonzalez	5/14/2025		
Janet Gonzalez	5/15/2025		
Kathya Argueta	5/19/2025		
Kathya Argueta	5/20/2025		
Kathya Argueta	5/22/2025		
Alex Eagleton	5/27/2025		
Kathya Argueta	6/6/2025	Period IV	Fledgling
Kathya Argueta	6/10/2025		
Kathya Argueta	6/11/2025		
Kathya Argueta	6/12/2025		
Janet Gonzalez	6/17/2025		
Kathya Argueta	6/25/2025		
Janet Gonzalez	7/2/2025		
Janet Gonzalez	7/3/2025		
Kathya Argueta	7/10/2025		
Kathya Argueta	7/14/2025		
Jocelyn Johnson	7/14/2025		
Jocelyn Johnson	7/15/2025		

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Appendix D7
Golden Eagle (*Aquila chrysaetos*) and California Condor (*Gymnogyps californicus*) Analysis of Use

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Golden Eagle (*Aquila chrysaetos*) and California Condor (*Gymnogyps californianus*) Analysis of Use

Discovery Solar PV and Storage Project

Kern County, California

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October 2025

BBI
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research | consulting | conservation

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EXECUTIVE SUMMARY

Golden eagle (*Aquila chrysaetos*) and California condor (*Gymnogyps californianus*) surveys and desktop analyses were performed for the proposed Discovery Solar PV and Storage Project (Project). The surveys and desktop analyses were performed in spring 2023 to assess the potential presence of golden eagle and California condor within a 2-mile radius of the Project site (Study Area). During the surveys, no eagles or condors were observed. Additionally, no golden eagle nests were observed, and no California condor nesting habitat is present within the Study Area. Minimally suitable golden eagle nesting habitat is present within the Study Area. Foraging habitat for golden eagles and California condors is present within the Study Area. There are 61 observations of golden eagles documented in eBird between 1970 and 2022 within 10 miles of the Project site (eBird Basic Dataset 2023). No records of golden eagle were located within the Project site. There are 3.7 million records of California condor within 10 miles of the Project site (USGS 2022). In total, 4,982 records are located within the Study Area and only 21 are present within the Project site.

Potential impacts to golden eagle and California condor can be reduced through implementation of recommended avoidance and minimization measures, as described below.

- Wherever possible, vegetation removal will be minimized within the Project site. Native vegetation will remain undisturbed unless removal is necessary for placement of Project components to allow for continued use by potential raptor prey species (i.e., small mammals, reptiles, and amphibians).
    - Native vegetation adjacent to the Project site will remain in place as permitted by the Kern County Fire Code.
    - In areas temporarily disturbed during construction and decommissioning (including grading or removal of root balls resulting in loose soil), the ground surface will be revegetated with a native seed mix or native plants and/or allowed to re-vegetate with the existing native seed bank in the topsoil where possible to establish revegetation.
    - Vegetation/ground cover will be continuously maintained on the site by the Project proponent/operator.
- The Project Applicant will install power lines in conformance with Avian Power Line Interaction Committee (APLIC) standards for electrocution-reducing techniques as outlined in Suggested Practices for Avian Protection on Power Lines: The State of the Art in 2006 (APLIC 2006), and the collision-reducing techniques outlined in Reducing Avian Collision with Power Lines: The State of the Art in 2012 (APLIC 2012), or any superseding document issued by APLIC.
- During the operation and maintenance phase of the Project, an *Avian Mortality Monitoring Program* will be developed and implemented to systematically and periodically determine the extent of mortality occurring because of collisions with solar arrays. The measures listed below would apply to the program:
    - The Avian Mortality Monitoring Program will be developed following the Mortality Monitoring Design for Utility-Scale Solar Power Facilities and include methods to achieve Objective 1 (monitoring to estimate total bird and bat mortality). Methods include using a trained and skilled team of authorized biologists to systematically sample the Project site by walking transects through the solar arrays scanning for deceased birds.
    - Data will be collected on any encountered deceased bird (or any other wildlife) species including species, condition of the carcass, approximate age, presence of feathers, and the like.
    - Additionally, maintenance personnel working on the Project site who encounter injured or deceased birds (or any other wildlife) will be trained to collect data and photograph the encountered species.
    - Mortality monitoring will be conducted for a minimum of a 1-year period following the commencement of the operation and maintenance phase of the Project.

- If, after 1 year of mortality monitoring, Project impacts to any avian species caused by the Project are shown to result in a substantial, long-term reduction in the demographic viability of the population of the species in question, then adaptive management must be implemented to reduce impacts. Adaptive management measures may include but not be limited to passive avian diverter installations, the use of sound, light, or other means to discourage site use consistent with legal requirements, on site habitat management or control measures consistent with applicable legal requirements, or modification to support structures to exclude nesting birds.

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1.0 INTRODUCTION

Bloom Biological, Inc. (BBI) was retained by Tetra Tech to analyze the potential for Golden Eagle (*Aquila chrysaetos*; hereafter referred to as "eagle" when generalized) and California Condor (*Gymnogyps californianus*; hereafter referred to as "condor" when generalized) to occur in the vicinity of the proposed Discovery Solar PV and Storage Project (Project). Following the recommendations of the U.S. Fish and Wildlife Service (USFWS) *Interim Golden Eagle Inventory and Monitoring Protocols; and Other Recommendations* (Pagel et al. 2010), Bloom Biological, Inc. (BBI) simultaneously performed ground surveys of potential nesting habitat for eagles and surveys for condors. In addition to monitoring for both eagles and condors, a desktop analysis was conducted by BBI to determine the likelihood of individuals occurring and utilizing the landscape in the vicinity of the Project. This report documents the results of the ground surveys and desktop analysis conducted by BBI in spring and summer of 2023.

2.0 PROJECT DESCRIPTION AND LOCATION

The Project includes development of a photovoltaic (PV) solar facility and associated infrastructure necessary to generate up to 1,400 megawatts (MW) of renewable electrical energy with up to 8 gigawatt-hours of energy storage capacity (approximately 1,000 MW) on an approximately 7,700-acre Project site in an unincorporated area of southeastern Kern County, California. Approximately 2,426 acres within the 7,700-acre Project site are designated for zone changes only and would not be disturbed (Figure 1).

Main components of the Project consist of PV solar panels, a power collection system including medium-voltage lines that connect the solar facilities, inverters, a switchyard, foundations, and transformers that will be installed onsite. Associated Project infrastructure includes an operations and maintenance facility, telecommunication facilities, energy storage system(s), up to three onsite collector substations, interconnection and transmission systems, and temporary laydown yards. The Project may be constructed in multiple phases.

The Project will interconnect to the existing Windhub Substation, which is owned and operated by Southern California Edison (SCE). The interconnection will be via a newly constructed 230-kilovolt (kV) generation tie line (gen-tie) that will extend north from the Project site towards the Windhub Substation from on-site collector substations. A portion of the Project 230-kV gen-tie line would be co-located within an existing gen-tie corridor (controlled by the Applicant and/or its affiliates). A high-voltage switch yard located immediately north of the Union Pacific Railroad (UPRR) rail line will also be constructed.

The Project is generally on undeveloped and privately owned land, along the northern edge of the Antelope Valley. The Project site is located approximately 6 miles southwest of the unincorporated community of Mojave, approximately 9 miles southeast of the City of Tehachapi, and approximately 8 miles northwest of the unincorporated community of Rosamond. State Route (SR)-58 is north of the Project site, SR-14 is east of the Project site, and Tehachapi Willow-Springs Road runs between the Project site's boundaries (Figure 1). A network of existing named and unnamed dirt roads traverses the Project site. The Los Angeles Department of Water and Power aqueduct roughly bisects the Project site (Figures 2 and 3). On-site, adjacent, and nearby land uses include renewable energy development, rural residential development, livestock grazing, heavy industrial and mining uses, and undeveloped lands. The Project site is regularly used for sheep (*Ovis aries*) grazing and sheep were observed onsite. Elevations across the Project site are relatively flat, ranging from approximately 2,970 to 3,760 feet above mean sea level. The Project site is located within the *Monolith, Willow Springs,* and *Soledad Mountain* U.S. Geological Survey (USGS) 7.5-Minute Topographic Quadrangles.

3.0 METHODS

3.1 Study Area Description

The Study Area, defined as a 2-mile radius survey buffer around the Project site, shown in Figure 4, consists of 53,575 acres in southeastern Kern County. The Study Area encompasses large expanses of existing renewable energy development in the form of large wind and solar facilities between the foothills of the Tehachapi Mountains and the communities of Mojave and Rosamond. Residential development is present surrounding Mojave, Rosamond, and the more rural community of Willow Springs. Vegetation within the Study Area consists primarily of Mojave Desert scrub, native grassland, and California juniper woodland, with some areas containing active and fallow agricultural fields.

Vegetation within the Project site consists primarily of Mojave Desert scrub (allscale scrub, brittle bush scrub, California buckwheat scrub, cheesebush scrub, creosote bush scrub, rubber rabbitbrush scrub, and scalebroom scrub) and native grassland (desert needlegrass grassland), with some California juniper woodland. The native desert within the Study Area has experienced varying degrees of disturbance. Within the Project site, disturbance in the form of development (paved and unpaved roadways, residences, utility transmission lines, wind turbines, mining and industrial use, and other structures), encampments, off-road vehicle recreation, refuse dumping, vegetation clearing, sheep grazing, and colonization by invasive plants is present.

3.2 Species Background

3.2.1 Golden Eagle

3.2.1.1 Natural History

The Golden Eagle is found in a variety of habitats located in a wide range of latitudes throughout most of the Northern Hemisphere (Katzner et al. 2020). In North America, Golden Eagles are most common in the western half of the continent near open spaces that provide habitat for foraging, and generally with cliffs present for nesting sites. While northern populations of the species are migratory, often making trips of thousands of miles to the wintering grounds, southern populations (including those in southern California) tend to be year-round residents.

While Golden Eagles are capable of killing large prey such as cranes, wild ungulates, and domestic livestock, they primarily subsist on rabbits, hares, ground squirrels, and prairie dogs (Bloom and Hawks 1982; Olendorff 1976). Golden Eagles typically reach sexual maturity, form territories, and begin nesting at 4 years of age. Pairs are generally thought to stay within the limits of their territory, which can measure well over 12 square miles and may contain as many as 14 nests (Bloom pers. obs.). The pair maintains and repairs one or more of these nests as part of its courtship. Over the course of a decade, several of these nests will be used and will produce young, while others may only receive occasional fresh sticks. Most alternate nests are important in the successful reproduction of a pair of eagles. Katzner et al. (2020) also notes that the nesting season is prolonged, extending more than 6 months from the time the one to three eggs are laid until the young reach independence. A typical Golden Eagle raises an average of only 1 young per year and up to 15 young over its lifetime. Pairs commonly refrain from laying eggs during some years, particularly when prey is scarce. The number of young that Golden Eagles produce each year depends on a combination of weather and prey conditions.

3.2.1.2 Regulatory Status

The Bald and Golden Eagle Protection Act (“BGEPA” 16 United States Code [U.S.C.] 668-668c), enacted in 1940 and amended several times since then, prohibits anyone, without a permit issued by the Secretary of the Interior, from "taking" eagles, including their parts, nests, or eggs. The Act provides criminal penalties for persons who "take, possess, sell, purchase, barter, offer to sell, purchase or barter, transport, export or import, at any time or any

manner, any bald eagle ... [or any golden eagle], alive or dead, or any part, nest, or egg thereof." The Act defines "take" as "pursue, shoot, shoot at, poison, wound, kill, capture, trap, collect, molest or disturb."

USFWS regulations implementing BGEPA define "disturb" as "to agitate or bother a Bald or Golden Eagle to a degree that causes, or is likely to cause, based on the best scientific information available, 1) injury to an eagle, 2) a decrease in its productivity by substantially interfering with normal breeding, feeding, or sheltering behavior, or 3) nest abandonment by substantially interfering with normal breeding, feeding, or sheltering behavior" (50 CFR section 22.6).

In addition to immediate impacts, this definition also covers impacts that result from human-induced alterations initiated around a previously used nest site during a time when eagles are not present, if, upon the eagle's return, such alterations agitate or bother an eagle to a degree that interferes with or interrupts normal breeding, feeding, or sheltering habits, and causes injury, death, or nest abandonment. Activities that completely prevent use of a foraging area may result in disturbance.

Regulatory protections for Golden Eagles include a requirement to perform thorough surveys to determine the status of eagles where projects occur within their range and habitat. The intent is to determine the extent of potential direct, indirect, and cumulative effects projects may have on eagles, avoid and or minimize these effects, assess the potential for incidental take during project operation, and monitor eagle populations. These measures are predominantly driven by the Bald and Golden Eagle Protection Act.

3.2.2 California Condor

3.2.2.1 Natural History

The California Condor is the largest North American vulture and is critically endangered. As part of the species' recovery effort, condors have been released into the wild in three distinct areas since the early 1990s: California, Arizona, and Baja, Mexico. Condors in California consist of three distinct flocks and include the Pacific Northwest flock, Central California flock, and Southern California flock. Population counts in 2022 totaled 561 individuals, with 214 in captivity and 347 in the wild, free-flying population (USFWS 2022). The Southern California flock comprises 89 individuals (USFWS 2022).

This species covers great distances daily and occupies very large home ranges consistent with being obligatory scavengers whose food supply is unpredictable and patchily distributed. Home range has been observed to vary monthly with the largest ranges occurring in late summer and early fall (July-October), which may be linked to seasonal changes in thermals that facilitate their flight (Rivers et al. 2014a). Meteorological conditions such as thermal height, thermal velocity, and wind speed can be used to predict selection or avoidance of terrain for foraging with condors selecting areas with adequate air movements to sustain extended soaring flight and facilitate takeoff (Rivers et al. 2014b). Foraging habitat often includes areas of sparse vegetation (Rivers et al. 2014b) such as ranchlands, like Tejon Ranch, where hunting and cattle ranching occur.

Condors reach sexual maturity at 6 to 8 years of age and breed annually (invariably laying a single egg) when not attending young from the previous year (Finkelstein et al. 2020). Wild-laid eggs resulting in fledged young average 34 percent and post-fledging survival is found to be 83.4 percent throughout the first year of life with increasing rates of survival with each successive year until they reach their seventh year (Finkelstein et al. 2012). Condors nest in a variety of substrates including caves, overhung cliff ledges, crevices in boulder piles, potholes, and burn-out holes of coastal redwoods and giant sequoia. The main characteristics of their nest sites include being at least partially sheltered from the weather and occurring on either a cliff, steep slope, or in a tall tree, which allows for easy approach and take-off (Finkelstein et al. 2020).

3.2.2.2 Regulatory Status

California Condors have been protected as an endangered species under the Endangered Species Preservation Act since 1967 (later protected under the Endangered Species Act [ESA] of 1973) and by the California Endangered Species Act (CESA) since 1971. The ESA prohibits any action that causes "take" of listed species with "take" defined as, "to harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect, or to attempt to engage in any such conduct" (16 U.S.C. Sec.1532 (19)). The CESA defines "take" differently and more narrowly, as to "hunt, pursue, capture, or kill, or attempt to hunt, pursue, catch, capture, or kill" (Fish & Game Code Sec. 86).

The California Condor Recovery Program was established by the USFWS in 1979 with the ultimate goal of carrying out steps that would allow for the down listing of the species from Endangered to Threatened. Partners in recovery include, among many others, the USFWS, California Department of Fish and Wildlife (CDFW), U.S. Forest Service (USFS), National Park Service (NPS), and Bureau of Land Management (BLM).

In response to continued lead-related mortalities observed in free-flying condors in California, voluntary and legislative restrictions on the use of lead-based ammunition have been implemented. The California State Legislature instituted a restriction on the use of lead for hunting in condor habitat in 2008 (Ridley-Tree Condor Preservation Act 2008). A law banning all hunting with lead-based ammunition in California was signed in 2013 (Assembly Bill [AB] 7811 2013) with planned full effect by 2019.

3.3 Survey Protocols

All surveys were designed to occur in accordance with the USFWS's *Interim Golden Eagle Inventory and Monitoring Protocols; and Other Recommendations* ("Service Protocol"; Pagel et al. 2010). As there is currently no guidance provided for survey distance surrounding proposed solar energy development, the 2-mile survey radius provided in the Service's *Eagle Conservation Plan Guidance: Module 1 – Land-based Wind Energy* and subsequent memorandum updates (USFWS 2013, 2016) was utilized. The Service Protocol requires that a minimum of two surveys of all suitable eagle nesting habitat be conducted, at least 30 days apart, to determine occupancy of known territories or suitable habitat between territories. Additionally, a survey to assess productivity at active nests is required. However, the second survey can act as both a survey to determine occupancy of territories or suitable habitat and as a survey to evaluate productivity in active nests. In accordance with the Service Protocol, the ground surveys for the Project were designed to determine occupancy by surveying for at least 4 hours at each location on two separate survey visits. As there is no survey protocol for condor, biologists surveyed simultaneously for their presence.

3.4 Survey Methods

Ground surveys were conducted to search for nests in suitable eagle nesting habitat. Observation Points (OPs) were determined during an initial reconnaissance on March 30, 2023, of potential nesting habitat to provide maximal survey coverage. Surveys were then conducted from the four selected OPs (see Figure 4). During ground surveys, biologists drove to the four OPs within the Study Area where potential suitable eagle nesting habitat was visible, typically from distances of 1,200 to 5,280 feet (400 to 1,600 meters) from the potential habitat. BBI biologists surveyed for eagles and their nests as well as condors with the aid of high magnification binoculars and spotting scopes. Observations were made for a minimum of 4 hours at each OP, scanning potential nesting substrates and the surrounding 360 degree viewshed and overhead for the presence of eagles and condors.

Datasheets were used to collect the following information for all eagle and condor observations:

- Surveyor Name
- Date
- Time
- Species
- Number of Individuals
- Age
- Detection Distance
- Detection Direction

- Detection Mode
- Detection Height
- Initial Direction
- Passage Directions
- Behavior

The following information was recorded at each OP at the beginning and end of each 4-hour survey and is provided in tabular format in Appendix B:

- Surveyor Name
- Date
- OP #
- Time
- Temperature (°F)
- Wind speed average (mph)
- Wind speed gust (mph)
- Wind direction
- Percent Cloud Cover
- Presence of Fog (Yes/No)
- Precipitation Type
- Visibility

3.5 Survey Schedule

BBI conducted eagle protocol surveys in accordance with the survey timing outlined in the 2010 USFWS *Interim Golden Eagle Inventory and Monitoring Protocols; and Other Recommendations* (Pagel et al. 2010). Visual surveys for the presence of condors were conducted simultaneously. Surveys were conducted by BBI biologist Kerry Ross and zoologist Peter Bloom, PhD, between April 13 and May 26, 2023, for a total of 32 survey hours. Survey dates, times, and weather conditions are provided in Appendix B.

3.6 Desktop Analysis

A desktop analysis of eagle and condor presence in the Project vicinity, defined as a 10-mile buffer around the Project site, was conducted utilizing the following sources of information:

- California Condor Global Positioning System (GPS) Location Data (2014–2022) (USGS 2022)
- CNDDB RareFind Records of California Condor & Golden Eagle (CDFW 2023)
- eBird Basic Dataset of California Condor & Golden Eagle (eBird Basic Dataset 2023)
- BBI and Bloom Research, Inc.'s (BRI) Nesting Raptor Database

The condor GPS location data are housed at the USGS ScienceBase website, which contains a catalogue of condor movement data available for download on a quarterly basis. These data are provided through a collaborative effort between the USFWS, NPS, USGS, and Ventana Wildlife Society. The purpose of the data is to provide known locations of condors and to inform management and research decisions. These data represent GPS locations from various models of GPS transmitters carried by a subset of condors and absence does not indicate their lack of presence in an area. Additionally, condors not carrying GPS transmitters may be present within or outside of the geographic extent represented by the data (Wikelski and Kays 2014). The data available for the Southern California condor flock spans the period of October 2014 through December 2022. A review of this data was conducted in order to assist with the analysis of potential condor use in the Project vicinity.

The CNDDB and eBird were queried for the presence of records for both eagles and condors in the vicinity of the Project. The query included all records present for Kern and San Bernardino Counties. The results were then narrowed to include only records within 10 miles of the Project.

BBI and BRI maintain a Nesting Raptor Database that contains all locations of raptor nests observed by BBI and BRI from approximately 2010 through 2023. This database was queried to provide known locations of eagle nests within the Project vicinity and to determine when nesting activity was last observed.

4.0 RESULTS

No eagles or condors were observed during the survey effort. Additionally, no eagle nests were observed, and no condor nesting habitat is present within the Study Area. Minimally suitable eagle nesting habitat is present within the Study Area. Foraging habitat for eagles and condors is present within the Study Area. The survey results are discussed in detail in the following sections.

4.1 Golden Eagle Nesting and Foraging

4.1.1 Nesting Habitat

While there is minimally suitable nesting habitat present within the Study Area in the form of rocky outcrops, no sign of eagle nesting was observed. The Study Area has experienced varying degrees of anthropogenic disturbance, largely intolerable to nesting eagles. Disturbance is present in the form of development (paved and unpaved roadways, railroad lines, and other structures and cleared pads), encampments, off-road vehicle recreation, refuse dumping, vegetation clearing, sheep grazing, mining and industrial uses, and colonization by invasive plants. The regions most suitable for eagle nesting within the Study Area include Soledad Mountain to the east of the Project site and the Tehachapi foothills to the west. However, Soledad Mountain is now highly disturbed by extensive mining activity, reducing the likelihood of the historic nest territory within this area being occupied. While the Tehachapi foothills to the west have some potential for eagle nesting, this region largely lacks trees and cliffs large enough to support nesting eagles within the Study Area.

There are 13 previously documented eagle nests within 10 miles of the Project site (Figure 5). Extinct nests are those that have not been active for more than 10 years and Extant nests are those that have been active in the last 10 years. On the valley floor, there is one Extinct nest site located approximately 3 miles to the east of the Project site on Soledad Mountain. As stated previously, Soledad Mountain is now heavily mined and nesting activity has not been reported here since 1969. The remaining 12 nest sites (5 Extinct and 7 Extant) are farther than 7 miles from the Project site. The nearest of the Extant nests (approximately 7 miles to the north) contained signs of nesting activity as recently as 2019 (Figure 5 and Table 1).

Table 1. Extant eagle nests within 10 miles of the Project site

Territory Name	*Last known to be active*	*Distance from Project (miles)*
Middle Knob	2019	7.2
Sawmill Canyon	2016	7.4
Antelope Canyon	2013	7.8
Upper Tejon Canyon (alternate)	2016	8.2
Upper Tejon Canyon	2016	9.1
Cottonwood Canyon (slope)	2016	9.4
Cottonwood Canyon (creek)	2018	9.9

4.1.2 Foraging Habitat

Suitable foraging habitat for eagles is present within the Study Area and it is plausible that eagles nesting within the Tehachapi Mountains and over-wintering eagles may forage within the Study Area and Project site. Prey species observed in the Study Area included black-tailed jackrabbit (*Lepus californicus*), desert cottontail (*Sylvilagus audubonii*), California ground squirrel (*Otospermophilus beecheyi*), white-tailed antelope squirrel

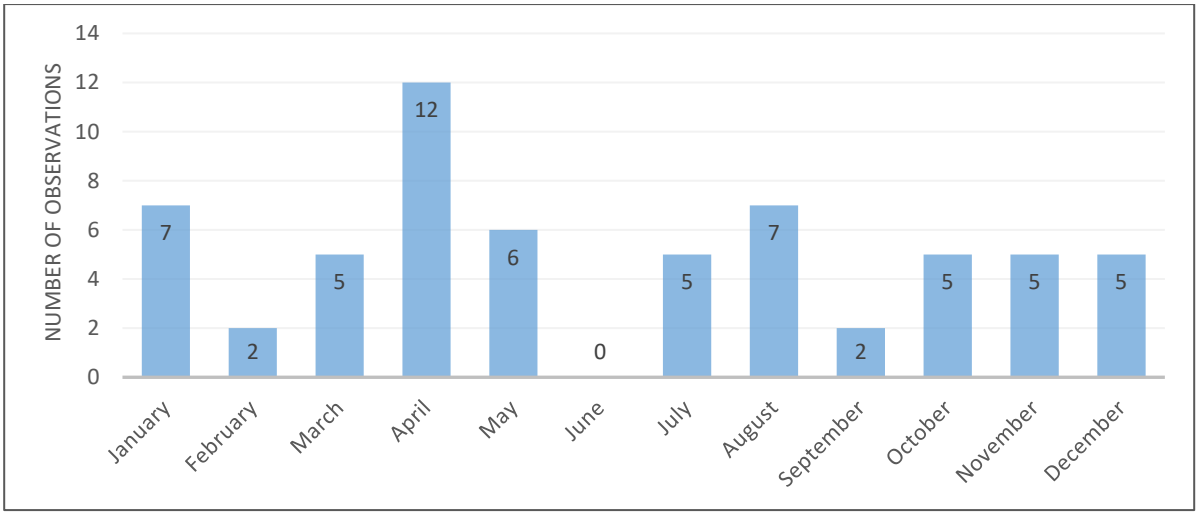
(*Ammospermophilus leucurus*), gopher snake (*Pituophis catenifer catenifer*), and Mojave rattlesnake (*Crotalus scutulatus*).

Sheepherders and their flocks occupy regions of the Antelope Valley seasonally. Evidence of sheepherding in the form of sheep feces and disturbed desert vegetation is present within the Study Area. Deceased sheep are frequently observed (4–5 individuals per year throughout the rural areas of the Antelope Valley), left behind by sheepherders, and Turkey Vultures (*Cathartes aura*) as well as Common Ravens (*Corvus corax*) have been seen feeding on the carcasses (Bloom & Barton pers. obs.). As such, it is possible that eagles could land and feed on sheep carcasses should they happen to be passing over a carcass at an opportune time.

4.1.3 Desktop Analyses

There are 61 observations of eagles documented in eBird between 1970 and 2022 within 10 miles of the Project site (eBird Basic Dataset 2023). The observation nearest to the Project site is located approximately 1.8 miles northwest of the northern-most region of the Project, where one individual was observed in 1991. Of the 61 observations, 32 were detected during the typical breeding season (January to June) (Table 2). Of these 32 observations, 5 of the individuals were confirmed to be adults. The remaining 27 observations did not include a reported age.

Table 2. Monthly eBird eagle observations within 10 miles of the Project site (1970–2022)



4.2 California Condor Nesting and Foraging

4.2.1 Nesting Habitat

There is no suitable nesting habitat for condors present on the floor of the Antelope Valley or within the Study Area. While there are scattered rocky outcrops present on hilltops throughout the valley, they are either of insufficient height or have a high level of human disturbance in proximity that is not conducive to condor nesting. The nearest suitable nesting habitat is within the Tehachapi Mountains, over 9 miles west of the Project site. The nearest nest location documented in CNDDB is approximately 17 miles northwest of the Project site near the vicinity of Tejon Creek on Tejon Ranch in the Tehachapi Mountains. This location was last reported as having potential nesting activity in 2013. A roosting location documented between 1968 and 1976 is located approximately 17 miles west of the Project site in the general vicinity of Winters Ridge and El Paso Creek on Tejon Ranch in the Tehachapi Mountains.

4.2.2 Foraging Habitat

Nearing the mass limit for continuous flight in birds (Pennycuick 1969), condors are unlikely to forage in areas that are not conducive to take-off and soaring flight (i.e., consistent thermal uplift and winds), and condors are noted as avoiding valley flatlands for foraging (Finkelstein et al. 2020). Portions of the Study Area and Project site have consistent winds as indicated by the substantial wind energy development in the immediate vicinity. Additionally, the western region of the Study Area contains the sloping foothills of the Tehachapi Mountains where winds consistently travel up and down slope. These habitat characteristics are consistent with providing for ease of take-off and landing for condor. Therefore, it is plausible that condor may forage on carcasses belonging to other wildlife and domesticated animals when present in the Study Area. Sheep grazing and hunting occur in the Study Area and sheep carcasses have been observed as a result of these activities in the Antelope Valley. Additionally, Tehachapi-Willow Springs Road, which passes from north to south through the Project site, is a highly trafficked, two-lane road where animal carcasses are frequently observed as a result of colliding with vehicles.

4.2.3 Desktop Analyses

The review of the condor GPS location data returned 3.7 million records within 10 miles of the Project site (USGS 2022), indicating substantial condor presence within the Tehachapi Mountains and along the foothills. A record constitutes a single GPS location collected by an individual condor's GPS transmitter. The transmitters collect the individual's location at a frequency of 2 to 15 minutes depending on the manufacturer and model of the transmitter as well as the status of the transmitter's solar battery charge. Over the course of a day, a single condor's transmitter may capture up to 720 locations if collected at a 2-minute frequency. Several transmitter models were used between 2014 and 2022, all of which collected GPS locations at a minimum frequency of 15 minutes when functioning appropriately.

Although 3.7 million records were within 10 miles of the Project site, 4,982 (approximately 0.1 percent) were located within the Study Area and only 21 were present within the Project site (Figure 6). These 21 occurrences within the Project site were rare events during the timeframe of the GPS data collection. The 21 occurrences within the Project site occurred over 12 individual days and involved 10 individual birds. Of the 21 occurrences within the Project site, 18 were determined to be at elevations above ground level or moving at speeds that would indicate passing over the area. Three individuals were reported to not be moving at ground level within the Project site (Bird ID: 807, 636, and 599). These movements suggest the possibility that these individuals were foraging within the Project site. Summary data of all condor occurrences within the Project site are provided in Table 3.

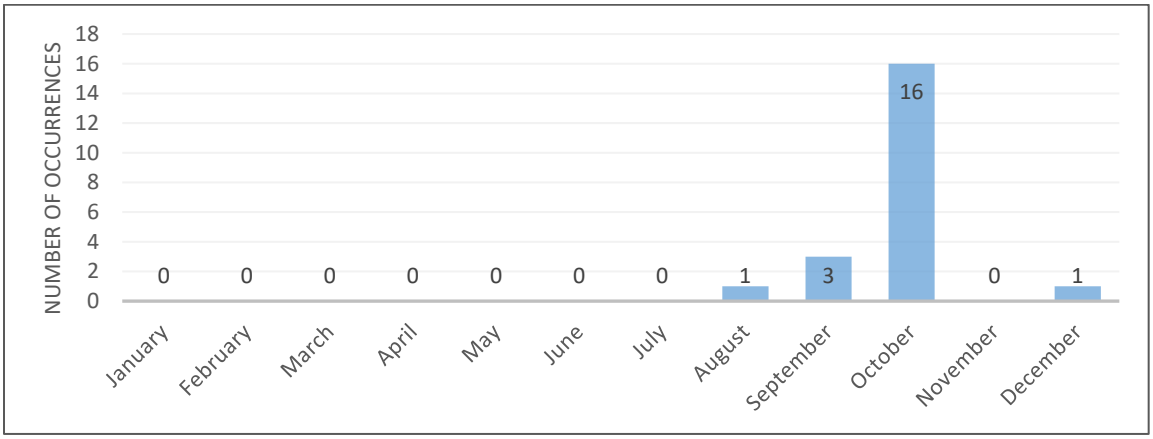
Table 3. Condor occurrences within the Project site (2014–2022)

Date	*Bird ID*	*Height Above Ground Level (meters amsl)*	*Ground Speed (meters per second)*
08/31/2020	864	2,010.9	32.2
10/29/2019	807	0	0
10/21/2019	771	30.9	2.0
10/04/2017	493	7,904.4	16.9
10/07/2017	507	8,667.5	7.2
10/07/2017	507	8,667.5	12.5
10/07/2017	507	3,804.0	0
10/07/2017	507	3,804.0	0
10/22/2017	807	1,728.3	0.2
10/12/2017	596	7,531.1	13.3
10/12/2017	596	7,186.0	15.7
10/12/2017	596	7,185.8	22.7
10/31/2017	596	3,035.6	0
10/31/2017	596	3,035.6	0

Date	*Bird ID*	*Height Above Ground Level (meters amsl)*	*Ground Speed (meters per second)*
10/31/2017	596	3,035.6	0
10/31/2017	596	3,035.6	0
10/31/2017	596	3,035.6	0
09/19/2017	483	9,466.4	0
09/03/2017	590	6,288.7	7.8
12/21/2016	636	0	0
09/20/2016	599	0	0

Condor occurrences within the Project site varied monthly with more presence congregated between August and December (Table 4). Condor occurrences were heavily concentrated over the surrounding mountain ranges including the Tehachapi Mountains to the west of Mojave. A heat map showing condor occurrences between October 2014 and September 2022 is provided in Figure 7. This map provides a representative sample of the larger dataset and is consistent with trends of condor movements over the years.

Table 4. Monthly condor occurrences within the Project site (2014–2022).



Compared to the fairly traditional behaviors and flight paths of condors, flying over the Mojave to the east of the Tehachapi Mountains is a rare event. Landing is even rarer, as there are very few livestock and very few to no wild ungulates for hunting. Unless they are sick or injured, it is very unlikely that condors will land within the Project site. However, as the population increases and expands over the decades and the numbers of young condors increase, the frequency of exploratory movements could increase in some of the less utilized regions.

5.0 POTENTIAL IMPACTS AND RECOMMENDATIONS

In general, potential impacts to eagles and condors by solar development consist primarily of indirect disturbance occurring through the loss of foraging habitat and changes in prey availability (Whitfield et al. 2007). However, solar development does pose a direct risk of mortality to both eagles and condors through collision with vehicles and utility infrastructure as well as from electrocution (Dwyer et al. 2014; Lehman et al. 2007; USFWS 2016). To reduce the risk of potential direct and indirect impacts to eagles and condors, the following measures are recommended for the Project:

- Wherever possible, vegetation removal will be minimized within the Project site. Native vegetation will remain undisturbed unless removal is necessary for placement of Project components to allow for continued use by potential raptor prey species (i.e., small mammals, reptiles, and amphibians).
    - Native vegetation adjacent to the Project site will remain in place as permitted by the Kern County Fire Code.

  - In areas temporarily disturbed during construction and decommissioning (including grading or removal of root balls resulting in loose soil), the ground surface will be revegetated with a native seed mix or native plants and/or allowed to re-vegetate with the existing native seed bank in the topsoil where possible to establish revegetation.
  - Vegetation/ground cover will be continuously maintained on the site by the Project proponent/operator.

- The Project Applicant will install power lines in conformance with Avian Power Line Interaction Committee (APLIC) standards for electrocution-reducing techniques as outlined in Suggested Practices for Avian Protection on Power Lines: The State of the Art in 2006 (APLIC 2006), and the collision-reducing techniques outlined in Reducing Avian Collision with Power Lines: The State of the Art in 2012 (APLIC 2012), or any superseding document issued by APLIC.
- During the operation and maintenance phase of the Project, an *Avian Mortality Monitoring Program* will be developed and implemented to systematically and periodically determine the extent of mortality occurring because of collisions with solar arrays. The measures listed below would apply to the program:
  - The Avian Mortality Monitoring Program will be developed following the Mortality Monitoring Design for Utility-Scale Solar Power Facilities and include methods to achieve Objective 1 (monitoring to estimate total bird and bat mortality). Methods include using a trained and skilled team of authorized biologists to systematically sample the Project site by walking transects through the solar arrays scanning for deceased birds.
  - Data will be collected on any encountered deceased bird (or any other wildlife) species including species, condition of the carcass, approximate age, presence of feathers, and the like.
  - Additionally, maintenance personnel working on the Project site who encounter injured or deceased birds (or any other wildlife) will be trained to collect data and photograph the encountered species.
  - Mortality monitoring will be conducted for a minimum of a 1-year period following the commencement of the operation and maintenance phase of the Project.
  - If, after 1 year of mortality monitoring, Project impacts to any avian species caused by the Project are shown to result in a substantial, long-term reduction in the demographic viability of the population of the species in question, then adaptive management must be implemented to reduce impacts. Adaptive management measures may include but not be limited to passive avian diverter installations, the use of sound, light, or other means to discourage site use consistent with legal requirements, on site habitat management or control measures consistent with applicable legal requirements, or modification to support structures to exclude nesting birds.

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APPENDICES

Appendix A. Map figures

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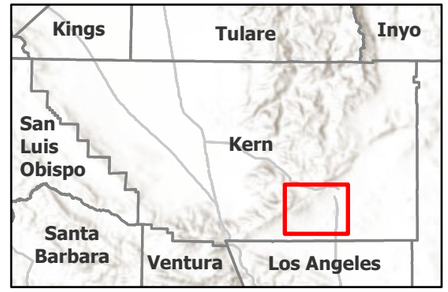
Discovery Solar PV and Storage Project

Kern County, CA

Figure 1. Regional Overview



Windhub High-voltage Substation (Existing)

Watercourse

Proposed Project Features

Project Site

Study Area

Gen-tie Line (New)

Medium-voltage/Transmission/Access Easements

Other Applicant and/or Affiliate Controlled*

Step-up HV substation

Gen-tie Corridor

*Already approved under separate projects.

N

0 0.75 1.5 3 Miles

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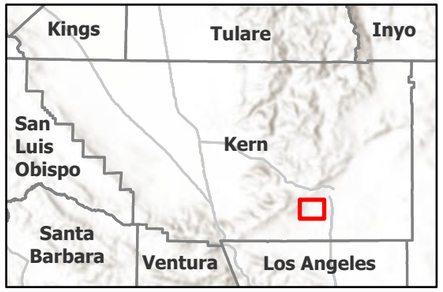
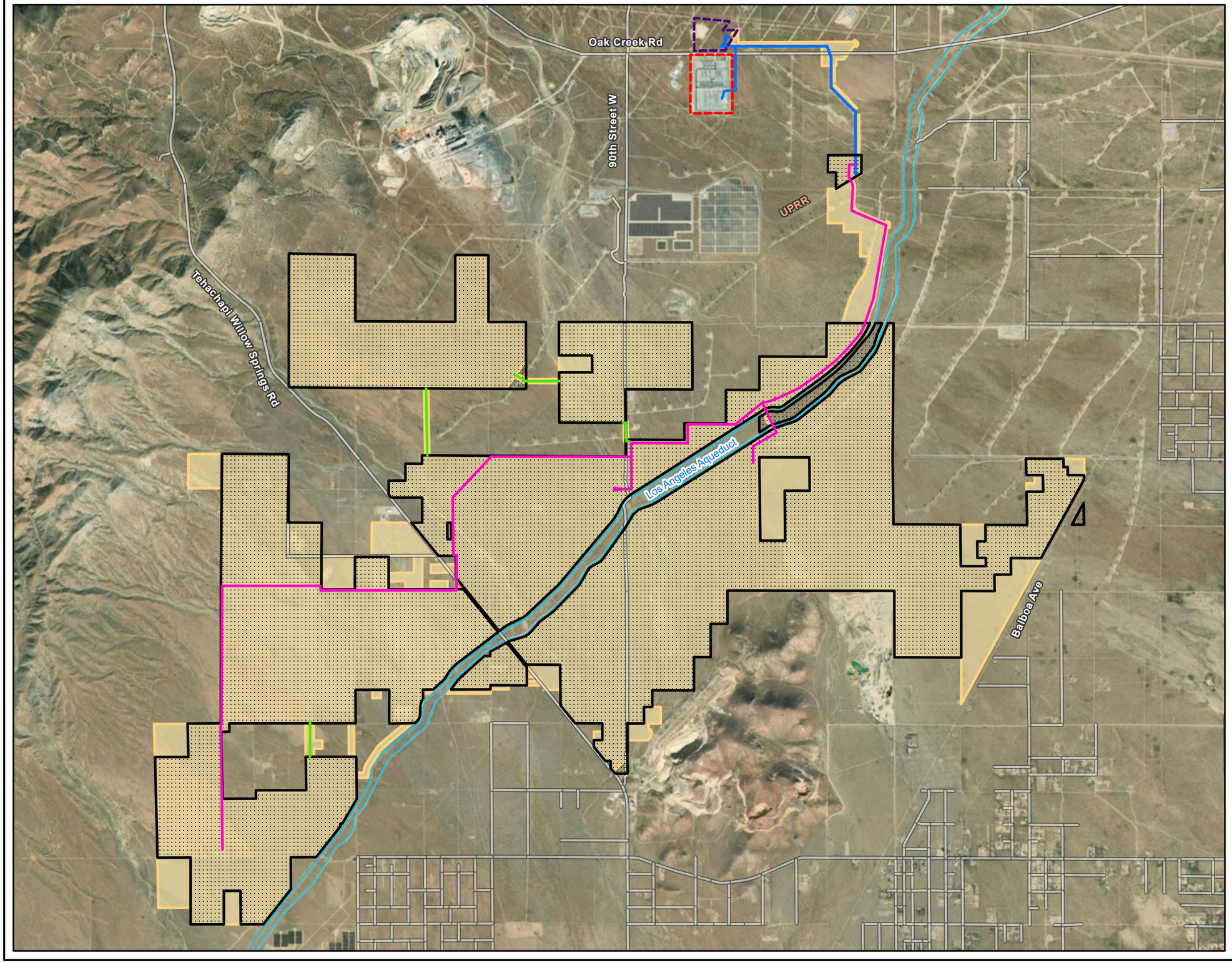
Discovery Solar PV and Storage Project

Kern County, CA

Figure 2. Project Location





Windhub High-voltage Substation (Existing)

Roads

Watercourse

Proposed Project Features

Project Site

Study Area

Gen-tie Line (New)

Medium-voltage/Transmission/Access Easements

Other Applicant and/or Affiliate Controlled*

Step-up HV substation

Gen-tie Corridor

*Already approved under separate projects.

N

0 0.25 0.5 1 Miles

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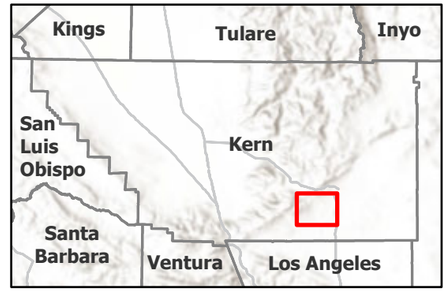
Discovery Solar PV and Storage Project

Kern County, CA

Figure 3. USGS Topographic Map



Windhub High-voltage Substation (Existing)

Proposed Project Features

- Project Site
- Study Area
- Gen-tie Line (New)
- Medium-voltage/Transmission/Access Easements

Other Applicant and/or Affiliate Controlled*

- Step-up HV substation
- Gen-tie Corridor

*Already approved under separate projects.

N

Miles

0 0.5 1 2

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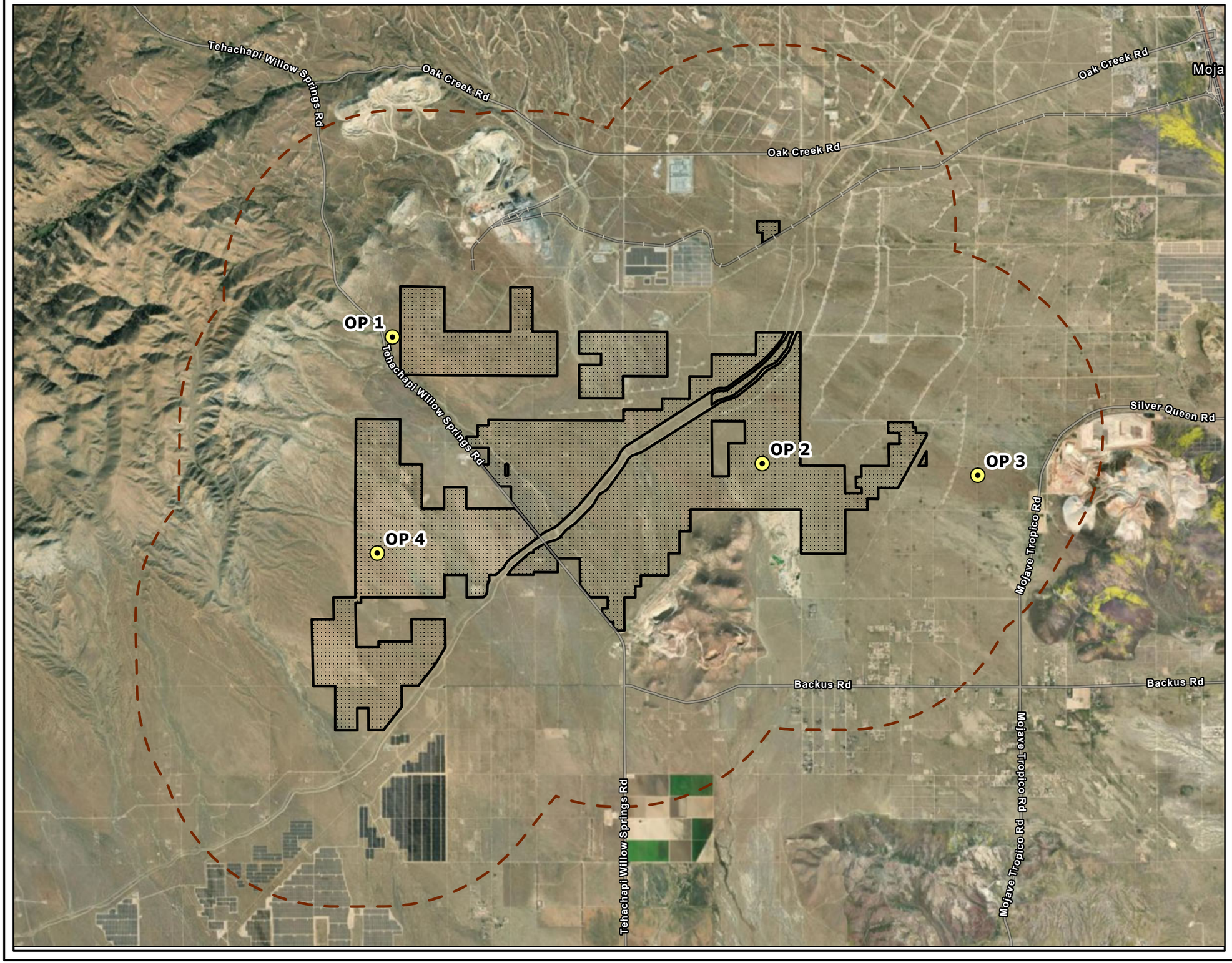
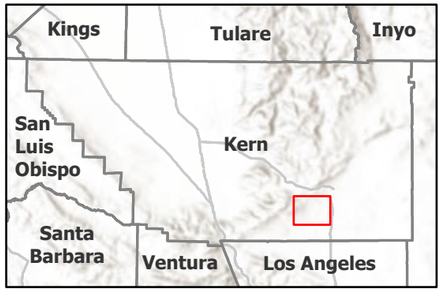
Discovery Solar PV and Storage Project

Kern County, CA

Figure 4. Study Area Overview





Observation Points (OPs)

Buffer (2-mile)

Proposed Project Features

Project Site

N

0 0.5 1 2 Miles

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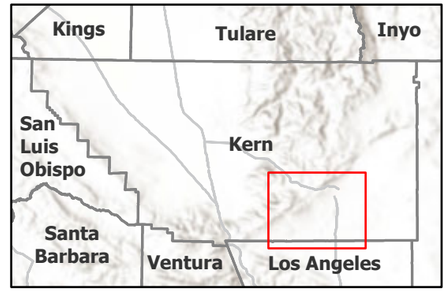
Discovery Solar PV and Storage Project

Kern County, CA

Figure 5. Golden Eagle nests within 10 miles



Extant nest

Extinct nest

Buffer (2-mile)

Buffer (10-mile)

Proposed Project Features

Project Site

N

0 1.25 2.5 5 Miles

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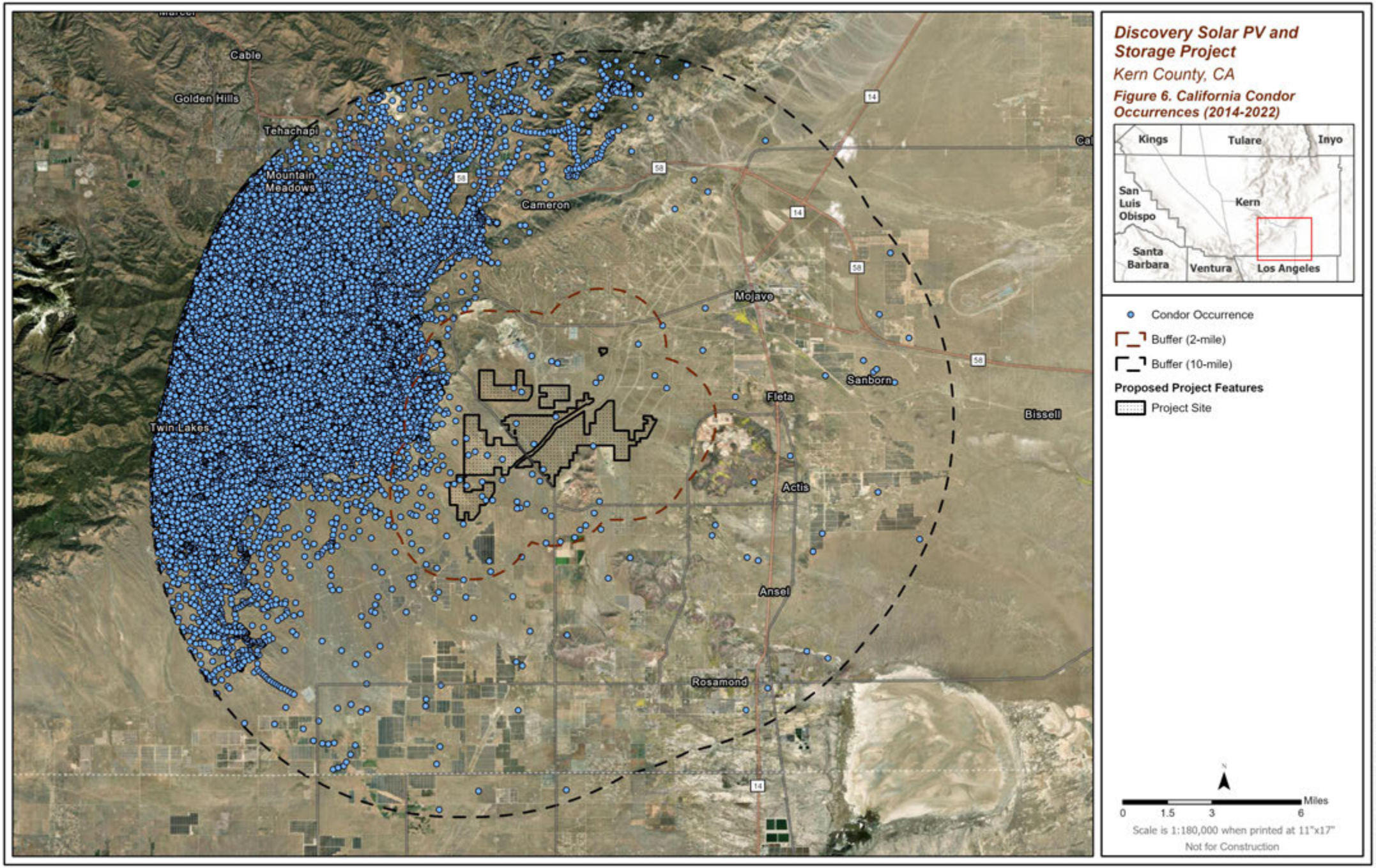

Discovery Solar PV and Storage Project

Kern County, CA

Figure 6. California Condor Occurrences (2014-2022)

- Condor Occurrence
- Buffer (2-mile)
- Buffer (10-mile)

Proposed Project Features

- Project Site

N

0 1.5 3 6 Miles

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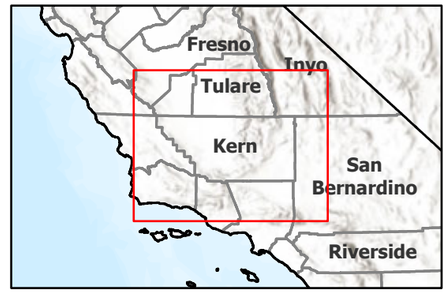
Discovery Solar PV and Storage Project

Kern County, CA

Figure 7. California Condor Occurrence Density



Buffer (2-mile)

Buffer (10-mile)

Condor Occurrence Density

GPS Occurrences Per Square-Mile

0.001 - 100

100 - 1,000

1,000.01 - 10,000

10,000.01 - 100,000

100,000.01 - 800,000

Proposed Project Features

Project Site

N

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Appendix B. Survey dates, times, and weather conditions

Surveyor Initials	Date	OP #	Check In/Out	Time	Temp. (°F)	Wind average (mph)	Wind gust (mph)	Wind direction	% Cloud Cover	Fog (Yes/No)	Precipitation Type	Visibility
RGB*	3/30/2023	n/a	In	0700	45	0	0	Calm	100	No	None	Excellent
RGB*	3/30/2023	n/a	Out	1530	58	8.1	11.3	NW	80	No	None	Excellent
PHB	4/13/2023	1	In	0600	50	28.5	42.1	NW	50	No	None	Good
PHB	4/13/2023	1	Out	1000	55	22.6	36.8	NW	50	No	None	Good
PHB	4/13/2023	2	In	1032	57	24.3	30.9	NW	50	No	None	Good
PHB	4/13/2023	2	Out	1432	59	27.1	36.7	NW	60	No	None	Good
PHB	4/14/2023	3	In	0700	43	11.8	12.1	NW	30	No	None	Excellent
PHB	4/14/2023	3	Out	1100	59	0	0	Calm	25	No	None	Excellent
PHB	4/14/2023	4	In	1128	61	4.7	4.9	Variable	25	No	None	Excellent
PHB	4/14/2023	4	Out	1528	68	15.2	23.4	W	25	No	None	Excellent
KGR	5/25/2023	1	In	1025	68	4.6	7.3	S	15	No	None	Excellent
KGR	5/25/2023	1	Out	1425	86	6.2	11.1	S	10	No	None	Excellent
KGR	5/26/2023	2	In	0535	54	6.8	14.6	W	20	No	None	Excellent
KGR	5/26/2023	2	Out	0935	66	13	23	NW	15	No	None	Excellent
KGR	5/25/2023	3	In	0605	50	4.1	8.2	S	15	No	None	Excellent
KGR	5/25/2023	3	Out	1005	69	5.0	9.5	S	10	No	None	Excellent
KGR	5/26/2023	4	In	0652	67	6.2	9.1	S	15	No	None	Excellent
KGR	5/26/2023	4	Out	1352	82	8.8	12.9	W	15	No	None	Excellent

* The survey conducted on March 30, 2023, consisted of reconnaissance to select OPs of suitable habitat from which to conduct all future surveys.

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Appendix D8
Discovery Solar PV and Storage Project Aquatic Resources Delineation Report

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Discovery Solar PV and Storage Project Aquatic Resources Delineation Report

September 2025

Prepared For:
Kern County
Army Corp of Engineers
California Department of Fish and Wildlife (Region 4) and
Lahontan Region South Basin Regional Water Quality Control Board (Region 6)

Prepared By:
Heritage Environmental Consultants, LLC

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Figure 1 – Project Vicinity

Figure 2 – Soils

Figure 3 – Hydrology

Figure 4 – CDFW Potentially Jurisdictional Waters

Figure 5 – RWQCB Potentially Jurisdictional Waters

Figure 6 –NWI Wetlands and NHD Flowlines

Appendix A - Photographic Log

Appendix B – Antecedent Precipitation Tool (APT)

Appendix C – Preliminary Hydrology Study

1. Introduction

Heritage Environmental Consultants (Heritage) was retained by Discovery Solar PV and Storage, LLC (Applicant) to conduct a jurisdictional delineation to determine the extent of lakes, rivers, or streambeds and associated riparian vegetation pursuant to the California Fish and Game Code, regulated by the California Department of Fish and Wildlife (CDFW) within the Discovery Solar PV and Storage Project boundary in Kern County, California (Project). Boundaries of potential waters of the U.S. (WOTUS) and waters of the state (WOS) were also determined, as regulated by the U.S. Army Corps of Engineers (USACE), the State Water Resources Control Board (SWRCB) and the Lahontan Regional Water Quality Control Board (RWQCB), which regulate discharges of waste that could affect WOTUS and/or WOS.

The purpose of conducting this delineation was to:

1. Map all potentially jurisdictional CDFW, USACE and RWQCB features at the Project site using accepted methodologies, comments, and direction provided during site visits with CDFW and the RWQCB at a nearby project site on December 4, 2023 and January 31, 2024, respectively;
2. Provide data to the Applicant to inform site design and construction to avoid and/or minimize impacts to CDFW, USACE and RWQCB jurisdictional features.

2. Project Description

The Project includes development of a utility-scale photovoltaic (PV) electricity generation and energy storage facility on approximately 7,700-acres of land located in southeastern Kern County, California (Project site). Main components of the Project consist of solar PV modules; power collection, interconnection, and transmission systems; collector substations; a switchyard; energy storage system(s); an operations and maintenance facility; telecommunication facilities; and temporary laydown yards. See **Figure 1** for Project location and vicinity.

The Project will interconnect to the Windhub Substation, which is owned and operated by Southern California Edison (SCE). The interconnect will be via a newly constructed 230-kilovolt (kV) generation interconnect (gen-tie) line that will extend north from the Project site towards the Windhub Substation from an on-site collector substation. A portion of the Project 230kV gen-tie would be co-located within an existing gen-tie corridor (controlled by the Applicant or its affiliates). A high voltage switch yard located immediately north of the Union Pacific (UPRR) rail line will also be constructed.

3. Environmental Setting

For the purposes of this jurisdictional delineation, the "Study Area" consists of approximately 8,660 acres of land. This larger Study Area encompasses the 7,700-acre Project site, the corridor following the proposed gen-tie route, and some other applicant-controlled parcels surrounding the Project site that will not be developed as part of the Project. Unless otherwise stated, "Study Area" refers to these 8,660 acres (**Figure 1**).

The Study Area is located in an unincorporated area in southeastern Kern County, California, on generally undeveloped and privately-owned land, along the northern edge of the Antelope Valley. The Study Area is located approximately 6 miles southwest of the unincorporated community of Mojave, approximately 9 miles southeast of the City of Tehachapi, and approximately 8 miles northwest of the unincorporated community of Rosamond. State Route (SR)-58 is north of the Study Area, State Route 14 is east of the Study Area, and Tehachapi Willow-Springs Road runs

between the Study Area's boundaries (**Figure 1**). A network of existing named and unnamed dirt roads traverses the Study Area. Onsite, adjacent, and nearby used include renewable energy development, rural residential development, livestock grazing, heavy industrial and mining used, and undeveloped lands.

The Study Area is located in the U.S. Geological Survey (USGS) Monolith, Willow Springs, and Soledad Mountain 7.5-Minute Topographic Quadrangle Maps. It is located within the western Mojave Desert, a region that occurs between the hot, low-elevation Sonoran Desert to the south and the relatively cool, high-elevation Great Basin to the north. Temperatures in the Study Area vary significantly, with highs typically exceeding 100 degrees Fahrenheit (°F) in the summer to lows of 40°F or lower in the winter. Average annual precipitation is about 5 inches.

3.1. Topography

The Study Area lies on relatively flat ground at the western edge of the Antelope Valley below the Tehachapi Mountains, which are located approximately 3.5 miles to the east of the Study Area. Elevation across the Study Area range from approximately 2,950 feet above mean sea level (amsl) in the southeast corner to approximately 3,770 feet amsl in the northwest portion.

3.2. Vegetation Communities

The Study Area includes nine natural vegetation communities: allscale scrub, brittle bush scrub, California buckwheat scrub, California juniper woodland, cheesebush scrub, creosote bush scrub, desert needlegrass grassland, rubber rabbitbrush scrub and scalebroom scrub. The three other communities within the Study Area contained developed and disturbed areas, and disturbed creosote bush scrub (Tetra Tech 2024).

Allscale Scrub (*Atriplex polycarpa* Shrubland Alliance)

This alliance is dominated by allscale scrub, which comprises more than 2 percent absolute cover in the shrub canopy and more than 50 percent relative cover in the shrub cover. Other plant species present in this community include creosote bush (*Larrea tridentata*) and winterfat (*Krascheninnikovia lanata*). Some scattered western Joshua trees (*Yucca brevifolia*) are present. Shrubs are generally less than 3 meters in height, and the canopy is open to continuous.

Brittle Bush Scrub (*Encelia farinosa* Shrubland Alliance)

This alliance is dominated by brittle bush (*Encelia farinosa*), which comprises more than 1 percent absolute cover in the shrub canopy and more than 50 percent relative cover. Other plant species present in this community include white bursage (*Ambrosia dumosa),* creosote bush, desert needlegrass (*Stipa speciosa*), and cheesebush (*Ambrosia salsola*). Shrubs are generally less than 2 meters in height, and the canopy is open to intermittent.

California Buckwheat Scrub (*Eriogonum fasciculatum – Viguiera parishii* Shrubland Alliance):

This alliance is dominated by California buckwheat (*Eriogonum fasciculatum*). California buckwheat is present at more than 5 percent absolute cover in the shrub canopy and Parish's goldeneye (*Viguiera parishii*) was not observed. In some areas, California buckwheat is codominant with Cooper's goldenbush (*Ericameria cooperi*). White bursage, desert needlegrass, creosote bush, cheesebush, Nevada ephedra (*Ephedra nevadensis*), devil's lettuce (*Amsinckia tessellata* var. *tessellata*), and rayless goldenhead (*Acamptopappus sphaerocephalus*) are also present in this community. Shrubs are generally less than 2 meters in height, and the canopy is open to intermittent open.

California Juniper Woodland (*Juniperus californica* Woodland Alliance)

This alliance is dominated by California juniper (*Juniperus californica*), which is present at more than 3 percent absolute cover over lower shrubs. No other tree species are present. Other plant species present in this community include creosote bush, Nevada ephedra, and desert needlegrass. Trees are generally less than 5 meters in height, and the canopy is open to intermittent.

Cheesebush Scrub (*Ambrosia Salsola – Bebbia juncea* Shrubland Alliance)

This alliance is dominated by cheesebush, which is present at more than 2 percent cover in the shrub canopy with other shrubs comprising less cover in the shrub canopy. Sweetbush (*Bebbia juncea*) is not present in this community. Other plant species observed include creosote bush, white bursage, desert needlegrass, devil's lettuce, Nevada ephedra, Acton Encelia (*Encelia actoni*), rubber rabbitbrush (*Ericameria nauseosa*), cheatgrass (*Bromus tectorum*), and rayless goldenhead. Shrubs are less than 2 meters in height, and the canopy is open to intermittent.

Creosote Bush Scrub (*Larrea tridentata* Shrubland Alliance)

This alliance was the most encountered vegetation community in the Study Area. This alliance is dominated by creosote bush, which exceeds other shrubs in cover. In some areas, emergent western Joshua trees are present. Other small shrubs such as white bursage, winterfat, Nevada ephedra, cheesebush, and peach thorn (*Lycium cooperi*) were observed alongside creosote in some areas, but in this alliance, their cover is less than three times the cover of creosote bush.

Desert Needlegrass Grassland (*Stipa speciosa* Herbaceous Alliance)

Desert needlegrass grassland is a sensitive natural community with a rarity ranking in California of S2 (imperiled). This alliance is dominated by desert needlegrass, which is present at more than 50 percent relative cover in the herbaceous layer. Emergent western Joshua trees and shrubs, including cheesebush, rubber rabbitbrush, creosote bush, desert wishbone bush (*Mirabilis laevis*), and devil's lettuce are present at low percent cover. Herbs are generally less than 1 meter in height, and the canopy is open to intermittent.

Developed

Areas mapped as developed include existing wind energy generating infrastructure, existing buildings, structures, hard paved roads, and railroads. The existing Windhub substation is located off Oak Creek Road. Other areas mapped as developed include buildings on the Windswept Ranch Petting Zoo property as well as a graded gravel lot with trailers and fenced yard on Tehachapi Willow Springs Road. Multiple abandoned and/or previously occupied structures, as well as associated non-occupied accessory structures within the western half of the Study Area and roads including Oak Creek Road, Santa Fe Railroad, and Tehachapi Willow Springs Road were also considered to be developed.

Disturbed

Areas described as disturbed are characterized by the presence of anthropogenic disturbances such as trash, off-road vehicle tracks, and non-native species. Areas mapped as disturbed include areas along Oak Creek Road with existing infrastructure associated with the Windhub Substation, part of the southeastern section of the Study Area adjacent to the Holliday Rock Mine, an abandoned illegal grow operation in the middle of the Study Area north of the LADWP aqueduct, and abandoned encampments with no structures in the middle of the Study Area north of the LADWP aqueduct and in the southwestern section of the Study Area south of the LADWP aqueduct.

Disturbed Creosote Bush Scrub

This community is characterized by anthropogenic disturbances to the ground and vegetation. Disturbed creosote bush scrub in the northernmost section of the Study Area is disturbed due to historical ground and vegetation disturbance, road construction, and/or has been burned in a

wildfire. The section south of the LADWP aqueduct is disturbed due to a large burn scar, because of which it exhibits characteristics different than Creosote bush scrub in other areas of the Study Area. In the area north of the LADWP aqueduct and south of Tehachapi Willow Springs Road, anthropogenic disturbances and historical grading were observed.

Rubber Rabbitbrush Scrub (*Ericameria nauseosa* Shrubland Alliance)

This alliance is dominated by rubber rabbitbrush, which is present at more than 50 percent relative cover in the shrub canopy. Shrubs are generally less than 3 meters in height, and the canopy is open to continuous.

Scalebroom Scrub (*Lepidospartum squamatum* Shrubland Alliance)

Scalebroom scrub is a sensitive natural community with a rarity ranking in California of S3 (vulnerable). This alliance is dominated by scalebroom (*Lepidospartum squamatum*), which is present at more than one percent cover in alluvial environments. This alliance was observed along a dry streambed that runs across the Study Area. Rubber rabbitbrush and desert needlegrass were also present in this community. Shrubs are less than 2 meters in height, and the canopy is open to continuous and two-tiered.

3.3. Geomorphology and Soils

The Study Area is located in the Antelope Valley, at the western edge of the Mojave Desert. The western Mojave Desert is largely composed of a variety of non-marine sedimentary, pyroclastic, and volcanic rocks, and some marine sediments along the San Andreas fault zone. These sediments are underlain by a Tertiary crystalline basement complex that underwent deep erosion during the late Cretaceous and early Tertiary. The Tertiary rocks are locally deformed and cut by volcanic intrusions. Older alluvium, presumably of Pleistocene age, composed of semi-consolidated fanglomerate, gravel, sand, silt, and clay, underlies much of Mojave Desert, as much as 1,000 feet thick in some areas. The older alluvium is located primarily near the margins of the Antelope Valley at the flanks of the Sierra Pelona and Tehachapi Mountains and consists of weakly consolidated, uplifted and moderately to severely dissected alluvial fan and terrace deposits composed primarily of sand and gravel. These sediments are exposed and dissected in areas because of crustal movements and are overlain by Holocene alluvium deposits that consist of slightly dissected alluvial fan deposits of gravel, sand and clay (Mabey 1967; Dibblee 1960). Unweathered alluvial detritus (soil parent material) within about 9.5 miles of the Tehachapi Mountains and Transverse Ranges is composed almost entirely of sand or gravelly sand, with less than four percent silt and clay. In more distal areas, parent-material textures are finer and range from sandy loam to silt loam (Ponti 1985). Maps of the Quaternary geology of the Antelope Valley show that stream-terrace deposits can be continuously traced from the foothill valleys of both mountain ranges onto the basin floor, where upper Palmdale sediments form broad alluvial fans that grade laterally into one another.

Mapped soil units in the Study Area are shown in **Figure 2** and described below, by soil series. Soil units were described from the U.S. Department of Agriculture (USDA) Natural Resources Conservation Service (NRCS) website's Web Soil Survey (NRCS 2025).

- Adelanto loamy sand, 2 to 5 percent slopes
- Arizo gravelly loamy sand, 2 to 9 percent slopes
- Cajon gravelly loamy sand, 0 to 9 percent slopes
- Cajon loamy sand, 2 to 9 percent slopes

- Cajon loamy sand, 0 to 9 percent slopes
- Garlock loamy sand, 2 to 9 percent slopes
- Greenfield sandy loam, 2 to 9 percent slopes
- Hanford coarse sandy loam, 2 to 9 percent slopes
- Ramona coarse sandy loam, 5 to 9 percent slopes
- Ramona sandy loam, 9 to 30 percent slopes
- Randsburg sandy loam, 2 to 15 percent slopes
- Rosamond clay loam
- Torriorthents-Rock outcrop complex, very steep

Adelanto

The Adelanto series is derived from granite parent material on alluvial fans and plants, very deep, well-drained soil, somewhat finer textured sandy loam with slightly acidic (6.5) pH to moderately alkaline (8.4) pH. These soils occur on nearly level to gently sloping alluvial fans and plains, with slopes ranging from 0 to 5 percent (NRCS 2025).

Arizo

The Arizo series consists of very deep, excessively drained soils that formed in mixed alluvium. Arizo soils are on recent alluvial fans, inset fans, fan apron, fan skirts, stream terraces, floodplains of intermittent streams and channels. Slope ranges from 0 to 15 percent. This series is excessively drained with negligible to medium runoff and very high saturated hydraulic conductivity. Arizo soils with sandy loam and loam surface textures have moderately high to high saturated hydraulic conductivities (NRCS 2025).

Cajon

The Cajon series is derived from sandy alluvium from dominantly granitic rocks, very deep, somewhat excessively drained soil, with sandy to loamy fine sandy texture, and moderately alkaline (8.0) pH. The geomorphic positions of these soils include alluvial fans, fan aprons, fan skirts, inset fans, and river terraces, and these soils have slopes of 0 to 15 percent (NRCS 2025).

Garlock

The Garlock series is derived from mixed alluvium derived from granite, very deep, and well drained, with sandy and loamy textures, and moderately alkaline (8.0) pH. The geomorphic positions of these soils include old stream terraces and alluvial fans in the Mojave Desert with slopes of 2 to 9 percent (NRCS 2025).

Greenfield

The Greenfield series is derived from alluvium granite and mixed rock sources, that form in moderately coarse and coarse textures, with slightly acidic (6.3) pH to neutral (7.0) pH. These soils are on fans and terraces, with slopes ranging from 0 to 30 percent (NRCS 2025).

Hanford

The Handford series is derived from alluvium dominantly from granite, very deep, and well drained, with moderately coarse textures, and slightly alkaline. These soils are on stream bottoms, floodplains and alluvial fans, with slopes ranging from 0 to 15 percent (NRCS 2025).

Ramona

The Ramona series is derived from the thermic family of Typic Haploxeralfs, fine-loamy, mixed, with slightly medium acid (6.0) pH and neutral (7.0) pH. These soils occur in nearly level to moderately steep terraces and fans (NRCS 2025).

Randsburg

The Randsburg series is derived from residuum from granite rocks, shallow to soft, well drained, with moderately alkaline (8.0) pH. These soils are found on hills and granite rock pediments, with slope gradients ranging from 2 to 50 percent (NRCS 2025).

Rosamond

The Rosamond series is derived from granitic alluvium, deep, and well-drained, with fine sandy loam textures, and moderately alkaline (7.9) pH. These soils are in the lower margins of fans, between the sloping fans and the basins and playas, with slopes ranging from 1 to 2 percent (NRCS 2025).

Other Units

The torriorthents-rock outcrop map unit consists mainly of hard granitic rock exposures and schist or granite gneiss. These units usually occur on steep slopes or areas with resistant parent material. Surface runoff is very rapid, and there is no hazard of erosion. The torriorthents complex is also rocky granitic alluvium (NRCS 2025).

The Study Area is located on the lower end of a broad alluvial slope called a bajada, and is comprised of a network of alluvial fans, active channels, dormant channels, abandoned channels, braided streams, interfluves, and floodplains that emanate from the Tehachapi range. Alluvial fans are gently sloping fan-shaped landforms that form where steep, confined mountain streams flow out onto a piedmont plain. They often resemble extended fans when viewed on maps or aerial photographs, but their morphology can be irregular forms bounded laterally by adjacent fans, bedrock outcrops, and relict fan surfaces, among other possibilities (House 2005). Stream channels are generally subject to flow path uncertainty due to rapid diversion of one channel to another in response to blockages and changes in sediment accumulation from previous flow events (CDFG 2010).

This region of the Mojave is characterized by low precipitation, which rarely allows for surface runoff in the highly porous soils and colluvium. Parent material from mountain sources is generally only mobilized to lower fan areas during localized major storm events. Streams in this region are generally ephemeral to intermittent, and only flow in response to rain events. Because of the high infiltration rates of the sediments, consistent stream flow usually only occurs after periods of steady rain, typically during a wet winter. The periodicity and intensity of such rain events depends on elevation, but in the lower regions, historically, floods may only happen in intervals measured in several years to decades. Heavy floods produce definable channels in streambeds, and localized flood events can produce overbank flow transporting sediment and debris onto the floodplain.

Even in the mountainous regions most streams flow only during or shortly after storms. Perennial water only flows in groundwater discharge areas associated with springs in a few mountain canyons, in Afton Canyon where the regional groundwater table intersects the canyon bottom, and a few other springs.

Floods produce the definable channels in streambeds (active channels). When water is not flowing in the stream between storm events, an active channel typically consists of sand, gravel, dried mud, or barren bedrock. Cut and fill sediment bedforms appear relatively fresh (where not trampled by animals, including humans). Flowing water strips away vegetation, moves sediment, and reconfigures bedforms in the channel. Sediment character and supply, slope, and flow volume and duration are controlling factors that define the size of stream channels and the character of sediment found in the barren channel once a flood event is over. In canyons above the mountain

front, stream channels are typically filled with angular rock fragments ranging from coarse sand to large boulders, with rapids or falls occurring where bedrock is exposed in the stream channel. Larger floods can scour the channel clear of sediments, whereas lesser flood events can contribute to the backfilling of channels. Backfilling is most evident to desert travelers who frequently travel the same stream beds year after year. In one year, a stream bed in mountainous area may be easily passable by vehicle, but the next year the wash is inaccessible because finer materials between larger boulders may have vanished due to an erosion event. Later, the fine deposits between boulders may reaccumulate after a different storm event. These changes reflect the differences in duration, spatial patterns, and intensity of individual storm events affecting a drainage basin.

Downstream of a mountain front, streams deposit sediments on alluvial fans. In the more upland areas, the channels on the upper alluvial fan may go through periods of down-cutting, infilling, and channel migration. Typically, the size and depth of the channel and the size of the rock fragments diminish in size downslope and away from the mountain front. In the mid to lower fan area, stream channels typically diminish to depths less than three feet, and sediment consists of fine gravel and sand. In most areas, a trunk stream defines the main drainage between coalescing alluvial fans. Playas (dry lake beds) may exist where topographic barriers impede the flow of surface water from a drainage basin.

3.4. Hydrology

The Study Area is within the South Lahontan Hydrologic Region in the Antelope Valley watershed (**Figure 3**). The floor of the Antelope Valley generally lacks defined natural channels outside of the foothills and is subsequently subject to water traveling in unpredictable sheet flow patterns rather than within confined channels. The features of the solar facility area are associated with an alluvial fan. The alluvial fan is part of the south facing slopes of the Tehachapi Mountains. Alluvial fans are depositional features formed over a long period of time where sediment is transferred from one part of the watershed to another. As a stream leaves a mountain canyon, flow velocity decreases and sediment carried by the stream is deposited over centuries to result in a large plain. These characteristics are evident in the features in the Study Area.

South Lahontan Hydrologic Region

The South Lahontan Hydrologic Region (SLHR) represents about 17 percent of the land area in California. The region includes Inyo County and portions of Mono, San Bernardino, Kern, and Los Angeles Counties.

The SLHR is bound to the north by the drainage divide between Mono Lake and East Walker River, to the west and south by the Sierra Nevada, San Gabriel, San Bernardino and Tehachapi Mountains, and to the east by the State of Nevada. Drainage for most of the watershed in the region is underground. Along with the arid climate, this accounts for the presence of many dry lakebeds or playas in the region. Major lakes in the region include Mono Lake, June Lake, Convict Lake, Crowley Lake, Isabella Lake, Owens Lake, Tinemaha Reservoir, Lake Arrowhead, Silverwood Lake, and Lake Palmdale. Rivers in the region include the Owens River, the Mojave River, and the Armargosa River.

Within the SLHR, the Study Area is located within the Antelope Valley Hydrologic Unit/Watershed and the Tropico Hill-Oak Creek (HUC 10 #1809020617) and Bissell Hills (HUC 10 #1809020620) sub-watersheds. The Antelope Valley underlies an extensive alluvial valley in the western Mojave Desert. The elevation of the valley floor ranges from 2,300 to 3,500 feet above mean sea level (amsl). The valley is bound on the northwest by the Garlock fault zone at the base of the Tehachapi Mountains and on the southwest by the San Andreas Fault zone at the base of the San Gabriel Mountains. The valley is bound on the east by ridges, buttes and low hills and on the north by the Fremont Valley. The Antelope Valley Watershed is a closed basin situated within the

western Mojave Desert, with a system of Rosamond, Buckhorn, and Rogers dry lakes as the central watershed terminus. Rosamond, Buckhorn, and Rogers Lakes and their tributaries (Antelope Valley Watershed; HUC 10 #s 1809020609 through 1809020624) function as an isolated intrastate watershed system and are non-jurisdictional WOTUS (USACE 2013).

Rainfall runoff conditions of the Study Area are driven by long-lasting frontal storms which tend to saturate the upper portions of the watershed, where orographic lifting of moisture-laden air masses mean annual precipitation rates are nearly twice as high as in the lower portion of Antelope Valley. Localized convective storm cells develop during these atmospheric river type events, resulting in flash flooding that can be isolated in individual drainages. Small watersheds that have little to no stormwater runoff, even in average precipitation years, routinely experience sudden large events that contribute considerable amounts of flow and sediment to the system. The sporadic nature of these landscape-forming events, combined with aeolian processes that obfuscate subtle fluvial landforms, can make jurisdictional delineation challenging. This analysis is intended to assist with quantifying the flow regime of the Study Area and provide input into geomorphic processes.

Cumulative precipitation data from water year 2020 through 2024 at Tehachapi Airport were accessed from the California Data Exchange Center (CDEC 2024). Tehachapi Airport (TAP) is located in the Antelope Valley watershed, 10 miles from the Study Area, at an elevation of 4,040 ft, roughly 1,040 feet higher than the Study Area. Cumulative data were converted to incremental data, in 30-minute time steps, and plotted in **Table 1**. The Antecedent Precipitation Tool (APT) (USACE 2024) was used to compare precipitation in the 90 days prior to the field surveys against normal precipitation. The APT results showed that the Study Area was in a period of moderate wetness for the 90-day periods leading up the first two surveys in October 2023 and November 2023; the APT results showed that the Study Area was in wetter conditions for the 90-day period leading up to the third survey in January 2024, and was in a period of incipient wetness; the APT results showed that the Study Area was in normal conditions for the 90-day period leading up to the fourth survey in March 2024, and was in a period of mild wetness (**Appendix B**). The periods prior to the field surveys were generally wetter than normal and allowed for the potentially jurisdictional features to be more easily identifiable.

4. Regulatory Background

The jurisdictional limits of regulatory agencies vary due to different regulations and their different jurisdictional definitions. The following section describes USACE, RWQCB, and CDFW jurisdiction over wetlands and waters.

4.1. Waters of the United States (WOTUS)

The USACE administers Section 404 of the Clean Water Act (CWA) and issues permits for the discharge of dredged or fill material into WOTUS. The conforming rule, "Revised Definition of 'Waters of the United States,' Conforming," became effective on September 8, 2023 upon publication in the Federal Register (USEPA and USACE 2023). This rule is the jurisdictional framework for that is currently accepted by the USACE.

The Study Area does not contain any wetlands or non-wetland waters that are subject to federal jurisdiction under Section 404 of the CWA; all tributaries are non-relatively permanent waters and are drained internally and do not flow to any relatively permanent waters, and are therefore isolated and do not connect to any navigable water features. This finding is consistent with the ACOE Approved Jurisdictional Determination for the Antelope Valley Watershed Unit (SPL-2011-01084-SLP) that found all features within this watershed to be non-jurisdictional (USACE 2013).

As a result, this Aquatic Resources Delineation Report focuses on WOS under the jurisdiction of the RWQCB and Section 1602 features under the jurisdiction of CDFW.

4.2. Clean Water Act – Section 401 and the California Porter-Cologne Water Quality Act

The California State Water Resources Control Board (SWRCB) and its RWQCBs regulate discharges of waste that could affect the waters of the State under the California Porter-Cologne Water Quality Act or waters of the U.S. under Section 401 of the federal Clean Water Act. Under the Porter-Cologne Water Quality Control Act, a Report of Waste Discharge must be submitted prior to discharging waste, or proposing to discharge waste, within any region that could affect the quality of the waters of the State (California Water Code §13260). Waste Discharge Requirements (WDRs) or a waiver of WDRs will then be issued by the RWQCB. Waters of the State are defined as any surface water or groundwater, including saline waters that are within the boundaries of the state (California Water Code §13050).

4.3. California Fish and Game Code §§ 1600–1616: Streambeds and Banks and Riparian Habitats

The CDFW asserts jurisdiction over the bed and bank of a stream and associated wildlife and habitats as established in California Fish and Game Code §§1600–1616. In accordance with §1602 of the Code (Streambed Alteration), the CDFW regulates activities that will "substantially divert or obstruct the natural flow of, or substantially change or use any material from the bed, channel, or bank of, any river, stream, or lake, or deposit or dispose of debris, waste, or other material containing crumbled, flaked, or ground pavement where it may pass into any river, stream, or lake" and requires notification prior to such activities. In addition, §1603 of the Code states that "after the notification is complete, the department shall determine whether the activity may substantially adversely affect an existing fish and wildlife resource," and a Streambed Alteration Agreement (SAA) may be pursued. These regulations were established to protect the wildlife resources that are associated with the riparian habitats that occur within and adjacent to ephemeral or year-round drainage systems. A discussion of the methodology for determining CDFW jurisdiction is provided below.

This report provides both a delineation based on field-checked USGS topographic maps, USGS modeled stream features (National Hydrography Dataset [NHD]), National Wetlands Inventory (NWI) data (**Figure 6**), FEMA flood maps, and field-checked aerial signatures, including historical imagery, so that all features that might be considered potentially jurisdictional by RWQCB and/or CDFW are included. Each feature or aerial signature was further investigated, photographed, and documented.

5. Methodology

On October 17th – 20th, 2023, November 1st – 3rd, 2023, January 16th – 19th, 2024, March 12th 2024, and June 24th, 2025, Heritage biologists walked the Study Area and mapped all potential CDFW and RWQCB jurisdictional features. Biologists investigated all National Hydrography Dataset (NHD) and National Wetlands Index (NWI) blue lines as well as all aerial signatures that appeared to be potential features and low areas on topographical maps. Additionally, biologists referred to the Discovery Solar PV and Storage Project Preliminary Hydrology Study (Westwood 2025, **Appendix C**) to investigate all areas that are shown in the 100-year, 10-year, and 5-year flood models for maximum water depth, peak velocity, and scour.

The outer boundaries of potential jurisdictional limits for all washes were identified and the boundaries were mapped with sub-meter accurate Trimble GEO7x or Trimble Catalyst DA2

handheld GPS units using ESRI ArcPad 10 or ESRI ArcGIS Online software. GPS data were then converted into shapefiles using ESRI ArcGIS 10 to compile the data into a database for the analysis. Photographs were taken to document site conditions and are included as **Appendix A**.

The boundaries of waters potentially subject to regulation by the CDFW were delineated using agency-issued guidance under the California Fish and Game Code, related CDFW materials (CDFW 2014), CDFW onsite verbal requests and guidance from site visits at other projects in the vicinity, as well as standard practices by CDFW personnel and wetland delineation and geomorphology professionals, including *A Review of Stream Processes and Forms in Dryland Watersheds* (CDFG 2010).

As defined by CDFW, a stream is "a body of water that flows perennially or episodically and that is defined by the area in which water currently flows, or has flowed, over a given course during the historic hydrologic regime, and where the width of its course can reasonably be identified by physical or biological indicators." Because all the features in the area are ephemeral, and some of them are very small, many may lack obvious banks in some areas. Bank indicators such as slope (first point of inflection), bed erosion or evidence of flow, wrack, and soil sorting (texture and color) were also used to determine the extent of potential jurisdiction. Vegetation is typically another good indicator; however, no riparian vegetation species were observed onsite, and vegetation types, including species composition (e.g., creosote bush scrub) and density generally did not differ between channels or swales and surrounding upland areas.

Potential CDFW jurisdictional areas were mapped as the top of bank of the feature or to the outer dripline of immediately adjacent vegetation (i.e. where overhanging or included within top of bank). Potential jurisdictional floodplains were interpreted to be relatively flat areas of land associated with a stream, over which evidence of water and sediment were apparent from a parent stream flow. Floodplains parallel stream channels but may also occur at the terminal end of a stream where the channel joins an axial valley stream, transitions into a playa, or the channel ends and its flow subsides into the ground to join the groundwater.

The boundaries for WOS potentially subject to regulation by the RWQCB were delineated as the ordinary high-water mark (OHWM, defined in 33 C.F.R. §328.3 as the line on the shore established by fluctuations of water and indicated by physical characteristics such as clear, natural line impressed on the bank, shelving, changes in the character of the soil, destruction of terrestrial vegetation, or the presence of litter and debris) of the feature (Lichvar & McColley 2008, Lichvar et al. 2009).

Microtopography of the landscape within the Study Area was variable, and sheet flow during rainstorm events follows topographical depressions (lower elevational area than its surroundings). These topographical depressions are shallow depressions that are not channelized nor have bed and bank formations and lack OHWM and evidence of water flow such as terraces, drift deposits, destruction of vegetation, or other indicators of a flowing channel. As such, they were not mapped as potentially jurisdictional features. These topographical depressions are isolated and do not connect to any surrounding waters in the area (i.e., do not connect to an existing drainage feature).

6. Results

Sixty-eight (68) potentially jurisdictional features (features) were observed within the Study Area for the Project (**Figures 4 and 5**). Each feature has a unique naming convention (e.g. DS-01, DS-02, etc.) and all are potentially subject to CDFW jurisdiction and/or RWQCB jurisdiction under the Porter-Cologne Water Quality Control Act. Photographs were taken of each of the potentially jurisdictional features and are included in **Appendix A**.

Some features, such as DS-24 and DS-27 have well-defined bed and bank whereas others have marginal bed and banks in the form of poorly formed topographical slopes, little evidence of scouring, or deposition of sediment. Many features are discontinuous on the landscape and appear to dissipate and lose channel definition or only have evidence of sheet flow, losing OHWMs for stretches as the water sheet flows over the landscape or infiltrates into the ground, then regaining them as the flows confine again. The typical depositional function and flow of the features within the Study Area have been altered and slightly reduced due to existing public and private dirt and paved roads, transmission lines, and other disturbances, which redirect much of the historical flow upstream of the Study Area.

The catchment areas begin relatively close to the Study Area and are influenced by the foothills of the Tehachapi Mountains located in the Transverse Ranges system of California's mountain ranges upstream of the Study Area. The features within the Study Area primarily provide for the dispersion of runoff from the surrounding topography with few of them being large features that flow from upstream of the Study Area. Many of the features begin within or immediately upstream of the Study Area. Some of the features lose flow indicators within the Study Area and do not continue downstream. Others, such as DS-26, DS-27 and DS-46 continue through the Study Area and downstream to Rosamond Dry Lake (a terminal basin) approximately 12 miles downstream of the Study Area.

The features generally flow from the northwest to the southeast in the majority of the Study Area. All of the features in the Study Area are generally characterized as ephemeral, single-thread, low-gradient and low-sinuosity channels lacking riparian or desert wash species. Most are located in Creosote Bush Scrub. Some features are located in either lightly or heavily disturbed areas. Many of the features lack obvious bed or bank characteristics and evidence of concentrated flow and occur in flat to rolling topography. Water is expected to only flow through the features during localized or large rain events. Many of these features are also discontinuous and do not exhibit flow indicators and OHWMs along their entire length. In areas where features lost OHWMs and flow indicators and had no defined bed and bank for portions of their length, dashed lines were included to show where the water would flow between areas that had solid indicators (**Figure 5**).

Numerous NHD/NWI blue lines were located within the Study Area, and all of them were investigated. A majority of the blue lines coincided with washes, though the actual flowpaths were slightly different. Some of the areas with blue lines did not show any evidence of a wash feature on the ground, and photos were taken in these areas to reflect the lack of potentially jurisdictional features (**Appendix A**).

All areas that were included in the 100-year, 10-year, and 5-year flood models from the Preliminary Hydrology Study (Westwood 2025, **Appendix C**) were also investigated. Features DS-32 through DS-40 were the largest features that were clearly shown in the flood models. Most of the modeled areas depicted on the Preliminary Hydrology Study figures correspond well with features on the ground. However, there were a few areas that, after field investigation, showed no signs of potentially jurisdictional features outside of the areas delineated and included on **Figures 4 and 5**. These areas may receive some flow during flood events, but did not have any indicators of flow on the ground during field surveys, and therefore, they would not be jurisdictional and were not delineated. This included several potential tributaries to the main features downstream of

the aqueduct that has altered hydrology in the region as well as areas in the eastern portion of the Study Area that show up in the modeled hydrology report, but there are no features on the ground. While flood models are useful in guiding jurisdictional waters delineations, they are not generally indicative of actual jurisdictional areas on a site.

DS-17 is the largest feature with a defined bed and bank, but it did not support any riparian or desert wash plant species. It is approximately 150 feet wide and 50 feet deep as it runs south through a small portion of the northwest portion of the Study Area. A majority of the rest of the features in the Study Area are small (less than 10 feet wide) and shallow (less than 1 foot deep). Features DS-32 through DS-46 are all small individual braided washes that originate from the same feature that flows out of the Tehachapi Mountains and through the Study Area. While these individual washes are small, together they form a floodplain area with multiple individual braided washes that shows up in the modeled Preliminary Hydrology Study figures (Westwood 2025, **Appendix C**).

There are 68 features that total approximately 143.33 acres and approximately 172,928 linear feet of potentially jurisdictional waters subject to CDFW jurisdiction within the Study Area (**Figure 4** and **Table 4**). There are 66 features that total approximately 37.00 acres and approximately 160,656 linear feet of potentially jurisdictional waters subject to RWQCB jurisdiction within the Study Area (**Figure 5** and **Table 4**). As discussed in **Section 5**, the boundaries for WOS potentially subject to regulation by the RWQCB were delineated as the OHWM which is typically smaller than CDFW potentially jurisdictional areas, and not all CDFW jurisdictional areas have OHWM indicators. The larger extents of potentially jurisdictional CDFW waters as compared to the smaller extents of potentially jurisdictional RWQCB waters is the result of including the area between the OHWM and top-of-bank, under CDFW jurisdiction. The longer length of potentially jurisdictional CDFW waters as compared to RWQCB waters is the inclusion of the length of the numerous "fingers" of CDFW waters and the fact that some features only exhibited CDFW jurisdictional top-of-bank characteristics and did not contain OHWM indicators. Vegetation communities that were encountered in the area surrounding the features are also shown in **Table 4**.

6.1. Agency Coordination

The Applicant is actively consulting with responsible resource agencies (CDFW and RWQCB) to verify the limits of the jurisdiction results presented herein. If Project activities impact jurisdictional features, the following permits/authorizations would be required and should be obtained prior to undertaking ground-disturbing activities within or immediately adjacent to identified potentially jurisdictional features::

- RWQCB (subject to a Waste Discharge Requirement)
- CDFW Section 1602 Lake or Streambed Alteration Agreement.

Table 4: CDFW and RWQCB Potentially Jurisdictional Features within the Study Area

Feature ID	CDFW		RWQCB		RWQCB No OHWM	Description	Potentially Jurisdictional	Vegetation Communities
	Area (Acres)	Length (Feet)	Area (Acres)	Length (Feet)	Length (Feet)			
DS-01	0.80	3669	0.08	3669	0	Ephemeral wash	Yes	Creosote Bush Scrub
DS-02	0.69	2094	0	0	2094	Ephemeral wash	Yes	Creosote Bush Scrub
DS-04	0.19	985	0.02	985	0	Ephemeral wash	Yes	Creosote Bush Scrub and California Buckwheat Scrub
DS-05	0.06	267	0	0	267	Ephemeral wash	Yes	California Buckwheat Scrub
DS-06	1.34	3868	0.26	3868	0	Ephemeral wash	Yes	Creosote Bush Scrub and California Buckwheat Scrub
DS-07	0.23	486	0.03	470	0	Ephemeral wash	Yes	California Buckwheat Scrub
DS-08	0.43	713	0.06	713	0	Ephemeral wash	Yes	California Buckwheat Scrub
DS-09	0.77	2474	0.22	2366	0	Ephemeral wash	Yes	Creosote Bush Scrub and California Buckwheat Scrub
DS-10	0.09	465	0.01	465	0	Ephemeral wash	Yes	Desert Needlegrass Grassland
DS-11	2.43	3008	0.50	3008	0	Ephemeral	Yes	Desert Needlegrass

						wash		Grassland
DS-12	11.44	8892	2.74	8892	0	Ephemeral wash	Yes	Creosote Bush Scrub and Rubber Rabbitbrush Scrub
DS-13	15.14	9319	3.19	9319	0	Ephemeral wash	Yes	Creosote Bush Scrub, Disturbed - Creosote Bush Scrub, Rubber Rabbitbrush Scrub, and California Juniper Woodland
DS-14	0.39	867	0.11	867	0	Ephemeral wash	Yes	California Juniper Woodland
DS-15	12.31	7582	2.72	7582	0	Ephemeral wash	Yes	Creosote Bush Scrub, California Juniper Woodland, and California Buckwheat Scrub
DS-16	1.00	737	0.13	737	0	Ephemeral wash	Yes	Creosote Bush Scrub
DS-17	1.11	470	0.45	470	0	Ephemeral wash	Yes	Brittle Bush Scrub
DS-18	0.28	709	0.02	709	0	Ephemeral wash	Yes	Creosote Bush Scrub
DS-19	0.58	1082	0.02	1082	0	Ephemeral wash	Yes	Creosote Bush Scrub
DS-20	2.26	1706	0.28	1706	0	Ephemeral wash	Yes	Creosote Bush Scrub
DS-21	16.86	10904	6.56	10471	0	Ephemeral wash	Yes	Creosote Bush Scrub
DS-22	2.86	2822	0.40	2822	0	Ephemeral wash	Yes	Creosote Bush Scrub
DS-23	0.69	745	0.22	745	0	Ephemeral wash	Yes	Creosote Bush Scrub

DS-24	1.02	1507	0.32	1289	0	Ephemeral wash	Yes	Creosote Bush Scrub
DS-25	1.54	1533	0.39	1533	0	Ephemeral wash	Yes	Creosote Bush Scrub
DS-26	1.19	1442	0.23	1442	0	Ephemeral wash	Yes	Creosote Bush Scrub
DS-27	7.75	8961	2.94	8640	0	Ephemeral wash	Yes	Creosote Bush Scrub
DS-29	2.84	3078	0.59	2371	707	Ephemeral wash	Yes	Creosote Bush Scrub
DS-31	1.50	2467	0.19	2467	0	Ephemeral wash	Yes	Cheesebush Scrub and Creosote Bush Scrub
DS-32	0.31	719	0.06	711	0	Ephemeral wash	Yes	Creosote Bush Scrub
DS-33	2.97	2999	0.79	2619	0	Ephemeral wash	Yes	Creosote Bush Scrub
DS-34	0.66	1371	0.07	740	0	Ephemeral wash	Yes	Creosote Bush Scrub
DS-35	1.86	3071	0.54	3071	0	Ephemeral wash	Yes	Creosote Bush Scrub
DS-36	0.73	1967	0.13	1857	0	Ephemeral wash	Yes	Creosote Bush Scrub
DS-37	1.58	3552	0.36	3441	0	Ephemeral wash	Yes	Creosote Bush Scrub
DS-38	2.92	7163	1.02	7163	0	Ephemeral wash	Yes	Creosote Bush Scrub
DS-39	0.69	2559	0.40	2559	0	Ephemeral wash	Yes	Creosote Bush Scrub
DS-40	1.45	1666	0.51	1666	0	Ephemeral wash	Yes	Creosote Bush Scrub

DS-41	1.89	3063	0.52	3063	0	Ephemeral wash	Yes	Creosote Bush Scrub
DS-42	2.88	4222	0.83	3372	0	Ephemeral wash	Yes	Creosote Bush Scrub
DS-43	1.53	2147	0.45	2147	0	Ephemeral wash	Yes	Creosote Bush Scrub
DS-44	0.93	1165	0.22	1165	0	Ephemeral wash	Yes	Creosote Bush Scrub
DS-45	2.78	2248	0.84	2248	0	Ephemeral wash	Yes	Creosote Bush Scrub
DS-46	18.05	28664	4.32	23027	0	Ephemeral wash	Yes	Creosote Bush Scrub
DS-48	2.92	4981	0.93	4925	0	Ephemeral wash	Yes	Creosote Bush Scrub and Disturbed – Creosote Bush Scrub
DS-49	0.15	323	0.05	323	0	Ephemeral wash	Yes	Creosote Bush Scrub
DS-50	0.72	2412	0.11	2412	0	Ephemeral wash	Yes	Creosote Bush Scrub
DS-51	0.56	2749	0.13	2749	0	Ephemeral wash	Yes	California Buckwheat Scrub and Desert Needlegrass Grassland
DS-52	0.75	620	0.10	620	0	Ephemeral wash	Yes	Creosote Bush Scrub
DS-53	0.30	306	0.09	306	0	Ephemeral wash	Yes	Creosote Bush Scrub
DS-54	0.10	300	0.02	300	0	Ephemeral wash	Yes	Creosote Bush Scrub
DS-55	0.18	209	0.02	209	0	Ephemeral wash	Yes	Creosote Bush Scrub

DS-56	0.35	241	0.02	197	0	Ephemeral wash	Yes	Creosote Bush Scrub
DS-57	0.99	1082	0.23	1082	0	Ephemeral wash	Yes	Creosote Bush Scrub
DS-58	0.78	1378	0.31	1378	0	Ephemeral wash	Yes	Creosote Bush Scrub
DS-59	0.34	746	0.13	746	0	Ephemeral wash	Yes	Creosote Bush Scrub
DS-60	1.19	1290	0.30	1290	0	Ephemeral wash	Yes	Creosote Bush Scrub
DS-61	0.10	278	0	0	0	Ephemeral wash	Yes	Creosote Bush Scrub
DS-62	0.52	789	0.17	789	0	Ephemeral wash	Yes	Creosote Bush Scrub
DS-63	0.34	705	0.13	705	0	Ephemeral wash	Yes	Creosote Bush Scrub
DS-64	0.13	264	0.05	264	0	Ephemeral wash	Yes	Creosote Bush Scrub
DS-65	0.001	4	0	0	0	Ephemeral wash	Yes	Creosote Bush Scrub
DS-66	0.12	251	0.01	251	0	Ephemeral wash	Yes	Brittle Bush Scrub
DS-67	0.69	298	0.05	298	0	Ephemeral wash	Yes	Brittle Bush Scrub
DS-68	0.61	844	0.04	844	0	Ephemeral wash	Yes	Brittle Bush Scrub
DS-69	0.16	351	0.01	351	0	Ephemeral wash	Yes	Creosote Bush Scrub
DS-70	1.24	1302	0.22	1302	0	Ephemeral wash	Yes	Creosote Bush Scrub
DS-71	0.12	571	0.01	571	0	Ephemeral	Yes	Creosote Bush Scrub

						wash		
DS-72	0.89	1206	0.14	1206	0	Ephemeral wash	Yes	Creosote Bush Scrub
Totals	**143.33**	**172,928**	**37.00**	**160,656**	**3,068**			

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DISCOVERY SOLAR PV and STORAGE PROJECT

Figure 1
Project Vicinity

Kern County, CA

OAK CREEK RD
90TH ST W
Windhub Substation
TEHACHAPI WILLOW SPRINGS RD
HOLT ST
SILVER QUEEN RD
BACKUS RD
TEHACHAPI WILLOW SPRINGS RD
MOJAVE TROPICO RD

LEGEND

- Existing Windhub High-Voltage Substation
- Major Road
- Railroad

Project Components

- Proposed Gen-Tie Corridor
- Proposed Medium-Voltage/Transmission /Access Easements
- Project Site
- Study Area

Other Applicant and/or Afflilitate Controlled*

- Gen-Tie Corridor
- Step-up HV Substation

Jurisdictional Land Ownership

- Bureau of Land Management Land
- State Land

* Already approved under separate projects.

0 0.5 1 1.5 2
Miles

HERITAGE ENVIRONMENTAL CONSULTANTS, LLC

NAD 83, State Plane, California Zone V, Feet
Data Sources: BLM, CalTrans, ESRI, Kern Co., USDA.
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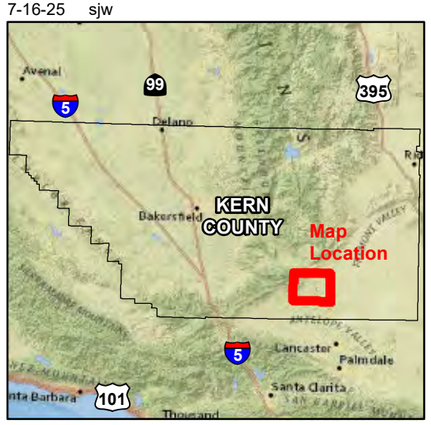
7-16-25 sjw



DISCOVERY SOLAR PV and STORAGE PROJECT

Figure 2
Soils

Kern County, CA

OAK CREEK RD

TEHACHAPI WILLOW SPRINGS RD

90TH ST W

Windhub Substation

BACKUS RD

LEGEND

- Existing Windhub High-Voltage Substation
- Major Road
- Railroad

Project Components

- Proposed Gen-Tie Corridor
- Proposed Medium-Voltage/Transmission /Access Easements
- Project Site
- Study Area

Other Applicant and/or Affiliitate Controlled*

- Gen-Tie Corridor
- Step-up HV Substation

* Already approved under separate projects.

Soils Within Discovery Solar Storage Sites

- 104 - Arizo gravelly loamy sand, 2-9% slopes
- 114 - Cajon loamy sand, 0-5% slopes
- 116 - Cajon gravelly loamy sand, 0-9% slopes
- 137 - Garlock loamy sand, 2-9% slopes
- 167 - Randsburg sandy loam, 2-15% slopes
- 171 - Rosamond clay loam
- 185 - Torriorthents-Rock outcrop complex, very steep
- AaB - Adelanto loamy sand, 2-5% slopes.
- CaC - Cajon loamy sand, 2-9% slopes
- GsC - Greenfield sandy loam, 2-9% slopes.
- HbC - Hanford coarse sandly loam, 2-9% slopes.
- RcC - Ramona coarse sandy loam, 5-9% slopes
- RdE2 - Ramona sandy loam, 9-30% slopes, eroded



0 0.25 0.5 0.75 1
Miles

HERITAGE ENVIRONMENTAL CONSULTANTS, LLC

NAD 83, State Plane, California Zone V, Feet Data Sources: BLM, ESRI, Kern Co., NRCS, USDA. F:...\Discovery\Figure 2 Soils 071225.mxd 7-16-25 sjw

DISCOVERY SOLAR PV and STORAGE PROJECT

Figure 3
Hydrology

Kern County, CA

OAK CREEK RD
TEHACHAPI WILLOW SPRINGS RD
90TH ST W
Windhub Substation
Joshua Middle School 180902062001
Town of Mojave 180902062004
Soledad Mountain 180902062002
Oak Creek 180902061701
Tropico Hill 180902061705
Town of Rosamond 180902062404
Bean Canyon 180902061703
180902061702
BACKUS RD



LEGEND

- Existing Windhub High-Voltage Substation
- Major Road
- Railroad

Project Components

- Proposed Gen-Tie Corridor
- Proposed Medium-Voltage/Transmission /Access Easements
- Project Site
- Study Area

Other Applicant and/or Affiliitate Controlled*

- Gen-Tie Corridor
- Step-up HV Substation

Hydrologic Units (HUC 12)

- Desert Butte-Cache Creek
- Bean Canyon
- Joshua Middle School
- Oak Creek
- Soledad Mountain
- Town of Mojave
- Town of Rosamond
- Tropico Hill

* Already approved under separate projects.

0 0.25 0.5 0.75 1
Miles

HERITAGE ENVIRONMENTAL CONSULTANTS, LLC

NAD 83, State Plane, California Zone V, Feet
Data Sources: BLM, ESRI, Kern Co., NRCS, USDA.
F:...\Discovery\Figure 3 Hydrology 071225.mxd
7-16-25 sjw

DISCOVERY SOLAR PV and STORAGE PROJECT

Figure 4
CDFW Potentially Jurisdictional Waters

Kern County, CA

OAK CREEK RD
TEHACHAPI WILLOW SPRINGS RD
90TH ST W
MOJAVE TROPICO RD
BACKUS RD
Windhub Substation

DS-67 DS-66 DS-68 DS-69 DS-70 DS-71 DS-50 DS-72
DS-17 DS-31 DS-33 DS-34 DS-35 DS-36 DS-37 DS-38 DS-39 DS-40 DS-41 DS-42 DS-43 DS-44 DS-45 DS-46 DS-48 DS-49 DS-51 DS-52 DS-53 DS-54 DS-55 DS-56 DS-57 DS-58 DS-59 DS-60 DS-61 DS-62 DS-63 DS-64 DS-65
DS-16 DS-19 DS-18 DS-20 DS-21 DS-22 DS-24 DS-25 DS-27 DS-29 DS-14 DS-15 DS-13 DS-12 DS-11 DS-10 DS-08 DS-07 DS-09 DS-05 DS-06 DS-04 DS-02 DS-01 DS-03 DS-23 DS-26

PP-74 PP-75 PP-73 PP-72 PP-51 PP-45 PP-79 PP-46 PP-50 PP-47 PP-48 PP-52 PP-49 PP-86 PP-85 PP-83 PP-84 PP-64 PP-61 PP-59 PP-60 PP-62 PP-65 PP-68 PP-67 PP-57 PP-66 PP-69 PP-70 PP-71 PP-54 PP-55 PP-58 PP-43 PP-56 PP-78 PP-77 PP-39 PP-40 PP-38 PP-41 PP-42 PP-44 PP-53 PP-76 PP-36 PP-37 PP-35 PP-34 PP-82 PP-29 PP-30 PP-31 PP-32 PP-25 PP-28 PP-27 PP-26 PP-81 PP-80 PP-24 PP-21 PP-19 PP-18 PP-11 PP-22 PP-23 PP-17 PP-13 PP-16 PP-15 PP-12 PP-10 PP-14 PP-09 PP-07 PP-04 PP-05 PP-08 PP-06 PP-01 PP-02 PP-33

LEGEND

- Existing Windhub High-Voltage Substation
- Major Road
- Railroad

Project Components

- Proposed Gen-Tie Corridor
- Proposed Medium-Voltage/Transmission /Access Easements
- Project Site
- Study Area

Other Applicant and/or Affiliitate Controlled*

- Gen-Tie Corridor
- Step-up HV Substation

Potentially Jurisdictional Waters

- Photo Point
- Flow Direction
- CDFW

* Already approved under separate projects.

0 0.25 0.5 0.75 1
Miles

HERITAGE ENVIRONMENTAL CONSULTANTS, LLC

NAD 83, State Plane, California Zone V, Feet
Data Sources: BLM, ESRI, Kern Co., USDA.
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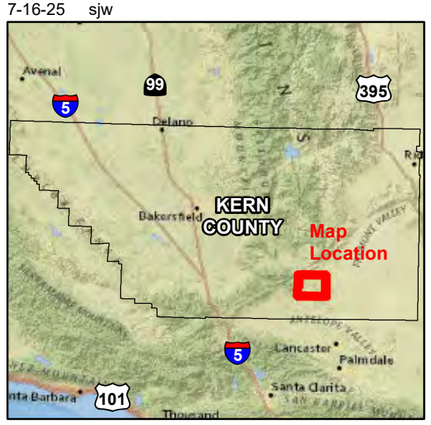

DISCOVERY SOLAR PV and STORAGE PROJECT

Figure 5
RWQCB Potentially Jurisdictional Waters

Kern County, CA

OAK CREEK RD
TEHACHAPI WILLOW SPRINGS RD
90TH ST W
Windhub Substation
BACKUS RD
MOJAVE TROPICO RD

LEGEND

- Existing Windhub High-Voltage Substation
- Major Road
- Railroad

Project Components

- Proposed Gen-Tie Corridor
- Proposed Medium-Voltage/Transmission /Access Easements
- Project Site
- Study Area

Other Applicant and/or Affiliitate Controlled*

- Gen-Tie Corridor
- Step-up HV Substation

Potentially Jurisdictional Waters

- Photo Point
- Flow Direction
- No OHWM
- RWQCB

* Already approved under separate projects.

0 0.25 0.5 0.75 1
Miles

HERITAGE ENVIRONMENTAL CONSULTANTS, LLC

NAD 83, State Plane, California Zone V, Feet
Data Sources: BLM, ESRI, Kern Co., USDA.
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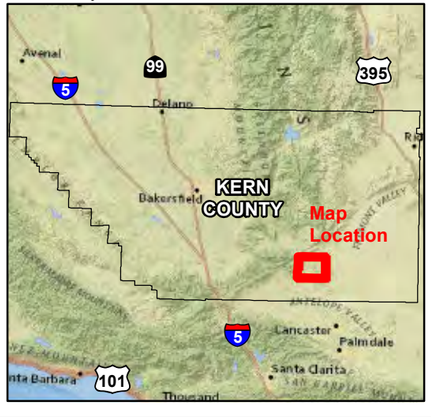

DISCOVERY SOLAR PV and STORAGE PROJECT

Figure 6
CDFW Drainages & NWI Wetlands

Kern County, CA

OAK CREEK RD
TEHACHAPI WILLOW SPRINGS RD
90TH ST W
BACKUS RD
Windhub Substation
DS-01 DS-02 DS-03 DS-04 DS-05 DS-06 DS-07 DS-08 DS-09 DS-10 DS-11 DS-12 DS-13 DS-14 DS-15 DS-16 DS-17 DS-18 DS-19 DS-20 DS-21 DS-22 DS-23 DS-24 DS-25 DS-26 DS-27 DS-29 DS-31 DS-32 DS-33 DS-34 DS-35 DS-36 DS-37 DS-38 DS-39 DS-40 DS-41 DS-42 DS-43 DS-44 DS-45 DS-46 DS-48 DS-49 DS-50 DS-51 DS-52 DS-53 DS-54 DS-55 DS-56 DS-57 DS-58 DS-59 DS-60 DS-61 DS-62 DS-63 DS-64 DS-65 DS-66 DS-67 DS-68 DS-69 DS-70 DS-71 DS-72
PP-01 PP-02 PP-03 PP-04 PP-05 PP-06 PP-07 PP-08 PP-09 PP-10 PP-11 PP-12 PP-13 PP-14 PP-15 PP-16 PP-17 PP-18 PP-19 PP-21 PP-22 PP-23 PP-24 PP-25 PP-26 PP-27 PP-28 PP-29 PP-30 PP-31 PP-32 PP-33 PP-34 PP-35 PP-36 PP-37 PP-38 PP-39 PP-40 PP-41 PP-42 PP-43 PP-44 PP-45 PP-46 PP-47 PP-48 PP-49 PP-50 PP-51 PP-52 PP-53 PP-54 PP-55 PP-56 PP-57 PP-58 PP-59 PP-60 PP-61 PP-62 PP-64 PP-65 PP-66 PP-67 PP-68 PP-69 PP-70 PP-71 PP-72 PP-73 PP-74 PP-75 PP-76 PP-77 PP-78 PP-79 PP-80 PP-81 PP-82 PP-83 PP-84 PP-85 PP-86



LEGEND

- Existing Windhub High-Voltage Substation
- Major Road
- Railroad

Project Components

- Proposed Gen-Tie Corridor
- Proposed Medium-Voltage/Transmission /Access Easements
- Project Site
- Study Area

Other Applicant and/or Affiliitate Controlled*

- Gen-Tie Corridor
- Step-up HV Substation

Potentially Jurisdictional Waters

- Photo Point
- CDFW

USFWS NWI Wetlands

- Freshwater Forested/Shrub Wetland
- Freshwater Pond
- Lake
- Riverine

* Already approved under separate projects.

0 0.25 0.5 0.75 1
Miles

HERITAGE ENVIRONMENTAL CONSULTANTS, LLC

NAD 83, State Plane, California Zone V, Feet
Data Sources: BLM, ESRI, Kern Co., USDA.
F:...\Discovery\Figure 6 CDFW NWI 071225.mxd
7-16-25 sjw

Appendix A – Photographic Log

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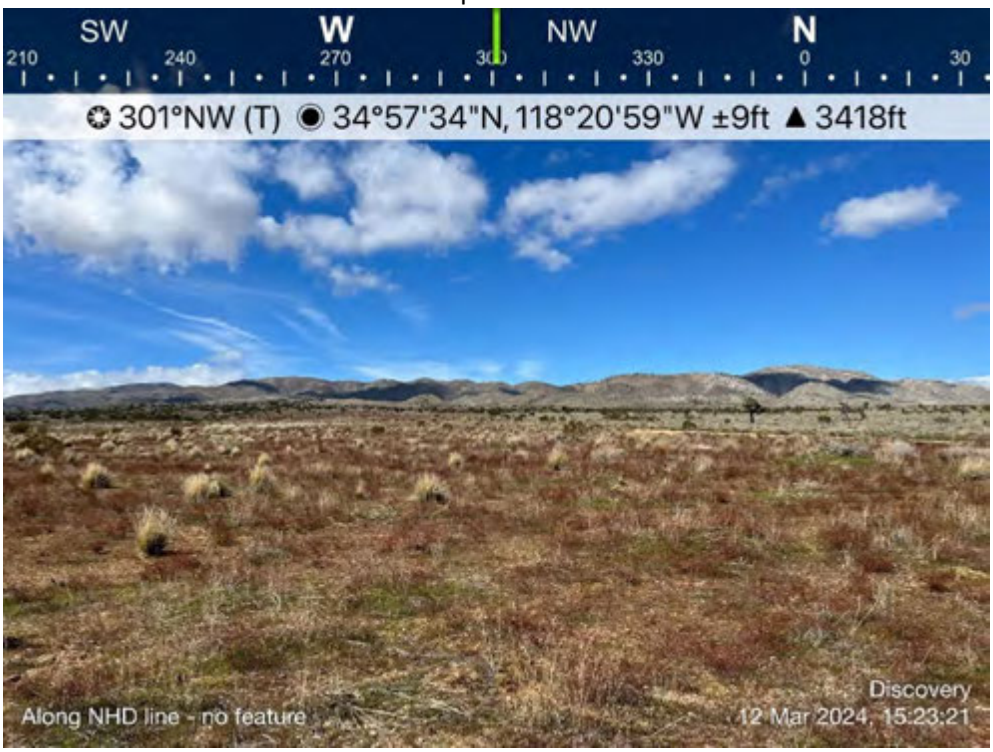
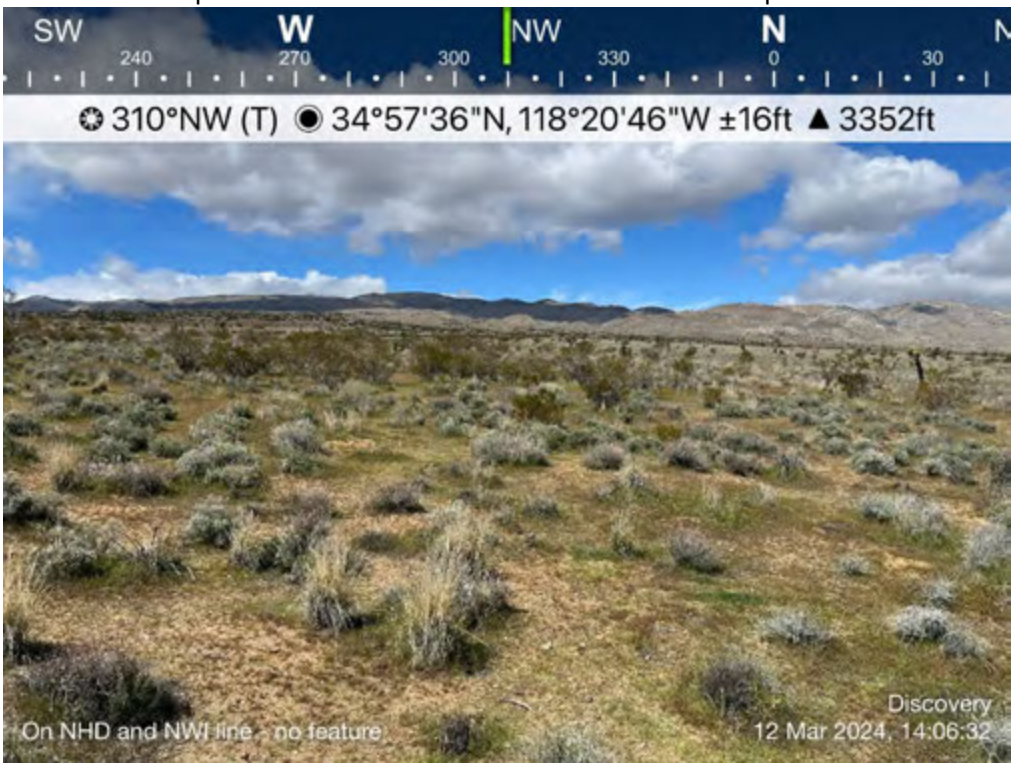
PP1 – Facing WNW. Shows an area along an NHD line in the southwestern portion of the study area that has no indicators of flow or potentially jurisdictional features and looks identical to the surrounding uplands.



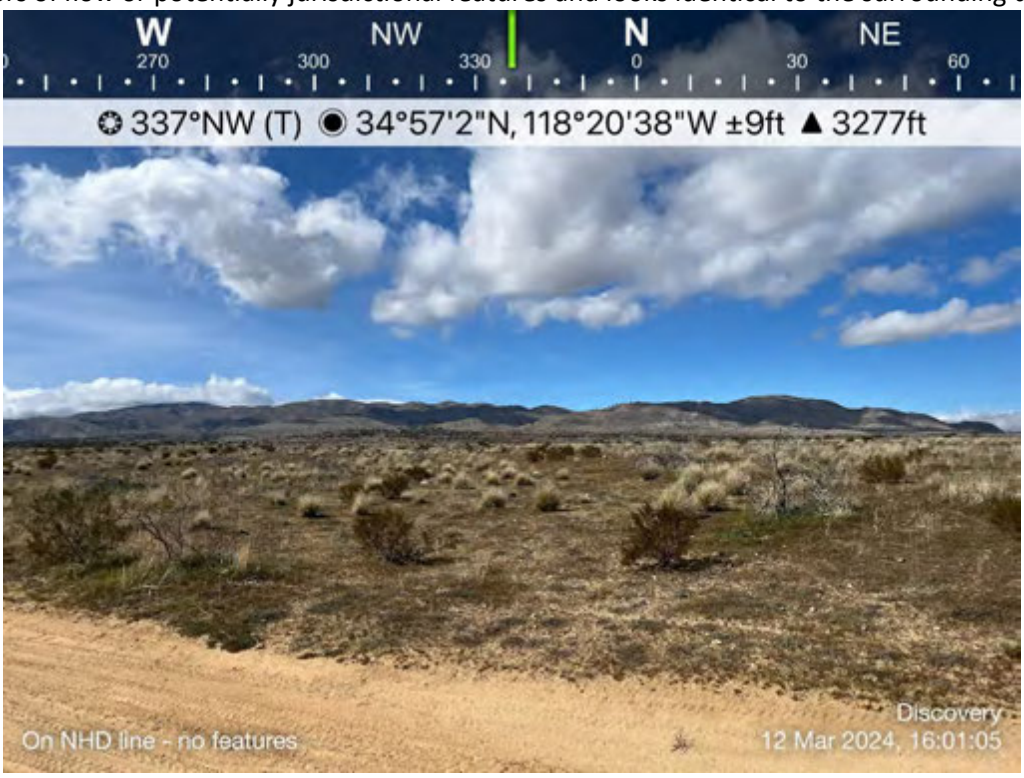
PP2 – Facing NW. Shows an area along an NHD and NWI line in the southwestern portion of the study area that has no indicators of flow or potentially jurisdictional features and looks identical to the surrounding uplands. Feature DS-05 starts downstream of this point.



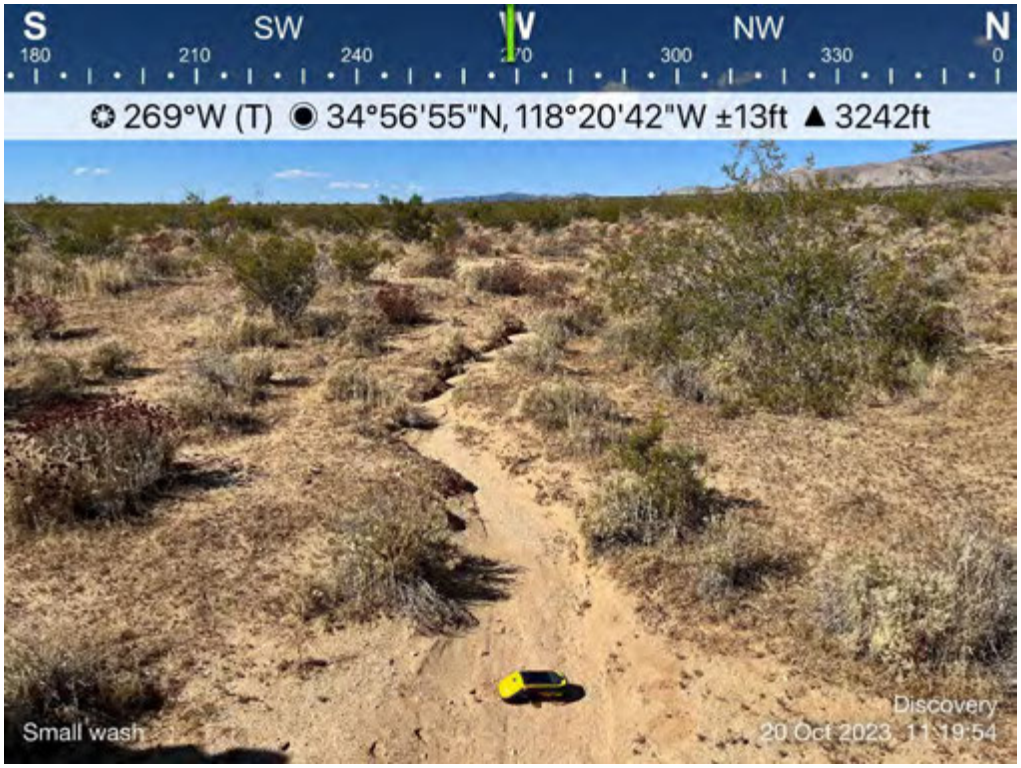
PP3 – Facing WNW. Shows an area along an NHD line in the southwestern portion of the study area that has no indicators of flow or potentially jurisdictional features and looks identical to the surrounding uplands. Feature DS-01 starts downstream of this point.



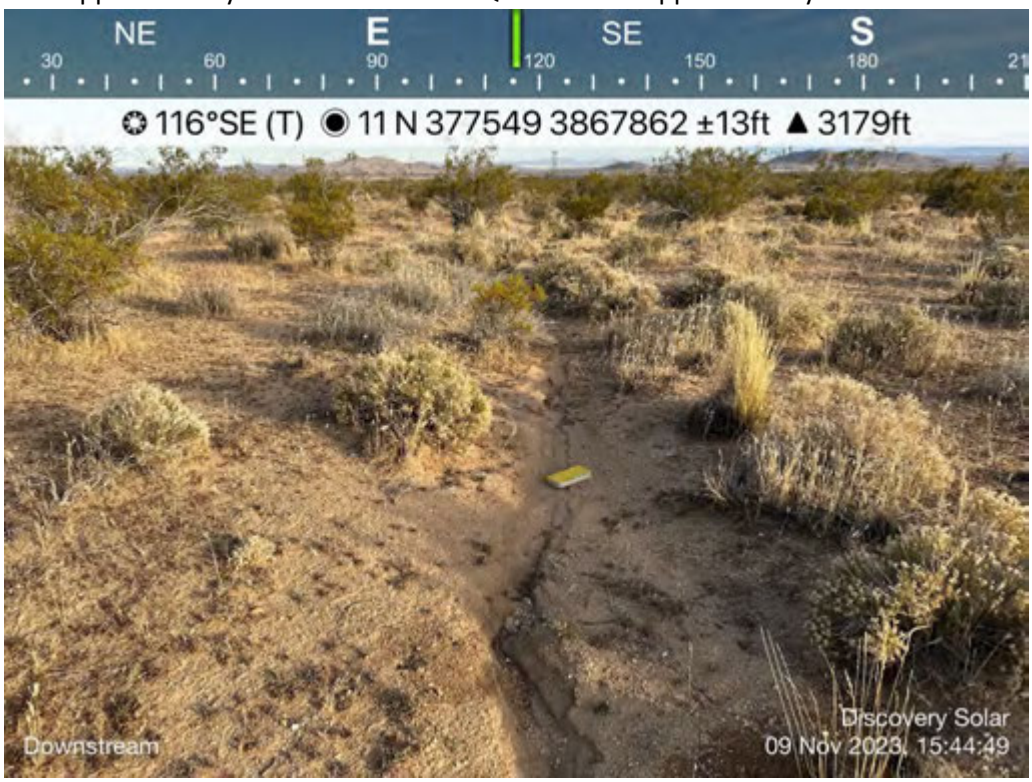
PP4 – Facing NW. Shows an area along an NHD line in the southwestern portion of the study area that has no indicators of flow or potentially jurisdictional features and looks identical to the surrounding uplands.



PP5 – Facing downstream (W). Feature DS-01 in the southwest portion of the study area. CDFW extent is approximately 5 feet wide and RWQCB extent is approximately 2 feet wide.



PP6 – Facing downstream (ESE). Downstream of the previous photo that shows DS-01. CDFW extent is approximately 5 feet wide and RWQCB extent is approximately 2 feet wide.



PP7 – Facing NW. Shows an area along an NHD line in the southwestern portion of the study area that has no indicators of flow or potentially jurisdictional features and looks identical to the surrounding uplands along a two-track road.



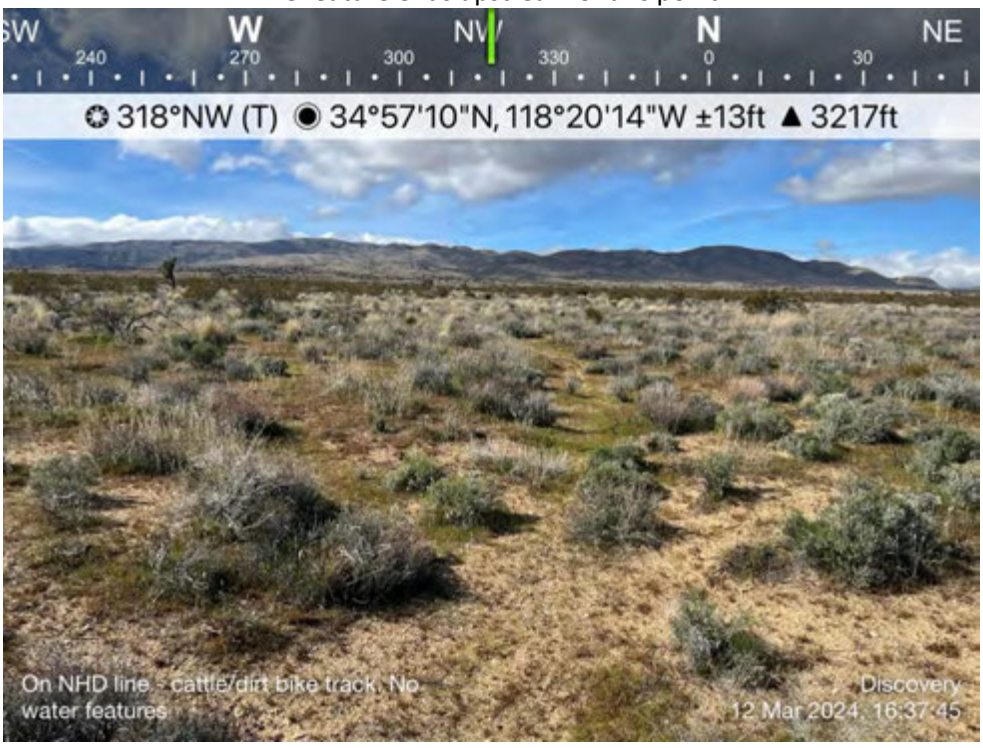
PP8 – Facing downstream (W). Feature DS-02 located in the southwestern portion of the study area.



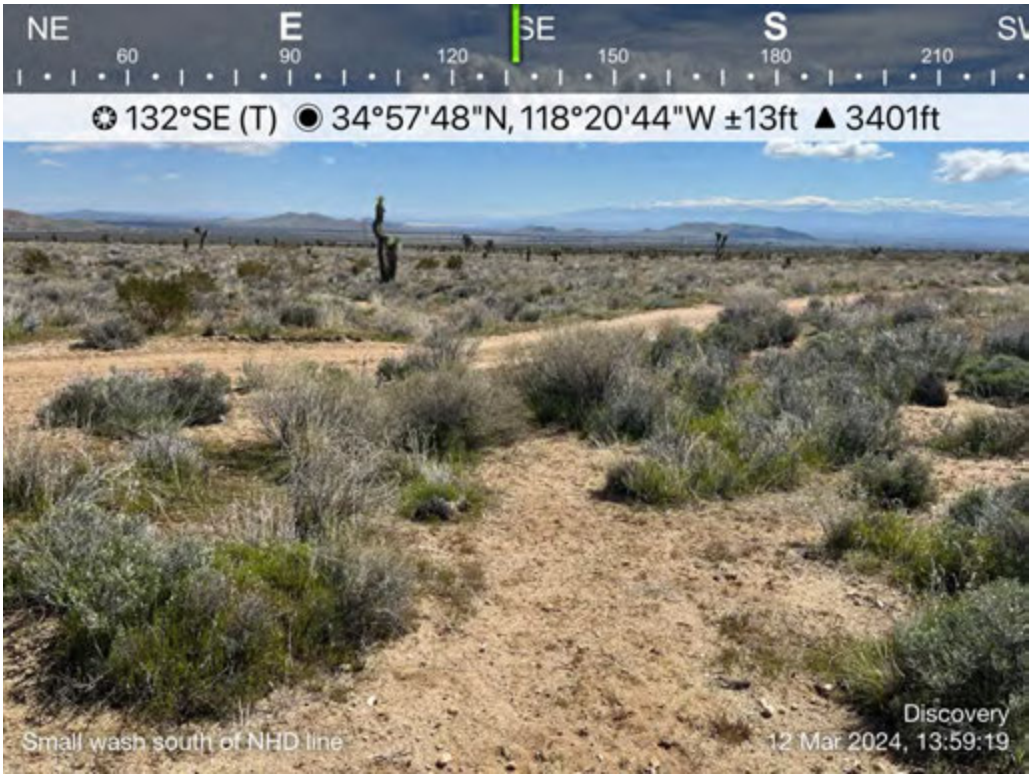
PP09 – Facing downstream (ESE). Feature DS-04 located in the western portion of the study area. This feature begins here and is small and not well defined.



PP10 – Facing NW. Shows an area along an NHD line downstream of the previous photo of DS-04 that has no indicators of flow or potentially jurisdictional features and looks identical to the surrounding uplands. The feature ends upstream of this point.



PP11 – Facing WNW. Shows DS-08 in the western portion of the study area, which is a small and not well-defined feature.



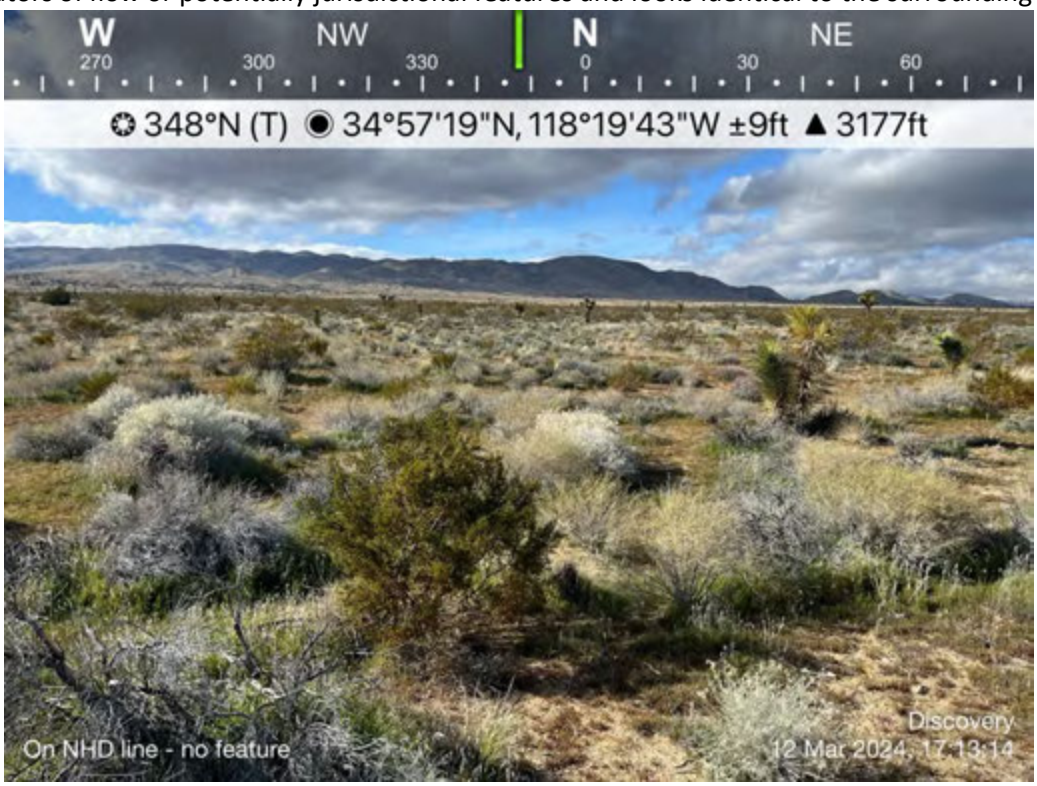
PP12 – Facing downstream (ESE). Feature DS-06 located in the southwestern portion of the study area. CDFW extent is approximately 60 feet wide and RWQCB extent is approximately 3 feet wide.



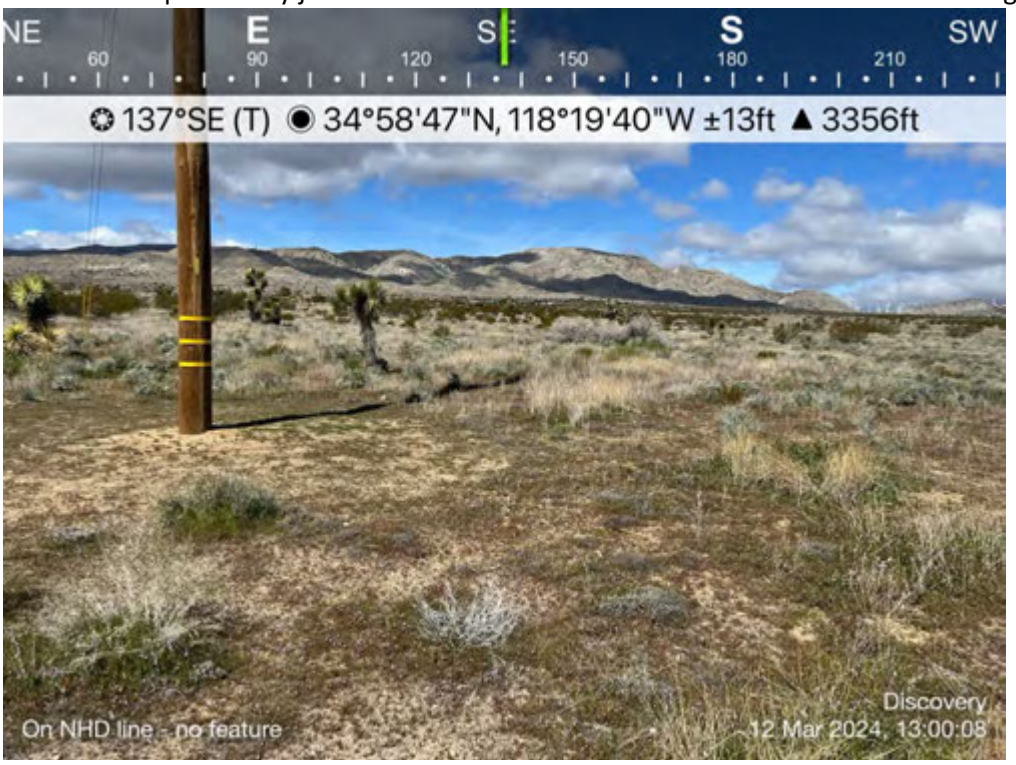
PP13 – Facing ESE. Shows an area along an NHD line in the southwestern portion of the study area that has no indicators of flow or potentially jurisdictional features and looks identical to the surrounding uplands.



PP14 – Facing NNW. Shows an area along an NHD line in the southwestern portion of the study area that has no indicators of flow or potentially jurisdictional features and looks identical to the surrounding uplands.



PP15 – Facing NNW. Shows an area along an NHD line in the southwestern portion of the study area that has no indicators of flow or potentially jurisdictional features and looks identical to the surrounding uplands.



PP16 – Facing WNW. Shows an area along an NHD line in the southwestern portion of the study area that has no indicators of flow or potentially jurisdictional features and looks identical to the surrounding uplands.



PP17 – Facing downstream (SSE). Feature DS-09 located in the southwestern portion of the study area. CDFW extent is approximately 8 feet wide and RWQCB extent is approximately 4 feet wide.



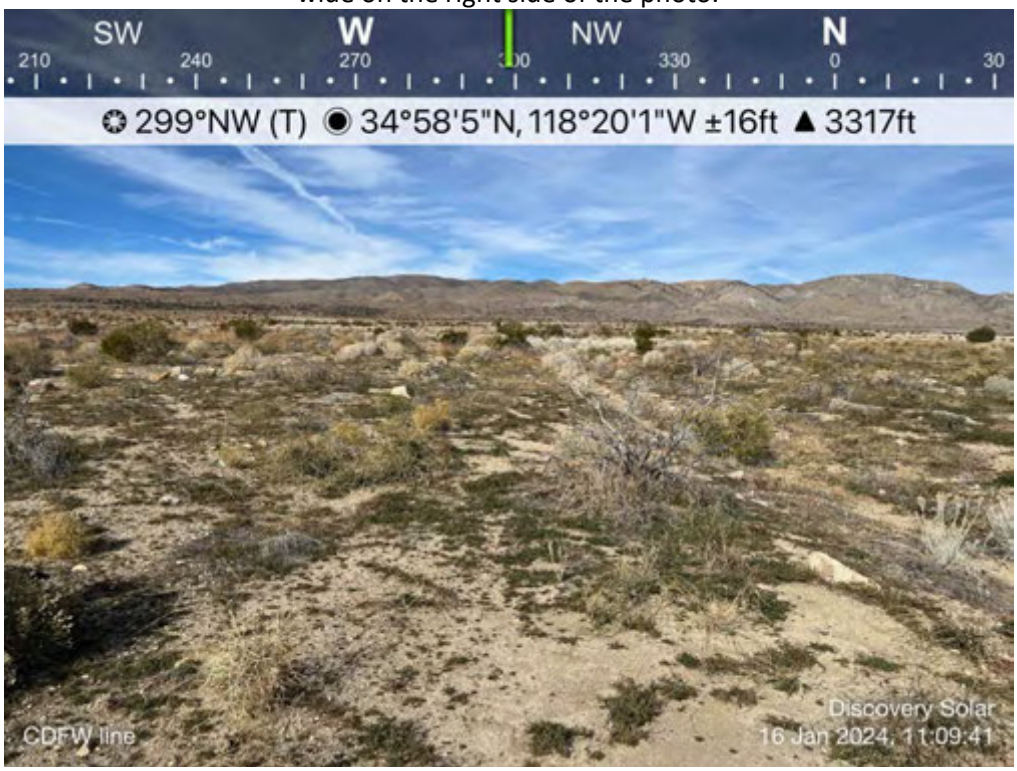
PP18 – Facing ESE. Shows an area along an NHD line in the southwestern portion of the study area that has no indicators of flow or potentially jurisdictional features and looks identical to the surrounding uplands.



PP19 – Facing downstream (S). Feature DS-11 located in the southwestern portion of the study area. CDFW extent is approximately 10 feet wide and RWQCB extent is approximately 3 feet wide.



PP21 – Facing upstream (WNW). Outer CDFW boundary along feature DS-12 located in the western portion of the study area. CDFW extent is approximately 25 feet wide and RWQCB extent is approximately 8 feet wide on the right side of the photo.



PP22 – Facing downstream (SE). Shows feature DS-53 in the southwestern portion of the study area. CDFW extent is approximately 5 feet wide and RWQCB extent is approximately 2 feet wide



PP23 – Facing SE. Shows an area in the southwestern portion of the study area along an NHD line that has no indicators of flow or potentially jurisdictional features and looks identical to the surrounding uplands.



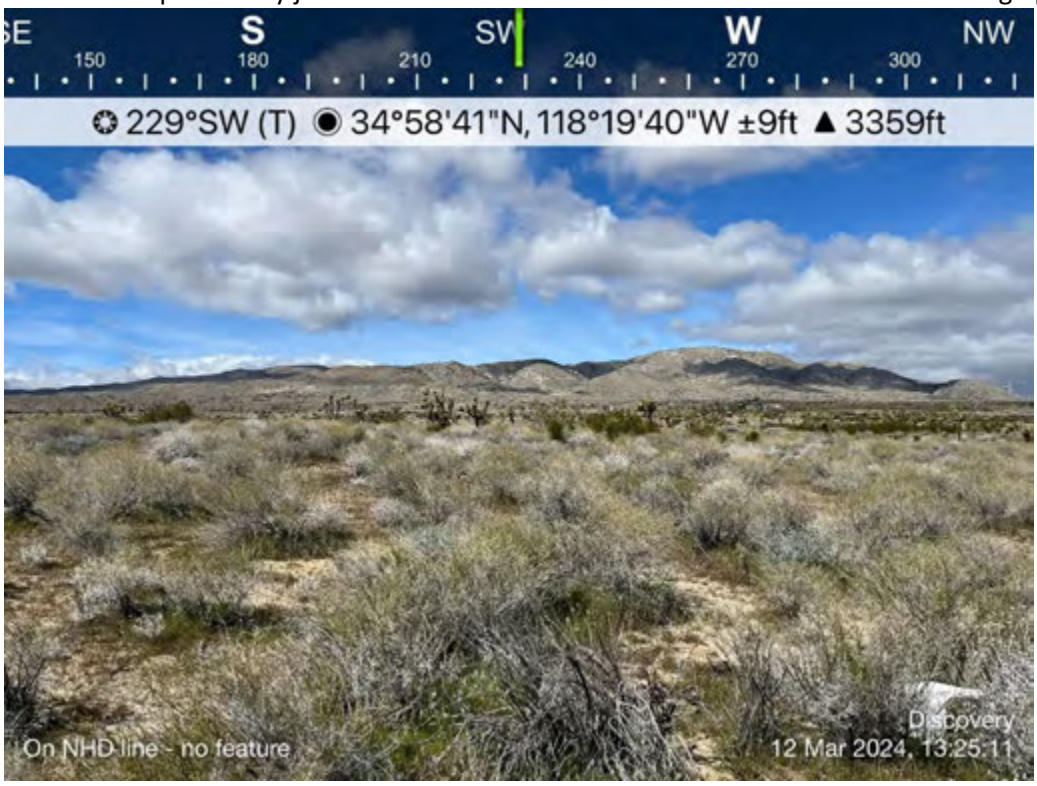
PP24 – Facing SSW. Shows an area along an NHD line in the southwestern portion of the study area that has no indicators of flow or potentially jurisdictional features and looks identical to the surrounding uplands.



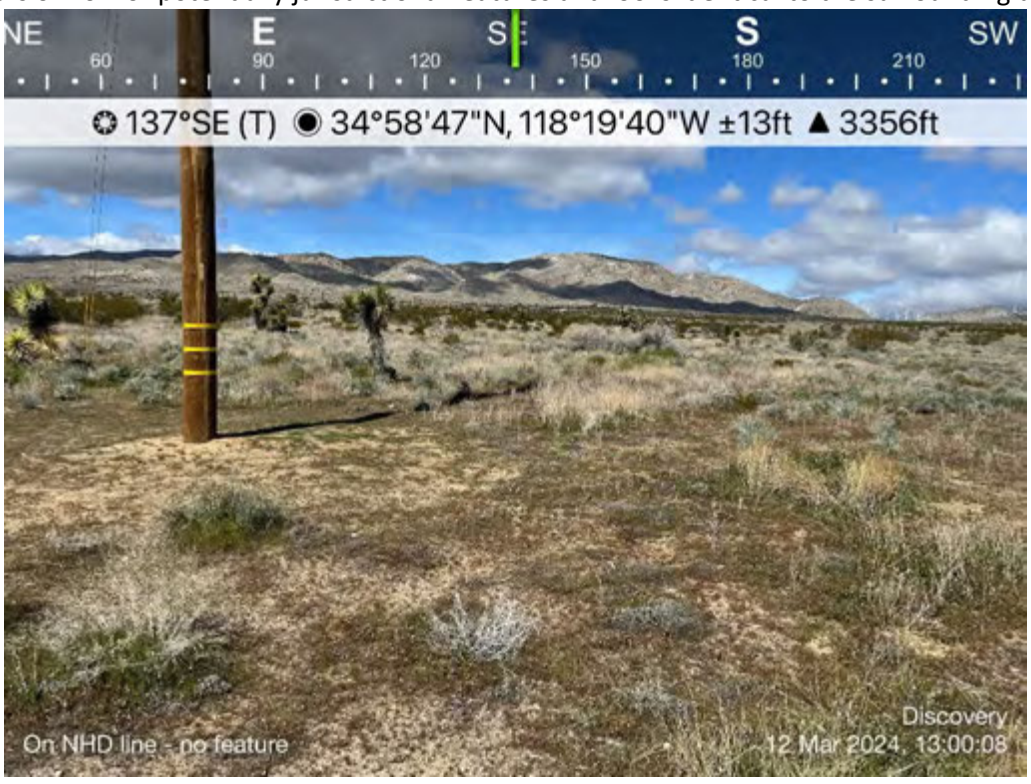
PP25 – Facing upstream (NNW). Feature DS-14 along the western boundary of the study area ends in this area.



PP26 – Facing SW. Shows an area along an NHD line in the western portion of the study area that has no indicators of flow or potentially jurisdictional features and looks identical to the surrounding uplands.



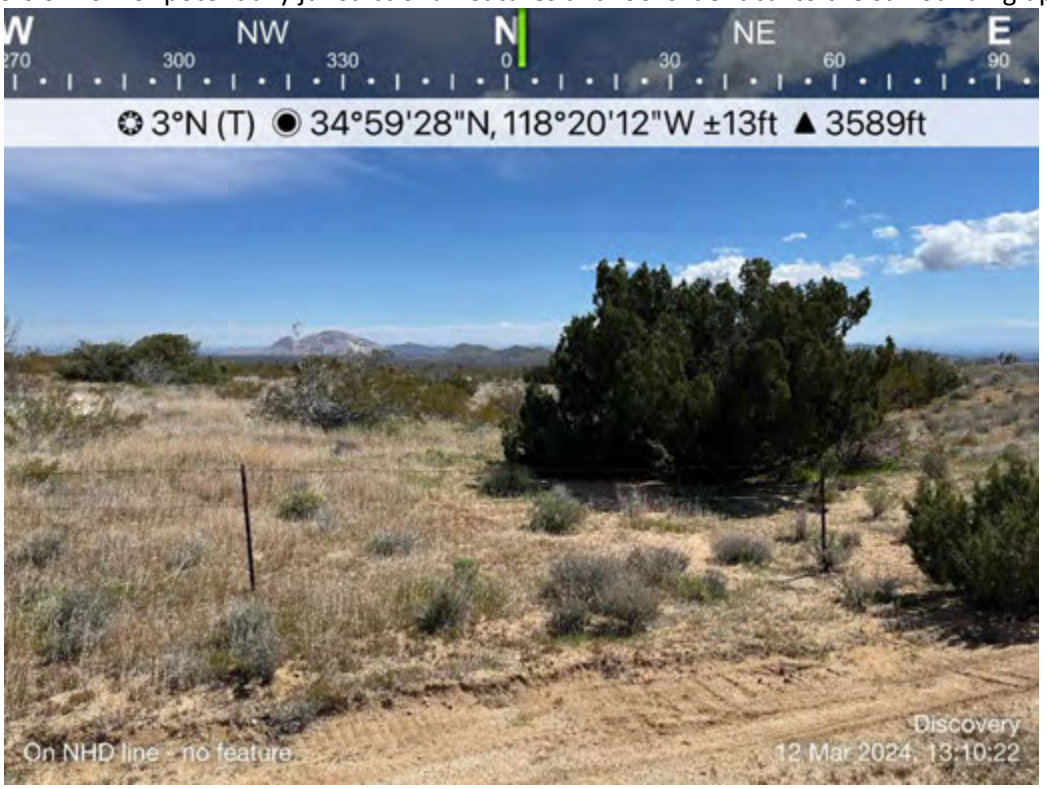
PP27 – Facing SE. Shows an area along an NHD line in the western portion of the study area that has no indicators of flow or potentially jurisdictional features and looks identical to the surrounding uplands.



PP28 – Facing SE. Shows an area along an NHD line in the western portion of the study area that has no indicators of flow or potentially jurisdictional features and looks identical to the surrounding uplands.



PP29 – Facing N. Shows an area along an NHD line in the western portion of the study area that has no indicators of flow or potentially jurisdictional features and looks identical to the surrounding uplands.



PP30 – Facing SSW. Shows an area along an NHD line in the western portion of the study area that has no indicators of flow or potentially jurisdictional features and looks identical to the surrounding uplands.



PP31 – Facing SSW. Shows an area along an NHD line in the western portion of the study area that has no indicators of flow or potentially jurisdictional features and looks identical to the surrounding uplands.



PP32 – Facing WNW. Shows an area along an NHD line in the western portion of the study area that has no indicators of flow or potentially jurisdictional features and looks identical to the surrounding uplands.



PP33 – Facing downstream (SE). Feature DS-17 located on the western side of the study area. This is the largest feature in the study area. CDFW extent is approximately 100 feet wide and RWQCB extent is approximately 50 feet wide.



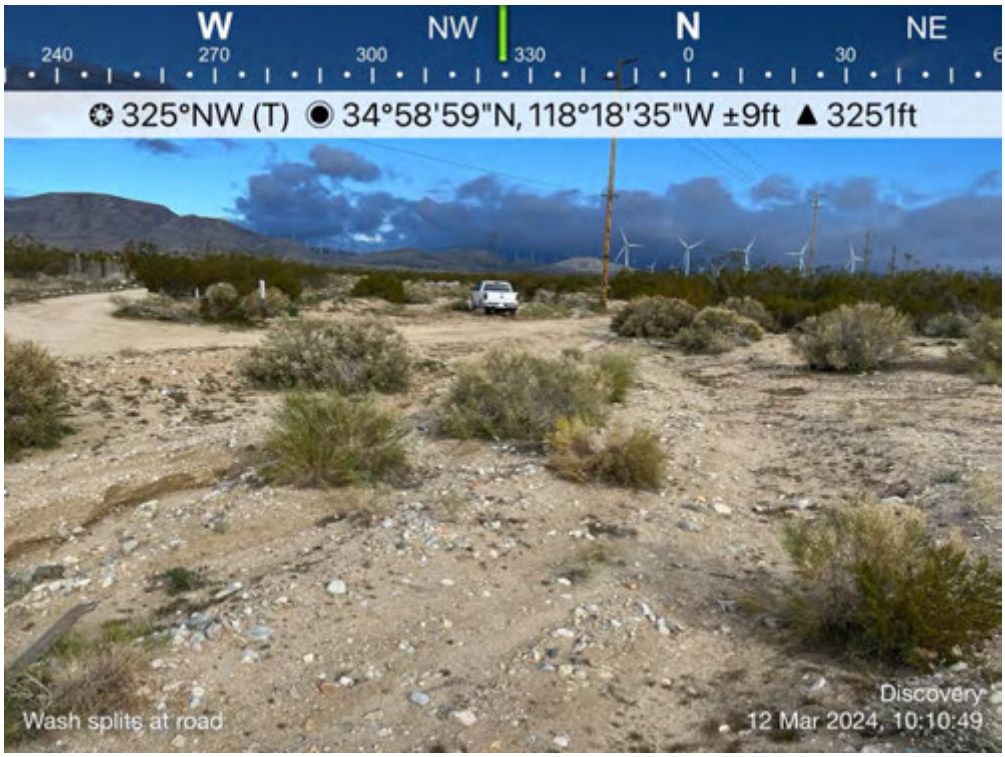
PP34 – Facing upstream (WNW). Channelized wing ditch (feature DS-18) that flows off of Tehachapi-Willow Springs Road. CDFW extent is approximately 15 feet wide and RWQCB extent is approximately 4 feet wide.



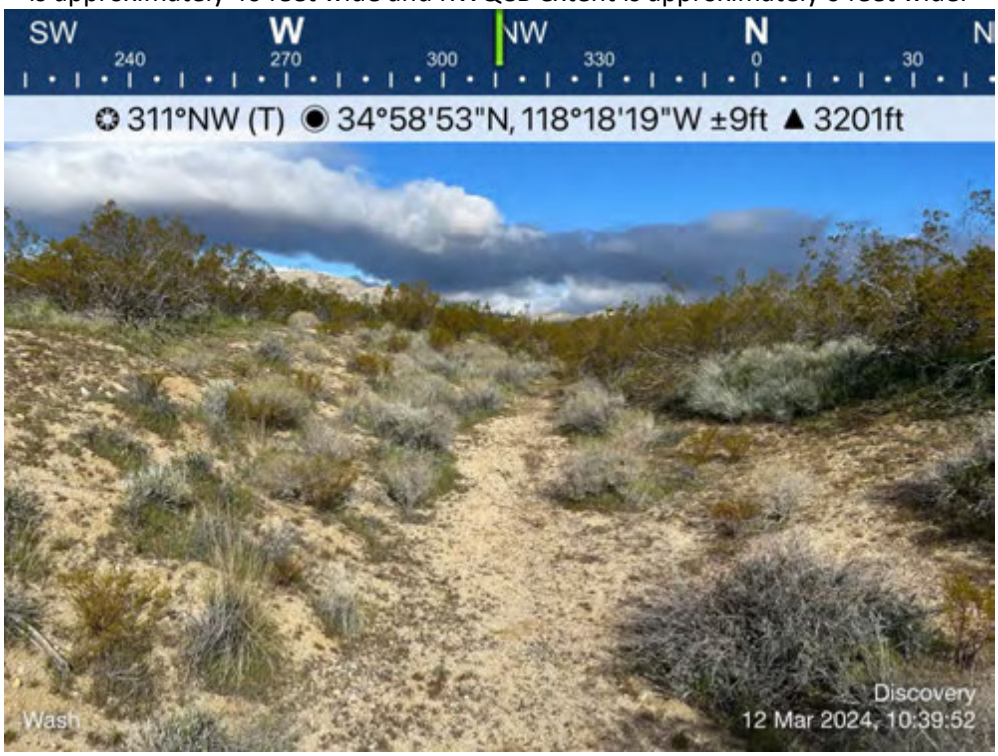
PP35 – Facing downstream (SE). Feature DS-20 located in the central portion of the study area. This feature spreads out into a flat area here then recombines further downstream.



PP36 – Facing upstream (NW). Feature DS-21 located in the central portion of the study area. This feature spreads out and is modified as it hits the road shown in the image. The feature splits into two washes downstream of the road.



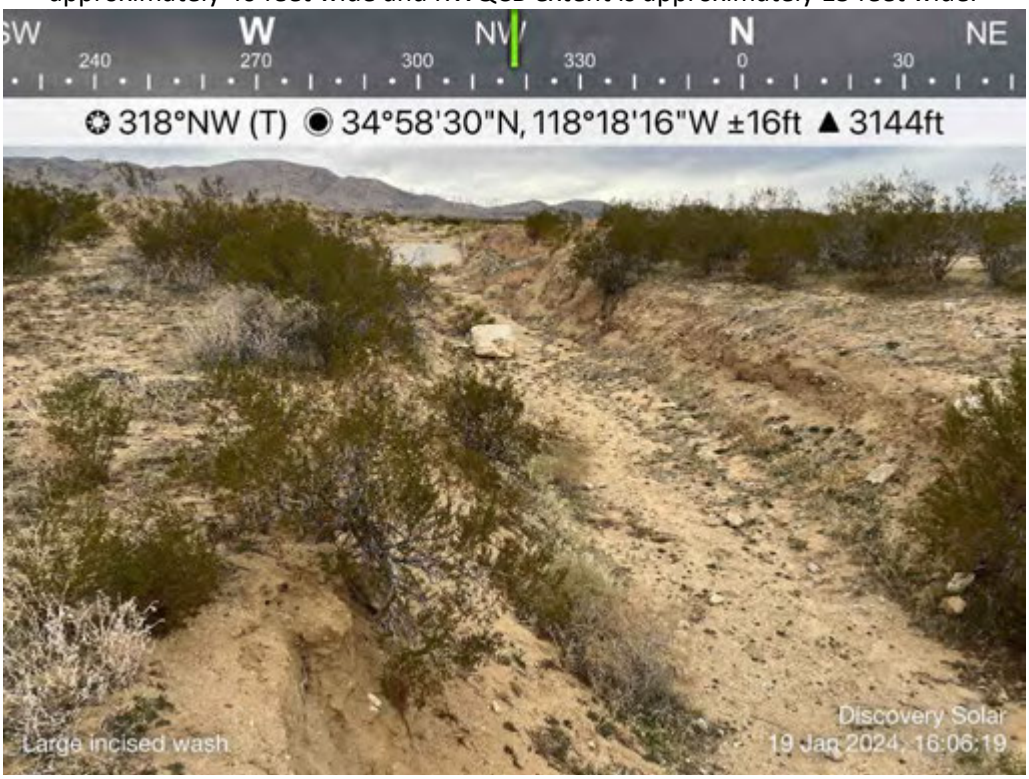
PP37 – Facing upstream (NW). Feature DS-22 located in the central portion of the study area. CDFW extent is approximately 40 feet wide and RWQCB extent is approximately 6 feet wide.



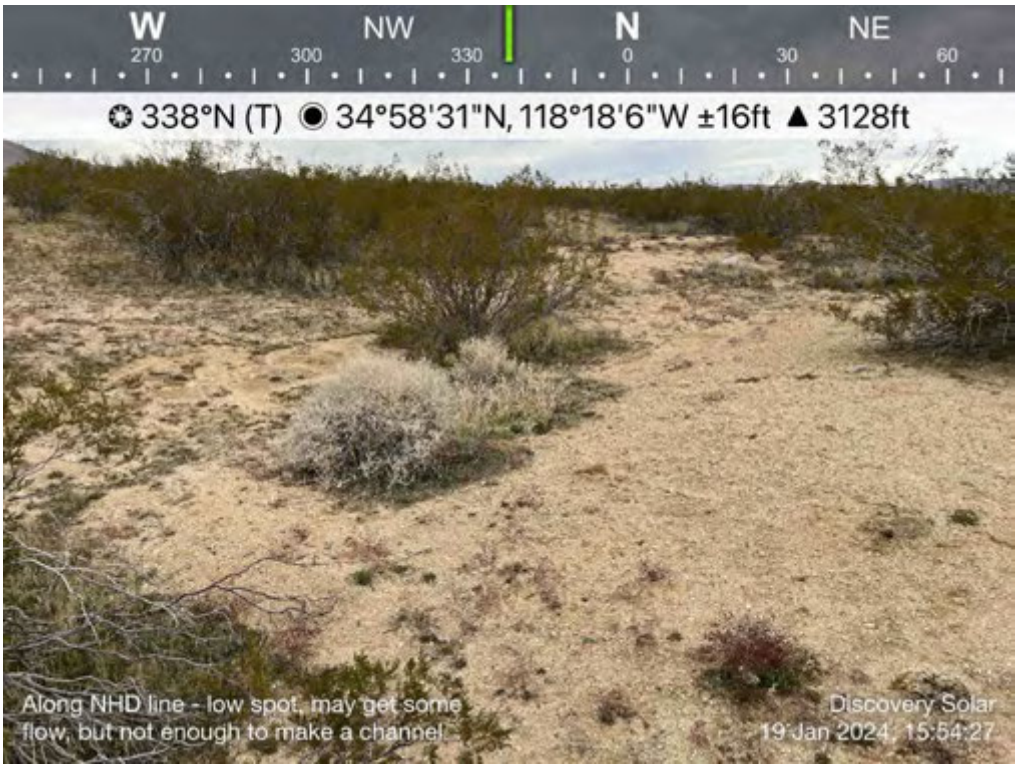
PP38 – Facing upstream (NNW). Feature DS-24 located in the central portion of the study area. CDFW extent is approximately 30 feet wide and RWQCB extent is approximately 15 feet wide.



PP39 – Facing upstream (NW). Feature DS-27 located in the central portion of the study area just downstream of the LA Aqueduct (spillway can be seen in the background of the photo. CDFW extent is approximately 40 feet wide and RWQCB extent is approximately 15 feet wide.



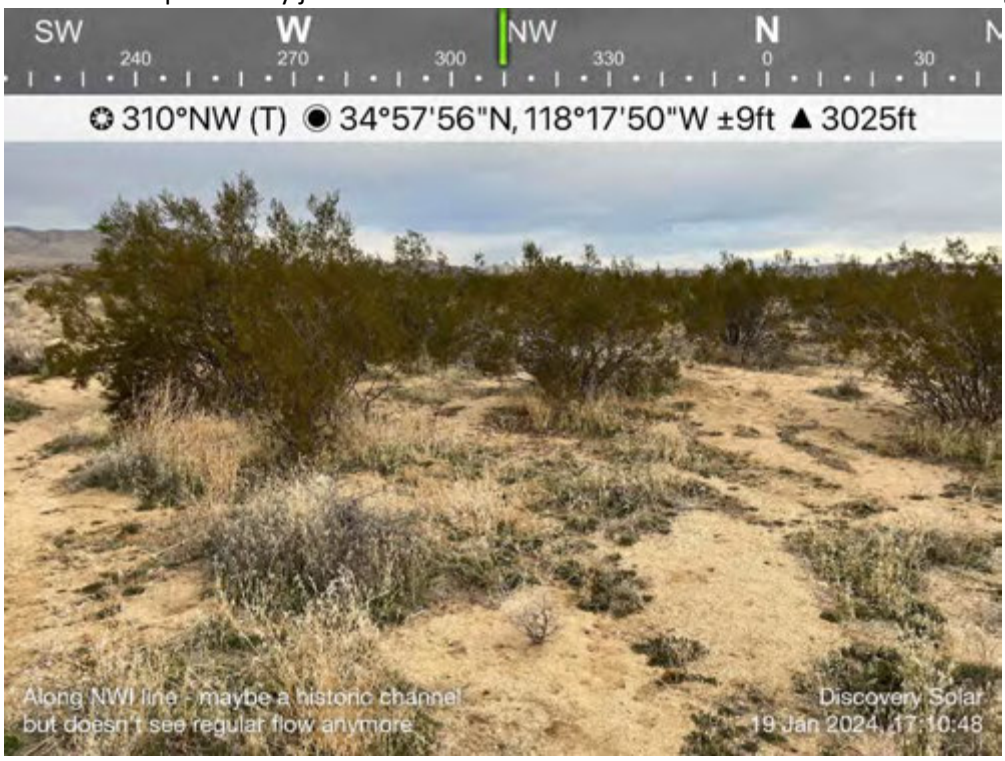
PP40 – Facing NNW. Along an NHD line in the central portion of the study area. Slight low spot, but has no channel or indicators of flow or potentially jurisdictional features and looks identical to the surrounding uplands.



PP41 – Facing SW. Shows an area along an NHD line in the south-central portion of the study area that has no indicators of flow or potentially jurisdictional features and looks identical to the surrounding uplands.



PP42 – Facing NW. Shows an area along an NHD line in the south-central portion of the study area that has no indicators of flow or potentially jurisdictional features and looks identical to the surrounding uplands.



PP43 – Facing SSW. Shows an area along an NHD line in the south-central portion of the study area downstream of where feature DS-29 ends. There are no indicators of flow in this area or potentially jurisdictional features and looks identical to the surrounding uplands.



PP44 – Facing downstream (ENE). Feature DS-27 located along the southern border of the study area. This feature is very incised, with a CDFW extent that is approximately 20 feet wide and RWQCB extent that is approximately 6 feet wide.



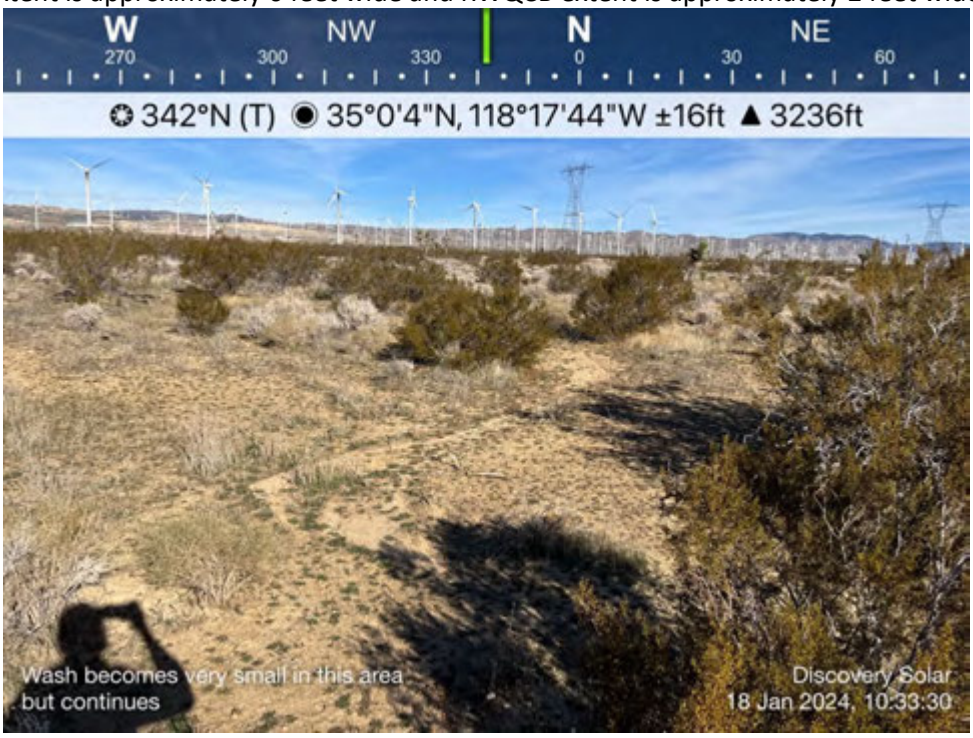
PP45 – Facing downstream (SSE). Feature DS-34 located in the northern portion of the study area.



PP46 – Facing upstream (NNW). Feature DS-39 located in the northern portion of the study area. The feature starts here at the dirt road.



PP47 – Facing upstream (NNW). Feature DS-38 located in the northern portion of the study area. CDFW extent is approximately 6 feet wide and RWQCB extent is approximately 2 feet wide.



PP48 – Facing upstream (SE). Feature DS-38 in the northern portion of the study area where the wash meets a road. CDFW extent is approximately 10 feet wide and RWQCB extent is approximately 4 feet wide.



PP49 – Facing NW. Shows an area along an NHD line in the northern portion of the study area near Feature DS-37. There are no indicators of flow in this area or potentially jurisdictional features and looks identical to the surrounding uplands.



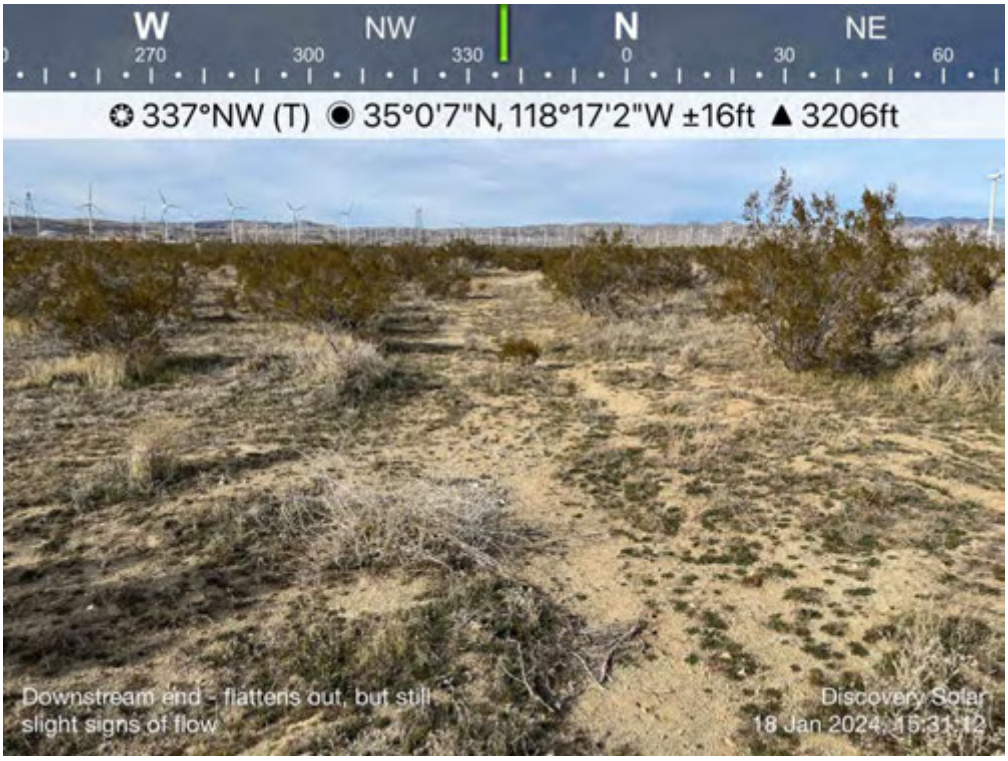
PP50 – Facing WNW. Shows an area along an NHD line that has no indicators of flow or potentially jurisdictional features and looks identical to the surrounding uplands.



PP51 – Facing upstream (NNW). Feature DS-41 located in the northern portion of the study area. The CDFW extent is approximately 15 feet wide and the RWQCB extent is approximately 5 feet wide.



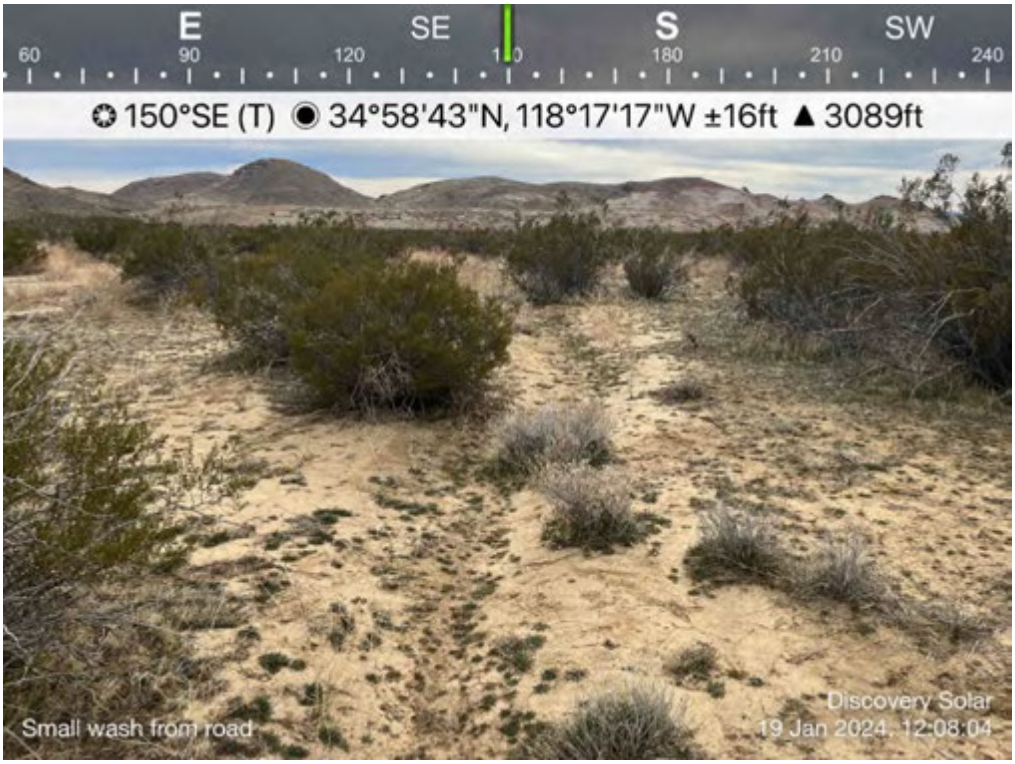
PP52 – Facing upstream (NWN). Further downstream on feature DS-41 as it starts to lose bed and bank and spread out.



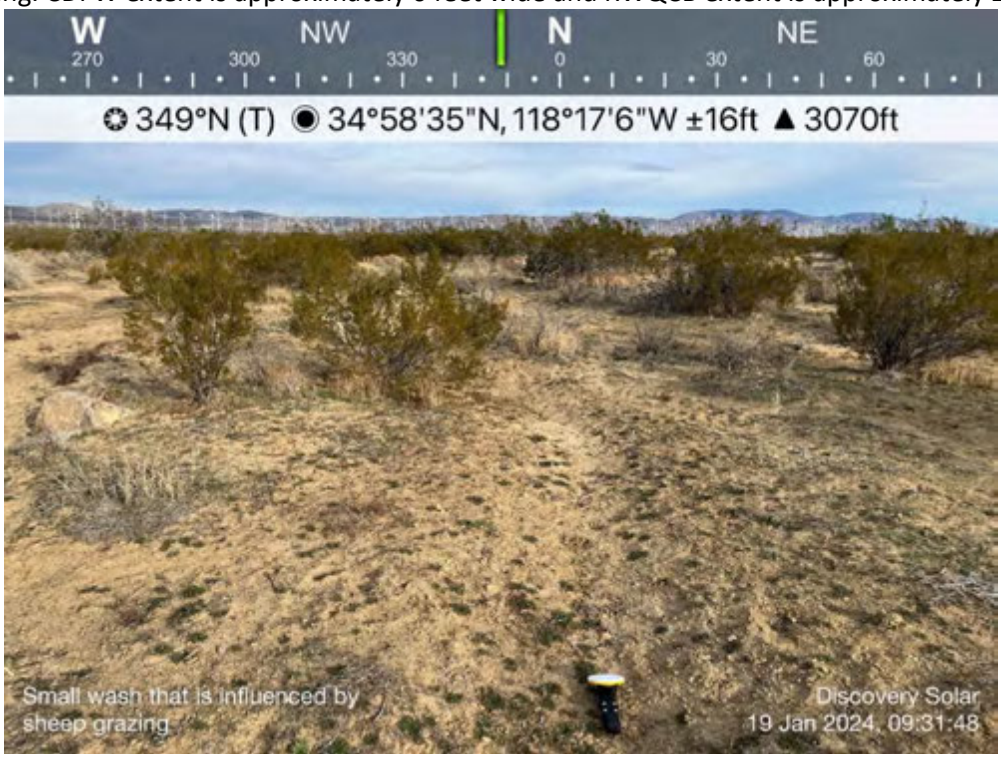
PP53 – Facing downstream (SE). Feature DS-46 located in the central portion of the study area. CDFW extent is approximately 40 feet wide and RWQCB extent is approximately 15 feet wide.



PP54 – Facing downstream (SSE). Further downstream on feature DS-46. Shows a small feature that runs off of a dirt roadway and merges with the rest of DS-46.



PP55 – Facing upstream (NNW). Feature DS-46 in the central portion of the study area that is influenced by sheep grazing. CDFW extent is approximately 6 feet wide and RWQCB extent is approximately 2 feet wide.



PP56 – Facing downstream (SSW). Further downstream on feature DS-46 on the south boundary of the study area. This portion of the wash is very incised.



PP57 – Facing upstream (NNW). Another finger of feature DS-46 in the central portion of the study area. CDFW extent is approximately 20 feet wide and RWQCB extent is approximately 5 feet wide.



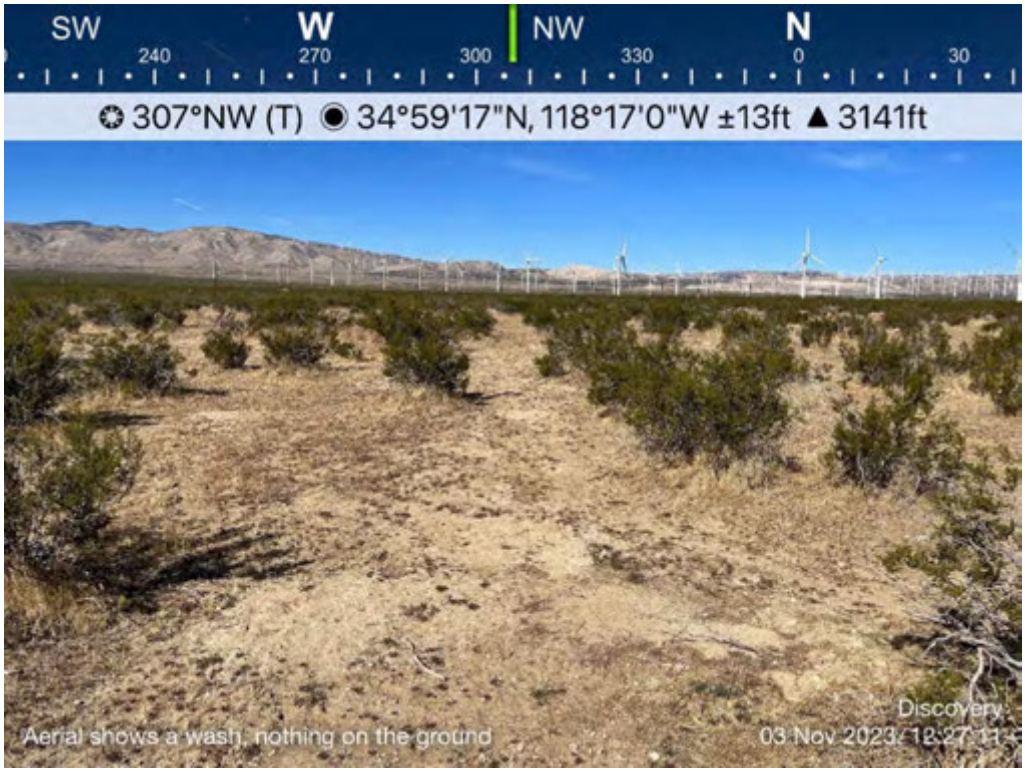
PP58 – Facing upstream (NW). Further downstream on the finger of feature DS-46 shown in the previous photo. RWQCB extent ends at this point, but CDFW continues to southern boundary.



PP59 – Facing NNW. Shows an area along an NHD line downstream of DS-44 and DS-45. DS-44 and DS-45 end at the LA Aqueduct and there are no indicators of flow downstream and this area looks the same as surrounding uplands.



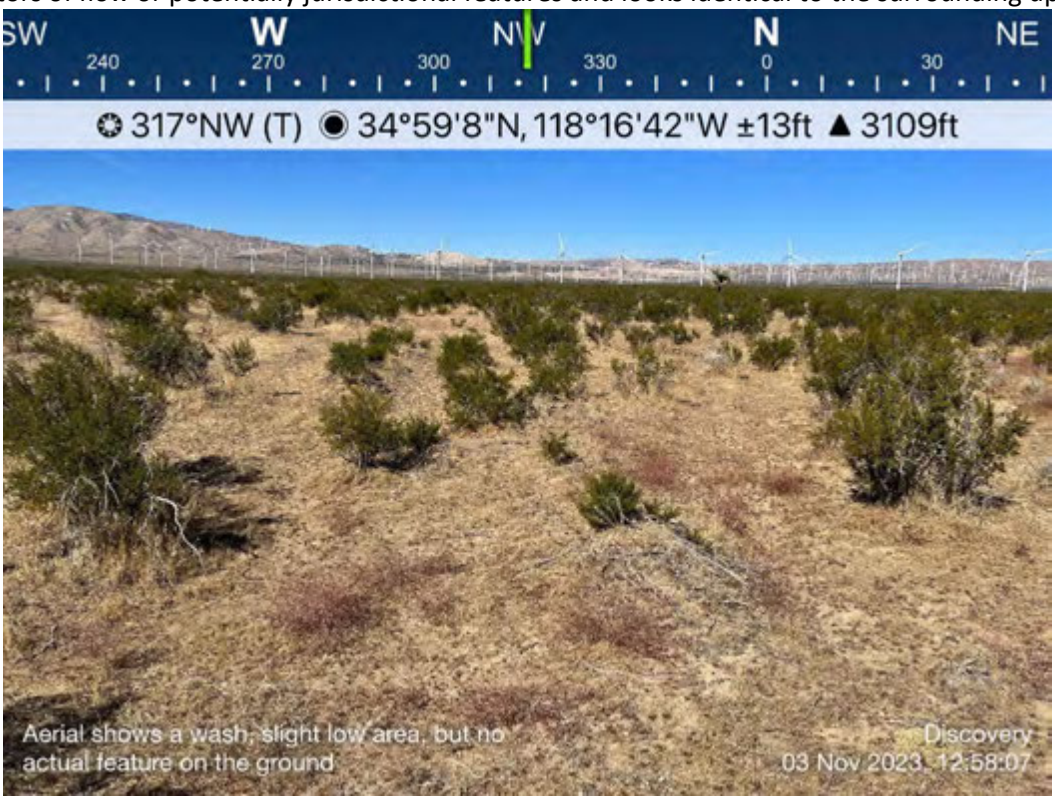
PP60 – Facing NW. Shows an area along an NHD line downstream of DS-44 and DS-45. DS-44 and DS-45 end at the LA Aqueduct and there are no indicators of flow downstream and this area looks the same as surrounding uplands.



PP61 – Facing NW. Shows an area along an NHD line downstream of DS-44 and DS-45. DS-44 and DS-45 end at the LA Aqueduct and there are no indicators of flow downstream and this area looks the same as surrounding uplands.



PP62 – Facing NW. Shows an area along an NHD line in the central portion of the study area that has no indicators of flow or potentially jurisdictional features and looks identical to the surrounding uplands.



PP64 – Facing SE. Shows an area along an NHD line in the central portion of the study area that has no indicators of flow or potentially jurisdictional features and looks identical to the surrounding uplands.



PP65 – Facing NNW. Shows an area along an NHD line in the eastern portion of the study area that has no indicators of flow or potentially jurisdictional features and looks identical to the surrounding uplands.



PP66 – Facing downstream (NE). Feature DS-48 where it comes off of a hillside in the southeastern portion of the study area. CDFW extent is approximately 50 feet wide and RWQCB extent is approximately 10 feet wide.



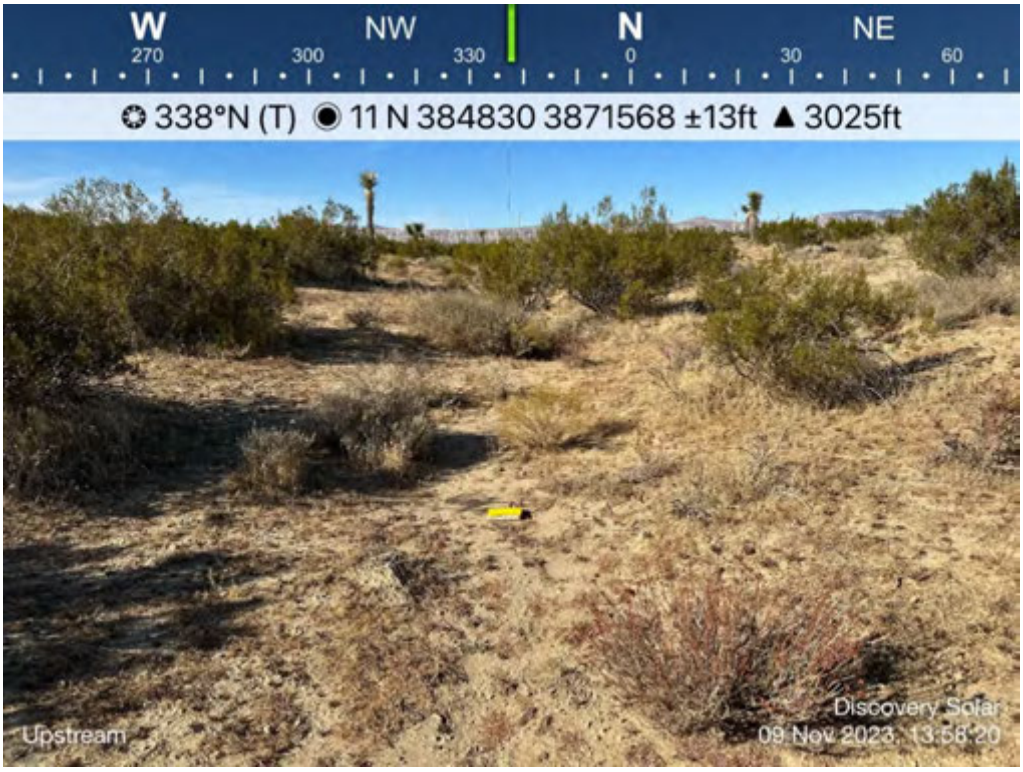
PP67 – Facing SSE. Shows an area along an NHD line in the eastern portion of the study area that has no indicators of flow or potentially jurisdictional features and looks identical to the surrounding uplands.



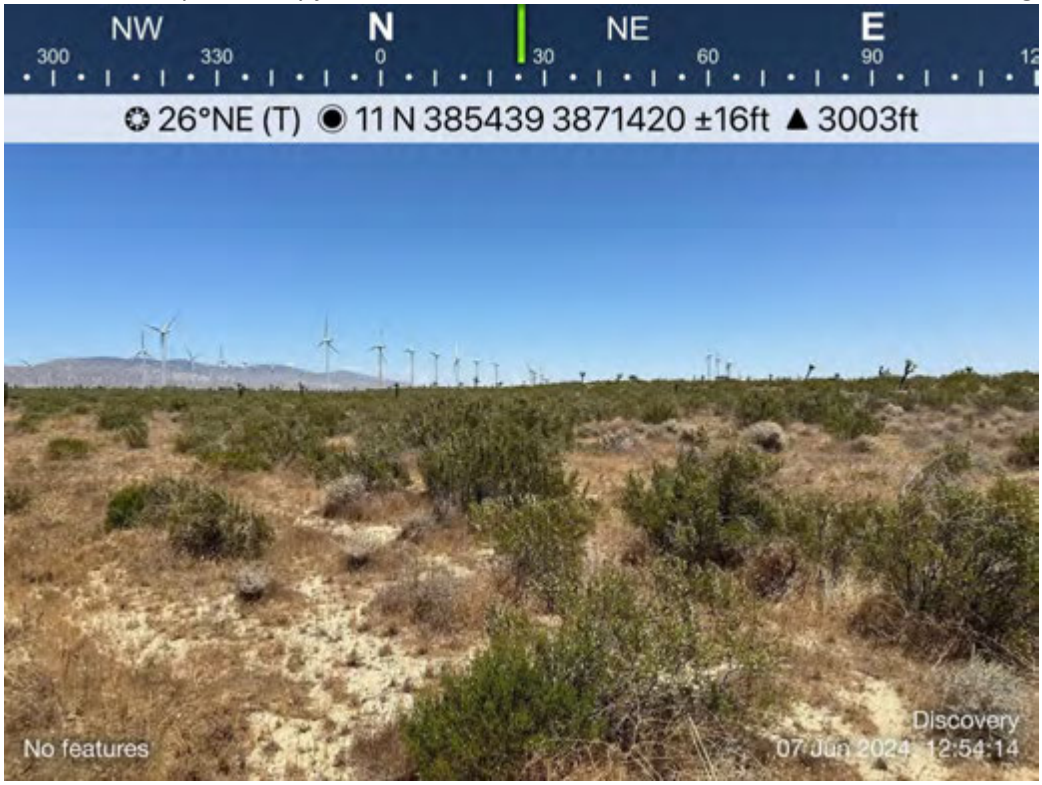
PP68 – Facing N. Shows an area along an NHD line in the eastern portion of the study area that has no indicators of flow or potentially jurisdictional features and looks identical to the surrounding uplands.



PP69 – Facing upstream (NNW). Feature DS-49 located in the southeast portion of the study area. CDFW extent is approximately 10 feet wide and RWQCB extent is approximately 3 feet wide.



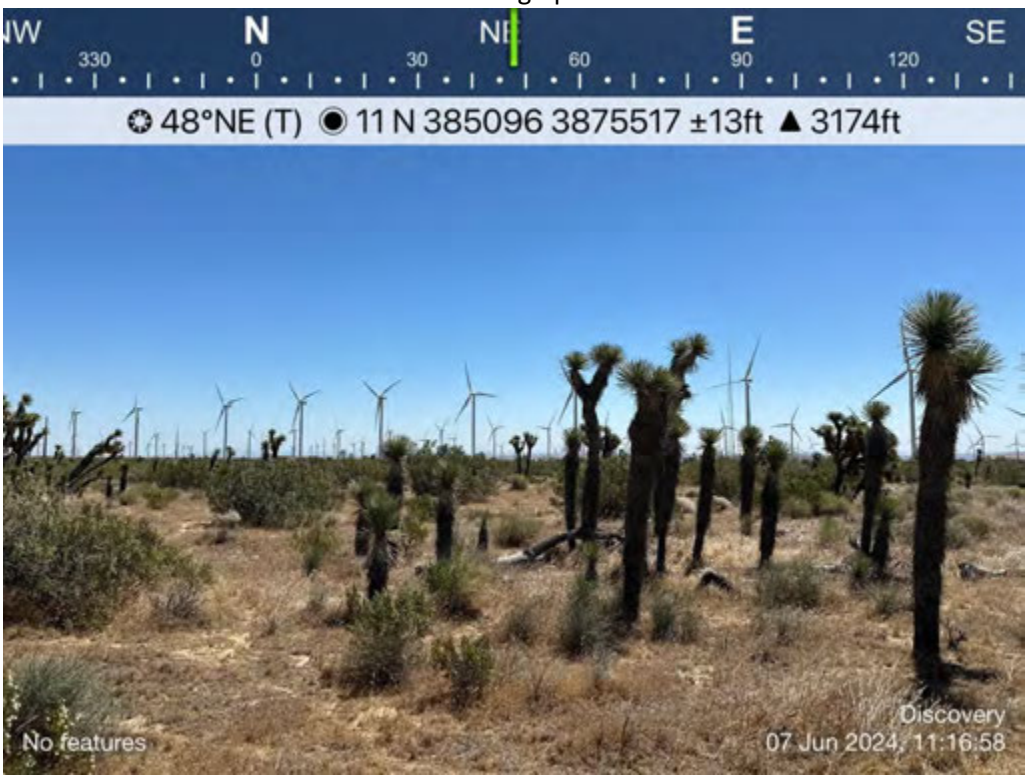
PP70 – Facing NNE. Shows an area along an NHD line in the southeastern portion of the study area that has no indicators of flow or potentially jurisdictional features and looks identical to the surrounding uplands.



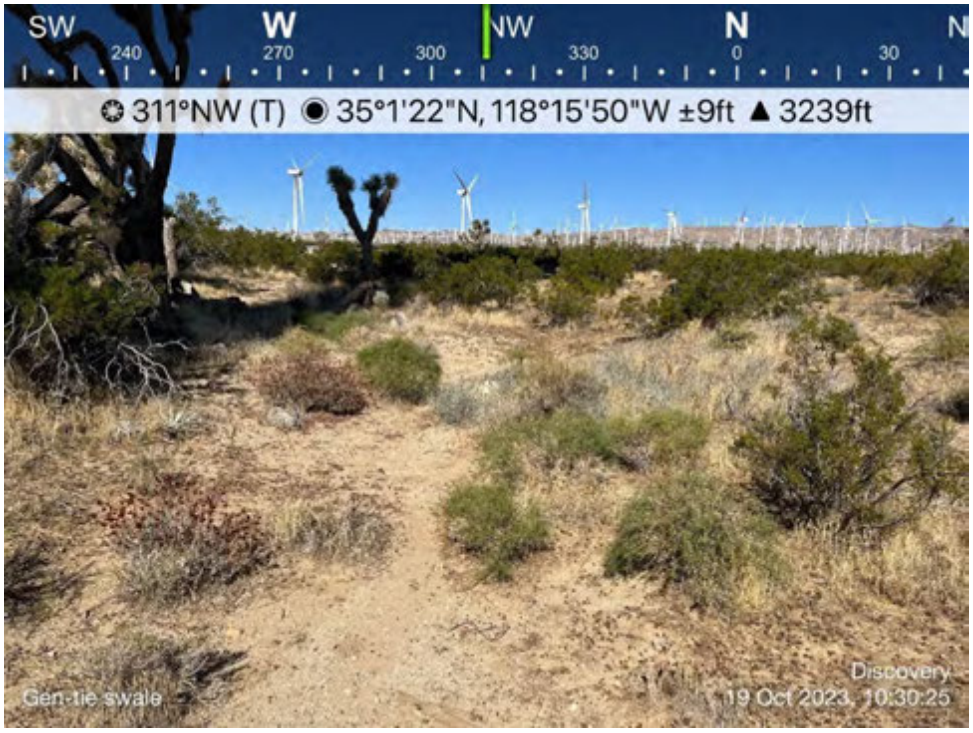
PP71 – Facing SW. Shows an area along an NHD line in the southeastern portion of the study area that has no indicators of flow or potentially jurisdictional features and looks identical to the surrounding uplands.



PP72 – Facing NE. Shows an area along an NHD line in the northern portion of the study area along the gen-tie line that has no indicators of flow or potentially jurisdictional features and looks identical to the surrounding uplands.



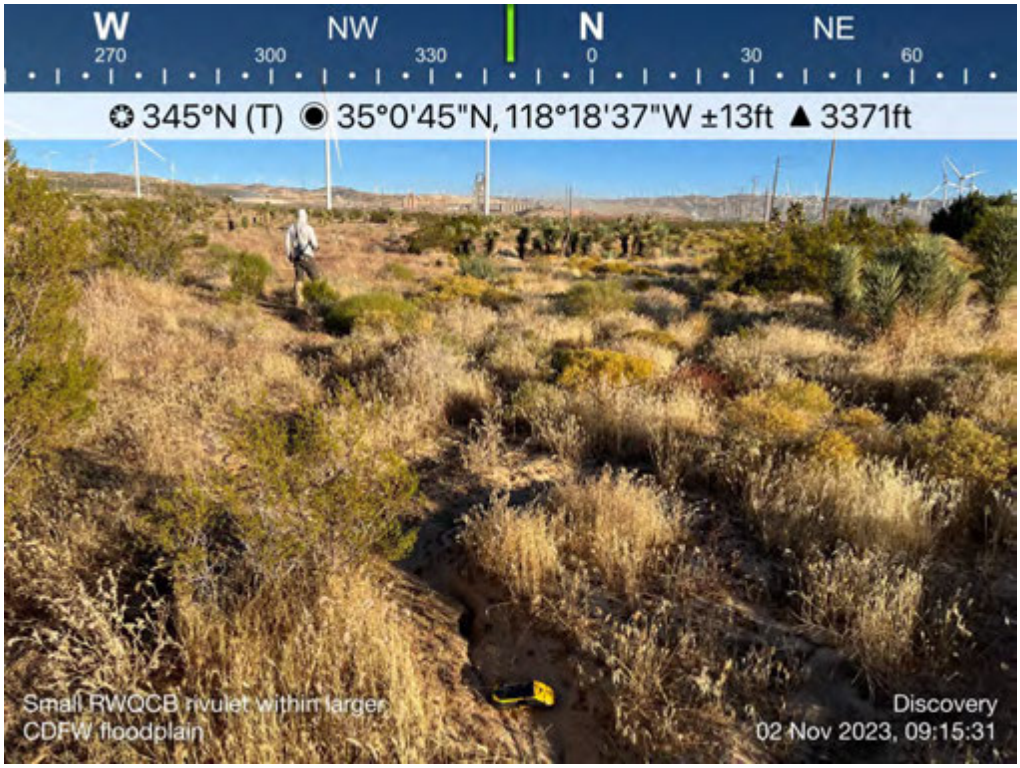
PP73 – Facing upstream (NW). Feature DS-50 located along the gen-tie line corridor in the northern portion of the study area. CDFW extent is approximately 10 feet wide and RWQCB extent is approximately 3 feet wide.



PP74 – Facing downstream (S). Feature DS-31 located in the northern portion of the study area. Small feature that is mostly covered with vegetation.



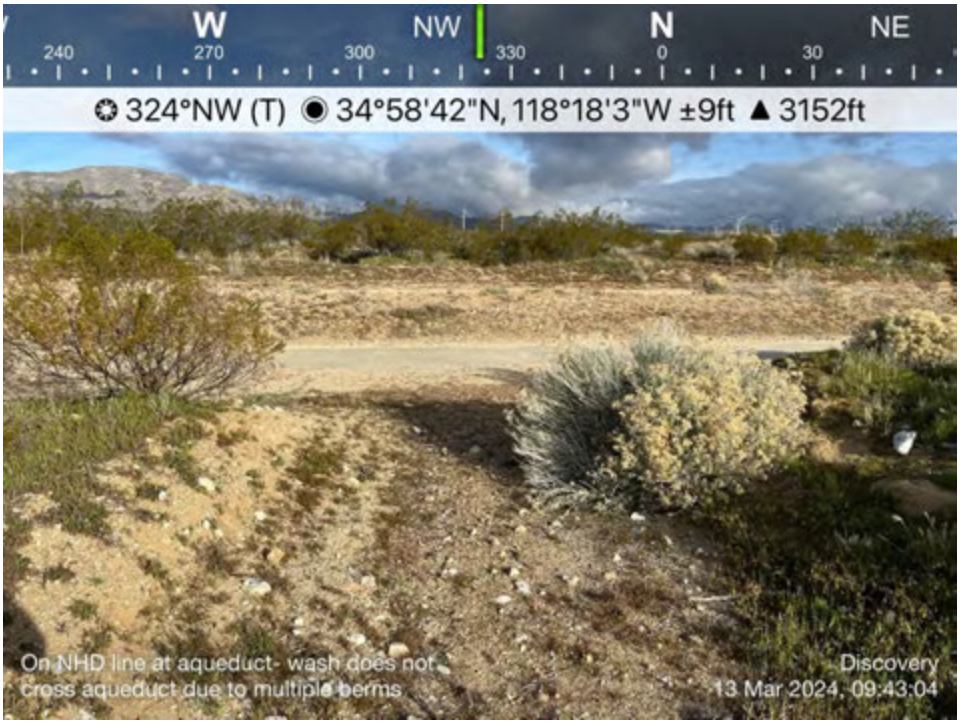
PP75 – Facing upstream (NNW). Further downstream on feature DS-31. CDFW extent is approximately 10 feet wide and RWQCB extent is approximately 3 feet wide.



PP76 – Facing downstream (E). Feature DS-22 located in the central portion of the study area. This feature starts here immediately downstream of a dirt road, the feature does not receive regular inputs from DS-21 upstream.



PP77 – Facing upstream (NW). Feature DS-29 located in the central portion of the study area. On the NHD line at the LA Aqueduct. This feature does not cross the aqueduct due to multiple berms. The feature begins just south of this photo point.



PP78 – Facing downstream (SSE). Further downstream on feature DS-29 where the feature dissipates.



PP79 – Facing downstream (S). Feature DS-40 located in the northern portion of the study area. This feature ends at this dirt road and flows along the roadside. The road appears to be bladed frequently and the feature is lost.



PP80 – Facing downstream (SSE). Feature DS-13 located in the western portion of the study area. Small wash with CDFW extents that are approximately 5 feet wide and RWQCB extents that are approximately 3 feet wide.



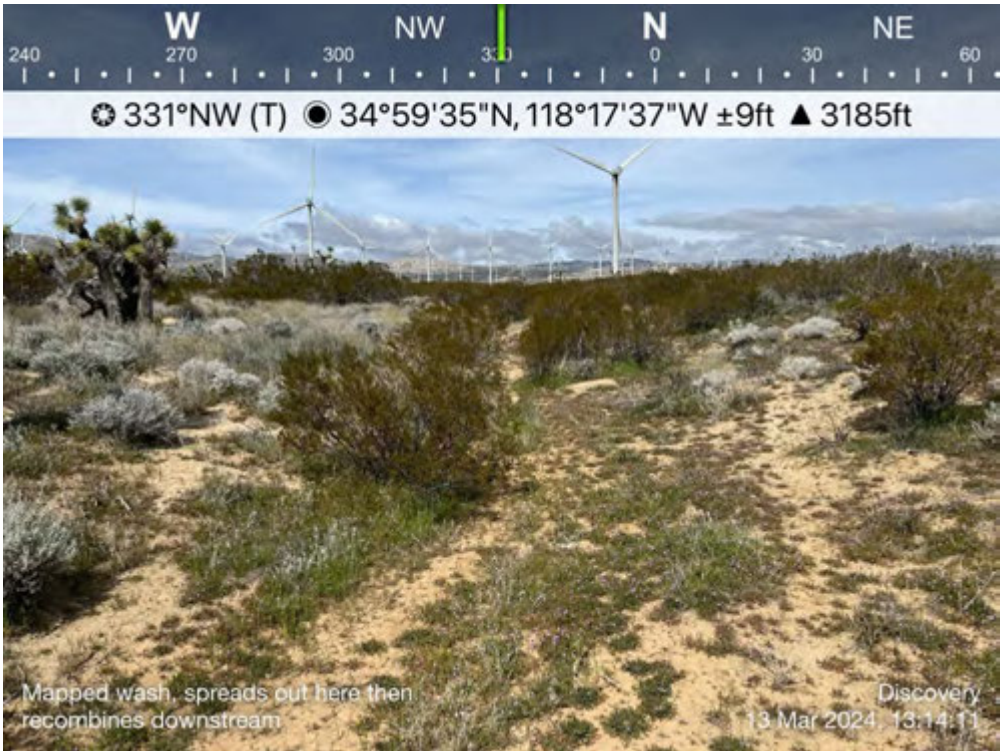
PP81 – Facing downstream (SE). Feature DS-15 located in the western portion of the study area. CDFW extent is approximately 10 feet wide and RWQCB extent is approximately 3 feet wide.



PP82 – Facing downstream (SSE). Feature DS-16 located in the northwestern portion of the study area. This large feature is very incised and has a CDFW extent that is approximately 50 feet wide and an RWQCB extent that is approximately 15 feet wide.



PP83 – Facing upstream (NNW). Feature DS-42 located in the central portion of the study area. CDFW extent is approximately 20 feet wide and RWQCB extent is approximately 3 feet wide.



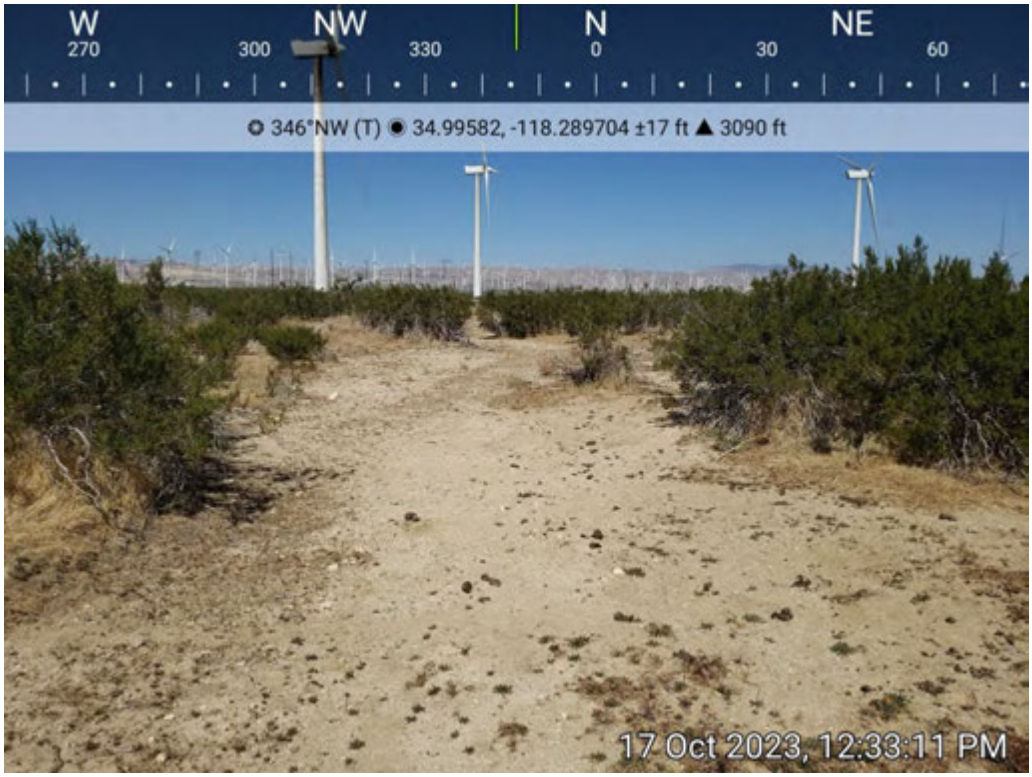
PP84 – Facing downstream (SSE). Feature DS-42 located in the central portion of the study area. CDFW extent is approximately 30 feet wide and RWQCB extent is approximately 10 feet wide. This feature had flowing water during the survey in March following rainfall in the area in the days prior.



PP85 – Facing downstream (SSE). Feature DS-43 located in the central portion of the study area. This feature hits the dirt road then combines with the runoff from the road and gets larger downstream of the road.



PP86 – Facing upstream (NNW). Feature DS-45 located in the central portion of the study area. Wide, flat feature.



Appendix B – Antecedent Precipitation Tool (APT)

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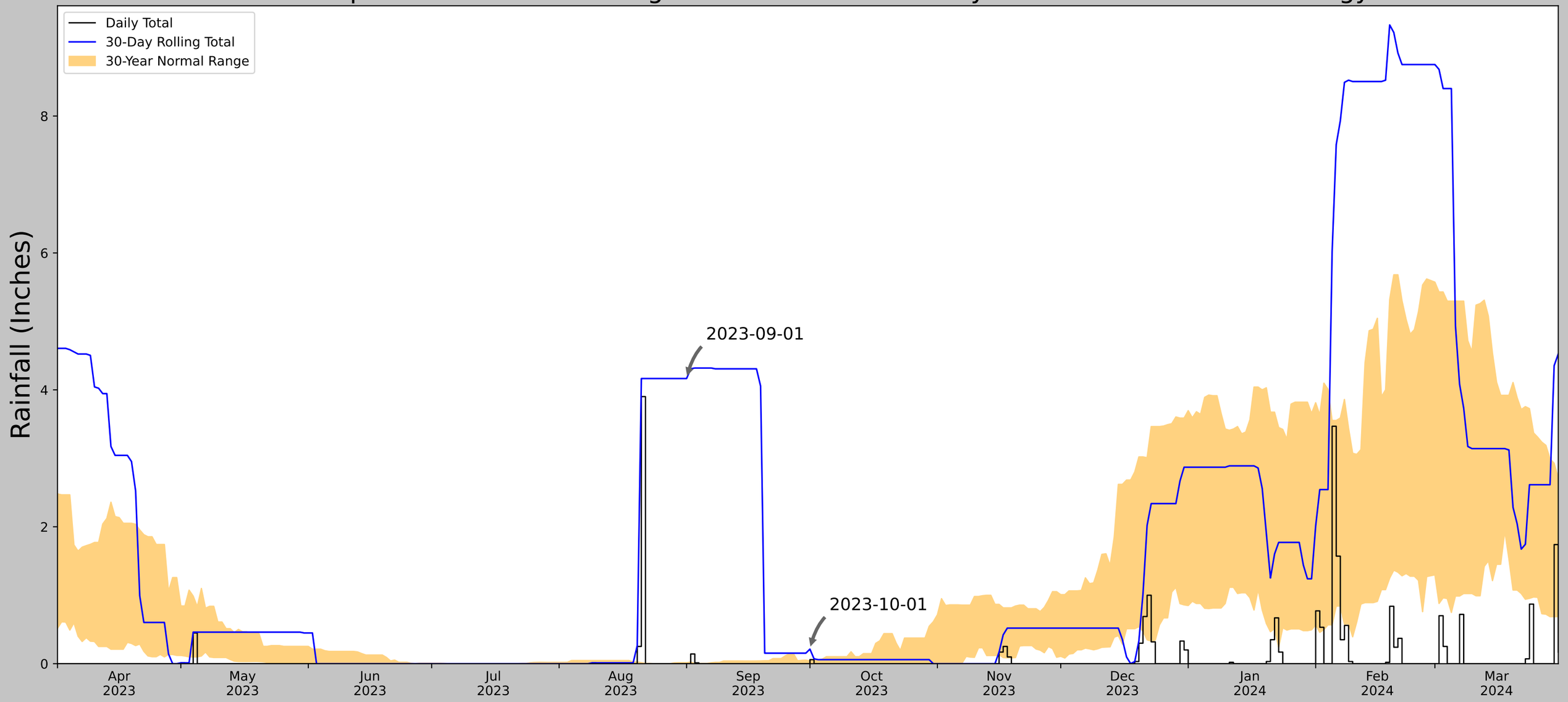
Antecedent Precipitation vs Normal Range based on NOAA's Daily Global Historical Climatology Network



Coordinates	34.988192, -118.302815
Observation Date	2023-10-31
Elevation (ft)	3219.729
Drought Index (PDSI)	Moderate wetness
WebWIMP H_2O Balance	Dry Season

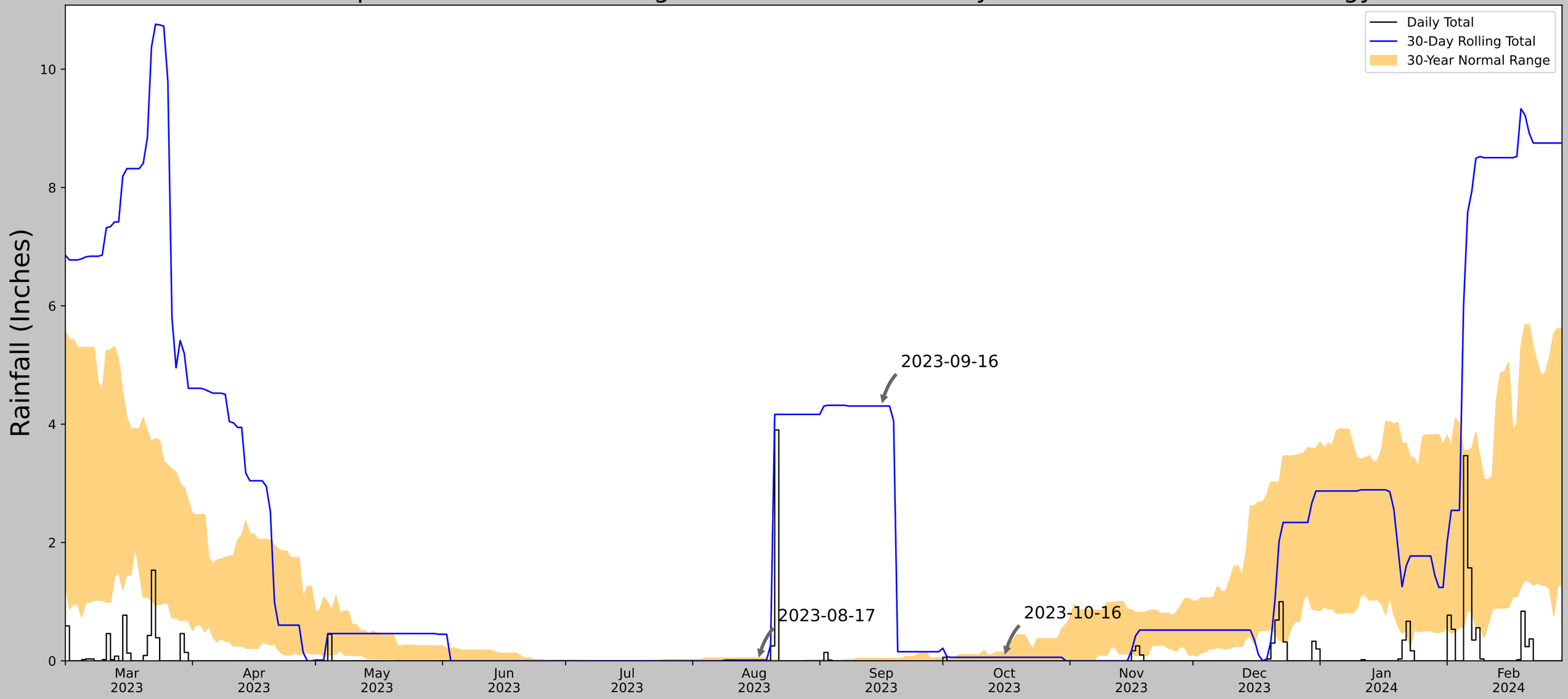
30 Days Ending	30th %ile (in)	70th %ile (in)	Observed (in)	Wetness Condition	Condition Value	Month Weight	Product
2023-10-31	0.0	0.612598	0.0	Normal	2	3	6
2023-10-01	0.0	0.03937	0.212598	Wet	3	2	6
2023-09-01	0.0	0.014173	4.165354	Wet	3	1	3
Result							Wetter than Normal - 15

Figure and tables made by the
Antecedent Precipitation Tool
Version 1.0

Written by Jason Deters
U.S. Army Corps of Engineers

Weather Station Name	Coordinates	Elevation (ft)	Distance (mi)	Elevation Δ	Weighted Δ	Days Normal	Days Antecedent
FAIRMONT	34.705, -118.4297	3060.039	20.848	159.69	12.711	10744	90
SAUGUS PWR PLT 1	34.59, -118.4542	2161.089	8.067	898.95	10.882	575	0
LANCASTER	34.7411, -118.2125	2337.927	12.584	722.112	14.75	33	0

Antecedent Precipitation vs Normal Range based on NOAA's Daily Global Historical Climatology Network



Coordinates	34.988192, -118.302815
Observation Date	2023-10-16
Elevation (ft)	3219.729
Drought Index (PDSI)	Moderate wetness
WebWIMP H_2O Balance	Dry Season

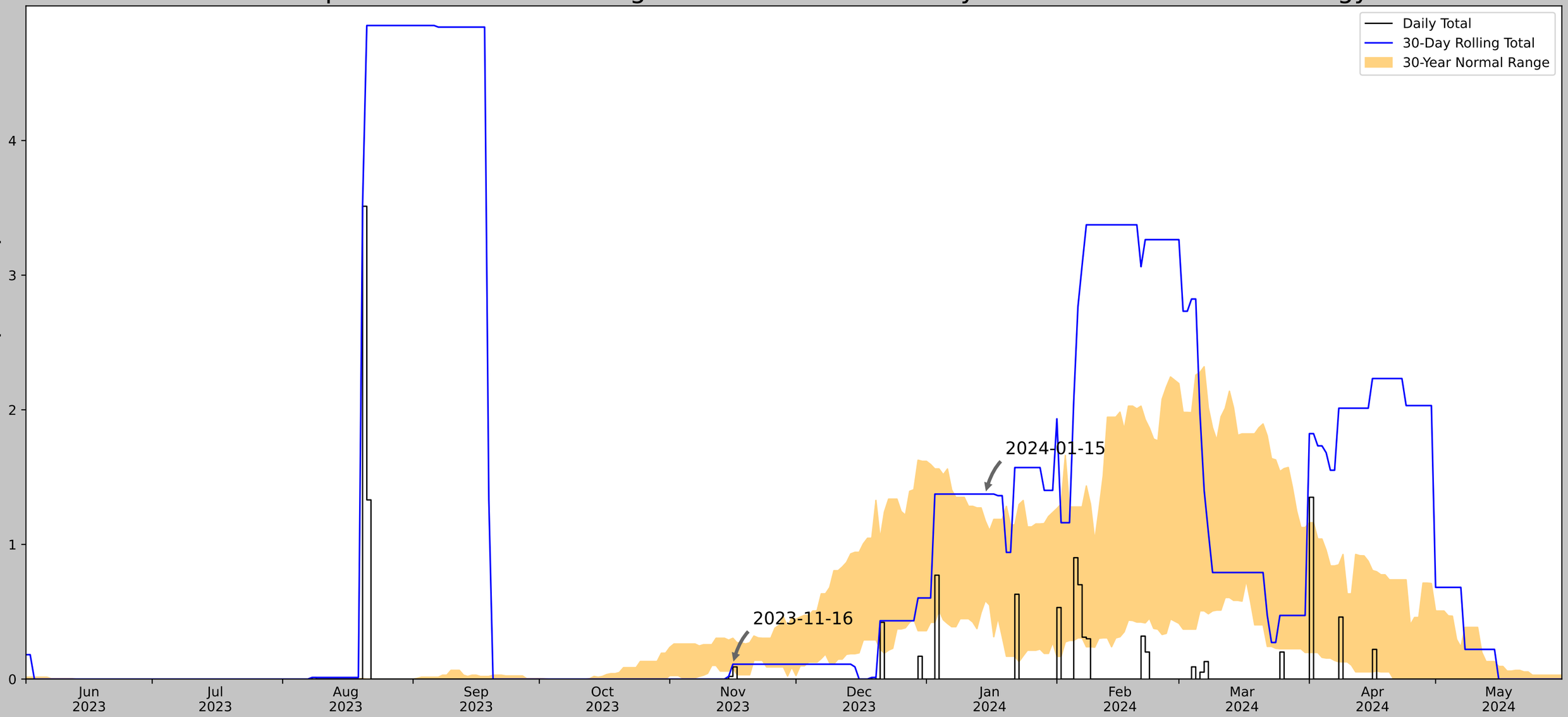
30 Days Ending	30th %ile (in)	70th %ile (in)	Observed (in)	Wetness Condition	Condition Value	Month Weight	Product
2023-10-16	0.0	0.147244	0.059055	Normal	2	3	6
2023-09-16	0.0	0.03937	4.307087	Wet	3	2	6
2023-08-17	0.0	0.046457	0.011811	Normal	2	1	2
Result							Normal Conditions - 14

Figure and tables made by the
Antecedent Precipitation Tool
Version 1.0

Written by Jason Deters
U.S. Army Corps of Engineers

Weather Station Name	Coordinates	Elevation (ft)	Distance (mi)	Elevation Δ	Weighted Δ	Days Normal	Days Antecedent
FAIRMONT	34.705, -118.4297	3060.039	20.848	159.69	12.711	10744	90
SAUGUS PWR PLT 1	34.59, -118.4542	2161.089	8.067	898.95	10.882	575	0
LANCASTER	34.7411, -118.2125	2337.927	12.584	722.112	14.75	33	0

Antecedent Precipitation vs Normal Range based on NOAA's Daily Global Historical Climatology Network



Coordinates	34.988192, -118.302815
Observation Date	2024-01-15
Elevation (ft)	3219.729
Drought Index (PDSI)	Incipient wetness
WebWIMP H_2O Balance	Wet Season

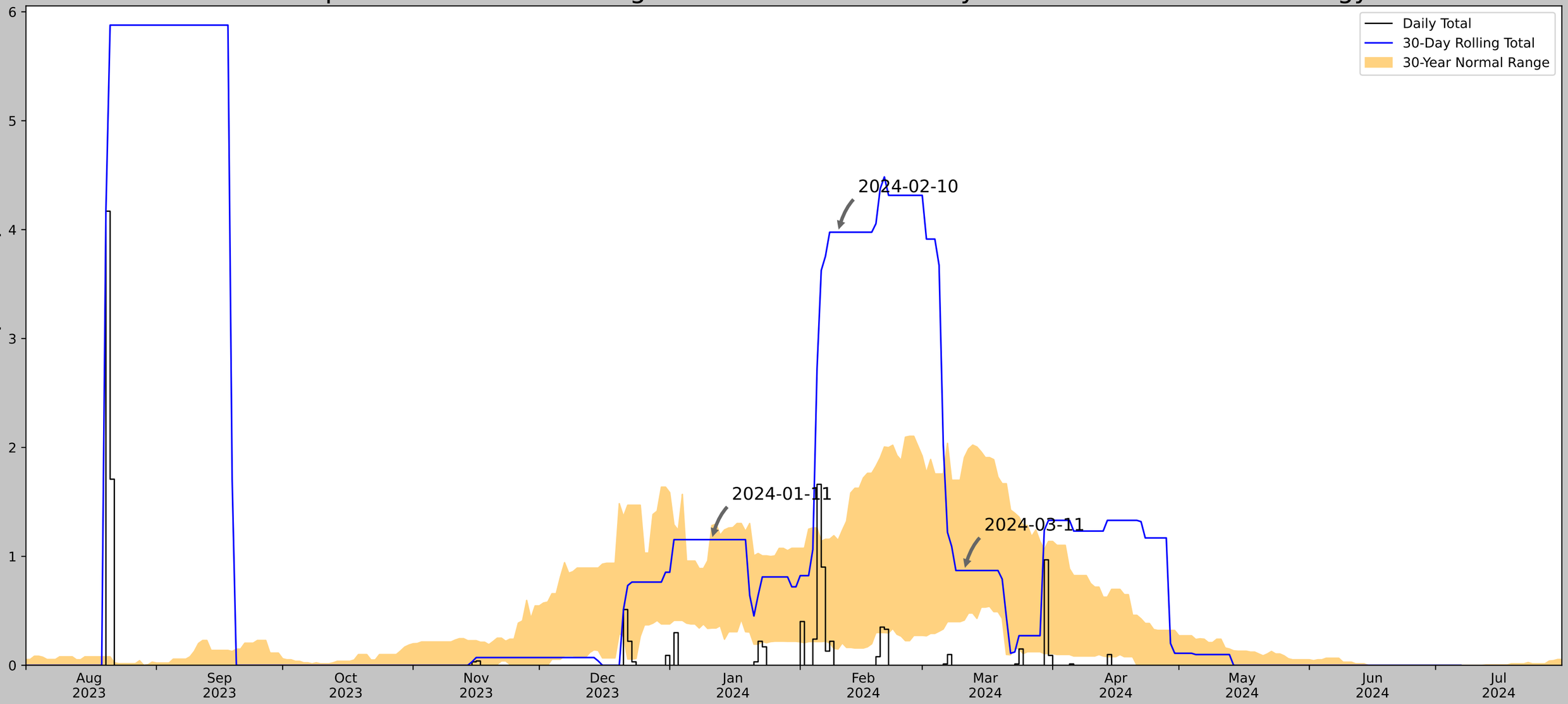
30 Days Ending	30th %ile (in)	70th %ile (in)	Observed (in)	Wetness Condition	Condition Value	Month Weight	Product
2024-01-15	0.582283	1.174409	1.374016	Wet	3	3	9
2023-12-16	0.194488	0.941732	0.0	Dry	1	2	2
2023-11-16	0.081102	0.303543	0.110236	Normal	2	1	2
Result							Normal Conditions - 13

Figure and tables made by the
Antecedent Precipitation Tool
Version 1.0

Written by Jason Deters
U.S. Army Corps of Engineers

Weather Station Name	Coordinates	Elevation (ft)	Distance (mi)	Elevation Δ	Weighted Δ	Days Normal	Days Antecedent
PALMDALE	34.5883, -118.0939	2611.877	30.066	607.852	31.805	10988	90
PALMDALE AP	34.6294, -118.0831	2508.858	2.905	103.019	1.607	362	0
VINCENT FS FC 120	34.4883, -118.1419	3157.152	7.43	545.275	7.395	2	0

Antecedent Precipitation vs Normal Range based on NOAA's Daily Global Historical Climatology Network



Coordinates	34.988192, -118.302815
Observation Date	2024-03-11
Elevation (ft)	3219.729
Drought Index (PDSI)	Mild wetness
WebWIMP H_2O Balance	Wet Season

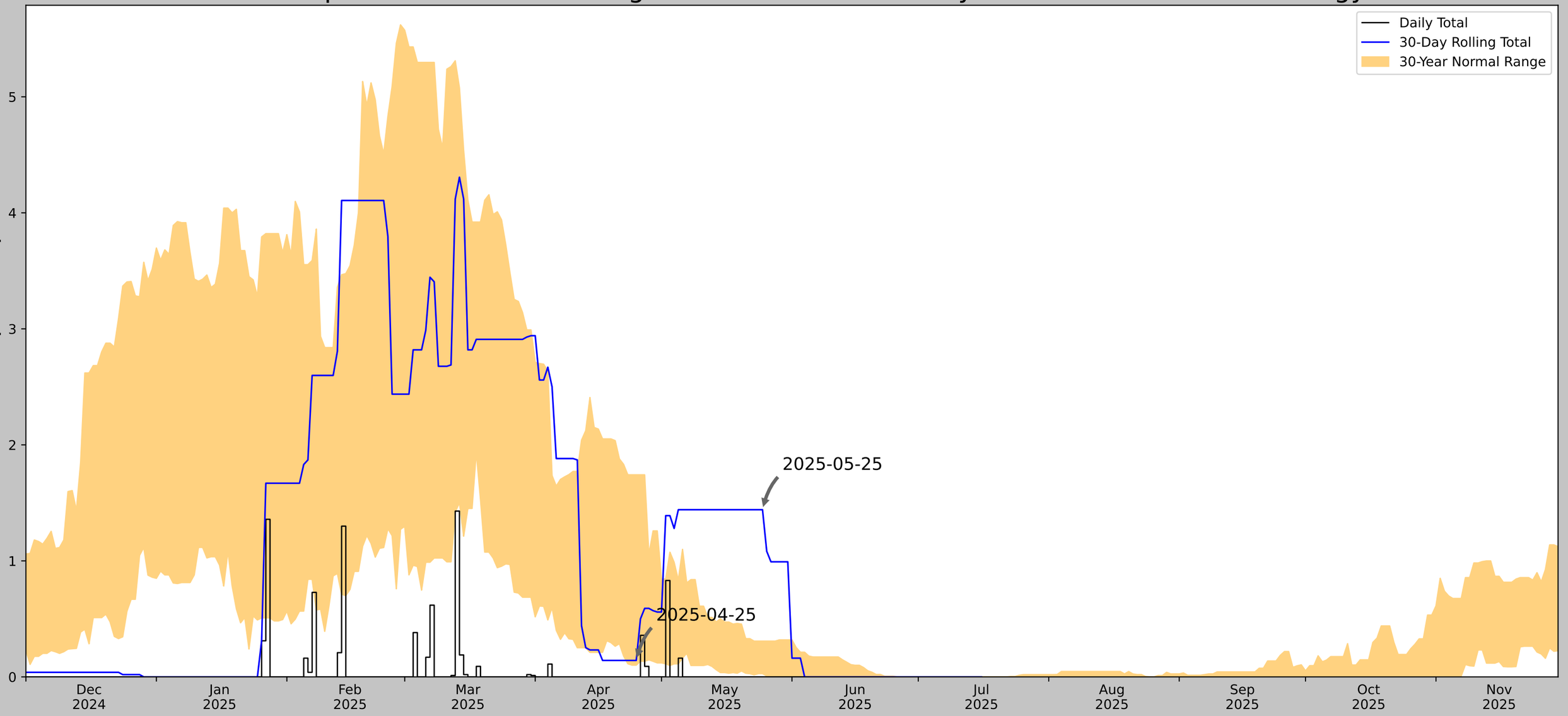
30 Days Ending	30th %ile (in)	70th %ile (in)	Observed (in)	Wetness Condition	Condition Value	Month Weight	Product
2024-03-11	0.414173	1.90748	0.870079	Normal	2	3	6
2024-02-10	0.148425	1.148032	3.976378	Wet	3	2	6
2024-01-11	0.341339	1.283071	1.153543	Normal	2	1	2
Result							Normal Conditions - 14

Figure and tables made by the
Antecedent Precipitation Tool
Version 1.0

Written by Jason Deters
U.S. Army Corps of Engineers

Weather Station Name	Coordinates	Elevation (ft)	Distance (mi)	Elevation Δ	Weighted Δ	Days Normal	Days Antecedent
PEARBLOSSOM	34.5025, -117.8969	3101.05	40.709	118.679	23.15	10710	90
VINCENT FS FC 120	34.4883, -118.1419	3157.152	13.986	56.102	7.078	124	0
EL MIRAGE	34.5892, -117.6303	2950.131	16.312	150.919	9.802	109	0
PALMDALE	34.5883, -118.0939	2611.877	12.682	489.173	11.911	152	0
PALMDALE AP	34.6294, -118.0831	2508.858	13.752	592.192	14.332	257	0

Antecedent Precipitation vs Normal Range based on NOAA's Daily Global Historical Climatology Network



Coordinates	34.988192, -118.302815
Observation Date	2025-06-24
Elevation (ft)	3219.729
Drought Index (PDSI)	Extreme drought
WebWIMP H_2O Balance	Dry Season

30 Days Ending	30th %ile (in)	70th %ile (in)	Observed (in)	Wetness Condition	Condition Value	Month Weight	Product
2025-06-24	0.0	0.005906	0.0	Normal	2	3	6
2025-05-25	0.027953	0.308268	1.440945	Wet	3	2	6
2025-04-25	0.101181	1.741732	0.141732	Normal	2	1	2
Result							Normal Conditions - 14

Figure and tables made by the
Antecedent Precipitation Tool
Version 1.0

Written by Jason Deters
U.S. Army Corps of Engineers

Weather Station Name	Coordinates	Elevation (ft)	Distance (mi)	Elevation Δ	Weighted Δ	Days Normal	Days Antecedent
FAIRMONT	34.705, -118.4297	3060.039	20.848	159.69	12.711	10745	90
SAUGUS PWR PLT 1	34.59, -118.4542	2161.089	8.067	898.95	10.882	575	0
LANCASTER	34.7411, -118.2125	2337.927	12.584	722.112	14.75	33	0

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Appendix C – Preliminary Hydrology Study

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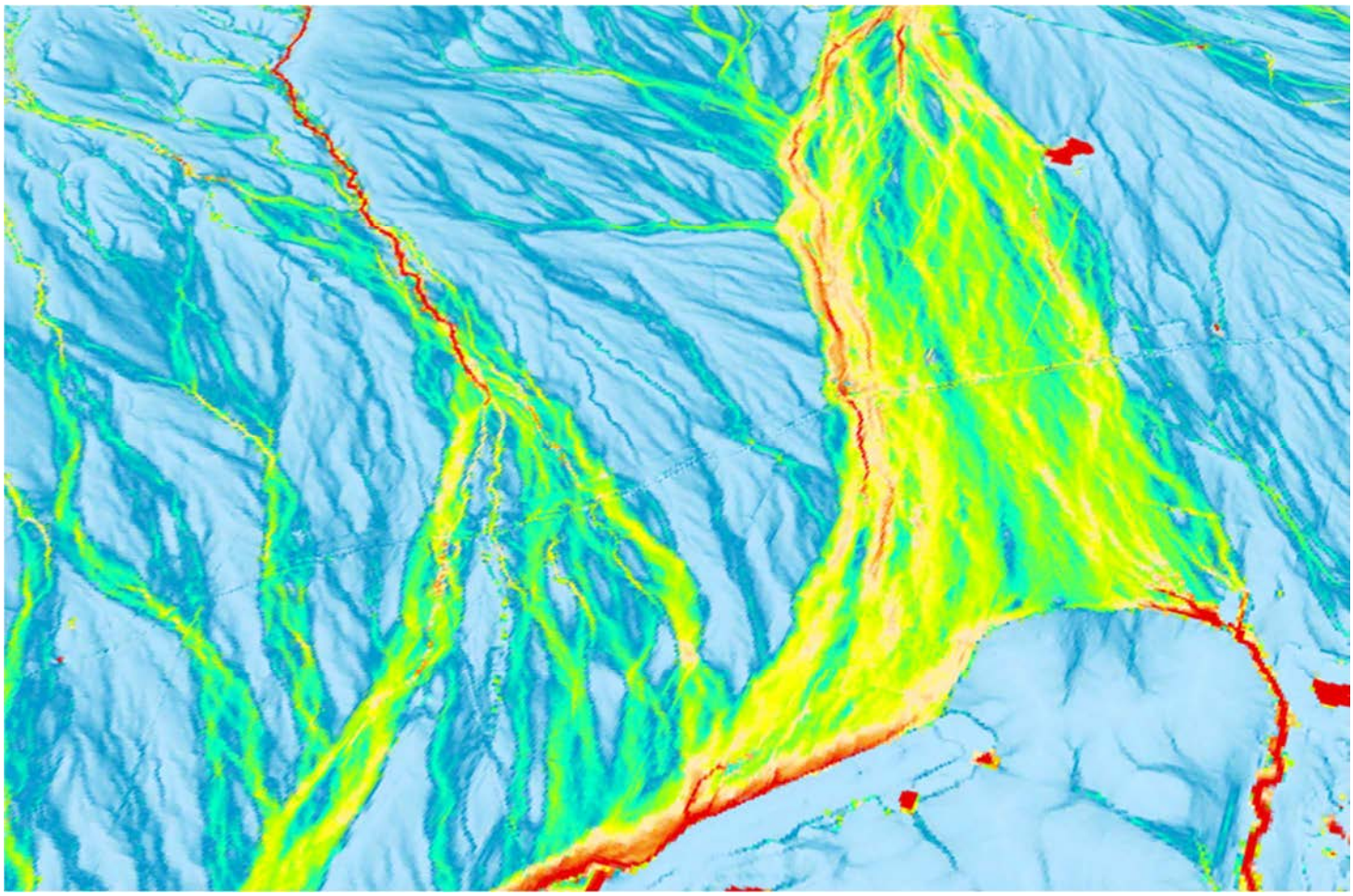

PRELIMINARY HYDROLOGY STUDY

Discovery Solar PV and Storage Project

Kern County, California

AUGUST 28, 2025

PREPARED FOR:

Discovery Solar PV and Storage, LLC

PREPARED BY:

Westwood

Westwood

Preliminary Hydrology Study

Discovery Solar PV and Storage Project

Kern County, California

Prepared For:

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Project Number: R0036582.03
Revision Date 3: August 28, 2025
Revision Date 2: July 3, 2025
Revision Date 1: March 14, 2025
Revision Date 0: May 17, 2024

Westwood

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Exhibit 4: Soils Map
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Exhibit 10: Kern County Hydrology Map
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Appendices

Appendix A: NOAA Atlas 14 Precipitation Data
Appendix B: Kern County Curve Number Table
Appendix C: FEMA Flood Insurance Rate Map (FIRM)
Appendix D: CivilD Printouts (Kern County Hydrology Manual)

Appendix E: Kern County Hydrology Manual Excerpts

Appendix F: Kern County Development Standards: Standards for Drainage

Executive Summary

The purpose of this study is to analyze and review the existing hydrology of the Discovery Solar PV and Storage Project (Project or Site) and any impacts that the hydrology may play in the design of the proposed Project with battery energy storage capacity. This report was prepared to be used in the design and layout of the Project and is intended for submittal to reviewing agencies for stormwater permitting.

The Project includes development of a photovoltaic (PV) solar facility and associated infrastructure necessary to generate up to 1,400 megawatts (MW) of renewable electrical energy with up to 8 gigawatt-hours of energy storage capacity (approximately 1,000 MW) on an approximately 7,700-acre Project site in an unincorporated area of southeastern Kern County, California (Figure 1). PV solar panels, a power collection system, including medium-voltage lines that connect the solar facilities, inverters, a switchyard, foundations, and transformers will be installed onsite. Associated Project infrastructure includes an operations and maintenance facility, telecommunication facilities, energy storage system(s),up to three onsite collector substations, interconnection and transmission systems, and temporary laydown yards. The Project may be constructed in multiple phases.

The Project will interconnect to the existing Windhub Substation, which is owned and operated by Southern California Edison (SCE). The interconnection will be via a newly constructed 230-kilovolt (kV) generation tie line (gen-tie) that will extend north from the Project site towards the Windhub Substation from on-site collector substations. A portion of the Project 230-kV gen-tie would be co-located within an existing gen-tie corridor (controlled by the Applicant and/or its affiliates). A high-voltage switchyard located immediately north of the Union Pacific Railroad (UPRR) rail line will also be constructed.

The Project is located in an unincorporated area in southeastern Kern County, on generally undeveloped and privately owned land, along the northern edge of the Antelope Valley. The Project site is located approximately 6 miles southwest of the unincorporated community of Mojave, approximately 9 miles southeast of the city of Tehachapi, and approximately 8 miles northwest of the unincorporated community of Rosamond. State Route (SR)-58 is north of the Project site, SR-14 is east of the Project site, and Tehachapi Willow-Springs Road runs between the Project site's boundaries (Figure 1). A network of existing named and unnamed dirt roads traverses the Project site. While the Los Angeles Department of Water and Power (LADWP) aqueduct roughly bisects the Project site, it is not included within the Project site (Figures 2 and 3). On-site, adjacent, and nearby land uses include renewable energy development, rural residential development, livestock grazing, heavy industrial and mining uses, and undeveloped lands. Elevations across the Project site are relatively flat, ranging from approximately 2,520 to 2,750 feet above mean sea level. The Project site is located within the U.S. Geological Survey (USGS) Monolith, Willow Springs, and Soledad Mountain 7.5-Minute Topographic Quadrangle Maps.

The Project should utilize low-impact development techniques to provide post-construction stormwater management. The proposed retention basins throughout the Project site will provide both runoff treatment and reduction when compared to existing conditions.

The 100-year analysis shows low water depths and low velocities (Exhibits 7 through 8A) across the majority of the Site. Higher flood depths exist within the creeks and their surrounding areas located within and adjacent to the Site. There are also higher flood depths located in multiple washes throughout the Site. The 100-year flood depths show a large central portion of the site is heavily impacted by the 100-year runoff with depth, velocity, and scour. There are also a few scattered low-lying areas with localized ponding. Minimal velocities and scour are expected on Site due to the flat terrain. In addition to the 100-year storm event, the 10-year, and 5-year, 24-hour storm events were analyzed (Exhibits 12-15). These analyses showed similar flood patterns to those of the 100-year, 24-hour analyses, but with variation relative to their magnitudes.

Based on experience with similar projects, the majority of the Project site is suitable for the planned development by avoiding or designing to areas of high flood depths.

This report and the attached figures indicate the extent of modeled flood flows. This report should not be used to determine the extent of USACE, RWQCB, or CDFW jurisdiction, as the modeled flows do not provide relevant information regarding OHWM or other defining features for aquatic resources. A separate aquatic resources delineation will be prepared for this purpose.

1.0 Data Sources

Table 1 – Data Sources

Task	Format	Source	Use
Elevation	1-meter DEM	2018 California SoCal Wildfires	FLO-2D Model Elevations
Crop Data	Shapefile	USDA 2013 Crop Data Layer	Landcover
Soils	Shapefile	USGS SSURGO Dataset	Curve Numbers
Precipitation	PDF File	NOAA Atlas 14	Design Storms
HUC-12 Drainage Boundary	Shapefile	USGS	Define Model Extents
Site Boundary	EdSan 3 Outlines for JT Counts.kmz	Discovery Solar PV and Storage, LLC	Define Model Extents
2014 Aerial Photography	ArcGIS Map Service	USDA FSA	Reference
FEMA Flood Zones	PDF; Shapefile	FEMA	Reference

2.0 Coordinate System

Table 2 – Coordinate System Used

Projection	State Plane Coordinate System
Zone	California Zone 5 (FIPS 405)
Datum	NAD83
Planar Units	Feet (U.S. Survey)

3.0 Existing Conditions

3.1 Project Location

The Project Site is approximately 7,700 acres and is located within Kern County, California (Exhibit 1). The Project Site is located approximately 60 miles north of Los Angeles, California, with the nearest town being Mojave in Kern County, California. Mojave is located 8 miles northeast of the Project (Exhibit 1).

The Project is located in an unincorporated area in southeastern Kern County, on generally undeveloped and privately owned land, along the northern edge of the Antelope Valley. The Project site is located approximately 6 miles southwest of the unincorporated community of Mojave, approximately 9 miles southeast of the city of Tehachapi, and approximately 8 miles northwest of the unincorporated community of Rosamond. State Route (SR)-58 is north of the Project site, SR-14 is east of the Project site, and Tehachapi Willow-Springs Road runs between the Project site's boundaries (Figure 1). A network of existing named and unnamed dirt roads traverses the Project site. While the Los Angeles Department of Water and Power (LADWP) aqueduct roughly bisects the Project site, it is not included within the Project site (Figures 2 and 3). On-site, adjacent, and nearby land uses include renewable energy development, rural residential development, livestock grazing, heavy industrial and mining uses, and undeveloped lands. Elevations across the Project site are relatively flat, ranging from approximately 2,520 to 2,750 feet above mean sea level. The Project site is located within the U.S. Geological Survey (USGS) Monolith, Willow Springs, and Soledad Mountain 7.5-Minute Topographic Quadrangle Maps.

3.2 Watershed Hydrology

The modeled watershed area encompasses approximately 105 square miles that generally slopes to the south and east. There are multiple creeks and washes that flow through the Project site. Oak Creek flows north to south through the middle of the Project site. There are multiple other unnamed creeks and washes that flow throughout the modeled watershed. The west portion of the modeled watershed flows typically towards the south and the east portion of the modeled watershed typically flows to the east.

3.3 Onsite Conditions

The Project is mainly located with the Oak Creek and Tropico Hill HUC 12 Boundaries. The western portion of the Site generally drains south, and the eastern portion of the Site generally drains south before either flowing southeast or southwest around Cactus Queen Mine. Many portions of the Project Site receive offsite flows and these drainage areas can become quite large in some cases. The Site is relatively flat with slopes of less than 2% though there are locations where the slopes reach roughly 5%.

US Fish and Wildlife Service National Wetlands Inventory (NWI Wetlands) provides information on the distribution of US wetlands (Exhibit 3). The NWI Wetlands dataset is not all-inclusive and other wetlands not shown may exist. A separate Aquatic Resources Delineation Report has been prepared for the Project; wetland locations included in this study are for general information only and remain subject to confirmation. The landcover on the Project site is primarily chaparral - narrowleaf (Exhibit 5) and has soils that primarily belong to Hydrologic Soil Groups (HSG) A and C (Exhibit 4). Typically, A soils are Sands and C soils are Clay Loams. Soils belonging to Hydrologic Soil Group C exhibit low infiltration rates; therefore, standing water will be slow to infiltrate during and after storm events when compared to soils belonging to Hydrologic Soil Groups A or B.

The main potential hydrologic issues on Site are flooding and erosive velocities.

3.4 Delineated Flood Zones

FEMA has completed a study to determine flood hazards for the selected location; the Project is covered by FIRM panels 06029C3650E, 06029C3675E, and 06029C3275E (Appendix C). The Project site contains areas of FEMA Zone A flood hazards (Exhibits 3 and 7). There is one FEMA Zone A Flood hazard onsite and is located through the middle of the Project site. A FEMA Zone A flood hazard is a 100-year flood hazard with no defined base flood elevation. No preliminary or pending FEMA changes are proposed within the Project site.

There are no California Department of Water Resources (DWR) Floodplain Awareness zones located onsite (Exhibits 3 and 7). The Floodplain Awareness zones are identified areas of all pertinent flood hazard areas that are not mapped under FEMA's National Flood Insurance Program. The Awareness maps identify the 100-year flood hazard areas using approximate assessment procedures. No buildings are intended to be placed within a 100-year flood hazard area. However, any structure(s), solar facilities or related appurtenances that are within the 100-year flood hazard area, such as, but not limited to, the solar array or inverter skid facilities, will need to be elevated above the 100-year flood with proper freeboard in order to not impede or redirect flood flows.

4.0 Proposed Conditions

4.1 Proposed Conditions

The majority of the proposed solar facility will consist of above ground mounted solar modules. The majority of the battery energy storage facilities would consist of the batteries being placed on top of concrete pads within a graveled pad. Natural desert landscaping should be restored below the modules and would make up the majority of the land cover. A small amount of impervious surface will be added from the gravel access roads, electrical equipment pads, and battery storage facilities. The Project should be designed to minimize grading and maintain

existing drainage patterns. No additional drainage shall be directed into any preserved Western Joshua Tree Woodland areas. The Project will meet all water quality standards or waste discharge requirements and will not substantially degrade water quality. A flood analysis of pre-development and post development depths may need to be completed once civil design is finalized for permitting purposes.

4.2 Post-Construction Stormwater Management

A desktop review of Kern County revealed a number of specific county requirements. The Kern County Hydrology Manual (KCHM) (Appendix E) needs to be followed for the design and modeling. The County has their own set of curve numbers and landcover that are to be used. The Project will not deplete or interfere with groundwater recharge. The FLO-2D model also needed to be calibrated to match the results from the CivilD results (Appendix D). The Kern County Development standards will also need to be incorporated into the design. As the Project design advances the post-construction stormwater management should be reviewed in further detail with the County Engineer. The Project will not substantially alter the existing drainage patterns of the Site or area that will result in substantial erosion, siltation, or increase the rate of surface runoff. The Project will not deplete or interfere with groundwater recharge.

4.3 Kern County Hydrology (CivilD)

CivilD modeling software was used to calculate flow rates and confirm that the FLO-2D model was providing results consistent with the Kern County methods (Appendix E). A point (Exhibit 10) was selected to calibrate the results of the FLO-2D model. This location works reasonably well as a calibration point because it is similar to watersheds that contribute to the Project site and is relatively concentrated. Inputs to CivilD were calculated following guidance in the KCHM and modeling inputs/outputs can be found in Appendix D. The peak flow rate for the calibration watershed using CivilD was 133.68 cfs. Table 5 below shows the inputs into the CivilD model.

Table 3 – CivilD Calibration Watershed Inputs

Description	Equation	Unit	Value
Watershed Area	Calculated in GIS	Square Mi	0.17
Watershed Area	Conversion	Acres	111
100-Year Aerial Reduction	Figure E-4	Unitless	1
Watershed Area with Reduction	Aerial Reduction*Area	Acres	111
Equation	Lag-24n(l*lca/sqrt(s))^0.38	Hours	0.81
Basin Factor	KCHM Page 156 (n)	Unitless	0.065
Longest Watercourse	Calculated in GIS (l)	Miles	1.14
Length to Centroid	Calculated in GIS (lca)	Miles	0.64
Upstream Elevation	From 1-m offsite DTM	Feet	4,170
Elevation at Concentration	From 1-m offsite DTM	Feet	3,700
Difference in Elevation	Upstream – Downstream (H)	Feet	470
Slope along Watercourse	Slope (s)	FT/Mi.	412
Average CN for Watershed (Appendix B)	CN=	Unitless	89

5.0 FLO-2D Modeling

5.1 FLO-2D Modeling Overview

FLO-2D is a physical process model that routes rainfall runoff and flood hydrographs over flow surfaces or in channels using the dynamic wave approximation to the momentum equation. FLO-2D offers advantages over 1-D models and unit hydrograph methods by allowing for breakout flows and visualization of flows across a potential site. The primary inputs are a DTM (elevation data), curve numbers, and precipitation. No culverts were included in the model; all roadways and berms were assumed to overtop.

A FLO-2D model with 50-foot grid cells was utilized to model the watershed within and directly impacting the Project Site.

5.2 Elevation Data

The elevation data input into the FLO-2D model was 1-meter DEM data from 2018 California SoCal Wildfires (Exhibit 6). This data was exported as a single digital terrain model (DTM), which is read directly into FLO-2D.

5.3 Watershed Soils and Land Cover

USDA-NRCS SSURGO soil data provides soil types within the Project site and full coverage of the contributing watershed. Soils are primarily classified as Hydrologic Soil Groups (HSG) A and C within the Project site (Exhibit 4). Land cover was obtained from the USDA 2013 Crop Data Layer and calibrated to the Kern County

Hydrology Manual standards. Exhibit 5 displays the land cover classes for the entire watershed. Curve numbers were applied to each grid cell in the FLO-2D model based on intersecting the grid with the curve numbers (Exhibit 6).

5.4 Precipitation

Due to the variance in rainfall patterns throughout the watershed, a spatially varied rainfall pattern based on Atlas 14 rainfall data was utilized for the FLO-2D Analysis. What this means is that each grid cell within the FLO-2D models was assigned a location-specific rainfall depth for the specified storms. The 100-year 24-hour rainfall depths obtained from Atlas 14 for the entire watershed area varied from 4.11" – 9.62". The 10-year and 5-year 24-hour rainfall depths varied from 2.04" – 4.78" and 2.50" – 5.84", respectively. See Exhibit 11 for the spatially varied 100-year, 24-hour rainfall depths throughout the modeled watershed. All rainfall depths were distributed based on a site-specific nested Atlas 14 distribution pattern (Appendix A).

Precipitation data was downloaded from the NOAA Atlas 14 (Appendix A) and two different rainfall amounts were used depending on the analysis. Given the large change in rainfall for the modeled area it was determined to use rainfall values for CivilD based upon the location of the centroid of the calibrated watershed. The 100-year 24-hour storm for this event is 6.40 inches. Rainfall inputs were a site-specific nested Atlas 14 distribution pattern. A second location was determined to be more representative of the entire site and will be used for calculating the required basin storage for the Project. This location was taken from a central location of the Project site. The 100-year 24-hour rainfall amount is 5.11 inches (Appendix A).

5.5 CivilD

The FLO-2D model was calibrated to CivilD by decreasing the Manning's value and decreasing the CN from the standard inputs into the model. The Manning's values were applied to each grid cell in the FLO-2D model based on intersecting the grid with the soils. The rainfall distribution pattern used a site specific rainfall curve based on a central location for the Project site. The model results from the FLO-2D matched closely (<5%) the Kern County results providing assurances that the FLO-2D software was performing adequately.

Table 4 – Comparison of Modeling Methods at Calibration Points

Measurement	CivilD (Kern County)	FLO-2D
Volume (ac-ft)	48.36	46.00
Peak Flow (cfs)	133.68	135.87

6.0 On-Site Retention Requirements

6.1 Retention Requirements

Project development will require retention to mitigate the runoff from the new impervious surfaces, primarily panels, roads, and associated infrastructure. The proposed basins will retain runoff from as much of the site as feasible through the use of berms and swales. Runoff generated from the panels, access roads, and associated infrastructure will be allowed to disperse and infiltrate before being retained by onsite basins. At this design the retention volume is approximated based off anticipated impervious coverage. The Kern County basin requirements are typically more restrictive than the state of California. Given the large difference in rainfall across the Project site a central location was chosen for the rainfall value to be used for the basin sizing calculations (Appendix A). The proposed basins onsite will not be classified as a levee or dam and therefore propose less risk if failure would occur to people or structures.

Table 5 – Proposed Impervious Areas and Kern County Retention Calculations

Site	10-Yr, 5-day Rainfall Depth (in)	Impervious Cover (%)*	Drainage Area (ac)**	Retention Volume Required (ac-ft)	Anticipated Retention Volume Required (ac-ft)
Total Area	4.7	1.0	7,700	30.2	TBD

* The impervious cover % is based on previous Kern County projects

**The drainage area is the area of the Project site.

The design volume for the retention basins is calculated Engineering Bulletin 11-02 of the Kern County Development Standards (KCDS). The runoff volume from the ISDD five-day storm is calculated as:

Retention Basin Volume (ac-ft) = $[(D10yr\text{-}5day)/12](a_i)(Area) = 30.2$ ac-ft

Where,

D10 =10-Yr, 5-day depth of rainfall (in) = 4.7 inches

a_i=average percentage of impervious area = 1.0%

Area= Drainage area of total development = 7,700 acres

7.0 Flood Analysis Results

7.1 Existing Conditions Flood Analysis

The analysis shows low to moderate water depths and low velocities (Exhibits 7 through 8A) across the majority of the Project site. During a 100-year storm, the flood depths across the majority of the Project site are less than 0.5 feet with velocities less than 1 foot/second, with the exception of creeks and washes where the depths can exceed 6.0 feet. The central portion of the Project site has flow depths around 0.5-2.0 feet that is distributed in an alluvial pattern. The 100-year flood depths show a large central portion of the Project site is heavily impacted by the 100-year runoff with depth, velocity, and scour. See Table 6 below for a breakdown of flood depths within the Project site. The Project site is not at risk of inundation by seiche, tsunami, or mudflow.

The 10-year and 5-year, 24-hour storm analysis shows low water depths and low velocities across the majority of the Site (Exhibits 12 through 15). The 10-year and 5-year, 24-hour storm events show similar flooding patterns as the 100-year, 24-hour storm but the extents of the flooding are decreased due to the decrease in rainfall volumes.

Table 6 – Flood Depths Onsite

Peak Flow Depth (ft)	Percentage of Project site Covered by 100-year Peak Flow Depths	Percentage of Project site Covered by 10-year Peak Flow Depths	Percentage of Project site Covered by 5-year Peak Flow Depths
0.00 - 0.49	76.8%	88.2%	92.6%
0.50 - 1.00	11.7%	8.9%	6.0%
1.01 - 1.50	7.2%	1.9%	0.9%
1.51 - 2.00	2.8%	0.5%	0.3%
2.01 - 2.50	0.7%	0.2%	0.1%
2.51 - 3.00	0.3%	0.1%	0.0%
3.01 - 4.00	0.2%	0.1%	0.1%
4.01 - 6.00	0.2%	0.1%	0.0%
6.01+	0.1%	0.0%	0.0%

See Exhibits 7 through 8A and 12 through 15 for areas within the Project site with higher flood depths and velocities.

7.2 Scour

Minimal scour is expected onsite (Exhibit 9). The middle of the Project site along with the drainages onsite have higher potential for scour onsite. The scour depths calculated for this Project are based on HEC-18 Pier Scour Equations of a 6-inch-wide pile perpendicular to flow. Scour calculations consist of local scour only with unarmored soils and pile bases to provide the conservative local scour results. These scour results do not account for general, rill, or gully scour.

8.0 CEQA Hydrology and Water Quality Assessment

CEQA Section 15382 defines a significant effect on the environment as a substantial or potentially substantial adverse change in any of the physical conditions with the area affected by a project for all environmental resources. This assessment depicts potential impacts the Project may have on the environment, drainage patterns, and flood hazards areas.

1. *Would the project violate any water quality standards or waste discharge requirements?*

The Project will follow all applicable laws and regulations for water quality standards or waste discharge requirements. The Project will, at a minimum, meet water quality standards and waste discharge requirements by implementation of permanent and temporary stormwater controls. The Project will implement temporary stormwater control during construction of the Project which will substantially reduce or eliminate any water quality impacts.

2. *Would the project substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table level (e.g., the production rate of pre-existing nearby wells would drop to a level which would not support existing land uses or planned uses for which permits have been granted)?*

The Project is not anticipated to adversely affect the local groundwater sources. A separate Water Supply Assessment is being completed by another party for the Project and may include an analysis of both on-site and off-site well sources. The Project will introduce a limited amount of impervious surfaces and will not interfere with groundwater recharge. Additionally, vegetation onsite has been selected that requires minimal watering which will further reduce water needed onsite.

3. *Would the project substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, in a manner which would result in substantial erosion or siltation on- or off-site?*

The Project will not alter the courses of any streams or rivers. The Site has been designed to minimize grading in order to reduce the possibility for erosion or siltation onsite or offsite. The Project will also be subject to a stormwater pollution prevention plan (SWPPP) which will further reduce the issue of erosion and siltation impacts.

4. *Would the project substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, or substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or off-site?*

The Project will not alter the courses of any streams or rivers. However, with the addition of the proposed permanent stormwater basins it could result in slight alterations (decrease) in the volume and velocity of stormwater discharging from the Site. The basins in place will capture water and allow some of that water to infiltrate and would slow the water traveling through the Site. These basins will assist in, at a minimum, maintaining the current water quality and discharge rates and volumes onsite.

5. *Would the project create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff?*

The Project will be capturing runoff from the added impervious area with the implementation of permanent stormwater control measures such as basins. These basins will be sufficient for capturing any increase that the added impervious area may have caused and will ultimately not increase runoff from the Project site, the basins are designed to not be exceeded during normal storm events. The Project site will not provide any substantial additional sources of polluted runoff.

6. *Would the project otherwise substantially degrade water quality?*

With the addition of the temporary and permanent stormwater control measures the Project will not substantially degrade water quality.

7. *Would the project place housing within a 100-year flood hazard area as mapped on a federal Flood Hazard Boundary or Flood Insurance Rate Map or other flood hazard delineation map?*

The Project does not involve housing and as such none will be placed within a 100-year flood hazard area.

8. *Would the project place within a 100-year flood hazard area structures which would impede or redirect flood flows?*

No buildings are intended to be placed within a 100-year flood hazard area. Given that the design is still preliminary the layout may still change. Westwood recommends

avoiding flood hazards onsite. However, any structure(s), solar facilities or related appurtenances that are within the FEMA 100-year flood hazard area, such as, but not limited to, the solar array or inverter skid facilities, will need to be elevated above the 100-year flood with proper freeboard in order to not impede or redirect flood flows. With the size of the piles being relatively small compared with the wide FEMA zones it is anticipated that any changes in the flood hazard areas would be insignificant and no impediment or redirection of flood flows will occur.

9. *Would the project expose people or structures to a significant risk of loss, injury or death involving flooding, including flooding as a result of the failure of a levee or dam?*

There are no dams or levees upstream of the Project site. Additionally, the Project is not proposing any dams or levees so there would be no impact to people or structures from flooding as a result of the failure of a dam or levee.

10. *Would the project increase risk of inundation by seiche, tsunami, or mudflow?*

The Project is not located in a flood hazard zone for seiche, tsunami, or mudflow and will not increase risk with regard to these issues.

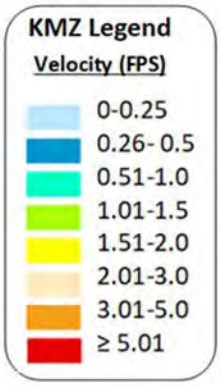
9.0 Recommendations

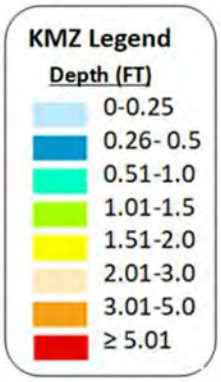
Based on experience on similar projects, the Project site is suitable for the planned development and hydrologic concerns can be addressed by either avoiding areas of high flood depths or through detailed engineering design.

10.0 Next Steps

1. Final engineering design should account for the flood depths and velocities presented in Exhibits 7-8A.
2. Facilities to be elevated 1' above the 100-year, 24-hour peak flood elevations.
3. Proposed facilities should avoid FEMA Flood Zones located onsite when possible or be designed to meet local, state, and/or federal requirements.
4. Stormwater management should be revisited to ensure the final design meets the local and state requirements.

11.0 Included Output Files





1. Shapefile of 100-Year Rain Event Flow Depth
   2024-05-10_DiscoverySolarStorage_PrelimFlowDepthatCell_100yr.shp
   Attribute "ID" = Grid Cell Number
   Attribute "VAR" = Max Flow Depth (Feet)

2. Shapefile of 100-Year Rain Event Velocity
   2024-05-10_DiscoverySolarStorage_PrelimVelocityatCell_100yr.shp
   Attribute "ID" = Grid Cell Number
   Attribute "VAR" = Max Velocity (FPS)

3. Shapefile of 10-Year Rain Event Flow Depth
   2025-03-14_DiscoverySolarStorage_PrelimFlowDepthatCell_10yr.shp
   Attribute "ID" = Grid Cell Number
   Attribute "VAR" = Max Flow Depth (Feet)

4. Shapefile of 10-Year Rain Event Velocity
   2025-03-14_DiscoverySolarStorage_PrelimVelocityatCell_10yr.shp
   Attribute "ID" = Grid Cell Number
   Attribute "VAR" = Max Velocity (FPS)

5. Shapefile of 5-Year Rain Event Flow Depth
   2025-03-14_DiscoverySolarStorage_PrelimFlowDepthatCell_5yr.shp
   Attribute "ID" = Grid Cell Number
   Attribute "VAR" = Max Flow Depth (Feet)

6. Shapefile of 5-Year Rain Event Velocity
   2025-03-14_DiscoverySolarStorage_PrelimVelocityatCell_5yr.shp
   Attribute "ID" = Grid Cell Number
   Attribute "VAR" = Max Velocity (FPS)

7. KMZ of FLO-2D Results
   2025-03-14_DiscoverySolarStorage_PrelimFLO-2D.kmz
   Overlay in Google Earth for graphical representation.

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Exhibits

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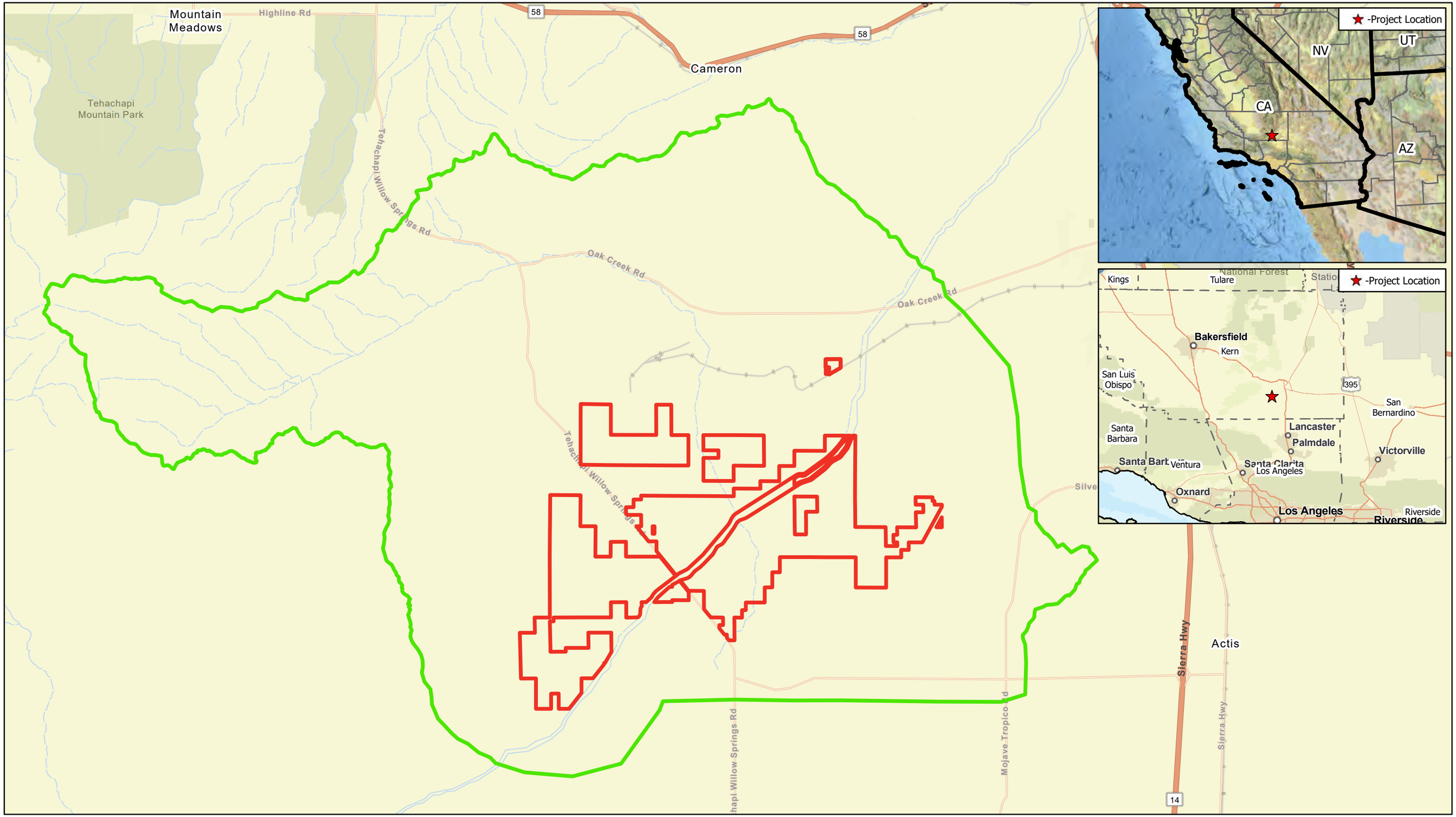

Data Source(s): Westwood (2025); Esri WMS Basemap Imagery (Accessed 2025); USGS (2025); FEMA (2025); USDA (2025)

Legend

- Project site
- FLO-2D Model Boundary
- County Boundary

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Discovery Solar PV and Storage Project

Kern County, California

N

0 1.5 Miles

Exhibit 1: Location Map

July 3, 2025

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Location Map - Location Map | 6/27/2025 12:07 PM | EBuhlend

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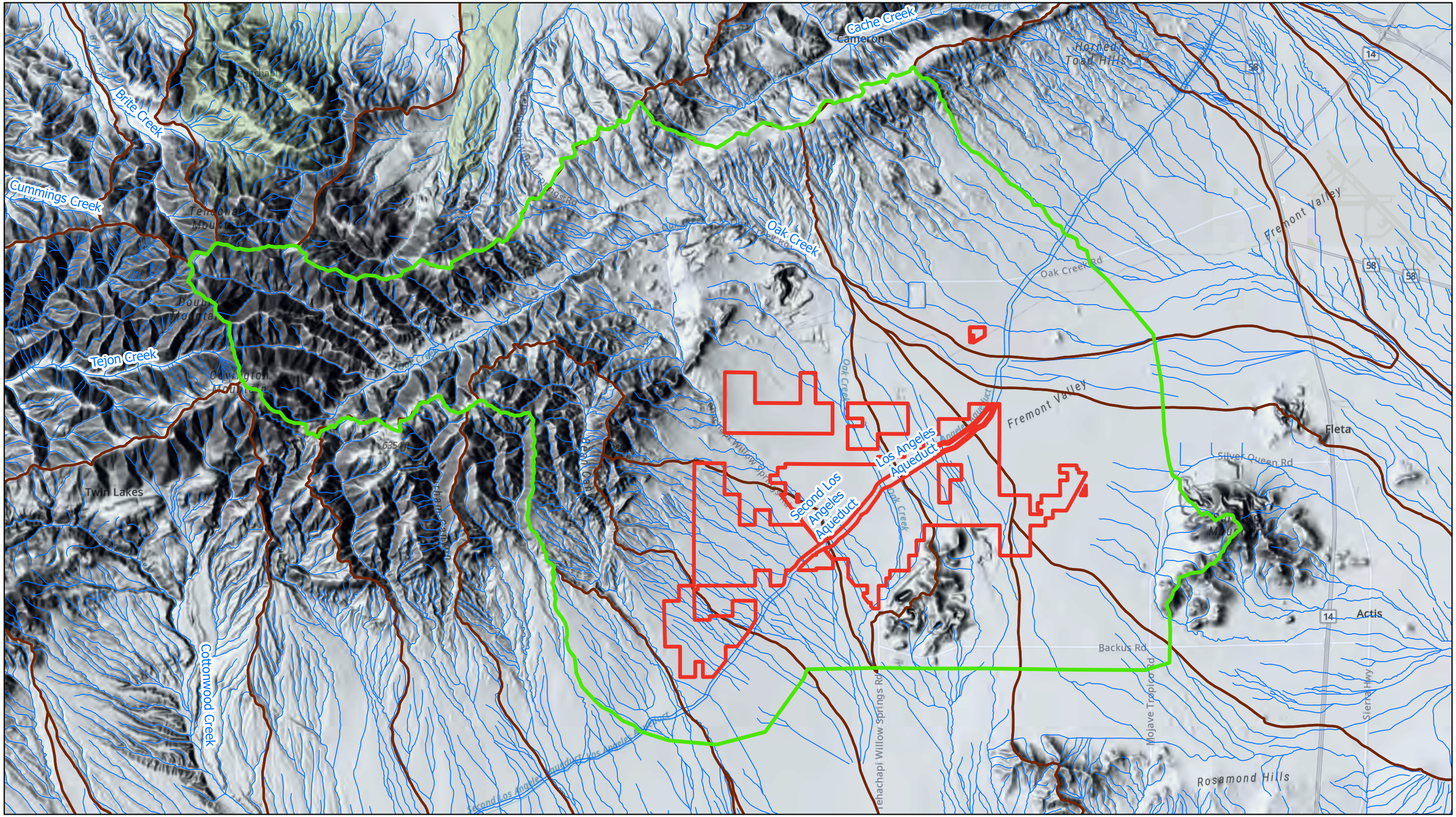

Data Source(s): Westwood (2025); Esri WMS Basemap Imagery (Accessed 2025); USGS (2025); FEMA (2025); USDA (2025)

Legend

- Project site
- FLO-2D Model Boundary
- County Boundary
- HUC-12 Boundary
- NHD Flowlines

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N

0 Miles 1.5

Exhibit 2: Base Hydrologic Map

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Base Hydrologic Map - Base Hydrologic Map | 9/27/2025 2:36 PM | EBurford

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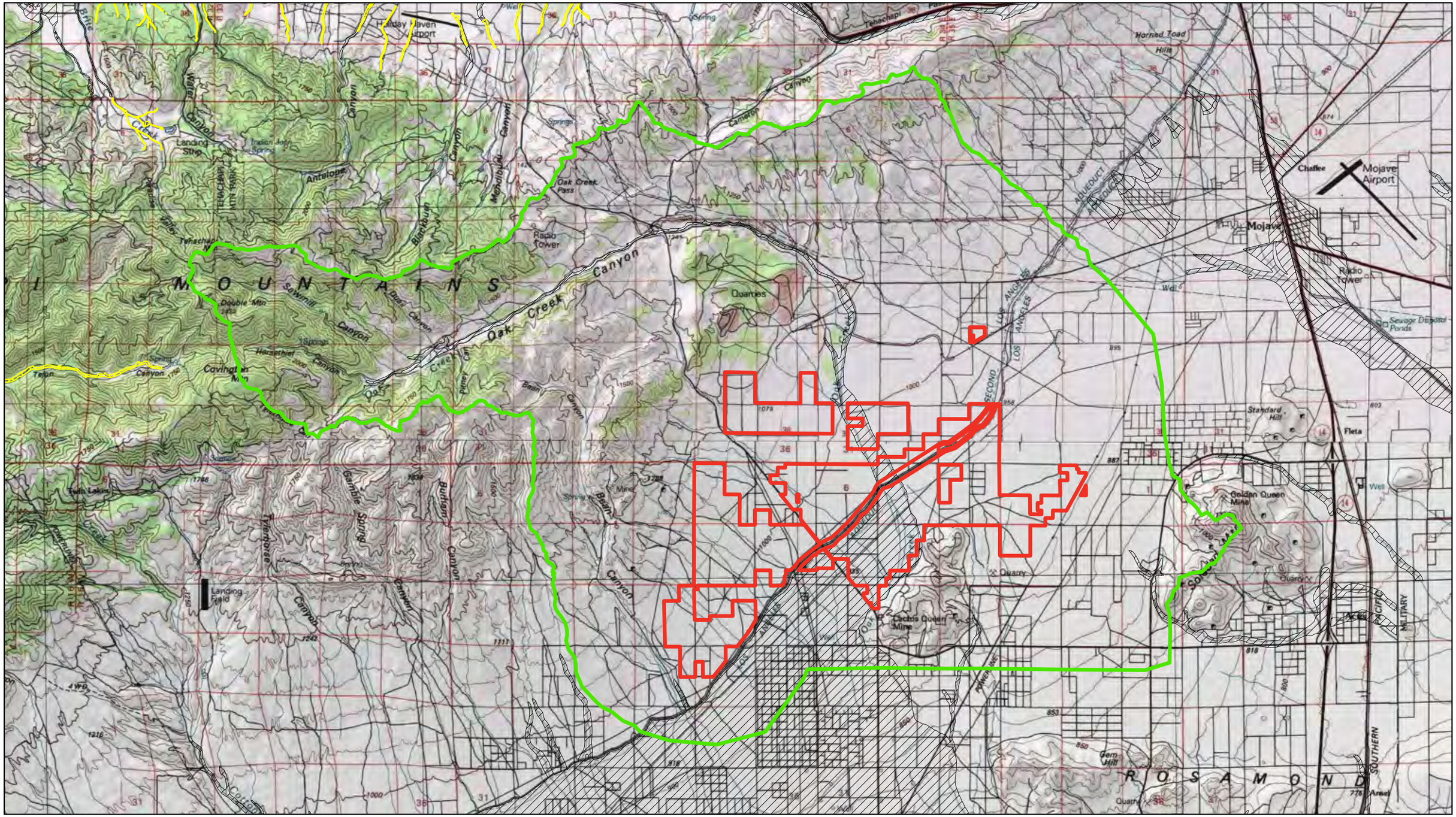

Data Source(s): Westwood (2025); Esri WMS Basemap Imagery (Accessed 2025); USGS (2025); FEMA (2025); USDA (2025)

Legend

- Project site
- FLO-2D Model Boundary
- County Boundary
- FEMA Zone A
- FEMA Zone AE
- FEMA Zone AO
- CA DWR Flood Awareness
- NWI Wetlands

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Discovery Solar PV and Storage Project

Kern County, California

Exhibit 3: USGS, FEMA, and NWI Wetlands Map

N

0 Miles 1.5

July 3, 2025

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USGS, FEMA, and NWI Wetlands Map - USGS, FEMA, and NWI Wetlands Map | 6/27/2025 12:37 PM | EBurfeind

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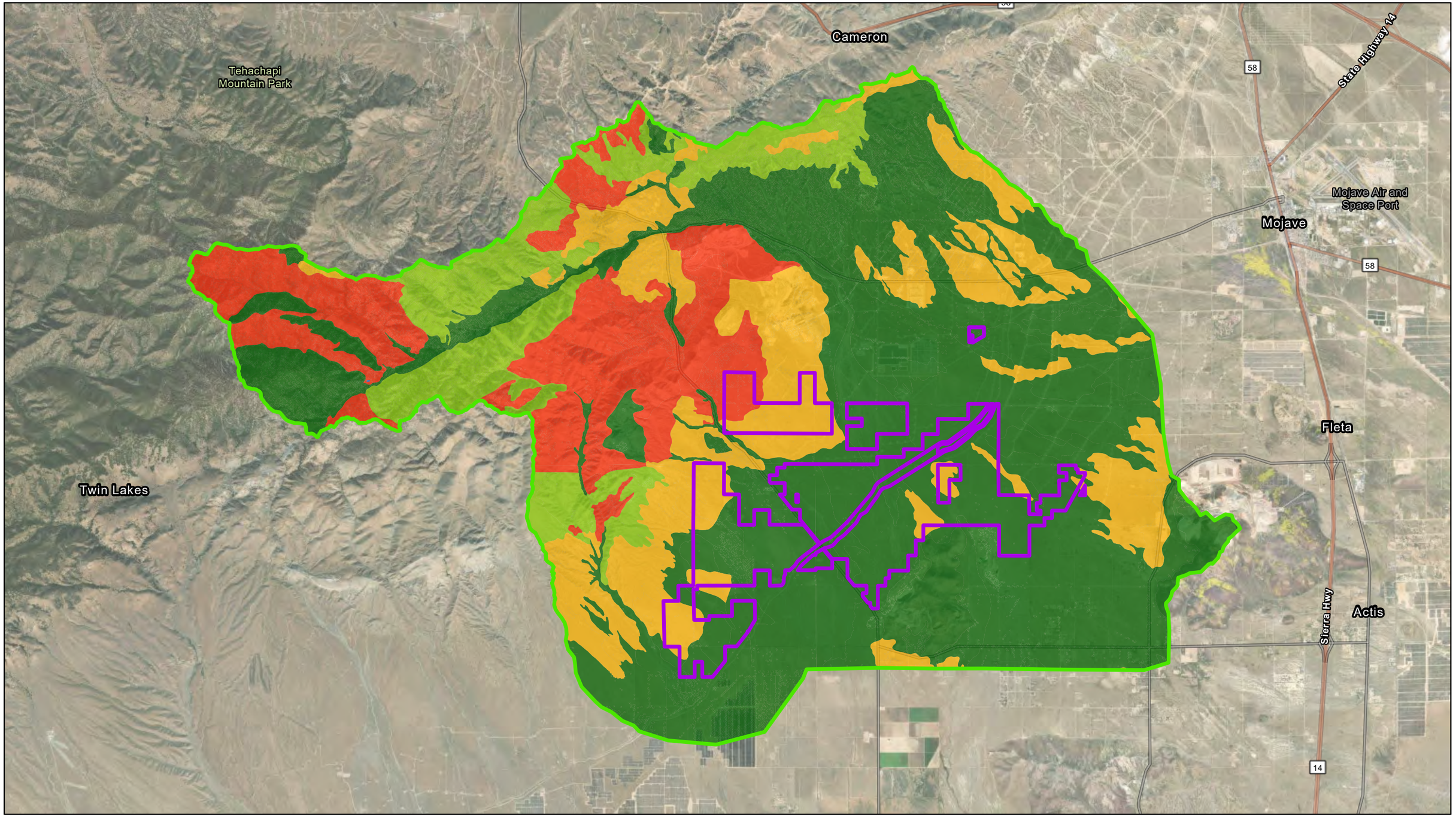

Data Source(s): Westwood (2025); Esri WMS Basemap Imagery (Accessed 2025); USGS (2025); FEMA (2025); USDA (2025)

Legend

- Project site
- FLO-2D Model Boundary
- County Boundary

Hydrologic Soils Group

- A
- B
- C
- D
- W

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N

0 1.5 Miles

Exhibit 4: Soils Map

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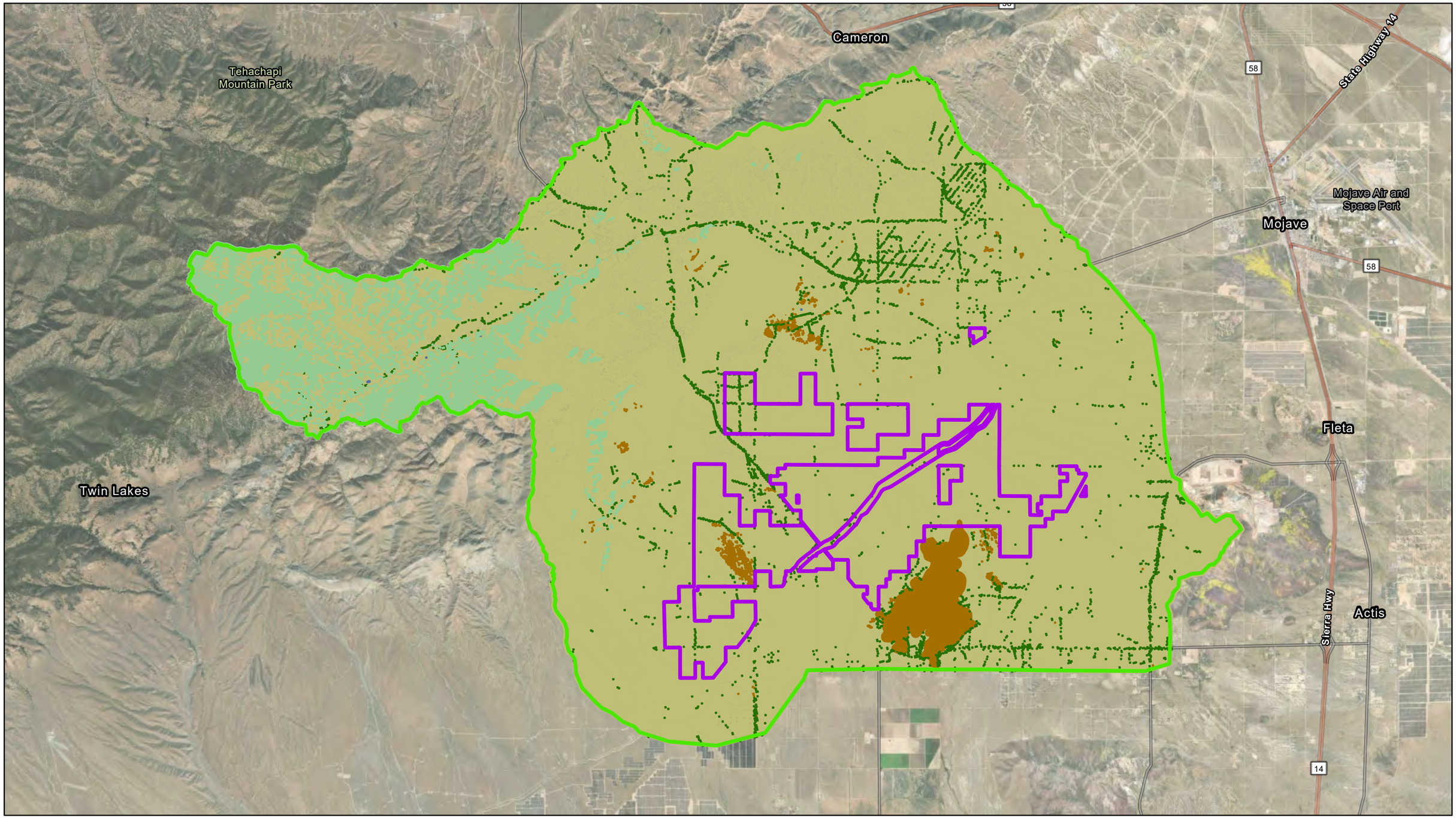

Data Source(s): Westwood (2025); Esri WMS Basemap Imagery (Accessed 2025); USGS (2025); FEMA (2025); USDA (2025)

Legend

- Project site
- FLO-2D Model Boundary
- County Boundary

Landcover

- Barren
- Chaparral- Narrowleaf
- Turf
- Water
- Woodland

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N

0 1.5 Miles

Exhibit 5: Landcover Map

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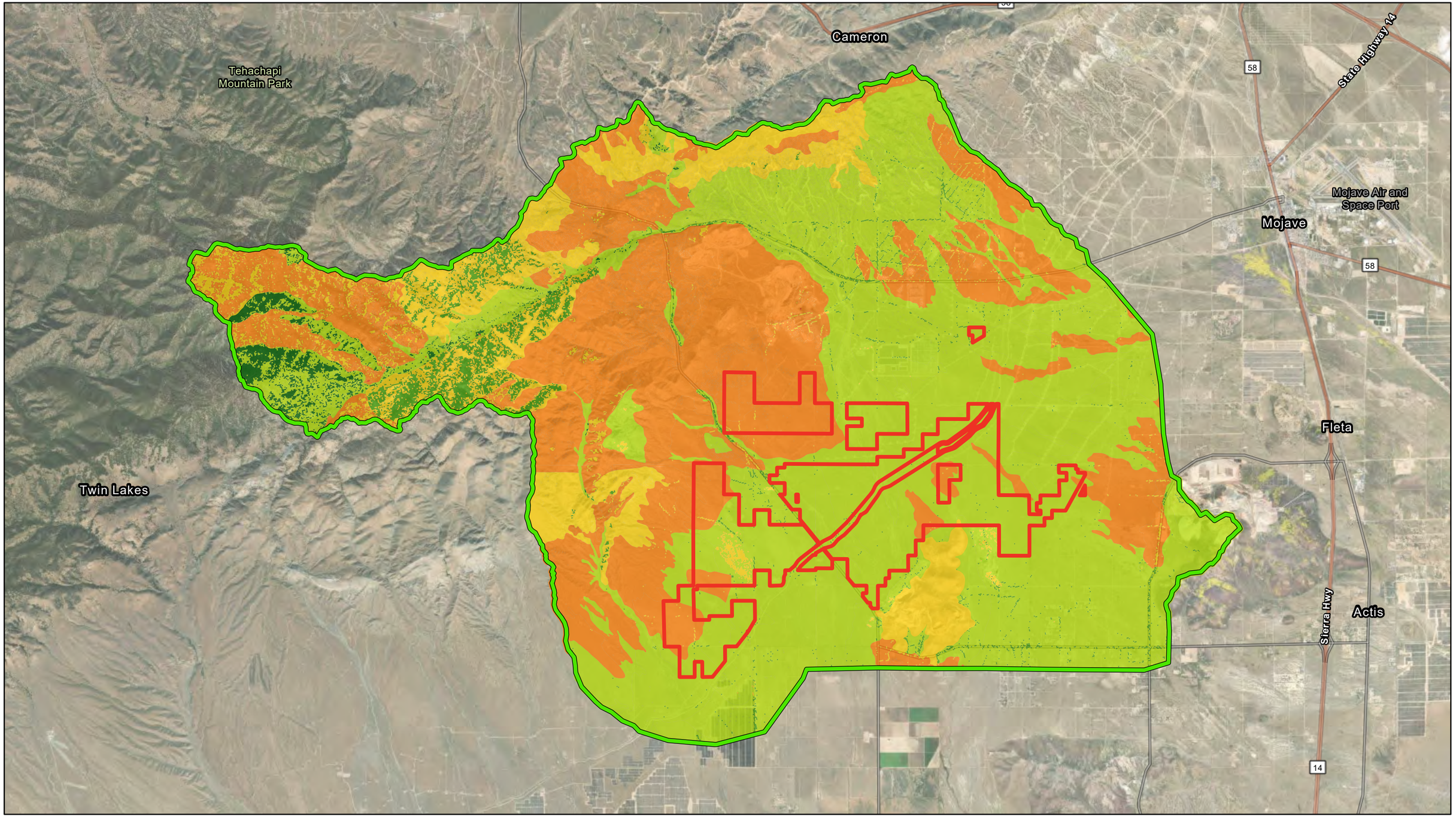

Data Source(s): Westwood (2025); Esri WMS Basemap Imagery (Accessed 2025); USGS (2025); FEMA (2025); USDA (2025)

Legend

- Project site
- FLO-2D Model Boundary
- County Boundary
- 1-Meter Elevation Extents

Curve Number

- 40 - 49
- 50 - 59
- 60 - 69
- 70 - 79
- 80 - 89
- 90 - 99

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N

0 Miles 1.5

Exhibit 6: Curve Number and Topographic Source Map

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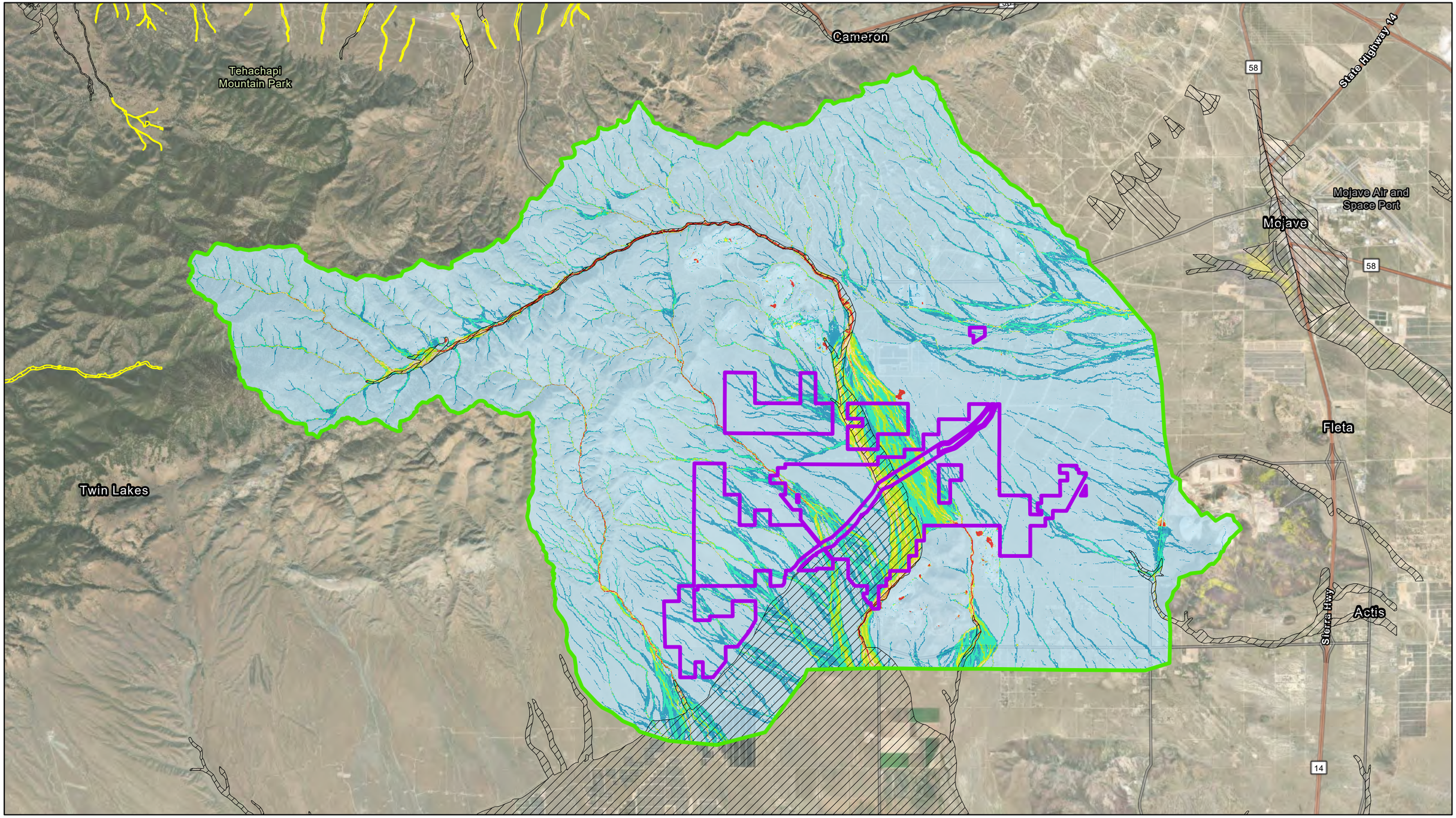

Data Source(s): Westwood (2025); Esri WMS Basemap Imagery (Accessed 2025); USGS (2025); FEMA (2025); USDA (2025)

Legend

- Project site
- FLO-2D Model Boundary
- County Boundary
- FEMA Zone A
- FEMA Zone AE
- FEMA Zone AO
- CA DWR Flood Awareness

Max Water Depth (ft)

- 0.00 - 0.25
- 0.26 - 0.50
- 0.51 - 1.00
- 1.01 - 1.50
- 1.51 - 2.00
- 2.01 - 3.00
- 3.01 - 5.00
- 5.01 +

N

0 Miles 1.5

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Exhibit 7: 100-Year Max Water Depth Map

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100-Yr Max Water Depth Map - 100 Yr Max Water Depth | 6/27/2025 12:02 PM | EBarfield

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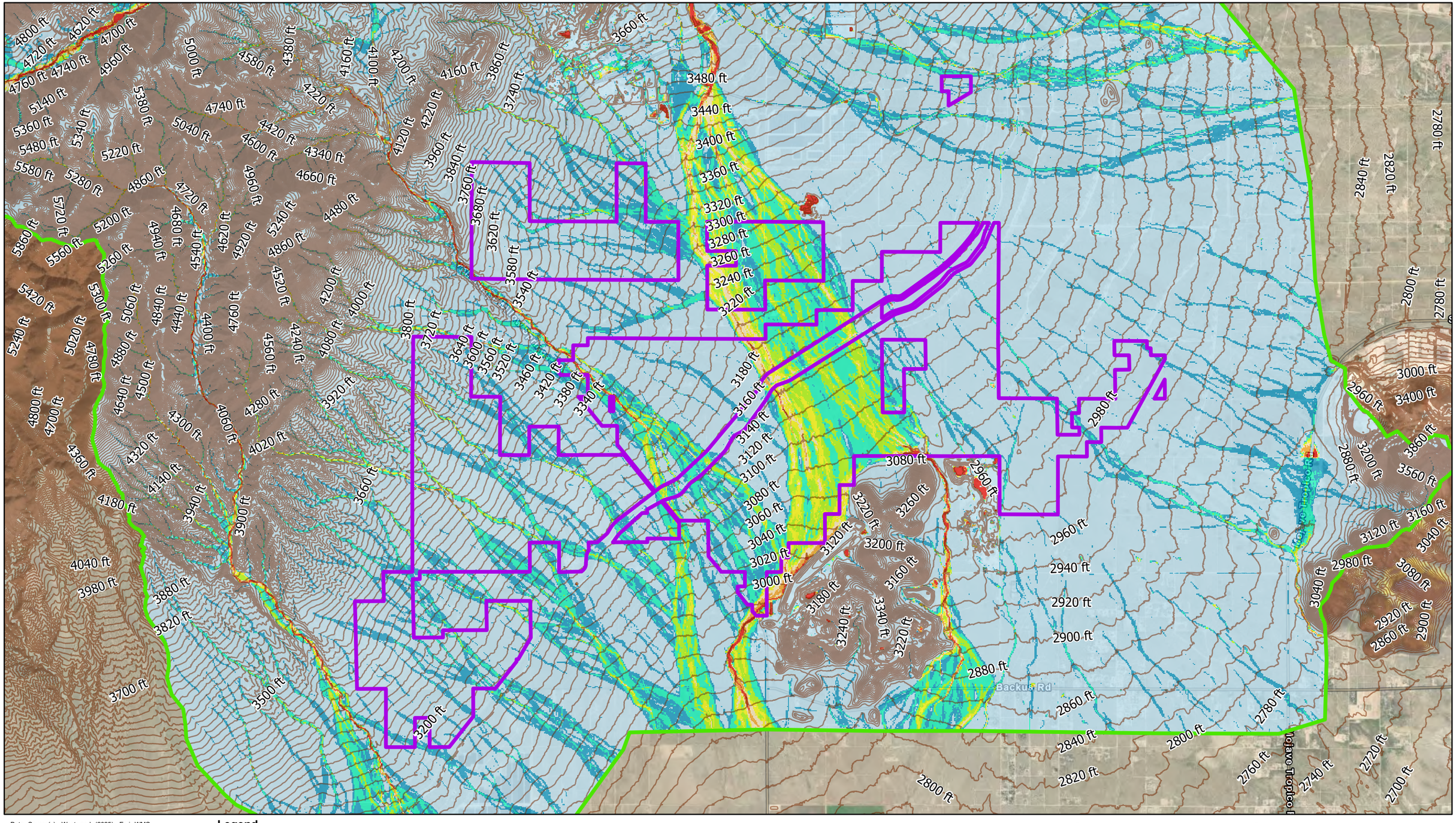

Data Source(s): Westwood (2025); Esri WMS Basemap Imagery (Accessed 2025); USGS (2025); FEMA (2025); USDA (2025)

Legend

- Project site
- FLO-2D Model Boundary
- County Boundary
- 20' Contours

Max Water Depth (ft)

- 0.00 - 0.25
- 0.26 - 0.50
- 0.51 - 1.00
- 1.01 - 1.50
- 1.51 - 2.00
- 2.01 - 3.00
- 3.01 - 5.00
- 5.01 +

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Exhibit 7A: 100-Year Max Water Depth Project Map

N

0 Miles 0.75

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100 Yr Max Water Depth Project Area.jpg - 100-Yr Max Water Depth Project Area | 6/27/2025 12:07 PM | Eburfeind

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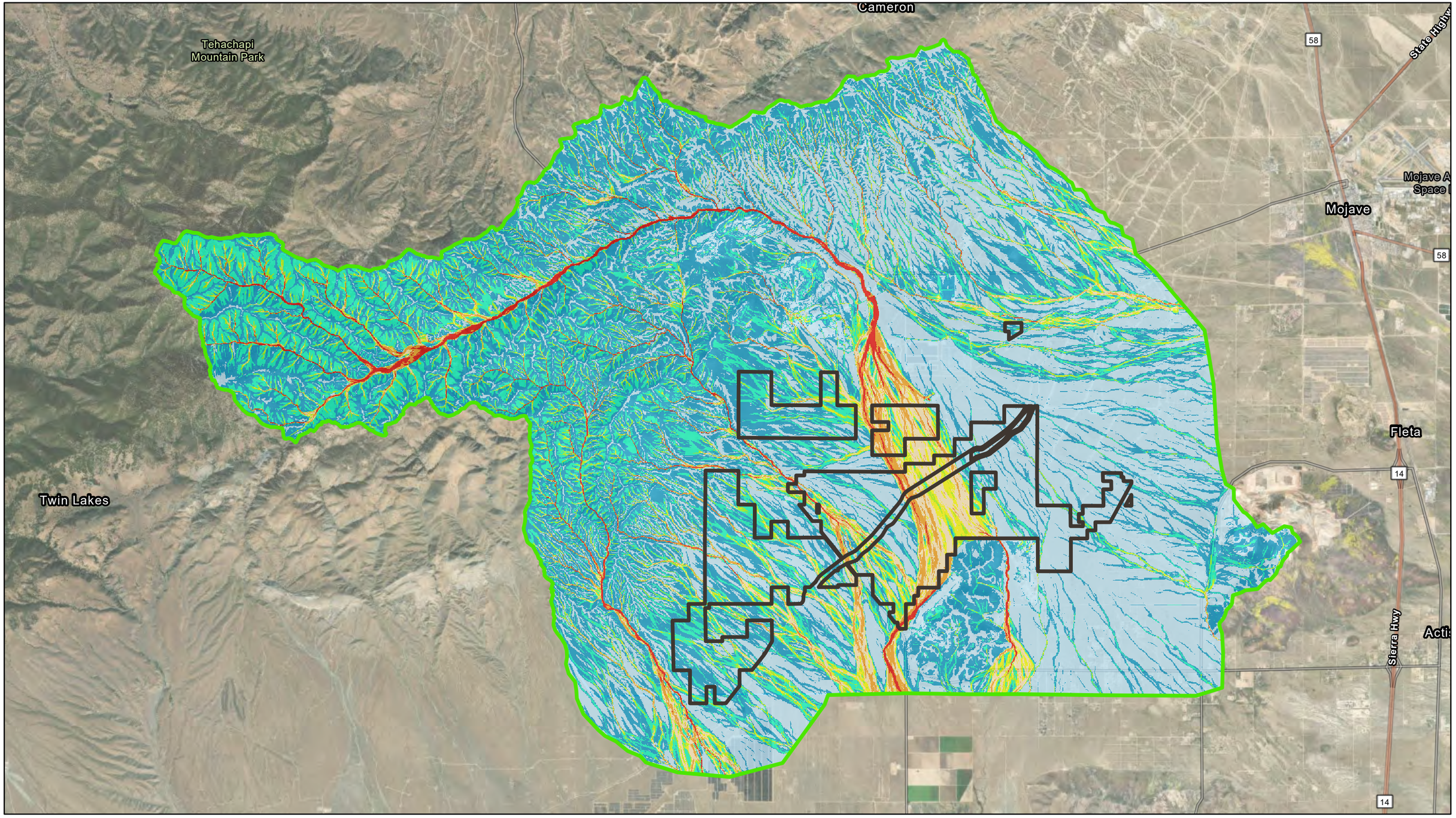

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Legend

- Project site
- FLO-2D Model Boundary
- County Boundary

Peak Velocity (fps)

- 0.00 - 0.25
- 0.26 - 0.50
- 0.51 - 1.00
- 1.01 - 1.50
- 1.51 - 2.00
- 2.01 - 3.00
- 3.01 - 5.00
- 5.01 +

Discovery Solar PV and Storage Project

Kern County, California

N

0 Miles 1.5

Exhibit 8: 100-Year Peak Velocity Map

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100 Yr Peak Velocity Map - 100 Yr Peak Velocity | 8/27/2025 12:01 PM | Esurfield

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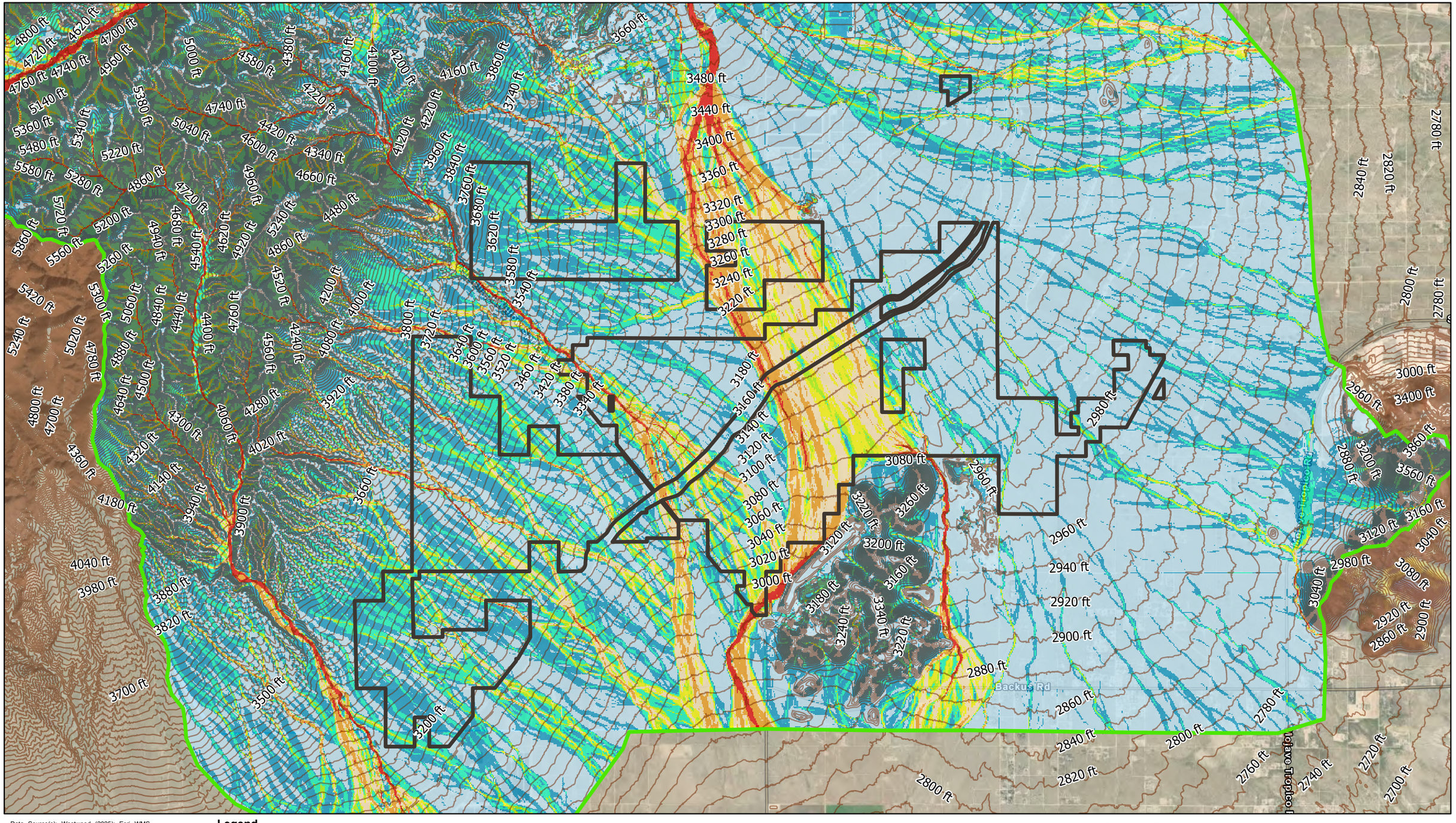

Data Source(s): Westwood (2025); Esri WMS Basemap Imagery (Accessed 2025); USGS (2025); FEMA (2025); USDA (2025)

Legend

- Project site
- FLO-2D Model Boundary
- County Boundary
- 20' Contours

Peak Velocity (fps)

- 0.00 - 0.25
- 0.26 - 0.50
- 0.51 - 1.00
- 1.01 - 1.50
- 1.51 - 2.00
- 2.01 - 3.00
- 3.01 - 5.00
- 5.01 +

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Discovery Solar PV and Storage Project

Kern County, California

N

0 Miles 0.75

Exhibit 8A: 100-Year Peak Velocity Project Map

July 3, 2025

\\westwoodps.local\Global Projects\00366\02.03_GIS_Hydro\Exhibits\Discover Solar PV and Storage Project\Discovery Solar PV and Storage Project.aprx
100 YR Peak Velocity Project Area Map - 100 YR Peak Velocity Project Area | 6/27/2025 12:24 PM | ElliottEst

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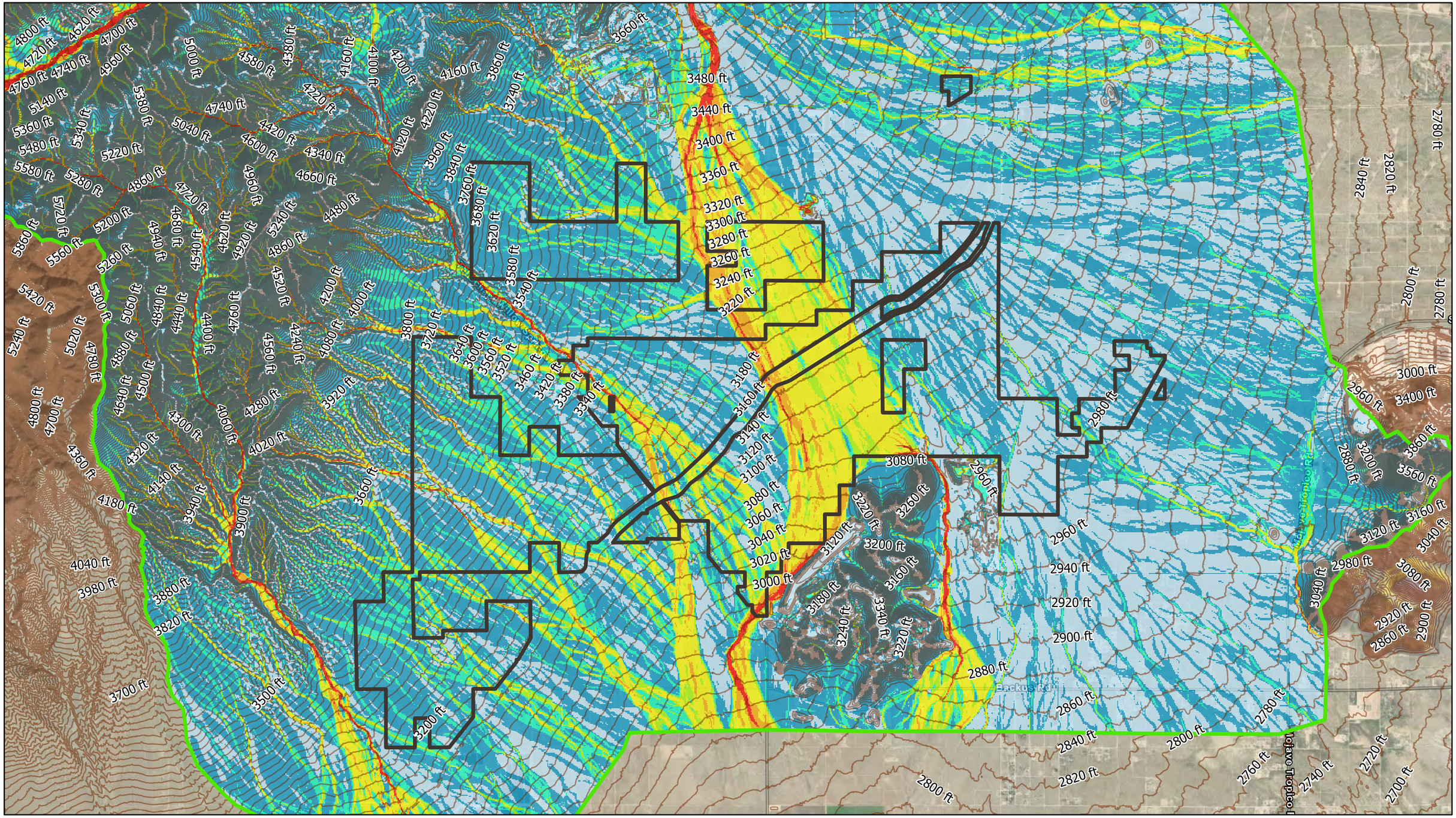

Data Source(s): Westwood (2025); Esri WMS Basemap Imagery (Accessed 2025); USGS (2025); FEMA (2025); USDA (2025)

Legend

- Project site
- FLO-2D Model Boundary
- County Boundary
- 20' Contours
- Scour (ft)
  - 0.00 - 0.25
  - 0.26 - 0.50
  - 0.51 - 0.75
  - 0.76 - 1.00
  - 1.01 - 1.50
  - 1.51 - 2.00
  - 2.01 +

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N

0 Miles 0.75

Discovery Solar PV and Storage Project

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Exhibit 9: 100-Year Local HEC-18 Pier Scour Map

July 3, 2025

\\westwoodps.local\Global Projects\00366582.03_GIS_HydroExhibits\Discover Solar PV and Storage Project\Discovery Solar PV and Storage Project.aprx
100 YR Scour Map - 100 YR Scour | 6/27/2025 12:06 PM | EBuitenhuis

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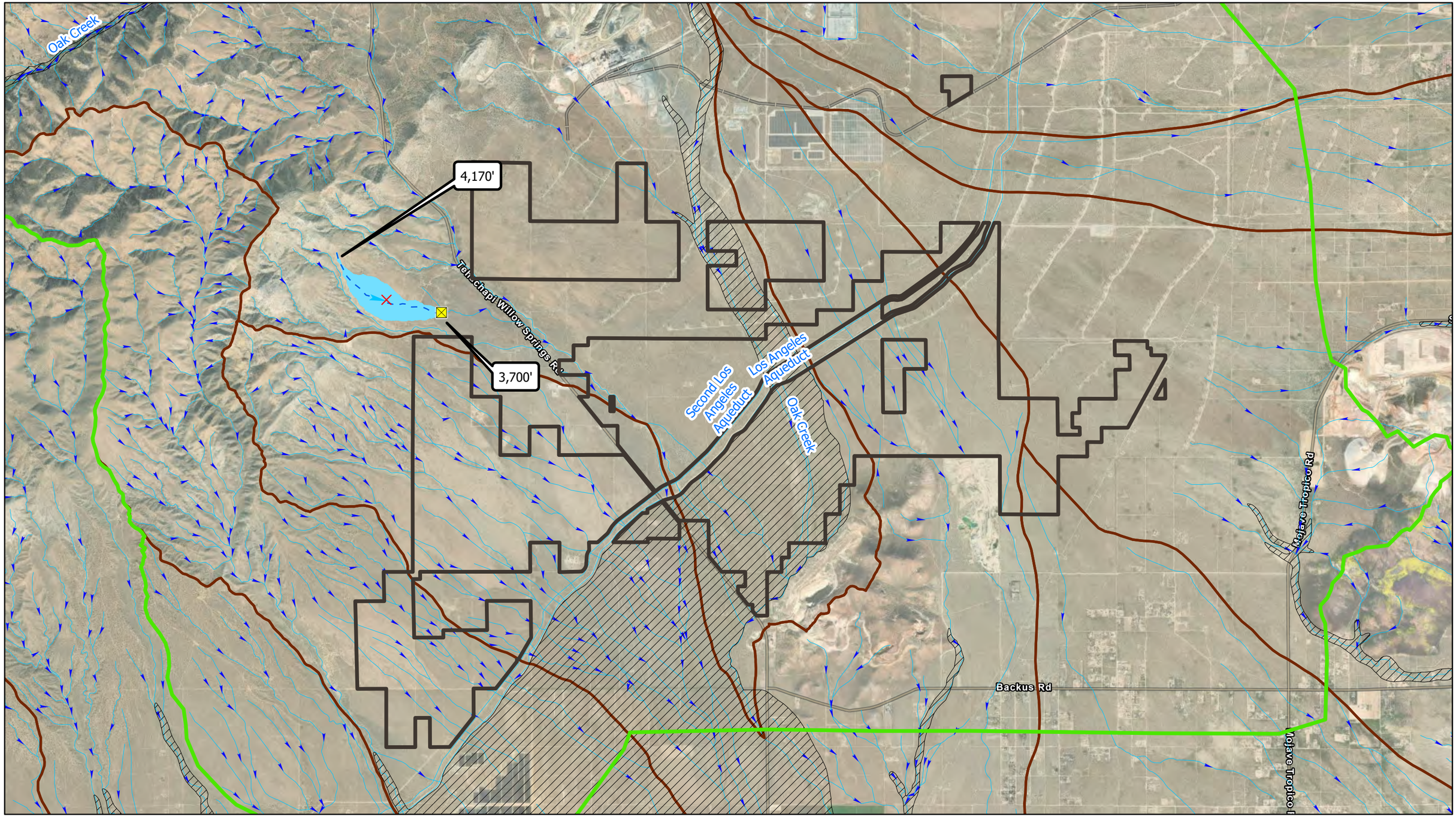

Data Source(s): Westwood (2025); Esri WMS Basemap Imagery (Accessed 2025); USGS (2025); FEMA (2025); USDA (2025)

Legend

- Project site
- FLO-2D Model Boundary
- County Boundary
- FEMA Zone A
- FEMA Zone AE
- FEMA Zone AO
- CA DWR Flood Awareness
- Kern County Calibration Watershed
- HUC 12 Boundary
- NHD Flowline
- Calibration Point
- Watershed Centroid
- Longest Watercourse

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Kern County, California

N

0 0.75 Miles

Exhibit 10: Kern County Hydrology Map

July 3, 2025

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Kern County Hydrology Map - Kern County Hydrology Map | 6/27/2025 12:02 PM | EBurfeind

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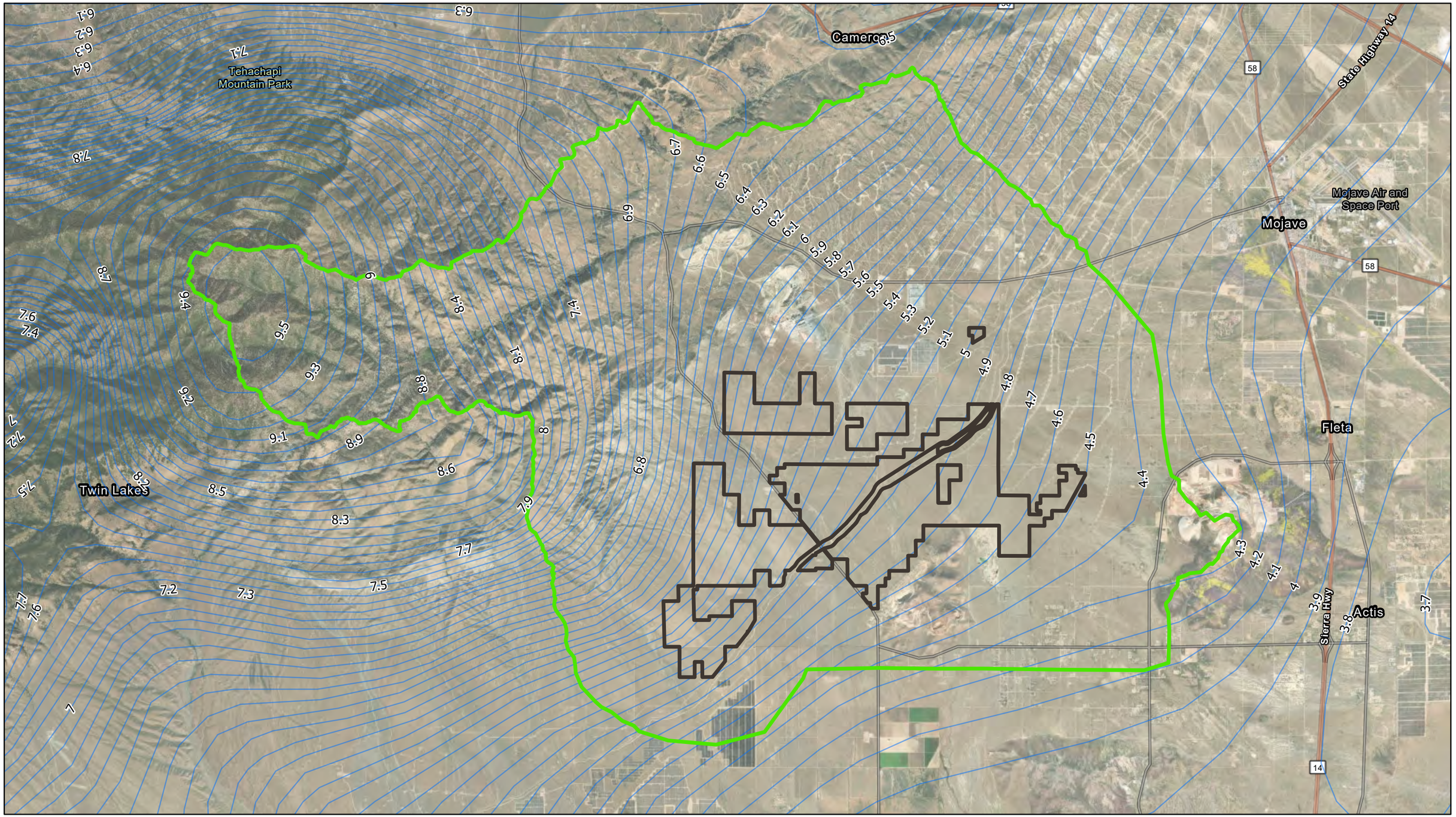

Data Source(s): Westwood (2025); Esri WMS Basemap Imagery (Accessed 2025); USGS (2025); FEMA (2025); USDA (2025)

Legend

- Project site
- County Boundary
- FLO-2D Model Boundary
- 100-Year 24 Hour Rainfall Depth Contours - 0.1"

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Kern County, California

Exhibit 11: Spatially Varied Rainfall Depth Map

N

0 Miles 1.5

July 3, 2025

\\westwoodps.local\Global Projects\00366582.03_GIS_Hydro\Exhibits\Discover Solar PV and Storage Project\Discovery Solar PV and Storage Project.aprx
Spatially Varied Rainfall Depth Map - Spatially Varied Rainfall Depth Map | 6/27/2025 12:07 PM | EBurland

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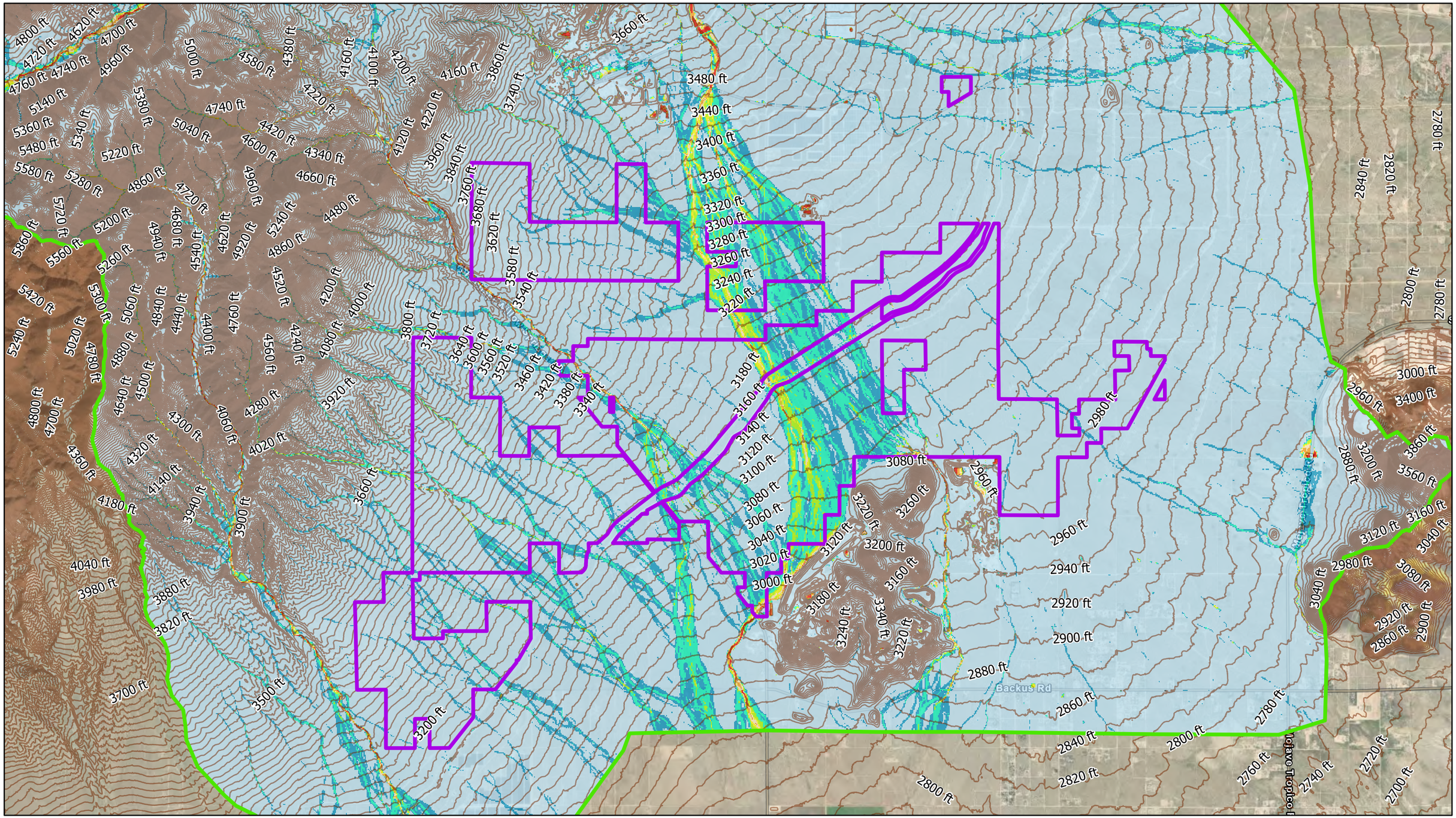

Data Source(s): Westwood (2025); Esri WMS Basemap Imagery (Accessed 2025); USGS (2025); FEMA (2025); USDA (2025)

Legend

- Project site
- FLO-2D Model Boundary
- County Boundary
- 20' Contours

Max Water Depth (ft)

- 0.00 - 0.25
- 0.26 - 0.50
- 0.51 - 1.00
- 1.01 - 1.50
- 1.51 - 2.00
- 2.01 - 3.00
- 3.01 - 5.00
- 5.01 +

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Discovery Solar PV and Storage Project

Kern County, California

N

0 Miles 0.75

Exhibit 12: 10-Year Max Water Depth Project Map

July 3, 2025

\\westwoodps.local\Global Projects\00365\82.03_GIS_HydroExhibits\Discover Solar PV and Storage Project\Discovery Solar PV and Storage Project.aprx
10 YR Max Water Depth Project Area.mxd | 10 YR Max Water Depth Project Area | 6/27/2025 2:39 PM | EBurford

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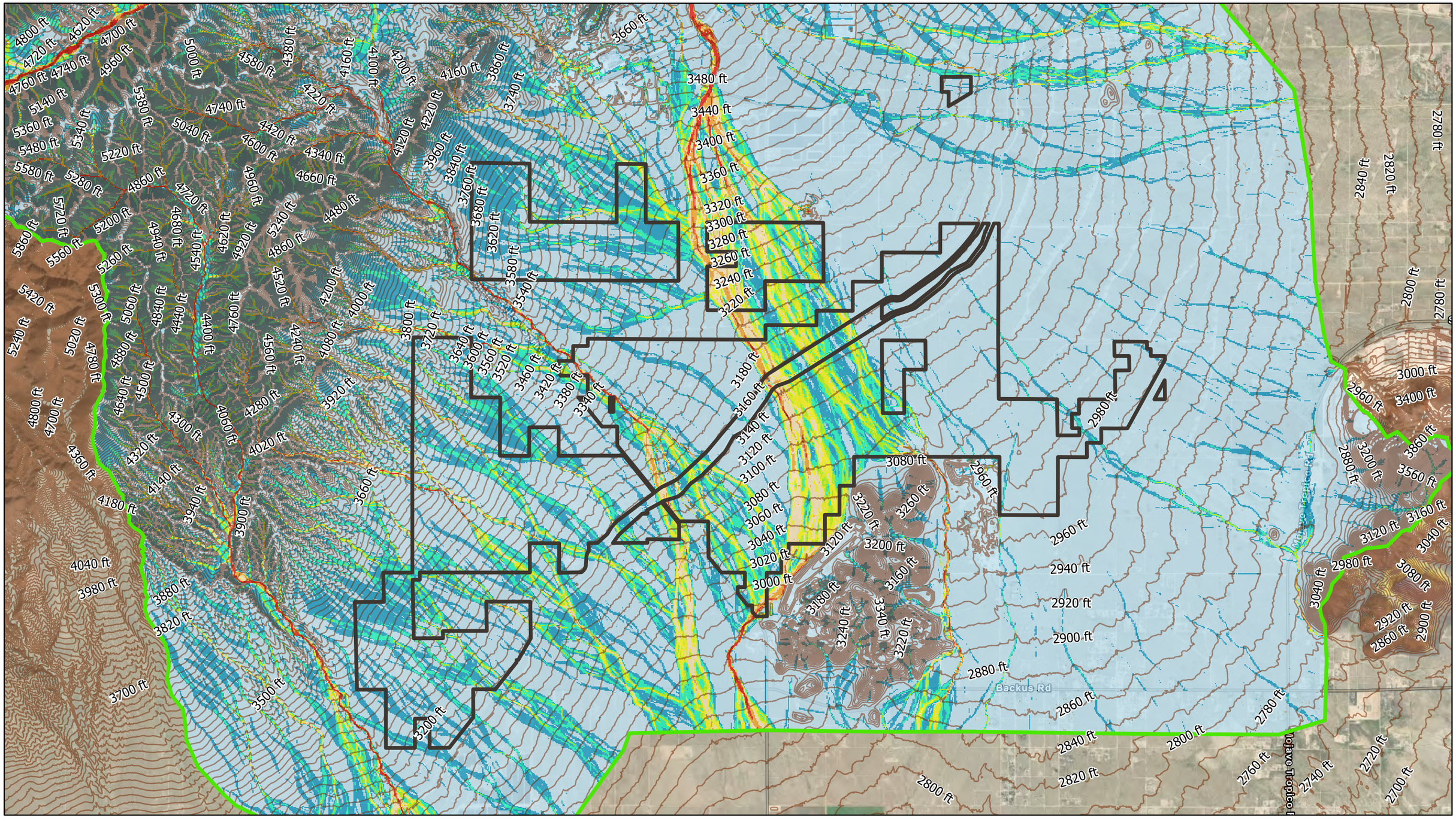

Data Source(s): Westwood (2025); Esri WMS Basemap Imagery (Accessed 2025); USGS (2025); FEMA (2025); USDA (2025)

Legend

- Project site
- FLO-2D Model Boundary
- County Boundary
- 20' Contours

Peak Velocity (fps)

- 0.00 - 0.25
- 0.26 - 0.50
- 0.51 - 1.00
- 1.01 - 1.50
- 1.51 - 2.00
- 2.01 - 3.00
- 3.01 - 5.00
- 5.01 +

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Kern County, California

Exhibit 13: 10-Year Peak Velocity Project Map

N

0 Miles 0.75

July 3, 2025

\\westwoodps.local\Global Projects\00366\82.03_GIS_HydroExhibits\Discovery Solar PV and Storage Project\Discovery Solar PV and Storage Project.aprx
10 Yr Peak Velocity Project Area Map1 - 10 Yr Peak Velocity Project Area | 6/27/2025 11:12 AM | EBurford

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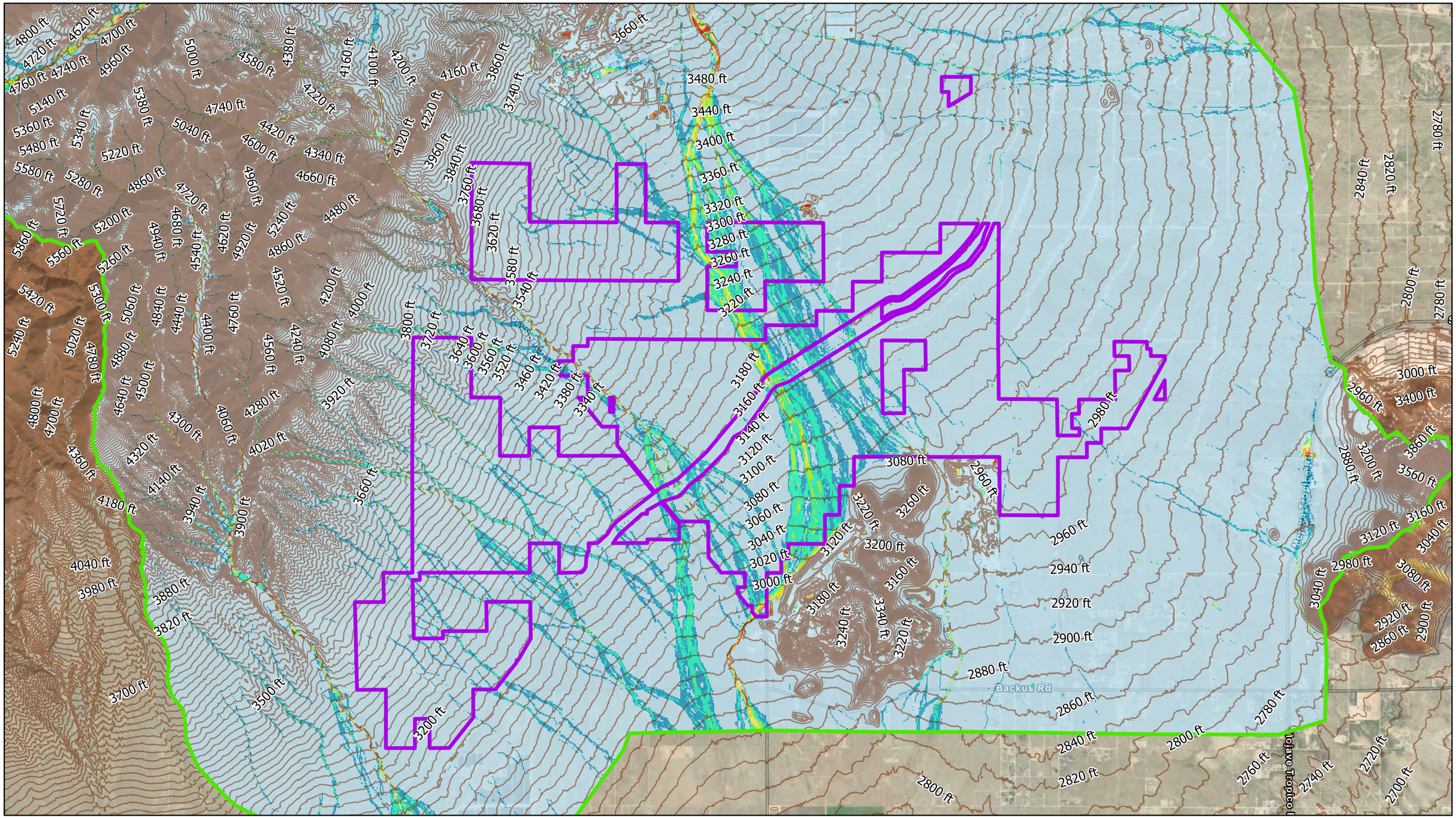

Data Source(s): Westwood (2025); Esri WMS Basemap Imagery (Accessed 2025); USGS (2025); FEMA (2025); USDA (2025)

Legend

- Project site
- FLO-2D Model Boundary
- County Boundary
- 20' Contours

Max Water Depth (ft)

- 0.00 - 0.25
- 0.26 - 0.50
- 0.51 - 1.00
- 1.01 - 1.50
- 1.51 - 2.00
- 2.01 - 3.00
- 3.01 - 5.00
- 5.01 +

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Kern County, California

N

0 Miles 0.75

Exhibit 14: 5-Year Max Water Depth Project Map

July 3, 2025

\\westwoodps.local\Global Projects\0036582.03_GIS_HydroExhibits\Discover Solar PV and Storage Project\Discovery Solar PV and Storage Project.aprx
5 Yr Max Water Depth Project Area\Page 2 - 5 Yr Max Water Depth Project Area.pdf | 07/2/2025 12:04 PM | EBurfield

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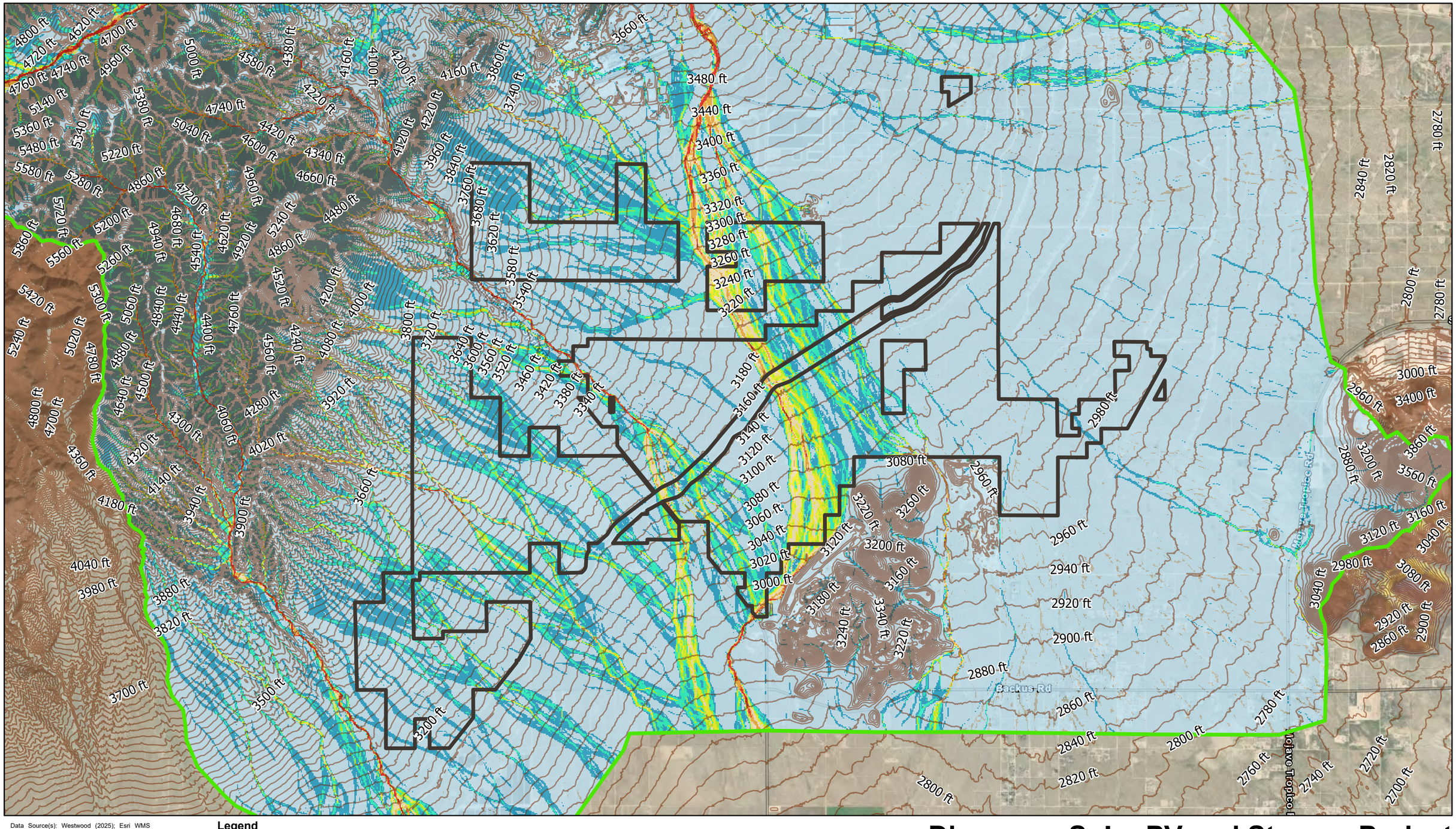

Data Source(s): Westwood (2025); Esri WMS Basemap Imagery (Accessed 2025); USGS (2025); FEMA (2025); USDA (2025)

Legend

- Project site
- FLO-2D Model Boundary
- County Boundary
- 20' Contours

Peak Velocity (fps)

- 0.00 - 0.25
- 0.26 - 0.50
- 0.51 - 1.00
- 1.01 - 1.50
- 1.51 - 2.00
- 2.01 - 3.00
- 3.01 - 5.00
- 5.01 +

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Exhibit 15: 5-Year Peak Velocity Project Map

N

0 Miles 0.75

July 3, 2025

\\westwoodps.local\Global Projects\0036582.03_GIS_HydroExhibits\Discover Solar PV and Storage Project\Discovery Solar PV and Storage Project.aprx
5 Yr Peak Velocity Project Area Maps - 5 Yr Peak Velocity Project Area2 6/27/2025 12:07 PM | EBenfield

Appendix A

NOAA Atlas 14 Rainfall Data

NOAA Atlas 14, Volume 6, Version 2
Location name: Mojave, California, USA*
Latitude: 34.9994°, Longitude: -118.3497°
Elevation: 3876.57 ft**
* source: ESRI Maps
** source: USGS

POINT PRECIPITATION FREQUENCY ESTIMATES

Sanja Perica, Sarah Dietz, Sarah Heim, Lillian Hiner, Kazungu Maitaria, Deborah Martin, Sandra Pavlovic, Ishani Roy, Carl Trypaluk, Dale Unruh, Fenglin Yan, Michael Yekta, Tan Zhao, Geoffrey Bonnin, Daniel Brewer, Li-Chuan Chen, Tye Parzybok, John Yarchoan

NOAA, National Weather Service, Silver Spring, Maryland

PF_tabular | PF_graphical | Maps_&_aerials

PF tabular

PDS-based point precipitation frequency estimates with 90% confidence intervals (in inches)[1]

Duration	Average recurrence interval (years)									
	1	2	5	10	25	50	100	200	500	1000
5-min	0.100 (0.082-0.122)	0.131 (0.108-0.161)	0.176 (0.145-0.217)	0.218 (0.177-0.270)	0.281 (0.221-0.360)	0.335 (0.259-0.439)	0.397 (0.299-0.533)	0.470 (0.344-0.648)	0.585 (0.411-0.841)	0.740 (0.502-1.10)
10-min	0.143 (0.118-0.175)	0.188 (0.154-0.230)	0.253 (0.208-0.311)	0.312 (0.254-0.387)	0.402 (0.317-0.516)	0.481 (0.371-0.630)	0.570 (0.429-0.764)	0.673 (0.493-0.929)	0.838 (0.588-1.21)	1.06 (0.720-1.58)
15-min	0.173 (0.142-0.212)	0.227 (0.187-0.279)	0.306 (0.251-0.376)	0.377 (0.307-0.468)	0.486 (0.383-0.624)	0.581 (0.448-0.761)	0.689 (0.519-0.925)	0.814 (0.596-1.12)	1.01 (0.712-1.46)	1.28 (0.871-1.91)
30-min	0.238 (0.196-0.292)	0.313 (0.257-0.384)	0.421 (0.346-0.518)	0.520 (0.423-0.645)	0.670 (0.528-0.860)	0.801 (0.618-1.05)	0.949 (0.715-1.27)	1.12 (0.821-1.55)	1.40 (0.981-2.01)	1.77 (1.20-2.63)
60-min	0.340 (0.281-0.417)	0.447 (0.368-0.549)	0.603 (0.495-0.741)	0.744 (0.606-0.923)	0.959 (0.755-1.23)	1.15 (0.884-1.50)	1.36 (1.02-1.82)	1.60 (1.17-2.21)	2.00 (1.40-2.87)	2.53 (1.72-3.77)
2-hr	0.519 (0.428-0.636)	0.670 (0.552-0.822)	0.882 (0.725-1.09)	1.07 (0.870-1.33)	1.34 (1.06-1.72)	1.57 (1.21-2.05)	1.82 (1.37-2.44)	2.10 (1.54-2.89)	2.52 (1.77-3.62)	2.89 (1.96-4.30)
3-hr	0.656 (0.541-0.804)	0.846 (0.696-1.04)	1.11 (0.909-1.36)	1.33 (1.09-1.65)	1.66 (1.31-2.13)	1.92 (1.48-2.52)	2.21 (1.66-2.97)	2.53 (1.85-3.49)	2.99 (2.10-4.30)	3.39 (2.30-5.05)
6-hr	0.944 (0.778-1.16)	1.23 (1.01-1.51)	1.61 (1.32-1.98)	1.93 (1.58-2.40)	2.39 (1.88-3.06)	2.75 (2.12-3.60)	3.14 (2.36-4.21)	3.55 (2.60-4.89)	4.14 (2.90-5.95)	4.62 (3.14-6.88)
12-hr	1.24 (1.02-1.52)	1.68 (1.39-2.07)	2.26 (1.86-2.78)	2.74 (2.23-3.40)	3.40 (2.67-4.35)	3.91 (3.02-5.12)	4.44 (3.34-5.96)	5.00 (3.66-6.90)	5.78 (4.06-8.31)	6.41 (4.35-9.54)
24-hr	1.62 (1.44-1.86)	2.29 (2.03-2.63)	3.16 (2.79-3.65)	3.88 (3.40-4.51)	4.86 (4.12-5.85)	5.62 (4.66-6.91)	6.40 (5.18-8.07)	7.22 (5.68-9.36)	8.34 (6.29-11.3)	9.24 (6.73-12.9)
2-day	2.01 (1.78-2.31)	2.83 (2.51-3.25)	3.92 (3.47-4.53)	4.84 (4.24-5.63)	6.13 (5.19-7.38)	7.15 (5.94-8.79)	8.22 (6.66-10.4)	9.36 (7.37-12.1)	11.0 (8.27-14.8)	12.3 (8.94-17.2)
3-day	2.24 (1.99-2.58)	3.14 (2.79-3.62)	4.35 (3.85-5.02)	5.38 (4.72-6.27)	6.86 (5.81-8.25)	8.04 (6.67-9.89)	9.30 (7.53-11.7)	10.6 (8.37-13.8)	12.6 (9.48-17.0)	14.1 (10.3-19.8)
4-day	2.45 (2.17-2.81)	3.42 (3.03-3.93)	4.72 (4.17-5.45)	5.83 (5.11-6.79)	7.42 (6.29-8.94)	8.72 (7.23-10.7)	10.1 (8.16-12.7)	11.6 (9.09-15.0)	13.7 (10.3-18.5)	15.4 (11.2-21.6)
7-day	2.83 (2.51-3.25)	3.91 (3.46-4.49)	5.33 (4.71-6.15)	6.54 (5.73-7.60)	8.24 (6.98-9.92)	9.61 (7.98-11.8)	11.1 (8.96-14.0)	12.6 (9.94-16.4)	14.9 (11.2-20.1)	16.7 (12.2-23.4)
10-day	3.06 (2.71-3.51)	4.18 (3.71-4.81)	5.66 (5.01-6.54)	6.91 (6.06-8.03)	8.64 (7.32-10.4)	10.0 (8.32-12.3)	11.5 (9.31-14.5)	13.1 (10.3-17.0)	15.3 (11.6-20.7)	17.2 (12.5-24.1)
20-day	3.68 (3.27-4.23)	5.01 (4.45-5.77)	6.74 (5.96-7.78)	8.17 (7.17-9.51)	10.1 (8.60-12.2)	11.7 (9.71-14.4)	13.3 (10.8-16.8)	15.1 (11.9-19.6)	17.6 (13.3-23.8)	19.7 (14.3-27.6)
30-day	4.32 (3.84-4.97)	5.89 (5.22-6.78)	7.90 (6.99-9.12)	9.55 (8.38-11.1)	11.8 (10.0-14.2)	13.6 (11.3-16.7)	15.5 (12.5-19.5)	17.5 (13.8-22.7)	20.4 (15.4-27.7)	22.9 (16.7-32.1)
45-day	5.15 (4.58-5.92)	7.00 (6.20-8.05)	9.37 (8.29-10.8)	11.3 (9.92-13.2)	13.9 (11.8-16.8)	16.0 (13.3-19.7)	18.2 (14.8-23.0)	20.6 (16.2-26.8)	24.1 (18.2-32.6)	27.1 (19.7-37.9)
60-day	5.87 (5.21-6.74)	7.91 (7.01-9.10)	10.5 (9.30-12.1)	12.7 (11.1-14.7)	15.6 (13.2-18.8)	17.9 (14.8-22.0)	20.3 (16.4-25.6)	23.0 (18.1-29.8)	26.9 (20.3-36.4)	30.3 (22.1-42.4)

[1] Precipitation frequency (PF) estimates in this table are based on frequency analysis of partial duration series (PDS).

Numbers in parenthesis are PF estimates at lower and upper bounds of the 90% confidence interval. The probability that precipitation frequency estimates (for a given duration and average recurrence interval) will be greater than the upper bound (or less than the lower bound) is 5%. Estimates at upper bounds are not checked against probable maximum precipitation (PMP) estimates and may be higher than currently valid PMP values.

Please refer to NOAA Atlas 14 document for more information.

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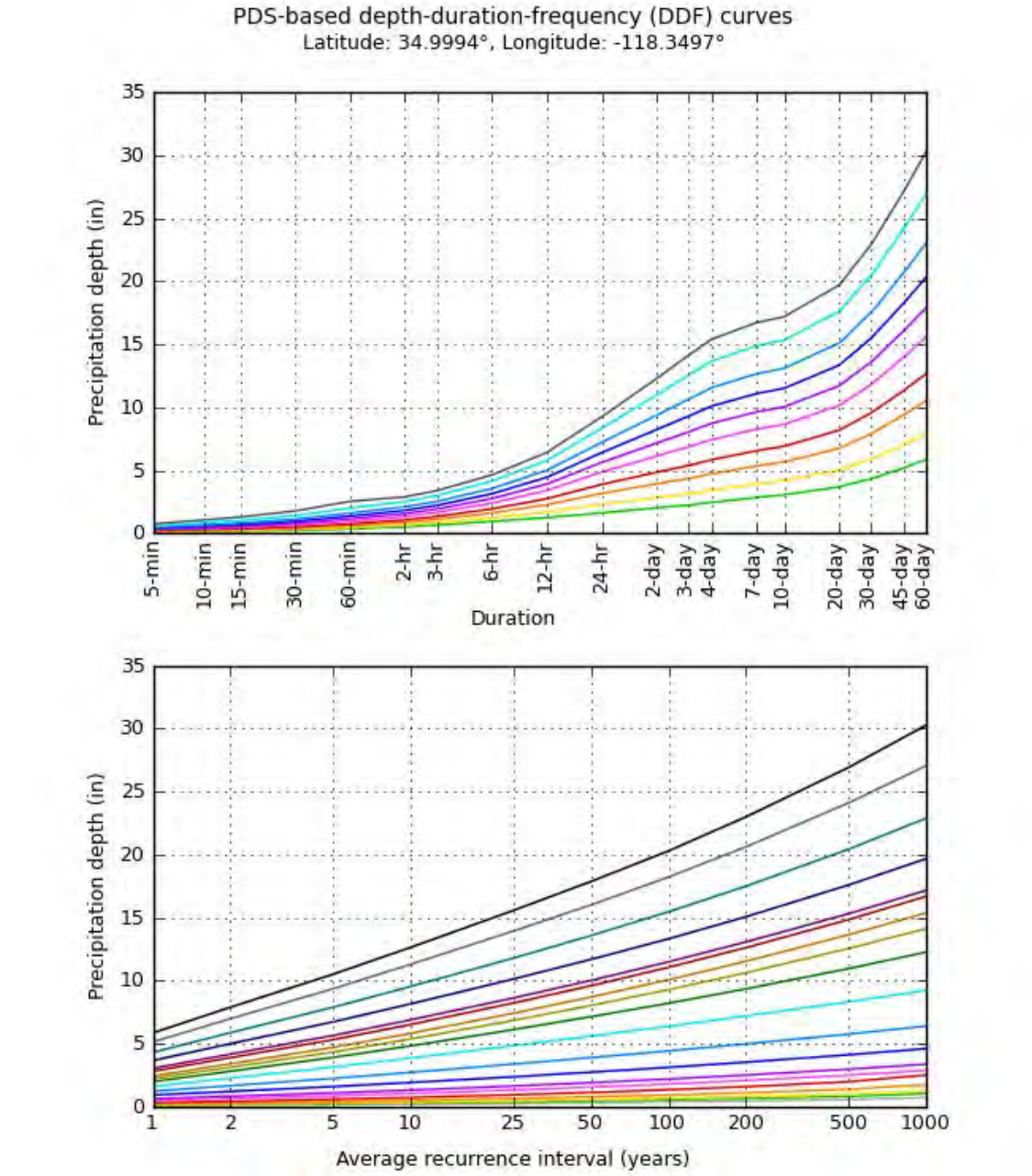
PF graphical



NOAA Atlas 14, Volume 6, Version 2

Created (GMT): Tue Jun 7 13:15:12 2022

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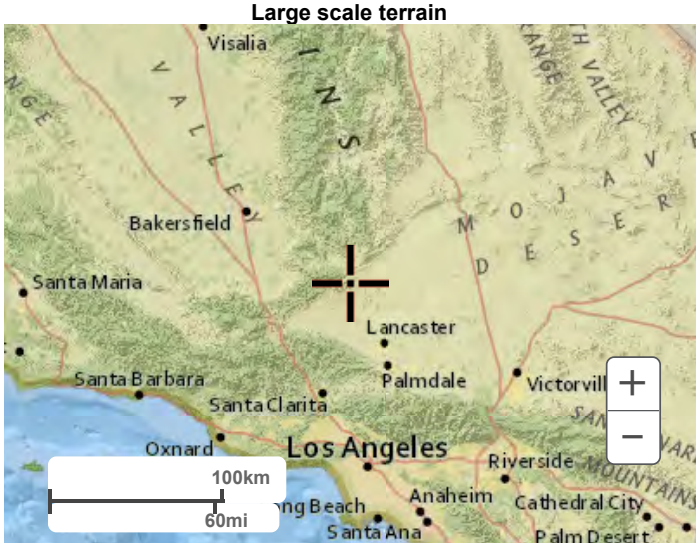
Maps & aerials

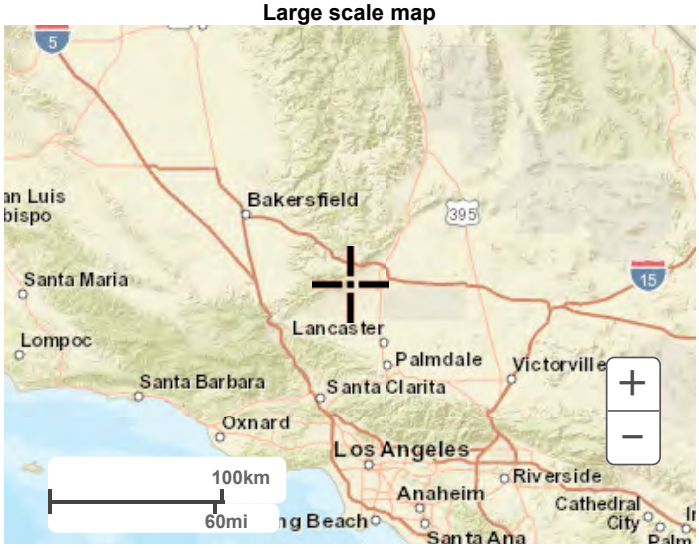
Small scale terrain



Large scale terrain



Large scale map



Large scale aerial



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US Department of Commerce
National Oceanic and Atmospheric Administration
National Weather Service
National Water Center
1325 East West Highway
Silver Spring, MD 20910
Questions?: HDSC.Questions@noaa.gov

Disclaimer

NOAA Atlas 14, Volume 6, Version 2
Location name: Mojave, California, USA*
Latitude: 34.9874°, Longitude: -118.3028°
Elevation: 3215.16 ft**
* source: ESRI Maps
** source: USGS

POINT PRECIPITATION FREQUENCY ESTIMATES

Sanja Perica, Sarah Dietz, Sarah Heim, Lillian Hiner, Kazungu Maitaria, Deborah Martin, Sandra Pavlovic, Ishani Roy, Carl Trypaluk, Dale Unruh, Fenglin Yan, Michael Yekta, Tan Zhao, Geoffrey Bonnin, Daniel Brewer, Li-Chuan Chen, Tye Parzybok, John Yarchoan

NOAA, National Weather Service, Silver Spring, Maryland

PF_tabular | PF_graphical | Maps_&_aerials

PF tabular

PDS-based point precipitation frequency estimates with 90% confidence intervals (in inches)[1]

Duration	Average recurrence interval (years)									
	1	2	5	10	25	50	100	200	500	1000
5-min	**0.084** (0.069-0.102)	**0.110** (0.091-0.135)	**0.148** (0.122-0.183)	**0.183** (0.149-0.227)	**0.235** (0.185-0.302)	**0.281** (0.216-0.367)	**0.331** (0.249-0.445)	**0.389** (0.285-0.537)	**0.480** (0.337-0.690)	**0.586** (0.397-0.872)
10-min	**0.120** (0.099-0.147)	**0.158** (0.130-0.194)	**0.213** (0.175-0.262)	**0.262** (0.214-0.325)	**0.337** (0.266-0.433)	**0.402** (0.310-0.527)	**0.475** (0.357-0.637)	**0.558** (0.409-0.770)	**0.688** (0.483-0.989)	**0.840** (0.570-1.25)
15-min	**0.145** (0.119-0.178)	**0.191** (0.157-0.234)	**0.257** (0.211-0.317)	**0.317** (0.258-0.394)	**0.408** (0.321-0.523)	**0.486** (0.375-0.637)	**0.574** (0.432-0.771)	**0.675** (0.494-0.931)	**0.832** (0.584-1.20)	**1.01** (0.689-1.51)
30-min	**0.198** (0.164-0.243)	**0.261** (0.215-0.321)	**0.353** (0.289-0.434)	**0.435** (0.354-0.539)	**0.559** (0.440-0.717)	**0.666** (0.514-0.873)	**0.787** (0.592-1.06)	**0.925** (0.677-1.28)	**1.14** (0.800-1.64)	**1.39** (0.944-2.07)
60-min	**0.281** (0.231-0.344)	**0.370** (0.305-0.454)	**0.499** (0.410-0.614)	**0.615** (0.501-0.763)	**0.791** (0.623-1.01)	**0.943** (0.727-1.24)	**1.11** (0.838-1.49)	**1.31** (0.958-1.81)	**1.61** (1.13-2.32)	**1.97** (1.34-2.93)
2-hr	**0.427** (0.352-0.523)	**0.553** (0.455-0.678)	**0.729** (0.598-0.897)	**0.882** (0.718-1.09)	**1.11** (0.870-1.42)	**1.29** (0.995-1.69)	**1.49** (1.12-2.00)	**1.71** (1.25-2.36)	**2.04** (1.43-2.93)	**2.32** (1.57-3.45)
3-hr	**0.536** (0.442-0.657)	**0.693** (0.571-0.851)	**0.910** (0.747-1.12)	**1.10** (0.891-1.36)	**1.36** (1.07-1.74)	**1.58** (1.22-2.06)	**1.81** (1.36-2.42)	**2.06** (1.51-2.84)	**2.42** (1.70-3.48)	**2.72** (1.85-4.05)
6-hr	**0.752** (0.620-0.922)	**0.983** (0.809-1.21)	**1.29** (1.06-1.59)	**1.55** (1.26-1.93)	**1.92** (1.51-2.46)	**2.21** (1.70-2.89)	**2.51** (1.89-3.37)	**2.83** (2.07-3.91)	**3.28** (2.31-4.72)	**3.65** (2.48-5.44)
12-hr	**0.970** (0.799-1.19)	**1.33** (1.09-1.63)	**1.80** (1.47-2.21)	**2.18** (1.78-2.70)	**2.71** (2.13-3.47)	**3.12** (2.40-4.08)	**3.53** (2.66-4.74)	**3.97** (2.91-5.48)	**4.58** (3.21-6.58)	**5.05** (3.43-7.52)
24-hr	**1.25** (1.11-1.44)	**1.80** (1.59-2.07)	**2.51** (2.22-2.89)	**3.09** (2.71-3.59)	**3.88** (3.29-4.66)	**4.48** (3.72-5.51)	**5.11** (4.13-6.44)	**5.75** (4.53-7.46)	**6.63** (5.00-8.97)	**7.33** (5.34-10.3)
2-day	**1.55** (1.38-1.78)	**2.21** (1.96-2.54)	**3.08** (2.72-3.55)	**3.81** (3.34-4.43)	**4.83** (4.10-5.82)	**5.64** (4.68-6.94)	**6.48** (5.25-8.17)	**7.37** (5.80-9.56)	**8.63** (6.51-11.7)	**9.63** (7.02-13.5)
3-day	**1.73** (1.54-1.99)	**2.44** (2.17-2.81)	**3.41** (3.01-3.93)	**4.22** (3.70-4.91)	**5.38** (4.56-6.48)	**6.31** (5.24-7.76)	**7.29** (5.90-9.19)	**8.34** (6.56-10.8)	**9.83** (7.41-13.3)	**11.0** (8.04-15.5)
4-day	**1.87** (1.66-2.15)	**2.63** (2.33-3.03)	**3.66** (3.23-4.22)	**4.53** (3.97-5.27)	**5.77** (4.89-6.95)	**6.77** (5.62-8.33)	**7.83** (6.34-9.87)	**8.96** (7.05-11.6)	**10.6** (7.97-14.3)	**11.9** (8.66-16.6)
7-day	**2.13** (1.89-2.45)	**2.97** (2.64-3.42)	**4.10** (3.62-4.73)	**5.04** (4.42-5.87)	**6.37** (5.40-7.67)	**7.43** (6.17-9.14)	**8.55** (6.92-10.8)	**9.74** (7.66-12.6)	**11.4** (8.61-15.4)	**12.8** (9.31-17.9)
10-day	**2.27** (2.02-2.61)	**3.15** (2.79-3.62)	**4.31** (3.82-4.98)	**5.29** (4.64-6.15)	**6.64** (5.63-7.99)	**7.72** (6.40-9.49)	**8.84** (7.16-11.1)	**10.0** (7.90-13.0)	**11.7** (8.84-15.9)	**13.1** (9.53-18.3)
20-day	**2.72** (2.41-3.12)	**3.77** (3.34-4.33)	**5.14** (4.55-5.93)	**6.28** (5.51-7.31)	**7.85** (6.66-9.45)	**9.09** (7.54-11.2)	**10.4** (8.40-13.1)	**11.7** (9.23-15.2)	**13.7** (10.3-18.5)	**15.2** (11.1-21.3)
30-day	**3.16** (2.80-3.63)	**4.38** (3.88-5.04)	**5.97** (5.28-6.89)	**7.28** (6.39-8.47)	**9.08** (7.70-10.9)	**10.5** (8.72-12.9)	**12.0** (9.71-15.1)	**13.6** (10.7-17.6)	**15.8** (11.9-21.4)	**17.6** (12.9-24.7)
45-day	**3.77** (3.35-4.34)	**5.21** (4.62-6.00)	**7.10** (6.28-8.20)	**8.66** (7.60-10.1)	**10.8** (9.16-13.0)	**12.5** (10.4-15.4)	**14.3** (11.5-18.0)	**16.2** (12.7-21.0)	**18.9** (14.2-25.5)	**21.1** (15.4-29.5)
60-day	**4.27** (3.79-4.91)	**5.86** (5.20-6.75)	**7.95** (7.03-9.17)	**9.67** (8.48-11.3)	**12.1** (10.2-14.5)	**13.9** (11.6-17.1)	**15.9** (12.9-20.0)	**18.0** (14.2-23.4)	**21.1** (15.9-28.5)	**23.6** (17.2-33.1)

[1] Precipitation frequency (PF) estimates in this table are based on frequency analysis of partial duration series (PDS).

Numbers in parenthesis are PF estimates at lower and upper bounds of the 90% confidence interval. The probability that precipitation frequency estimates (for a given duration and average recurrence interval) will be greater than the upper bound (or less than the lower bound) is 5%. Estimates at upper bounds are not checked against probable maximum precipitation (PMP) estimates and may be higher than currently valid PMP values.

Please refer to NOAA Atlas 14 document for more information.

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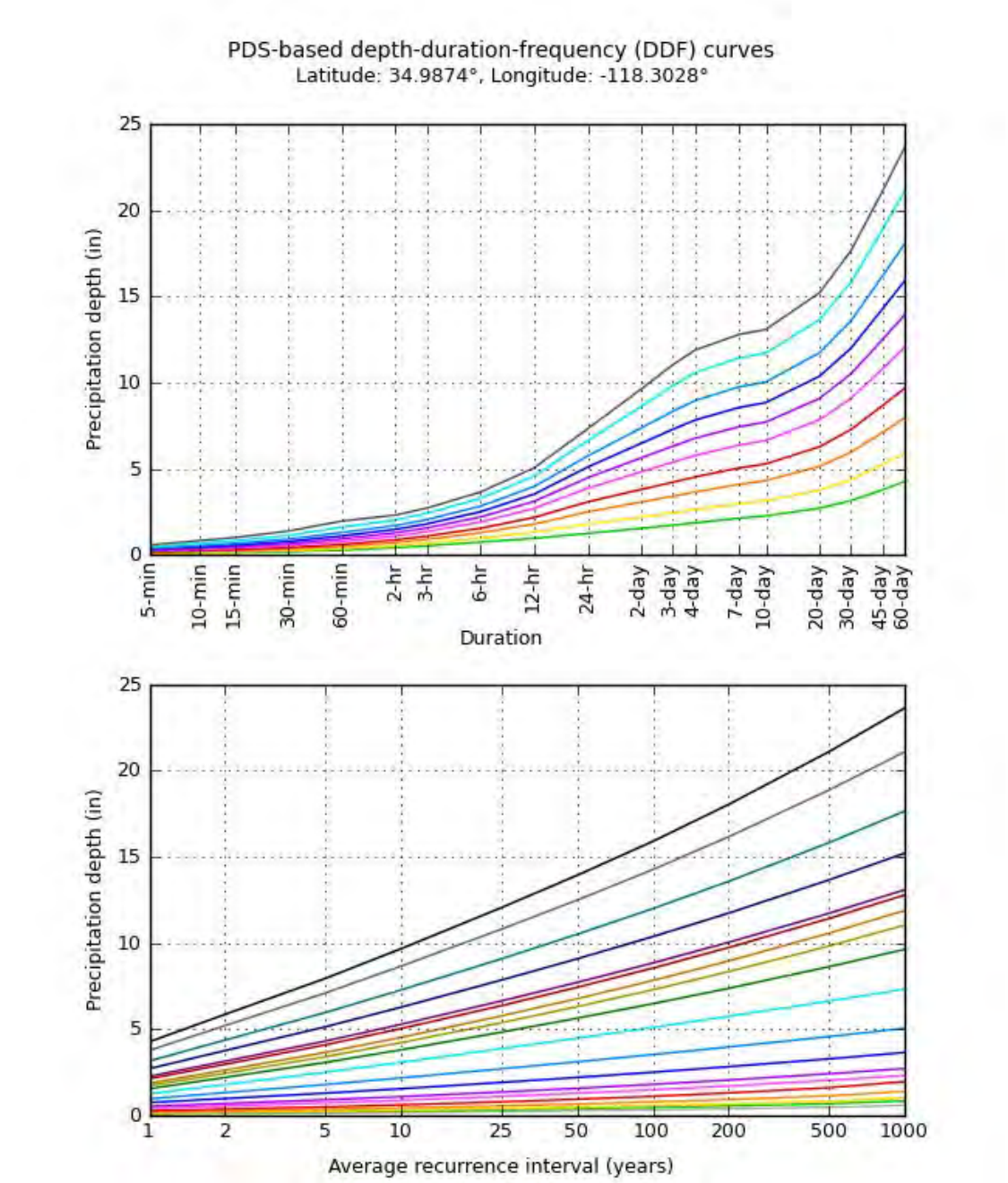
PF graphical



NOAA Atlas 14, Volume 6, Version 2

Created (GMT): Thu May 26 14:24:19 2022

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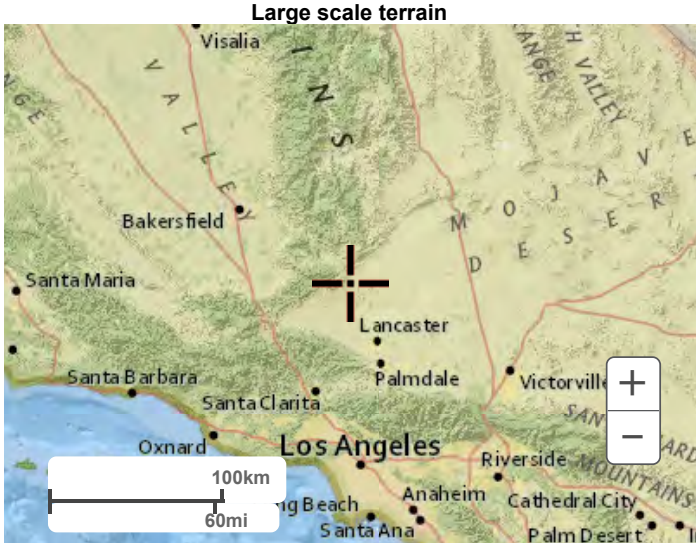
Maps & aerials

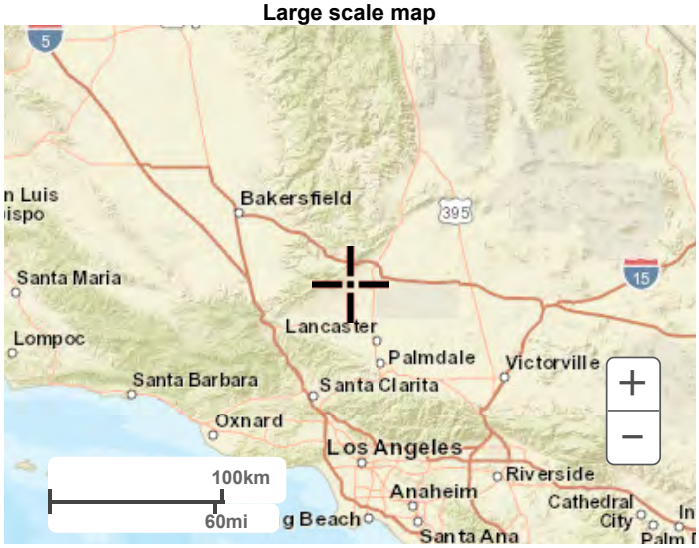
Small scale terrain



Large scale terrain



Large scale map



Large scale aerial



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DEVELOPMENT SERVICES AGENCY
Engineering, Surveying and Permit Services Department
Planning and Community Development Department
Roads Department

Engineering Bulletin 11-02

Subject: Sump Volume Requirements **Date: December 21, 2011**
Application: Kern County Development Standards

Background: In 1995, Kern County revised the standard by which retention basin sizing is based, and published it in the latest edition of the Kern County Development Standards dated August 5, 2010. Division 4 of the Development Standards defined the design volume for basins as runoff from the Intermediate Storm Design Discharge (ISDD) 5-day rainfall event from the impervious area. The equation is;

Runoff Volume = 0.12 (D_{10}) (a_i) (Area) where:

D_{10} = 10 yr 24-hr. depth of rainfall (in.)
a_i = average percentage of impervious area
Area = Drainage area of total development
0.12 = 1.44 x 1/12
1.44 = 5 day mass ratio (KC Hydrology Manual, Table B-1)
1/12 = Conversion of rainfall depth in inches to feet

The revision to the standard was chosen for consistency with the newly created multi-day detention basin sizing standard and to approximate the sump sizing criteria used by the City of Bakersfield in their application of 100yr 24hr rainfall event. The new Development Standards also linked ISDD calculations to the application of rainfall/runoff methodology found in the Kern County Hydrology Manual. Since the Hydrology Manual had adopted rainfall data found in NOAA Atlas 2, Volume XI, retention basin sizing was also tied to that data base.

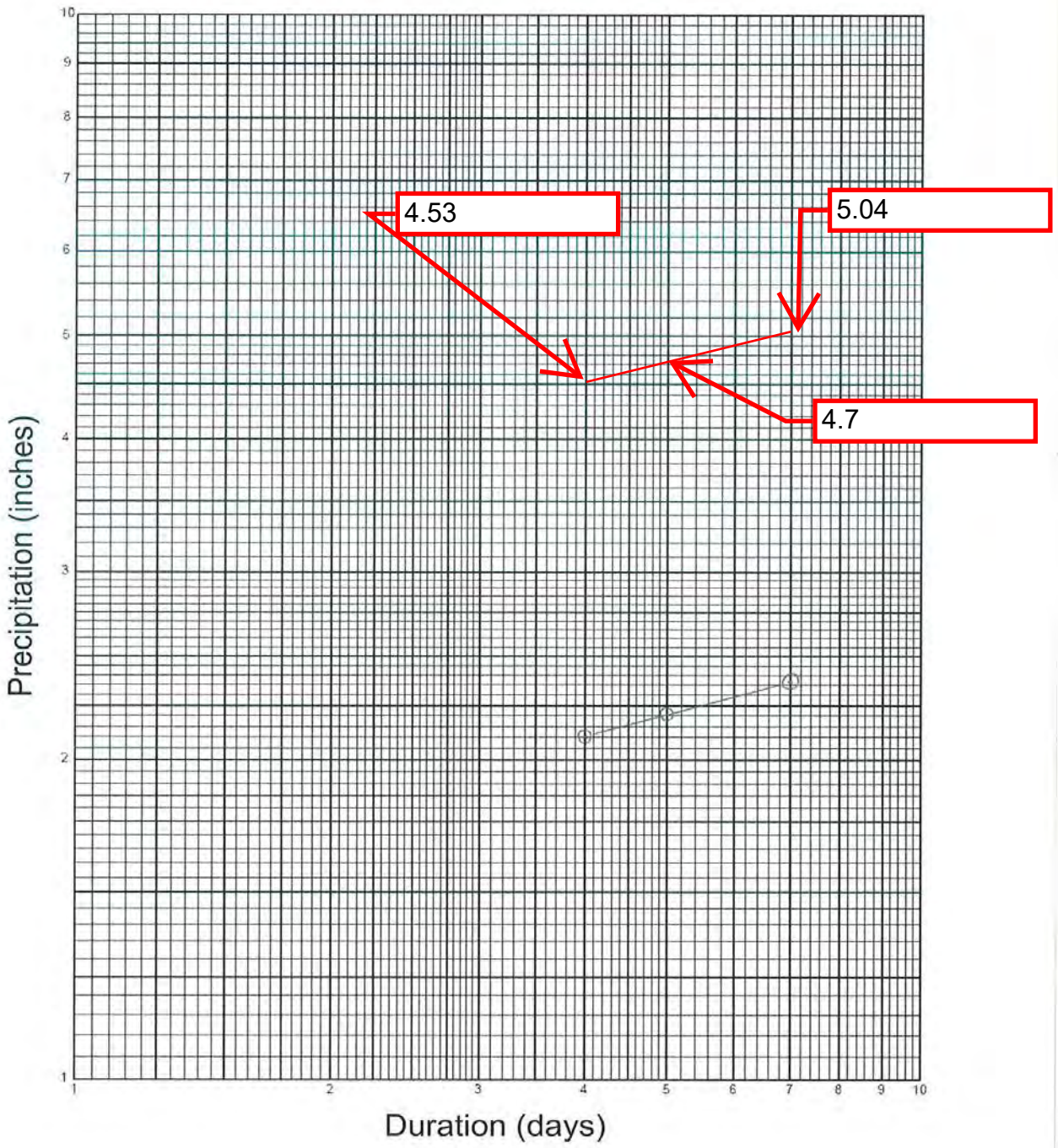
Data Update: In May of 2011 the National Weather Service published NOAA Atlas 14, Volume 6, Version 2.0 for California. As stated in the introduction of the publication, this document supersedes precipitation-frequency estimates found in NOAA Atlas 2, Volume 11 and NOAA Atlas 14 Volume 1, which covered Kern County's desert region. Gage data used in the precipitation-frequency analysis for NOAA Atlas 14, Volume 6 incorporates the latest, quality-verified rainfall information available up through June, 2010. The precipitation-frequency data is now available to the public, via a graphic interface, at the Hydrometeorological Design Studies Center's web site. (http://hdsc.nws.noaa.gov/hdsc/pfds/). It contains both short and long duration, including multi-day rainfall data in tabular and graphic formats.

Policy: Retention basin sizing shall continue to be based upon runoff from the ISDD 5 day storm event from impervious area. The equation is now;

Runoff Volume (cu.ft.) = [($D_{10yr\text{-}5day}$)/12] (a_i) (Area) where;

$D_{10\text{-}5day}$ = 10yr 5 day depth of rainfall (in.) obtained from NOAA Atlas 14, Vol 6, Ver. 2.0
a_i = average percentage of impervious area
Area = Drainage area of total development (sq.ft.)

6) Select 10yr 4day rainfall depth - 4.53 and 10yr 7 day rainfall depth – 5.04
7) Plot points on log–log graph paper.



8) Read the solution for the 10 yr 5 day depth of rainfall– 4.7 inches

Appendix B

Kern County Curve Number Table

Residential Landscaping (Lawn, Shrubs, etc.) - The pervious portions of commercial establishments, single and multiple family dwellings, trailer parks and schools where the predominant land cover is lawn, shrubbery and trees.

Row Crops - Lettuce, tomatoes, beets, tulips or any field crop planted in rows far enough apart that most of the soil surface is exposed to rainfall impact throughout the growing season. At plowing, planting and harvest times it is equivalent to fallow.

Small Grain - Wheat, oats, barley, flax, etc. planted in rows close enough that the soil surface is not exposed except during planting and shortly thereafter.

Legumes - Alfalfa, sweetclover, timothy, etc. and combinations are either planted in close rows or broadcast.

Fallow - Fallow land is land plowed but not yet seeded or tilled.

Woodland - grass - Areas with an open cover of broadleaf or coniferous trees usually live oak and pines, with the intervening ground space occupied by annual grasses or weeds. The trees may occur singly or in small clumps. Canopy density, the amount of ground surface shaded at high noon, is from 20 to 50 percent.

Woodland - Areas on which coniferous or broadleaf trees predominate. The canopy density is at least 50 percent. Open areas may have a cover of annual or perennial grasses or of brush. Herbaceous plant cover under the trees is usually sparse because of leaf or needle litter accumulation.

Chaparral - Land on which the principal vegetation consists of evergreen shrubs with broad, hard, stiff leaves such as manzonita, ceanothus and scrub oak. The brush cover is usually dense or moderately dense. Diffusely branched evergreen shrubs with fine needle-like leaves, such as chamise and redchank, with dense high growth are also included in this soil cover.

Annual Grass - Land on which the principal vegetation consists of annual grasses and weeds such as annual bromes, wild barley, soft chess, ryegrass and filaree.

Irrigated Pasture - Irrigated land planted to perennial grasses and legumes for production of forage and which is cultivated only to establish or renew the stand of plants. Dry land pasture is considered as annual grass.

Meadow - Land areas with seasonally high water table, locally called cienegas. Principal vegetation consists of sod-forming grasses interspersed with other plants.

Orchard (Deciduous) - Land planted to such deciduous trees as apples, apricots, pears, walnuts, and almonds.

Orchard (Evergreen) - Land planted to evergreen trees which include citrus and avocados and coniferous plantings.

Turf - Golf courses, parks and similar lands where the predominant cover is irrigated mowed close-grown turf grass. Parks in which trees are dense may be classified as woodland.

KERN COUNTY

HYDROLOGY MANUAL

SCS
COVER TYPE
DESCRIPTIONS

FIGURE C-1

Curve[1] Numbers of Hydrologic Soil-Cover Complexes For Pervious Areas-AMC II

Cover Type (3)	Quality of Cover (2)	Soil Group A	B	C	D
NATURAL COVERS -					
Barren (Rockland, eroded and graded land)		77	86	91	94
Chaparral, Broadleaf (Manzonita, ceanothus and scrub oak)	Poor	53	70	80	85
	Fair	40	63	75	81
	Good	31	57	71	78
Chaparral, Narrowleaf (Chamise and Redskank)	Poor	71	82	88	91
	Fair	55	72	81	86
Grass, Annual or Perennial	Poor	68	79	86	89
	Fair	49	69	79	84
	Good	39	61	74	80
Meadows or Cienagas (Areas with seasonally high water table, principal vegatation is sod forming grass)	Poor	63	77	85	88
	Fair	51	70	80	84
	Good	30	58	71	78
Open Brush (Soft wood shrubs-buckwheat,sage,etc.)	Poor	62	76	84	88
	Fair	46	66	77	83
	Good	41	63	75	81
Woodland (4) (Coniferous or broadleaf trees predominate. Canopy density is at least 50 percent)	Poor	45	66	77	83
	Fair	36	60	73	79
	Good	30	55	70	77
Woodland, Grass (Coniferous or broadleaf trees with canopy density from 20 to 50 percent)	Poor	57	73	82	86
	Fair	43	65	76	82
	Good	32	58	72	79
URBAN COVERS -					
Residential or Commercial Landscaping (Lawns, shrubs, etc.)	Good	39	61	74	80
Turf (Irrigated and mowed grass)	Poor	68	79	86	89
	Fair	49	69	79	84
	Good	39	61	74	80

KERN COUNTY
Hydrology Manual

CURVE NUMBERS FOR PERVIOUS AREAS

Curve[1] Numbers of Hydrologic Soil-Cover Complexes For Pervious Areas-AMC II

Cover Type (3)	Quality of Cover (2)	Soil Group A	B	C	D
AGRICULTURAL COVERS -					
Fallow (Bare Soil)		77	86	91	94
Close Seeded (alfalfa, sweetclover, timothy, etc.)	Poor	66	77	85	89
	Good	58	72	81	85
Orchards, Evergreen (Citrus, avacodos, etc.)	Poor	57	73	82	86
	Fair	43	65	76	82
	Good	32	58	72	79
Pasture (Grassland or range, continuos forage for grazing)	Poor	68	79	86	89
	Fair	49	69	79	84
	Good	39	61	74	80
Row Crops (Straight row, non-contoured)	Poor	72	81	88	91
	Good	67	78	85	89
Small Grain (Straight row, non-contoured)	Poor	65	76	84	88
	Good	63	75	83	87

Notes:

1. Average runoff condition, Ia = 0.2(S)

2. Poor: Heavily grazed, regularly burned areas, or areas of high burn potential. Less than 50 percent of the ground surface is protected by plant cover or brush and tree canopy.

   Fair: Moderate cover with 50 percent to 75 percent of the ground surface protected. In wooded areas the woods are grazed but not burned, and some forest litter covers the soil.

   Good: Heavy or dense cover with more than 75 percent of the ground surface protected. In wooded areas the woods are protected from grazing, litter and brush adequately cover soil.

3. See Figure C-1 for definition of cover types.

KERN COUNTY
Hydrology Manual

CURVE NUMBERS FOR PERVIOUS AREAS

Appendix C

FEMA Flood Insurance Rate Map (FIRM)

NOTES TO USERS

This map is for use in administering the National Flood Insurance Program. It does not necessarily identify all areas subject to flooding, particularly from local drainage sources of small size. The **community map repository** should be consulted for possible updated or additional flood hazard information.

To obtain more detailed information in areas where **Base Flood Elevations** (BFEs) and/or **floodways** have been determined, users are encouraged to consult the Flood Profiles and Floodway Data and/or Summary of Stillwater Elevations tables contained within the Flood Insurance Study (FIS) report that accompanies this FIRM. Users should be aware that BFEs shown on the FIRM represent rounded whole-foot elevations. These BFEs are intended for flood insurance rating purposes only and should not be used as the sole source of flood elevation information. Accordingly, flood elevation data presented in the FIS report should be utilized in conjunction with the FIRM for purposes of construction and/or floodplain management.

Coastal Base Flood Elevations shown on this map apply only landward of 0.0' North American Vertical Datum of 1988 (NAVD 88). Users of this FIRM should be aware that coastal flood elevations are also provided in the Summary of Stillwater Elevations table in the Flood Insurance Study report for this jurisdiction. Elevations shown in the Summary of Stillwater Elevations table should be used for construction and/or floodplain management purposes when they are higher than the elevations shown on this FIRM.

Boundaries of the **floodways** were computed at cross sections and interpolated between cross sections. The floodways were based on hydraulic considerations with regard to requirements of the National Flood Insurance Program. Floodway widths and other pertinent floodway data are provided in the Flood Insurance Study report for this jurisdiction.

Certain areas not in Special Flood Hazard Areas may be protected by **flood control structures.** Refer to Section 2.4 "Flood Protection Measures" of the Flood Insurance Study report for information on flood control structures for this jurisdiction.

The **projection** used in the preparation of this map was Universal Transverse Mercator (UTM) zone 11. The **horizontal datum** was NAD83, GRS1980 spheroid. Differences in datum, spheroid, projection or UTM zones used in the production of FIRMs for adjacent jurisdictions may result in slight positional differences in map features across jurisdiction boundaries. These differences do not affect the accuracy of this FIRM.

Flood elevations on this map are referenced to the North American Vertical Datum of 1988. These flood elevations must be compared to structure and ground elevations referenced to the same **vertical datum.** For information regarding conversion between the National Geodetic Vertical Datum of 1929 and the North American Vertical Datum of 1988, visit the National Geodetic Survey website at http://www.ngs.noaa.gov/ or contact the National Geodetic Survey at the following address:

NGS Information Services
NOAA, NNGS12
National Geodetic Survey
SSMC-3, #9202
1315 East-West Highway
Silver Spring, MD 20910-3282

To obtain current elevation, description, and/or location information for **bench marks** shown on this map, please contact the Information Services Branch of the National Geodetic Survey at **(301) 713-3242**, or visit its website at http://www.ngs.noaa.gov/.

Base map information shown on this FIRM was derived from USDA - Farm Service Agency - Aerial Photography Field Office dated 2005 and from U.S. Geological Survey Digital Orthophoto Quadrangles produced at a scale of 1:12,000 from photography dated 1992 or later.

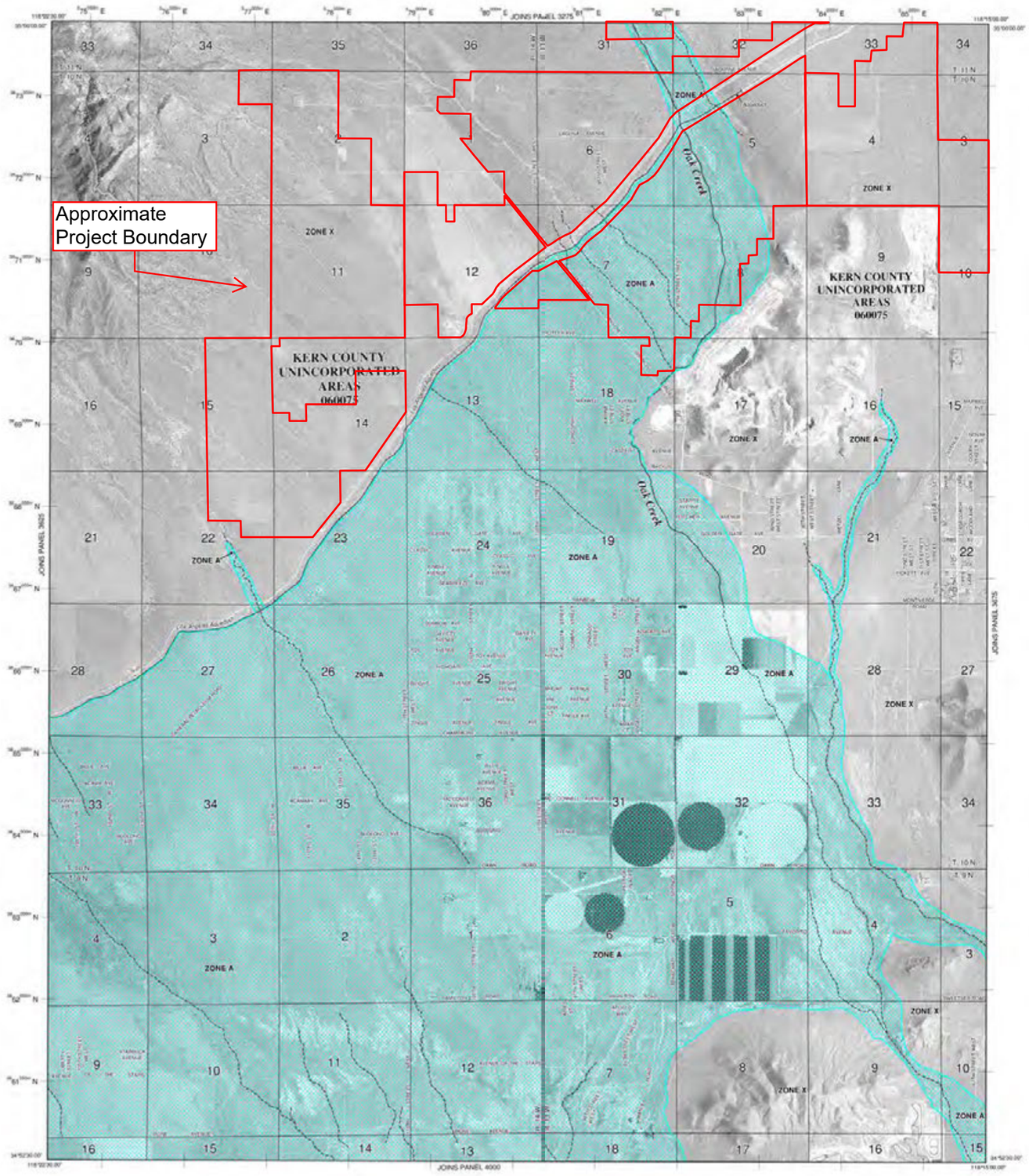
This map reflects more detailed and up-to-date **stream channel configurations** than those shown on the previous FIRM for this jurisdiction. The floodplains and floodways that were transferred from the previous FIRM may have been adjusted to conform to these new stream channel configurations. As a result, the Flood Profiles and Floodway Data tables in the Flood Insurance Study report (which contains authoritative hydraulic data) may reflect stream channel distances that differ from what is shown on this map.

Corporate limits shown on this map are based on the best data available at the time of publication. Because changes due to annexations or de-annexations may have occurred after this map was published, map users should contact appropriate community officials to verify current corporate limit locations.

Please refer to the separately printed **Map Index** for an overview map of the county showing the layout of map panels; community map repository addresses; and a Listing of Communities table containing National Flood Insurance Program dates for each community as well as a listing of the panels on which each community is located.

Contact the **FEMA Map Service Center** at 1-800-358-9616 for information on available products associated with this FIRM. Available products may include previously issued Letters of Map Change, a Flood Insurance Study report, and/or digital versions of this map. The FEMA Map Service Center may also be reached by Fax at 1-800-358-9620 and its website at http://www.msc.fema.gov/.

If you have **questions about this map** or questions concerning the National Flood Insurance Program in general, please call **1-877-FEMA MAP** (1-877-336-2627) or visit the FEMA website at http://www.fema.gov/.



LEGEND

SPECIAL FLOOD HAZARD AREAS (SFHAs) SUBJECT TO INUNDATION BY THE 1% ANNUAL CHANCE FLOOD

The 1% annual chance flood (100-year flood), also known as the base flood, is the flood that has a 1% chance of being equaled or exceeded in any given year. The Special Flood Hazard Area is the area subject to flooding by the 1% annual chance flood. Areas of Special Flood Hazard include Zones A, AE, AH, AO, AR, A99, V and VE. The Base Flood Elevation is the water-surface elevation of the 1% annual chance flood.

- **ZONE A** No Base Flood Elevations determined.
- **ZONE AE** Base Flood Elevations determined.
- **ZONE AH** Flood depths of 1 to 3 feet (usually areas of ponding); Base Flood Elevations determined.
- **ZONE AO** Flood depths of 1 to 3 feet (usually sheet flow on sloping terrain); average depths determined. For areas of alluvial fan flooding, velocities also determined.
- **ZONE AR** Special Flood Hazard Area formerly protected from the 1% annual chance flood by a flood control system that was subsequently decertified. Zone AR indicates that the former flood control system is being restored to provide protection from the 1% annual chance or greater flood.
- **ZONE A99** Area to be protected from 1% annual chance flood by a Federal flood protection system under construction; no Base Flood Elevations determined.
- **ZONE V** Coastal flood zone with velocity hazard (wave action); no Base Flood Elevations determined.
- **ZONE VE** Coastal flood zone with velocity hazard (wave action); Base Flood Elevations determined.

FLOODWAY AREAS IN ZONE AE

The floodway is the channel of a stream plus any adjacent floodplain areas that must be kept free of encroachment so that the 1% annual chance flood can be carried without substantial increases in flood heights.

OTHER FLOOD AREAS

- **ZONE X** Areas of 0.2% annual chance flood; areas of 1% annual chance flood with average depths of less than 1 foot or with drainage areas less than 1 square mile; and areas protected by levees from 1% annual chance flood.

OTHER AREAS

- **ZONE X** Areas determined to be outside the 0.2% annual chance floodplain.
- **ZONE D** Areas in which flood hazards are undetermined, but possible.

COASTAL BARRIER RESOURCES SYSTEM (CBRS) AREAS

OTHERWISE PROTECTED AREAS (OPAs)

CBRS areas and OPAs are normally located within or adjacent to Special Flood Hazard Areas.

- 1% annual chance floodplain boundary
- 0.2% annual chance floodplain boundary
- Floodway boundary
- Zone D boundary
- CBRS and OPA boundary
- Boundary dividing Special Flood Hazard Areas of different Base Flood Elevations, flood depths or flood velocities.
- 513 Base Flood Elevation line and value; elevation in feet*
- (EL 987) Base Flood Elevation value where uniform within zone; elevation in feet*

* Referenced to the North American Vertical Datum of 1988 (NAVD 88)

- A — A Cross section line
- 23 — 23 Transect line
- 97°07'30", 32°22'30" Geographic coordinates referenced to the North American Datum of 1983 (NAD 83)
- 3276000mN 1000-meter Universal Transverse Mercator grid ticks, zone 11
- 5000000 M 5000-foot grid ticks: California State Plane coordinate system, V zone (FIPSZONE 0405), Lambert Conformal Conic
- DX5510 Bench mark (see explanation in Notes to Users section of this FIRM panel)
- M1.5 River Mile

MAP REPOSITORIES
Refer to Map Repositories list on Map Index

EFFECTIVE DATE OF COUNTYWIDE FLOOD INSURANCE RATE MAP
September 26, 2008
EFFECTIVE DATE(S) OF REVISION(S) TO THIS PANEL

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MAP SCALE 1" = 2000'
1000 0 2000 4000 FEET
500 0 500 1000 METERS

NFIP
NATIONAL FLOOD INSURANCE PROGRAM

PANEL 3650E

FIRM
FLOOD INSURANCE RATE MAP
KERN COUNTY, CALIFORNIA
AND INCORPORATED AREAS

PANEL 3650 OF 4125
(SEE MAP INDEX FOR FIRM PANEL LAYOUT)
CONTAINS:

COMMUNITY	NUMBER	PANEL	SUFFIX
KERN COUNTY	060075	3650	E

Notice to User: The **Map Number** shown below should be used when placing map orders; the **Community Number** shown above should be used on insurance applications for the subject community.

MAP NUMBER
06029C3650E
EFFECTIVE DATE
SEPTEMBER 26, 2008

Federal Emergency Management Agency

NOTES TO USERS

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Coastal Base Flood Elevations shown on this map apply only landward of 0.0' North American Vertical Datum of 1988 (NAVD 88). Users of this FIRM should be aware that coastal flood elevations are also provided in the Summary of Stillwater Elevations table in the Flood Insurance Study report for this jurisdiction. Elevations shown in the Summary of Stillwater Elevations table should be used for construction and/or floodplain management purposes when they are higher than the elevations shown on this FIRM.

Boundaries of the **floodways** were computed at cross sections and interpolated between cross sections. The floodways were based on hydraulic considerations with regard to requirements of the National Flood Insurance Program. Floodway widths and other pertinent floodway data are provided in the Flood Insurance Study report for this jurisdiction.

Certain areas not in Special Flood Hazard Areas may be protected by **flood control structures.** Refer to Section 2.4 "Flood Protection Measures" of the Flood Insurance Study report for information on flood control structures for this jurisdiction.

The **projection** used in the preparation of this map was Universal Transverse Mercator (UTM) zone 11. The **horizontal datum** was NAD83, GRS1980 spheroid. Differences in datum, spheroid, projection or UTM zones used in the production of FIRMs for adjacent jurisdictions may result in slight positional differences in map features across jurisdiction boundaries. These differences do not affect the accuracy of this FIRM.

Flood elevations on this map are referenced to the North American Vertical Datum of 1988. These flood elevations must be compared to structure and ground elevations referenced to the same **vertical datum.** For information regarding conversion between the National Geodetic Vertical Datum of 1929 and the North American Vertical Datum of 1988, visit the National Geodetic Survey website at http://www.ngs.noaa.gov/ or contact the National Geodetic Survey at the following address:

NGS Information Services
NOAA, N/NGS12
National Geodetic Survey
SSMC-3, #9202
1315 East-West Highway
Silver Spring, MD 20910-3282

To obtain current elevation, description, and/or location information for **bench marks** shown on this map, please contact the Information Services Branch of the National Geodetic Survey at **(301) 713-3242,** or visit its website at http://www.ngs.noaa.gov/.

Base map information shown on this FIRM was derived from USDA - Farm Service Agency - Aerial Photography Field Office dated 2005 and from U.S. Geological Survey Digital Orthophoto Quadrangles produced at a scale of 1:12,000 from photography dated 1992 or later.

This map reflects more detailed and up-to-date **stream channel configurations** than those shown on the previous FIRM for this jurisdiction. The floodplains and floodways that were transferred from the previous FIRM may have been adjusted to conform to these new stream channel configurations. As a result, the Flood Profiles and Floodway Data tables *in the Flood Insurance Study report (which contains authoritative hydraulic data)* may reflect stream channel distances that differ from what is shown on this map.

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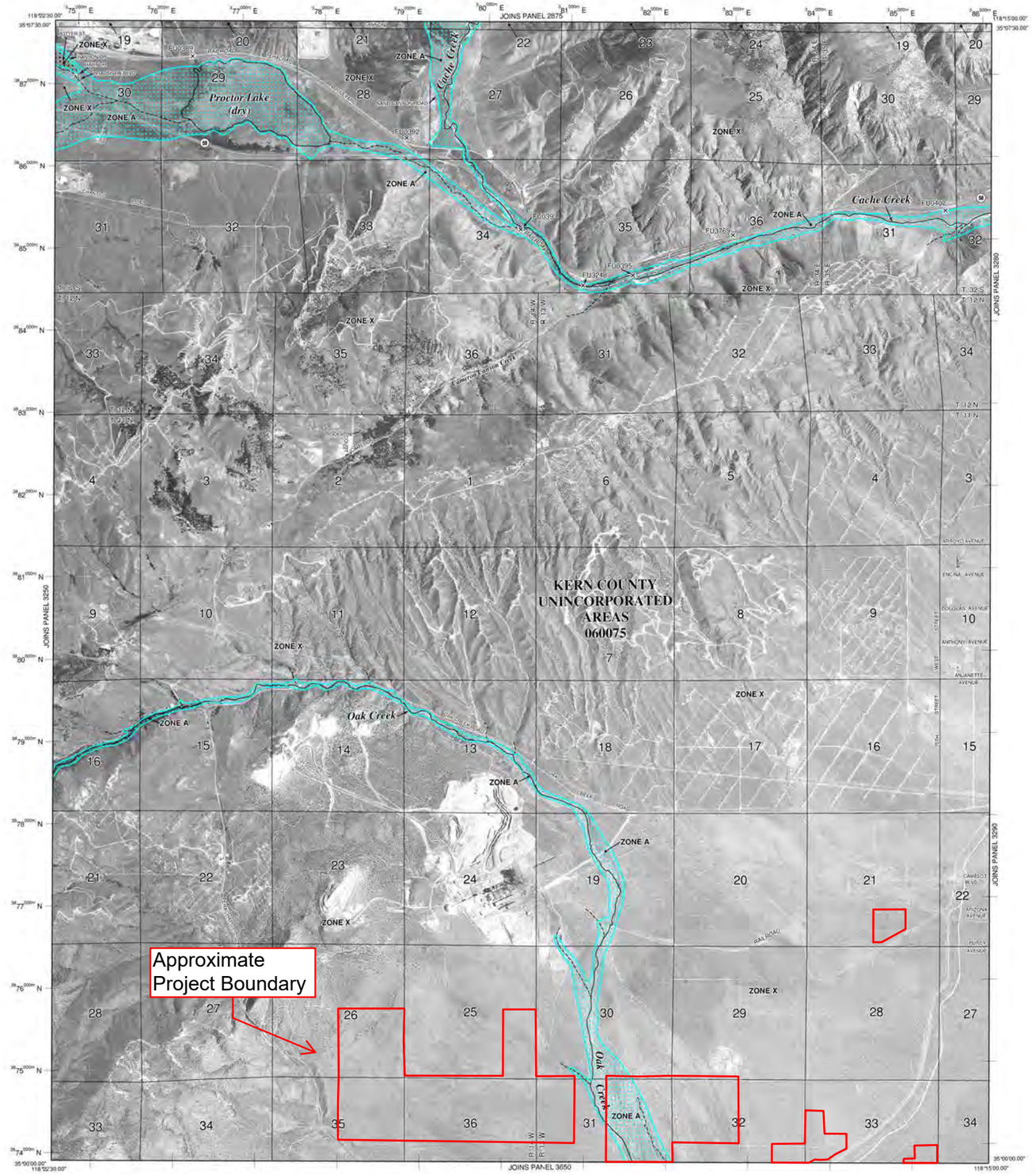
Contact the **FEMA Map Service Center** at 1-800-358-9616 for information on available products associated with this FIRM. Available products may include previously issued Letters of Map Change, *a Flood Insurance Study report,* and/or digital versions of this map. The FEMA Map Service Center may also be reached by Fax at 1-800-358-9620 and its website at http://www.msc.fema.gov/.

If you have **questions about this map** or questions concerning the National Flood Insurance Program in general, please call **1-877-FEMA MAP** (1-877-336-2627) or visit the FEMA website at http://www.fema.gov/.



LEGEND

SPECIAL FLOOD HAZARD AREAS (SFHAs) SUBJECT TO INUNDATION BY THE 1% ANNUAL CHANCE FLOOD

The 1% annual chance flood (100-year flood), also known as the base flood, is the flood that has a 1% chance of being equaled or exceeded in any given year. The Special Flood Hazard Area is the area subject to flooding by the 1% annual chance flood. Areas of Special Flood Hazard include Zones A, AE, AH, AO, AR, A99, V and VE. The Base Flood Elevation is the water-surface elevation of the 1% annual chance flood.

- **ZONE A** No Base Flood Elevations determined.
- **ZONE AE** Base Flood Elevations determined.
- **ZONE AH** Flood depths of 1 to 3 feet (usually areas of ponding); Base Flood Elevations determined.
- **ZONE AO** Flood depths of 1 to 3 feet (usually sheet flow on sloping terrain); average depths determined. For areas of alluvial fan flooding, velocities also determined.
- **ZONE AR** Special Flood Hazard Area formerly protected from the 1% annual chance flood by a flood control system that was subsequently decertified. Zone AR indicates that the former flood control system is being restored to provide protection from the 1% annual chance or greater flood.
- **ZONE A99** Area to be protected from 1% annual chance flood by a Federal flood protection system under construction; no Base Flood Elevations determined.
- **ZONE V** Coastal flood zone with velocity hazard (wave action); no Base Flood Elevations determined.
- **ZONE VE** Coastal flood zone with velocity hazard (wave action); Base Flood Elevations determined.

FLOODWAY AREAS IN ZONE AE

The floodway is the channel of a stream plus any adjacent floodplain areas that must be kept free of encroachment so that the 1% annual chance flood can be carried without substantial increases in flood heights.

OTHER FLOOD AREAS

- **ZONE X** Areas of 0.2% annual chance flood; areas of 1% annual chance flood with average depths of less than 1 foot or with drainage areas less than 1 square mile; and areas protected by levees from 1% annual chance flood.

OTHER AREAS

- **ZONE X** Areas determined to be outside the 0.2% annual chance floodplain.
- **ZONE D** Areas in which flood hazards are undetermined, but possible.

COASTAL BARRIER RESOURCES SYSTEM (CBRS) AREAS

OTHERWISE PROTECTED AREAS (OPAs)

CBRS areas and OPAs are normally located within or adjacent to Special Flood Hazard Areas.

- 1% annual chance floodplain boundary
- 0.2% annual chance floodplain boundary
- Floodway boundary
- Zone D boundary
- CBRS and OPA boundary
- Boundary dividing Special Flood Hazard Areas of different Base Flood Elevations, flood depths or flood velocities.
- 513 — Base Flood Elevation line and value; elevation in feet*
- (EL 987) — Base Flood Elevation value where uniform within zone; elevation in feet*

* Referenced to the North American Vertical Datum of 1988 (NAVD 88)

- A — A — Cross section line
- 23 — 23 — Transect line
- 97°07'30", 32°22'30" — Geographic coordinates referenced to the North American Datum of 1983 (NAD 83)
- 4275000mN — 1000-meter Universal Transverse Mercator grid ticks, zone: 11
- 6000000 M — 5000-foot grid ticks: California State Plane coordinate system, V zone (FIPSZONE 0405), Lambert Conformal Conic
- DX5510 — Bench mark (see explanation in Notes to Users section of this FIRM panel)
- M1.5 — River Mile

MAP REPOSITORIES
Refer to Map Repositories list on Map Index

EFFECTIVE DATE OF COUNTYWIDE
FLOOD INSURANCE RATE MAP
September 26, 2008
EFFECTIVE DATE(S) OF REVISION(S) TO THIS PANEL

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MAP SCALE 1" = 2000'
1000 0 2000 4000 FEET
600 0 600 1200 METERS

NFIP
NATIONAL FLOOD INSURANCE PROGRAM

PANEL 3275E

FIRM
FLOOD INSURANCE RATE MAP
KERN COUNTY, CALIFORNIA
AND INCORPORATED AREAS

PANEL 3275 OF 4125
(SEE MAP INDEX FOR FIRM PANEL LAYOUT)

CONTAINS:

COMMUNITY	NUMBER	PANEL	SUFFIX
KERN COUNTY	060075	3275	E

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MAP NUMBER
06029C3275E

EFFECTIVE DATE
SEPTEMBER 26, 2008

Federal Emergency Management Agency

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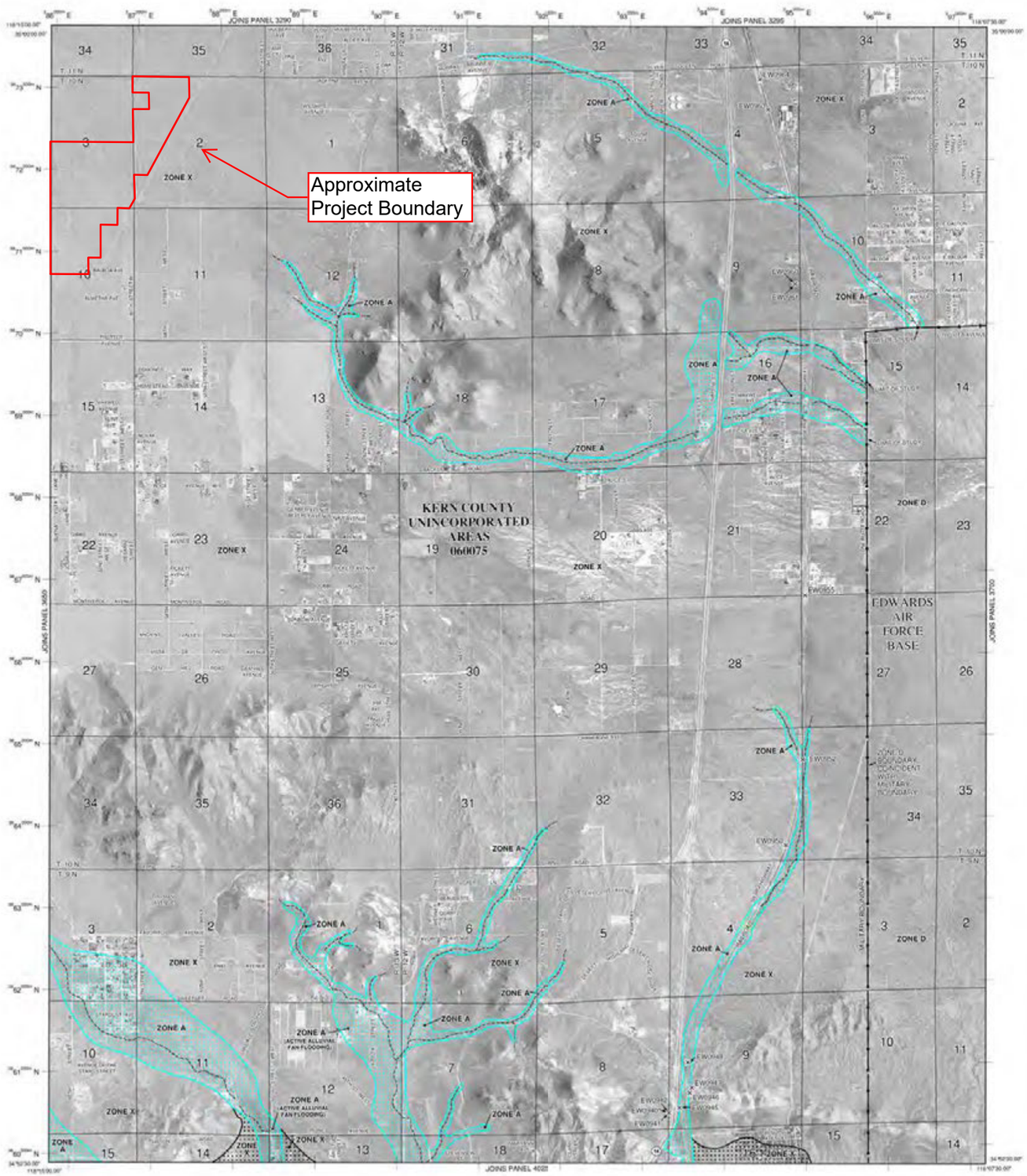

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- M1.5 — River Mile

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EFFECTIVE DATE OF COUNTYWIDE FLOOD INSURANCE RATE MAP
September 26, 2008
EFFECTIVE DATE(S) OF REVISION(S) TO THIS PANEL

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NFIP
NATIONAL FLOOD INSURANCE PROGRAM

PANEL 3675E

FIRM
FLOOD INSURANCE RATE MAP
KERN COUNTY, CALIFORNIA
AND INCORPORATED AREAS

PANEL 3675 OF 4125
(SEE MAP INDEX FOR FIRM PANEL LAYOUT)

CONTAINS:

COMMUNITY	NUMBER	PANEL	SUFFIX
KERN COUNTY	060075	3675	E

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MAP NUMBER
06029C3675E
EFFECTIVE DATE
SEPTEMBER 26, 2008

Federal Emergency Management Agency

Appendix D

CivilD Printouts (Kern County Hydrology Manual)

U n i t H y d r o g r a p h A n a l y s i s

Copyright (c) CIVILCADD/CIVILDESIGN, 2004-2014, Version 9.0

Study date 06/07/22

++

Kern County Synthetic Unit Hydrograph Hydrology Method
Manual date - 1992

Program License Serial Number 6271

Storm Event Year = 100

English (in-lb) Input Units Used

English Rainfall Data (Inches) Input Values Used

English Units used in output format

RAINFALL DATA INPUT:
Slope of Intensity-Duration Curve Slope = 0.600

Zone Designation: Desert Region Latitude = 34.98

Area averaged rainfall intensity isohyetal data:

Sub-Area (Ac.)	Duration (hours)	Isohyetal (In)
Rainfall data for year 2		
111.00	6	1.23
Rainfall data for year 2		
111.00	24	2.29
Rainfall data for year 100		
111.00	6	3.14
Rainfall data for year 100		
111.00	24	6.40

++
DESERT REGION area of study
Log-Log Rainfall Intensity Slope = 0.60

******** Area-averaged max loss rate, Fm ********

SCS curve Number	Area (Ac.)	Area Fraction	Fp (In/Hr)	Ap (dec.)	Fm (In/Hr)
88.0	80.00	0.721	0.236	1.000	0.236
91.0	31.00	0.279	0.180	1.000	0.180

Area-averaged adjusted loss rate Fm (In/Hr) = 0.220

********* Area-Averaged low loss rate fraction, Yb **********

Area (Ac.)	Area Fract	SCS CN (AMC2)	S	Pervious Yield Fr
80.00	0.721	88.0	1.36	0.783
31.00	0.279	91.0	0.99	0.836

Area-averaged catchment yield fraction, Y = 0.798
Area-averaged low loss fraction, Yb = 0.202
++
Watercourse length = 6000.00(Ft.)
Length from concentration point to centroid = 3400.00(Ft.)
Elevation difference along watercourse = 470.00(Ft.)
Mannings friction factor along watercourse = 0.120
Watershed area = 111.00(Ac.)
Catchment Lag time = 0.814 hours
Unit interval = 5.000 minutes
Unit interval percentage of lag time = 10.2357
Hydrograph baseflow = 0.00(CFS)
Average maximum watershed loss rate(Fm) = 0.220(In/Hr)
Average low loss rate fraction (Yb) = 0.202 (decimal)
VALLEY DEVELOPED S-Graph proportion = 0.000
VALLEY UNDEVELOPED S-Graph proportion = 0.000
FOOTHILL S-Graph proportion = 0.000
MOUNTAIN S-Graph proportion = 0.400
DESERT S-Graph proportion = 0.600

Computed peak 5-minute rainfall = 0.569(In)
Computed peak 30-minute rainfall = 1.165(In)
Specified peak 1-hour rainfall = 1.538(In)
Computed peak 3-hour rainfall = 2.382(In)
Specified peak 6-hour rainfall = 3.140(In)
Specified peak 24-hour rainfall = 6.400(In)

Rainfall depth area reduction factors:
Using a total area of 111.00(Ac.) (Ref: fig. E-4)

5-minute factor = 0.995 Adjusted rainfall = 0.566(In)
30-minute factor = 0.995 Adjusted rainfall = 1.159(In)
1-hour factor = 0.995 Adjusted rainfall = 1.530(In)
3-hour factor = 0.999 Adjusted rainfall = 2.380(In)
6-hour factor = 1.000 Adjusted rainfall = 3.139(In)
24-hour factor = 1.000 Adjusted rainfall = 6.399(In)

U n i t H y d r o g r a p h

Interval Number	'S' Graph Mean values	Unit Hydrograph ((CFS))
	(K = 1342.41 (CFS))	
1	0.797	10.698
2	2.491	22.744
3	4.788	30.839
4	8.027	43.471
5	12.501	60.069
6	18.753	83.918
7	26.998	110.684
8	35.574	115.121
9	43.793	110.335
10	48.420	62.111
11	53.198	64.141
12	57.038	51.556
13	60.311	43.933
14	63.052	36.789
15	65.452	32.223
16	67.659	29.627
17	69.628	26.435
18	71.427	24.150
19	73.064	21.975
20	74.524	19.602
21	75.919	18.722
22	77.264	18.053
23	78.481	16.333
24	79.575	14.694
25	80.580	13.482
26	81.509	12.483
27	82.396	11.905
28	83.230	11.191
29	84.039	10.855
30	84.757	9.643
31	85.459	9.420
32	86.142	9.170
33	86.766	8.386
34	87.379	8.231
35	87.959	7.775
36	88.497	7.231
37	89.004	6.807
38	89.505	6.716
39	89.976	6.323
40	90.419	5.946
41	90.796	5.066
42	91.170	5.014
43	91.529	4.827
44	91.882	4.732
45	92.234	4.732
46	92.577	4.605
47	92.857	3.754
48	93.114	3.447
49	93.365	3.375

50	93.616	3.375
51	93.868	3.375
52	94.119	3.375
53	94.367	3.327
54	94.602	3.153
55	94.836	3.138
56	95.069	3.138
57	95.301	3.102
58	95.498	2.653
59	95.685	2.505
60	95.858	2.320
61	96.025	2.252
62	96.193	2.252
63	96.361	2.252
64	96.529	2.252
65	96.696	2.252
66	96.864	2.252
67	97.025	2.154
68	97.168	1.922
69	97.310	1.913
70	97.453	1.913
71	97.595	1.913
72	97.738	1.913
73	97.880	1.913
74	98.023	1.913
75	98.165	1.913
76	98.351	2.493
77	98.423	0.969
78	98.482	0.792
79	98.541	0.791
80	98.600	0.791
81	98.659	0.791
82	98.718	0.791
83	98.777	0.791
84	98.836	0.791
85	98.894	0.791
86	98.953	0.791
87	99.012	0.791
88	99.071	0.791
89	99.130	0.791
90	99.187	0.766
91	99.217	0.406
92	99.239	0.288
93	99.260	0.288
94	99.282	0.288
95	99.303	0.288
96	99.325	0.288
97	99.346	0.288
98	99.368	0.288
99	99.389	0.288
100	99.410	0.288
101	99.432	0.288
102	99.453	0.288
103	99.475	0.288
104	99.496	0.288
105	99.518	0.288

106	99.539	0.288
107	99.560	0.288
108	99.582	0.288
109	99.603	0.288
110	99.625	0.288
111	99.646	0.288
112	99.668	0.288
113	99.689	0.288
114	99.710	0.288
115	99.732	0.288
116	99.753	0.288
117	99.775	0.288
118	99.796	0.288
119	99.818	0.288
120	99.839	0.288
121	99.861	0.288
122	99.882	0.288
123	99.903	0.288
124	99.925	0.288
125	99.946	0.288
126	99.968	0.288
127	100.000	0.433

Rainfall values calculated at 5 minute intervals:

Peak Rainfall Unit Number	Intensity	Depth	Adjusted	Unit Rainfall (In)
1	6.83	0.57	0.57	0.566
2	4.51	0.75	0.75	0.181
3	3.53	0.88	0.88	0.132
4	2.97	0.99	0.99	0.107
5	2.60	1.08	1.08	0.092
6	2.33	1.17	1.16	0.082
7	2.12	1.24	1.23	0.074
8	1.96	1.31	1.30	0.068
9	1.83	1.37	1.36	0.063
10	1.72	1.43	1.42	0.059
11	1.62	1.48	1.48	0.055
12	1.54	1.54	1.53	0.052
13	1.47	1.59	1.58	0.050
14	1.40	1.63	1.63	0.048
15	1.34	1.68	1.67	0.046
16	1.29	1.72	1.72	0.044
17	1.25	1.77	1.76	0.042
18	1.20	1.81	1.80	0.041
19	1.17	1.85	1.84	0.040
20	1.13	1.88	1.88	0.038
21	1.10	1.92	1.92	0.037
22	1.07	1.96	1.95	0.036
23	1.04	1.99	1.99	0.035
24	1.01	2.03	2.02	0.034
25	0.99	2.06	2.06	0.033
26	0.97	2.09	2.09	0.033
27	0.94	2.12	2.12	0.032
28	0.92	2.16	2.15	0.031
29	0.90	2.19	2.18	0.031
30	0.89	2.22	2.21	0.030

31	0.87	2.24	2.24	0.029
32	0.85	2.27	2.27	0.029
33	0.84	2.30	2.30	0.028
34	0.82	2.33	2.33	0.028
35	0.81	2.36	2.35	0.027
36	0.79	2.38	2.38	0.027
37	0.78	2.41	2.41	0.026
38	0.77	2.43	2.43	0.026
39	0.76	2.46	2.46	0.025
40	0.75	2.48	2.48	0.025
41	0.73	2.51	2.51	0.025
42	0.72	2.53	2.53	0.024
43	0.71	2.56	2.56	0.024
44	0.70	2.58	2.58	0.024
45	0.69	2.60	2.60	0.023
46	0.69	2.63	2.62	0.023
47	0.68	2.65	2.65	0.023
48	0.67	2.67	2.67	0.022
49	0.66	2.69	2.69	0.022
50	0.65	2.72	2.71	0.022
51	0.64	2.74	2.74	0.022
52	0.64	2.76	2.76	0.021
53	0.63	2.78	2.78	0.021
54	0.62	2.80	2.80	0.021
55	0.62	2.82	2.82	0.021
56	0.61	2.84	2.84	0.020
57	0.60	2.86	2.86	0.020
58	0.60	2.88	2.88	0.020
59	0.59	2.90	2.90	0.020
60	0.58	2.92	2.92	0.020
61	0.58	2.94	2.94	0.019
62	0.57	2.96	2.96	0.019
63	0.57	2.98	2.98	0.019
64	0.56	3.00	2.99	0.019
65	0.56	3.01	3.01	0.019
66	0.55	3.03	3.03	0.018
67	0.55	3.05	3.05	0.018
68	0.54	3.07	3.07	0.018
69	0.54	3.09	3.09	0.018
70	0.53	3.10	3.10	0.018
71	0.53	3.12	3.12	0.018
72	0.52	3.14	3.14	0.017
73	0.52	3.16	3.16	0.022
74	0.52	3.18	3.18	0.022
75	0.51	3.21	3.21	0.022
76	0.51	3.23	3.23	0.022
77	0.51	3.25	3.25	0.022
78	0.50	3.27	3.27	0.022
79	0.50	3.29	3.29	0.021
80	0.50	3.31	3.31	0.021
81	0.49	3.34	3.33	0.021
82	0.49	3.36	3.36	0.021
83	0.49	3.38	3.38	0.021
84	0.49	3.40	3.40	0.021
85	0.48	3.42	3.42	0.021
86	0.48	3.44	3.44	0.021

87	0.48	3.46	3.46	0.020
88	0.47	3.48	3.48	0.020
89	0.47	3.50	3.50	0.020
90	0.47	3.52	3.52	0.020
91	0.47	3.54	3.54	0.020
92	0.46	3.56	3.56	0.020
93	0.46	3.58	3.58	0.020
94	0.46	3.60	3.60	0.020
95	0.46	3.62	3.62	0.020
96	0.45	3.64	3.64	0.020
97	0.45	3.66	3.66	0.019
98	0.45	3.68	3.68	0.019
99	0.45	3.70	3.70	0.019
100	0.45	3.72	3.72	0.019
101	0.44	3.74	3.73	0.019
102	0.44	3.75	3.75	0.019
103	0.44	3.77	3.77	0.019
104	0.44	3.79	3.79	0.019
105	0.44	3.81	3.81	0.019
106	0.43	3.83	3.83	0.019
107	0.43	3.85	3.85	0.019
108	0.43	3.87	3.87	0.018
109	0.43	3.88	3.88	0.018
110	0.43	3.90	3.90	0.018
111	0.42	3.92	3.92	0.018
112	0.42	3.94	3.94	0.018
113	0.42	3.96	3.96	0.018
114	0.42	3.98	3.97	0.018
115	0.42	3.99	3.99	0.018
116	0.41	4.01	4.01	0.018
117	0.41	4.03	4.03	0.018
118	0.41	4.05	4.05	0.018
119	0.41	4.06	4.06	0.018
120	0.41	4.08	4.08	0.018
121	0.41	4.10	4.10	0.017
122	0.40	4.12	4.12	0.017
123	0.40	4.13	4.13	0.017
124	0.40	4.15	4.15	0.017
125	0.40	4.17	4.17	0.017
126	0.40	4.18	4.18	0.017
127	0.40	4.20	4.20	0.017
128	0.40	4.22	4.22	0.017
129	0.39	4.24	4.24	0.017
130	0.39	4.25	4.25	0.017
131	0.39	4.27	4.27	0.017
132	0.39	4.29	4.29	0.017
133	0.39	4.30	4.30	0.017
134	0.39	4.32	4.32	0.017
135	0.39	4.34	4.34	0.017
136	0.38	4.35	4.35	0.016
137	0.38	4.37	4.37	0.016
138	0.38	4.39	4.38	0.016
139	0.38	4.40	4.40	0.016
140	0.38	4.42	4.42	0.016
141	0.38	4.43	4.43	0.016
142	0.38	4.45	4.45	0.016

143	0.37	4.47	4.47	0.016
144	0.37	4.48	4.48	0.016
145	0.37	4.50	4.50	0.016
146	0.37	4.51	4.51	0.016
147	0.37	4.53	4.53	0.016
148	0.37	4.55	4.55	0.016
149	0.37	4.56	4.56	0.016
150	0.37	4.58	4.58	0.016
151	0.36	4.59	4.59	0.016
152	0.36	4.61	4.61	0.016
153	0.36	4.62	4.62	0.016
154	0.36	4.64	4.64	0.016
155	0.36	4.65	4.65	0.015
156	0.36	4.67	4.67	0.015
157	0.36	4.69	4.69	0.015
158	0.36	4.70	4.70	0.015
159	0.36	4.72	4.72	0.015
160	0.35	4.73	4.73	0.015
161	0.35	4.75	4.75	0.015
162	0.35	4.76	4.76	0.015
163	0.35	4.78	4.78	0.015
164	0.35	4.79	4.79	0.015
165	0.35	4.81	4.81	0.015
166	0.35	4.82	4.82	0.015
167	0.35	4.84	4.84	0.015
168	0.35	4.85	4.85	0.015
169	0.35	4.87	4.87	0.015
170	0.34	4.88	4.88	0.015
171	0.34	4.90	4.90	0.015
172	0.34	4.91	4.91	0.015
173	0.34	4.92	4.92	0.015
174	0.34	4.94	4.94	0.015
175	0.34	4.95	4.95	0.015
176	0.34	4.97	4.97	0.015
177	0.34	4.98	4.98	0.014
178	0.34	5.00	5.00	0.014
179	0.34	5.01	5.01	0.014
180	0.34	5.03	5.03	0.014
181	0.33	5.04	5.04	0.014
182	0.33	5.05	5.05	0.014
183	0.33	5.07	5.07	0.014
184	0.33	5.08	5.08	0.014
185	0.33	5.10	5.10	0.014
186	0.33	5.11	5.11	0.014
187	0.33	5.13	5.13	0.014
188	0.33	5.14	5.14	0.014
189	0.33	5.15	5.15	0.014
190	0.33	5.17	5.17	0.014
191	0.33	5.18	5.18	0.014
192	0.32	5.20	5.20	0.014
193	0.32	5.21	5.21	0.014
194	0.32	5.22	5.22	0.014
195	0.32	5.24	5.24	0.014
196	0.32	5.25	5.25	0.014
197	0.32	5.26	5.26	0.014
198	0.32	5.28	5.28	0.014

199	0.32	5.29	5.29	0.014
200	0.32	5.31	5.31	0.014
201	0.32	5.32	5.32	0.014
202	0.32	5.33	5.33	0.014
203	0.32	5.35	5.35	0.014
204	0.32	5.36	5.36	0.014
205	0.31	5.37	5.37	0.013
206	0.31	5.39	5.39	0.013
207	0.31	5.40	5.40	0.013
208	0.31	5.41	5.41	0.013
209	0.31	5.43	5.43	0.013
210	0.31	5.44	5.44	0.013
211	0.31	5.45	5.45	0.013
212	0.31	5.47	5.47	0.013
213	0.31	5.48	5.48	0.013
214	0.31	5.49	5.49	0.013
215	0.31	5.51	5.51	0.013
216	0.31	5.52	5.52	0.013
217	0.31	5.53	5.53	0.013
218	0.31	5.55	5.55	0.013
219	0.30	5.56	5.56	0.013
220	0.30	5.57	5.57	0.013
221	0.30	5.59	5.58	0.013
222	0.30	5.60	5.60	0.013
223	0.30	5.61	5.61	0.013
224	0.30	5.62	5.62	0.013
225	0.30	5.64	5.64	0.013
226	0.30	5.65	5.65	0.013
227	0.30	5.66	5.66	0.013
228	0.30	5.68	5.67	0.013
229	0.30	5.69	5.69	0.013
230	0.30	5.70	5.70	0.013
231	0.30	5.71	5.71	0.013
232	0.30	5.73	5.73	0.013
233	0.30	5.74	5.74	0.013
234	0.29	5.75	5.75	0.013
235	0.29	5.76	5.76	0.013
236	0.29	5.78	5.78	0.013
237	0.29	5.79	5.79	0.013
238	0.29	5.80	5.80	0.013
239	0.29	5.81	5.81	0.013
240	0.29	5.83	5.83	0.012
241	0.29	5.84	5.84	0.012
242	0.29	5.85	5.85	0.012
243	0.29	5.86	5.86	0.012
244	0.29	5.88	5.88	0.012
245	0.29	5.89	5.89	0.012
246	0.29	5.90	5.90	0.012
247	0.29	5.91	5.91	0.012
248	0.29	5.93	5.93	0.012
249	0.29	5.94	5.94	0.012
250	0.29	5.95	5.95	0.012
251	0.29	5.96	5.96	0.012
252	0.28	5.97	5.97	0.012
253	0.28	5.99	5.99	0.012
254	0.28	6.00	6.00	0.012

255	0.28	6.01	6.01	0.012
256	0.28	6.02	6.02	0.012
257	0.28	6.04	6.03	0.012
258	0.28	6.05	6.05	0.012
259	0.28	6.06	6.06	0.012
260	0.28	6.07	6.07	0.012
261	0.28	6.08	6.08	0.012
262	0.28	6.10	6.09	0.012
263	0.28	6.11	6.11	0.012
264	0.28	6.12	6.12	0.012
265	0.28	6.13	6.13	0.012
266	0.28	6.14	6.14	0.012
267	0.28	6.15	6.15	0.012
268	0.28	6.17	6.17	0.012
269	0.28	6.18	6.18	0.012
270	0.28	6.19	6.19	0.012
271	0.27	6.20	6.20	0.012
272	0.27	6.21	6.21	0.012
273	0.27	6.23	6.23	0.012
274	0.27	6.24	6.24	0.012
275	0.27	6.25	6.25	0.012
276	0.27	6.26	6.26	0.012
277	0.27	6.27	6.27	0.012
278	0.27	6.28	6.28	0.012
279	0.27	6.30	6.30	0.012
280	0.27	6.31	6.31	0.012
281	0.27	6.32	6.32	0.012
282	0.27	6.33	6.33	0.012
283	0.27	6.34	6.34	0.012
284	0.27	6.35	6.35	0.012
285	0.27	6.36	6.36	0.011
286	0.27	6.38	6.38	0.011
287	0.27	6.39	6.39	0.011
288	0.27	6.40	6.40	0.011

Time = 24.00 Hours Total unit rainfall = 6.40(In)

Unit Period (number)	Unit Rainfall (In)	Unit Soil-Loss (In)	Effective Rainfall (In)
1	0.0114	0.0023	0.0091
2	0.0114	0.0023	0.0091
3	0.0115	0.0023	0.0092
4	0.0115	0.0023	0.0092
5	0.0115	0.0023	0.0092
6	0.0116	0.0023	0.0092
7	0.0116	0.0023	0.0093
8	0.0116	0.0023	0.0093
9	0.0117	0.0024	0.0093
10	0.0117	0.0024	0.0093
11	0.0117	0.0024	0.0094
12	0.0117	0.0024	0.0094
13	0.0118	0.0024	0.0094
14	0.0118	0.0024	0.0094
15	0.0119	0.0024	0.0095
16	0.0119	0.0024	0.0095

17	0.0119	0.0024	0.0095
18	0.0119	0.0024	0.0095
19	0.0120	0.0024	0.0096
20	0.0120	0.0024	0.0096
21	0.0121	0.0024	0.0096
22	0.0121	0.0024	0.0096
23	0.0121	0.0025	0.0097
24	0.0121	0.0025	0.0097
25	0.0122	0.0025	0.0097
26	0.0122	0.0025	0.0097
27	0.0123	0.0025	0.0098
28	0.0123	0.0025	0.0098
29	0.0123	0.0025	0.0098
30	0.0124	0.0025	0.0099
31	0.0124	0.0025	0.0099
32	0.0124	0.0025	0.0099
33	0.0125	0.0025	0.0100
34	0.0125	0.0025	0.0100
35	0.0126	0.0025	0.0100
36	0.0126	0.0025	0.0100
37	0.0126	0.0026	0.0101
38	0.0127	0.0026	0.0101
39	0.0127	0.0026	0.0101
40	0.0127	0.0026	0.0102
41	0.0128	0.0026	0.0102
42	0.0128	0.0026	0.0102
43	0.0129	0.0026	0.0103
44	0.0129	0.0026	0.0103
45	0.0130	0.0026	0.0103
46	0.0130	0.0026	0.0104
47	0.0131	0.0026	0.0104
48	0.0131	0.0026	0.0104
49	0.0131	0.0027	0.0105
50	0.0132	0.0027	0.0105
51	0.0132	0.0027	0.0106
52	0.0133	0.0027	0.0106
53	0.0133	0.0027	0.0106
54	0.0134	0.0027	0.0107
55	0.0134	0.0027	0.0107
56	0.0135	0.0027	0.0107
57	0.0135	0.0027	0.0108
58	0.0135	0.0027	0.0108
59	0.0136	0.0028	0.0109
60	0.0136	0.0028	0.0109
61	0.0137	0.0028	0.0109
62	0.0137	0.0028	0.0110
63	0.0138	0.0028	0.0110
64	0.0138	0.0028	0.0110
65	0.0139	0.0028	0.0111
66	0.0140	0.0028	0.0111
67	0.0140	0.0028	0.0112
68	0.0141	0.0028	0.0112
69	0.0141	0.0029	0.0113
70	0.0142	0.0029	0.0113
71	0.0142	0.0029	0.0114
72	0.0143	0.0029	0.0114

73	0.0144	0.0029	0.0115
74	0.0144	0.0029	0.0115
75	0.0145	0.0029	0.0116
76	0.0145	0.0029	0.0116
77	0.0146	0.0030	0.0117
78	0.0146	0.0030	0.0117
79	0.0147	0.0030	0.0118
80	0.0148	0.0030	0.0118
81	0.0149	0.0030	0.0119
82	0.0149	0.0030	0.0119
83	0.0150	0.0030	0.0120
84	0.0150	0.0030	0.0120
85	0.0151	0.0031	0.0121
86	0.0152	0.0031	0.0121
87	0.0153	0.0031	0.0122
88	0.0153	0.0031	0.0122
89	0.0154	0.0031	0.0123
90	0.0155	0.0031	0.0123
91	0.0155	0.0031	0.0124
92	0.0156	0.0032	0.0124
93	0.0157	0.0032	0.0125
94	0.0158	0.0032	0.0126
95	0.0159	0.0032	0.0127
96	0.0159	0.0032	0.0127
97	0.0160	0.0032	0.0128
98	0.0161	0.0032	0.0128
99	0.0162	0.0033	0.0129
100	0.0162	0.0033	0.0130
101	0.0164	0.0033	0.0130
102	0.0164	0.0033	0.0131
103	0.0165	0.0033	0.0132
104	0.0166	0.0034	0.0132
105	0.0167	0.0034	0.0133
106	0.0168	0.0034	0.0134
107	0.0169	0.0034	0.0135
108	0.0170	0.0034	0.0135
109	0.0171	0.0035	0.0136
110	0.0172	0.0035	0.0137
111	0.0173	0.0035	0.0138
112	0.0174	0.0035	0.0139
113	0.0175	0.0035	0.0140
114	0.0176	0.0036	0.0140
115	0.0177	0.0036	0.0141
116	0.0178	0.0036	0.0142
117	0.0180	0.0036	0.0143
118	0.0180	0.0036	0.0144
119	0.0182	0.0037	0.0145
120	0.0183	0.0037	0.0146
121	0.0184	0.0037	0.0147
122	0.0185	0.0037	0.0148
123	0.0187	0.0038	0.0149
124	0.0188	0.0038	0.0150
125	0.0190	0.0038	0.0151
126	0.0190	0.0039	0.0152
127	0.0192	0.0039	0.0153
128	0.0193	0.0039	0.0154

129	0.0195	0.0039	0.0156
130	0.0196	0.0040	0.0157
131	0.0198	0.0040	0.0158
132	0.0199	0.0040	0.0159
133	0.0201	0.0041	0.0161
134	0.0203	0.0041	0.0162
135	0.0205	0.0041	0.0163
136	0.0206	0.0042	0.0164
137	0.0208	0.0042	0.0166
138	0.0210	0.0042	0.0167
139	0.0212	0.0043	0.0169
140	0.0213	0.0043	0.0170
141	0.0216	0.0044	0.0172
142	0.0217	0.0044	0.0174
143	0.0220	0.0045	0.0176
144	0.0222	0.0045	0.0177
145	0.0175	0.0035	0.0139
146	0.0176	0.0036	0.0141
147	0.0179	0.0036	0.0143
148	0.0181	0.0037	0.0144
149	0.0184	0.0037	0.0147
150	0.0186	0.0038	0.0148
151	0.0189	0.0038	0.0151
152	0.0191	0.0039	0.0153
153	0.0195	0.0039	0.0156
154	0.0197	0.0040	0.0157
155	0.0201	0.0041	0.0161
156	0.0203	0.0041	0.0162
157	0.0208	0.0042	0.0166
158	0.0210	0.0043	0.0168
159	0.0215	0.0044	0.0172
160	0.0218	0.0044	0.0174
161	0.0223	0.0045	0.0178
162	0.0226	0.0046	0.0181
163	0.0232	0.0047	0.0185
164	0.0236	0.0048	0.0188
165	0.0242	0.0049	0.0193
166	0.0246	0.0050	0.0196
167	0.0253	0.0051	0.0202
168	0.0257	0.0052	0.0205
169	0.0268	0.0054	0.0214
170	0.0273	0.0055	0.0218
171	0.0283	0.0057	0.0226
172	0.0288	0.0058	0.0230
173	0.0300	0.0061	0.0239
174	0.0306	0.0062	0.0244
175	0.0320	0.0065	0.0255
176	0.0327	0.0066	0.0261
177	0.0343	0.0069	0.0274
178	0.0352	0.0071	0.0281
179	0.0373	0.0075	0.0297
180	0.0384	0.0078	0.0306
181	0.0409	0.0083	0.0327
182	0.0424	0.0086	0.0338
183	0.0458	0.0093	0.0366
184	0.0478	0.0097	0.0382

185	0.0523	0.0106	0.0418
186	0.0553	0.0112	0.0441
187	0.0628	0.0127	0.0501
188	0.0677	0.0137	0.0540
189	0.0815	0.0165	0.0651
190	0.0920	0.0184*	0.0737
191	0.1316	0.0184*	0.1132
192	0.1809	0.0184*	0.1625
193	0.5662	0.0184*	0.5479
194	0.1072	0.0184*	0.0888
195	0.0737	0.0149	0.0588
196	0.0587	0.0119	0.0468
197	0.0501	0.0101	0.0400
198	0.0440	0.0089	0.0351
199	0.0396	0.0080	0.0316
200	0.0362	0.0073	0.0289
201	0.0335	0.0068	0.0267
202	0.0313	0.0063	0.0249
203	0.0294	0.0059	0.0234
204	0.0278	0.0056	0.0222
205	0.0262	0.0053	0.0209
206	0.0250	0.0050	0.0199
207	0.0239	0.0048	0.0191
208	0.0229	0.0046	0.0183
209	0.0221	0.0045	0.0176
210	0.0213	0.0043	0.0170
211	0.0206	0.0042	0.0164
212	0.0199	0.0040	0.0159
213	0.0193	0.0039	0.0154
214	0.0188	0.0038	0.0150
215	0.0182	0.0037	0.0146
216	0.0178	0.0036	0.0142
217	0.0223	0.0045	0.0178
218	0.0219	0.0044	0.0175
219	0.0215	0.0043	0.0171
220	0.0211	0.0043	0.0168
221	0.0207	0.0042	0.0165
222	0.0204	0.0041	0.0163
223	0.0200	0.0041	0.0160
224	0.0197	0.0040	0.0157
225	0.0194	0.0039	0.0155
226	0.0191	0.0039	0.0153
227	0.0189	0.0038	0.0150
228	0.0186	0.0038	0.0148
229	0.0183	0.0037	0.0146
230	0.0181	0.0037	0.0144
231	0.0179	0.0036	0.0143
232	0.0177	0.0036	0.0141
233	0.0174	0.0035	0.0139
234	0.0172	0.0035	0.0137
235	0.0170	0.0034	0.0136
236	0.0168	0.0034	0.0134
237	0.0166	0.0034	0.0133
238	0.0165	0.0033	0.0131
239	0.0163	0.0033	0.0130
240	0.0161	0.0033	0.0129

241	0.0160	0.0032	0.0127
242	0.0158	0.0032	0.0126
243	0.0156	0.0032	0.0125
244	0.0155	0.0031	0.0124
245	0.0154	0.0031	0.0123
246	0.0152	0.0031	0.0121
247	0.0151	0.0030	0.0120
248	0.0149	0.0030	0.0119
249	0.0148	0.0030	0.0118
250	0.0147	0.0030	0.0117
251	0.0146	0.0029	0.0116
252	0.0144	0.0029	0.0115
253	0.0143	0.0029	0.0114
254	0.0142	0.0029	0.0113
255	0.0141	0.0029	0.0112
256	0.0140	0.0028	0.0112
257	0.0139	0.0028	0.0111
258	0.0138	0.0028	0.0110
259	0.0137	0.0028	0.0109
260	0.0136	0.0027	0.0108
261	0.0135	0.0027	0.0108
262	0.0134	0.0027	0.0107
263	0.0133	0.0027	0.0106
264	0.0132	0.0027	0.0105
265	0.0131	0.0027	0.0105
266	0.0130	0.0026	0.0104
267	0.0129	0.0026	0.0103
268	0.0129	0.0026	0.0103
269	0.0128	0.0026	0.0102
270	0.0127	0.0026	0.0101
271	0.0126	0.0026	0.0101
272	0.0125	0.0025	0.0100
273	0.0125	0.0025	0.0099
274	0.0124	0.0025	0.0099
275	0.0123	0.0025	0.0098
276	0.0122	0.0025	0.0098
277	0.0122	0.0025	0.0097
278	0.0121	0.0024	0.0097
279	0.0120	0.0024	0.0096
280	0.0120	0.0024	0.0095
281	0.0119	0.0024	0.0095
282	0.0118	0.0024	0.0094
283	0.0118	0.0024	0.0094
284	0.0117	0.0024	0.0093
285	0.0116	0.0024	0.0093
286	0.0116	0.0023	0.0092
287	0.0115	0.0023	0.0092
288	0.0115	0.0023	0.0091
	6.3986	1.1675	5.2310

Total soil rain loss = 1.17(In)
Total effective rainfall = 5.23(In)
Peak flow rate in flood hydrograph = 135.16(CFS)

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24 - H O U R S T O R M

R u n o f f H y d r o g r a p h

Hydrograph in 5 Minute intervals ((CFS))

Time(h+m)	Volume Ac.Ft	Q(CFS)	0	50.0	100.0	150.0	200.0
0+ 5	0.0007	0.10	Q				
0+10	0.0028	0.30	Q				
0+15	0.0068	0.59	Q				
0+20	0.0136	0.98	Q				
0+25	0.0242	1.53	Q				
0+30	0.0400	2.30	Q				
0+35	0.0629	3.32	Q				
0+40	0.0930	4.37	Q				
0+45	0.1301	5.39	VQ				
0+50	0.1712	5.97	VQ				
0+55	0.2165	6.57	VQ				
1+ 0	0.2651	7.06	VQ				
1+ 5	0.3166	7.48	VQ				
1+10	0.3705	7.83	VQ				
1+15	0.4266	8.14	VQ				
1+20	0.4847	8.44	VQ				
1+25	0.5446	8.70	VQ				
1+30	0.6062	8.94	VQ				
1+35	0.6693	9.17	VQ				
1+40	0.7338	9.37	VQ				
1+45	0.7997	9.57	VQ				
1+50	0.8669	9.76	VQ				
1+55	0.9353	9.93	VQ				
2+ 0	1.0048	10.09	V Q				
2+ 5	1.0753	10.24	V Q				
2+10	1.1469	10.38	V Q				
2+15	1.2193	10.52	|VQ				
2+20	1.2927	10.65	|VQ				
2+25	1.3669	10.78	|VQ				
2+30	1.4420	10.90	|VQ				
2+35	1.5179	11.02	|VQ				
2+40	1.5945	11.13	|VQ				
2+45	1.6719	11.24	|VQ				
2+50	1.7501	11.35	|VQ				
2+55	1.8289	11.45	|VQ				
3+ 0	1.9085	11.55	|VQ				
3+ 5	1.9887	11.65	|VQ				
3+10	2.0695	11.74	|VQ				
3+15	2.1510	11.83	|VQ				
3+20	2.2331	11.92	|VQ				
3+25	2.3158	12.00	|VQ				
3+30	2.3990	12.08	|VQ				
3+35	2.4828	12.17	| Q				
3+40	2.5671	12.24	| Q				
3+45	2.6520	12.33	| Q				
3+50	2.7375	12.41	| Q				
3+55	2.8234	12.48	| Q				

4+ 0	2.9098	12.55	Q			
4+ 5	2.9967	12.62	Q			
4+10	3.0841	12.69	Q			
4+15	3.1720	12.76	Q			
4+20	3.2603	12.83	Q			
4+25	3.3492	12.90	Q			
4+30	3.4385	12.97	Q			
4+35	3.5283	13.04	Q			
4+40	3.6186	13.11	Q			
4+45	3.7094	13.18	QV			
4+50	3.8007	13.25	QV			
4+55	3.8924	13.32	QV			
5+ 0	3.9846	13.38	QV			
5+ 5	4.0772	13.45	QV			
5+10	4.1703	13.52	QV			
5+15	4.2639	13.58	QV			
5+20	4.3579	13.65	QV			
5+25	4.4523	13.72	QV			
5+30	4.5473	13.78	QV			
5+35	4.6427	13.85	QV			
5+40	4.7385	13.92	QV			
5+45	4.8349	13.99	QV			
5+50	4.9316	14.05	Q V			
5+55	5.0289	14.12	Q V			
6+ 0	5.1266	14.19	Q V			
6+ 5	5.2248	14.26	Q V			
6+10	5.3235	14.33	Q V			
6+15	5.4227	14.40	Q V			
6+20	5.5224	14.48	Q V			
6+25	5.6225	14.54	Q V			
6+30	5.7231	14.60	Q V			
6+35	5.8241	14.66	Q V			
6+40	5.9255	14.73	Q V			
6+45	6.0274	14.79	Q V			
6+50	6.1297	14.86	Q V			
6+55	6.2324	14.92	Q V			
7+ 0	6.3357	14.99	Q V			
7+ 5	6.4394	15.06	Q V			
7+10	6.5435	15.12	Q V			
7+15	6.6482	15.19	Q V			
7+20	6.7533	15.26	Q V			
7+25	6.8589	15.33	Q V			
7+30	6.9650	15.40	Q V			
7+35	7.0715	15.47	Q V			
7+40	7.1785	15.54	Q V			
7+45	7.2861	15.61	Q V			
7+50	7.3940	15.68	Q V			
7+55	7.5025	15.75	Q V			
8+ 0	7.6115	15.82	Q V			
8+ 5	7.7210	15.90	Q V			
8+10	7.8309	15.97	Q V			
8+15	7.9414	16.04	Q V			
8+20	8.0525	16.12	Q V			
8+25	8.1640	16.20	Q V			
8+30	8.2761	16.27	Q V			
8+35	8.3887	16.35	Q V			

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 8+40       8.5019     16.43  |  Q   V  |          |          |          |
 8+45       8.6157     16.52  |  Q   V  |          |          |          |
 8+50       8.7300     16.60  |  Q   V  |          |          |          |
 8+55       8.8449     16.68  |  Q   V  |          |          |          |
 9+ 0       8.9604     16.77  |  Q   V  |          |          |          |
 9+ 5       9.0764     16.85  |  Q   V  |          |          |          |
 9+10       9.1931     16.94  |  Q   V  |          |          |          |
 9+15       9.3104     17.03  |  Q   V  |          |          |          |
 9+20       9.4283     17.12  |  Q   V  |          |          |          |
 9+25       9.5469     17.21  |  Q   V  |          |          |          |
 9+30       9.6660     17.31  |  Q   V  |          |          |          |
 9+35       9.7859     17.40  |  Q    V |          |          |          |
 9+40       9.9064     17.50  |  Q    V |          |          |          |
 9+45      10.0276     17.60  |  Q    V |          |          |          |
 9+50      10.1494     17.69  |  Q    V |          |          |          |
 9+55      10.2720     17.80  |  Q    V |          |          |          |
10+ 0      10.3953     17.90  |  Q    V |          |          |          |
10+ 5      10.5193     18.00  |  Q    V |          |          |          |
10+10      10.6440     18.11  |  Q    V |          |          |          |
10+15      10.7695     18.22  |  Q    V |          |          |          |
10+20      10.8957     18.33  |  Q     V|          |          |          |
10+25      11.0227     18.44  |  Q     V|          |          |          |
10+30      11.1505     18.56  |  Q     V|          |          |          |
10+35      11.2792     18.68  |  Q     V|          |          |          |
10+40      11.4086     18.79  |  Q     V|          |          |          |
10+45      11.5388     18.91  |  Q     V|          |          |          |
10+50      11.6699     19.03  |  Q     V|          |          |          |
10+55      11.8018     19.16  |  Q     V|          |          |          |
11+ 0      11.9346     19.28  |  Q     V|          |          |          |
11+ 5      12.0683     19.41  |  Q     V|          |          |          |
11+10      12.2028     19.54  |  Q      V          |          |          |
11+15      12.3383     19.68  |  Q      V          |          |          |
11+20      12.4748     19.81  |  Q      V          |          |          |
11+25      12.6122     19.95  |  Q      V          |          |          |
11+30      12.7506     20.10  |   Q     V          |          |          |
11+35      12.8900     20.24  |   Q     V          |          |          |
11+40      13.0305     20.39  |   Q     V          |          |          |
11+45      13.1720     20.55  |   Q     V          |          |          |
11+50      13.3146     20.70  |   Q     |V         |          |          |
11+55      13.4583     20.87  |   Q     |V         |          |          |
12+ 0      13.6031     21.03  |   Q     |V         |          |          |
12+ 5      13.7488     21.16  |   Q     |V         |          |          |
12+10      13.8951     21.24  |   Q     |V         |          |          |
12+15      14.0417     21.30  |   Q     |V         |          |          |
12+20      14.1885     21.30  |   Q     |V         |          |          |
12+25      14.3348     21.25  |   Q     |V         |          |          |
12+30      14.4802     21.11  |   Q     |V         |          |          |
12+35      14.6239     20.86  |   Q     | V        |          |          |
12+40      14.7658     20.61  |   Q     | V        |          |          |
12+45      14.9061     20.37  |   Q     | V        |          |          |
12+50      15.0462     20.34  |   Q     | V        |          |          |
12+55      15.1860     20.30  |   Q     | V        |          |          |
13+ 0      15.3260     20.32  |   Q     | V        |          |          |
13+ 5      15.4664     20.38  |   Q     | V        |          |          |
13+10      15.6074     20.48  |   Q     | V        |          |          |
13+15      15.7493     20.60  |   Q     |  V       |          |          |
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13+20	15.8921	20.74	Q	V			
13+25	16.0360	20.90	Q	V			
13+30	16.1812	21.08	Q	V			
13+35	16.3279	21.29	Q	V			
13+40	16.4760	21.51	Q	V			
13+45	16.6258	21.75	Q	V			
13+50	16.7774	22.01	Q	V			
13+55	16.9309	22.29	Q	V			
14+ 0	17.0864	22.58	Q	V			
14+ 5	17.2442	22.91	Q	V			
14+10	17.4044	23.26	Q	V			
14+15	17.5672	23.64	Q	V			
14+20	17.7327	24.03	Q	V			
14+25	17.9012	24.47	Q	V			
14+30	18.0729	24.93	Q	V			
14+35	18.2480	25.43	Q	V			
14+40	18.4269	25.97	Q	V			
14+45	18.6097	26.55	Q	V			
14+50	18.7967	27.15	Q	V			
14+55	18.9882	27.82	Q	V			
15+ 0	19.1847	28.52	Q	V			
15+ 5	19.3864	29.30	Q	V			
15+10	19.5940	30.13	Q	V			
15+15	19.8079	31.06	Q	V			
15+20	20.0288	32.07	Q	V			
15+25	20.2576	33.22	Q	V			
15+30	20.4950	34.48	Q	V			
15+35	20.7425	35.93	Q	V			
15+40	21.0013	37.57	Q	V			
15+45	21.2736	39.54	Q	V			
15+50	21.5619	41.87	Q	V			
15+55	21.8719	45.00	Q	V			
16+ 0	22.2124	49.44	Q	V			
16+ 5	22.6209	59.32	Q	V			
16+10	23.1036	70.10	Q	V			
16+15	23.6528	79.73	Q	V			
16+20	24.2840	91.66	Q	V			
16+25	25.0117	105.66	Q	V			
16+30	25.8477	121.39	Q	V			
16+35	26.7786	135.16	Q	V			
16+40	27.7074	134.86	Q	V			
16+45	28.5802	126.74	Q	V			
16+50	29.2745	100.81	Q	V			
16+55	29.9380	96.34	Q	V			
17+ 0	30.5334	86.45	Q	V			
17+ 5	31.0777	79.04	Q	V			
17+10	31.5765	72.42	Q	V			
17+15	32.0409	67.43	Q	V			
17+20	32.4790	63.61	Q	V			
17+25	32.8910	59.83	Q	V			
17+30	33.2811	56.64	Q	V			
17+35	33.6508	53.69	Q	V			
17+40	34.0014	50.90	Q	V			
17+45	34.3381	48.90	Q	V			
17+50	34.6621	47.04	Q	V			
17+55	34.9707	44.80	Q	V			

18+ 0	35.2648	42.70	Q		V	
18+ 5	35.5468	40.95	Q		V	
18+10	35.8185	39.46	Q		V	
18+15	36.0820	38.27	Q		V	
18+20	36.3378	37.13	Q		V	
18+25	36.5875	36.25	Q		V	
18+30	36.8298	35.19	Q		V	
18+35	37.0689	34.71	Q		V	
18+40	37.3048	34.26	Q		V	
18+45	37.5363	33.61	Q		V	
18+50	37.7640	33.06	Q		V	
18+55	37.9871	32.40	Q		V	
19+ 0	38.2054	31.70	Q		V	
19+ 5	38.4193	31.05	Q		V	
19+10	38.6296	30.53	Q		V	
19+15	38.8353	29.87	Q		V	
19+20	39.0364	29.21	Q		V	
19+25	39.2319	28.38	Q		V	
19+30	39.4243	27.94	Q		V	
19+35	39.6135	27.47	Q		V	
19+40	39.7999	27.06	Q		V	
19+45	39.9836	26.67	Q		V	
19+50	40.1640	26.20	Q		V	
19+55	40.3392	25.44	Q		V	
20+ 0	40.5111	24.96	Q		V	
20+ 5	40.6807	24.62	Q		V	
20+10	40.8483	24.34	Q		V	
20+15	41.0141	24.07	Q		V	
20+20	41.1780	23.80	Q		V	
20+25	41.3400	23.51	Q		V	
20+30	41.4996	23.17	Q		V	
20+35	41.6573	22.91	Q		V	
20+40	41.8133	22.64	Q		V	
20+45	41.9671	22.33	Q		V	
20+50	42.1176	21.86	Q		V	
20+55	42.2659	21.53	Q		V	
21+ 0	42.4120	21.21	Q		V	
21+ 5	42.5564	20.96	Q		V	
21+10	42.6994	20.76	Q		V	
21+15	42.8410	20.56	Q		V	
21+20	42.9812	20.36	Q		V	
21+25	43.1201	20.16	Q		V	
21+30	43.2575	19.96	Q		V	
21+35	43.3932	19.70	Q		V	
21+40	43.5268	19.40	Q		V	
21+45	43.6591	19.21	Q		V	
21+50	43.7902	19.03	Q		V	
21+55	43.9201	18.85	Q		V	
22+ 0	44.0487	18.68	Q		V	
22+ 5	44.1760	18.49	Q		V	
22+10	44.3022	18.32	Q		V	
22+15	44.4269	18.12	Q		V	
22+20	44.5513	18.06	Q		V	
22+25	44.6693	17.14	Q		V	
22+30	44.7853	16.84	Q		V	
22+35	44.9000	16.65	Q		V	

22+40	45.0136	16.50	| Q	|	|	|	V |
22+45	45.1262	16.35	| Q	|	|	|	V |
22+50	45.2378	16.21	| Q	|	|	|	V |
22+55	45.3485	16.07	| Q	|	|	|	V |
23+ 0	45.4583	15.94	| Q	|	|	|	V |
23+ 5	45.5671	15.81	| Q	|	|	|	V |
23+10	45.6751	15.68	| Q	|	|	|	V |
23+15	45.7822	15.55	| Q	|	|	|	V |
23+20	45.8884	15.42	| Q	|	|	|	V |
23+25	45.9936	15.27	| Q	|	|	|	V |
23+30	46.0976	15.10	| Q	|	|	|	V |
23+35	46.1995	14.79	| Q	|	|	|	V |
23+40	46.3001	14.61	| Q	|	|	|	V |
23+45	46.3999	14.49	| Q	|	|	|	V |
23+50	46.4990	14.39	| Q	|	|	|	V |
23+55	46.5975	14.29	| Q	|	|	|	V |
24+ 0	46.6952	14.19	| Q	|	|	|	V |
24+ 5	46.7917	14.01	| Q	|	|	|	V |
24+10	46.8861	13.71	| Q	|	|	|	V |
24+15	46.9780	13.35	| Q	|	|	|	V |
24+20	47.0666	12.87	| Q	|	|	|	V |
24+25	47.1510	12.25	| Q	|	|	|	V |
24+30	47.2295	11.41	| Q	|	|	|	V|
24+35	47.3007	10.33	| Q	|	|	|	V|
24+40	47.3641	9.22	|Q	|	|	|	V|
24+45	47.4203	8.16	|Q	|	|	|	V|
24+50	47.4722	7.54	|Q	|	|	|	V|
24+55	47.5198	6.91	|Q	|	|	|	V|
25+ 0	47.5639	6.40	|Q	|	|	|	V|
25+ 5	47.6049	5.96	|Q	|	|	|	V|
25+10	47.6433	5.58	|Q	|	|	|	V|
25+15	47.6795	5.26	|Q	|	|	|	V|
25+20	47.7137	4.95	Q	|	|	|	V|
25+25	47.7459	4.68	Q	|	|	|	V|
25+30	47.7764	4.43	Q	|	|	|	V|
25+35	47.8053	4.20	Q	|	|	|	V|
25+40	47.8328	3.99	Q	|	|	|	V|
25+45	47.8590	3.79	Q	|	|	|	V|
25+50	47.8838	3.60	Q	|	|	|	V|
25+55	47.9074	3.43	Q	|	|	|	V|
26+ 0	47.9299	3.27	Q	|	|	|	V|
26+ 5	47.9513	3.12	Q	|	|	|	V|
26+10	47.9718	2.98	Q	|	|	|	V|
26+15	47.9914	2.84	Q	|	|	|	V|
26+20	48.0101	2.71	Q	|	|	|	V|
26+25	48.0279	2.59	Q	|	|	|	V|
26+30	48.0448	2.46	Q	|	|	|	V|
26+35	48.0612	2.38	Q	|	|	|	V|
26+40	48.0754	2.06	Q	|	|	|	V|
26+45	48.0888	1.95	Q	|	|	|	V|
26+50	48.1015	1.85	Q	|	|	|	V|
26+55	48.1136	1.75	Q	|	|	|	V|
27+ 0	48.1251	1.67	Q	|	|	|	V|
27+ 5	48.1360	1.59	Q	|	|	|	V|
27+10	48.1465	1.51	Q	|	|	|	V|
27+15	48.1564	1.44	Q	|	|	|	V|

27+20	48.1659	1.38	Q	|	|	|	V|
27+25	48.1750	1.32	Q	|	|	|	V|
27+30	48.1837	1.26	Q	|	|	|	V|
27+35	48.1920	1.21	Q	|	|	|	V|
27+40	48.2000	1.16	Q	|	|	|	V|
27+45	48.2076	1.11	Q	|	|	|	V|
27+50	48.2149	1.06	Q	|	|	|	V|
27+55	48.2219	1.01	Q	|	|	|	V|
28+ 0	48.2286	0.98	Q	|	|	|	V|
28+ 5	48.2351	0.94	Q	|	|	|	V|
28+10	48.2413	0.90	Q	|	|	|	V|
28+15	48.2472	0.87	Q	|	|	|	V|
28+20	48.2529	0.83	Q	|	|	|	V|
28+25	48.2584	0.79	Q	|	|	|	V|
28+30	48.2636	0.76	Q	|	|	|	V|
28+35	48.2687	0.73	Q	|	|	|	V|
28+40	48.2734	0.69	Q	|	|	|	V|
28+45	48.2780	0.66	Q	|	|	|	V|
28+50	48.2823	0.63	Q	|	|	|	V|
28+55	48.2865	0.60	Q	|	|	|	V|
29+ 0	48.2905	0.58	Q	|	|	|	V|
29+ 5	48.2943	0.55	Q	|	|	|	V|
29+10	48.2980	0.53	Q	|	|	|	V|
29+15	48.3014	0.51	Q	|	|	|	V|
29+20	48.3048	0.48	Q	|	|	|	V|
29+25	48.3079	0.46	Q	|	|	|	V|
29+30	48.3109	0.43	Q	|	|	|	V|
29+35	48.3137	0.41	Q	|	|	|	V|
29+40	48.3164	0.39	Q	|	|	|	V|
29+45	48.3190	0.37	Q	|	|	|	V|
29+50	48.3214	0.35	Q	|	|	|	V|
29+55	48.3237	0.33	Q	|	|	|	V|
30+ 0	48.3259	0.31	Q	|	|	|	V|
30+ 5	48.3279	0.29	Q	|	|	|	V|
30+10	48.3297	0.27	Q	|	|	|	V|
30+15	48.3315	0.25	Q	|	|	|	V|
30+20	48.3331	0.23	Q	|	|	|	V|
30+25	48.3346	0.22	Q	|	|	|	V|
30+30	48.3360	0.21	Q	|	|	|	V|
30+35	48.3374	0.20	Q	|	|	|	V|
30+40	48.3388	0.19	Q	|	|	|	V|
30+45	48.3400	0.18	Q	|	|	|	V|
30+50	48.3412	0.18	Q	|	|	|	V|
30+55	48.3424	0.17	Q	|	|	|	V|
31+ 0	48.3435	0.16	Q	|	|	|	V|
31+ 5	48.3445	0.15	Q	|	|	|	V|
31+10	48.3455	0.14	Q	|	|	|	V|
31+15	48.3465	0.14	Q	|	|	|	V|
31+20	48.3473	0.13	Q	|	|	|	V|
31+25	48.3482	0.12	Q	|	|	|	V|
31+30	48.3489	0.11	Q	|	|	|	V|
31+35	48.3497	0.11	Q	|	|	|	V|
31+40	48.3504	0.10	Q	|	|	|	V|
31+45	48.3511	0.10	Q	|	|	|	V|
31+50	48.3517	0.10	Q	|	|	|	V|
31+55	48.3524	0.09	Q	|	|	|	V|

32+ 0	48.3530	0.09	Q	|	|	|	V|
32+ 5	48.3536	0.09	Q	|	|	|	V|
32+10	48.3542	0.08	Q	|	|	|	V|
32+15	48.3547	0.08	Q	|	|	|	V|
32+20	48.3553	0.08	Q	|	|	|	V|
32+25	48.3558	0.08	Q	|	|	|	V|
32+30	48.3563	0.07	Q	|	|	|	V|
32+35	48.3568	0.07	Q	|	|	|	V|
32+40	48.3572	0.07	Q	|	|	|	V|
32+45	48.3577	0.06	Q	|	|	|	V|
32+50	48.3581	0.06	Q	|	|	|	V|
32+55	48.3585	0.06	Q	|	|	|	V|
33+ 0	48.3588	0.05	Q	|	|	|	V|
33+ 5	48.3592	0.05	Q	|	|	|	V|
33+10	48.3595	0.05	Q	|	|	|	V|
33+15	48.3598	0.05	Q	|	|	|	V|
33+20	48.3601	0.04	Q	|	|	|	V|
33+25	48.3604	0.04	Q	|	|	|	V|
33+30	48.3606	0.04	Q	|	|	|	V|
33+35	48.3609	0.03	Q	|	|	|	V|
33+40	48.3611	0.03	Q	|	|	|	V|
33+45	48.3613	0.03	Q	|	|	|	V|
33+50	48.3615	0.03	Q	|	|	|	V|
33+55	48.3616	0.02	Q	|	|	|	V|
34+ 0	48.3618	0.02	Q	|	|	|	V|
34+ 5	48.3619	0.02	Q	|	|	|	V|
34+10	48.3620	0.01	Q	|	|	|	V|
34+15	48.3621	0.01	Q	|	|	|	V|
34+20	48.3621	0.01	Q	|	|	|	V|
34+25	48.3622	0.01	Q	|	|	|	V|
34+30	48.3622	0.00	Q	|	|	|	V

Appendix E

Kern County Hydrology Manual Excerpts

Residential Landscaping (Lawn, Shrubs, etc.) - The pervious portions of commercial establishments, single and multiple family dwellings, trailer parks and schools where the predominant land cover is lawn, shrubbery and trees.

Row Crops - Lettuce, tomatoes, beets, tulips or any field crop planted in rows far enough apart that most of the soil surface is exposed to rainfall impact throughout the growing season. At plowing, planting and harvest times it is equivalent to fallow.

Small Grain - Wheat, oats, barley, flax, etc. planted in rows close enough that the soil surface is not exposed except during planting and shortly thereafter.

Legumes - Alfalfa, sweetclover, timothy, etc. and combinations are either planted in close rows or broadcast.

Fallow - Fallow land is land plowed but not yet seeded or tilled.

Woodland - grass - Areas with an open cover of broadleaf or coniferous trees usually live oak and pines, with the intervening ground space occupied by annual grasses or weeds. The trees may occur singly or in small clumps. Canopy density, the amount of ground surface shaded at high noon, is from 20 to 50 percent.

Woodland - Areas on which coniferous or broadleaf trees predominate. The canopy density is at least 50 percent. Open areas may have a cover of annual or perennial grasses or of brush. Herbaceous plant cover under the trees is usually sparse because of leaf or needle litter accumulation.

Chaparral - Land on which the principal vegetation consists of evergreen shrubs with broad, hard, stiff leaves such as manzonita, ceanothus and scrub oak. The brush cover is usually dense or moderately dense. Diffusely branched evergreen shrubs with fine needle-like leaves, such as chamise and redchank, with dense high growth are also included in this soil cover.

Annual Grass - Land on which the principal vegetation consists of annual grasses and weeds such as annual bromes, wild barley, soft chess, ryegrass and filaree.

Irrigated Pasture - Irrigated land planted to perennial grasses and legumes for production of forage and which is cultivated only to establish or renew the stand of plants. Dry land pasture is considered as annual grass.

Meadow - Land areas with seasonally high water table, locally called cienegas. Principal vegetation consists of sod-forming grasses interspersed with other plants.

Orchard (Deciduous) - Land planted to such deciduous trees as apples, apricots, pears, walnuts, and almonds.

Orchard (Evergreen) - Land planted to evergreen trees which include citrus and avocados and coniferous plantings.

Turf - Golf courses, parks and similar lands where the predominant cover is irrigated mowed close-grown turf grass. Parks in which trees are dense may be classified as woodland.

KERN COUNTY

HYDROLOGY MANUAL

SCS
COVER TYPE
DESCRIPTIONS

FIGURE C-1

Curve[1] Numbers of Hydrologic Soil-Cover Complexes For Pervious Areas-AMC II

Cover Type (3)	Quality of Cover (2)	Soil Group A	B	C	D
NATURAL COVERS -					
Barren (Rockland, eroded and graded land)		77	86	91	94
Chaparral, Broadleaf (Manzonita, ceanothus and scrub oak)	Poor	53	70	80	85
	Fair	40	63	75	81
	Good	31	57	71	78
Chaparral, Narrowleaf (Chamise and Redskank)	Poor	71	82	88	91
	Fair	55	72	81	86
Grass, Annual or Perennial	Poor	68	79	86	89
	Fair	49	69	79	84
	Good	39	61	74	80
Meadows or Cienagas (Areas with seasonally high water table, principal vegatation is sod forming grass)	Poor	63	77	85	88
	Fair	51	70	80	84
	Good	30	58	71	78
Open Brush (Soft wood shrubs-buckwheat,sage,etc.)	Poor	62	76	84	88
	Fair	46	66	77	83
	Good	41	63	75	81
Woodland (4) (Coniferous or broadleaf trees predominate. Canopy density is at least 50 percent)	Poor	45	66	77	83
	Fair	36	60	73	79
	Good	30	55	70	77
Woodland, Grass (Coniferous or broadleaf trees with canopy density from 20 to 50 percent)	Poor	57	73	82	86
	Fair	43	65	76	82
	Good	32	58	72	79
URBAN COVERS -					
Residential or Commercial Landscaping (Lawns, shrubs, etc.)	Good	39	61	74	80
Turf (Irrigated and mowed grass)	Poor	68	79	86	89
	Fair	49	69	79	84
	Good	39	61	74	80

KERN COUNTY
Hydrology Manual

CURVE NUMBERS FOR PERVIOUS AREAS

Curve[1] Numbers of Hydrologic Soil-Cover Complexes For Pervious Areas-AMC II

Cover Type (3)	Quality of Cover (2)	Soil Group A	B	C	D
AGRICULTURAL COVERS -					
Fallow (Bare Soil)		77	86	91	94
Close Seeded (alfalfa, sweetclover, timothy, etc.)	Poor	66	77	85	89
	Good	58	72	81	85
Orchards, Evergreen (Citrus, avacodos, etc.)	Poor	57	73	82	86
	Fair	43	65	76	82
	Good	32	58	72	79
Pasture (Grassland or range, continuos forage for grazing)	Poor	68	79	86	89
	Fair	49	69	79	84
	Good	39	61	74	80
Row Crops (Straight row, non-contoured)	Poor	72	81	88	91
	Good	67	78	85	89
Small Grain (Straight row, non-contoured)	Poor	65	76	84	88
	Good	63	75	83	87

Notes:

1. Average runoff condition, Ia = 0.2(S)

2. Poor: Heavily grazed, regularly burned areas, or areas of high burn potential. Less than 50 percent of the ground surface is protected by plant cover or brush and tree canopy.

   Fair: Moderate cover with 50 percent to 75 percent of the ground surface protected. In wooded areas the woods are grazed but not burned, and some forest litter covers the soil.

   Good: Heavy or dense cover with more than 75 percent of the ground surface protected. In wooded areas the woods are protected from grazing, litter and brush adequately cover soil.

3. See Figure C-1 for definition of cover types.

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CURVE NUMBERS FOR PERVIOUS AREAS

ACTUAL IMPERVIOUS COVER

Land Use	Range-Percent	Recommended Value For Average Conditions-Percent (1)
Natural or Agriculture	0 - 0	0
Public Park	10 - 25	15
School	30 - 50	40
Single Family Residential: (2)		
2.5 acre lots	5 - 15	10
1 acre lots	10 - 25	20
2-3 DU/acre	20 - 40	30
3-5 DU/acre	30 - 50	40
5-8 DU/acre	35 - 55	50
8-10 DU/acre	50 - 70	60
More than 10 DU/acre	65 - 90	80
Multiple Family Residential:		
Condominiums	45 - 70	65
Apartments	65 - 90	80
Mobile Home Parks	60 - 85	75
Commercial, Downtown Business or Industrial	80 - 100	90

Notes:

1) Recommended values are based on average conditions which may not apply to a particular study. The percentage impervious may vary greatly even on comparable study sized lots due to differences in in dwelling size, improvements, etc. Landscape practices should also be considered as it is common in some areas to use ornamental gravels underlain by impervious plastic materials in place of lawns and shrubs. A field investigation of a study area shall always be made, and a review of aerial photos, where available, may assist in estimating the percentage of impervious cover in developed areas.

2) For typical equestrian subdivisions increase impervious area 5% over the values recommended in the table above.

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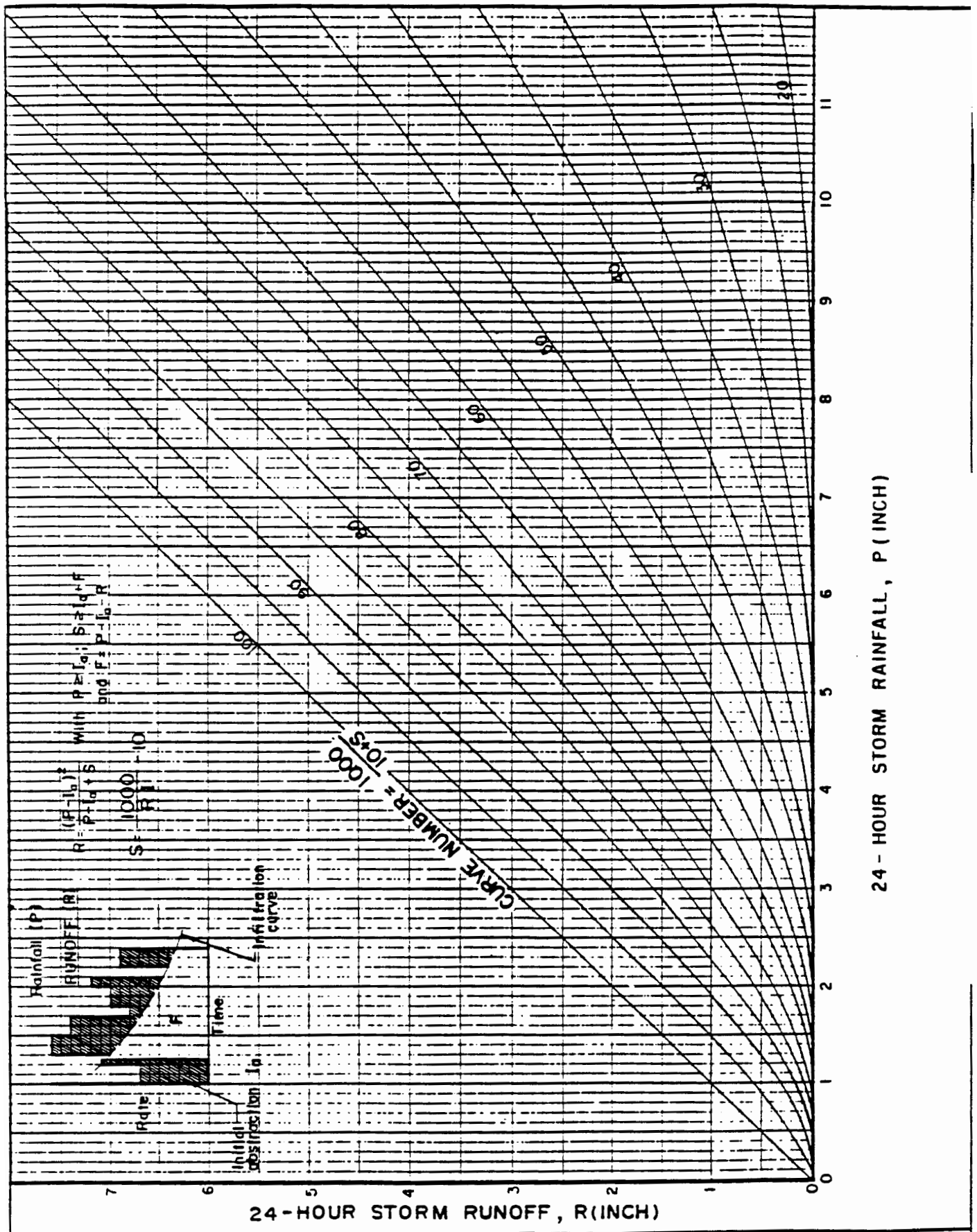
ACTUAL IMPERVIOUS COVER FOR DEVELOPED AREAS

FIGURE C-3

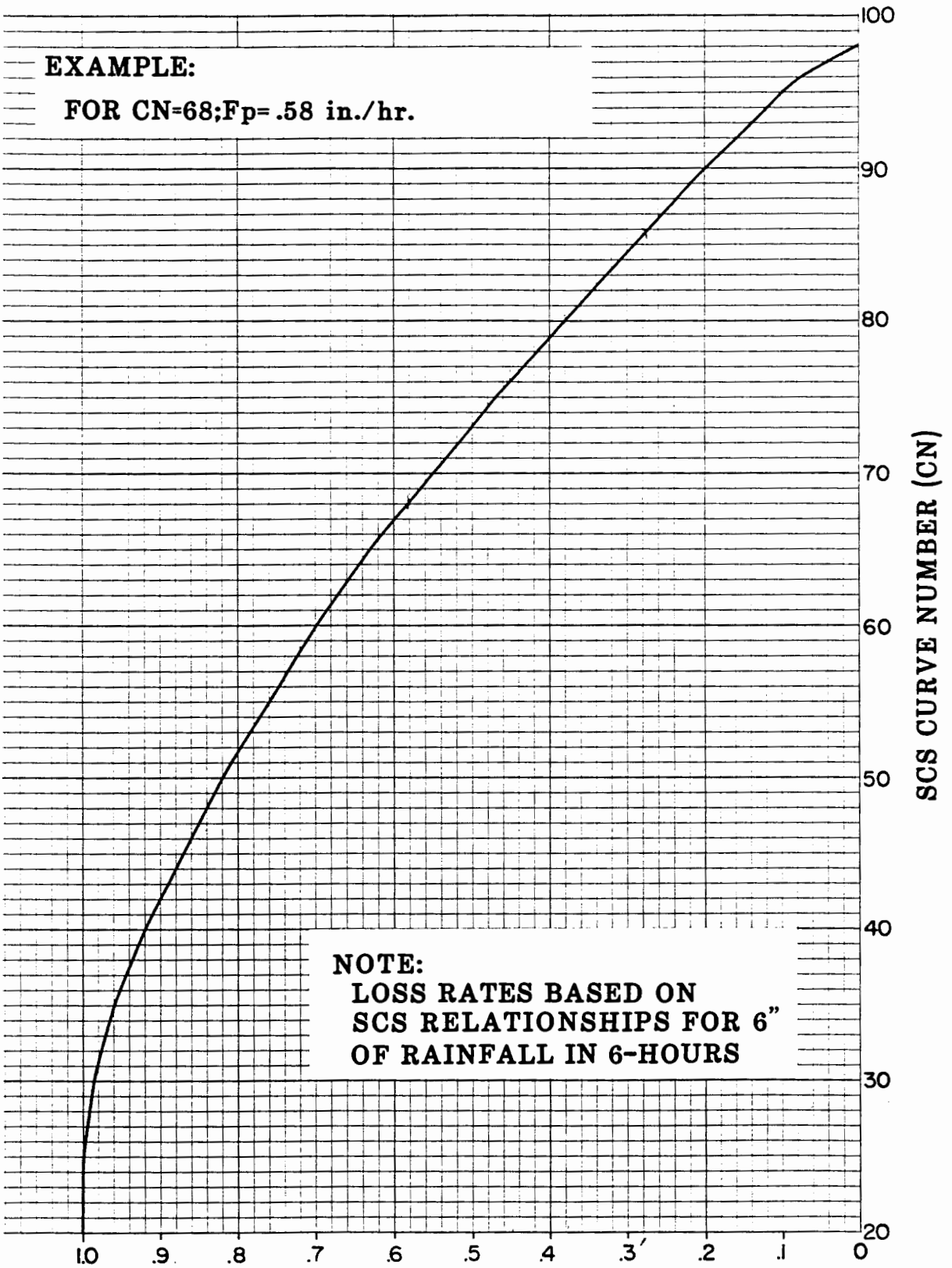


KERN COUNTY

HYDROLOGY MANUAL

SCS 24 - HOUR STORM RAINFALL - RUNOFF RELATIONSHIPS

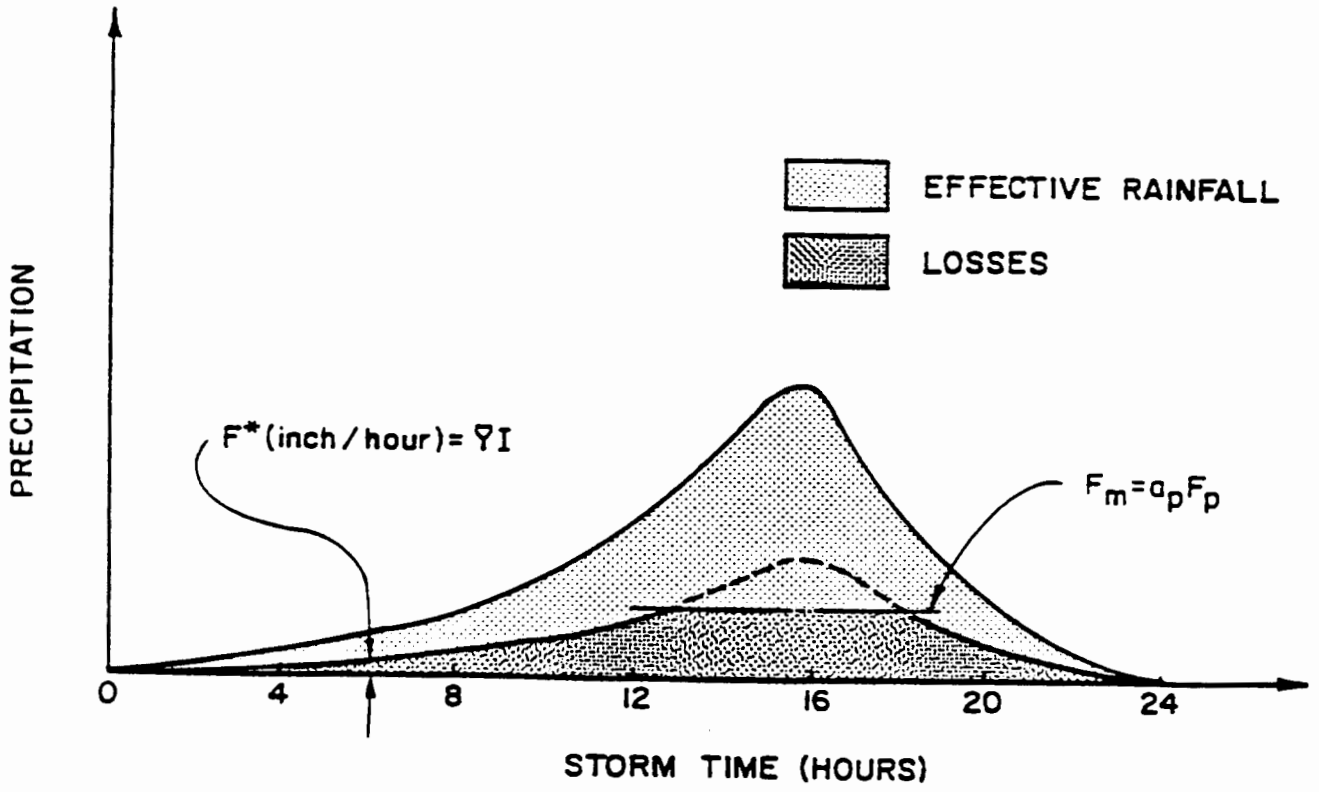
FIGURE C-4



KERN COUNTY
Hydrology Manual

INFILTRATION RATE FOR PERVIOUS AREAS VERSUS SCS CURVE NUMBERS

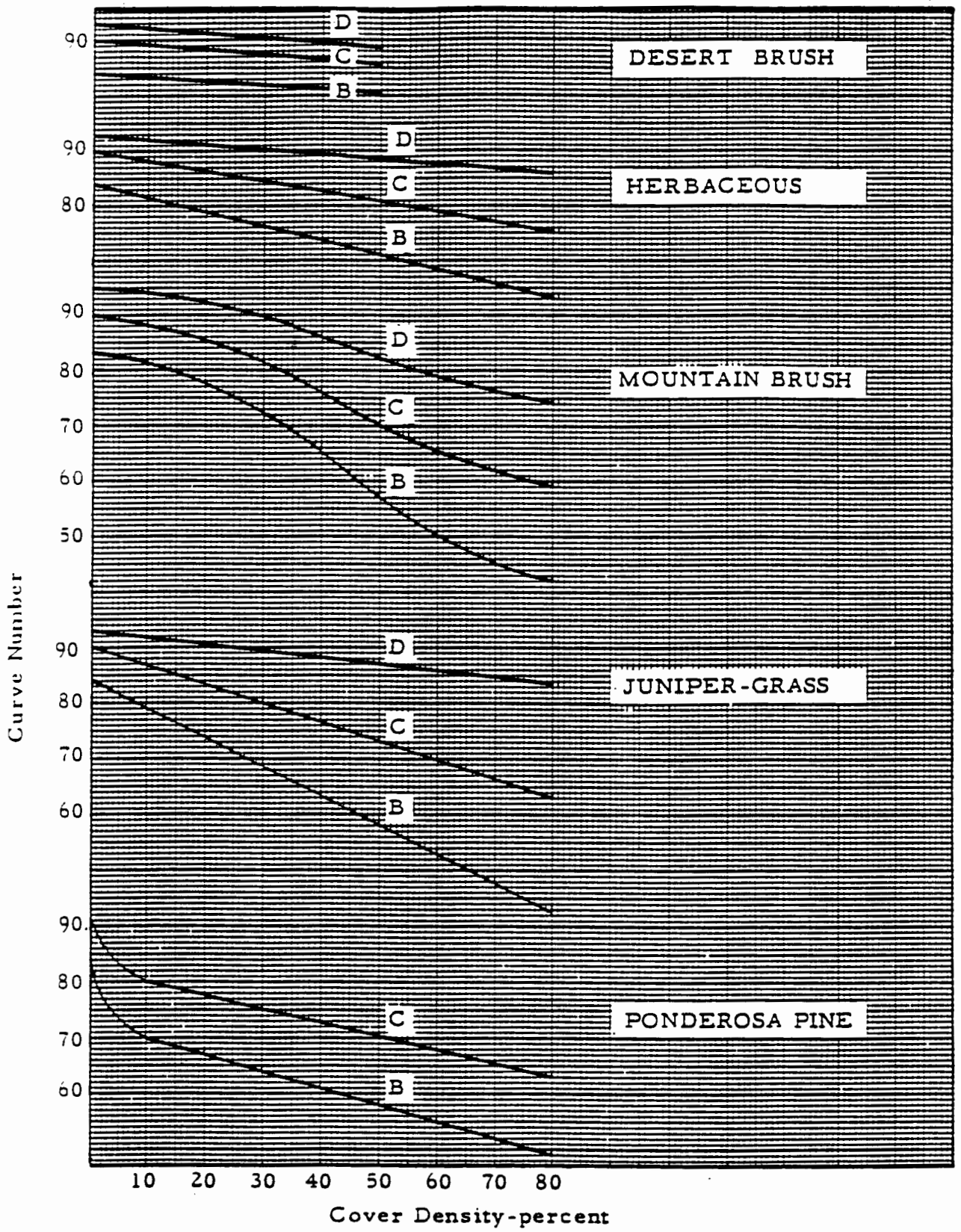
FIGURE C-5



KERN COUNTY
HYDROLOGY MANUAL

DESIGN STORM
LOSS FUNCTION

FIGURE C-6



KERN COUNTY

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HYDROLOGIC SOIL COVER COMPLEXES AND ASSOCIATED CURVE NUMBERS

FIGURE C-7

Section C
Equations

List of Equations

Equation No.	Equation
C.1	$Ia = 0.2S$
C.2	$S = \frac{1000}{CN} - 10$
C.3	$Y_j = \frac{(P_{24} - Ia)^2}{(P_{24} - Ia + S)P_{24}}$
C.4	$Y = \frac{Y_1 A_1 + ... + Y_m A_m}{A_1 + A_2 + ... + A_m}$
C.5	$\overline{Y} = 1 - Y$
C.6	$F* = \overline{Y} \cdot I$
C.7	$Fm = a_p F_p$

Variables

Ia	Initial Abstraction (inches)
S	Estimate soil capacity
CN	Area Curve Number
Y_j	Yield fraction for 24-hour storm runoff
Y	Yield
$\overline{Y}$	Catchment low loss fraction

Appendix F

Kern County Development Standards: Standards for Drainage

DIVISION FOUR

STANDARDS FOR DRAINAGE

CHAPTER I. GENERAL

Sec. 401-1 General Purpose

401-1.01 It is the general purpose of these standards that waters generated by storms, springs, or other sources be mitigated so as to provide reasonable levels of protection for life and property, and the maintenance of necessary access to property or passage of the traveling public on the public highways.

401-1.02 To meet this general purpose, it is necessary that these standards reasonably protect life from the direct effects of flood waters, the indirect health effects associated with stagnating water, and the attractive nuisance provided by standing waters. It is necessary to reasonably protect property from the damaging effects of flood waters. Property access for the ingress and egress of emergency vehicles, or the general public should be reasonably provided. The passage of public vehicles on the public highways should also be reasonably ensured.

401-1.03 In general, the mitigation measures for the protection of life and property, and the maintenance of emergency vehicle access are based upon the Capital Storm Design Discharge (CSDD). The issues related to property access (by the public) and passage on public highways, and local drainage facility design are based upon the Intermediate Storm Design Discharge (ISDD).

401-1.04 The design standards in this section are to be deemed to be minimal, and shall not limit the design engineer from using higher standards based upon the engineer's assessment of the protection needs of the development. Alternatives are permissible which are determined by the Director to be of equal or higher quality.

401-1.05 The Director may allow such exceptions as he may find to be reasonably required by the specific circumstances, to be in the public interest and in conformity with the general objectives of these standards.

401-1.06 Special circumstances may exist that require additional mitigation above and beyond these standards as determined by the Director.

Sec. 401-2 Maintenance

401-2.01 All facilities intended for public maintenance shall be designed and constructed subject to the approval of the Director and the maintenance entity, or these standards, whichever is more conservative.

401-2.02 All drainage facilities intended for private maintenance shall provide a maintenance plan, subject to the approval of the Director. All such facility maintenance plans shall include, but not be limited to: (a) schedule of cleaning (or clearing), (b) mosquito and vector abatement measures (if applicable), (c) pump maintenance schedule (if applicable), (d) notarized statement by the owner(s) acknowledging his/her/their responsibility and intent to maintain the proposed facility in accordance with the approved maintenance schedule.

401-2.03 Subdivisions with privately maintained streets shall have the drainage facilities maintained by a homeowners association or other entity which has the ability to assess fees for maintenance.

CHAPTER II. DEFINITIONS

Sec. 402-1 Definitions:

402-1.01 **AGENCY**: refers to the Department of the County of Kern with jurisdiction.

402.1.02 **ALLUVIAL FAN**: is a landform originating at an apex and characterized by high-velocity flows; active processes of erosion, sediment transport, and deposition; and unpredictable flow paths.

402-1.03 **APEX**: means a point on an alluvial fan or similar landform below which the flow path of the major stream that formed the fan becomes unpredictable and alluvial fan flooding can occur.

402-1.04 **CAPITAL STORM DESIGN DISCHARGE (CSDD)**: is that flow determined based upon a precipitation event having a one percent probability of being equaled or exceeded in any given year, commonly referred to as the 100 year storm.

402-1.05 **CLOSED CONDUIT**: is any system of underground drainage facilities, other than culverts.

402-1.06 **COMPREHENSIVE DRAINAGE PLAN**: refers to a storm water runoff mitigation plan for multi-phase developments. Such a plan need not be adopted by the County, but will be kept on file by the Director.

402-1.07 **CONSTRUCTED CHANNEL**: refers to the physical modification of natural channels or the construction of channels.

402-1.08 **CONTROL FACILITY**: are those hydraulic structures which mitigate the effects of surface runoff resulting from development, flow pattern modification, or flood flows.

402-1.09 **CULVERT**: is a hydraulically short conduit which conveys storm runoff flows through a roadway embankment or past some other type of flow obstruction.

402-1.10 **DESIGN PONDING DEPTH**: is the depth to which the design volume will pond in a storm water basin.

402-1.11 **DETENTION BASIN**: is a storm water facility designed to affect flood hydrograph peak attenuation.

402-1.12 **EMBANKMENT AREA**: is an area of compacted fill material.

402-1.13 **ENCROACHMENT:** refers to any change in land use that materially alters the lands flow conveyance potential.

402-1.14 **FLOOD CONTROL PLAN**: is a plan for the mitigation of flood flows originating from off-site watersheds, or resulting from on-site development.

402-1.15 **FLOOD FLOW**: shall be considered to be the CSDD for reference in these standards.

402-1.16 **FLOW PATTERN**: refers to any physical tracing resultant from the historic or existing runoff of water.

402-1.17 **INTERMEDIATE STORM DESIGN DISCHARGE (ISDD**): is that flow determined based upon a precipitation event having a ten percent probability of being equaled or exceeded in any given year, commonly referred to as the ten-year storm.

402-1.18 **LEVEE**: is an embankment whose primary purpose is to furnish drainage or flood protection from storm water runoff and which is, therefore, subject to water loading for periods of only a few days or weeks a year.

402-1.19 **MASTER DRAINAGE PLAN**: refers to a comprehensive drainage plan or flood control plan adopted by the County which includes adopted funding mechanisms.

402-1.20 **NATURAL CHANNEL**: is a flow pattern characterized by incised flow channelization with well defined banks and including the overbank flow areas.

402-1.21 **NUISANCE FLOW**: shall be considered as those waters originating from within, or adjacent to, the development not resulting from storm runoff.

402-1.22 **ONE PERCENT RISK FLOW**: is the flow on an alluvial fan based upon the joint probability of the flow distribution at the fan apex and the probability of occurring at the development site.

402-1.23 **REASONABLE:** in the context of this section refers to the balancing of the utility of the facilities or circumstances described against the gravity of the potential for harm.

402-1.24 **RETENTION BASIN**: is a terminal storm water facility for the storage of runoff. Commonly referred to as a sump.

402-1.25 **RETARDATION BASIN**: Synonymous with Detention Basin.

402-1.26 **SLOPE EASEMENT**: shall include the horizontal dimension from the top to toe of slope plus the setback requirements specified by the Grading Ordinance.

402-1.27 **SOILS ENGINEER (GEOTECHNICAL ENGINEER):** shall mean an engineer experienced and knowledgeable in the practice of soils engineering (geotechnical engineering).

402-1.28 **SOILS ENGINEERING (GEOTECHNICAL ENGINEERING):** shall mean the application of the principles of soil mechanics in the investigation, evaluation and design of civil works involving the use of earth materials and the inspection and/or testing of the construction thereof.

402-1.29 **STRESS AREA**: refers to those locations where the erosion potential is greater than a straight, uniform channel reach, and includes junctions, transitions, and curves.

402-1-30 **WATERWAY**: refers to any natural channel, artificial channel or closed conduit, which provides a course for drainage water to flow.

Sec. 402-2 Off-Site Capital Storm Design Discharge (CSDD) Mitigation

The CSDD flow determined from the off-site watershed shall consider the total area of the off-site watershed. The watershed development condition may be considered in its existing condition at the time of the proposed development if no control facilities mitigating surface runoff exist, and as undeveloped if adequate control facilities mitigating surface runoff exist.

The design of all structures within the development shall be protected to a minimum of one (1) foot above the water surface associated with the CSDD.

The CSDD flow shall be received into the development without diversion onto adjacent property or causing more than one foot rise in pre-development water surface, and shall be discharged in a manner as similar as possible to the existing condition downstream of the development.

Sec. 402-3 Off-Site Intermediate Storm Design Discharge (ISDD) Mitigation

The ISDD flow shall be based upon the uncontrolled developed watershed proximate to the development when no defined flow pattern exists. When a flow pattern is defined, the ISDD flow determination shall include the total watershed contributing to the flow pattern.

The off-site ISDD shall be mitigated in conjunction with requirements for on-site ISDD flows.

Sec. 402-4 Hydrologic Flow Determinations

The CSDD and ISDD flows shall be calculated in accordance with the current Kern County Hydrology Manual.

CHAPTER III. DRAINAGE PLANS

Sec. 403-1 Authority

403-1.01 County Master Drainage Plans

The County administers master drainage plans (MDP) over some portions of the County. In these MDP areas, the design hydrology is governed by the assumption made and methodology used, in the development of the MDP or its most recent revision. Modifications to the MDP's assumed land uses may result in the requirement of additional permanent facilities being constructed to mitigate unanticipated runoff.

If MDP planned facilities have not been constructed at the time of site development, then temporary facilities will be required to be

constructed by the Developer. Such facilities may be abandoned upon completion of the MDP facilities intended to serve the site.

403-1.02 Special Districts

Special Districts, such as Community Service Districts, may prepare comprehensive drainage and/or flood control plans for areas under their jurisdiction. Such plans are subject to the review and approval of the County.

If the Special Districts planned facilities have not been constructed at the time of site development, then temporary facilities will be required to be constructed. Such facilities may be abandoned upon completion of the planned facilities intended to serve the site.

County Service Areas are typically required to be formed for the maintenance of drainage facilities in the absence of another maintenance entity.

403-1.03 Subdivisions

These standards shall apply to the drainage/floodplain management requirements specified for subdivisions improvements in the County's Land Division Ordinance.

If the subdivisions storm runoff mitigation measures are to be constructed as part of a comprehensive drainage plan, then each phase of the development shall be designed to function independently or in conjunction with completed development phases.

403-1.04 Mobile Home/Recreational Vehicle Parks

These standards shall apply to the drainage/floodplain management review of Mobile Home/Recreational Vehicle Parks specified in the County's Zoning Ordinance.

403-1.05 Site Development

These standards shall apply to the drainage/floodplain management requirements specified for site development in the County's Building Code, Grading Code, Floodplain Management Ordinance, and all other pertinent County Ordinances.

CHAPTER IV. ALLUVIAL FAN DEVELOPMENT

Sec. 404-1 Development Policy

Development upon an alluvial fan shall mitigate the effects of the flow at the site of development, which has a one-percent risk of being equaled or exceeded in any given year. Such mitigation shall ensure that the one-percent risk flow will be received into the development site, without causing more than one foot of water surface rise resulting from encroachment at the development site, and discharge the one percent risk flow in a manner, as close as possible, to the flow pattern existing prior to development of the site.

Sec. 404-2 Flood Control Facility Requirements

The design of structural flood control measures on alluvial fans shall demonstrate that the measures will effectively eliminate alluvial fan flood hazards from the area protected by such measures. The provided analyses must include, but are not limited to, the following:

404-2.01 Engineering analyses that quantify the discharges and volumes of water, debris, and sediment movement associated with the flood that has a one percent probability of being exceeded in any year at the apex under current watershed conditions and under potential adverse conditions (e.g., deforestation of the watershed by fire). The potential for debris flow and sediment movement must be assessed using an engineering method acceptable to the Director and Federal Emergency Management Agency (FEMA). The assessment should consider the characteristics and availability of sediment in the drainage basin above the apex and on the alluvial fan.

404-2.02 Engineering analyses showing that the measures will accommodate the estimated peak discharges and volumes of water, debris, and sediment, as determined in accordance with Section 404-2.01, and will withstand the associated hydrodynamic and hydrostatic forces.

404-2.03 Engineering analyses showing that the measures have been designed to withstand the potential erosion and scour associated with estimated discharges.

404-2.04 Engineering analyses or evidence showing that the measures will provide protection from hazards associated with the possible relocation of flow paths from other parts of the fan.

404-2.05 Engineering analyses that assess the effect of the project on flood hazards, including depth and velocity of floodwaters and scour and sediment deposition, on other areas of the fan.

404-2.06 Engineering analyses demonstrating that flooding from sources other than the fan apex, including local runoff, is either insignificant or has been accounted for in the design.

CHAPTER V. STREET DRAINAGE

Sec. 405-1 Design Flow

405-1.01 The ISDD shall include the evaluation of both on-site and off-site watersheds when applicable.

405-1.02 Street Conveyance

1. For Type "A" subdivisions, the ISDD may exceed the top of a six (6) inch curb by 0.10 feet.

2. For Type "B" subdivisions, the depth of flow contained within the road right of way shall not exceed 0.60 feet for the ISDD.

3. The depth of flow for the CSDD on major and secondary highways shall be maintained as not to prohibit reasonable access.

4. For mobile home/recreational vehicle parks, the depth of flow for the ISDD shall not exceed the carrying capacity of the travel way.

5. Where the discharge exceeds the above mentioned limits, a stormdrain or other facilities shall be provided to convey the excess flows.

6. The drainage system shall be free flowing and shall not allow the retention of more than one (1) foot of water measured at the flowline after the flows have subsided.

405-1.03 Sedimentation

In areas suspected of significant sediment yield from an ISDD, the following shall apply:

1. The developer’s engineer shall quantify any sediment yield from on-site or off-site properties based upon the ISDD.

2. Sediment yield shall be independent of the runoff event and is to be mitigated separate from the design discharge.

3. Sediment shall not be deposited on the roadway.

4. Higher levels of mitigation may be required in mudslide-mudflow areas.

405-1.04 Erosion

1. Erosion protection measures based on the ISDD shall be established upstream, downstream and through the project by the developer's engineer subject to approval by the Director.

CHAPTER VI. CULVERTS, BRIDGES AND AT-GRADE-CROSSINGS

Sec. 406-1 General

406-1.01 All publicly maintained crossings of natural channels shall be bridged or culverted. The minimum length of any culvert shall be from toe-of-slope to toe-of-slope. Additional right-of-way may be required for maintenance of these facilities.

406-1.02 Roadways shall be required to bridge a floodway where encroachment of the floodway is prohibited.

406-1.03 Energy losses for bridge piers, interior walls for multiple box culverts, or other obstructions within the channel shall be predicated upon the obstruction width plus two (2) feet of debris allowance for each obstruction.

Sec. 406-2 Culverts

406-2.01 The ISDD for the total upstream watershed under existing conditions shall not exceed soffit of culvert.

406-2.02 The CSDD for the total upstream watershed under existing conditions will be allowed to overtop the roadway until 2.0 feet of specific energy is obtained, at which point additional culverts will be required to meet these minimum requirements.

406-2.03 The 2.0 feet of specific energy shall be calculated at the crown or high point of the traveled roadway.

406-2.04 The minimum size of any culvert under a publicly maintained roadway shall be 18 inches. For private roads or public access, which are privately maintained, this requirement may be waived.

406-2.05 Culverts shall be designed to have a minimum useful life of 50 years.

Sec. 406-3 Bridges

406-3.01 The lowest portion of the bridge span shall be one foot or 0.2 times the specific energy (whichever is greater) above the water surface elevation when the normal depth of flow for the CSDD is subcritical.

406-3.02 The lowest portion of the bridge span shall be one foot or 0.2 times the specific energy (whichever is greater) above the sequent flow depth when the normal depth of flow for the CSDD is supercritical.

406-3.03 When levee conditions exist, the lowest portion of the bridge span shall also meet the minimum freeboard requirements of the levee.

Sec. 406-4 At-Grade-Crossings

406-4.01 At-grade-crossings shall not be permitted on a publicly maintained roadway and shall not encroach upon a floodway.

CHAPTER VII. CLOSED CONDUIT SYSTEMS, CATCH BASINS

Sec. 407-1 Design

407-1.01 Closed conduit system shall be designed for the total ISDD flow less allowable street flow. (see Chapter V Street Drainage)

407-1.02 A closed conduit system intended to serve on-site lot development shall be designed for the total ISDD originating on-site.

407-1.03 Closed conduit system shall be designed to have a minimum useful life of 50 years.

407-1.04 The minimum size of a closed conduit system within the street right-of-way or intended for public maintenance shall be 18 inches.

407-1.05 The minimum size of a closed conduit system outside of the street right-of-way and intended to be privately maintained shall be eight (8) inches.

407-1.06 The minimum cover over any closed conduit system shall be 24 inches. The minimum cover required within the street right-of-way shall be 30 inches.

407-1.07 Closed conduit system shall be free flowing with no continuous standing water within the pipe.

407-1.08 The designed pipe size shall not be allowed to decrease as the system progresses downstream.

407-1.09 The minimum slope of any closed conduit system shall be .001(.10 percent) unless otherwise approved by the Director.

407-1.10 The hydrologic tie-in design criteria for the closed conduit system shall be based on equal recurrence.

407-1.11 Closed conduit system within the street right-of-way or intended for public maintenance shall be Class III reinforced concrete pipe with rubber gasket joints, or cast-in-place concrete pipe unless otherwise approved or required by the Director.

407-1.12 The developer's engineer shall plot the hydraulic grade line and the energy grade line profiles for the closed conduit system either on a set of, or on the original, street improvement plans. All calculations and related data for these profiles shall be included with the street improvement plans when submitted.

Sec. 407-2 Location

407-2.01 A publicly maintained closed conduit system shall be placed within the road right-of-way or easement unless otherwise approved by the Director.

407-2.02 The alignment of a publicly maintained closed conduit system shall be parallel or perpendicular with the centerline of the road unless otherwise approved by the Director.

Sec. 407-3 Freeboard

Within the closed conduit system, the hydraulic grade line shall be at least 0.5 feet below all inlet flowline elevations, and 0.5 feet below the top of non-pressure manholes.

Sec. 407-4 Manholes

407-4.01 Within the closed conduit system, manholes shall be provided at all junctions, bends, and at intervals prescribed below:

a. Manholes shall be provided at intervals no greater than 300 feet where the conduit diameter is less than or equal to 30 inches.

b. Manholes shall be provided at intervals no greater than 400 feet where the conduit diameter is larger than 30 inches, but smaller than 48 inches.

c. Manholes shall be provided at intervals no greater than 500 feet where the conduit diameter is 48 inches or larger.

407-4.02 A pressure manhole shaft and a pressure cover shall be installed in a closed conduit system whenever the energy grade line is less than 0.50 below the top of the manhole.

Sec. 407-5 Losses

In addition to normal friction losses, energy losses due to entrance and exit conditions, bends, junctions, and transitions shall be computed. The engineer shall supply all data and reference material for calculated losses subject to review and approval by the Director.

Sec. 407-6 Erosion

407-6.01 Velocities within the closed conduit system should not exceed 20 feet per second with standard wall RCP, or 10 feet per second for plastic pipe. Where velocities exceed 20 feet per second for RCP, or 10 feet per second for plastic pipe, a special pipe shall be installed as approved by the Director.

407-6.02 Erosion protection against scour velocities shall be provided at the inlet and outlet of the closed conduit system. The engineer shall supply all data and reference material supporting his/her design, subject to approval by the Director.

Sec. 407-7 Catch Basins

407-7.01 The inlet design at closed conduit systems (i.e., location, depression, capacity, structural, etc.) shall be subject to review and approval by the Director.

407-7.02 Grate type inlets to the closed conduit system within the street right-of-way shall be allowed only in conjunction with side curb openings and shall be bicycle safe.

407-7.03 The minimum width of opening for any catch basin intended to be publicly maintained shall be three (3) feet and six (6) inches (3.5').

Sec. 407-8 Rights-of-Way/Easements

407-8.01 A right-of-way sufficient to contain the closed conduit and appurtenances plus a minimum of five feet on each side, measured from the edge of the conduit or drainage structure, shall be provided but in no case shall the right-of-way be less than 15-feet in width. Whenever possible, rights-of-way for conduits shall be adjacent to property lines and outside areas where structures are planned. Under no circumstances shall closed conduits and appurtenances be constructed less than 10-feet from any planned or existing structure.

407-8.02 Easements will be required on all closed conduit systems outside of the street right-of-way, which are intended for public maintenance.

407-8.3 Land rights shall be conveyed to the County in one of the following forms, whichever is appropriate:

1. Separate parcel easement dedicated on a subdivision map.
2. Easement dedicated on a subdivision map as part of adjacent lots.
3. Fee simple or easement offered or granted by separate documents.

CHAPTER VIII. RETENTION BASIN DESIGN

Sec. 408-1 Design Volume

The design volume of storm water retention basins shall be based upon the runoff from the ISDD five-day storm event and a volume of nuisance water determined by the engineer. No runoff generated on site from the design storm or from nuisance flows will be allowed to leave the site unless downstream drainage disposal facilities exist to handle the flow. The retention of upstream off-site flows shall not be considered to reduce the size of the required on-site retention facilities or mitigate the runoff from the proposed development. An evaluation of the runoff volumes associated with the site in its existing condition shall not reduce the size of the required drainage facilities. The runoff volume from the ISDD five-day storm shall be calculated using the formula:

$$\text{Runoff Volume} = 0.12\ (D_{10})(a_i)(\text{Area})$$

D_{10}	=	10 yr 24-hr. depth of rainfall (in.)
a_i	=	average percentage of impervious area
Area	=	Drainage area of total development
0.12	=	1.44 x 1/12
1.44	=	5 day mass ratio (KC Hydrology Manual, Table B-1)
1/12	=	Conversion of rainfall depth in inches to feet

Sec. 408-2 Hydraulic Design

In the absence of a hydrologic volume routing analysis, the storm drain hydraulic grade line calculations shall assume that 50% of the design storm volume and 100% of the nuisance volume is in the basin when the peak flow rates occur.

Sec. 408-3 Freeboard

Freeboard shall be required for all retention basins having a design water depth exceeding 18 inches. Six (6) inches of freeboard will be required when the design ponding depth within the basin is four (4) feet or less. For basins with a design ponding depth greater than four (4) feet the amount of freeboard required shall be one (1) foot. Freeboard shall be measured from the lowest gutter inlet or top of bank, whichever is lower.

Sec. 408-4 Fencing

Retention basins shall be fenced and provided with gated access when the design ponding depth exceeds 18 inches. All retention basins, regardless of ponding depth, that are maintained by the County or an entity administered by the County shall be enclosed by a six (6) foot high masonry block wall. Exceptions may be made, subject to the Director's approval, for certain master planned facilities intended for multi-purpose use.

408-4.01 The fence shall consist of a six (6) foot high chain link fence of 9 gage fabric with redwood slats or a six (6) foot masonry block wall or approved equal. Fence post footings shall have a minimum diameter of 12 inches and a minimum depth of 30 inches. Masonry block walls shall be designed in accordance with accepted engineering practices. Retaining walls used for basin fencing requirements shall have their design approved by the Director. See Plates R-77 thru R-82.

408-4.02 Fence setbacks measured from the top of slope shall provide a reasonable maintenance way for the equipment outlined in the maintenance plan. The following minimum setbacks shall apply:

Design ponding depth	Setback
$\leq$ 18 inches	2 feet
> 18 inches but $\leq$ 4 feet	5 feet
> 4 feet	10 feet
> 8 feet	10 feet (or in accordance with an approved maint-enance plan).

408-4.03 The basin access gate may be chain-link, wrought iron, or other as approved by the Director. The double gate is not to be attached directly to the masonry wall. The opening must be sufficient for the 14-foot double gate and anchor posts. If wrought iron is used, a metal

mesh privacy screen is to be securely attached to the double gate by rivets or equivalent as approved by the Director. Wrought iron double gates will also require a commercial grade latch or equivalent that can be locked with a County padlock (3/8" shackle diameter). See Plates D-11 for specific sizing and material requirements.

Sec. 408-5 Access

An equipment access ramp to the bottom of the retention basin shall be provided when the design depth exceeds 18 inches or when the facility is intended for County maintenance.

408-5.01 The ramp shall be a minimum of 12 feet wide with a maximum slope of 15%. The gate to the access ramp shall be 14 feet wide.

Exception - When the design ponding depth is $\leq$ 4 feet, the maximum slope on the ramp may be increased to 20%.

408-5.02 Ramps shall not be designed to convey drainage water into the sump.

408-5.03 The ramp alignment shall be no more than 45 degrees from the center of the access gate to facilitate maintenance equipment ingress and egress. Other proposed alignments shall have their design approved by the Director.

Sec. 408-6 Curbing and Rodent Barriers

408-6.01 In conjunction with fencing, a six (6) inch wide, eighteen (18) inch deep continuous concrete curb shall be provided around the top of the sump. The top of the curb shall be 0.5 feet above the highest adjacent grade. When the sump is fronting on a street, the top of the curbing shall be a minimum of one (1) foot above the top of the street curb. Ramped access across the curb shall be provided at all gated access points to the sump.

408-6.02 Rodent barriers will be required on the sides of the sump in proximity to open space, agricultural areas or lot one (1) acre or larger. The bottom of the rodent barrier shall be a minimum of 42 inches below finish grade.

Exception - Rodent barriers may be omitted when the design water depth is 4 feet or less.

Sec. 408-7 General Construction Requirements

408-7.01 General construction requirements for retention facilities shall be in accordance with Plates D-1, D-2, and D-3.

408-7.02 Retention facilities shall have the design volume contained entirely in cut.

408-7.03 Slopes shall be designed no steeper than is safe and no steeper than two (2) horizontal to one (1) vertical. A slope stability analysis will be required when the design water depth exceeds eight (8) feet and side slopes are steeper than 3:1.

408-7.04 The minimum bottom dimension for retention basins with a design depth greater than four (4) feet shall be 20 feet. For design water depths 4 feet or less, the minimum bottom width shall be no less than that required for maintenance equipment specified in the maintenance plan.

408-7.05 The maintenance way shall be sloped away from the top of bank at a minimum 2%.

408-7.06 Drainage basins intended for County maintenance shall be located on a lot dedicated exclusively for drainage/recreational purposes.

Sec. 408-8 Testing

408-8.01 Retention basins shall not be permitted unless it can be demonstrated, to the satisfaction of the Director, that the basin will completely drain the design volume within seven (7) days.

408-8.02 Testing of the proposed retention basin shall be provided by a Soils Engineer and shall include, but need not be limited to, an analysis of the soils boring logs and the establishment of the drainage rates of the soils encountered. A minimum of one (1) boring shall be logged within the proposed sump location. This boring shall be advanced below the invert of the basin to a depth equivalent to at least three (3) times the design ponding depth. Testing methods used to establish soil drainage rates shall be approved by the Director.

CHAPTER IX. DETENTION BASIN DESIGN

Sec. 409-1 Design Flow

The design flow into the basin shall be the ISDD five-day runoff hydrograph. Hydrograph design and mass ratios shall be in accordance with the Kern County Hydrology Manual. The out flow hydrograph shall not extend beyond five days from the end of the inflow hydrograph. Infiltration effects from the detention facility shall not be included in the calculation of the outflow hydrograph.

Sec. 409-2 Facility Design

Sizing and placement of detention facilities shall not aggravate the potential for downstream flooding.

Requirements for fencing, curbing, setbacks, access, and freeboard shall be in accordance with retention basin design.

409-2.01 Detention basins shall be provided with a concreted low flow bypass, or approved equivalent, for the conveyance of nuisance flows to the outlet.

409-2.02 An emergency spillway will be incorporated in the design of all detention basins.

Sec. 409-3 Sedimentation

Sediment yield shall be determined and mitigation provided by the developer's engineer.

Sec. 409-4 Duplex Pump Station (Wet Well) Design Specifications

Pumps used in conjunction with detention facilities shall have their design approved by the Director. Specific design criteria shall include the use of an automated duplex pump, and an alarm system. The pump system shall be designed to pass a minimum two (2) inch sphere and for reliability and low maintenance. Pump maintenance shall be included in the facility maintenance plan.

409-4.01 Pump station shall be designed to drain the sump in 5 to 7 days with one (1) pump running. However, the minimum flow rate shall be 100 gpm.

409-4.02 Pump station shall be a duplex system which automatically alternates between pumps at the end of each cycle.

409-4.03 The pump station shall either include a lag pump design or automatic controls, which will start the second pump if the first fails to pump.

409-4.04 Pumps shall be minimum one (1) HP.

409-4.05 Pump station shall be designed to allow easy removal of pumps for maintenance, without requiring personnel to enter into a wet well or similar enclosed structure. A "cage" style pump system, where the pump is located in a cage structure at the bottom of the basin, will not be allowed.

409-4.06 Pumps and pump station inlet structure shall be screened to prohibit plugging by debris.

409-4.07 The pump station (including the electrical/control panel) shall be located next to the entrance of the basin.

409-4.08 The receiver wet well shall consist of one 60” diameter concrete precast manhole sections with single offset R-3 rubber gasket joints per ASTM C-478, latest edition or approved equal. Duplex pump system shall be equipped with two 1HP (minimum), 115V, non-clog, explosion proof, sump pumps with alarm and alarm switch, check valves, ball valves, discharge line, pump lift out assembly, and electrical junction box. Include a 30” x 42” hatch with lockable, steel hinged access with safety grate.

409-4.09 The lifting assembly shall be best suited for the pump arrangement. All cables, etc. are to be stainless steel nylon coated. All slide metal surfaces must be considered non-sparking, by URL, to prevent spark ignition in wet well.

409-4.10 The valve vault shall consist of one 42” diameter concrete precast manhole section (conforming to ASTM C-478 with single offset R-3 gasket joints) with gate valves, swing check valves, and adjustable pipe supports or equivalent. Include a 24” x 24” hatch with lockable, hinged steel access door with safety grate.

409-4.11 Sump pump wiring shall be connected to a waterproof electrical control panel in a NEMA 3 enclosure or equivalent.

409-4.12 A four inch (4”) thick Class 2 concrete pad will be required to encompass the precast top slabs, manholes and control panel.

409-4.13 All electrical conduits and connectors shall be sealed water-tight and gas-tight using bitumastic paint.

409-4.14 All pipe or conduit wall penetrations shall be sealed with a neoprene seal.

409-4.15 All exposed steel (pipe, valves, flanges, elbows, and control box exterior) shall be primed with zinc-chromate primer and painted with an epoxy enamel finish. Color to be grey unless otherwise approved.

409-4.16 A water level staff shall be placed in the sump. The staff may be either anchored to the sideslope of the sump or be attached to the outlet structure, as approved by the Director. The bottom portion of the staff shall be painted black and white, alternating at one-foot increments, to an elevation equivalent to the half full-depth of the sump. The top portion of the staff shall be painted red and white, alternating at one-foot increments, to one foot above design water surface.

409-4.17 All controls shall be mounted in a NEMA (3) metal enclosure or equivalent. The control panel and all electrical components shall bear the Underwriter's Laboratory (UL) Label. All circuit breakers shall have operators extending through the control panel door. All motor starter overload resets, selector switches, push buttons and pilot lights shall be mounted on the control panel door. The control panel shall be enclosed in a vandal resistant enclosure with provisions for locking with a County's lock 3/8" shank pad lock or approved equal.

409-4.18 The control for each pump shall include a thermal magnetic circuit breaker, rotary hand-off-automatic switch, and magnetic motor starter with ambient compensated overload relays and quicktrip heaters. The pump control circuit shall include a door interlock switch to de-energize the control circuit when the control panel door is open, a control mounted transformer with fused 115 volt secondary, and a door mounted control circuit disconnect switch.

409-4.19 Pump operation shall be controlled by three (3) bulb type liquid level sensors. An intrinsically safe pilot circuit shall be provided for each level sensor to reduce the power to the sensor to a level incapable of releasing sufficient electrical or thermal energy to ignite explosive gases.

409-4.20 A fourth level sensor, with intrinsically safe circuit, shall be furnished for indication of high water alarm condition. High water alarm shall be indicated by a panel-mounted pilot light and external audible alarm with silence button.

409-4.21 The controls shall provide for lead/lag sequencing of the pumps, an automatic alternator shall alternate the lead/lag duty on each succeeding pump cycle. An outer pump seal leakage detection system shall be included in the control enclosure. When the motor probes sense the presence of moisture in the oil seal chamber, a

relay coil will illuminate a panel mounted indicating alarm lamp to indicate possible outer motor seal failure and the alarm light.

409-4.22 The pump station shall have a Hand-Off-Auto switch and an automatic low water shut-off, and have green (run) and red (alarm) indicator lights visible from the road/street.

409-4.23 Control panel shall contain hour meters for each pump.

409-4.24 Control panel shall contain a switched GFI 115 volt duplex electrical outlet.

409-4.25 Control panel shall include an emergency generator hook-up connection.

409-4.26 System Testing—Installed pumps, controls and pipes shall be tested in accordance with recommendations of the manufacturer prior to acceptance by the Kern County Engineering, Surveying & permit Services Department.

409-4.27 Prior to acceptance, two (2) complete operation and maintenance manuals, with wiring and interconnect diagrams for all equipment and controls, model and serial numbers of the sump pumps, and a set of as-built drawings on cronar shall be furnished to the County.

CHAPTER X. CONSTRUCTED CHANNEL DESIGN CRITERIA

Sec. 410-1 Design Flow

Constructed channels shall be designed to carry the CSDD plus freeboard.

Sec. 410-2 Freeboard

410-2.01 The minimum freeboard between the design water surface, and the top of bank of the channel shall be 0.50 feet or 0.20 of the specific energy, whichever is greater.

410-2.02 If the designed water surface is within the embankment area, the design and construction of the channel shall be in accordance with the levee design criteria, including freeboard requirements.

410-2.03 The minimum freeboard requirements for bridges, culverts, and utility crossings which span open channels and which are existing, planned

or projected at the time of channel design shall be in accordance with the requirements specified in Sections 406-2 and 406-3.

410-2.04 Superelevation resultant from directional modification shall be considered prior to computing the required freeboard.

Sec. 410-3 Hydraulic Design

410-3.01 Channels shall be designed with proper allowance for hydraulic losses for all planned and projected future crossings or other obstructions to maintain clearance and freeboard as required.

410-3.02 The water surface and the energy grade line profile shall be computed and plotted for all constructed channels and at locations where natural channels modifications are proposed.

410-3.03 Constructed channels shall not be designed with a slope in the range of ± 20% of critical slope unless freeboard equal to the height for instability waves is added.

410-3.04 A minimum velocity of two (2) feet per second shall be maintained for lined channels to prevent sedimentation.

Sec. 410-4 Structural Design

410-4.01 The minimum bottom width of constructed channels shall be ten (10) feet. A triangular channel may be permitted when the channel side slopes are four (4) to one (1) or flatter.

410-4.02 The minimum centerline radii for curves in constructed channels shall be three (3) times the top width of the design water surface.

410-4.03 Design of slopes shall be predicated upon results of an investigation by a Soil Engineer, subject to the approval of the Director.

410-4.04 Adequate bank protection and drop structures shall be provided where the slopes in the channel are steep and high velocities are present.

410-4.05 Bank protection shall be provided based on the design engineer's recommendations, subject to the approval of the Director. Stress area protection shall extend downstream from the end of the stress area a distance equal to ten (10) times the design water depth, unless the engineer can show that the erosion potential is not excessive.

410-4.06 At drop structures or in other locations where a hydraulic jump may occur, bank protection shall be provided through the hydraulic jump for a minimum distance of six (6) times the sum of the sequent depth and the depth of freeboard. This protection shall cover the invert and extend to the height of the sequent depth plus the height of the freeboard. The protection material may be either concrete, concreted-rock slope protection, sacked concrete, air-blown mortar or other approved alternative.

410-4.07 All channel lining materials and methods shall be specified by the engineer and approved by the Director.

410-4.08 All appurtenant drainage facilities shall be constructed and areas adjacent to channels graded so that erosion will be prevented within the channel right-of-way.

410-4.09 Waterways shall enter the main channel at an angle not exceeding 25 degrees.

Sec. 410-5 Erosion

The engineer shall provide recommendations on all necessary mitigation measures for erosion including bank protection and bottom stabilization of the channel, subject to the approval of the Director.

Sec. 410-6 Fencing

410-6.01 Constructed channels with slopes steeper than four (4) to one (1) with specific energy, at any point, greater than 1.5 feet shall be fenced in its entirety.

410-6.02 A six (6) foot high nine (9) gage chain link fence fabric with tension wire shall be installed on each side of the right-of-way.

410-6.03 At all road intersections, fencing shall be installed to prevent public access to constructed channels.

410-6.04 A 14 foot wide chain link drive gate shall be provided at all points of vehicular access.

Sec. 410-7 Easements/Right-of Ways and Maintenance Ways

410-7.01 Right-of-ways for constructed channels with side slopes steeper than four (4) to one (1) shall be provided as follows:

a. The right-of-way for channels with top widths greater than 50 feet, as measured to the top of freeboard, shall include the top width of the channel, two maintenance ways (one on each side of the channel), slope easements (when applicable), and interceptor ditch area (when applicable). The maintenance ways shall be a minimum of 15 feet wide. Runoff from the maintenance ways shall be mitigated.

b. The right-of-way for channels with top widths of 50 feet or less, as measured to the top of freeboard, shall include the top width of the channel, one maintenance way on either side of the channel, slope easements (when applicable), and interceptor ditch area (when applicable). The maintenance way shall be a minimum of 15 feet wide. Runoff from the maintenance way shall be mitigated.

410-7.02 The right-of-way for constructed channels with side slopes four (4) to one (1) or flatter shall be sufficient to contain the top width of the channel (measured from top of freeboard) plus slope easements as needed. A minimum of five (5) feet on either side of the channel shall be provided for maintenance purposes.

410-7.03 Right-of-way for turn-around: Turn-around distance and radii:

At the terminus and at intervals not to exceed one channel mile, turn around areas shall be provided. The minimum inside radii for maintenance roads shall be 40 feet.

410-7.04 Tributary waterways shall be conveyed under maintenance roads in closed conduits or culverts as applicable. Where open channel tributaries cross a maintenance road, a convenient turn-around area shall be provided for maintenance vehicles. The minimum diameter of a turn-around shall be 40 feet.

410-7.05 Right-of-Way for Channels Intersecting Public Roads:
At intersections of the channel with public roads, sufficient right-of-way shall be provided to permit access from the public road to the maintenance road as approved by the Director.

In the event that the channel right-of-way does not intersect a public road, a turn-around or a 15 foot wide access right-of-way shall be provided from a public road to the channel right-of-way at intervals not to exceed one (1) channel mile.

Sec. 410-8 Sedimentation

The determination of sediment yield and proposed mitigation measures of such shall be prepared and recommended by a qualified registered civil engineer, subject to the approval of the Director.

CHAPTER XI. LEVEE DESIGN

Sec. 411-1 Design Flow

Levees shall be designed to accommodate for the CSDD plus freeboard.

Sec. 411-2 Freeboard

411-2.01 The minimum freeboard between the designed CSDD water surface and the levee's top of bank shall be three (3) feet or 0.20 times the specific energy plus one (1) foot, whichever is greater.

411-2.02 An additional one (1) foot, above this minimum of freeboard, shall be required within 100 feet of either side of structures within the levee or whenever the flow is constricted, such as at bridges. An additional 0.50 foot above the minimum is also required at the upstream end, tapering to the minimum at the downstream end of the levee.

Sec. 411-3 Hydraulic Design

See Section 410-3 Hydraulic Design for details.

Sec. 411-4 Structural Design

Levees shall be designed in accordance with the latest revision of the Corps of Engineers Design and Construction of Levees, Engineer Manual, EM1110-2-1913.

Sec. 411-5 Erosion

Mitigation measure for erosion protection shall be prepared and recommended by a registered civil engineer, subject to the approval of the Director.

Sec. 411-6 Fencing

Fencing requirements for levees shall be in accordance with the criteria contained in the constructed channel design, Section 410-6.

Sec. 411-7 Easements/Right-Of-Way

Access, easements and right-of-way shall be in accordance with the requirements set forth in Section 410-7. (Constructed Channels).

Sec. 411-8 Sedimentation

Mitigation measures shall be prepared and recommended by a qualified, registered engineer, subject to the approval of the Director.

Sec. 411-9 Maintenance

A maintenance plan and an entity with taxing power to maintain levees shall be established, subject to the approval of the Director. Neither the County nor County Service Area will maintain a levee.

CHAPTER XII. NATURAL CHANNELS

Sec. 412-1 Delineation

All natural channels shall be identified and clearly delineated on the plans with the appropriate floodplain designation.

For defined natural channels, the Floodplain and Floodway Boundaries shall be delineated, subject to the approval of the Director.

Sec. 412-2 Setback

The minimum setback from the top of bank of a natural channel with side slopes steeper than two (2) horizontal to one (1) vertical, shall be a two (2) to one (1) slope plus a 10 foot wide buffer strip. The setback shall be measured from the toe of the slope. Where the slopes are flatter than two (2) to one (1), the required setback shall be a minimum of 10 feet from the Floodway limit.

Sec. 412-3 Tie-Ins

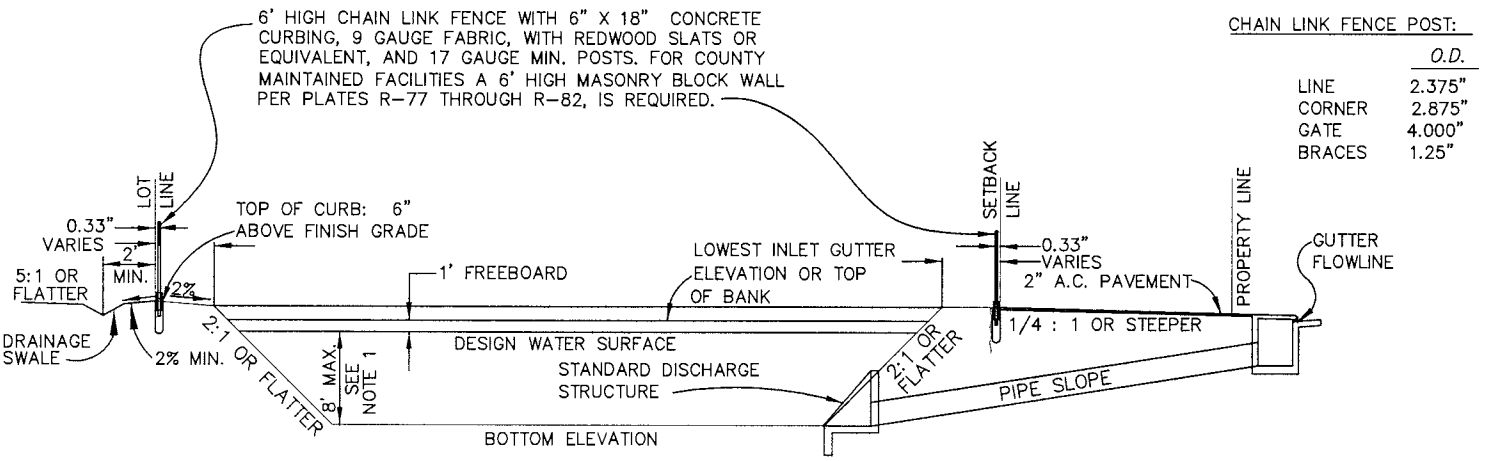
Where natural channels merge into constructed channels, the tie-ins shall be designed in a manner to dissipate energy and protect against erosion. The design for such tie-ins shall be in accordance with acceptable engineering practices and approved by the Director.

Sec. 412-4 Relocation

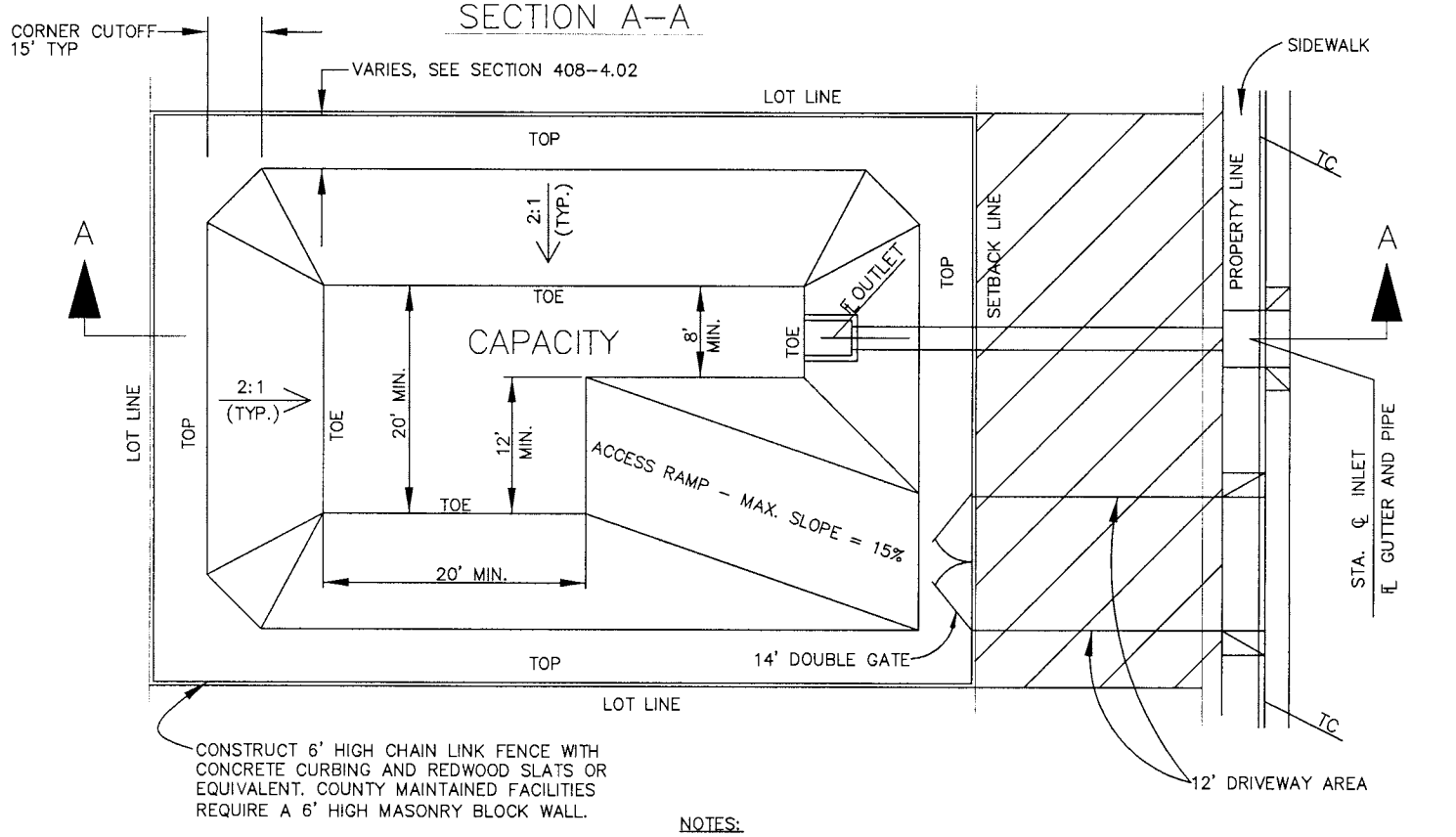
Should an existing natural channel be relocated, the channel shall be designed in accordance with the criteria specified herein for constructed channels.

Sec. 412-5 Use of Natural Facilities

All applicable Federal and State permits and requirements shall be required for any operation that would discharge dredged or fill material in any waters of the United States (normally channels identified with blue lines on the U.S.G.S. maps).



SECTION A-A



SUMP PLAN

LEGEND

TOP – TOP OF CURB

FG – FINISH GRADE

OG – ORIGINAL GROUND

INDICATES 2" A.C. OVER NATIVE SOIL WHICH HAS BEEN TREATED WITH A PERMANENT SOIL STERILANT SUBJECT TO THE APPROVAL OF THE DIRECTOR.

NOTES:

1. MAY EXCEED 8' IF SIDE SLOPES ARE 3:1 OR FLATTER; OR A SLOPE STABILITY ANALYSIS IS PROVIDED.
2. VARIATIONS TO THE DIMENSION MAY BE APPROVED BY THE DIRECTOR.
3. ADDITIONAL REQUIREMENTS MAY BE IMPOSED AS PART OF THE CONDITIONS ISSUED.
4. COMPACT O.G. TO 95% FOR MINIMUM OF SIX (6) INCHES UNDER 2" A.C.
5. WHEN FENCE IS SET ON FRONT R/W LINE SIDEWALK SHALL BE FULL WIDTH.
6. TACK WELD FABRIC AND HARDWARE TO POSTS.
7. TREAT BLOCK WALL WITH ANTI-GRAFFITI PRODUCT SUBJECT TO APPROVAL OF THE DIRECTOR.
8. CONSTRUCT 6" X 18" CONCRETE CURB UNDER GATE W/ TWO (2) #4 REBAR TOP AND BOTTOM.

PLOTTED: 02/25/2010

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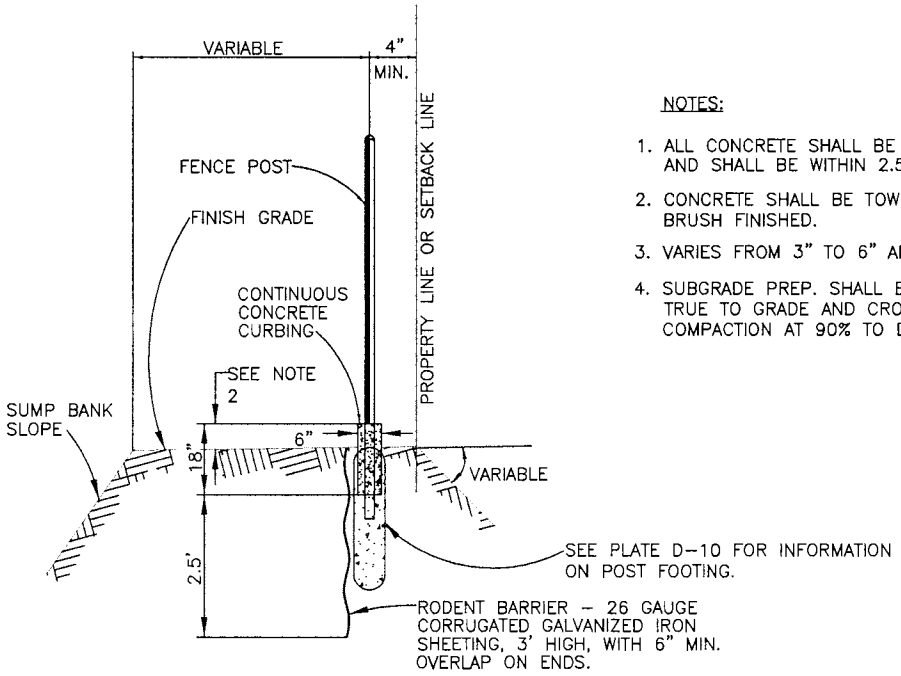
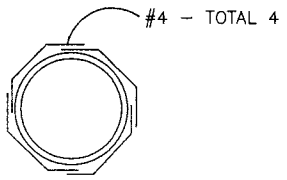
Revisions Date	Desc	DATE: 8-18-1995	COUNTY OF KERN STATE OF CALIFORNIA DEVELOPMENT STANDARD	SUMP DETAILS	PLATE NO. D-1
4/09	B.D.H	DESIGNED BY: R.J.L.			
.	.	DRAWN BY: K.S.			
.	.	CHECKED BY: A.A.			



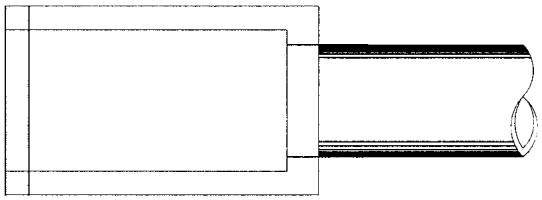
NOTES:

1. ALL CONCRETE SHALL BE CLASS 3 CONCRETE AND SHALL BE WITHIN 2.5" TO 5.5" SLUMP.
2. CONCRETE SHALL BE TOWELED SMOOTH AND BRUSH FINISHED.
3. VARIES FROM 3" TO 6" ABOVE FINISH GRADE.
4. SUBGRADE PREP. SHALL BE CONSTRUCTED TRUE TO GRADE AND CROSS SECTION WITH COMPACTION AT 90% TO DEPTH OF 6"

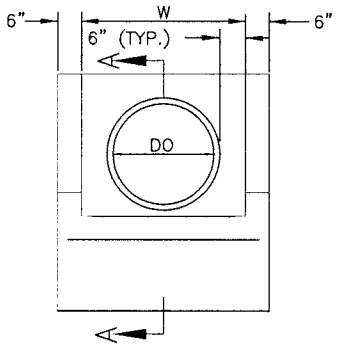
CURBING AND RODENT BARRIER DETAILS



DETAIL "A"



PLAN



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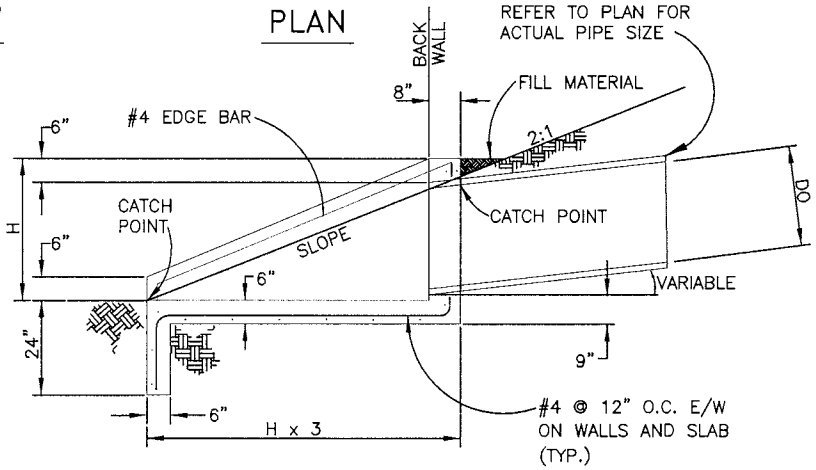

SECTION A-A

DISCHARGE STRUCTURE

PLOTTED: 02/25/2010

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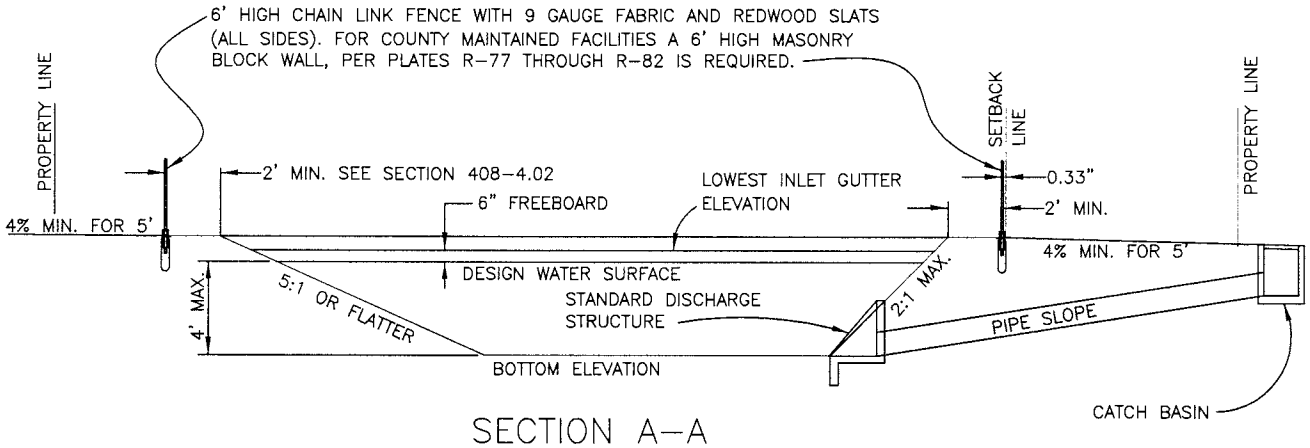
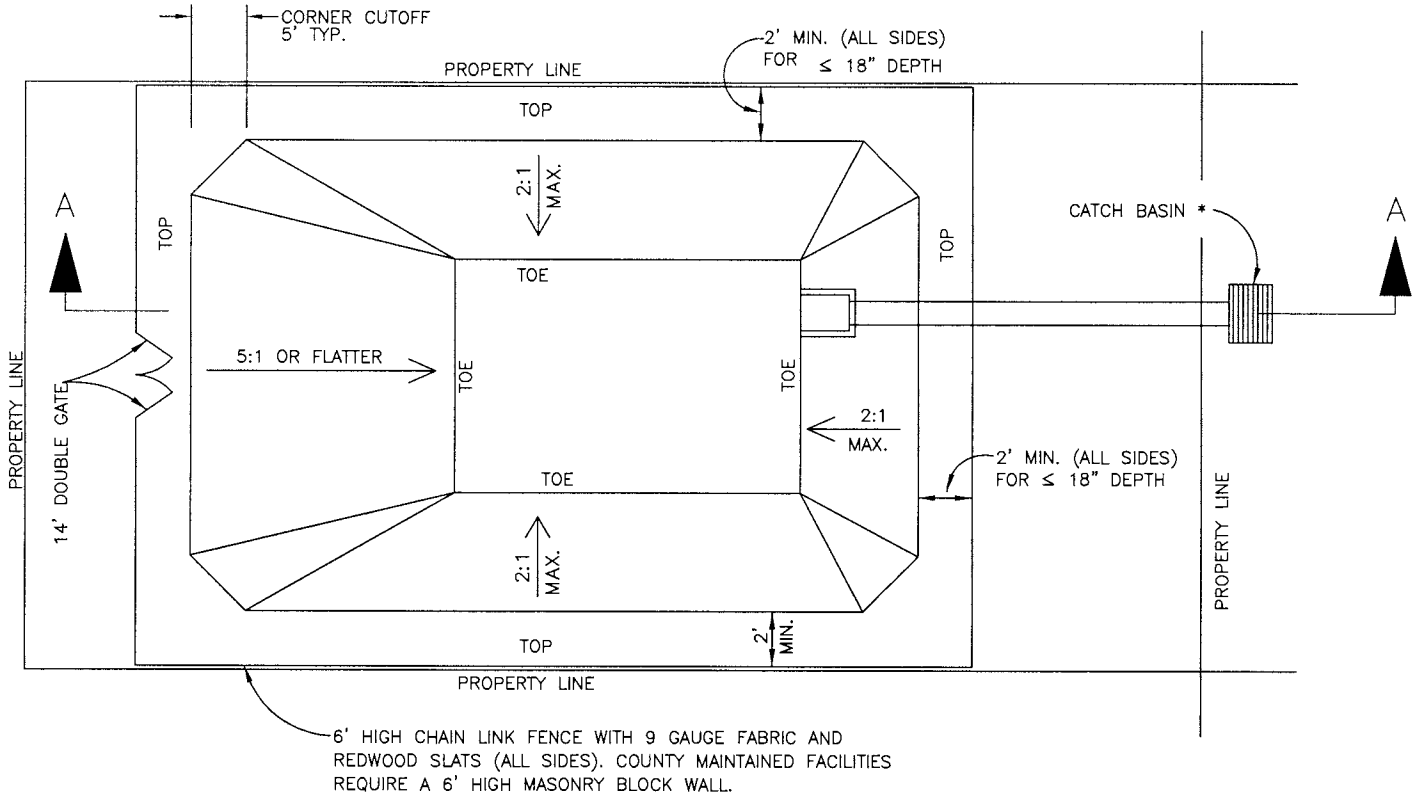
Revisions		DATE: 3-31-1995	COUNTY OF KERN STATE OF CALIFORNIA DEVELOPMENT STANDARD	CURBING, RODENT BARRIER, AND DISCHARGE STRUCTURE DETAILS	PLATE NO. D-2
Date	Desc	DESIGNED BY: R.J.L.			
4/09	B HILL	DRAWN BY: K.S			
.	.	CHECKED BY: C.L.			



SECTION A-A



SUMP PLAN

* NO CURB AND GUTTER SHOWN

NOTE:
SEE ADDITIONAL NOTES AND REQUIREMENTS FOR CHAIN-LINK FENCES AND MASONRY WALLS ON PLATE D-1

PLOTTED: 02/25/2010

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Revisions		DATE: 8-18-1995	COUNTY OF KERN STATE OF CALIFORNIA DEVELOPMENT STANDARD	SHALLOW SUMP DETAILS	PLATE NO. D-3
Date	Desc				
4/09	B.D.H.	DESIGNED BY: R.J.L.			
.	.				
.	.	DRAWN BY: K.S			
.	.				
.	.	CHECKED BY: C.L.			
.	.				

PLOTTED: 02/25/2010

Revisions		
Date	Desc.	
4/10/09	REVISED	

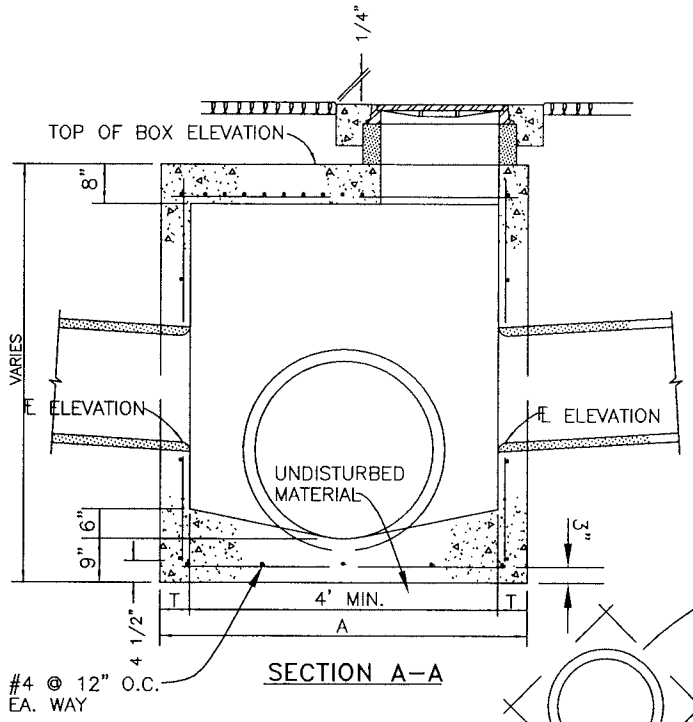
DATE: 8-18-1995
DESIGNED BY: A.A.
DRAWN BY: D.M.
CHECKED BY: G.F.

COUNTY OF KERN
STATE OF CALIFORNIA
DEVELOPMENT STANDARD

TYPE "B" MINOR STRUCTURE - JUNCTION BOX

PLATE NO. D-4

222



SECTION A-A

DETAIL A
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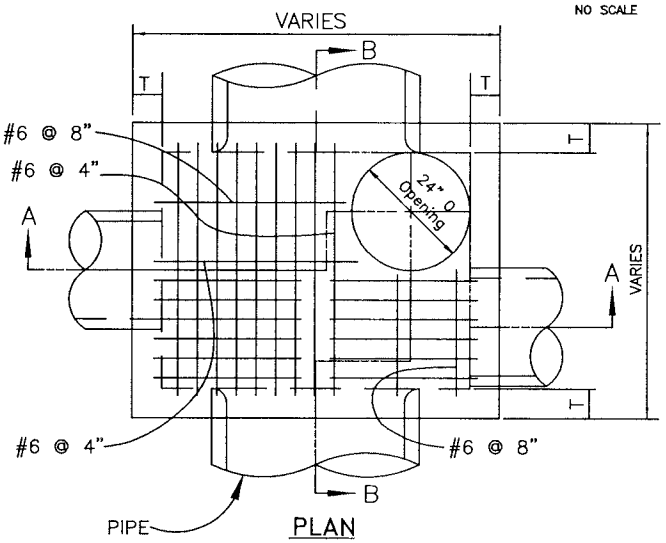
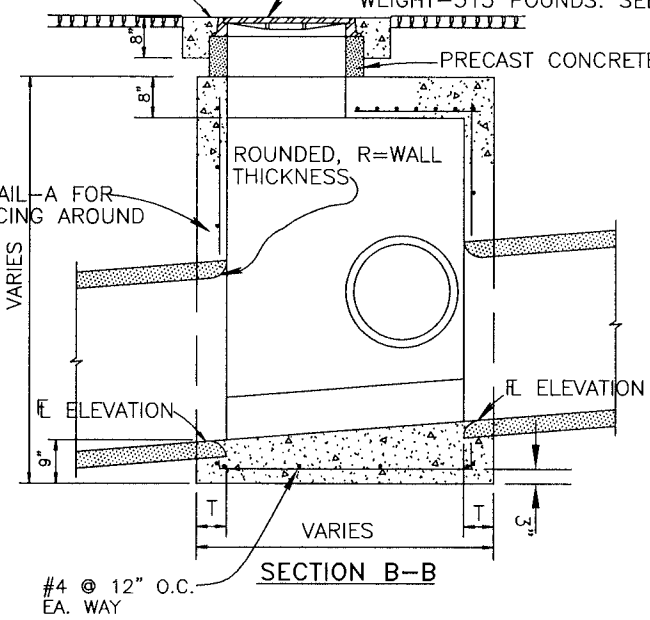
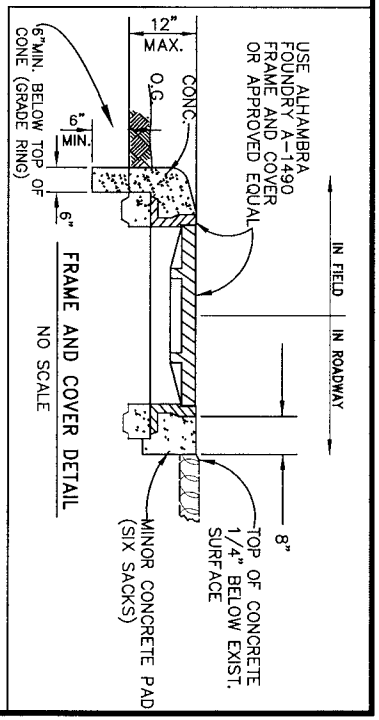


PLAN



SECTION B-B



FRAME AND COVER DETAIL
NO SCALE

TYPE "B" MINOR STRUCTURE

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Revisions		
Desc	Date	
REVISED	4/10/09	

PLOTTED: 02/25/2010

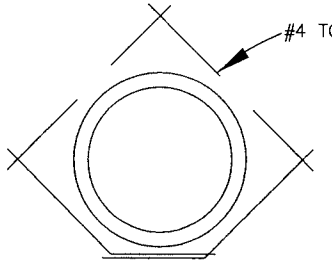
DATE: 8-18-1995
DESIGNED BY: A.A.
DRAWN BY: D.M.
CHECKED BY: G.F.

COUNTY OF KERN
STATE OF CALIFORNIA
DEVELOPMENT STANDARD

TYPE "C" MINOR STRUCTURE— MANHOLE

PLATE NO. D-5

223



DETAIL A
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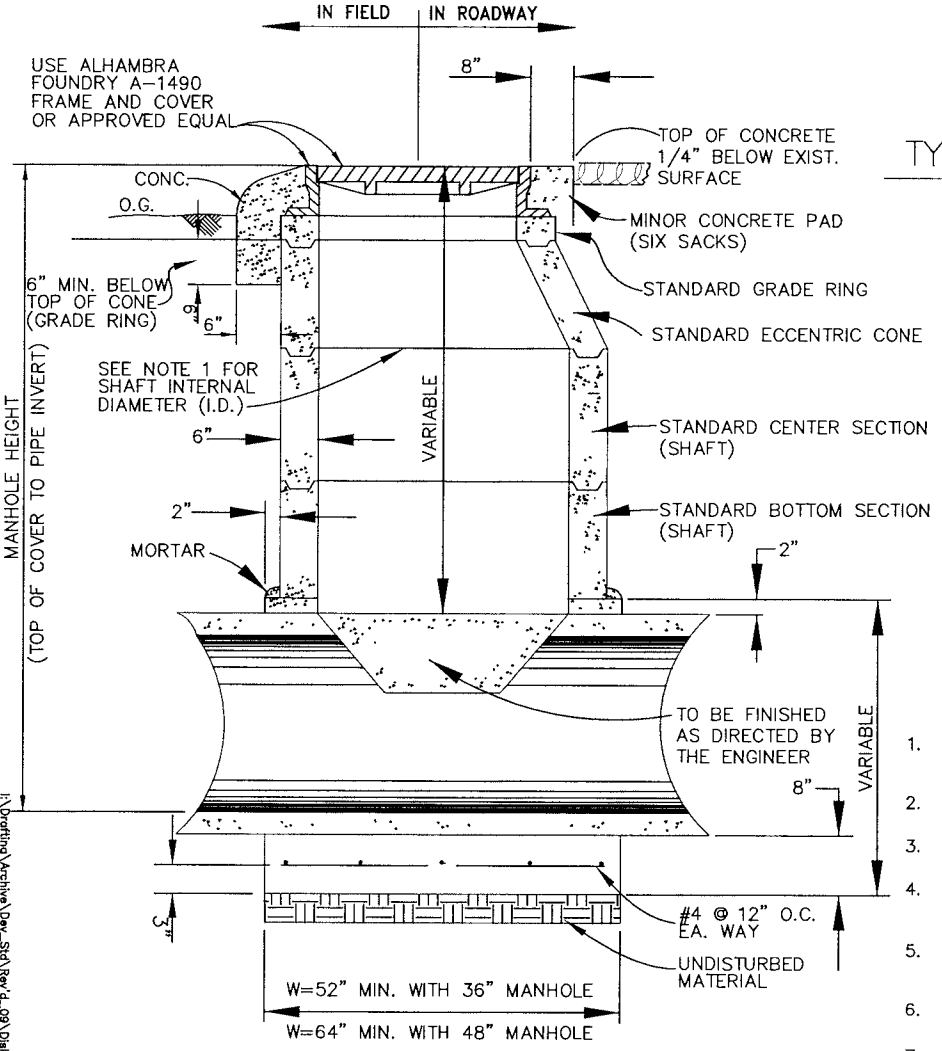

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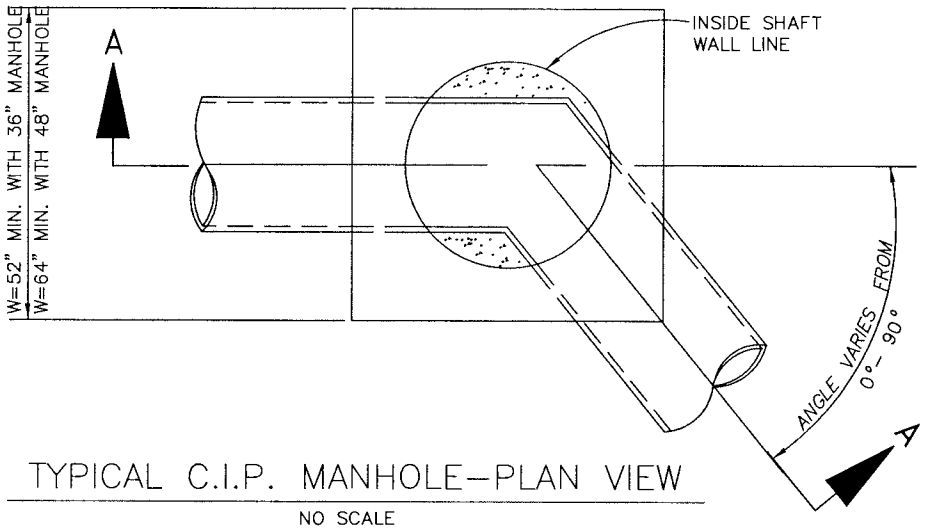
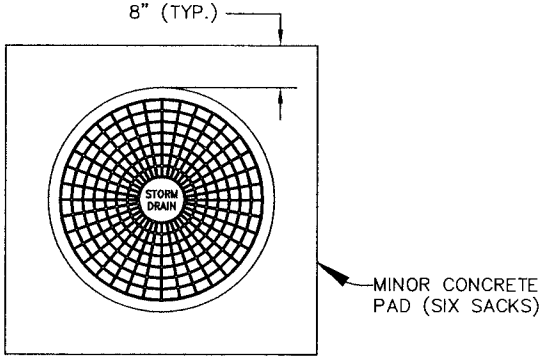


TYPICAL C.I.P. MANHOLE—PLAN VIEW
NO SCALE



MANHOLE COVER AND CONCRETE PAD
NO SCALE

NOTES:

1. MANHOLE CONSTRUCTED ON CONCRETE PIPE OF 36" I.D. OR GREATER SHALL USE 48" SHAFT; CONCRETE PIPE WITH LESS THAN 36" I.D. SHALL USE 36" SHAFT.
2. USE COMBINATION OF CONE AND SHAFT AS DIRECTED BY THE ENGINEER.
3. ALL CONCRETE TO BE MINOR CONCRETE.
4. ALL REINFORCING TO BE NO.4 BARS AT 12" O.C., 1 1/2" CLEAR OF INSIDE FACE UNLESS OTHERWISE NOTED. SEE DETAIL "A" FOR REINFORCING AROUND PIPE.
5. ALL EXPOSED METAL PARTS SHALL BE GALVANIZED AFTER FABRICATION EXCEPT FRAME AND COVER.
6. LOCATION OF FRAME AND COVER TO BE DETERMINED BY THE ENGINEER.
7. ALL REINFORCEMENT FOR SURFACES IN CONTACT WITH THE GROUND SHALL BE PROTECTED WITH NOT LESS THAN 2" OF CONCRETE.
8. WORDING ON MANHOLE TO READ "STORM DRAIN".

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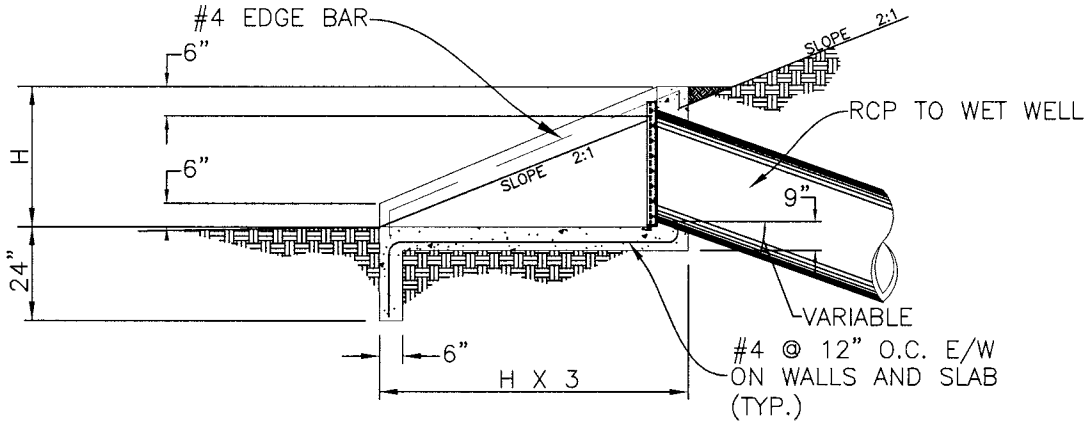
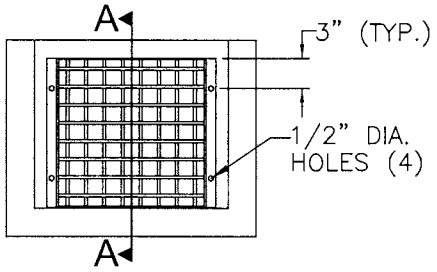


SECTION A–A



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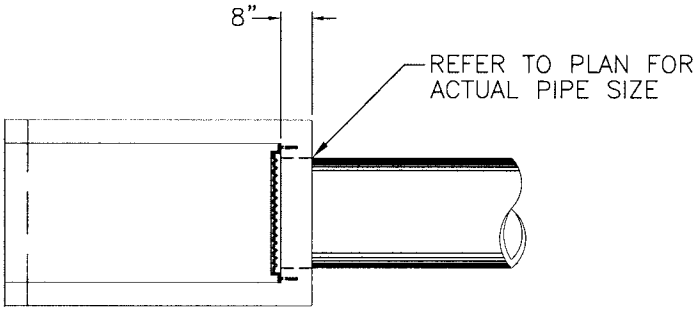

PLAN

INLET STRUCTURE

GRATE NOTES:

1. GRATE FABRICATED OR EQUIVALENT SHELF ITEM– ALL PARTS & PRODUCTS GALVANIZED
2. FRAME CONSTRUCTED W/ 1/4" x 3/4" x 2" x LENGTH (VARIES TO PIPE SIZE) ANGLE IRON
3. MIN. FOUR– 3/8"X 3" S.S. RED HEAD ANCHOR BOLTS FLAT LOCK WASHER, 2 EA PER VERTICAL ANGLE 3" FROM TOP & BOTTOM OF FRAME.
4. FOUR–1/2" DIA. HOLES IN FRAME
5. GRATE OPENING $1\frac{3}{16}$" x 2" O.C.
6. 1/4" DIA ROD WELDED TO FRAME ON ALL SIDES

NOTES:

1. PIPE DETAIL REFER TO PLATE D–2.

PLOTTED: 02/25/2010

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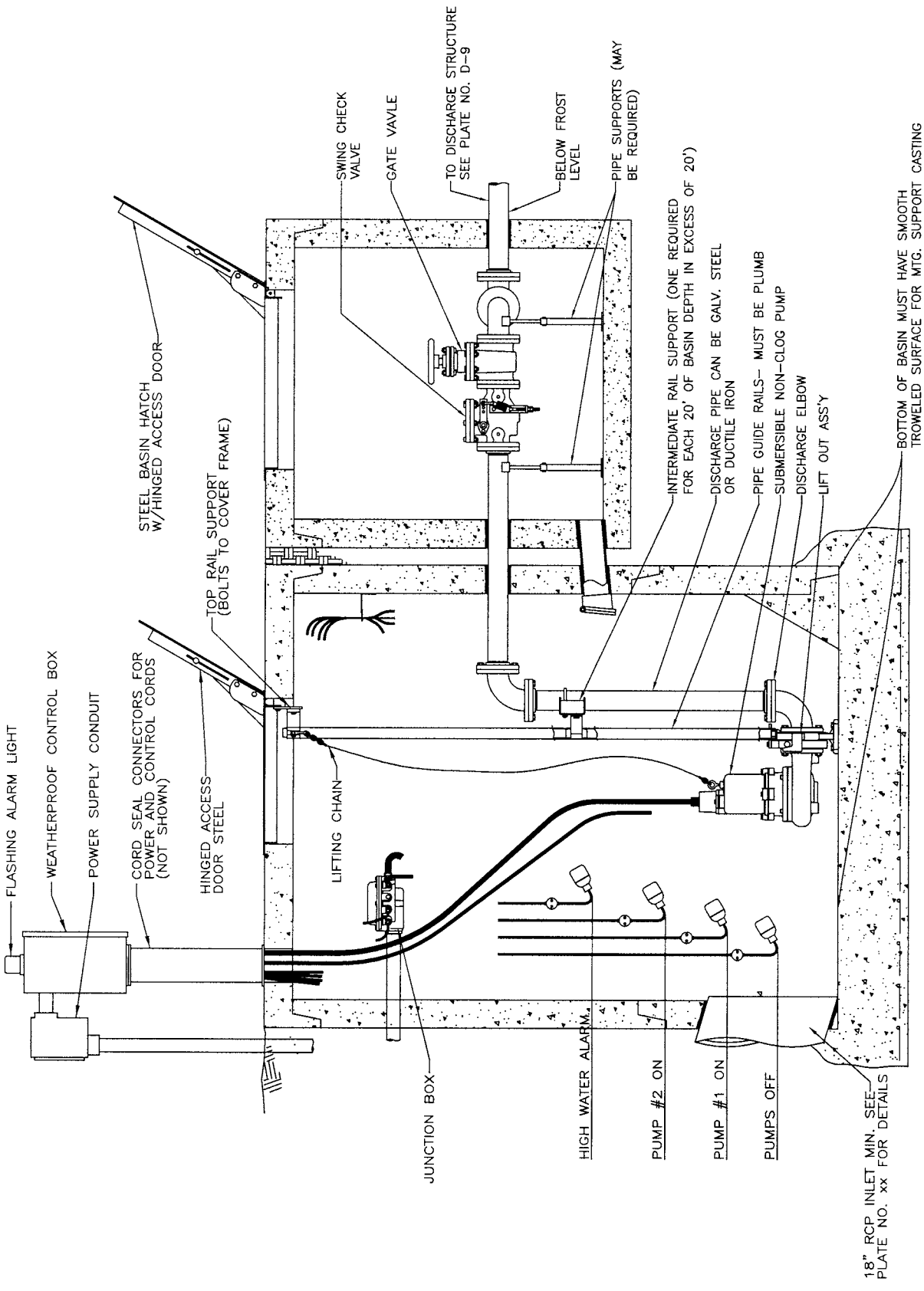
Revisions Date	Desc	4–30–2009	COUNTY OF KERN STATE OF CALIFORNIA DEVELOPMENT STANDARD	PUMP STATION INLET STRUCTURE	PLATE NO. D–6
.	.	DESIGNED BY: K.L.H.			
.	.	DRAWN BY: B.D.H.			
.	.	CHECKED BY: A.A.			



PLOTTED: 02/25/2010

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Revisions Date	Desc
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4-30-2009

DESIGNED BY: F.E.M.

DRAWN BY: B.D.H

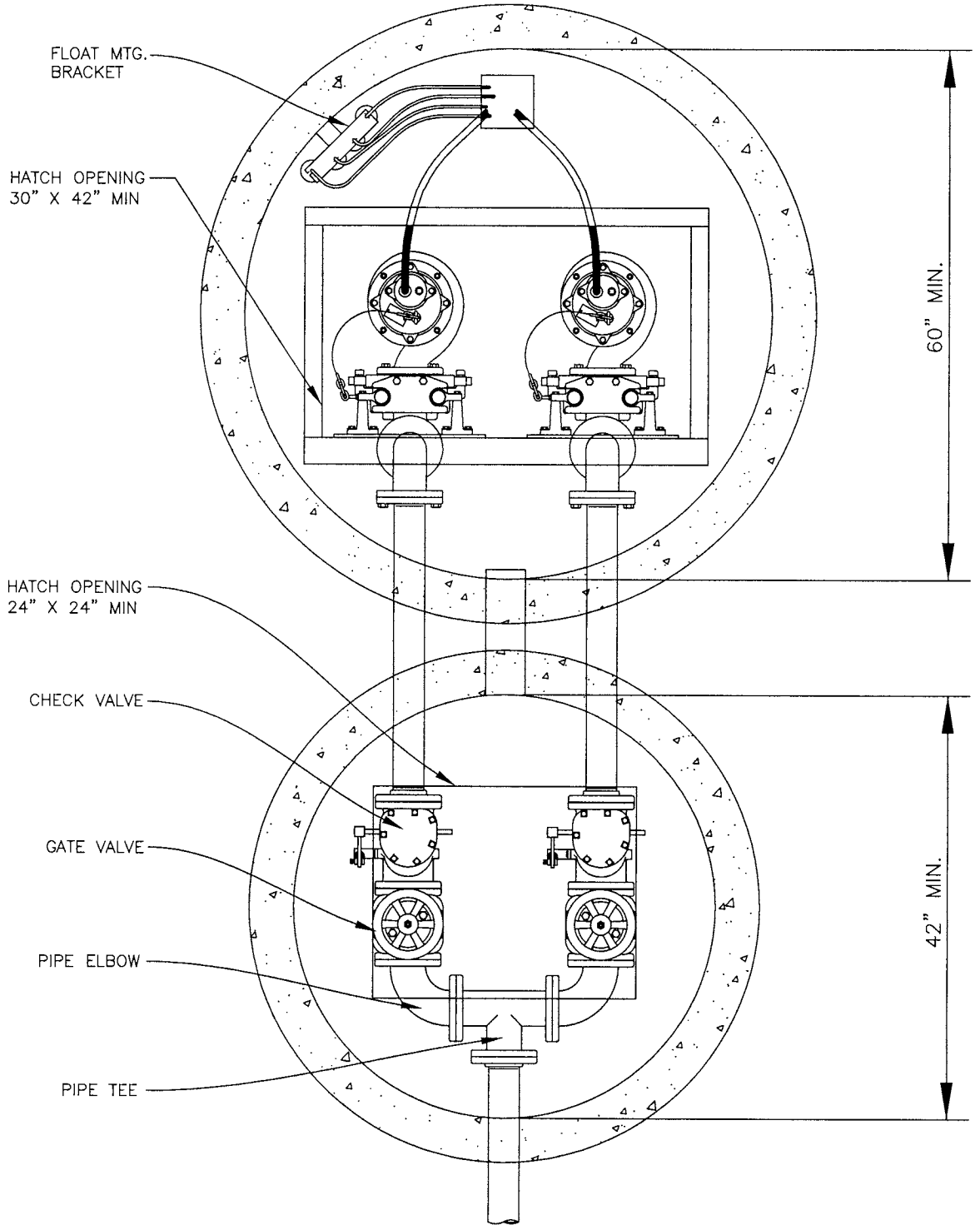
CHECKED BY: K.L.H.

COUNTY OF KERN
STATE OF CALIFORNIA
DEVELOPMENT STANDARD

DUPLEX PUMP STATION

PLATE NO.

D-7



*MODIFIED FROM FEMyers.com NON-CLOG, 3" DISCHARGE, DUPLEX PUMP INSTALLATION DRAWING ESS-2228b

PLOTTED: 02/25/2010

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4-30-2009

DESIGNED BY: F.E.M.

DRAWN BY: B.D.H.

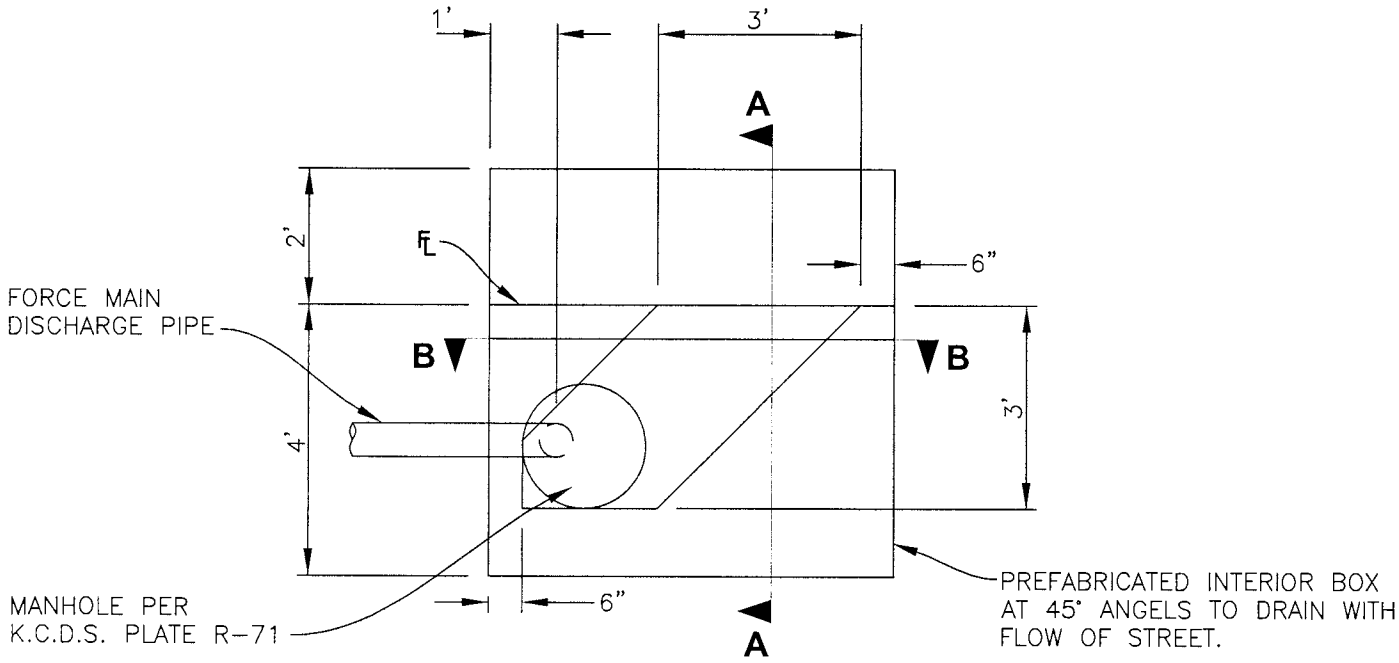
CHECKED BY: K.L.H.

COUNTY OF KERN
STATE OF CALIFORNIA
DEVELOPMENT STANDARD

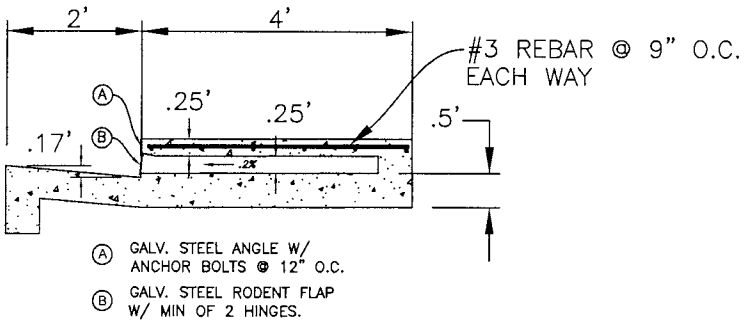
PLAN VIEW DUPLEX PUMPS

PLATE NO.

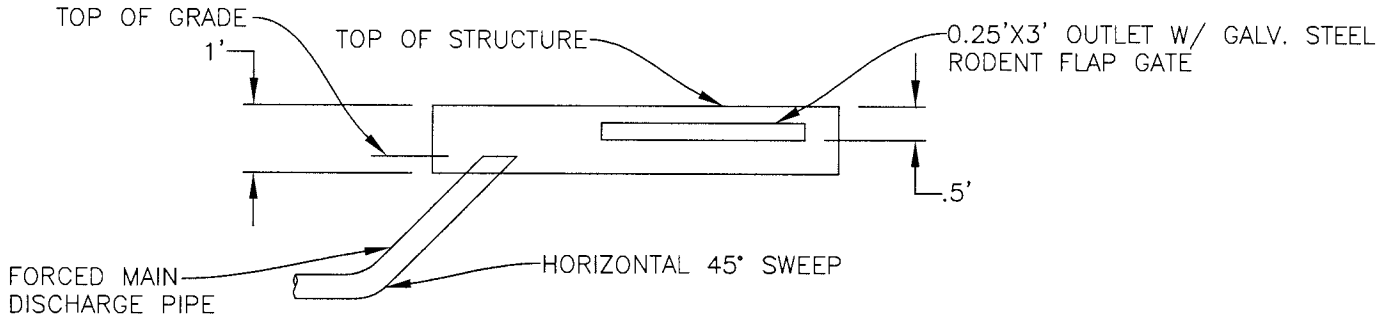
D-8



DISCHARGE STRUCTURE



SECTION A–A



SECTION B–B

PLOTTED: 02/25/2010

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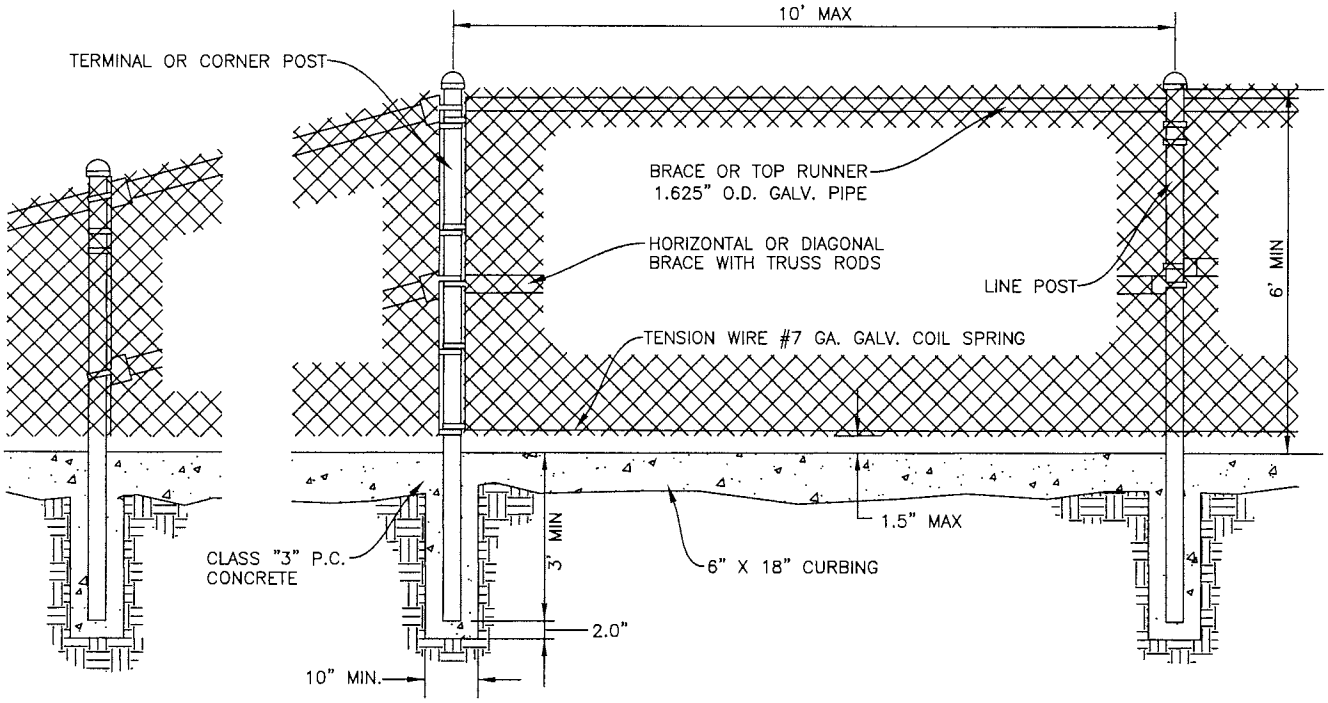
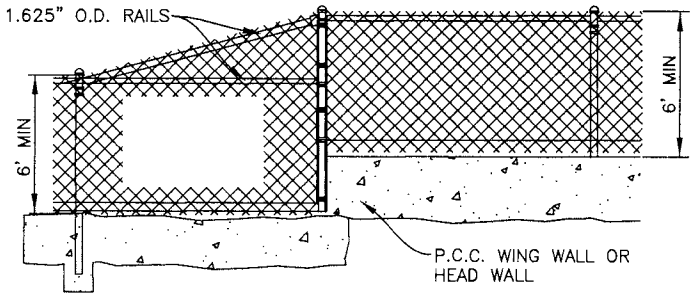
Revisions Date	Desc	4-30-2009	COUNTY OF KERN STATE OF CALIFORNIA DEVELOPMENT STANDARD	PUMP STATION DISCHARGE STRUCTURE	PLATE NO. D-9
		DESIGNED BY: K.L.H.			
		DRAWN BY: B.D.H.			
		CHECKED BY: A.A.			



TYPICAL CHAIN LINK FENCE DETAIL



TYPICAL DETAIL AT
CULVERT ENDWALLS

FENCING SPECIFICATIONS:

1. FENCING FABRIC SHALL BE 9 GUAGE, 2" MESH, AFTER WEAVING, KNUCKLED TOP AND BOTTOM, 6' HIGH GALV.
2. CORNER POSTS SHALL BE 2–⅞" O.D. GALV. PIPE.
3. LINE POST 2–⅜" O.D. GALV. PIPE.
4. PRIVACY SLATS SHALL BE 2–$\frac{3}{16}$" X ¼".

NOTES:

1. INSTALLATION OF FENCING AND GATES SHALL BE IN ACCORDANCE WITH THE REQUIREMENTS OF "STANDARD SPECIFICATION, STATE OF CALIFORNIA, DEPARTMENT OF TRANSPORTATION," APPROVED CURRENT EDITION.
2. CONCRETE CURBING SHALL BE CONSTRUCTED UNDER ALL FENCES. CURBING SHALL BE 6" X 18", CLASS 3 CONCRETE.
3. CORNER POST SHALL BE INSTALLED AT ALL ANGLES IN FENCE LINE IN EXCESS OF 10".
4. END, CORNER, AND GATE POSTS SHALL BE BRACED TO THE NEAREST LINE POST WITH GALV. DIAGONAL OR HORIZONTAL BRACES USED AS COMPRESSION MEMBERS AND GALV. 0.375" STEEL TRUSS RODS WITH TURNBUCKLES OR TRUSS TIGHTENER USED AS TENSION MEMBERS.
5. FABRIC SHALL BE FASTENED TO GATE POST, TERMINAL POST, OR CORNER POST WITH 3" X 3/4" STRETCHER BAR BONDS AT 8" ON CENTER.
6. FABRIC SHALL BE FASTENED TO LINE POST, LAST RUNNER, AND BOTTOM TENSION WIRES WITH FABRIC BONDS SPACED APPROX. 14" APART.
7. FABRIC SHALL CONFORM TO ASTM A–392, CLASS 1.
8. SUBGRADE PREPARATION SHALL BE CONSTRUCTED TRUE TO GRADE AND CROSS SECTION WITH COMPACTION OF 85% TO A DEPTH OF 0.5"
9. WHEN REDWOOD SUBURBAN SCREEN, OR EQUIVALENT IS REQUIRED IT SHALL BE CONSTRUCTED SO THAT THE SLATS ARE LOCKED INTO POSITION AND CAN ONLY BE REMOVED WITH TOOLS.
10. FENCE FABRIC IS TO BE TACK WELDED TO POSTS IN THREE PLACES (TOP, CENTER, AND BOTTOM). FENCE HARDWARE IS TO BE TACK WELDED AND GROUND SMOOTH. ALL EXPOSED METAL PARTS ARE TO BE GALV. PRIOR TO INSTALLATION.

PLOTTED: 02/25/2010

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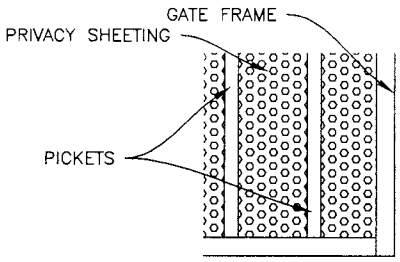
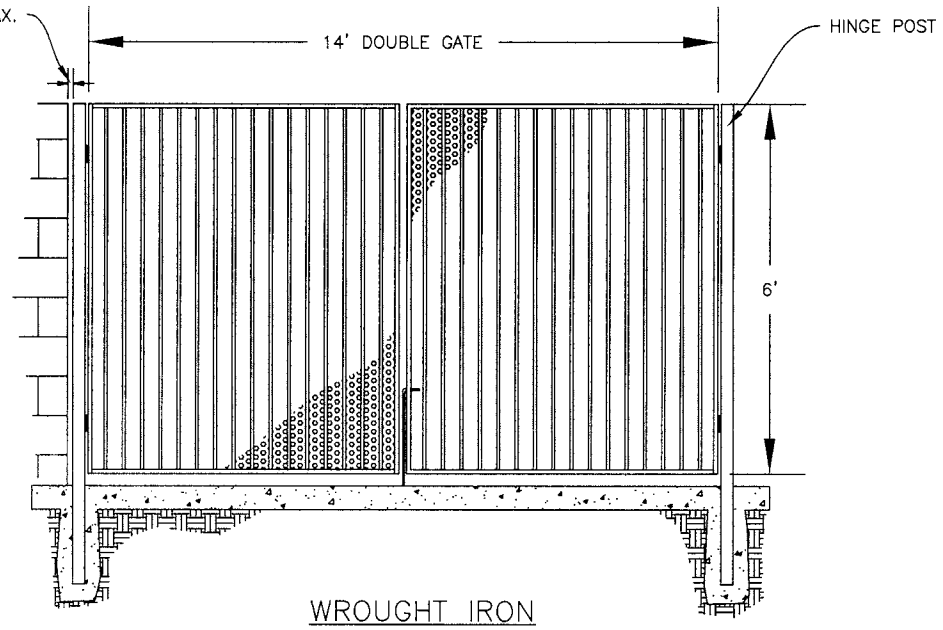
Revisions Date	Desc	DATE: 6-6-2009	COUNTY OF KERN STATE OF CALIFORNIA DEVELOPMENT STANDARD	CHAIN LINK FENCING SPECIFICATIONS	PLATE NO. D–10
.	.	DESIGNED BY: K.L.H.			
.	.	DRAWN BY: B.D.H.			
.	.	CHECKED BY: A.A.			
.	.				

WROUGHT IRON GATE SPECS:

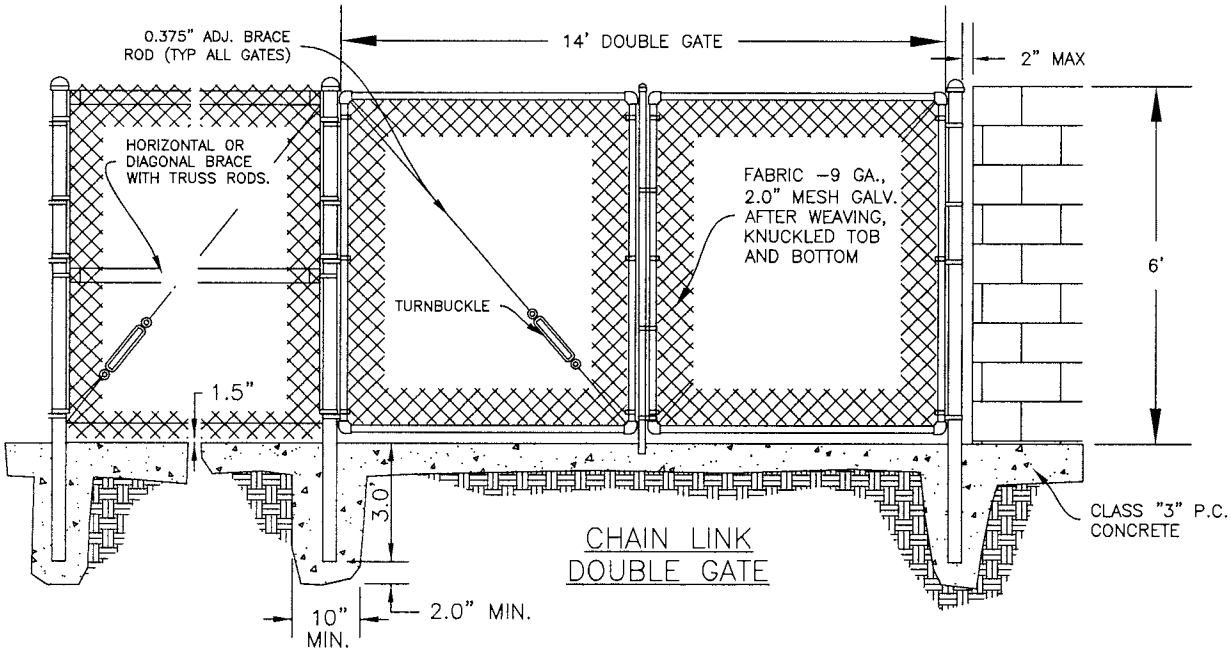
1. HINGE POST SHALL BE A MIN. OF 4x4x3/16" SQ TUBING.
2. GATE FRAME SHALL BE A MIN. 1-1/2" SQ. TUBING.
3. PICKETS SHALL BE A MIN. 3/4" SQ TUBING WITH 4" MAX CLEAR DIMENSION.
4. PRIVACY SHEETING SHALL BE PERFORATED SHEET METAL, 24 GAUGE, 1/16" DIM HOLE, 1/8" STAGGERED CENTER.
5. GATE SHALL BE A 14' DOUBLE GATE.
6. GATE LATCH SHALL HAVE COMMERCIAL GRADE LOCKING DEVICE FOR 3/8" PADLOCK SHANK OR A LICKING DEVICE THAT CAN BE KEYED TO THE STANDARD K.C.E.S.S. KEY-CORE.



PRIVACY SHEETING DETAIL



WROUGHT IRON DOUBLE GATE



CHAIN LINK DOUBLE GATE

DOUBLE DRIVE GATE

WIDTH-14'
HEIGHT-6'
FRAME-1.875" O.D. GALV. PIPE 2.72LB/FT
COMMERCIAL LOCKING DEVICE WITH DROP ROD

NOTES:

1. CURBING AS SPECIFIED BY COUNTY OF KERN DEVELOPMENT STANDARDS, PLATE D-2.
2. END, CORNER, AND GATE POSTS SHALL BE BRACED TO THE NEAREST LINE POST WITH GALV. DIAGONAL OR HORIZONTAL BRACES USED AS COMPRESSION MEMBERS AND GALV. 0.375" STEEL TRUSS RODS WITH TURNBUCKLES OR TRUSS TIGHTENERS USED AS TENSION MEMBERS.
3. WHEN REDWOOD SUBURBAN SCREEN, OR EQUIVALENT, IS REQUIRED IT SHALL BE CONSTRUCTED SO THAT THE SLATS ARE LOCKED INTO POSITION AND CAN ONLY BE REMOVED WITH TOOLS.
4. FRAMES SHALL BE MADE WITH FITTINGS OR WELDS GROUND SMOOTH, AND GALVANIZED.
5. CHAIN LINK FENCE FABRIC SHALL CONFORM TO ASTM: A-392, CLASS 1, AND BE INSTALLED IN ACCORDANCE WITH THE REQUIREMENTS OF SECTION 80-4 OF THE "STANDARD SPECIFICATIONS, STATE OF CALIFORNIA, DEPARTMENT OF TRANSPORTATION", APPROVED CURRENT EDITION.

PLOTTED: 02/25/2010

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Revisions Date	Desc	6-6-2009	COUNTY OF KERN STATE OF CALIFORNIA DEVELOPMENT STANDARD	DOUBLE GATE SPECIFICATIONS	PLATE NO. D-11
.	.	DESIGNED BY: K.L.H.			
.	.	DRAWN BY: B.D.H.			
.	.	CHECKED BY: A.A.			
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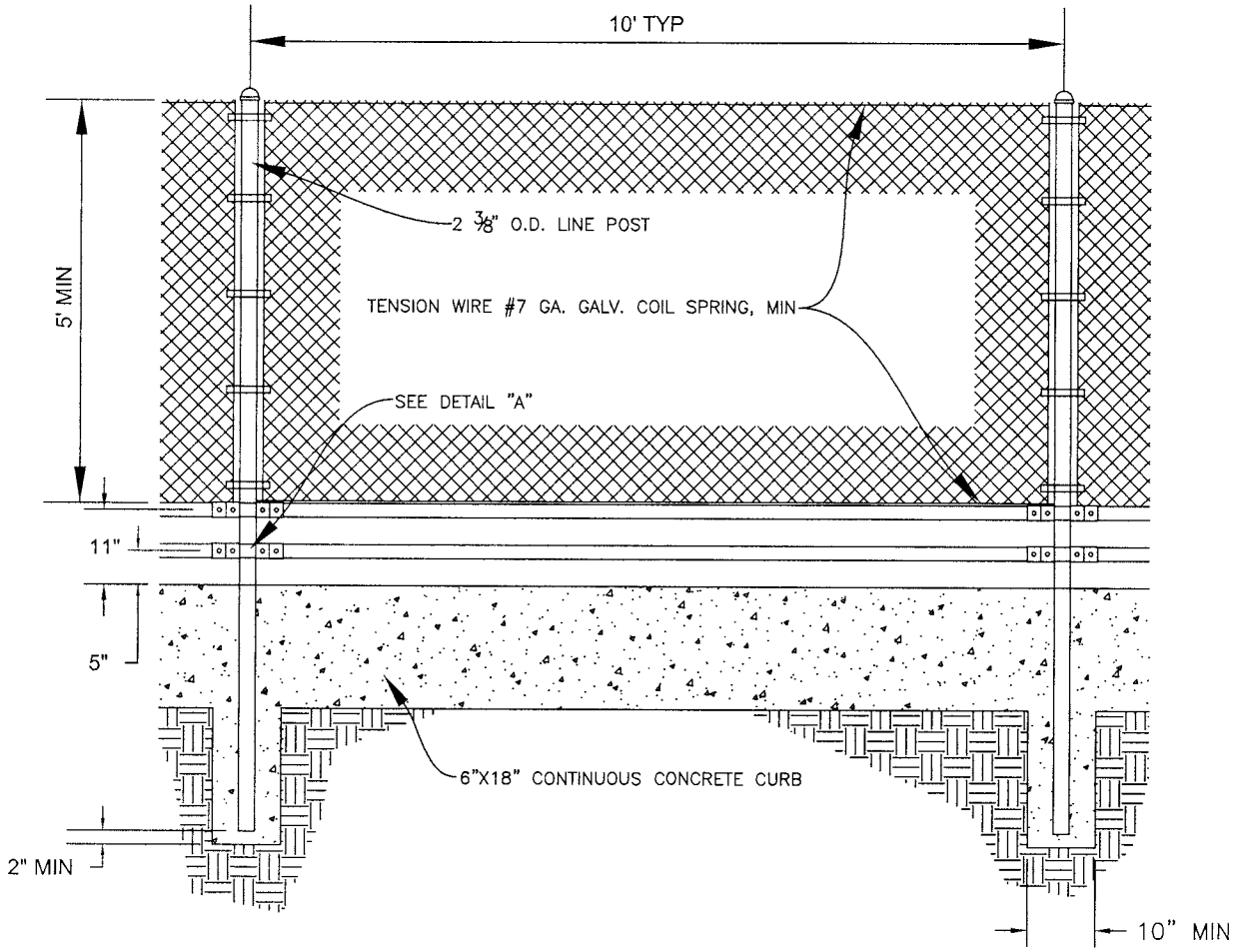
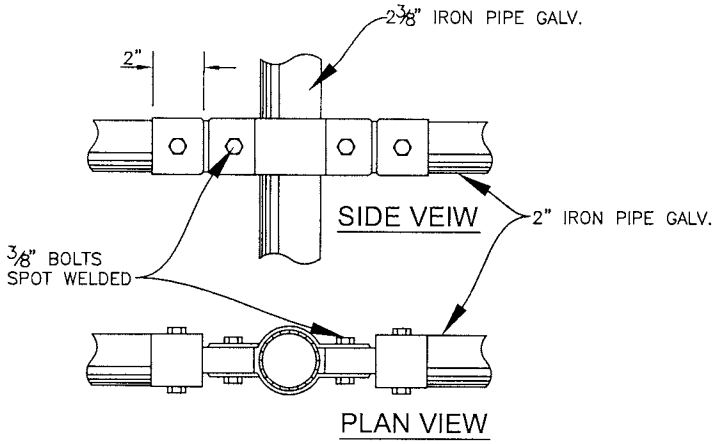


TRANSVERSE PROTECTION BAR



DETAIL "A"

NOTES:

1. ALL CONCRETE SHALL BE CLASS 3.
2. SEE PLATE D-10 FOR ADDITIONAL FENCE DETAILS.
3. ALL EXPOSED METAL PARTS ARE TO BE GALV PRIOR TO INSTALLATION.
4. HARDWARE IS TO BE TACK WELDED AND GROUND SMOOTH AND GALV.
5. SEE PLATE D-2 FOR RODENT BARRIER DETAILS.

PLOTTED: 02/26/2010

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Revisions Date	Desc
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6-5-2009

DESIGNED BY: K.L.H.

DRAWN BY: B.D.H.

CHECKED BY: A,J.L.

COUNTY OF KERN
STATE OF CALIFORNIA
DEVELOPMENT STANDARD

FLOOD ZONE FENCING SPECIFICATIONS

PLATE NO. D-12

Appendix D9
Memorandum on Potential for Mohave Ground Squirrel Occurrence in the Discovery Solar PV and Storage Project

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TETRA TECH

Memo

To: Amy Fuller, Senior Permitting Director

From: Dr. Philip Leitner
Michelle Bates, Principal Biologist, Tetra Tech

Cc: Jennifer Merrick, Project Director, Tetra Tech

Date: October 2025

Subject: Memorandum on Potential for Mohave Ground Squirrel Occurrence in the Discovery Solar PV and Storage Project

1.0 INTRODUCTION

The purpose of this memorandum is to review the results of previous Mohave ground squirrel (*Xerospermophilus mohavensis*, MGS) protocol surveys in the region of the Discovery Solar PV and Storage Project (Project) proposed by Discovery Solar PV and Storage, LLC (Applicant), and to assess the likelihood of MGS occurrence within the Study Area. The Project is located on approximately 7,700 acres in an unincorporated area of southeastern Kern County, California, at the northern edge of the Antelope Valley and southwest of the community of Mojave (**Figure 1)**. Although the Project site is approximately 7,700 acres, a Study Area of 8,606 acres was utilized for vegetation community mapping and several of these field surveys. Based on the evaluation provided below, there is no evidence of MGS on or near the Project site and no reason to believe that dispersing juveniles could reach the site. In addition, much of the Study Area supports vegetation communities that have little or no suitability for MGS.

2.0 PROJECT DESCRIPTION AND LOCATION

The Project includes development of a photovoltaic (PV) solar facility and associated infrastructure necessary to generate up to 1,400 megawatts (MW) of renewable electrical energy with up to 8 gigawatt-hours of energy storage capacity (approximately 1,000 MW) on an approximately 7,700-acre Project site in an unincorporated area of southeastern Kern County, California. Approximately 2,426 acres within the 7,700-acre Project site are designated for zone changes only and would not be disturbed(**Figure 1**).

Major components of the Project consist of PV solar panels, a power collection system including medium-voltage lines that connect the solar facilities, inverters, a switchyard, foundations, and transformers that will be installed onsite. Associated Project infrastructure includes an operations and maintenance facility, telecommunication facilities, energy storage system(s), up to three onsite collector substations, interconnection and transmission systems, and temporary laydown yards. The Project may be constructed in multiple phases.

The Project will interconnect to the existing Windhub Substation, which is owned and operated by Southern California Edison. The interconnection will be via a newly constructed 230-kilovolt (kV) generation tie line (gen-tie) that will extend north from the Project site towards the Windhub Substation from on-site collector

substations. A portion of the Project 230-kV gen-tie would be co-located within an existing gen-tie corridor (controlled by the Applicant and/or its affiliates). A high-voltage switchyard located immediately north of the Union Pacific Railroad (UPRR) rail line will also be constructed.

The Project is generally on undeveloped and privately owned land, along the northern edge of the Antelope Valley. The Project site is located approximately 6 miles southwest of the unincorporated community of Mojave, approximately 9 miles southeast of the City of Tehachapi, and approximately 8 miles northwest of the unincorporated community of Rosamond. State Route (SR)-58 is north of the Project site, SR-14 is east of the Project site, and Tehachapi Willow-Springs Road runs between the Project site's boundaries (**Figure 1**). A network of existing named and unnamed dirt roads traverses the Project site. The Los Angeles Department of Water and Power aqueduct roughly bisects the Project site (**Figures 2** and **3**). On-site, adjacent, and nearby uses include renewable energy development, rural residential development, livestock grazing, heavy industrial and mining uses, and undeveloped lands. The Project site is regularly used for sheep (*Ovis aries*) grazing and sheep were observed onsite. Elevations across the Project site are relatively flat, ranging from approximately 2,970 to 3,760 feet above mean sea level. The Project site is located within the *Monolith, Willow Springs,* and *Soledad Mountain* U.S. Geological Survey (USGS) 7.5-Minute Topographic Quadrangles.

3.0 BACKGROUND: TEHACHAPI WIND RESOURCE AREA

The Project is located within the Tehachapi Wind Resource Area. There are approximately 5,000 wind turbines installed and operating in this region including an existing operating wind energy facility that extends both through and immediately adjacent to portions of the Study Area. In addition, several solar projects have been permitted and constructed in the vicinity of the Study Area. For a number of years, the California Department of Fish and Wildlife has recommended protocol MGS surveys be conducted on proposed renewable energy and other development sites in this region.

4.0 HABITAT SUITABILITY

MGS are found over much of the western Mojave Desert to the east of the Tehachapi Wind Resource Area. Suitable MGS habitat contains friable soils for burrow construction, good shrub density and diversity, and relatively abundant shrub and herbaceous species important in the MGS diet. Within its historical geographic range, MGS are often found in areas dominated by creosote bush scrub. Approximately 66 percent of the area within the Project supports this plant community (**Figures 4a and 4b**). The portion of the Project to the east of the Los Angeles Aqueduct supports creosote bush scrub that is quite diverse, with several shrub species that are significant in the MGS diet. However, west of the Los Angeles Aqueduct, the dominant vegetation changes substantially. Creosote bush scrub is relatively limited in extent there. A number of other shrub communities are present there that are very unlikely to support MGS, including allscale scrub, brittle bush scrub, California buckwheat scrub, cheesebush scrub, desert needlegrass grassland, and rubber rabbitbush scrub. California juniper woodland becomes dominant at higher elevations within the Project site and is not suitable habitat for MGS. A number of previous protocol trapping grids have been located in this vegetation type and none have yielded captures of MGS. In addition, the overall habitat quality of the Project site for MGS has been degraded by decades of sheep grazing and other anthropogenic disturbances.

5.0 POTENTIAL FOR MGS OCCURRENCE

It is currently assumed that MGS only occur in approximately 65 percent of its historic range and may be extirpated from the southern portion of its historic range (Leitner 2021). During the period from 2006 through present, over 140 protocol surveys have been completed in the region and there have been no captures or sightings of MGS (**Figure 5**). Incidentally, 13 of these protocol trapping sites were located within the Project site during the period 2008-2018 and were conducted because of different previously proposed wind turbine and electric transmission line projects. One record of MGS has been found to the west of the MGS range boundary; however, this location is about 40 miles to the north of the Project site. No other MGS have ever been captured to the west of the MGS range boundary, and biologists performing these surveys have never visually detected an MGS. Thus, it seems clear that this region does not support a resident MGS population (Leitner 2008, 2015, and 2021).

The Project is located outside of and to the west of the accepted historical range of MGS (**Figure 6**). No individual MGSs were observed during biological field surveys for the Project in 2023 and 2024. The biological field surveys conducted for the Project included habitat assessments and vegetation mapping; general and focused botanical surveys; general and focused wildlife surveys; protocol level Mojave desert tortoise (*Gopherus agassizii*) surveys; protocol level Swainson's hawk (*Buteo swainsoni*) surveys; and aquatic resource delineations.

As shown on **Figure 6**, there have been eight MGS detections in the region since 1998. All eight MGS detections are located east of the Project, on the eastern side of SR-14. **Figure 6** also shows the numerous locations in this region where there have been unsuccessful attempts at detecting MGS. The eight MGS detections since 1998 are all located approximately 8 to 12 miles east of the Project site and are described as follows:

- Occurrence Record 1 was a visual detection of an MGS in 1998 approximately 8.4 miles northeast of the Project. This detection was made by a California Department of Fish and Wildlife biologist.
- Occurrence Record 2 was the observation and subsequent capture of an adult male MGS at the proposed site of the Hyundai Motors Test Track in early spring 2002. This record was approximately 12.2 miles northeast of the Project. Since then, trapping has been required every 5 years at this facility, but no other MGS has ever been detected.
- Occurrence Record 3 was a visual observation of two adult MGS in 2021 in creosote bush scrub approximately 12 miles east of the Project. This detection was made by a biologist with several years of experience in completing MGS surveys.
- Occurrence Record 4 occurred during the period of April through June 2023 at the Bellefield Solar PV Project. An MGS reproductive population was discovered approximately 9.2 miles northeast of the Project. Both adult and juvenile MGS were found when vegetation was being cleared for installation of the Bellefield Solar PV Project. This was the first and only detection of a reproductive population in this region.
- Occurrence Record 5 was the detection of an MGS during ground-clearing operations for the Bellefield Solar PV Project on August 19, 2024. This detection was located approximately 10.6 miles northeast of the Project.

- Occurrence Record 6 was the observation of an MGS on August 19, 2024, also at the Bellefield Solar PV Project, but at a slightly different location. This individual was found approximately 10.8 miles northeast of the Project.
- Occurrence Record 7 was a sighting with photographic evidence of an MGS on October 9, 2024, at a unit of the Bellefield Solar PV Project (EnviroPlus Consulting, Inc. 2024). This observation was located south of SR-58 and was approximately 9.4 miles northeast of the Project.
- Occurrence Record 8 was a sighting of an MGS at the Enterprise Solar Storage Project on February 25, 2025. This observation was approximately 7.6 miles southeast of the Project.

Radiotelemetry studies (Harris and Leitner 2005; Poessel et al. 2022) have shown that juvenile MGS are capable of dispersing up to 5 miles from their birthplace, although most dispersal distances are much lower. In a study conducted from 2003 to 2004, consisting of 28 juvenile MGSs, the mean maximum dispersal distance for juvenile males was 1 ± 1.4 miles (1.6 ± 2.3 kilometer) and for juvenile females was 0.6 ± 1.1 miles (1.0 ± 1.8 kilometer) (Poessel et al. 2022).

As confirmed by extensive live-trapping and camera-trapping efforts in the region to the north and east of the Tehachapi Wind Resource Area, there are no records of MGS occurrence closer than approximately 7 miles from the Project. Occurrence Records 1 and 2 are historical as they were observed over 25 years ago. Additionally, trapping has been required every 5 years at the Occurrence Record 2 facility, and there have been no other MGS detections since. Occurrence Records 3, 4, 5, 6, 7, and 8 are recent, which suggests there is a possibility that juvenile MGS could disperse from these locations. However, these records are all located over 7 miles from the Project site. Additionally, the Project site is separated from any documented occurrence by a number of barriers (urban development, highways, and other existing infrastructure), which would further restrict movement of MGS westward toward the Project site.

6.0 CONCLUSION

Despite extensive historical protocol trapping efforts conducted in the Tehachapi Wind Resource Area, including 13 trapping sites within the Project site, no MGS have been detected in the area. Since 1998, there have been only eight MGS observations in the region, all at distances ranging from approximately 7 to 12 miles from the Project. The reproductive population that was documented 9.2 miles to the northeast in June 2023 is no longer present. This was the only record of a reproductive MGS population in this region. Two radiotelemetry studies have documented maximum dispersal movements of juvenile MGS up to 5 miles from their birthplace, meaning this recently identified reproductive population is located nearly twice the species' maximum dispersal distance from the Project site. There is no evidence of MGS on or near the Project site and no reason to believe that dispersing juveniles could reach the site. Based on this evidence, MGS are not expected to occur within the boundaries of the Project. However, in the case that MGS is observed during pre-construction surveys, the following measure will be triggered:

- In the event that MGS is observed on or near the Project site, applicable regulatory agencies shall be contacted and a small mammal avoidance and monitoring program shall be prepared.

7.0 LITERATURE CITED

California Department of Fish and Wildlife (CDFW). 2019. California Wildlife Habitat Relationships. Mohave ground squirrel species account and range map.

EnviroPlus Consulting, Inc. 2024. Mohave Ground Squirrel Observation, October 10, 2024. Report to California Department of Fish and Wildlife. 3 pp.

Harris, J.H., and P. Leitner. 2005. Long Distance Movements of Juvenile Mohave Ground Squirrels, *Spermophilus mohavensis*. *Southwestern Naturalist* 50:188-196.

Leitner, P. 2008. Current Status of the Mohave Ground Squirrel. *Transactions of the Western Section of The Wildlife Society* 44:11-29.

Leitner, P. 2015. Current Status of the Mohave Ground Squirrel (*Xerospermophilus mohavensis*): A Five-Year Update (2008-2012). *Western Wildlife* 2:9-22.

Leitner, P. 2021. Current Status of the Mohave Ground Squirrel: An Update Covering the Period 2013-2020. California Fish and Wildlife, CESA Special Issue 2021, pp. 151-167.

Poessel, S.A., P. Leitner, R.D. Inman, T.C. Esque, and T.E. Katzner. 2022. Demographic and Environmental Correlates of Home Ranges and Long-Distance Movements of Mohave Ground Squirrels. *Journal of Mammalogy* 104:104-114.

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FIGURES

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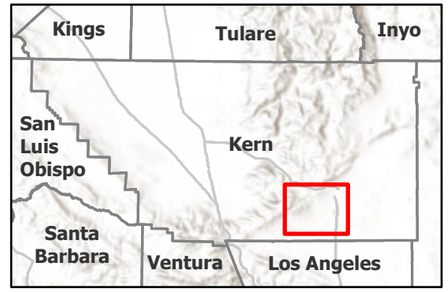
Discovery Solar PV and Storage Project

Kern County, CA

Figure 1. Regional Overview



Windhub High-voltage Substation (Existing)

Watercourse

Proposed Project Features

Project Site

Study Area

Gen-tie Line (New)

Medium-voltage/Transmission/Access Easements

Other Applicant and/or Affiliate Controlled*

Step-up HV substation

Gen-tie Corridor

*Already approved under separate projects.

N

0 0.75 1.5 3 Miles

Scale is 1:116,800 when printed at 11"x17"

Not for Construction

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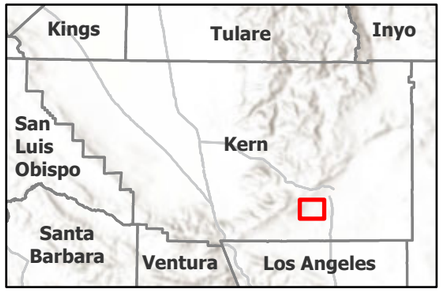
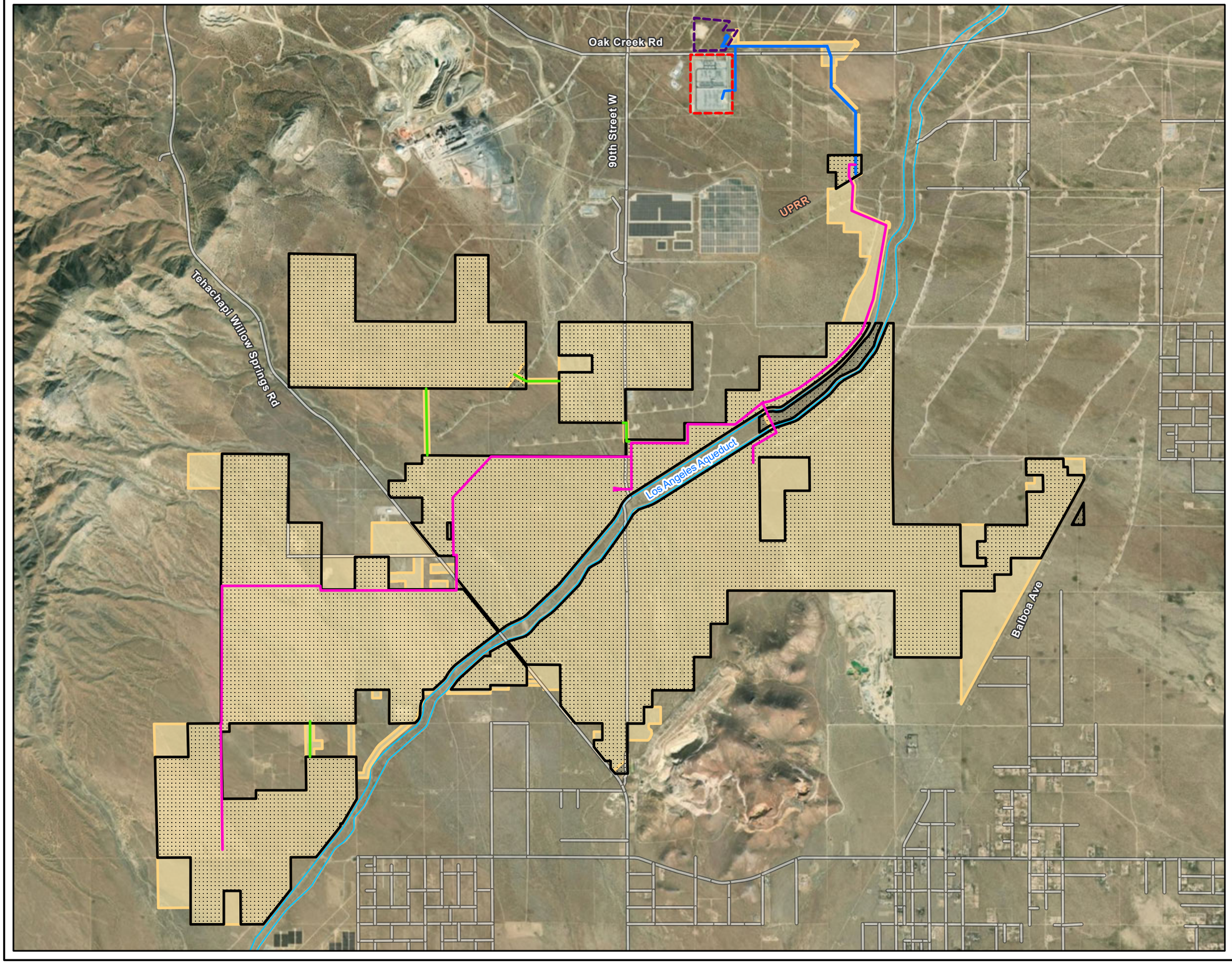
Discovery Solar PV and Storage Project

Kern County, CA

Figure 2. Project Location





Windhub High-voltage Substation (Existing)

Roads

Watercourse

Proposed Project Features

Project Site

Study Area

Gen-tie Line (New)

Medium-voltage/Transmission/Access Easements

Other Applicant and/or Affiliate Controlled*

Step-up HV substation

Gen-tie Corridor

*Already approved under separate projects.

N

0 0.25 0.5 1 Miles

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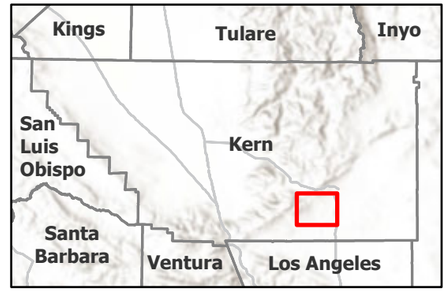
Discovery Solar PV and Storage Project

Kern County, CA

Figure 3. USGS Topographic Map



Windhub High-voltage Substation (Existing)

Proposed Project Features

- Project Site
- Study Area
- Gen-tie Line (New)
- Medium-voltage/Transmission/Access Easements

Other Applicant and/or Affiliate Controlled*

- Step-up HV substation
- Gen-tie Corridor

*Already approved under separate projects.

N

Miles

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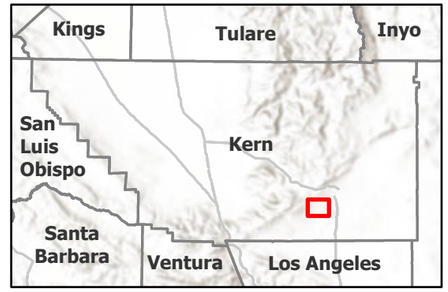
Discovery Solar PV and Storage Project

Kern County, CA

Figure 4a. Vegetation Communities



Oak Creek Rd
90th Street W
UPRR
Tehachapi Willow Springs Rd
Oak Creek
Los Angeles Aqueduct
Holliday Rock Mine
Balboa Ave

Windhub High-voltage Substation (Existing)
Roads
Watercourse

Proposed Project Features

Project Site
Study Area
Gen-tie Line (New)
Medium-voltage/Transmission/Access Easements

Other Applicant and/or Affiliate Controlled*

Step-up HV substation
Gen-tie Corridor

Vegetation Communities

Allscale Scrub
Brittle Bush Scrub
California buckwheat scrub
California juniper woodland
Cheesebush scrub
Creosote bush scrub
Desert needlegrass grassland
Developed
Disturbed
Disturbed - Creosote bush scrub
Rubber rabbitbrush scrub
Scalebroom scrub

*Already approved under separate projects.

N

0 0.2 0.4 0.8 Miles

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Note: Additional vegetation community mapping and mapping of Joshua trees is in progress and when available, the results will be used to update this report.

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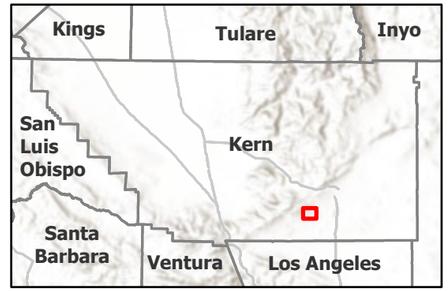
Discovery Solar PV and Storage Project

Kern County, CA

Figure 4b. Vegetation Communities



Roads

Watercourse

Proposed Project Features

Project Site

Study Area

Gen-tie Line (New)

Medium-voltage/Transmission/Access Easements

Vegetation Communities

California buckwheat scrub

California juniper woodland

Cheesebush scrub

Creosote bush scrub

Desert needlegrass grassland

Developed

Disturbed

Disturbed - Creosote bush scrub

Rubber rabbitbrush scrub

Scalebroom scrub

Los Angeles Aqueduct

Oak Creek

Note: Additional vegetation community mapping and mapping of Joshua trees is in progress and when available, the results will be used to update this report.

N

Miles

0 0.13 0.25 0.5

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Not for Construction

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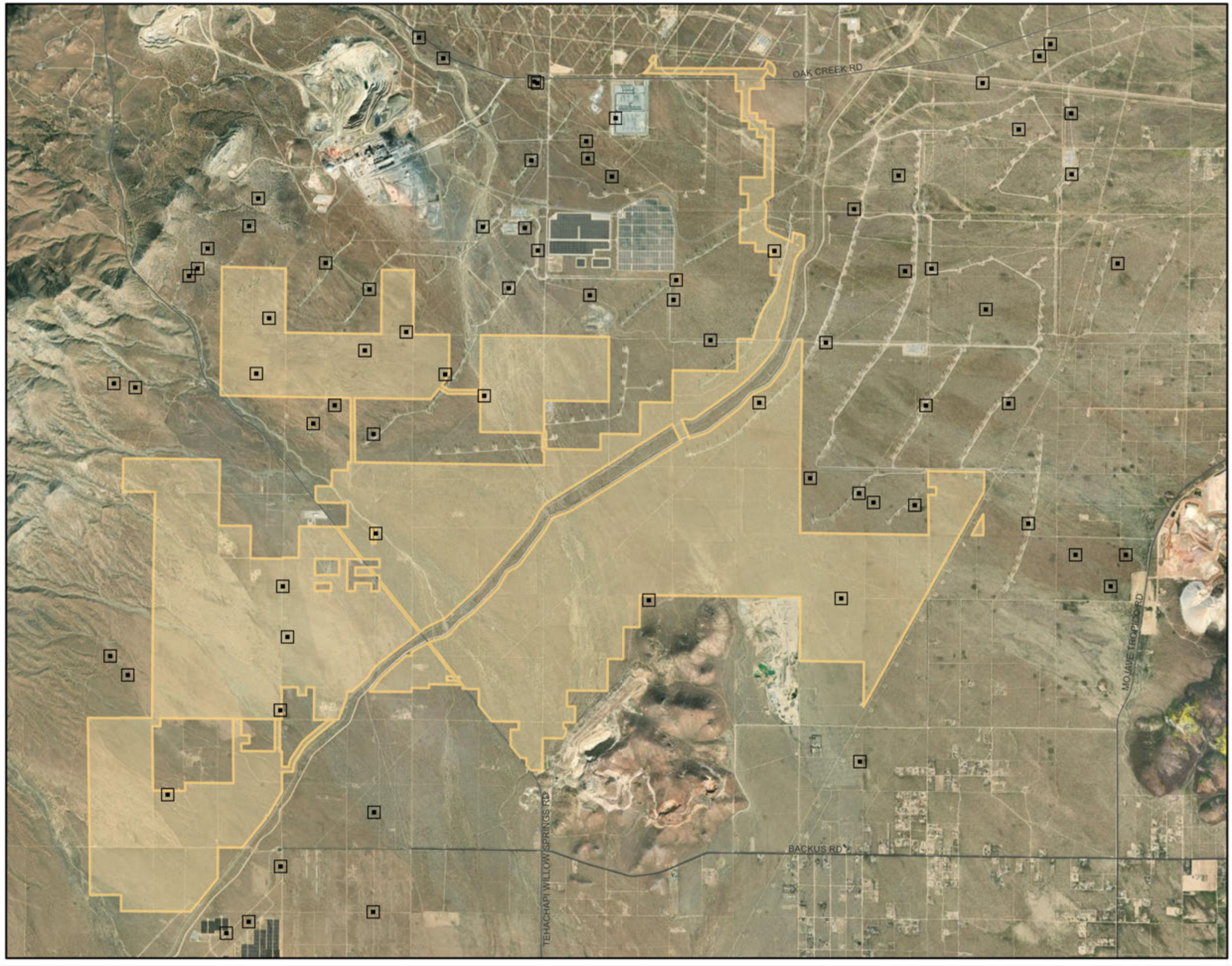
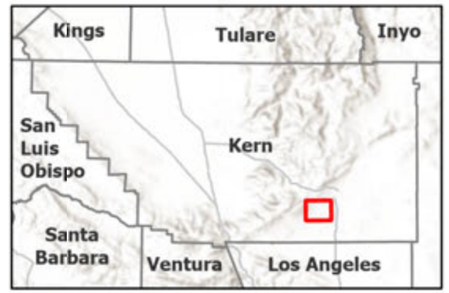


Discovery Solar PV and Storage Project

Kern County, CA

Figure 5. Protocol MGS Surveys At or Near the Project Site



Study Area

MGS Protocol Results

Not Detected

N

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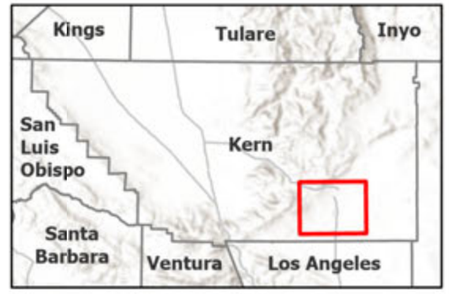
Not for Construction

Discovery Solar PV and Storage Project

Kern County, CA

Figure 6. Regional MGS Context



Study Area

Mohave Ground Squirrel Range - CWHR M073 [ds908]

Occurrence Records

MGS Protocol Results

Not Detected

Non-Protocol Results

Incidental Observations

Camera Studies

Not Detected

Regional Survey

Not Detected

N

Miles

0 0.5 1 2

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Appendix D10
Western Joshua Tree Population and Woodland Mapping

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WESTERN ECOSYSTEMS TECHNOLOGY, INC.
P.O. Box 60663, Boulder City, Nevada 89006
Phone: 307-630-1335 ◆ www.west-inc.com

TECHNICAL MEMORANDUM

Date: January 6, 2026

To: Amy Fuller, Discovery Solar PV and Storage, LLC

From: Western EcoSystems Technology, Inc. (WEST)

Subject: Western Joshua Tree Population Characterization and Woodland Mapping – Discovery Solar PV and Storage Project

Introduction

Western EcoSystems Technology, Inc. (WEST) was retained by Discovery Solar PV and Storage, LLC (Applicant) to conduct western Joshua tree surveys and Woodland mapping for the Discovery Solar PV and Storage Project (Project). The Project includes development of a photovoltaic solar facility and associated infrastructure necessary to generate up to 1,400 megawatts (MW) of renewable electrical energy with up to 8 gigawatt-hours of energy storage capacity (approximately 1,000 MW) on an approximately 7,700-acre Project site in an unincorporated area of southeastern Kern County, California.

The Project is within the range of the western Joshua tree (referred to hereafter as WJT or tree; *Yucca brevifolia*). In California, WJT are dually protected under the Western Joshua Tree Conservation Act (WJTCA) and as a candidate species under the California Endangered Species Act (CESA). In addition, the *Yucca brevifolia* Woodland Alliance is considered sensitive by California Department of Fish and Wildlife (CDFW). This memo describes results of efforts to characterize the WJT population and extent of Joshua tree woodlands[1] at the Project, as well as the Applicant's WJT and Joshua tree woodlands avoidance and minimization measures.

Site Description

The Project contains areas where impacts to WJT may occur (WJT Impact Areas) and areas where Joshua tree woodlands will be preserved (Woodland Habitat Preservation Areas). The WJT Impact Area is approximately 7,225 acres and includes the Project development footprint, gen-tie corridor and temporary offsite construction laydown area (Figure 1). The Applicant has delineated Woodland Habitat Preservation Areas wherein Joshua tree woodlands within the Project site will be preserved.

[1] WJT woodland is defined as areas where WJTs form an open canopy of at least 1% cover (Thomas et al. 2004)

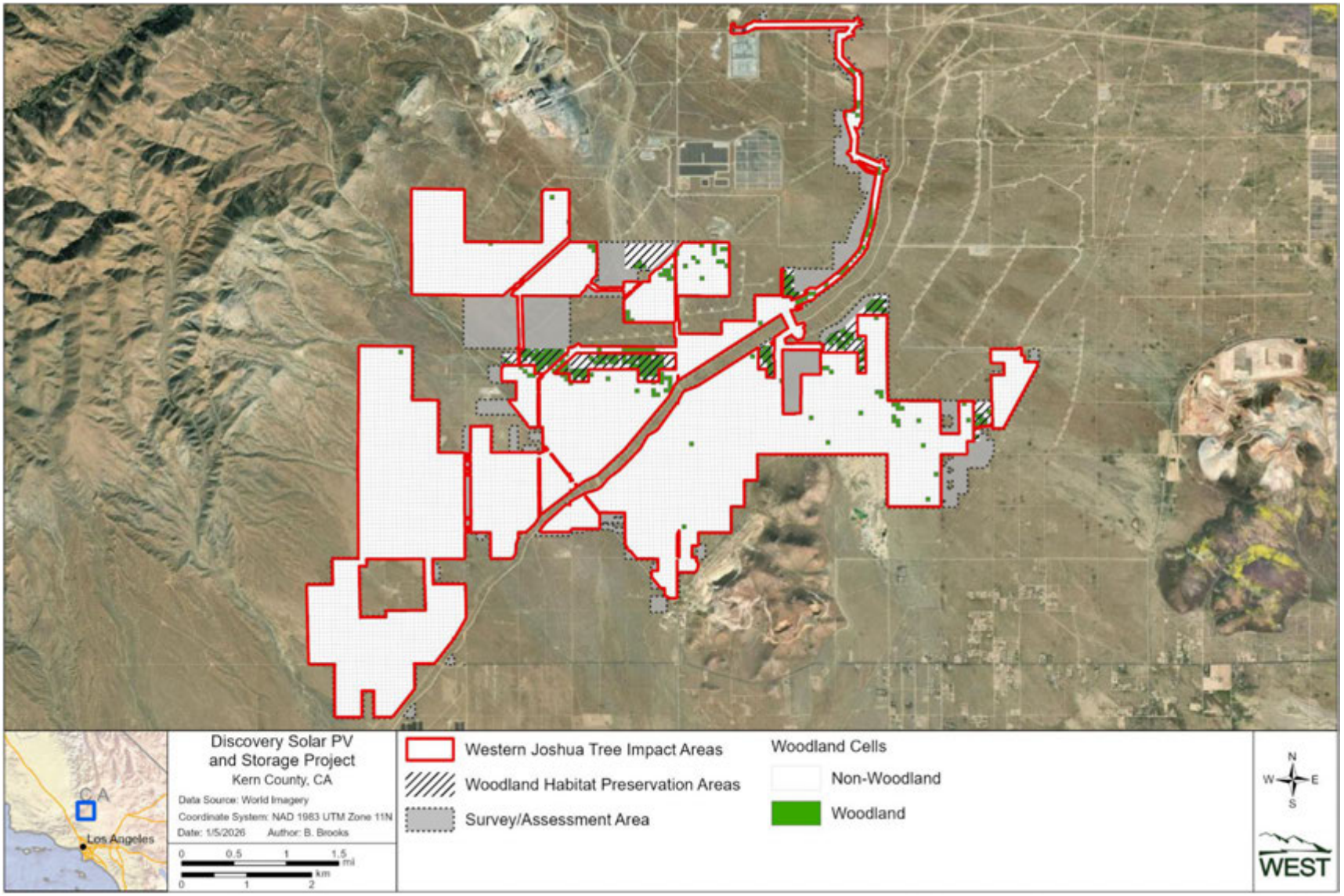

Figure 1. Western Joshua Tree Impact, Woodland Habitat Preservation, and Woodland Areas within the Discovery Solar PV and Storage Project.

Approximately 420 acres within the Project site will be preserved as Woodland Habitat Preservation Areas (Figure 1; refer to Western Joshua Tree Woodlands section below for additional detail).

Existing Threats to the Western Joshua Tree

The WJT population at the Project has been previously impacted by known threats and stressors to WJT (CDFW 2025). The Project site is generally undeveloped; however, it includes multiple abandoned and/or previously occupied structures, as well as associated non-occupied accessory structures, and dirt roads. An existing wind facility extends through a portion of the Project site including existing transmission infrastructure. In addition, the southwestern portion of the Project site was impacted by the Canyon Fire in 2011. A qualitative summary of known threats is presented below in Table 3. These existing threats are expected to persist in the area for the foreseeable future.

Table 3. Threats to Western Joshua Tree at the Project

Threat	General Description	Threat Rank; Comments
Climate change	Warmer, drier climate may cause mortality of individual trees and range contraction of the species	**High**; the Project is not within climate refugia for any emissions scenarios for the long term (2041-2100; Shryock 2025).
Development and other human activities	Direct mortality or removal of trees, indirect impacts such as seed bank disturbance and root encroachment	**High;** the Project area is already impacted by past and present human activities including energy and infrastructure development, agriculture/grazing, and mining. The Project is within the WJT reduced fee area as defined by the WJTCA and is in close proximity to development focus areas designated under the Desert Renewable Energy Conservation Plan, and therefore more prone to impacts from development.
Wildland fire	Direct mortality of trees can also cause indirect impacts through damage to vegetation and soil crusts and facilitation of invasive species.	**Moderate/High;** The southeastern portion of the Project site is classified as Local Responsibility Area Moderate and the northwestern portion project site, including the proposed generation tie (gen-tie) line route, is classified as State Responsible Areas Moderate and High. Moderate zones are typically wildland supporting areas of low fire frequency and relatively modest fire behavior. High zones include wildland supporting areas with a higher wildfire hazard potential.
Invasive plant species	Can directly compete with WJT for resources; annual grass species can change fire regimes making wildland fire more likely	**High**; Invasive species such as red brome (*Bromus rubens*) already established throughout the Project area.
Herbivory and predation	Drought or other stressors described above may make WJT more susceptible to damage from rodents or insects	**Unknown;** packrat herbivory was anecdotally observed in this population but it is not known if the observed impacts are detrimental to the population's persistence.

Western Joshua Tree Population Characterization

WEST conducted a combination of extensive field surveys for western Joshua tree in compliance with CDFW protocol and supplemental desktop analysis for the project site, gen-tie line corridor, the temporary offsite construction laydown yard, as well as some additional Applicant-owned parcels adjacent to the project (an approximately 9,046-acre area; Figure 1).

Within the WJT Impact Areas there are approximately 106,100 live WJT stems[2] and approximately 69,600 dead WJT stems. Within the Woodland Habitat Preservation Areas there are approximately 26,650 live WJT stems and approximately 7,550 dead WJT stems. Overall, size Class A (<1 meter tall) comprised 52% of live stems, while Size Class B (1-5 meters tall) and Size Class C (>5 meters tall) made up 46% and 2%, respectively (Figure 2).

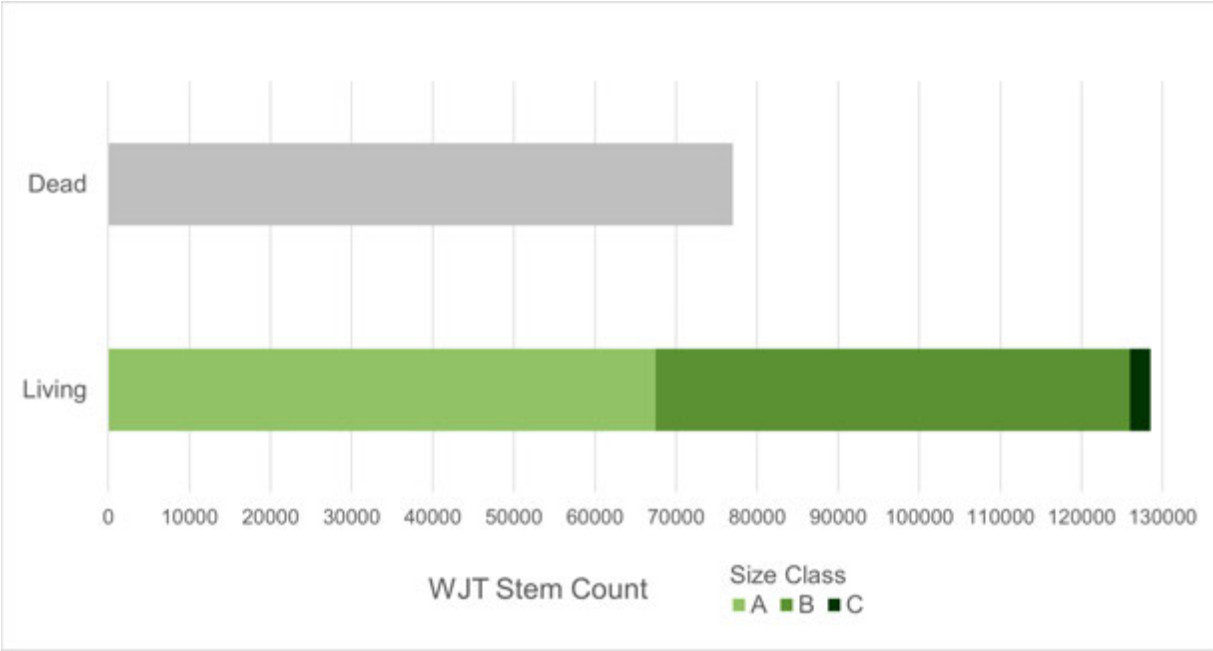

Figure 2. Estimate of dead and living western Joshua tree stems by size class at the Project.

The WJT population within the Project site exhibits signs of active, recent reproduction through a combination of seed germination and clonal growth: 75% of live stems are classified as immature (i.e., young, juvenile individuals), with the remaining 25% classified as mature and reproductive (i.e., branching or evidence of previous flowering events). The overall density of live stems is approximately 17 trees per acre, and the density of mature reproductive stems is approximately 6 trees per acre.

An immature WJT is generally defined by its physical appearance as a single-stemmed, unbranched plant that has not yet flowered. It typically reaches a height of one to three meters (approximately 3 to 10 feet) before it begins to branch and is considered mature.

[2] Per the WJTCA each stem is considered an individual WJT

Impacts to Western Joshua Tree Stems

At the Project, 80% of WJT stems are within the WJT Impact Area and subject to potential direct impacts. The remainder of WJT stems, 20%, would be preserved onsite within Woodland Habitat Preservation Areas.

Joshua Tree Woodlands

WJT canopy cover was quantified by a combination of field sampling and statistical modeling to identify where Joshua tree woodland occurs at the Project. Approximately 325 acres of both contiguous and isolated Joshua tree woodland were mapped at the Project. Density of live trees within the Joshua tree woodland is approximately 64 trees per acre; the mapped Joshua tree woodland meets the membership rules for Yucca brevifolia Woodland Alliance, which requires Joshua trees to be present at 1 percent or greater cover.

The Applicant, in an effort to preserve Joshua tree woodlands, has established Woodland Habitat Preservation Areas totaling approximately 420 acres, which comprise both Joshua tree woodland areas and adjacent non-woodland areas within contiguous polygons (Figure 1). The Woodland Habitat Preservation Areas contain approximately 195 acres of contiguous Joshua tree woodland, representing approximately 60% of all Joshua tree woodland at the Project. The Woodland Habitat Preservation Areas exceed the total mapped woodland acreage at the Project to allow for 1) potential relocation of WJT into less dense portions of these areas, and 2) the potential organic expansion of existing Joshua tree woodland into these areas.

Western Joshua Tree Preservation

The Project includes a number of avoidance and minimization measures to preserve WJT and Joshua tree woodland. The creation of Woodland Habitat Preservation Areas on the Project site would avoid impacts to contiguous blocks of Joshua tree woodlands (preserving approximately 34,200 living and dead WJT stems over 420 acres). The Project also includes relocation of a minimum of 10,000 on-site WJT stems to the Woodland Habitat Preservation Areas, to other areas on the Project site that may remain undisturbed, and to off-site conserved lands.

The Applicant intends to obtain take coverage from CDFW for impacts to WJT. Ultimate mitigation for impacts to WJT would be coordinated with CDFW through take coverage permitting and is expected to also include additional measures such as seed collection and acquisition of off-site compensatory mitigation lands with a focus on WJT refugia habitat. Together, these measures are intended to maximize WJT preservation efforts and minimize Project impacts to WJT and Joshua tree woodland.

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Appendix E
Cultural Resources Assessments

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Appendix E1
Cultural Resource Phase I Investigation Report

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Cultural Resource Phase I Investigation Report

Discovery Solar PV and Storage Project
Kern County, California

July 2025

Prepared for

Discovery Solar PV and Storage, LLC
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San Diego, CA 92130

Prepared by



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Cultural Resource Phase I Investigation Report

Discovery Solar PV and Storage Project
Kern County, California

July 2025

Prepared for:
Discovery Solar PV and Storage, LLC

Prepared by:
Jenna Farrell, MA, RPA; Sydni Kitchel, MA, RPA; Astrid Molina, BA, RA; Julia Mates, MA, RPA

TETRA TECH

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MANAGEMENT SUMMARY

The Project includes development of a photovoltaic (PV) solar facility and associated infrastructure necessary to generate up to 1,400 megawatts (MW) of renewable electrical energy with up to 8 gigawatt-hours of energy storage capacity (approximately 1,000 MW) on an approximately 7,700-acre Project site, some of which includes zone changes only and would not be disturbed, in an unincorporated area of southeastern Kern County, California. PV solar panels, a power collection system, including medium-voltage lines that connect the solar facilities, inverters, a switchyard, foundations, and transformers will be installed onsite. Associated Project infrastructure includes an operations and maintenance facility, telecommunication facilities, energy storage system(s), up to three onsite collector substations, interconnection and transmission systems, and temporary laydown yards. The Project may be constructed in multiple phases.

The Project will interconnect to the existing Windhub Substation, which is owned and operated by Southern California Edison (SCE). The interconnect will be via a newly constructed 230-kilovolt (kV) generation tie line (gen-tie) that will extend north from the Project site towards the Windhub Substation from an on-site collector substation. A portion of the Project 230-kV gen-tie would be co-located within an existing gen-tie corridor (controlled by the Applicant and its affiliates). A high-voltage switch yard located immediately north of the Union Pacific Railroad (UPRR) rail line will also be constructed.

The Project is located in an unincorporated area in southeastern Kern County, on generally undeveloped and privately owned land, along the northern edge of the Antelope Valley. On-site, adjacent, and nearby uses include renewable energy development, rural residential development, livestock grazing, heavy industrial and mining uses, and undeveloped lands. The Project site is located within the U.S. Geological Survey (USGS) *Monolith, Willow Springs, and Soledad Mountain* 7.5-Minute Topographic Quadrangle Maps.

This document presents the results of the Phase I Cultural Resource investigation for the Project. The study was conducted by Tetra Tech, Inc. (Tetra Tech) on behalf of the Applicant to determine the presence or absence of cultural resources within the Project Site. This study was conducted to assist in compliance with the California Environmental Quality Act, Section 21084.1. The field survey and report were conducted and prepared in accordance with the guidelines of the Society of California Archaeology's Archaeological Fieldwork and Reporting Guidelines for Cultural Resources (Society of California Archaeology 2020) and the California State Historic Preservation Office's Guidelines for Archaeological Research Design (OHP1991) and Archaeological Resources Management Reports (ARMR): Recommended Contents and Format (OHP 1990).

This study included a record and literature search, California Native American Heritage Commission sacred lands file search, a pedestrian field survey, and reporting. A cultural resource record search was conducted through the California Historical Resources Information System at the Southern San Joaquin Valley Information Center (SSJVIC). Tetra Tech conducted a "non-collection" Phase I archaeological pedestrian survey of 8,535.8 acres of the Study Area (8,540 acres). This larger Study Area captured additional area that was ultimately removed from the Project. The field surveys were

conducted on October 12, 2022, through November 10, 2022, April 23, 2023, through May 12, 2023; May 17 and 18, 2023; November 12 through 18 2023; and April 22 through April 27, 2024, by archaeological field crews that varied in size from 2 to 10. As a result of this work, Tetra Tech updated 21 previously recorded archaeological sites, 5 built environment resources, 34 isolates, identified 83 newly recorded resources, and identified 93 newly recorded isolated finds.

Project Data Summary

County: Kern
Applicant: Discovery Solar PV & Storage, LLC
USGS 7.5' quadrangle: Monolith, Willow Springs, Soledad Mountain
PLSS: T11N R14W S25, 26, 35, 36 ; T11N R13W S16, 17, 21, 28, 31-33; T10N R14W S1-3, 11-15, 22, 23; T10N R13W S2-8, 10, 17, 18
Survey Type: Intensive Pedestrian Field Survey, 15 meter transects.
Total Surveyed Acres: 8,535.8 acres
Date of Survey: October 12, 2022 to November 10, 2022; April 23, 2023 to May 12, 2023; May 17 - 18 2023; November 12 - 18, 2023, and April 22 - 27, 2024.
Archaeological Project Field Staff: Jenna Farrell, MA, RPA (Archaeological Principal Investigator), Sydni Kitchel, MA, RPA (Field Director), Astrid Molina, BA (Crew Chief/Archaeological Technician), Matt Kinsey, BA (Crew Chief), and Archaeological Technicians Jessica DeMaso MA, RPA, Cris Crump, BA, Greg Vasquez, BA, Karen Carrillo, BA, Olivia Calos, BA, Rachel Channel, BA, Ryan Donnelly, BA, Noah Pham, BA, Marlene Saucedo, BA, and Pedro Sanchez Garcia, BA.
Historian/Architectural Historian Staff: Julia Mates, MA.
Field Survey Results: Positive. Tetra Tech updated 21 previously recorded archaeological sites, 5 built environment resources, and 34 isolates; and recorded 83 newly identified archaeological sites and 93 newly recorded isolates. See tables below for previously recorded and newly recorded cultural sites, see Chapter 6 for isolates, see Chapter 8 for CRHR and management recommendations.

Table 1. Previously Recorded Sites Field Checked and Updated in the Study Area

Primary/Trinomial Number	Time Period*	Description	Comment
P-15-010952 (CA-KER-6341)	Historic	Refuse scatter	Relocated; Same as previously recorded
P-15-012677 (CA-KER-7135)	Historic	Refuse scatter	Relocated; Same as previously recorded
P-15-012678 (CA-KER-7136)	Multicomponent	Prehistoric lithic scatter, Historic refuse scatter	Relocated; Same as previously recorded; expanded southern site boundary
P-15-012714 (CA-KER-7172)	Historic	Foundations, refuse scatter	Relocated; updated conditions, expanded boundary, recorded new resources
P-15-013838	Prehistoric	Lithic scatter	Not Relocated; likely destroyed from modern heavy machinery tire tracks
P-15-013839	Multicomponent	Prehistoric lithic scatter, Historic refuse scatter	Relocated; Same as previously recorded
P-15-013917 (CA-KER-7801)	Historic	Refuse scatter	Not Relocated; likely destroyed from wind energy generating facility construction
P-15-013918 (CA-KER-7802)	Historic	Refuse scatter	Relocated; Artifact quantity declined; likely due to impact from wind energy generating facility construction

Primary/Trinomial Number	Time Period*	Description	Comment
P-15-013919 (CA-KER-7803)	Historic	Refuse scatter	Relocated; Artifact quantity declined; likely due to impact from wind energy generating facility construction
P-15-013920 (CA-KER-7804)	Historic	Refuse scatter	Relocated; Artifact quantity declined; likely due to impact from wind energy generating facility construction
P-15-013921 (CA-KER-7805)	Historic	Refuse scatter	Relocated; Artifact quantity declined, new mulched area, site boundary expanded; likely due to impact from wind energy generating facility construction
P-15-014703 (CA-KER-8269)	Historic	Campsite	Relocated; Same as previously recorded, site boundary expanded
P-15-016244 (CA-KER-8979)	Prehistoric	Lithic scatter	Not Relocated; within heavy drainage, likely washed away or inundated with sediment
P-15-016252	Historic	Foundation, refuse scatter	Relocated; updated conditions, expanded boundary, recorded new resources
P-15-016508 (CA-KER-9088)	Historic	Homestead, refuse scatter	Relocated; Same as previously recorded; expanded site boundary
P-15-016511	Historic	Refuse scatter	Relocated, observed artifacts less than previously documented
P-15-016514 (CA-KER-9094)	Historic	Refuse scatter	Relocated; Same as previously recorded, site boundary expanded
P-15-016518 (CA-KER-9098)	Prehistoric	Lithic scatter	Relocated; Same as previously recorded, site location updated
P-15-016519 (CA-KER-9099)	Historic	Homestead, refuse scatter	Not Relocated; site boundary partially overlaps Project boundary
P-15-016528 (CA-KER-9108)	Prehistoric	Lithic scatter	Relocated; Same as previously recorded, site boundary expanded
P-15-016875 (CA-KER-9264)	Historic	Hearth (possible), refuse scatter	Relocated; Same as previously recorded, site boundary expanded

*Multicomponent resources include both prehistoric and historic time periods

Table 2. Newly Recorded Sites within the Study Area

Primary/Trinomial Number	Resource Time Period*	Description
P-15-022359 (CA-KER-11797/H)	Multicomponent	Prehistoric lithic scatter; Historic refuse scatter
P-15-022360 (CA-KER-11798)	Prehistoric	Lithic scatter
P-15-022361 (CA-KER-11799H)	Historic	Refuse scatter
P-15-022362 (CA-KER-11800H)	Historic	Mining cairn, test pits, and refuse
P-15-022363 (CA-KER-11801/H)	Multicomponent	Prehistoric lithic scatter; Historic mining refuse
P-15-022364 (CA-KER-11802/H)	Multicomponent	Prehistoric lithic scatter; Historic refuse scatter
P-15-022365 (CA-KER-11803H)	Historic	Refuse scatter
P-15-022366 (CA-KER-11804)	Prehistoric	Lithic scatter
P-15-022367 (CA-KER-11805/H)	Multicomponent	Prehistoric isolate: flake; Historic vast refuse scatter
P-15-022368 (CA-KER-11806H)	Historic	Refuse scatter
P-15-022369 (CA-KER-11807H)	Historic	Refuse scatter
P-15-022370 (CA-KER-11808H)	Historic	Placer pit, piles, tobacco tins

Primary/Trinomial Number	Resource Time Period*	Description
P-15-022371 (CA-KER-11809H)	Historic	Tailings pile and possible pit, ceramics, solarized amethyst glass, metal
P-15-022372 (CA-KER-11810H)	Historic	Large excavated pit, small pits, cans
P-15-022373 (CA-KER-11811H)	Historic	Refuse scatter
P-15-022374 (CA-KER-11812H)	Historic	Refuse scatter
P-15-022375 (CA-KER-11813H)	Historic	Excavated pit, milled lumber
P-15-022376 (CA-KER-11814H)	Historic	Refuse scatter
P-15-022377 (CA-KER-11815H)	Historic	Structure remnants, concrete footers, refuse scatter
P-15-022378 (CA-KER-11816)	Prehistoric	Lithic scatter
P-15-022379 (CA-KER-11817)	Prehistoric	Lithic scatter
P-15-022380 (CA-KER-11818H)	Historic	Refuse scatters
P-15-022381 (CA-KER-11819H)	Historic	Large excavated pit, 2 spoil piles, light refuse scatter
P-15-022382 (CA-KER-11820H)	Historic	dilapidated fence/corral remnants
P-15-022384 (CA-KER-11822H)	Historic	Refuse scatter
P-15-022385 (CA-KER-11823H)	Historic	Refuse scatter
P-15-022386 (CA-KER-11824H)	Historic	Refuse scatter
P-15-022387 (CA-KER-11825H)	Historic	Dilapidated fend/corral remnants
P-15-022388 (CA-KER-11826H))	Historic	Refuse scatter
P-15-022389 (CA-KER-11827H	Historic	Excavated pit and tailings pile
P-15-022390 (CA-KER-11828)	Prehistoric	Lithic and tool scatter (rhyolite triangular point: Cottonwood type; flakes: 3 rhyolite)
P-15-022391 (CA-KER-11829H)	Historic	Refuse scatter
P-15-022392 (CA-KER-11830H)	Historic	Refuse scatter
P-15-022393 (CA-KER-11831H)	Historic	Refuse scatter
P-15-022394 (CA-KER-11832H)	Historic	Refuse scatter
P-15-022395 (CA-KER-11833H)	Historic	Refuse scatter; Previously recorded isolate P-15-016844 is combined with this site
P-15-022396 (CA-KER-11834H)	Historic	Refuse scatter and dug out pits
P-15-022398 (CA-KER-11836)	Prehistoric	Lithic scatter
P-15-022399 (CA-KER-11837H)	Historic	Refuse scatter
P-15-022400 (CA-KER-11838H)	Historic	Foundations, refuse scatter, former housing type community
P-15-022401 (CA-KER-11839)	Prehistoric	Lithic scatter
P-15-022402 (CA-KER-11840/H)	Multicomponent	Prehistoric Isolate: rhyolite flake; Historic Refuse Scatter
P-15-022403 (CA-KER-11841/H)	Multicomponent	Prehistoric rhyolite lithic scatter; Historic Refuse scatter
P-15-022404 (CA-KER-11842H)	Historic	Refuse scatter
P-15-022405 (CA-KER-11843H)	Historic	Refuse scatter
P-15-022407 (CA-KER-11845H)	Historic	Refuse scatter in drainage
P-15-022408 (CA-KER-11846)	Prehistoric	Lithic scatter
P-15-022409 (CA-KER-11847)	Prehistoric	Lithic and tool scatter
P-15-022410 (CA-KER-11848)	Prehistoric	Lithic scatter
P-15-022411 (CA-KER-11849H)	Historic	Wooden corral debris
P-15-022412 (CA-KER-11850H)	Historic	Glass scatter

Primary/Trinomial Number	Resource Time Period*	Description
P-15-022324 (CA-KER-11852H	Historic	Refuse scatter
P-15-022325 (CA-KER-11763/H)	Multicomponent	Prehistoric isolate: rhyolite flake; Historic Refuse Scatter
P-15-022326 (CA-KER-11764H)	Historic	Refuse scatter
P-15-022327 (CA-KER-11765H)	Historic	Refuse scatter
P-15-022329 (CA-KER-11767H)	Historic	Refuse scatter
P-15-022330 (CA-KER-11768H)	Historic	Refuse scatter
P-15-022331 (CA-KER-11769H)	Historic	Refuse scatter
P-15-022332 (CA-KER-11770H)	Historic	Refuse scatter
P-15-022333 (CA-KER-11771H)	Historic	Refuse scatter, and potential mine claim
P-15-022334 (CA-KER-11772H)	Historic	Refuse scatter
P-15-022335 (CA-KER-11773H)	Historic	Refuse scatter
P-15-022337 (CA-KER-11775H)	Historic	Refuse scatter, and a rock cairn mining claim
P-15-022338 (CA-KER-11776H)	Historic	Refuse scatter
P-15-022339 (CA-KER-11777H)	Historic	Refuse scatter and a rock cairn mine claim
P-15-022340 (CA-KER-11778H)	Historic	Refuse scatter
P-15-022341 (CA-KER-11779H)	Historic	Refuse scatter, GLO marker, and circle of rhyolite rocks
P-15-022342 (CA-KER-11780H)	Historic	Refuse scatter
P-15-022343 (CA-KER-11781H)	Historic	Refuse scatter
P-15-022344 (CA-KER-11782H)	Historic	Refuse scatter
P-15-022345 (CA-KER-11783H)	Historic	Refuse scatter
P-15-022346 (CA-KER-11784H)	Historic	Refuse scatter
P-15-022347 (CA-KER-11785H)	Historic	Refuse scatter
P-15-022348 (CA-KER-11786H)	Historic	Refuse scatter
P-15-022349 (CA-KER-11787H)	Historic	Refuse scatter
P-15-022350 (CA-KER-11788H)	Historic	Refuse scatter
P-15-022351 (CA-KER-11789H)	Historic	Refuse scatter
P-15-022352 (CA-KER-11790H)	Historic	Refuse scatter
P-15-022353 (CA-KER-11791H)	Historic	Refuse scatter, rock rings (possible cairn)
P-15-022354 (CA-KER-11792H)	Historic	Refuse scatter
P-15-022356 (CA-KER-11794H)	Historic	Refuse scatter
P-15-022357 (CA-KER-11795H)	Historic	Refuse scatter, homestead
P-15-022358 (CA-KER-11796H)	Prehistoric	Bedrock milling slick

*Multicomponent resources include both prehistoric and historic time periods

Table 3. Previously recorded Built Environment Resources within the Study Area

Primary/Trinomial Number	Resource Time Period	Description
P-15-003549 (CA-KER-3537)	Historic	Oak Creek Road (paved)
P-15-003549 (CA-KER-3549)	Historic	The Los Angeles Aqueduct
P-15-013928	Historic	Unnamed dirt road
P-15-013929	Historic	Unnamed dirt road
P-15-016251 (CA-KER-8984)	Historic	Unnamed dirt road

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Acronyms and Abbreviations

AB	Assembly Bill
AD	Anno Domini
amsl	above mean sea level
Applicant	Discover Solar PV and Storage, LLC
BESS	battery energy storage system
BP	before present
CCS	cryptocrystalline silicate
CRHR	California Register of Historical Resources
CVF	Coso Volcanic Field
DPR	California Department of Parks and Recreation
FS	field specimen
GBCB	Great Basin Concave Base
GBS	Great Basin Stemmed
gen-tie	generation tie line
GLO	General Land Office
GPS	Global Positioning System
kV	kilovolt
LADWP	Los Angeles Department of Water and Power
MCA	Medieval Climatic Anomaly
mm	millimeter
MW	megawatt
NAHC	Native American Heritage Commission
NRHP	National Register of Historic Places
NUA	Northern Uto Aztecan
O&M	operations and maintenance
PRC	Public Resources Code
Project	Discover Solar PV and Storage Project
PV	photovoltaic
RPA	Registered Professional Archaeologist
SCE	Southern California Edison
SHPO	State Historic Preservation Office

SLF	Sacred Lands File
SOI	Secretary of the Interior
SR	State Route
SSJVIC	Southern San Joaquin Valley Information Center
UPRR	Union Pacific Railroad
USGS	U.S. Geological Survey
UTM	Universal Transverse Mercator

1.0 INTRODUCTION

Tetra Tech, Inc., was retained by Discovery Solar PV and Storage, LLC (Applicant) to conduct a Phase I cultural resource investigation for the proposed Discovery Solar PV and Storage Project (Project). This document presents the methodology, results, and recommendations from the cultural resource investigation conducted for this Project in 2022, 2023 and 2024. This study was conducted to assist in compliance with the California Environmental Quality Act (CEQA), Section 21084.1.

1.1 Project Description and Location

The Project includes development of a photovoltaic (PV) solar facility and associated infrastructure necessary to generate up to 1,400 megawatts (MW) of renewable electrical energy with up to 8 gigawatt-hours of energy storage capacity (approximately 1,000 MW) on an approximately 7,700-acre Project site, , some of which includes zone changes only and would not be disturbed, in an unincorporated area of southeastern Kern County, California (Figure 1-1). PV solar panels, a power collection system, including medium-voltage lines that connect the solar facilities, inverters, a switchyard, foundations, and transformers will be installed onsite. Associated Project infrastructure includes an operations and maintenance facility, telecommunication facilities, energy storage system(s),up to three onsite collector substations, interconnection and transmission systems, and temporary laydown yards.

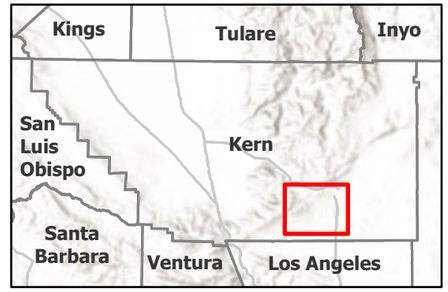
The Project will interconnect to the existing Windhub Substation, which is owned and operated by Southern California Edison (SCE). The interconnect will be via a newly constructed 230-kilovolt (kV) generation tie line (gen-tie) that will extend north from the Project site towards the Windhub Substation from an on-site collector substation. A portion of the Project 230-kV gen-tie would be co-located within an existing gen-tie corridor (controlled by the Applicant and/or its affiliates). A high-voltage switch yard located immediately north of the Union Pacific Railroad (UPRR) rail line will also be constructed.

The Project is located in an unincorporated area in southeastern Kern County, on generally undeveloped and privately owned land, along the northern edge of the Antelope Valley. The Project site is located approximately 6 miles southwest of the unincorporated community of Mojave, approximately 9 miles southeast of the City of Tehachapi, and approximately 8 miles northwest of the unincorporated community of Rosamond. State Route (SR)-58 is north of the Project site, SR-14 is east of the Project site, and Tehachapi Willow-Springs Road runs between the Project site's boundaries (Figure 1-1). A network of existing named and unnamed dirt roads traverse the Project site. A network of existing named and unnamed dirt roads traverses the Project site. While the Los Angeles Department of Water and Power (LADWP) aqueduct roughly bisects the Project site, it is not included within the Project site (Figures 1-2 and 1-3). On-site, adjacent, and nearby uses include renewable energy development, rural residential development, livestock grazing, heavy industrial and mining uses, and undeveloped lands. Elevations across the Project site are relatively flat, ranging from approximately 2,970 to 3,760 feet above mean sea level. The Project site is located within the U.S. Geological Survey (USGS) *Monolith, Willow Springs,* and *Soledad Mountain* 7.5-Minute Topographic Quadrangle Maps (See Section 1.1.1 for detailed location coordinates).

Discovery Solar PV and Storage Project

Kern County, CA

Figure 1-1. Regional Overview



- Windhub High-voltage Substation (Existing)
- Watercourse

Proposed Project Features

- Project Site
- Study Area
- Gen-tie Line (New)
- Medium-voltage/Transmission/Access Easements

Other Applicant and/or Affiliate Controlled*

- Step-up HV substation
- Gen-tie Corridor

*Already approved under separate projects.

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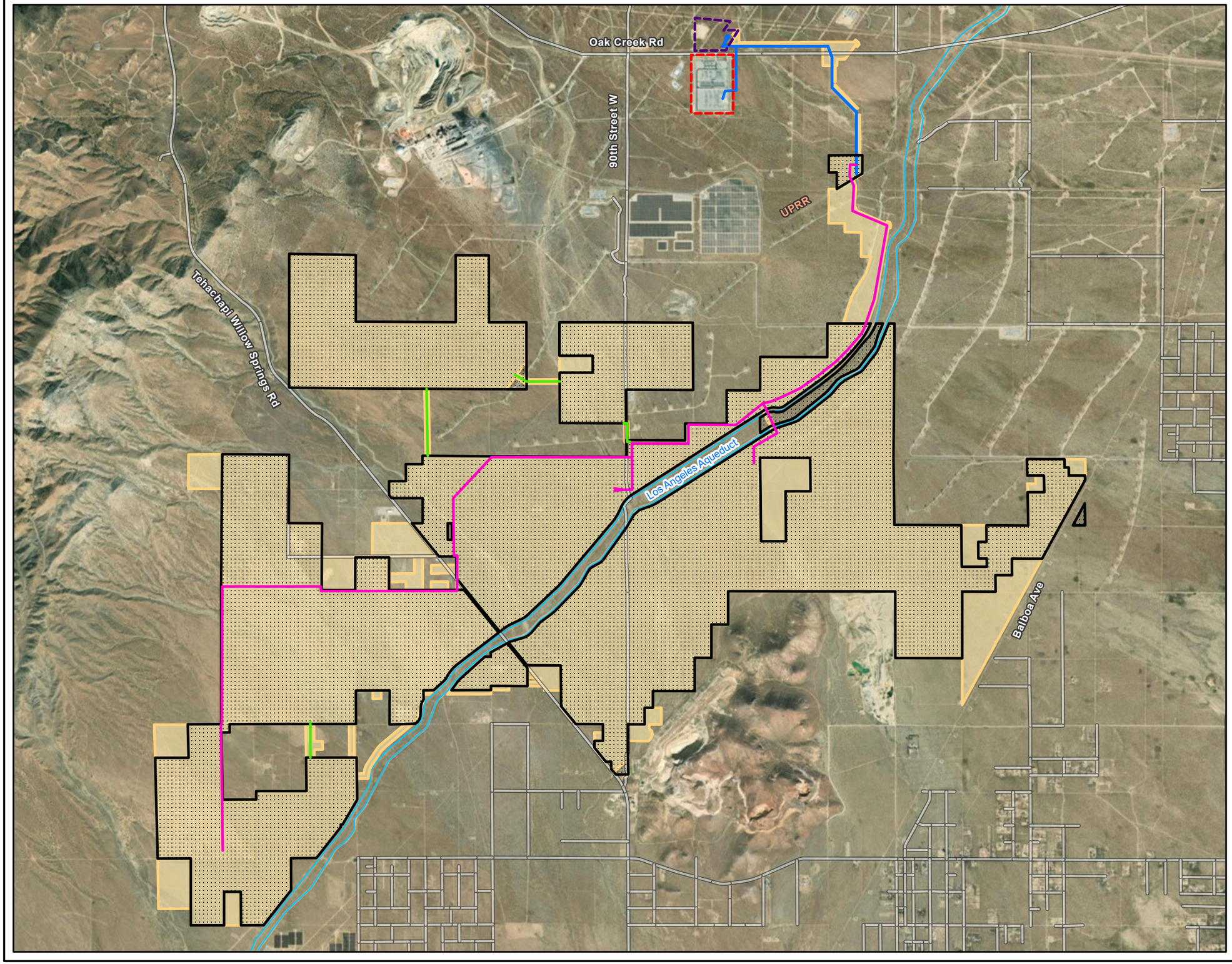
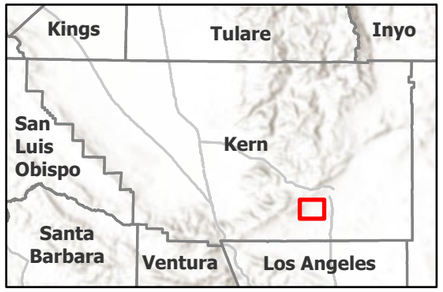
Discovery Solar PV and Storage Project

Kern County, CA

Figure 1-2. Project Location





Windhub High-voltage Substation (Existing)

Roads

Watercourse

Proposed Project Features

Project Site

Study Area

Gen-tie Line (New)

Medium-voltage/Transmission/Access Easements

Other Applicant and/or Affiliate Controlled*

Step-up HV substation

Gen-tie Corridor

*Already approved under separate projects.

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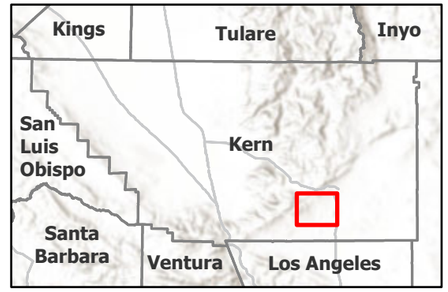
Discovery Solar PV and Storage Project

Kern County, CA

Figure 1-3. USGS Topographic Map



Windhub High-voltage Substation (Existing)

Proposed Project Features

- Project Site
- Study Area
- Gen-tie Line (New)
- Medium-voltage/Transmission/Access Easements

Other Applicant and/or Affiliate Controlled*

- Step-up HV substation
- Gen-tie Corridor

*Already approved under separate projects.

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1.1.1 Project Terminology

Project site: approximately 7,700 acres; specific location information is listed in Table 1-1.

Table 1-1. Project Site Public Land Survey System Location Information

7.5' Quadrangle	Township (T), Range (R), Sections
Monolith	T11N R14W S25, 26, 35, 36; T11N R13W S21, 31-33
Willow Springs	T11N R13W S31-33; T10N R14W S1, 2, 11, 12, 14, 15, 22, 23; T10N R13W S3-8, 10, 18
Soledad Mountain	T10N R13W S2, 3, 10

Study Area: consisting of approximately 8,540 acres, it is the area in which the cultural resources assessment was conducted for the Project (see Table 1-2). Although the Project site is 7,700 acres, a Study Area of 8,540 acres was surveyed. This larger Study Area captured additional area that was ultimately removed from the Project.

Table 1-2. Study Area Public Land Survey System Location Information

7.5' Quadrangle	Township (T), Range (R), Sections
Monolith	T11N R14W S25, 26, 35, 36; T11N R13W S16, 17, 21, 28, 31-33
Willow Springs	T11N R14W S36; T11N R13W S31-33; T10N R14W S1-3, 11-15, 22, 23; T10N R13W S3-8, 10, 17, 18
Soledad Mountain	T10N R13W S2, 3, 10

1.2 Regulatory Compliance

The Project requires compliance with CEQA and is not anticipated to require compliance with the National Environmental Policy Act. The following state and local laws and regulations are expected to apply to this Project.

1.2.1 State

CEQA (Section 21084.1) requires a lead agency to determine whether a project could have a substantial adverse change in the significance of a historical resource or tribal cultural resources (see Public Resources Code [PRC] Section 21074 [a][1][A]-[B] regarding tribal resources).

Under CEQA (Section 15064.5 (a)), an historic resource (e.g., building, structure, or archaeological resource) shall include a resource that is listed in, or determined to be eligible for listing in, the California Register of Historical Resources (CRHR), or a resource listed in a local register or landmark, identified as significant in a historical resource survey (meeting the requirements of Section 5024.1(g) of the PRC), or any object, building, structure, site, area, place, record, or manuscript that 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 (Section 15064.5[a][3]). Under the California Code of Regulations, Title 14, Chapter 11.5, properties listed on or formally determined to be eligible for listing in the National Register of Historic Places (NRHP) are automatically eligible for listing in the CRHR. A resource is generally considered to be

historically significant under CEQA if it meets the following criteria for listing in the CRHR (PRC SS5024.1, Title 14, Code of Regulations, Section 4852):

> *A. Associated with events that have made a significant contribution to the broad patterns of local or regional history or the cultural heritage of California or the United States (Criterion 1).*
>
> *B. Associated with the lives of persons important to local, California or national history (Criterion 2).*
>
> *C. Embodies the distinctive characteristics of a type, period, region or method of construction or represents the work of a master or possesses high artistic values (Criterion 3).*
>
> *D. Has yielded, or has the potential to yield, information important to the prehistory or history of the local area, California or the nation (Criterion 4).*

Under PRC Section 21074, (a) tribal cultural resources are:

> *(1) Sites, features, places, cultural landscapes, sacred places, and objects with cultural value to a California Native American Tribe that are either of the following:*
>
> > *(A) Included or determined to be eligible for the inclusion in the CRHR, or;*
> >
> > *(B) Included in a local register of historical resources as defined by subdivision (k) of Section 5020.1 (designated or recognized historically significant by a local government pursuant to local ordinances or resolution).*
>
> *(2) A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Section 5024.1. In applying the criteria set forth in subdivision (c) of Section 5024.1 for the purposes of this paragraph, the lead agency shall consider the significance of the resource to a California Native American tribe.*
>
> > *(b) A cultural landscape that meets the criteria of subdivision (a) is a tribal cultural resource to the extent that the landscape is geographically defined in terms of the size and scope of the landscape.*
> >
> > *(c) A historical resource described in Section 21084.1, a unique archaeological resource as defined in subdivision (g) of Section 21083.2, or a "nonunique archaeological resource" as defined in subdivision (h) of Section 21083.2 may also be a tribal cultural resource if it conforms with the criteria of subdivision (a).*

1.2.1.1 California Health and Safety Code, Section 7050.5

Section 7050.5 (a) states that it is a misdemeanor (except as provided in Section 5097.99, see below) to knowingly mutilate or disinter, wantonly disturb, or willfully remove any human remains in or from any location other than a dedicated cemetery without the authority of law. The provisions of this subdivision shall not apply to any person carrying out an agreement developed pursuant to subdivision (l) of Section 5097.94 of the PRC or to any person authorized to implement Section 5097.98 of the PRC. Section 7050.5 (b) requires that construction or excavation be stopped in the vicinity of discovered human remains until the coroner can determine whether the remains are

subject to the coroner's authority. If the coroner determines the remains are not subject to their authority and recognizes the remains to be Native American (7050.5 (c)), the coroner must contact the California Native American Heritage Commission (NAHC) within 24 hours.

1.2.1.2 Public Resource Code, Section 5097

Provisions under the PRC, Section 5097, provides for the protection of archaeological and paleontological resources and human remains and identifies penalties for violation to such resources, and defines the procedures of the NAHC if a coroner determines human remains are Native American (pursuant to 7050.5 (c)):

Section 5097.5 of the PRC states:

> *(a) A person shall not knowingly and willfully excavate upon, or remove, destroy, injure, or deface, any historic or prehistoric ruins, burial grounds, archaeological or vertebrate paleontological site, including fossilized footprints, inscriptions made by human agency, rock art, or any other archaeological, paleontological or historical feature, situated on public lands, except with the express permission of the public agency having jurisdiction over the lands.*
>
> *(b) As used in this section, "public lands" means lands owned by, or under the jurisdiction of, the state, or any city, county, district, authority, or public corporation, or any agency thereof.*
>
> *(c) (c) A violation of this section is a misdemeanor, punishable by a fine not exceeding ten thousand dollars ($10,000), or by imprisonment in a county jail not to exceed one year, or by both that fine and imprisonment. .*

Section 5097.94 of the PRC provides the power and duties of the NAHC in regard to Native American human remains and any associated items and treatment of the remains. Section 5097.98 of the Code identifies the notification procedures and actions the NAHC shall conduct whenever the NAHC receives notification of a discovery of Native American human remains pursuant to 7050.5(c).

Section 5097.99 of the PRC states that unlawful possession, removal, destruction, or intent to sell Native American artifacts or human remains taken from a Native American grave or cairn, is a felony crime punishable by imprisonment in a state prison.

1.2.1.3 Assembly Bill 52

Under CEQA, Assembly Bill 52 (Section 5, 21080.3.1) requires a lead agency to consult with any California Native American Tribe that is traditionally and culturally affiliated with the geographic area of the proposed project if:

1. A Native American Tribe requested to the lead agency, in writing, to be informed by the lead agency through formal notification of proposed projects in the geographic area that is traditionally and culturally affiliated with the Tribe; and
2. The California Native American Tribe responds, in writing, within 30 days of receipt of the formal notification, and requests the consultation.

Consultations may include a brief description of the proposed project and its location, the lead agency contact information, discussing the type of environmental review necessary, the significance of tribal cultural resources, and the significance of the project's impacts on the tribal cultural resources, and alternatives and mitigation measures recommended by the tribe. The California legislature acknowledges that Tribes, traditionally and culturally affiliated with a geographic area, may have traditional ecological knowledge and expertise of tribal cultural resources within a project area, as well as proposing and determining the adequacy of mitigation measures to avoid or substantially lessen potential significant impacts to a tribal cultural resource (CEQA Statute Section 21080.3.1 and 2). Consultation, if requested, must take place prior to the release of a negative declaration, mitigated negative declaration, or environmental impact report for a project.

Confidentiality: Section 210823.3(c)(1) states: (1) Any information, including, but not limited to, the location, description, and use of the tribal cultural resources, that is submitted by a California Native American Tribe during the environmental review process shall not be included in the environmental document or otherwise disclosed by the lead agency or any other public agency to the public, consistent with subdivision (r) of Section 6254 of, and Section 6254.10 of, the Government Code, and subdivision (d) of Section 15120 of Title 14 of the California Code of Regulations, without the prior consent of the Tribe that provided the information.

1.2.2 Local

1.2.2.1 Kern County General Plan

The Kern County General Plan (Kern County Planning Department 2009) applies CEQA Guidelines for resource significance and cultural resources management in the County. The County's General Plan, Section 1.10.3 Archaeological, Paleontological, Cultural, and Historical Preservation, provides the following polices:

25: The County will promote the preservation of cultural and historic resources which provide ties with the past and constitute a heritage value to residents and visitors.

J. Coordinate with the California State University, Bakersfield's Archaeology Inventory Center.

K. The County shall address archaeological and historical resources for discretionary projects in accordance with the California Environmental Quality Act (CEQA).

L. In areas of known paleontological resources, the County should address the preservation of these resources where feasible.

M. The County shall develop a list of Native American organizations and individuals who desire to be notified of proposed discretionary projects. This notification will be accomplished through the established procedures for discretionary projects and CEQA documents.

N. On a project specific basis, the County Planning Department shall evaluate the necessity for the involvement of a qualified Native American monitor for grading or other construction activities on discretionary projects that are subject to a CEQA document.

O. On a project specific basis, the County Planning Department shall evaluate the Necessity for the involvement of a qualified Native American monitor or grading or other construction activities on discretionary projects that are subject to a CEQA document.

1.3 Methods

This section describes the methods of the cultural resource Phase I study conducted for the Project. This study was completed by Tetra Tech on behalf of the Applicant to determine the presence or absence of cultural resources within the Study Area. This study was conducted to assist in compliance with CEQA, Section 21084.1. The field survey and report were conducted and prepared in accordance with the guidelines of the Society of California Archaeology's *Archaeological Fieldwork and Reporting Guidelines for Cultural Resources* (Society of California Archaeology 2020) and the California State Historic Preservation Office's (SHPO) *Archaeological Resources Management Reports (ARMR): Recommended Contents and Format* (OHP 1990) and the *Guidelines for Archaeological Research Design* (OHP 1991). This study was conducted by and overseen by Tetra Tech staff who meet the Secretary of Interior (SOI) Professional Qualifications Standards for Archaeology and Architectural History.

This study included a record and literature search, California NAHC Sacred Lands File (SLF) search, a pedestrian field survey, and reporting.

1.3.1 Record Search and Literature Review Methods

Tetra Tech conducted a cultural resource record search through the California Historical Resources Information Center via the Southern San Joaquin Valley Information Center (SSJVIC), Division of Anthropology, California State University, Bakersfield. The records search included the Study Area and a 0.5-mile buffer extending beyond the Study Area boundary. As part of this records search, the SSJVIC database of survey reports and overviews was consulted. The following publications and lists were reviewed: Built Environment Resources Directory, Listed California Historical Resources, and California Historical Landmarks. In addition, available literature (e.g., ethnographies, scholarly articles, data reports, etc.), historic maps (e.g., topographic, General Land Office [GLO] plats), historic aerial imagery, and local resource inventories were reviewed. As part of the record Search, the NAHC was contacted for a SLF review. In addition, the environmental and cultural context was prepared based on the records review and available archival and current data sources.

1.3.2 Pedestrian Field Survey Methods

Tetra Tech conducted a "non-collection" Phase I archaeological pedestrian survey of the Project Site and Study Area. Field surveys were conducted by teams of archaeologists (crew size ranged from 2 to 10 archaeologists) during five separate field sessions: October 10, 2022 through November 10, 2022, with a crew of 10; April 23, 2023 through May 12, 2023, with a crew of 9; May 17 and 18, 2023, with a crew of 3; November 12 through 18, 2023, with a crew of 5; and April 22 through April 27, 2024, with a crew of 2. Archaeological Field staff included Jenna Farrell, MA, RPA (Principal Investigator); Sydni Kitchel, MA, RPA (Field Director); Jessica DeMaso, MA (Crew Chief); Astrid Molina, BA (Crew Chief/Archaeological Technician); Matt Kinsey, BA (Crew Chief); and Archaeological Technicians Cris Crump, BA; Greg Vasquez, BA; Karen Carrillo, BA; Olivia Calos, BA; Rachel Channel, BA; Ryan Donnelly,

BA; Noah Pham, BA; Marlene Saucedo, BA; and Pedro Sanchez Garica, BA. The Historian/Architectural Historian for the historic context and architectural review was Julia Mates, MA.

The field team walked and observed the ground in a line at 15-meter intervals (i.e., transects), working under the direction and guidance of the Field Director who meets the Secretary of the Interior qualifications for an Archaeologist, and under the direction of Principal Investigators who meets Secretary of the Interior qualifications for an Archaeologist and Architectural Historian.

Survey control was maintained by using USGS maps and aerial imagery field maps and Global Positioning System (GPS) FieldMaps app on iPad tablets (with sub-meter accuracy) with the plotted coordinates of the Project Site, Study Area, and previously recorded cultural resources. Digital photographs were taken of the areas surveyed, and field conditions and natural and modern features of notable interest were documented during the field investigation.

All cultural resources were recorded under the guidelines in the SHPO's Instructions for Recording Historical Resources (OHP 1995). Per SHPO guidelines, resources 45 years in age or older were recorded.

Sites were defined as resources consisting of three or more prehistoric artifacts (e.g., lithic flakes, groundstone) or 10 or more historic artifacts (e.g., cans, glass, ceramics) likely to have been generated by a patterned cultural activity within a surface area reasonable to that activity (generally 30 meters).

Single or multiple features without associated artifacts also were recorded as sites.

Isolated finds were defined as fewer than three prehistoric artifacts or fewer than 10 historic artifacts.

When a newly observed site or isolate was located, crew members walked concentric and/or closely paced linear transects to determine the presence of any additional surface artifacts. Locations of artifacts or features were marked with pin flags to aid in determining the surface extent of artifact distribution and the possible identification of sites and to aid in mapping them. The pin flags were removed once the recordation was completed.

Newly identified cultural resources were documented to state standards on the appropriate California Department of Parks and Recreation (DPR) 523 Form. The resources were photographed using digital cameras. All locational data were recorded using GPS receivers in Universal Transverse Mercator coordinated referenced to the 1983 North American Datum.

Each newly identified site and isolated find was given a unique temporary identification number in the format of EDS-Recorder Initials-## for sites and EDS-Recorder Initials-ISO-## for isolated finds. The temporary identification numbers were differentiated based upon each field survey event. A digital site datum was established at the approximate center of each newly identified site using a GPS unit. All observed artifacts, features, and any geographical points of reference, such as drainages or roads, were recorded using the GPS unit. Unique and diagnostic artifacts and tools, such as bifaces, cores, groundstone, and historic artifacts with marker's marks or other chronological indicators were assigned a field specimen (FS) number, mapped, photographed, described, and measured. All features were given a feature number and mapped, photographed, described, and measured. Isolated find locations were recorded as discrete points in the field. No subsurface excavation or probing occurred. Historic-era resources including opened food and beverage tins or cans were observed. The

field team was able to identify the tools or methods used to open many of these cans and tins, but not all of them (e.g., due to deteriorated condition, fragmentation); if the tool or method is known and is relevant to dating the site, it is discussed in-text in Chapter 6.

Previously recorded archaeological sites were checked for locational accuracy and updated to reflect any new observations, as applicable. Methodology included identifying the SSJVIC previously documented site boundary (via GPS/tablet), and then conducting parallel transects at 1 to 2 meters apart within the interior and exterior (to 30 meters) of the site boundary. The field team then compared the previous DPR 523 form recordation of the site to the current conditions, recorded any consistent or new observances, and took photographs.

The Crew Chief and Field Director prepared daily field notes, documenting beginning and ending of survey locations, crew members, environmental conditions, findings, and any issues concerning survey access or health and safety. Post-field data management included quality assurance and control review of field forms and GPS data for accuracy and consistency.

After review of field forms, recorded site and isolate data (previously recorded and newly observed) were transferred to an electronic version of the DPR 523 Site Form(s), as appropriate. Completed DPR 523 forms for newly recorded sites and isolates were submitted to the SSJVIC to obtain state resource numbers. The newly assigned Primary and Trinomial numbers provided by the SSJVIC are reflected in this report.

1.3.3 Reporting Methods

This report was prepared under the guidelines of the Society of California's *Archaeological Fieldwork and Reporting Guidelines for Cultural Resources* (Society of California Archaeology 2020) and the SHPO's *Archaeological Resources Management Reports (ARMR): Recommended Contents and Format* (OHP 1990). The report follows the following format: Chapter 1 is the introduction; Chapter 2 contains the environmental setting, Chapter 3 provides the record search results, Chapter 4 is the cultural context, Chapter 5 contains the research design, Chapter 6 includes the field survey results, Chapter 7 is the California Register of Historical Resources eligibility recommendations, Chapter 8 is the management recommendations, and Chapter 9 includes the references.

2.0 ENVIRONMENTAL SETTING

2.1 Physiographic Region

The Study Area is situated in the northwestern Antelope Valley, within the southwestern Mojave Desert. The Antelope Valley is a large, triangularly shaped closed basin formed between the Tehachapi Mountains (north) and San Gabriel Mountains (south). The Antelope Valley is defined in the north by the northeast-trending Garlock Fault zone of the Tehachapi Mountains, and the southwestern portion is defined by the southeast-trending San Andreas Fault zone (Dribble 1963a). These faults have formed the wedge-shaped valley landscape through uplift, subsidence, and lateral movement (Ponti 1985). To the east, the valley expands to the greater Mojave Desert that is characterized by interior-draining basins separated by mountain ranges. Valley landforms such as piedmonts, stable bajadas on slopes, and alluvial fans are composed of alluvial materials eroded from the surrounding mountains (Whitford 2002). Alluvial geomorphic deposits vary across fans and bajadas, and soils tend to be coarse along the higher gradient, providing a more mesic environment compared to lower slopes and plains (Whitford 2002). At higher and cooler elevations, tall Joshua trees (*Yucca brevifolia*) are intermixed with creosote bush (*Larrea tridentate*) and other shrubs (Quinn 2009; Billings 1951). The Middle Buttes, Rosamond Hills, Tropico Hill, and Soledad Mountain are low-lying isolated buttes that mark the valley alluvial plain and are classified in the Tropico Group rocks (Dribble 1963a; Dribble 1967). The diverse rock composition of the Tropico Group is composed of crystalline (particularly quartz monzonite), pyroclastic sedimentary, and volcanic (such as rhyolite and basalt) formations predating the Tertiary age (Dribble 1963a; Dribble 1967). The Middle Butte is south (adjacent) of the southeastern portion of the Study Area. Materials such as rhyolite, cryptocrystalline silicate (CCS), and basalt were utilized by pre-contact and ethnohistoric aboriginal people of the Antelope Valley. The prehistoric resources identified during this Phase I study consist of lithic flake and tools scatters primarily composed of rhyolite and CCS. The buttes (e.g., Middle Butte) in Antelope Valley have been historically mined for various minerals such as gold, silver, silica, limestone, magnesite, sand and gravel, stone (Wilkerson 2020).

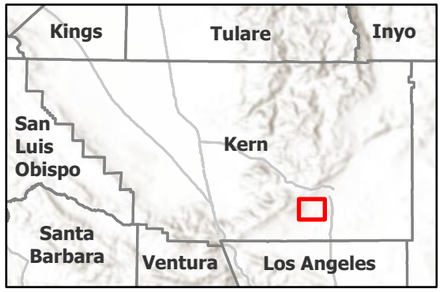
The lowest-lying areas in the Antelope Valley are playas, which are composed primarily of fine clays and silts. The flat playas collect water in the winter with ample rainfall (becoming small wetlands) and dry out in summer. Desert playas are often void of vegetation but may host halophytic plants such as saltbush (*Atriplex spinifera*) that are adapted to saline and alkaline soils. The Rosamond and Rogers Dry Lakes (playas) are approximately 10 to 15 miles southeast of the Project site.

Specifically, the Study Area is situated on a gently sloping alluvial plain of the Tehachapi Mountains that trends southeastward and is characterized by numerous unnamed northwest- to southeast-trending braided ephemeral dry channels. Oak Creek, a seasonal or periodic drainage, traverses the central portion of the Study Area. A small section of the westernmost part of the Study Area lies on the upland terraces and alluvial fans of the Tehachapi Mountains, composed of older Quaternary alluvial sediments (Qoa) containing boulders, cobbles, gravel, and sand (Dribble 1963b). The northern and eastern sectors of the Study Area lie within the alluvial plain that consists of younger (Holocene) alluvium (Qa) composed of boulders, cobbles, gravels, sand, and silts (Dribble 1963b; Duell 1987). See Figure 2-1 for an overview of the Study Area geology. The Study Area consists of several soil series, primarily of Romona coarse sandy loam, Cajon loamy sand, Cajon gravely loamy sand, and to a lesser extent, Adelanto loam sand. See Figure 2-2 for a map of soil types.

Discovery Solar PV and Storage Project

Kern County, CA

Figure 2-1. Geology in Study Area



Windhub High-voltage Substation (Existing)

Proposed Project Features

Study Area

Other Applicant and/or Affiliate Controlled*

Step-up HV substation

Gen-tie Corridor

Geology

- grMZ3: Mesozoic granitic rocks, unit 3 (Sierra Nevada, Death Valley area, Northern Mojave Desert and Transverse Ranges)
- ls: Limestone of probable Paleozoic or Mesozoic age
- PZ1: Paleozoic marine rocks, undivided, unit 1 (Mojave Desert and Death Valley area)
- Qa: Quaternary (Holocene) alluvium and marine deposits
- Qoa: Older Quaternary alluvium and marine deposits
- Qs2: Quaternary sand deposits, unit 2 (inland)
- Ti7: Tertiary intrusive rocks (hypabyssal), unit 7 (Northern Mojave Desert)
- Tv16: Tertiary volcanic flow rocks, unit 16 (Northern Mojave Desert)

USGS 7.5' Quads: Monolith (1976), Willow Springs (1977), Soledad Mountain (1977)

*Already approved under separate projects.

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Scale is 1:48,000 when printed at 11"x17"

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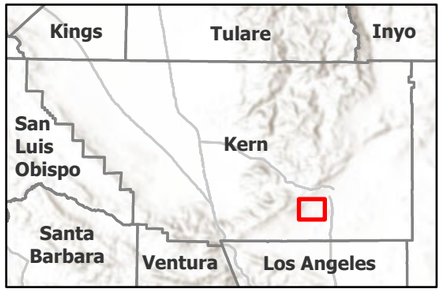
Discovery Solar PV and Storage Project

Kern County, CA

Figure 2-2. Soils in Study Area



Windhub High-voltage Substation (Existing)

Proposed Project Features

Study Area

Other Applicant and/or Affiliate Controlled*

Step-up HV substation

Gen-tie Corridor

Soil Unit

- 104: Arizo gravelly loamy sand, 2 to 9 percent slopes
- 114: Cajon loamy sand, 0 to 5 percent slopes
- 116: Cajon gravelly loamy sand, 0 to 9 percent slopes
- 137: Garlock loamy sand, 2 to 9 percent slopes
- 167: Randsburg sandy loam, 2 to 15 percent slopes
- 171: Rosamond clay loam
- 185: Torriorthents-Rock outcrop complex, very steep
- AaB: Adelanto loamy sand, 2 to 5 percent slopes
- CaC: Cajon loamy sand, 2 to 9 percent slopes
- GsC: Greenfield sandy loam, 2 to 9 percent slopes
- HbC: Hanford coarse sandy loam, 2 to 9 percent slopes
- RcC: Ramona coarse sandy loam, 5 to 9 percent slopes
- RdE2: Ramona sandy loam, 9 to 30 percent slopes, eroded

USGS 7.5' Quads: Monolith (1976), Willow Springs (1977), Soledad Mountain (1977)

*Already approved under separate projects.

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2.2 Paleoenvironment

Diverse types of environmental proxy records for a region or localized area can provide information about past climatic fluctuations and be used to reconstruct past distribution of species, biodiversity, hydrology, and vegetation zones. Environmental proxy data such as pollen, insects, and isotopic data from lake sediments, ice core and tree ring data, mammal middens with associated macrofossil and microfossil pollen remains, faunal studies, and geomorphological studies, are used to reconstruct regional paleoenvironments (such as Antevs 1948; Aschmann 1958; Stine 1994; Koehler et al. 2004; and others).

The chronological climatic sequence for North America, developed in 1948 by Antevs, is generally used to define climatic periods for the Mojave Desert (Sutton et al. 2007:230). The schematic suggests that during the Late Pleistocene/Early Holocene (18,000 to 8,000 years before present [BP]), the Mojave Desert experienced cool and wet conditions. The Middle Holocene (8,000 to 5,000 years BP) was a period of relatively warmer and drier climate than today. The Late Holocene (5,000 years BP to AD 1850s) is characterized by alternating periods of cooler and wetter conditions, and warmer and drier conditions (Antevs 1948; Sutton et al. 2007).

In the middle to late Quaternary, the now-dry playas of the Mojave Desert were once part of a pluvial lake system that was hydraulically connected (Bacon et al. 2005). In the Antelope Valley, Lake Thompson spanned over 950 square kilometers (366 square miles) at its greatest extent and reached 710 meters above mean sea level (amsl) during its last highstand (Orme 2004). By the late Pleistocene and Holocene, highstand lake levels began to decrease and fluctuate until eventually lake levels became shallow and alkaline by the latest Holocene (Bacon et al. 2005). Remnants of the former Lake Thompson of the Antelope Valley include Rogers Dry Lake in the east and Rosamond Dry Lake to the west, and between them Buckhorn Dry Lake and several smaller unnamed playas (See insert of Lake Thompson and relict dry lakes in Figure 2-3).

During the Middle Holocene, the Mojave Desert began to warm and transitioned toward the flora and fauna that are characteristic of the contemporary desert ecosystems. Packrat (Neotoma) midden studies by Koehler and others (2004) suggest creosote bush did not arrive in the Mojave Desert until around the Middle Holocene, approximately 6,900 to 6,000 years ago.

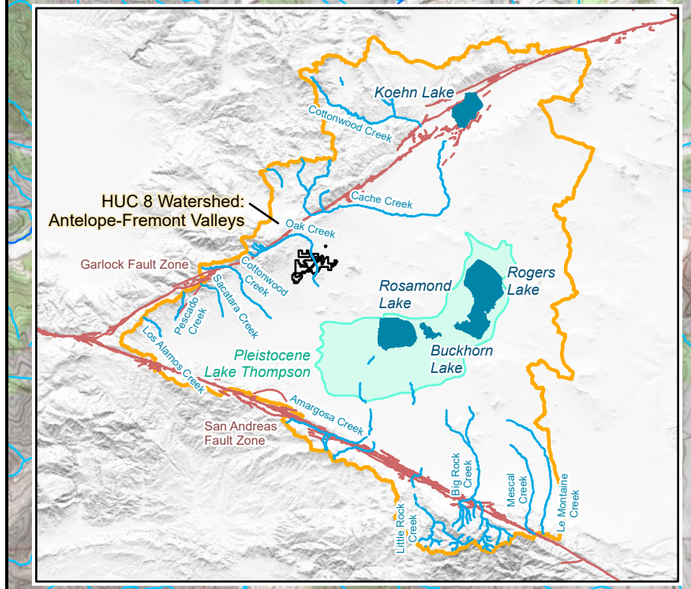
During the Late Holocene, the Mojave Desert exhibited climate variability marked by fluctuations in temperatures and precipitation. Much of the current vegetation in the Mojave Desert arrived during the Late Holocene (Koehler et al. 2004). Climatic variation in the Late Holocene includes two significant episodes of prolonged drought and warmer conditions between 800 and 1350 AD, referred to as the Medieval Climatic Anomaly (MCA) (Jones et al. 1999; Stine 1998), followed by a period of cooler and wetter conditions known as the Little Ice Age from1400 to 1700 AD.

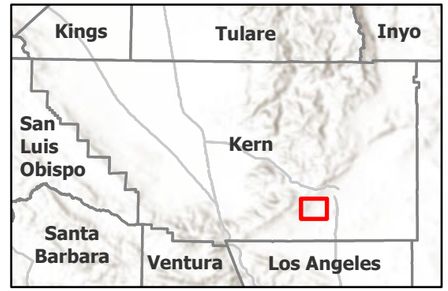
Climatic variations shaped the ecosystem of the Mojave Desert, influencing vegetation patterns, water availability, and the adaptation strategies of both flora and fauna on the Mojave Desert. Past climate change events such as the MCA would undoubtably affect the availability of natural resources exploited by human populations. In the western Mojave Desert, the archaeological record suggests large village sites established around 1 AD began to decline during the MCA and the population decreased (Sutton et al. 2007). Droughts related to the MCA are possibly a trigger for cultural adaptive change, but other cultural mechanisms such as a shift in settlement patterns or new technologies may also play a role (Gardner 2006, Bettinger 2015).

Discovery Solar PV and Storage Project

Kern County, CA

Figure 2-3. Hydrology in Study Area





Windhub High-voltage Substation (Existing)

Proposed Project Features

Study Area

Other Applicant and/or Affiliate Controlled*

Step-up HV substation

Gen-tie Corridor

Hydrology

Aqueduct

Canal/Ditch

Ephemeral Stream

Intermittent Stream

Reservoir

*Already approved under separate projects.

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Scale is 1:48,000 when printed at 11"x17"

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2.3 Contemporary Environment

The Antelope Valley, situated in the western Mojave Desert, is a high desert characterized by its arid and semi-arid climate. The elevation in the valley itself ranges from 692 to 1,067 meters (2,270 to 3,500 feet) above mean sea level (amsl). The adjacent Tehachapi Mountains reach heights of 3,067 and 2,966 meters (10,062 and 9,731 feet) amsl. The Mojave Desert is within the rain shadow of the Sierra Nevada and Transverse Ranges. Rainfall, and occasional snow in the mountain ranges, primarily occurs during the late fall, winter, and early spring months, influenced by cyclonic storms from the Pacific Ocean (Quinn 2009:36; Beatley 1974; Whitford 2002). Annual precipitation in the Antelope Valley ranges between 6 and 9 inches per year (National Weather Service 2024). The summer months are influenced by sub-tropical high-pressure cells (Quinn 2009). Summer monsoons sometimes reach the Antelope Valley with sudden afternoon thunderstorms and intense rainfall. The average temperature in the Antelope Valley varies from highs in the summer months ranging from 90 to over 100 degrees Fahrenheit, while winter temperatures can drop below freezing, with daytime temperatures ranging between 40 to 60 degrees Fahrenheit. The western Mojave Desert often exhibits low humidity and is exposed to seasonal high winds (e.g., Santa Ana winds) that decrease humidity and increases aridity.

2.3.1 Hydrology

The Antelope Valley is a topographically enclosed basin bounded on the northwest by the Garlock fault zone at the base of the Tehachapi Mountains and on the southwest by the San Andreas fault zone at the base of the San Gabriel Mountains (USGS 2024). Discharge into the basin is primarily fed by stormflow runoff from the Tehachapi and San Gabriel Mountains (Figure 2-3). Water that enters the basin infiltrates the groundwater, evaporates, or flows southeastward towards Rosamond, Buckhorn, and Rogers Dry Lakes (USGS 2024). The surface water that does flow into the valley is limited and typically ephemeral, emerging from springs, creeks, and washes primarily during the winter and spring months, or occasionally during summer monsoons storms. Surface water that is discharged into the basin tends to evaporate quickly.

Prior to drainage diversion and the resulting lowering of the water table during the nineteenth and twentieth centuries for irrigation purposes, the Antelope Valley contained numerous creeks, springs, and seeps. The ephemeral Oak Creek and several other unnamed washes cross the Study Area. Willow Springs is approximately 5 miles south and southeast of the Study Area and was a natural water source that was used during the precontact and historic eras (Dribble 1963a; Caltrans 2019). Prehistoric site CA-KER-129, near Willow Springs, is recorded as a habitation site occupied by the Kitanemuk during the late Holocene (Sutton 2016).

2.3.2 Flora and Fauna

The current Mojave Desert ecosystems became established by the late Holocene. Mojave Desert plants have developed physiological adaptions for survival in a windy and arid landscape with saline soils. A variety of desert plant species have adapted to conserve water and limit water loss such as xerophytes (Sowell 2002). Desert plant communities such as the creosote bush scrub typically have a higher concentration of nutrients in the soil, higher water content, and relatively stable understory

temperatures exposure (Whitford 2002). The scrub communities provide habitat and nutrients for reptiles and small animals.

The Mojave Desert is unique, with more than 25 percent of its plant species as endemic, including Joshua tree (Quinn 2009). Vegetation is typically sporadic and dominated at the lower and middle elevations by creosote bush scrub, stout perennial shrubs, and winter annuals; pinyon (*Pinus monophylla*) and California juniper (*Juniperus californica*) woodlands at higher elevations; and Joshua tree woodlands occurring at elevations intermediate between the creosote bush scrub and Juniper woodland. Joshua trees are also present as scattered individuals within the desert creosote and saltbush scrub (Sowell 2002; Quinn 2009). The vegetation types within the Study Area and surrounding area are discussed in the following paragraphs.

Pinyon juniper woodlands include California juniper, pinyon, Spanish dagger (*Yucca whipplei*), Mojave yucca (*Yucca schidigera*), various species of oak (*Quercus* spp.), and desert bunchgrass (*Stipa speciosa*) (Munz 1974). The woodland typically ranges between 5,000 to 8,000 feet amsl (Munz 1974). Although no pinyons or oaks are within the Study Area, California juniper was observed in the northwestern portion of the Study Area along the south-facing alluvial fans of the Tehachapi Mountains between 3,800 to 3,500 feet amsl (west of Tehachapi-Willow Springs Road). Joshua trees typically range between 2,500 and 4,000 feet amsl and were observed throughout the Study Area in small groves to scattered individuals at lower elevations. The creosote bush scrub community is the predominate vegetation type within the Study Area and typically ranges below 3,500 feet amsl.

The Study Area consists of the previously noted vegetation communities and a variety of plant species that were observed during the field study: Joshua tree, California juniper, creosote bush, white bursage (*Ambrosia dumosa*), cholla (*Cylindropun-tia* spp.), Western Mojave buckwheat (*Eriogonum mohavense*), fiddleneck (*Amsinckia tesselata*), beavertail pricklypear cactus (*Opuntia basilaris*), Mormon tea (*Ephedra nevadensis*), rabbitbrush (*Chrysotham-nus* spp.), narrowleaf goldenbush (*Ericameria linearifolia*), Indian rice grass (*Oryzopsis hymenoides*), sagebrush (*Artemisia* spp.), Mojave desert star (*Monoptilon bellioides*), desert bunch grass, brittlebush (*Encelia farinosa*), winterfat (*Krascheninnikovia lanata*), chia (*Salvia columbariae*), Mojave sun cup (*Camissonia campestris*), Mojave aster (*Xylorhiza tortifolia*), coyote melon (*Cucurbita palmata*), bird's eye gilia (*Gilia tricolor*), blue dicks (*Dichelostemma capitatum*), desert mariposa lily (*Calochortus kennedyi*), royal desert lupine (*Lupinus odoratus*), blazing star (*Mentzelia involucrata*), goldfields (*Lasthenia californica*), hop sage (*Grayia spinosa*), Dorr's sage (*Salvia dorrii*), and sacred datura (*Datura wrightii*).

Wildlife in the alluvial plain of the western Mojave Desert includes mammals such as kangaroo rat (*Dipodomys* spp.), woodrats (*Neotoma* spp.), desert cottontail (*Sylvilagus audobonii*), black-tailed jackrabbit (*Lepus californicus*), bobcat (*Lynx rufus*), coyote (*Canis latrans*), desert kit fox (*Vulpes macrotis*), American badger (*Taxidea taxus*), gray fox (*Vulpes macrotis*), Mohave ground squirrel (*Xerospermophilus mohavensis*), and several species of bat (cf. *Chiroptera*). Pronghorn antelope (*Antilocapra americana*) once inhabited the western Mojave Desert and were last seen inhabiting the area along the alluvial plains and southeastern slopes of the Tehachapi Mountains by the twentieth century (Brown et al. 2006).

The desert is also host to several reptiles, particularly snakes and lizards, such as the western diamondback (*Crotalus altrox*), and the desert tortoise (*Gopherus agassizzi*). A diverse array of passerines (songbirds), raptors, and other birds inhabit the region. Some examples include sparrows (*Emberizidae* spp.), mourning dove (*Zenaida macoura*), Gambel's quail (*Callipepla gambelii*), bald eagle (*Haliaeetus leucocephalus*), American kestrel (*Falco sparverius*), cactus wren (*Campylorhynchus brunneicappillus*), red-tail hawk (*Buteo jamaicensis*), burrowing owl (*Athene cunicularia*), and the road runner (*Geococcyx californianus*). A variety of insects such as ants, beetles, grasshoppers, and crickets also inhabit the Mojave Desert.

Productive ecosystems and resource availability provide potential subsistence and material resources for human populations and can influence patterns of human seasonal resource procurement and settlement. Plant resources such as Joshua trees, creosote bush, juniper, cacti, chia, blazing star, and desert lily, and fauna resources such as jackrabbit, coyote, and quail were utilized (e.g., for subsistence, medicinal, ceremonial, utilitarian, etc.) in the western Mojave Desert by precontact populations (Krober 1925; Caltrans 2019). Blackburn and Bean (1979) suggest datura was used for ceremonial purposes by the Kitanemuk.

2.4 Current Land Use

The Study Area is situated on primarily undeveloped desert land in a rural area with several improved and dirt roads. Surrounding existing infrastructure includes the California Portland Cement Plant to the north, several wind energy-generating facilities including associated offices to the north and northeast, a solar facility to the north and one to the southwest, a northeast to southwest 500-kilovolt (kV) lattice tower transmission line along Balboa Road, a north-to-south-trending 500-kV transmission line along 110 Street West, a few single-family residential structures, the Southern Pacific Railroad (now known as Burlington Northern and Sante Fe Railroad), mining operations at Middle Buttes (i.e., Cactus Mine and Holiday Rock Quarry currently under operation) and other nearby buttes to the south and east, and the northeast-to-southeast-trending Los Angeles Aqueduct right-of-way that crosses the center of the northern and southern portion of the Study Area. The field team observed a sheep herder and a small herd of sheep grazing during the spring within the northeastern portion of the Study Area. The Study Area continues to be relatively rural desert land, although in recent decades solar and wind power infrastructure in the surrounding area has developed.

3.0 RECORD SEARCH AND LITERATURE REVIEW RESULTS

The SSJVIC record search identified 33 previously conducted cultural studies that overlap with the Study Area. These previous studies within the Study Area were conducted between 2007 and 2016 and consist of archaeological survey and excavation, architectural/historical field study, and evaluation and reporting. The records search results for previously conducted reports within the Study Area are listed in Table 3-1.

The SSJVIC record search identified 23 previously recorded historic resources, 5 prehistoric resources, and 1 dual component (prehistoric and historic era) resource within the Study Area. Twenty-nine isolates were also identified and included 13 prehistoric era (all lithic flakes), 15 historic era (primarily cans and glass bottle shards), and 1 dual component (prehistoric flake and road segment). Previously recorded resources within the Study Area are discussed in Section 6.1.1. The records search results for previously recorded resources within Study Area are listed in Table 3-2.

See Appendix A for the SSJVIC record search results, including the database list of previously conducted reports and previously recorded resources within the Study Area plus the 0.5-mile buffer of the Study Area.

3.1 Southern San Joaquin Valley Record Search Results

Table 3-1. Previously Conducted Reports within the Study Area

Report No.	Year	Author(s)/Affiliation	Report Title	Study Type
KE-00440	1991	Glover, Leslie G./ Far Western Anthropological Research Group, Inc.	A cultural resources inventory of selected route re-alignments for the Mojave Pipeline in California and Arizona	Archaeological, Field study
KE-00633	1993	Macko, Michael E., Binning, Jeanne D., Earle, David D., and Langenwalter, Paul E./ Macko Archaeological Consulting	National Register Eligibility Determinations for Historic Resources Along the Proposed AT&T Lightguide System, Victorville to Bakersfield, California	Archaeological, Evaluation, Excavation, Field study
KE-00634	1985	Macko, Michael E. and Wiesbord, Jill / Applied Conservation Techology, Inc.	Sylmar Expansion Project: Cultural Resources Inventory and Significant Evaluation Addendum to Final Report	Archaeological, Field study
KE-01215	1986	Schiffman, Robert A./ Bakersfield College	Archaeological Investigation of Seawest Energy Group, Inc. 640 Acre Wind Generator Farm, Kern County, California	Archaeological, Field study
KE-01295	1987	Schiffman, Robert A. / Bakersfield College	Archaeological Investigation for Coca Shumake Project, Kern County, California	Archaeological, Field study
KE-01807	1991	Wohlgemuth, Eric and McGuire, Kelly / Far Western Anthropological Research Group, Inc.	A Cultural Resources Inventory of a Pipeline Corridor Expansion Tract and Re-Route in Kern County, California	Archaeological, Field study
KE-02059	1997	Love, Bruce/ CRM TECH	Cultural Resources Survey Report: Bakersfield-Rialto Fiberoptic Line Project, Kern, Los Angeles, and San Bernardino Counties, California	Archaeological, Field study

Report No.	Year	Author(s)/Affiliation	Report Title	Study Type
KE-02233	1993	Costello, Julia G. and Marvin, Judith / SCA Newsletter	Recording the Los Angeles Aqueduct	Other research
KE-02406	2000	Hudlow, Scott M./ California Department of Transportation	Negative Historic Property Survey Report: Asphalt Overlay of Oak Creek Road	Architectural/historical, Field study
KE-02438	2000	Hudlow, Scott M./ California Department of Transportation	Negative Archaeological Survey Report: Oak Creek Road, Kern County Roads Department	Archaeological, Field study
KE-03490	2007	Hudlow, Scott M./ Hudlow Cultural Resource Associates	A Phase I Cultural Resource Survey for AERO Energy Wind Power Project, Application 4, Kern County, California	Archaeological, Field study
KE-03534	2006	Nilsson, Elena, Bevill, Russel, Kelly, Michael S., and Dwyer, Erin/ URS Corporation	Archaeological Inventory of the First and Second Los Angeles Aqueducts and Selected Access Roads, Kern, Inyo, and Los Angeles Counties, CA	Archaeological, Field study
KE-03546	2006	Ahmet, Koral, Mason, Roger, and Bholat, Sara / ECORP Consulting, Inc.	Cultural Resources Survey Report for Antelope Transmission Project: Segments 2 & 3 Los Angeles and Kern Counties	Archaeological, Field study
KE-03547	2007	Ahmet, Koral and Mason, Roger / ECORP Consulting	Cultural Resources Survey Report for Antelope Transmission Project: Segment 3, Option C, Kern County, CA	Archaeological, Field study
KE-03553	2007	Hudlow, Scott M. / Hudlow Cultural Resource Associates	A Phase I Cultural Resource Survey for Aero Energy Wind Power Project, Application 5 Kern County, California	Archaeological, Field study
KE-03638	2008	Hudlow, Scott M. / Hudlow Cultural Resource Associates	A Phase I Cultural Resource Survey for AERO Energy Wind Power Project, Lower Resource Area Kern County, California	Archaeological, Field study
KE-03698	2009	Gust, Sherri and Harper, Veronica / Cogstone Resource Management, Inc.	Archaeological Assessment, Segment 3B Tehachapi Renewable Distribution Project, 12 kV Distribution Line, Kern County, California	Archaeological, Field study
KE-03719	2007	Moslak, Ken and Schaefer, Jerry / ASM Affiliates, Inc.	A Cultural Resources Survey of Middle Butte: The Reed Avenue Aggregate Quarry Project	Archaeological, Field study
KE-03763	2010	Hudlow, Scott M. / Hudlow Cultural Resource Associates	A Phase I Cultural Resource Survey for Aero Energy Wind Power Project, Windswept, Kern County, California	Archaeological, Field study
KE-03779	2010	Ferguson, A. / CH2M Hill	Culture Testing Report for the Alta Oak Creek Mojave Wind Project, Kern County, California	Archaeological, Evaluation, Excavation, Field study
KE-03793	2008	Romani, John F. and Gold (Garfinkel), Alan P. / Compass Rose Archaeological, Inc.; California Department of Transportation	Archaeological Survey Report Tehachapi Willow Springs Road from Rosamond Boulevard to 10 Miles North, Willow Springs Area, Kern County, California	Archaeological, Field study
KE-03941	2009	Price, Barry A., Baloian, Mary Clark, Lichtenstein, Robert, and Linder, Marc / Applied Earthworks, Inc.	Confidential Specialist Report: Cultural Resources Inventory for the Tehachapi Renewable Transmission Project Kern, Los Angeles, and San Bernardino Counties, California	Archaeological, Field study

Report No.	Year	Author(s)/Affiliation	Report Title	Study Type
KE-04053	2009	Lawson, Natalie / CH2M Hill	Cultural Resources Inventory Report for the Alta Oak Creek Mojave Wind Project, Kern County, California	Archaeological, Field study
KE-04159	2011	Cardenas, Gloriella / URS, Sacramento	Cultural Resources Inventory Report for the Alta Infill II Wind Energy Project, Kern County, California	Archaeological, Field study
KE-04225	2010	Jackson, Thomas, Armstrong, Matthew, and Sikes, Nancy / Pacific Legacy, Inc.; Cogstone Resource Management, Inc.	Cultural Resources Inventory of the Southern California Edison Company Whirlwind to Rosamond and Rosamond to Windhub Telecommunication Line, Kern County, California	Archaeological, Field study
KE-04227	2010	Schneider, Tsim D. and Holson, John / Pacific Legacy, Inc.	Supplemental Archaeological Survey Report #2, Tehachapi Renewable Transmission Project Segment 10, Kern County, California	Archaeological, Field study
KE-04228	2011	Bischoff, Wayne, Schneider, Tsim D., and Holson, John / Pacific Legacy, Inc.	Supplemental Archaeological Survey Report #4, Tehachapi Renewable Transmission Project Segment 10, Kern County, California	Archaeological, Field study
KE-04229	2010	Panich, Lee, Cimino, Stephanie, and Holson, John / Pacific Legacy, Inc.	Supplemental Archaeological Survey Report #1, Tehachapi Renewable Transmission Project Segment 10, Kern County, California	Archaeological, Field study
KE-04359	2013	Ramirez, Robert, Hunt, Kevin, and Haas, Hannah / Rincon Consultants	Addendum Report: Phase I Cultural Resources Survey for the RE Columbia Two Solar Project, Mojave, Kern County, California	Archaeological, Field study
KE-04472	2014	Honey, Linda L. / Great Basin Sage, Inc.	Phase I Cultural Resources Assessment for the Fremont Valley Preservation Project Proposed Transmission Line and Pipeline, Kern County and San Bernardino County, California	Archaeological, Field study
KE-05158	2016	Hintzman, Marc / AECOM Inc.	Voyager Wind I, LLC - Wind Turbine Generators - 2016 Cultural Resources Survey	Archaeological, Field study
KE-05191	2009	Gust, Sherri and Harper, Veronica / Cogstone Resource Management, Inc.	Archaeological Assessment, Segment 3B Tehachapi Renewable Transmission Project, 12KV Transmission Line, Kern County, California	Archaeological, Architectural/historical, Field study
KE-05192	2009	Harper, Veronica and Glover, Amy / Cogstone Resource Management, Inc.	Archaeological Assessment, Tehachapi Renewable Transmission Project, Segments 4 and 10 Rosamond to Whirlwind and Rosamond to Windhub Proposed Telecommunications Line, Kern County, California	Archaeological, Architectural/historical, Field study

Table 3-2. Previously Recorded Cultural Resources within the Study Area

Primary No.	Time Period	Site Type/Name	Date/Recorder	NRHP/CRHR Eligibility
SITES				
P-15-003549	Historic	Built Environment: Los Angeles Aqueduct (both above ground and below); Aqueduct Road (unpaved); Alabama Gates and Spillway; PG&E gaslines 300 A and B (concrete conduit); concrete foundations.	1993 (M. Macko, Macko Archaeological Consulting); 2000 (Dr. J. Underwood, KEA Environmental); 2009 (Steven J. Melvin and Rebecca Flores; JRP Historical Consulting, LLC); 2010 (Fergusson, A., Calicher, H., Rolston, R., Lawson, N.; CH2M Hill); 2013 (Higgins, Courtney, Rebecca Kellawan, Daron Duke, Thomas Lucas); 2015 (Newcomb, Alyssa; SWCA)	Eligible

Primary No.	Time Period	Site Type/Name	Date/Recorder	NRHP/CRHR Eligibility
P-15-010952	Historic	Light refuse scatter (cans, tins, bottles, nails, wood, glass).	2003 (Hubert Switalski, Audry Williams, AMEC Earth and Environmental; Center for Archaeological Research, California State University, Baker); 2011 (A. White, C. Purtell, Sapphos Environmental, Inc.)	Not Evaluated
P-15-012677	Historic	Refuse scatter (cans, glass, tins, wood, bricks, concrete fragments; association with Los Angeles Aqueduct)	2002 (Syd Lippman, B. Brown, URS Corporation)	Eligible, contributing.
P-15-012678	Prehistoric/ Historic	Refuse (Possible association with First Los Angeles Aqueduct); one chert biface	2002 (Syd Lippman, Brad Brown, URS Corporation)	Eligible
P-15-012714	Historic	Foundations and Refuse.	2002 (B. Brown, S. Lippman, URS Corporation); 2010 (I. Fraser-Shapiro, C. Aguas, J. Robertson, S. Clark, S. Zolnoski, Pacific Legacy, Inc.); 2016 (E. Timothy Jones, LSA Associates)	Not Evaluated
P-15-013838	Prehistoric	Lithic scatter and habitation debris.	2008 (K.R. Way, K.S. Norwood, Pacific Legacy, Inc.); 2011 (A. White, C. Purtell, Sapphos Environmental, Inc.)	Not Evaluated
P-15-013839	Historic	Refuse scatter (cans, glass, lumber)	2008 (K.R. Way, K.S. Norwood, Naoma N. Staley, Pacific Legacy, Inc.); 2011 (A. White, C. Purtell, Sapphos Environmental, Inc.)	Not Evaluated
P-15-013917	Historic	Refuse Scatter (glass, cans)	2009 (A. Fergusson, H. Calicher, R. Rolston, CH2M HILL)	Not Eligible
P-15-013918	Historic	Refuse scatter (cans, glass, ceramic)	2009 (A. Fergusson, H. Calicher, R. Rolston, CH2M HILL)	Not Eligible
P-15-013919	Historic	Refuse scatter (cans, glass, sundry metal tools and implements)	2009 (A. Fergusson, H. Calicher, R. Rolston, CH2M HILL)	Not Eligible
P-15-013920	Historic	Refuse scatter (glass, ceramic, nails, metal)	2009 (A. Fergusson, H. Calicher, R. Rolston, CH2M HILL)	Not Eligible
P-15-013921	Historic	Refuse scatter (cans, metal fragments)	2009 (N .Lawson, E. Peters, B. Harmon, CH2M HILL)	Not Eligible
P-15-013928	Historic	Built Environment: road (graded), electrical poles; Sparse historic isolates along road (cans)	2009 (N. Lawson, H. Calicher, E. Peters, CH2M HILL)	Eligible
P-15-014703	Historic	Campsite (fire rings, cans, shell casings, glass, ceramic, metal)	2009 (N. Lawson, E. Peters, B. Harmon, CH2M Hill)	Not Eligible
P-15-016244	Prehistoric	Lithic scatter: flakes (obsidian, rhyolite, chalcedony, agate), 1 core (chert), 1 biface (basalt)	2010 (I. Fraser-Shapiro, J. Roberson, S. Zolnoski, B. Bartam, Pacific Legacy, Inc.)	Not Evaluated
P-15-016251	Historic	Built Environment: abandoned highway, runway plates; Refuse scatter (cans, glass)	2010 (I. Fraser-Shapiro, C. Aguas, J. Roberson, S. Clark, S. Zolnoski, Pacific Legacy, Inc.)	Not Eligible
P-15-016252	Historic	Foundation chain fence; Refuse scatter (ceramic, hinge, nails)	2010 (I. Fraser-Shapiro, S. Clark, S. Zolnoski, Pacific Legacy, Inc.)	Not Evaluated

Primary No.	Time Period	Site Type/Name	Date/Recorder	NRHP/CRHR Eligibility
P-15-016508	Historic	Foundations and Refuse	2009 (C. Purtell, L. Carias, D. McIntosh, Sapphos Environmental Inc.)	Not Evaluated
P-15-016511	Historic	Refuse scatter (household)	2010 (C. Purtell, R. Thomas, G. Granger, Sapphos Environmental Inc.)	Not Evaluated
P-15-016514	Historic	Refuse scatter (bottles, glass, metal cartridges, cans, household)	2012 (K. Holland, A. White, Sapphos Environmental, Inc.)	Not Evaluated
P-15-016518	Prehistoric	Lithic scatter (chert, rhyolite)	2011 (Karl P. Holland, Chris W. Purtell, Robbie L. Thomas, Sapphos Environmental, Inc.)	Not Evaluated
P-15-016519	Historic	Refuse scatter	2011 (C. Purtell, K. Holland, Sapphos Environmental, Inc.)	Not Evaluated
P-15-016528	Prehistoric	Dense lithic scatter (rhyolite, chert)	2012 (Karl Holland, AJ White, Robbie Thomas, Sapphos Environmental, Inc.)	Not Evaluated
P-15-016841	Historic	Refuse scatter (glass, bottles, shards, cans)	2009 (Chris Purtell, Roberta Thomas, Karl Huebchen, Sapphos Environmental, Inc.)	Not Evaluated
P-15-016844	Historic	Can scatter	2009 (C. Purtell, C. Backes, B. Jones, Sapphos Environmental, Inc.)	Not Evaluated
P-15-016846	Historic	Glass scatter	2009 (Karl Huebchen, Robbie Thomas, Brett Jones, Sapphos Environmental Inc.)	Not Evaluated
P-15-016854	Prehistoric	Rhyolite flakes	2011 (Karl Holland, AJ White, Chris Purtell, Sapphos Environmental, Inc.)	Not Evaluated
P-15-016875	Historic	Household refuse (cans, tins, bottles, glass, metal) possible hearth (fire-affected rock)	2009 (Karl R. Huebchen, Chris W. Purtell, Robbie L. Thomas, Sapphos Environmental, Inc.)	Not Evaluated
ISOLATES				
P-15-011160	Prehistoric	Isolate: rhyolite flake	2003 (H. Switalski and R. Orfila, CAR)	Not Eligible
P-15-012477	Prehistoric	Isolate: basalt flake	2006 (Koral Ahmet, Sara Bholat, Nicole Hofmeister, Maria Espinoza-Robinson, Evan Crabtree, ECORP Consulting, Inc.)	Not Eligible
P-15-012478	Prehistoric	Isolates: two rhyolite flakes	2006 (Koral Ahmet, Sara Bholat, Nicole Hofmeister, Maria Espinoza, Evan Crabtree, ECORP Consulting, Inc.)	Not Eligible
P-15-012487	Prehistoric	Isolate: one obsidian flake, one rhyolite flake	2006 (Koral Ahmet, Sara Bholat, Evan Crabtree, ECORP Consulting, Inc.)	Not Eligible
P-15-012488	Prehistoric	Isolate: rhyolite flake	2006 (Koral Ahmet, Sara Bholat, Evan Crabtree, ECORP Consulting, Inc.)	Not Eligible
P-15-013697	Prehistoric	Isolate: chert flake	2009 (Desiree Martinez, Andrea Bardsley, Cogstone Resource Management)	Not Eligible
P-15-013971	Historic	Isolate: can	2009 (N. Lawson, C. Calicher, B. Harmon, E. Peters, R. Rolston, CH2M Hill)	Not Eligible
P-15-013972	Historic	Isolate: hub cap	2009 (N. Lawson, C. Calicher, B. Harmon, E. Peters, R. Rolston, CH2M Hill)	Not Eligible
P-15-013990	Prehistoric/ Historic	Isolate: igneous flake; can	2009 (N. Lawson, C. Calicher, B. Harmon, E. Peters, R. Rolston, A. Fergusson, CH2M Hill)	Not Eligible
P-15-013991	Historic	Isolate: milk can	2009 (N. Lawson, C. Calicher, B. Harmon, E. Peters, R. Rolston, A. Fergusson, CH2M Hill)	Not Eligible
P-15-013992	Historic	Isolate: milk can; Built environment: road (faint, unpaved)	2009 (N. Lawson, C. Calicher, B. Harmon, E. Peters, R. Rolston, A. Fergusson, CH2M Hill)	Not Eligible

Primary No.	Time Period	Site Type/Name	Date/Recorder	NRHP/CRHR Eligibility
P-15-013999	Historic	Isolate: can	2009 (N. Lawson, C. Calicher, B. Harmon, E. Peters, R. Rolston, A. Fergusson, CH2M Hill)	Not Eligible
P-15-014000	Historic	Isolates: gas can, milk can	2009 (N. Lawson, C. Calicher, B. Harmon, E. Peters, R. Rolston, A. Fergusson, CH2M Hill)	Not Eligible
P-15-014013	Historic	Isolate: solarized amethyst shard	2009 (N. Lawson, C. Calicher, B. Harmon, E. Peters, R. Rolston, A. Fergusson, CH2M Hill)	Not Eligible
P-15-014020	Historic	Isolate: can	2009 (N. Lawson, C. Calicher, B. Harmon, E. Peters, R. Rolston, A. Fergusson, CH2M Hill)	Not Eligible
P-15-015579	Historic	Isolate: tobacco tin	2011 (Dan Ewers, CH2M Hill)	Not Eligible
P-15-016838	Historic	Isolate: light green bottle	2009 (Chris Purtell, Roberta Thomas, Brett Jones, Sapphos Environmental, Inc.)	Not Eligible
P-15-016839	Historic	Isolate: canteen (zinc and steel)	2009 (Chris Purtell, Roberta Thomas, Brett Jones, Sapphos Environmental, Inc.)	Not Eligible
P-15-016840	Historic	Isolate: torch canister	2009 (Chris Purtell, Roberta Thomas, Karl R. Huebchen, Sapphos Environmental, Inc.)	Not Eligible
P-15-016842	Historic	Isolate: baking powder lid	2009 (Karl Huebchen, Chris Purtell, Sapphos Environmental Inc.)	Not Eligible
P-15-016843	Prehistoric	Isolate: rhyolite flake	2009 (Chris Purtell, Roberta Thomas, Karl Huebchen, Sapphos Environmental, Inc.)	Not Eligible
P-15-016845	Prehistoric	Isolate: rhyolite flake	2009 (Chris Purtell, Clarus Backes, Brett Jones, Sapphos Environmental, Inc.)	Not Eligible
P-15-016847	Prehistoric	Isolate: rhyolite flake	2010 (Chris Purtell, Roberta Thomas, Karl Huebchen, Sapphos Environmental, Inc.)	Not Eligible
P-15-016848	Prehistoric	Isolate: obsidian flake	2011 (Chris Purtell, Karl Holland, Adam White, Sapphos Environmental Inc.)	Not Eligible
P-15-016849	Prehistoric	Isolate: chert or rhyolite flake	2011 (Karl Holland, Adam White, Chris Purtell, Sapphos Environmental Inc.)	Not Eligible
P-15-016852	Prehistoric	Isolate: chert flake	2011 (Chris Purtell, Karl Holland, AJ White, Sapphos Environmental, Inc.)	Not Eligible
P-15-016855	Prehistoric	Isolate: rhyolite flake	2011 (Karl Holland, Chris Purtell, Sapphos Environmental, Inc.)	Not Eligible
P-15-017239	Historic	Isolate: wine/brandy bottle fragments	2009 (Chris Purtell, Roberta Thomas, Karl Huebchen, Sapphos Environmental, Inc.)	Not Eligible
P-15-017240	Historic	Isolate: hole-in-cap can	2009 (Chris Purtell, Clarus Backes, Brett Jones, Sapphos Environmental Inc.)	Not Eligible
P-15-017242	Prehistoric	Isolate: rhyolite flake	2009 (Chris Purtell, D.S. McIntosh, Sapphos Environmental, Inc.)	Not Eligible

3.2 Review of Historic Aerial Imagery and Maps

Historic aerial imagery, USGS topographical maps, GLO maps, and patents for the Study Area were reviewed.

Review of the historic aerials (Partner Engineering and Science, Inc. 2022a,b,c and 2023a,b; Netronline 2024) and available historic topographical and plat maps illustrate the Study Area as rural and primarily undeveloped desert land with some surrounding infrastructure. The surrounding infrastructure consists of major and minor roads and utility corridors such as transmission lines; the

Southern Pacific Railroad, now known as Burlington Northern and Sante Fe Railroad (since 1995: BNSF 2024); various mines at the Buttes; and the Los Angeles Aqueduct. The Study Area was primarily undeveloped land except for a few roads up until the mid-1960s. By 1965, various minor roads and very few structures are present. The structures, as with many of the minor roads, are no longer extent by the 1980s to current times. See Table 3-3 for list of historic aerials and maps reviewed, and Appendix B for historic map and aerial imagery review.

Table 3-3. Historic Aerial Photography, Historic U.S. Geologic Survey Maps of the Study Area

Map Name/Scale or Historic Aerial	Date	Author	Potential Resource
Aerial Photography	1963	Netronline	T11N R14W S25, 26, 35, 36: The Study Area appears as undeveloped desert land without any visible structures or features. T11N R13W S16, 17, 31: The Study Area appears as undeveloped desert land without any visible structures or features. T11N R13W S21: Unnamed dirt roads appear trending north to south and east to west. The Southern Pacific Railroad (currently known as Burlington Northern and Sante Fe Railroad) also runs through the southeast quarter of the section trending northeast to southwest. T11N R13W S28: The Southern Pacific Railroad runs through the northern half of the Study Area. T11N R13W S32 and 33: The Los Angeles aqueduct runs through the southeast area of section 32 continuing through section 33, trending northeast to southwest. T10N R14W S1: Tehachapi Willow Springs Road runs through the center of the section, trending northwest to southeast. There is also an unnamed dirt road within the southwest quarter of the section, trending northeast to southwest. T10N R14W S2: Two unnamed dirt roads run along the south half of the section, one trending northwest to southeast, and the other trending southwest to northeast. T10N R14W S3: The area appears in an undeveloped desert land within a wash area without any visible structures or features. T10N R14W S11: There is an unnamed dirt road crossing through the center of the Study Area, trending northwest to southeast. T10N R14W S12: Tehachapi Willow Springs Road runs through the northeast corner of the section, trending northwest to southeast. There is also a dirt road that runs through the center of the site, trending north to south. T10N R14W S13: An east to west trending dirt road crosses through the center of the Study Area. T10N R14W S14 and 15: The area appears undeveloped desert land without any visible structures or features within the Study Area. T10N R14W S22: There are unnamed dirt roads that run across the west and south sides of the Study Area, trending northwest to southeast, and west to east. T10N R14W S23: There are unnamed dirt roads within the west side of the Study Area, trending north to south and east to west. T10N R13W S2: An unnamed dirt road runs along the north half of the Study Area, trending northeast to southwest. T10N R13W S3: An unnamed dirt road runs along the south half of the Study Area, trending northwest to southeast. T10N R13W S4: An unnamed square shaped dirt road runs within the west side of the Study Area and a southwest to northeast trending road runs within the south side of the Study Area.

Map Name/Scale or Historic Aerial	Date	Author	Potential Resource
			T10N R13W S5: The Los Angeles Aqueduct cuts through the northwest quarter of the Study Area and an unnamed dirt road run through the southeast quarter of the Study Area, both trending southwest to northeast. T10N R13W S6: A "T"-shaped unnamed dirt road runs through the south half of the Study Area, trending north to south and east to west. Within the southeast quarter of the section, the Los Angeles Aqueduct cuts through trending southwest to northeast. T10N R13W S7: Tehachapi Willow Springs Road runs through the west half and south half of the section trending northwest to southeast. The Los Angeles Aqueduct cuts through the northwest quarter of the section trending southwest to northeast. General Petroleum Road runs through the south and east side of the Study Area trending southwest to northeast. Two roads run through the north half of the Study Area trending north to south and east to west. T10N R13W S8: General Petroleum Road runs through the northwest quarter of the Study Area. T10N R13W S10: An unnamed dirt road runs through the west half of the Study Area, trending northwest to southeast. T10N R13W S17 and 18: The area appears to be undeveloped desert land without any visible structures or features.
Aerial Photography	1972	Netronline	T11N R13W S16, 17, and 21: The Study Area shows no major changes. T11N R13W S28: An unnamed dirt road trending northwest to southeast appears within the north half of the Study Area.
Aerial Photography	1974	Netronline	T11N R14W S25, 35, and 36: The Study Area shows no major changes. T11N R13W S31: The Study Area shows no major changes. T11N R13W S32: A north to south trending road crosses through the south half of the Study Area. T11N R13W S33: North to south and west to east trending roads cross through the north and south half of the Study Area. General Petroleum Road runs through the south and east half of the Study Area trending southwest to northeast. T10N R14W S1, 2, 3, 11, 12, 13, 14: The Study Area shows no major changes. T10N R14W S15: A northwest-to-southeast-trending dirt road runs through the north half of the Study Area.
General Land Office Plat	1856	John C Hays (Surveyor General)	T11N R14W S25, 26, 35, and 36: No buildings or features are illustrated within the Study Area. T11N R13W S16, 17, 21, 28, and 31- 33: No buildings or features are illustrated within the Study Area. T10N R14W S1-3, 11-15, 22 and 23: No buildings or features are illustrated within the Study Area. T10N R13W S2-8, 10, 17, and 18: No buildings or features are illustrated within the Study Area.
General Land Office Plat	1881	Theodore Wagner (Surveyor General)	T10N R14W S1-3, 11-15, 22 and 23: No buildings or features are illustrated within the Study Area.
General Land Office Plat	1894	William S Green (Surveyor General)	T11N R14W S25, 26, 35, and 36: No buildings or features are illustrated within the Study Area.
General Land Office Plat	1935	Frank M Johnson (Supervisor of Surveys), Antionette Funk	T11N R13W S16, 17, 21: No buildings or features are illustrated within the Study Area.

Map Name/Scale or Historic Aerial	Date	Author	Potential Resource
		(Assistant Commissioner)	T11N R13W S28: A road trending northwest to southeast is illustrated through the north half of the northeast quarter of the Study Area. T11N R13W S31: An unimproved road trending northwest to southeast is illustrated through the north half of the Study Area. T11N R13W S32: The Los Angeles Aqueduct, trending southwest to northeast, is illustrated within the southeast quarter of the section. T11N R13W S33: The Los Angeles Aqueduct, trending southwest to northeast, is illustrated cutting through the center of the section. A telephone line, trending southwest to northeast, is illustrated within the south and east half of the Study Area. T10N R14W S1: A split road is illustrated within the south half of the Study Area, trending north to south and northwest to southeast. T10N R14W S2: A road is illustrated within the southwest quarter of the Study Area trending west to east. T10N R14W S3: A road is illustrated within the Study Area trending south to northeast. T10N R14W S11: Two roads are illustrated within the Study Area trending north to south and west to east. T10N R14W S12: Four roads are illustrated within the Study Area trending north to south, south to northeast, northwest to southeast, and north to southeast. The Los Angeles Aqueduct is illustrated within the southwest quarter of the section trending southwest to northeast. T10N R14W S13: A northwest to southeast trending road is illustrated within the Study Area. T10N R14W S14: A north-to-south-trending road is illustrated within the southwest quarter of the Study Area. T10N R14W S15: No buildings or features are illustrated within the Study Area. T10N R14W S22: Two roads are illustrated within the Study Area, trending northwest to southeast to east and northwest to southeast. T10N R14W S23: Two roads are illustrated within the Study Area trending east to west and north to south. T10N R13W S2: Two unimproved roads trending northwest to southeast and west to northeast are illustrated within the Study Area. T10N R13W S3: Four unimproved roads trending west to northeast, west to east, northwest to southeast, and south to northeast are illustrated within the Study Area. T10N R13W S4: A unimproved road that splits within the southwest quarter and southeast quarter is illustrated within the south half of the Study Area, trending southwest to northeast and west to east. T10N R13W S5: A road trending southwest to northeast is illustrated through the south and east half of the Study Area. A light duty road trending northwest to southeast is illustrated within the northwest quarter of the Study Area connecting to the Los Angeles Aqueduct. T10N R13W S6: A transmission line is illustrated within the southeast quarter of the Study Area and a road trending north to southeast is illustrated within the northeast quarter of the Study Area. T10N R13W S7: A road trending southwest to northeast is illustrated within the south and east half of the Study Area. An unimproved road that splits at the center is illustrated within the east

Map Name/Scale or Historic Aerial	Date	Author	Potential Resource
			half of the Study Area trending west to east, north to south and north to southeast. T10N R13W S8: A west-to-east-trending unimproved road is illustrated within the north half of the Study Area. T10N R13W S10: An unimproved road is illustrated trending northwest to southeast within the west and south half of the Study Area. T10N R13W S17 and 18: No buildings or features are illustrated within the Study Area.
USGS 1:125,000, Mojave	1915	USGS, Geological Survey	T11N R14W S35: Willow Springs Road trending northwest to southeast is illustrated with the southwest quarter of the Study Area.
USGS 1:96,000, Elizabeth Lake	1915	USGS, Geological Survey	T10N R14W S1: A road trending northwest to southeast is illustrated within the south half of the Study Area. T10N R14W S12: A north-to-south-to-northeast-trending road is illustrated within the Study Area. T10N R13W S2: A southwest-to-northeast-trending road is illustrated within the north half of the Study Area. T10N R13W S3: A west-to-southeast-trending road is illustrated within the south half of the Study Area. T10N R13W S4: A northwest-to-southeast-trending road is illustrated through the north half and east half of the Study Area. A structure is illustrated within the northwest quarter of the Study Area. T10N R13W S5: A southwest-to-northeast-trending road connection to the Los Angeles Aqueduct on the north side is illustrated within the west and north half of the Study Area. T10N R13W S6: A southwest-to-northeast-trending road is illustrated within the southeast quarter of the Study Area. T10N R13W S7: A southwest-to-northeast-trending road is illustrated through the north half of the Study Area, adjacent southeast of the Los Angeles Aqueduct.
USGS 1:24,000, Monolith	1966	USGS, Geological Survey	T11N R13W S16: An unimproved road trending north to south and a pipeline trending east to west are illustrated within the Study Area. T11N R13W S17: No features noted. Land appears undeveloped. T11N R13W S21: A rectangular-shaped unimproved road trending north to south and east to west is illustrated within the Study Area. The Southern Pacific Railroad trending southwest to northeast is illustrated within the southeast quarter of the Study Area. T11N R13W S28: An unimproved road trending northwest to southeast and the Southern Pacific Railroad trending southwest to northeast are illustrated within the north half of the Study Area. T11N R13W S31: No features noted. Land appears undeveloped. T11N R13W S32, N1/2 and N1/2 of SW1/4 and SE1/4: A “T”-shaped east-to-west and north-to-south-trending unimproved road is illustrated within the Study Area. T11N R13W S33, N1/2 and N1/2 of SW1/4 and SE1/4: Four unimproved roads trending north to south and east to west are illustrated within the Study Area. The Los Angeles Aqueduct crosses through the Study Area trending southwest to northeast. T11N R14W S26: Two east-to-west-trending unimproved roads and two north to south unimproved roads are illustrated within the Study Area. T11N R14W S35: One north to south unimproved road and one north to south to east unimproved road is illustrated within the Study Area.

Map Name/Scale or Historic Aerial	Date	Author	Potential Resource
USGS 1:24,000, Willow Springs	1965	USGS, Geological Survey	T11N R13W S32 S1/2: An unimproved north-to-south-trending road is illustrated within the south half of the Study Area. T11N R13W S33 S1/2: Unimproved southwest-to-northeast and north-to-south-trending roads are illustrated within the south half of the Study Area. T10N R13W S3 W1/2: One west to northeast and one west to southeast unimproved road is illustrated within the west half of the Study Area. A building is illustrated within the southwest quarter of the Study Area. T10N R13W S4: Four north-to-south-trending unimproved roads, two east-to-west-trending unimproved roads, two southwest-to-northeast-trending unimproved roads, one west-to-southeast-trending unimproved road, and one north-to-southeast-trending unimproved road are illustrated within the Study Area. T10N R13W S5: One southwest-to-northeast-trending unimproved road and one north-to-south splitting at the end to southwest- and southeast-trending unimproved road are illustrated within the south and east half Study Area. One north-to-south-trending unimproved road connecting to the Los Angeles Aqueduct is illustrated within the northwest quarter of the Study Area. T10N R13W S6: Two east-to-west-trending unimproved roads are illustrated within the north half of the Study Area. One north-to-south-trending unimproved road and one southwest-to-northeast-trending unimproved road is illustrated within the south half of the Study Area. T10N R13W S7: Two east-to-west-trending unimproved roads, one north-to-south-trending unimproved road, and two southwest-to-northeast-trending unimproved roads are illustrated within the Study Area. T10N R13W S8: One southwest-to-northeast-trending unimproved road is illustrated within the northwest quarter of the Study Area. One west-to-southeast-trending unimproved road and one east-to-west unimproved road are illustrated within the southwest quarter of the Study Area. Six buildings are illustrated within the southwest quarter of the Study Area. T10N R14W S1: Two rectangular-shaped unimproved roads trending east to west and north to south and one northwest-to-southeast-trending unimproved road are illustrated within the south half of the Study Area. One east-to-west-trending unimproved road is illustrated within the north half of the Study Area. T10N R14W S2: Two northwest-to-southeast-trending unimproved roads are illustrated within the west side of the Study Area and one south-to-northeast-trending unimproved road, one east-to-west-trending unimproved road, and one north-to-south-trending unimproved road is illustrated within the southeast quarter of the Study Area. T10N R14W S3: One southwest-to-northeast-trending unimproved road and one north-to-southeast unimproved road is illustrated within the Study Area. T10N R14W S11: One northwest-to-southeast-trending unimproved road is illustrated within the northeast quarter of the Study Area, and two north-to-south-trending unimproved roads and one northwest-to-southeast-trending unimproved roads are illustrated within the west and south half of the Study Area. T10N R14W S12: Two east-to-west-trending unimproved roads, one northwest-to-southeast-trending unimproved road, one north to

Map Name/Scale or Historic Aerial	Date	Author	Potential Resource
			south unimproved road, and one southwest-to-northeast unimproved road are illustrated within the Study Area. T10N R14W S13: One east-to-west-trending unimproved road is illustrated within the Study Area. T10N R14W S14: One north-to-south-trending unimproved road, one east-to-west-trending unimproved road, and one north-to-southeast-trending unimproved road is illustrated within the east half of the Study Area. Three structures are illustrated within the northeast quarter of the Study Area. T10N R14W S22: One north-to-southeast-trending unimproved road, two west to southeast trending unimproved roads, and one north to south unimproved road are illustrated within the Study Area. T10N R14W S23: Two square-shaped roads trending north to south and east to west are illustrated within the Study Area.

USGS=U.S. Geological Survey; T=Township; R=Range; S=South, E=East; Aerials available via Netronline (https://netronline.com/), accessed March 2024.

3.3 Review of Available Historic Federal Land Patents

Review of available Bureau of Land Management online general office records (BLM 2024) indicates there were several patent holders in the Study Area. Federal land patents provide information on the initial transfer of land titles from the federal government to private individuals or companies or local governments by the title transfer authority. In addition to verifying title transfer, this information provides an association between an individual (Patentee, Assignee, Warrantee, Widow, or Heir) and a specific location (Legal Land Description) and time (Issue Date). The transfer authority statutes often outline requirements the patentee would be obligated to comply with in order to legally obtain and/or retain the land. Such title requirements may have resulted in construction of buildings, structures, or land improvements. No additional archival information was available regarding a patentee and the Study Area. See Table 3-4 for federal land patent search results.

Table 3-4. Historic Federal Land Patents for the Study Area

Patent # or BLM Accession #	Date	Patentee	Legal Description	Transfer Authority
CALA 0015756	1916	Flora Clark, formerly Flora Harsh	T10N R14W SE1/4 of S14, 160 acres. Provided for distribution of public land to settlers who would live on the land and improve it.	May 20, 1862: Homestead Entry Original (12 Stat. 392)
CALA 0049534	1938	Pearl Whiteside	T10N R14W N1/2 of S14, 320 acres. Provided for distribution of public land to settlers who would live on the land and improve it.	May 20, 1862: Homestead Entry Original (12 Stat. 392)
CALA 0023787	1919	Catherine Haws	T11N R13W NE1/4 of S28, 160 acres. Provided for distribution of public land to settlers who would live on the land and improve it.	May 20, 1862: Homestead Entry Original (12 Stat. 392)
CACAAA 074199	1894	Southern Pacific Railroad Co	T10N R14W S1/2 of S1, 440842.36 acres. Act granting Lands to aid in the Construction of a Railroad and Telegraph Lane from the States of Missouri and Arkansas to the Pacific Coast.	July 27, 1866: Grant-RR-Atlantic and Pacific (14 Stat. 292)

Patent # or BLM Accession #	Date	Patentee	Legal Description	Transfer Authority
CALA 0026178	1917	Lee K Strobel	T10N R14W N1/2 of S12, 320 acres. Provided for distribution of public land to settlers who would live on the land and improve it.	May 20, 1862: Homestead Entry Original (12 Stat. 392)
CALA 0017242	1916	Harley G Cretcher	T10N R14W NE1/4 of S22, 160 acres. Provided for distribution of public land to settlers who would live on the land and improve it.	May 20, 1862: Homestead Entry Original (12 Stat. 392)
CALA 0024996	1920	Hans Visser	T10N R13W E1/2 of S10, 320 acres. Provided for distribution of public land to settlers who would live on the land and improve it.	May 20, 1862: Homestead Entry Original (12 Stat. 392)
CALA 0099943	1960	Louise Arthur Penn, John McGill Reynolds	T10N R13W E1/2SW1/4SW1/4SW1/4 of S8, 5 acres. An Act to provide for purchase of public lands for home and other sites.	June 1, 1938: Sale-Small Tract (52 Stat. 609)
CACAAA 074199	1894	Southern Pacific Railroad Co	T10N R13W S17, 440842.36 acres. Act granting Lands to aid in the Construction of a Railroad and Telegraph Lane from the States of Missouri and Arkansas to the Pacific Coast.	July 27, 1866: Grant-RR-Atlantic and Pacific (14 Stat. 292)
CARI 0003005	1973	California Portland Cement Co	T10N R14W S3, 61.98 acres. Act in which the mineral lands of the public domain, both surveyed and unsurveyed, were free and open to exploration and occupation by all United States citizens or those declaring intention to become citizens.	July 26, 1866: Mineral Patent-Lode (14 Stat. 251)
CALA 0027701	1921	Wilhelm Hugo Herrmann	T10N R14W SW1/4 of S2, 323.65 acres. Provided for distribution of public land to settlers who would live on the land and improve it.	May 20, 1862: Homestead Entry Original (12 Stat. 392)
CALA 0027098	1919	Herman D Schmidt	T10N R13W S4, 160.09 acres. Provided for distribution of public land to settlers who would live on the land and improve it.	May 20, 1862: Homestead Entry Original (12 Stat. 392)

3.4 Native American Heritage Commission Sacred Land File Search Results

The California NAHC was contacted by Tetra Tech September 21, 2022, to request a SLF search (Appendix C). The NAHC responded on November 9, 2022, that no Native American sacred lands were identified by its database as within or near the Study Area. The NAHC recommends conducting outreach to the listed Tribes or individuals as they may have knowledge of cultural resources within or near the Study Area.

Pursuant to Senate Bill 18, formal government-to-government consultation is required by the lead CEQA agency (Government Code Section 65352.3 and 65352.4). The County sent a request to the NAHC for a list of Tribes with Traditional lands within the Project area. The NAHC replied on April 29, 2024 and provided the County with a list of Tribes. The County sent out SB18 consultation letters to the following NAHC listed Tribes:

- Barbareño/Ventureño Band of Mission Indians
- Chumas Council of Bakersfield

- Coastal Band of the Chumash Nation
- Kitanemuk & Yowlumne Tejon Indians
- Quechan Tribe of the Fort Yuma Reservation
- San Fernando Band of Mission Indians
- Morongo Band of Mission Indians
- Northern Chumash Tribal Council
- San Fernando Band of Mission Indians
- Serrano Nation of Mission Indians
- Tejon Indian Tribe
- Tule River Indian Tribe
- Yuhaaviatam of San Manuel Nation

A response was received by the Yuhaaviatam of San Manuel Nation on October 11, 2025, that stated the Tribe did not see a conflict with the zoning changes. In addition, the Tribe requested an update regarding their request for formal consultation with the lead agency pursuant to CEQA and CA PRC 210803.1 and any cultural or geotechnical reports for the Project in a previous letter dated April 23, 2024. The County sent the Tribe a link to the cultural report via email on July 16, 2025. To date, no additional responses have been received.

Pursuant to Assembly Bill (AB) 52, formal government-to-government consultation is required by the lead CEQA agency. Coordination and consultation with Native American tribes may provide additional tribal traditional ecological knowledge regarding tribal cultural resources and the treatment of such resources within the Study Area (PRC Section 21074 [a][1][A]-[B]).

On April 10, 2024, the County provided AB52 letters to the following Tribes:

- Torres Martinez Desert Cahuilla Indians
- Twenty-Nine Palms Band of Mission Indians
- Yuhaaviatam of San Manuel Nation
- Tejon Indian Tribe

4.0 CULTURAL CONTEXT

This section is a generalized overview of the cultural landscape of the Study Area and surrounding region. The cultural chronology of human occupation is characterized by changing settlement and subsistence strategies in response to cultural systems and available resources in varied environmental conditions. The discussion below provides a brief cultural context for the Study Area.

4.1 Precontact Context

The cultural context for the precontact period is defined by different temporal periods and cultural complexes based on cross-dating of distinct artifact types, cultural patterns and adaptions, climate change, and radiocarbon dates, as available. Several key archaeologists have contributed to the development of the chronological framework for the Mojave Desert such as Warren (1980, 1984; Warren and Crabtree 1986), Sutton et al. (2007), Sutton (2017), and others. Sutton (2023) recently refined the chronology for the Mojave Desert and suggests that chronological frameworks should be defined by cultural systems with a focus on traditions, patterns, and phases.

The generalized cultural sequence proposed by Sutton (2023) for the Mojave Desert includes the potential pre-Clovis occupation of the region, the Mojavean tradition, the Encinitas tradition, the Northern Mojave pattern of the Montane tradition, and the Palomar tradition. This chronology is summarized and presented here in the sections below and in Table 4-1.

Table 4-1. Precontact Chronology for the Mojave Desert as Proposed by Sutton (2023)

Tradition	Pattern	Phase	General Date (BP)	Primary Marker Traits	Settlement System	Subsistence System
Palomar	Southern Mojave	Mojave River	1000-200	Desert series points, ground stone, villages	Initial permanent occupation of the Mojave River Valley	Acorns and pinyon nuts, mesquite, seeds, large and small game
		Traverse	1000-200	Desert series points, ground stone, villages	Diffusion of California traits east across the eastern Transverse Ranges	Acorns and pinyon nuts, small seeds, large and small game
Montane	Northern – Western Mojave	Montane II	600–200	Desert series points, abundant ground stone, brown pottery, inhumation	Relocation of settlements to montane settings, large villages	Acorns and pinyon nuts, seeds, large and small game
		Koehn Lake	1300–600	Rose Spring points, ground stone and obsidian, brown pottery, dark middens, inhumation	Large settlements at springs and a few long-term lakes in lower settings along the northern portion of the Mojave Desert	Mesquite, seeds, large and small game, emphasis on leporids
		Montane I	5000–1300	Elko and Gypsum points, ground stone, inhumation	Small settlements in montane settings of the southern Sierra Nevada, Tehachapi Mountains, Sierra Pelona, and Coso Range, and western Mojave Desert	Acorns and pinyon nuts, seeds, large and small game

Tradition	Pattern	Phase	General Date (BP)	Primary Marker Traits	Settlement System	Subsistence System
Encinitas	Greven Knoll	Greven Knoll III	3000–1000	Elko points, abundant ground stone, cairn inhumations	Settlements along the northern fringes of the San Gabriel and San Bernardino Mountains	Yucca, seeds, large and small game, bones processed
		Greven Knoll I	4000–3000	Elko points, abundant ground stone, late discoidals, cairn inhumations	Settlements along the northern fringes of the San Gabriel and San Bernardino Mountains	Seeds, large and small game, bones processed
		Greven Knoll I	9400–4000	Pinto points, abundant ground stone, cairn inhumations	Settlement on streams, springs, lakes, valley floors, and montane settings	Seeds, large and small game, bones processed
Mojavean	Pinto	Pinto III	5000–4000	Pinto points	Settlements moved to edges of the Mojave Desert, abandonment of the desert proper	Seeds, small game
		Pinto II	7500–5000	Pinto points, loss of GBS points, cremation(?)	Occupation of springs with reliable water, large central camps	Seeds, small game, fewer artiodactyls
		Pinto I	8500–7500	Pinto points with GBS points, increase in ground stone, loss of crescents	Abandonment of lakeshores, settlements moved to streams and springs	Seeds, small game, artiodactyls
	Lake Mojave	Lake Mojave II	9300–8500	GBS points, ground stone, and crescents, loss of GBCB points	Continued occupation of lakeshores, streams, and springs	Lacustrine resources; focus on seeds, small game, and artiodactyls
		Lake Mojave I	12,000-9,300	GBS points, crescents, and ground stone, GBCB points, lack of Fluted Points	Occupation of lakeshores, streams, and springs, expansion in the Mojave Desert	Lacustrine resources; focus on seeds, small game, and artiodactyls
	Lakebed	Lakebed II	12,900–12,000	Appearance of GBCB fluted points, joint presence with Western Fluted points	Primary occupation of lakeshores in the western Mojave Desert, continued visitation of other areas of the desert	Lacustrine resources, loss of megafauna, greater emphasis on artiodactyls
		Lakebed I	13,200–12,900	Appearance of Western Fluted points	Occupation of lakeshores in the western Mojave Desert, visitation of other areas of the desert	Lacustrine resources, megafauna
Pre-Clovis	--	--	>13,200	Unknown	Unknown	Unknown

GBS=Great Basin Stemmed; GBCB=Great Basin Concave Base

Source: Sutton (2023): Table 2 and 3

4.1.1 Pre-Clovis Tradition (>13,200 B.P.)

Archaeological research currently suggests the earliest pre-Clovis occupation in the western Americas likely took place along the Pacific Coast route at sites such as Monte Verde II (14,500 BP) (Dillehay et al. 2015; Erlandson and Braje 2011). The concept of a pre-Clovis presence in the Mojave Desert is the

subject of debate among the archaeological community. One of the most controversial archaeological sites to claim a pre-Clovis occupation in the central Mojave Desert is the Calico Early Man site (>60,000 BP), recorded as a lithic quarry and workshop (Leaky et al. 1968; Shlemon and Budinger 1990; Owen et al. 2011). Archaeologists debate the authenticity of the artifacts recovered and age of the geological deposits at the Calico site (Shlemon and Budinger 1990; Owen et al. 2011). Other debated pre-Clovis sites are reported near high lakes stands at Lake China in western Mojave and Lake Manix, the Lake Manix Lithic Industry, in central Mojave Desert (Sutton 2023). Currently, no compelling archaeological evidence has secured a positive pre-Clovis site in the Mojave Desert.

4.1.2 The Mojavean Tradition (ca. 13,200 to 4000 BP)

The Mojavean Tradition proposed by Sutton (2023) is described as a single cultural entity consisting of the following patterns.

The Lakebed Pattern (ca. 13,200-12,000 BP)

The Lakebed Pattern delineates two district phases, the Lakebed 1 (ca. 13,200 to 12,900) and II (ca. 12,900–12,000), each characterized by unique fluted project point technologies and potentially different types of subsistence systems (Sutton 2023). The groups associated with this pattern appear to have only occupied the western Mojave Desert. The Lakebed 1 Phase represents the potential peopling of the Mojave Desert from the southern San Joaquin Valley region or from the north (i.e., Owens Valley) bringing a Clovis-based technology (Sutton 2023). The phase is characterized by an emphasis on the use of Western fluted points and some smaller stone tools and an absence of stone milling tools. The Lakebed II Phase is characterized by the continued use of Clovis technology and the appearance of the Great Basin Concave Base (GBCB) points, with the potentially to be bit younger (Sutton (2023). It remains uncertain whether the point morphologies relate to a single or two separate technological traditions. Lakebed archaeological components are uncommon in the Mojave Desert and have only been identified primarily as isolates in the Mojave Desert and few habitation sites, one with the general association of Pleistocene megafauna (e.g., mammoth), located within the pluvial Lake China basin (north of the Antelope Valley) (Sutton et al. 2007; Sutton 2023). Fluted points have also been identified at Edwards Air Force Base in northwestern Antelope Valley (Caltrans 2019). The Lakebed I Phase subsistence strategy remains unclear as there is no direct archaeological evidence linking flora and fauna exploitation. Based on the locality of discovered artifacts, Lakebed I subsistence efforts may have been focused on migratory megafauna and lacustrine resources. This is not to say that they did not exploit a variety of small game and plant resources, especially with the extinction of megafauna. Hence, by the Lakebed II Phase, subsistence may have shifted toward small mammals. Lakebed groups possibly entered the Mojave Desert as the climate was becoming warmer and dry and the lakes in the region were starting to recede. Currently, data suggest these groups were hunters and collector-gatherers centered in the Lake China basin, with visits to the western Mojave Desert and southern Sierra Nevada to further exploit resources (Sutton 2023).

The Lake Mojave Pattern (ca. 12,000-8800 BP)

The Lake Mojave Pattern is characterized by the Great Basin Stemmed (GBS) projectile points and the Lake Mojave and Silver Lake point types, and an absence of the Western fluted points (Sutton 2023).

During this pattern, the Mojave Desert continued to become warmer and drier, resulting in the continued recession of the pluvial lakes. Sutton (2023) proposes that the Lakebed and Lake Mojave groups were a single population continuum (shared origin) adapting to variable environmental conditions through technological improvements in tools and subsistence acquisition. The Lake Mojave Pattern contains two district phases, Lake Mojave I (ca. 12,000 to 9,300 BP) and Lake Mojave II (ca. 9,300 to 8,500 BP), which are primarily differentiated by tool technology.

The Lake Mojave I Phase groups migrated to the south and east across the Mojave Desert to inhabit areas such as the lake basins of the Mojave River system and other localities in the desert at lakes, streams, and springs (Sutton 2023). The Lake Mojave I assemblage consists of GBCB and GBS points, crescents, and a relatively low frequency of stone milling equipment. As the megafauna became extinct across the desert, artiodactyl hunting became more specialized and supplemented with smaller mammals and reptiles. The precise utilization of crescents is currently uncertain, they may have served a function for hunting and processing resources (e.g., waterfowl) in aquatic environments since they are typically identified along Late Pleistocene or Early Holocene Lake shorelines, marshes, and estuaries (Caltrans 2019; Moss and Erlandson 2013; Sutton 2019). The presence of milling equipment suggests the processing of plant resources such as seeds (Sutton 2023). Settlements continued around lacustrine resources of lakes shorelines and expanded to other freshwater locations (i.e., streams, springs) with a subsistence system focus on seeds, small game, and artiodactyls (Sutton 2023).

During the Lake Mojave II Phase, the tool assemblage is like the Lake Mojave I Phase, except only the Lake Mojave and Silver Lake point types were in use and the use of GBCB points was abandoned (ca. 9500 BP). Sutton (2023) suggests groups may have dropped the use of GBCB point forms due to the success rate of GBS points for hunting artiodactyls. As the desiccation of pluvial lakes continued in the persistent warm and dry climate, lake levels became shallower and more intermittent. As lakes became a less reliable ecozone for resources, groups focused on other areas with more consistent water availability (i.e., streams, springs). As the focus shifted from lacustrine resources, groups expanded to other patches in the desert to hunt small mammals and collect seeds such as mesquite, which was present by 9000 BP (Koehler et al. 2005). Groups during this phase may reflect a settlement pattern of a more generalized hunting and collecting adaptation utilizing desert scrub resource communities rather than lacustrine.

The Pinto Pattern (ca. 8500 to 4000 BP)

Succeeding Lake Mohave I and II Phases in the regional sequence is the Pinto Pattern consisting of three phases: Pinto I (8500 to 7500 BP), Pinto II (7500 to 5000 BP), and Pinto III (5000 to 4000 BP). This pattern is marked by the introduction of Pinto projectile points, eventually rendering the GBS obsolete during the Pinto II Phase. The Pinto Pattern subsistence system is portrayed as having a greater diet breadth than during the Lake Mohave Pattern. Large game hunting continued as the subsistence focus, but vegetal use and small animal (e.g., rabbits, hares, rodents, and reptiles) exploitation increased as environmental conditions deteriorated (i.e., Altithermal) and artiodactyl productivity decreased (Warren 1980; Warren and Crabtree 1986; Caltrans 2019). In the Antelope Valley, Pinto type sites tend to occur in open settings near extinct streams and springs (Caltrans 2019).

During the Pinto I Phase (ca. 8500 to 7500 BP), the environmental conditions continued to follow a warm and dry trend and most, if not all, of the pluvial lakes had become dry. The lakes may have experienced occasional, albeit temporary, infilling during wetter seasons and major storm events. This phase is marked by the introduction of Pinto projectile points and an increase in the use of stone milling equipment (Sutton 2023). GBS points continued to be utilized but crescents become obsolete. Similar to the Lake Mojave Pattern, flaked stone, lithic bifaces, retouched flakes, and debitage of rhyolite, basalt, and quartzite materials were also part of the Pinto assemblage. In the western Mojave Desert, rhyolite is readily available and there was an emphasis of use by the Pinto phase groups. As the lakes became arid playas, groups were drawn to streams and springs and subsistence shifted from lacustrine ecozones to a more focused collector-like system (Sutton 2023; Binford 1980).

The Pinto II Phase (ca. 7500 to 5000 BP) is marked by the abandonment of GBS points and the preferred use of the Pinto projectile point series. The warming trend of the Mojave Desert continued during this time and settlements continued to shift to more reliable, albeit few, fresh water sources such as Salt Springs in the central Mojave Desert (e.g., Byrd et al. 1994 and Warren 1980, cited in Sutton 2023). Sutton (2023) suggests populations may have decreased due to declines in available water sources and preferred subsistence resources such as artiodactyls.

The Pinto III Phase (ca. 5000–4000 BP) is characterized by the abandonment of the Mojave Desert by Pinot groups due to the unfavorable arid conditions of the Mojave Desert as streams and springs continued to desiccate (Sutton 2023; Sutton 1996:231). Settlements groups declined in size and moved to higher elevation areas with more reliable resources along the outskirts of the Mojave Desert. Collector-like subsistence practices persisted as some groups conducted logistical expeditions into the upland and desert ecozones, acquiring resources such as pinyon in the uplands and mesquite, along with other small plants and animals, at lower elevations.

The Bean Spring Site (CA-KER-2821/H) situated northwest of Willow Springs in the Antelope Valley represents a large prehistoric (and historic era ranch) site with a recovered assemblage that represents projectile point types that span the Mojavean Pinto Phase and Montane I and II Phases with recovered artifacts such as GBS, Pinto, Elko, and Cottonwood type projectile points (Caltrans 2019).

4.1.3 The Encinitas Tradition (ca. 9400 to 1000 BP)

Along the southwestern Mojave Desert, the San Gabriel and San Bernardino Mountains were occupied by the Encinitas Tradition (often imprecisely called the Millingstone Horizon). The tradition is characterized by a transition from large projectile point tool use to a period of extensive millingstone and core tool use (Sutton 2023: 22). The artifact assemblage typically consists of millingstones (manos or handstones, and metates), hammerstones, crude scrapers, cores, and other flaked-based stone tools. Manos and metates are thought to have been used to process small, hard seeds (and possibly nut) associated with the local vegetation communities (Glassow et al. 2007). Faunal assemblages from sites occupied along or near the southern California coast (bays, lagoons, and estuaries) suggest subsistence consisted primarily of shellfish and plant resources, with hunting and fishing secondary (Erlandson 1994; Byrd and Raab 2007). Interior sites also illustrate an emphasis on processing floral

(e.g., nuts and seeds) resources and hunting of a variety of faunal resources (e.g., deer) (Byrd and Raab 2007; Glassow et al. 2007). Populations were semisedentary.

The Greven Knoll Pattern (ca. 9400 to 1000 BP)

Sutton (2023:22) suggests the Greven Knoll Pattern was partly a response to arid conditions during the Altithermal and represents the movement of groups from the northern interior of southern California to the Transverse Ranges within the southwestern fringes of the Mojave Desert (i.e., the San Gabriel and San Bernardino Mountains). The Greven Knoll artifact assemblage is characterized by the rarity of projectile points, cogstones, and discoidals, and the plentitude of ground stone milling equipment such as manos and metates and the general lack of mortars and pestles, suggesting acorns were not processed in the interior until much later. Subsistence appears to be focused primarily on plant resources and small game. The Mojave Desert cultural influence occurs at sites with the presence of Pinto or Elko series projectile points, albeit rare. Greven Knoll Pattern groups had a flexible and long-lasting adaption and settled along lakes, streams, springs, the valley floor, and some mountainous areas.

The most notable characteristic of the Greven Knoll I Phase (ca. 9400 to 4000) is the increase and abundance of manos and metates and the rate occurrence of Pinto projectile points (Sutton 2023:22). During this phase, the Pinto pattern technology may have spread southward from the Mojave Desert, or it may have been introduced by migrating Pinto Pattern groups moving south from the Transverse Ranges (Sutton 2023:22). Taylor (1961, as cited in Sutton 2023; also see Moratto 1984:546–547) suggests that Hokan (Yuman) communities migrated from the desert to the coast around the onset of the Altithermal or slightly before, bringing with them milling stone technology.

The Greven Knoll II Phase (ca. 4000 to 3000 BP) retains the characteristic of Greven Knoll I, except for the transition from Pinto Points to Elko points (although projectile point occurrence is rare) and the lack of “scraper planes,” a unifacial lithic tool with steep edges, potentially utilized for scraping hides or processing vegetal materials like yucca (Wilmsen 1968, cited in Sutton 2023). During the Greven Knoll III Phase (ca. 3000 to 1000 BP), the “scraper planes” begin to occur and become the marker of this phase, along with Elko points (still rate) and roasting pits that potentially were used for preparing yucca. The Lovejoy Spring site located north of the San Gabreil Mountains and situated on the Mojave Desert floor, along a series of small buttes, yielded material attributed to the Greven Knoll II or III Phase (Sutton 2023).

4.1.4 The Montane Tradition (ca. 5000 to 200 BP)

The Montane Tradition (ca. 5000 to 200 BP), as suggested by Sutton (2023:31), demonstrates the evolution of societies speaking Northern Uto Aztecan (NUA) languages in the northwestern Mojave Desert (potentially the origination of NUA) and the southern Sierra Nevada into the ethnographically known Takic (Kitanemuk, and possibly Tübatulabal) and Numic groups (Kawaiisu, Koso Shoshone, and Southern Paiute) of the region. There are two distinct patterns of the Montane Tradition proposed by Sutton (2023): the Northern Mojave Pattern, comprising four phases and the Eastern Mojave pattern consisting of two phases. The Northern Mojave Pattern is presented here (as proposed by Sutton 2023) because it is thought to have been present in the Antelope Valley.

The Northern Mojave Pattern

The Northern Mojave Pattern represents the cultural groups inhabiting the northern and western edges of the Mojave Desert. It is commonly accepted that the NUA languages potentially had its origins in the western Mojave Desert and southern Sierra Nevada, where it is believed groups spoke proto-NUA languages (Sutton 2023; Moratto 1986; Shipley 1978). During this pattern, people diversified their subsistence-settlement strategies with the appearance of the mortar and pestle, and introduction of the bow and arrow with the appearance of Rose Springs projectile points near the later part of the pattern (Warren 1984:414-420). Increased trade also played a role in this desert adaptation. The Northern Mojave Pattern is delineated in four phases: Montane Phase I, Koehn Lake, Coso, and Montane II. Each phase is characterized by shifts in settlement patterns, subsistence strategies, and the seasonal cooperative utilization of the Mojave Desert lowlands for resource procurement. The Coso Phase groups inhabited the montane ecozones of the southern Sierra Nevada, the Argus Range, and the southern Panamint Mountains. The Montane I, Koehn Lake, and Montane II Phase groups lived in or near the Antelope Valley and are discussed below.

Montane I Phase (ca. 5000 to 1300 BP) groups occupied the mountain and foothill regions of the Sierra Nevada, Tehachapi Mountains, Sierra Pelona, and Coso Range. The western Mojave Desert was visited by these groups as a shared territory to utilize resources, as needed. The Montane I assemblage is characterized by the presence of ground stone, shell beads, and Elko and Gypsum projectile points. A shift in new technology occurs around ca. 1,800 BP with the introduction of the bow and arrow as indicated by the use of smaller, triangular, Rose Spring projectile point types (Allen 1986; Yohe 1998). The adoption of this new technology may have increased hunting efficiency, potentially resulting in resource depression. The use of atlatl spears with the larger Elko and Gypsum type projectile points continued to about ca. 1300 BP, after which they are no longer represented in assemblages. Subsistence was focused on resources such as pinyon nuts, acorns, various other flora, and larger and small mammal resources such as lagomorphs and rodents.

The Koehn Lake Phase (ca. 1300 to 600 BP) is differentiated from the Montane I Phase as a time when groups shifted settlement and subsistence patterns. During this phase, groups transitioned from the highland regions to locations with favorable resources (i.e., fresh water, flora, and fauna) within the core Mojave Desert. Technology also shifted with the loss of the Elko and Gypsum type projectile points, the continued use of the Rose Spring types during the early portion of the phase, and the later adoption of the Cottonwood triangular projectile point type. An increase in obsidian from the Coso Volcanic Field in the Coso Range also marks this phase. Brownware pottery and incised slate ornaments and shell beads are also present (Klimowicz 1988, Ritter 1980, and Sutton 1982, cited in Sutton 2023). Subsistence included mesquite, acorns, other various plants, and large and small game with an emphasis on lagomorphs. Commodities such as obsidian and marine shell were acquired through trade. Sutton (2023) suggests the site type for the Koehn Lake Phase is the village at the Koehn Lake site (CA-KER-875) located in mesquite dunes along the southwestern shoreline of Koehn Lake in the Fremont Valley (over 20 miles northeast of the Study Area). The site contained dark middens, projectile points, an abundance of ground stone, faunal material (i.e., lagomorphs), and sub-terranean structural post of mesquite (Sutton 2023: 35). Environmental conditions were most likely more mesic during the occupation of the site. Evidenced of burned juniper berries recovered

from the site suggest a juniper woodland was nearby. Former, small, Montane I Phase habitation sites within the foothill areas evolved into larger villages containing dark middens, a significant quantity of cultural material, and inhumation cemeteries. Examples of sites attributed to the Montane I Phase in the western Mojave include CA-KER-303 (Cottonwood Creek) in the foothills of the Tehachapi Mountains and CA-LAN-488 located in the foothills of the Sierra Pelona along the southwest margin of the Mojave Desert. Other habitation areas were established near water sources such as springs and creeks.

Sutton (2023) attributes the Montane II Phase (ca. 600 to 200 BP) with the ancestors of the Numic Kawaiisu along the northern edge of the Mojave Desert (e.g., foothill and montane areas), with the Takic Ktianeumuk of the western Mojave Desert (see Section 4.2, and Figure 4-1) exhibiting a similar archaeological pattern. This phase is marked by a shift in settlement as groups returned to the upland areas, like the Montane I Phase. Montane II coincides with the MCA and the environmental conditions of the Mojave Desert became more arid and drier, resulting in water sources such as Koehn Lake, or streams and springs receded or completely dried up. As available water and resources declined in the desert, groups relocated to more favorable upland areas. The assemblage is characterized by locally made brownware pottery, trade items, beads, bedrock mortars, and the continued use of Cottonwood projectile points and the introduction of Desert Side-notched forms (Sutton 2023: 37).

An example of sites near and within the western Antelope Valley attributed to the Montane I and Koehn Lake phases include CA-KER-303, the Montane II phase includes the ethnographic Sand Canyon Kawaiisu village complex on the boarder of the southern Sierra Nevada and Mojave Desert and the Bean Spring site northwestern Mojave Desert (noted above) and Koehn Lake phase sites include Willow Springs (CA-KER-129), Buckhorn Springs (CA-LAN-1992), and Cantil (CA-KER-2211) (Sutton 2023).

4.1.5 The Palomar Tradition (ca. 1000 to 200 BP)

The Palomar Tradition generally encompasses the southern Mojave Desert along the northern flank of the eastern Transverse Ranges (San Gabriel and San Bernardino Mountains) and northward along either side of the Mojave River (Sutton 2023:41-42). Prior to 1000 BP, this area was occupied by the Encinitas groups with the latest occupation attributed to the Greven Knoll III Phase. The Palomar Tradition includes the Southern Mojave Pattern, which is divided in two phases, the Mojave River and Traverse. By ca. 1000 BP, prehistoric aspects of the Takic Serrano became combined in the Mojave Pattern phases. Sutton (2023:41) suggests the cultural characteristics of the Mojave River Phase reflects Desert Serrano groups, and the Transverse Phase reflects the ancestors of the Mountain Serrano (Sutton 2023; Sutton and Earle 2017).

The Mojave River Phase (ca. 1000 to 200 BP) is characterized by the emergence of the Desert Serrano after ca. 1000 BP that settled along the Mojave River and adjacent areas through ethnographic times. This phase includes the diffusion of Palomar traits eastward from Sierra Pelona along the northern margin of the San Gabriel Mountains. The archaeological assemblage markers include Desert series points, ground stone milling tools including mortar and pestles, shell beads, some local brownware pottery, and traded pottery (Sutton 2023: 43). Settlement occurred as village sites along the Mojave River and margin of the San Gaberiel Mountains, and potentially other satellite sites in areas beyond

the river. Subsistence was based on a wide variety of flora and fauna resources available along the riparian zone of the Mojave River and adjacent areas. Plant resources such as mesquite, juniper, yucca, cacti, and tule, and large and small game such as pronghorn, desert bighorn, deer, and small game such as lagomorphs, rodents, reptiles, and insects. The Mojave River phase groups did practice agriculture. The Mojave River served as a trade route among various groups exchanging commodities between the southern California Coast and the southern San Joaquin Valley with the Colorado River and the Southwest.

Transverse Phase (ca. 1000 to 200 BP) groups (Mountain Serrano) occupied the foothill and mountain settings of the San Bernadino Mountains. The assemblage is characterized by large, deep, dark middens; shell and steatite artifacts; obsidian; bedrock mortars; and pictographs. Subsistence included acorns and pinyon nuts, small seeds, and large and small game.

4.2 Ethnographic Overview

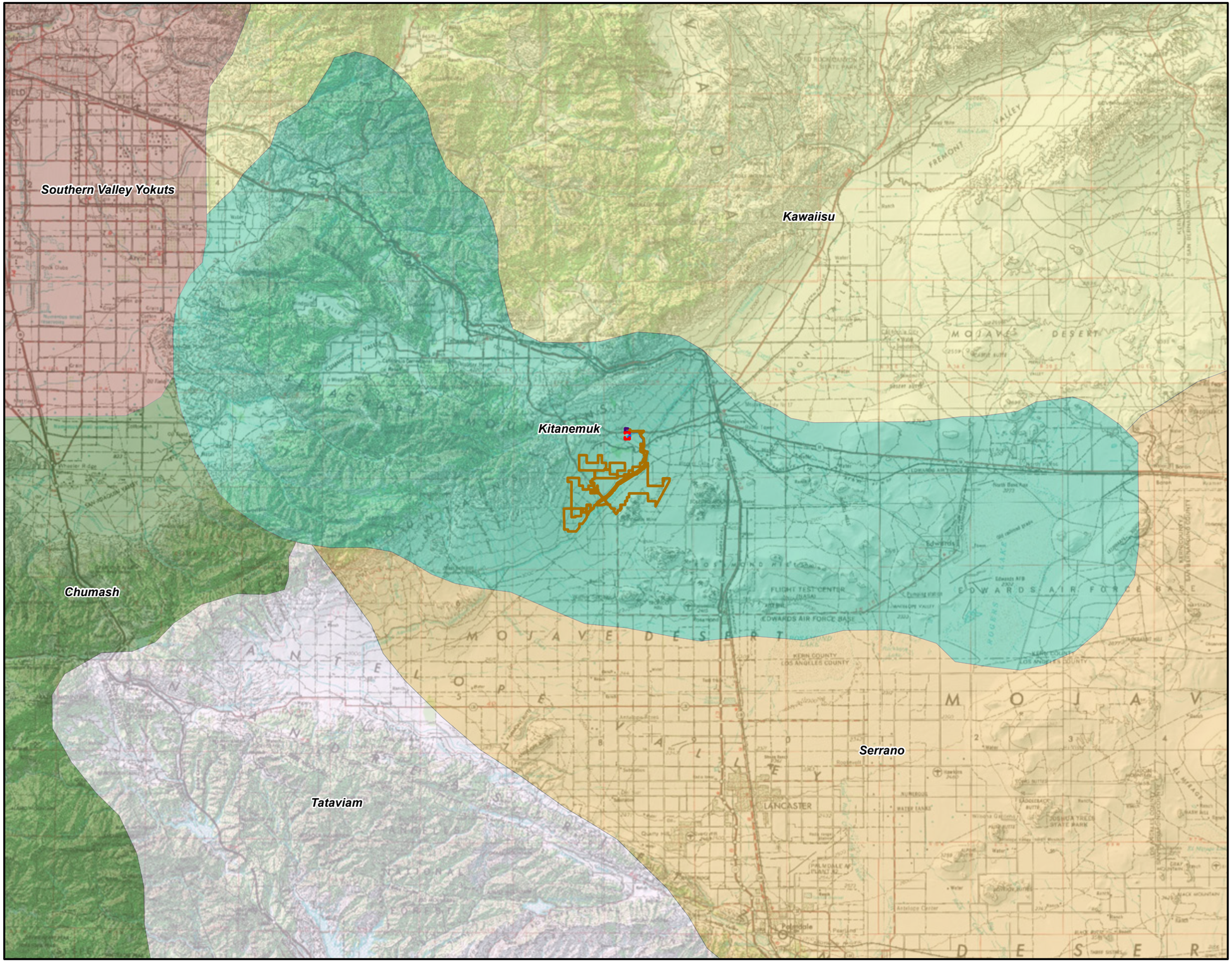
The Study Area is within the ethnographic territory of the of the Kitanemuk, who spoke a Serran language of the Takic family (Kroeber 1925, Blackburn and Bean 1978; see Figure 4-1). There is very little ethnographic information regarding the Kitanemuk lifeways. Available ethnographic sources and information were developed from J.P. Harrington's unpublished 1917 interviews of the Kitanemuk by researchers such as Kroeber (1925) and Blackburn and Bean (1978), and in combination with archaeological data such as Sutton (1980). Ethnographic information was gathered during the historic era after the Kitanemuk had already been displaced from their homeland and subjected to over a century of hardships (i.e., Franciscan mission system, foreign diseases, the Indian reservation system, Euro-American encroachment, and settlement). Interviews regarding Kitanemuk settlement in the Antelope Valley were conducted by surviving Native Elders living in other regions (Blackburn and Bean 1928; Caltrans 2019). Hence, there is little available ethnographic contact era data available, and the reconstruction of the Kitanemuk cultural and political geography in the Antelope Valley is limited (Blackburn and Bean 1978; Caltrans 2019; Sutton 1980). It should be noted that the summary below is drawn from studies (as described above) conducted by 20th century Euro-American researchers and does not necessarily include a Tribe's (descendants) perspective of their people and culture.

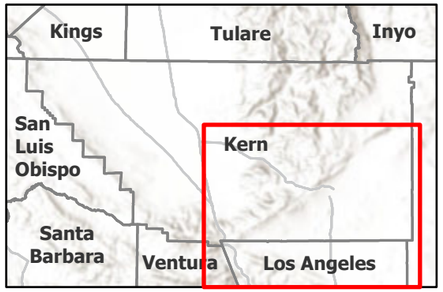
The Kitanemuk occupied areas along fresh water sources in the Tehachapi Mountain foothills, areas along the northern slopes of the Liebre and Sawmill Range, and portions of the western Antelope Valley of the Mojave Desert (Kroeber 1925; Blackburn and Bean 1978). Their territory was bounded by the Kawaaiisu to the north, the Southern Valley Yokuts to the northwest, the Chumash to the southwest, the Tataviam to the south, and the Serrano to the south and southeast. The Kitanemuk engaged in various types of interactions and trade relations with various coastal and inland valley and desert neighboring Tribes (Blackburn and Bean 1978; Kroeber 1925, Sutton 1980).

Discovery Solar PV and Storage Project

Kern County, CA

Figure 4-1. Tribal Territories





Windhub High-voltage Substation (Existing)

Proposed Project Features

Study Area

Other Applicant and/or Affiliate Controlled*

Step-up HV substation

Gen-tie Corridor

Tribe Name

Tataviam

Southern Valley Yokuts

Serrano

Kitanemuk

Kawaiisu

Chumash

Source: Backburn and Bean 1978

*Already approved under separate projects.

N

0 2.5 5 10 Miles

Scale is 1:400,000 when printed at 11"x17"

Not for Construction

\\cess70\gis1\CES\Projects\BOTG\PROJECTS\EDSAN_3_SOLAR_1403-0001\CULTURAL\MAPS\Discovery_Cultural_Report_Figures.aprx

Available ethnographic data suggest the Kitanemuk practiced customs similar to the Yokuts and the inland Chumash (Blackburn and Bean 1978; Kroeber 1925). Their territory included a vast area with a wide range of ecosystems from montane to high desert with a broad range of fauna and seasonal flora resources. The Kitanemuk economic subsistence was most likely based on available resources in their territory, such as pine nuts and acorns, mesquite, various roots and seeds, and small game. It is uncertain whether the Kitanemuk utilized streams, creeks and/or lake beds for fishing and hunting waterfowl (Sutton 1996). Scholars (Blackburn and Bean 1978; Kroeber 1925; Sutton 1996) suggest that the Kitanemuk settlement pattern consisted of semi-permanent village sites within the Tehachapi Mountains and smaller special use/temporary sites focused on natural resource availability in the foothills and desert valley. A settlement in the western Antelope Valley at Willow Springs was identified as the village of Panukavea or Sesevjek, and it is unclear whether this site was affiliated with the Desert Serrano or the Kitanemuk or both (Caltrans 2019; Sutton 1980). Each village had a well-developed social and political structure that included a chief, a ceremonial manager, messengers, shamans, and diviners (Blackburn and Bean 1978:567). At the time of European contact, the Kitanemuk population was estimated at 500 to 1,000 individuals (Blackburn and Bean 1978).Mission records suggest that many Serrano (or Kitanemuk) from the Willow Spring Village were removed from their lands to the Spanish Mission system at Mission San Fernando in early 1800s(Sutton 1980). By the 1850s, the U.S. Department of Indian Affairs records indicate that some Kitanemuk were present at the Rancho Tejon Indian Reservation in southeastern San Joaquin Valley (Hitchcock 2020; Caltrans 2019).

4.3 Historic Era

The Study Area is in southeastern Kern County along the northern edge of Antelope Valley. Early in the historic period, the area was rural and primarily undeveloped desert land with only a few roads; the Southern Pacific Railroad, now known as Burlington Northern and Sante Fe Railroad (since 1995; BNSF 2024); various mines at the Buttes; and the Los Angeles Aqueduct until the mid-1960s. By 1965, various minor roads and a few structures are present. The Study Area continues to be relatively rural desert land, although in recent decades solar and wind power infrastructure in the surrounding area has developed. Nearby municipalities include Mojave to the west, Rosamond to the southwest, and Tehachapi to the north of the Study Area. The early settlement and travel to these areas often included passage through the Study Area. The historic context below provides a brief history of Kern County and the northern portion of the Antelope Valley and focuses on the built environment features found in the Study Area.

4.3.1 Early Euro-American Settlement

During the period of early Euro-American settlement, the Antelope Valley was the location of several trails, roads, and eventually rail lines that crossed the desert providing a means of travel for a variety of peoples. The Spanish arrived in the late 1700s and began establishing missions throughout California until the late 1800s, often engaging in conflicts with the aboriginal population that led to warfare. Fur trappers and Euro-Americans began to cross the desert in the early to mid-1800s. The Gold Rush era instigated the railroad, and surveyors began plotting a route for a transcontinental railroad. By the 1860s, livestock was driven to the Mojave Desert in the spring to feed in desert pastures and flocks of sheep were herded from the San Joaquin Valley along with cattle from the Kern

River to the east (Boyd 2000). During this period, the Antelope Valley's main economic mainstays were ranching and mining (Boyd 2000).

Kern County was established in 1866. The first non-native exploration of the northern Antelope Valley began in the 1700s and later in the 1840s; permanent settlement occurred during the 1850s due to an influx of people headed to the new territory of California for gold. In 1854, Fort Tejon, a military post, was established near Castaic Lake and Grapevine Canyon, approximately 32 miles southwest of the Study Area (LA County Library 2024).

The increase in development of the Antelope Valley peaked in the mid-1800s and can be attributed to several factors including the appeal of gold mining near the Owens and Kern Rivers, increased stagecoach and wagon travel to the area, and construction of the Southern Pacific Railroad line in 1876 (Boyd 2000). Homesteaders grew alfalfa, barley, wheat, and fruits and nuts from the 1810s into the 1890s, but between 1894 and 1904 a decade-long drought occurred, ending the agricultural boom and forcing many settlers to flee (LA County Library 2024). With the end of the drought, farmers returned and used technologically advanced irrigation methods, including electricity, which resulted in more reliable irrigation (Boyd 2000). From 1904 through 1913, the Owens River Aqueduct was built, spanning 233 miles between the Owens Valley, bringing water to Los Angeles, which also contributed to the success of the Antelope Valley economy. Agriculture continues to be an economic driver for Antelope Valley, along with mining of antimony, borax, calcium, chloride, feldspar, granite, gypsum, iron, lead, lime, limestone, Marold, potash, rotary mud, salt silica, tungsten, uranium, volcanic rock, and zinc (LA County Library 2024). All of these mines are outside the Study Area. By the 1950s, some mines in Kern County contained the largest boron deposits in the world (Caltrans 2008). Renewable energy projects (wind and solar) are current economic contributors to the region.

4.3.2 Mining

Mining began in the El Paso Mountains during the 1860s and, by the middle of the 1890s, miners were moving into the region south of Mojave, digging for gold, silver, tungsten, salt, and pumice (Boyd 2000).

Mining in the Antelope Valley began in the mid-1890s at mines on Middle Butte, Soledad Mountain, and Standard Hill, producing both gold and silver (Boyd 2000). While there were no mines within the Project site or Study Area, there were mines adjacent and within a few miles. Middle Butte and its 19 mines are directly adjacent (but outside of) the Study Area to the southeast. Middle Butte Mine has undergone several periods of operation, the first of which began in 1894 into the early 1900s (Troxel and Morton 1962:43). The Great Depression instigated a second phase of operation in 1932. Gold was discovered at Cactus Queen Mine in 1934 and continued production until 1942 wherein the district experienced its most productive era (Troxel and Morton 1962:43,101-102). From 1942 to 1945, the mines were idle due to a halt in operations as a result of the Limitation Order L-208 issued by the United States which deemed gold mining as non-essential toward the World War II effort (McKinney 2018). In 1945, minimal operations resumed until another cessation in 1956. The Cactus Queen Mine was acquired in 1979 by CoCa Mines, Inc. and commercial operations resumed from 1986 to 1992 (Burnett and Brady 1990:85). The Cactus Queen mine has been intermittently in operation throughout the following decades into 2024 (Vredenburgh 2020; The Diggings 2024). Soledad Mountain, located

outside of the Study Area and approximately 2 miles east, was mined in 1897. Soledad Mine produced large amounts of silver and gold extracted from three mines on Soledad Mountain (Vredenburgh 2020). Standard Hill, also outside of the Study Area and more than 3 miles northeast, was in production from 1928 until 1942.

Residential settlement within the Study Area is sparse compared to surrounding cities like Sanborn, Mojave, and Rosamond. There are some residences within the Study Area that were constructed as recently as 2009, as well as remnants of former ranches constructed during the 1920s, 1930s, and 1950s. These are located outside the Study Area and are therefore not detailed in this report; however, their presence near the mines indicates these structures may have been associated with mining activities in the area as workers' residences or otherwise associated buildings.

4.3.3 Transportation

Two types of transportation have historically crossed through the Study Area: railroads and roads.

The Southern Pacific Railroad came to Mojave in the 1870s, followed by the Atchison, Topeka, and Santa Fe Railroads later in the 1880s. This opened areas previously unsettled by homesteaders in search of cheap land, turning the historically isolated desert area of Kern County and the Antelope Valley into a region that attracted many new settlers. There were several factors for the increase in settlement of the area, including the passage of federal acts. One was passage of the Homestead Act of 1862, which granted adult heads of families 160 acres of public land with the possibility of ownership if they lived on the land for 5 years. Another was the Pacific Railway Act of1862, which provided federal subsidies and loans and land for the construction of a transcontinental railroad (National Archives 2024a and 2024b), and resulted in further encouraging people to settle along the rail lines and routes and create family farms (LA County Library 2024). Communities were established along railroad stops, and Rosamond, Boron, and Inyokern became towns in this manner (Boyd 2000). Eventually, residential development occurred outside the rail centers, settling in what became Palmdale, Lancaster, and Rosemond. There are no historic built environmental features associated with the railroad within the Study Area.

There are 83 unpaved and paved roads and segments of roads within the Study Area. While some have been previously recorded as historical architectural features (see Chapter 6), others are minor, unnamed roads that have not been officially recorded. A review of historic maps depicts these roads in their former and current alignments varying in length from less than 0.5 mile to over 5 miles, with travel in various directions and routes. Most of the roads are minor and first appear on historic maps from the 1920s through the 1960s. One of the oldest roads through the area is Oak Road (outside of the Study Area), depicted on historic maps as early as 1876 as a dirt road that ran from Mojave west to Oak Creek Pass, the only route through the Tehachapi Mountains until the construction of the railroad through this area in 1876 (OHP 2024). The Los Angeles and Tehachapi Road (P-15-016251) is another early road, first shown on GLO maps in 1856, adjacent to a segment similar in length, crossing west moving toward southerly direction. It is adjacent to the current Tehachapi Willow Springs Road to the south.

Other roads in the Study Area are associated with mining operations and were constructed in later periods, first appearing on historic maps dating from 1935, crossing directly adjacent (or leading to)

the mines. Roads shorter in length that are connected to longer roads lead to remnants of structures, indicating they were constructed specifically by the owners of those ranches or residences. There are also roads that appear to be associated with the construction and access to the Los Angeles Aqueduct, which are mostly short segments that first appear on historic maps in 1935. Other roads were potentially constructed to build and then maintain transmission lines and their associated substations in the region, given their proximity to transmission lines. See Table 3-3 and Appendix B, which illustrate the various roads in the Study Area in their historic alignments.

The alignments of many of these minor dirt and unnamed roads within the Study Area have been altered, with some segments interrupted or no longer extant due to the placement of wind turbines or roads constructed to access wind farms that now intersect the historic route of a road. Some historic-era roads are currently inactive and are overgrown with vegetation from lack of use. The updated recordation for Tehachapi/Willow Springs Road, which is within the Study Area, is discussed in Chapter 6.

4.3.4 Conveyance Systems: Water and Electricity

The Los Angeles Aqueduct runs through the Study Area in a northeast to southwest direction. Construction of the Los Angeles Aqueduct began in 1908, in what resulted in an engineering feat—construction of a water conveyance system 230 miles long, delivering water from northern California to Los Angeles. Developed by William Mulholland, Engineer for the LADWP, the aqueduct's construction answered the need for additional water supply to the growing population of Los Angeles (LA Times 2024; Los Angeles Department of Water and Power 2024). Constructed in two phases, the first Los Angeles Aqueduct (a second was constructed in 1970) extends from the Owens River in the Owens Valley to the San Fernando Valley (Lancaster Museum of Art and History 2021). Mojave (outside of the Study Area) and Owenyo became important shipping stops for construction materials carried by rail via Southern Pacific Railroad (Board of Public Service Commissioners, City of Los Angeles n.d.). Construction of the first aqueduct was completed in 1913; the system was reinforced in places in the 1960s.

Workers hired by the Bureau of the Los Angeles Aqueduct were immigrants originally from Greece, Bulgaria, Serbia, Switzerland, Montenegro, and Mexico (Los Angeles Department of Water and Power 2024). The work was difficult and labor intensive, but the workers received daily pay and medical care, many living in worker camps set up adjacent to the construction areas. There are no extant built environment resources associated with the workers' camps in the Study Area.

Built environment features related to electrical transmission, such as transmission lines and affiliated substations, are located throughout the region of the Project. While not within the Study Area, the LADWP's Owens Gorge 230-kV transmission line is directly adjacent to the Study Area boundaries at the northeast. The line begins at the Upper Gorge Powerhouse and runs through Mojave, crossing the Silver Queen Mine through former alfalfa and hay fields in the western Antelope Valley, where it crosses the LA Aqueduct at 130th Street and continues for several miles until it reaches Sylmar, where it terminates (POWER Engineers, Inc. 2014).

During the 1880s through 1910, there was competition to create hydroelectric and electrical power sources by large corporations such as Pacific Gas & Electric Company and Edison to provide electricity

to growing cities in northern and southern California. Several small power companies and power lines were purchased and consolidated during this period (POWER Engineers, Inc. 2014). By the 1950s, LADWP had acquired land and rights-of-way to construct three 37,500-kilowatt power plants in the Gorge and the city also developed plans for work on a new 230-kV transmission line from the Angeles National Forest, following an existing right-of-way associated with a former line built from 1917 through 1925 (POWER Engineers, Inc. 2014). This 230-kV line, called the Owens Gorge Transmission line, constructed ca. 1950 through 1952, originally linked three LADWP powerplants in the Owens River Gorge near Bishop, California, to Receiving Station E, in Toluca Lake (POWER Engineers, Inc. 2014). The line has been modified several times over the years, although the existing alignment between the Owens Gorge and Sylmar was noted as intact at the last recordation in 2014 (POWER Engineers, Inc. 2014).

5.0 RESEARCH DESIGN FOR PREHISTORY AND HISTORIC ERA SITES

The goals of the Phase I intensive level field surveys were to identify the absence or presence of cultural resources within the Study Area, document current conditions of cultural resources identified during the fieldwork, evaluate their CRHR eligibility based on surface expressions (if possible), and provide management recommendations. A research design provides a theoretical framework for interpreting and evaluating the CRHR eligibility of precontact and historic-era archaeological sites by integrating research questions with available data such as the cultural context, archival research, fieldwork results, and artifact analysis.

Several research designs have been developed for the Mojave Desert for various types of energy projects and primarily for studies conducted at Edwards Air Force Base (about 36 miles southwest of the Study Area). This research design is extracted from Blumel and Sutton's (2023) research design developed for the Supplement Cultural Resource Inventory and Evaluation for Report for the Enterprise Solar Storge Project, Kern County (6 miles east of the Study Area). Their research design investigates paleoenvironment and shifts in land use across different time periods and explores how sites in the western Mojave Desert align with Sutton's (2023) updated model for prehistory (Chapter 4). Blumel and Sutton's (2023) research design is outlined here for consistency with Sutton's (2023) updated model for the Mojave Desert and consistency between current archaeological studies in the western Mojave Desert.

The field survey inventory results (discussed in Chapter 6) for this Project were positive for cultural resources and include a few prehistoric lithic and/or tool scatters and one bedrock mortar, with most sites related to the historic era. The historic era sites consist of refuse scatters and mineral extraction (mining) related sites. The relevant research themes for this Phase I study are briefly summarized presented below.

5.1 Prehistory Research Framework

5.1.1 Changes in Native Societies in the Western Mojave Desert

The updated model of Mojave Desert prehistory (see Chapter 4; Sutton 2023) suggests that certain areas of the western Mojave Desert were seasonally occupied by the Mojavean Montane and Palomar tradition groups, with some overlap (Blumel and Sutton 2023). This model also suggests that the western Mojave Desert (and other portions of the desert) served as a shared resource area throughout prehistory, with Native groups moving smaller task-based groups between their primary habitation zones to exploit distant resource patches in the desert. Multiple groups may have exploited predictable patches simultaneously and perhaps with some agreed-upon allocation of resources to each group. There is insufficient ethnographic data addressing conflicts arising from shared resources, and minimal discussion of shared resources in general. Blumel and Sutton (2023) suggest the model also provides a framework for examining linguistic change, population movement, and changes in settlement and subsistence systems.

Some questions related to the evolution of Native societies in the western Mojave desert include the following:

1. Is there evidence that can support the idea that a specific cultural tradition used this portion of the Mojave Desert (e.g. Pre-clovis, Mojavean, Montane, Palomar, or other)? If so, what can be said about its settlement and subsistence systems?
2. Is there evidence that can support the model of the Mojave Desert as a common pool resource zone used by multiple overlapping cultural traditions and ethnographic groups?

Data Requirements: multiple lines of evidence are required to make assignments to archaeological patterns and phases, and ultimately, cultural identity. The initial step includes an analysis of suites of traits with the dating of those traits used to refine phase dating. Although material culture such as diagnostic projectile points and pottery are useful in this respect, traits such as basketry and rock imagery are more culturally sensitive and unique. Projectile points are often difficult to interpret due to their portable nature, trade, and reuse of material. Settlement systems should be unique and include patterns of intersite organization and architecture in addition to the geographic distribution of site types. Similarly, subsistence systems include food and commodity preferences, as well as the associated technologies and organizations needed to obtain and process those materials. Funerary systems are also culturally specific in patterns of mortuary treatments (e.g., cremation or inhumation) and commemorations such as mourning ceremonies.

5.1.2 Temporal Control

Temporal control of archaeological sites is essential for the meaningful interpretation of archaeological data to address specific research questions. The three primary methods used to identify temporal control of archaeological material include: analysis of temporally sensitive artifacts, chronometric dating, and geomorphology.

Typologies of temporally sensitive artifacts such as projectile points and shell beads demonstrate changes in characteristics over time, thereby establishing their general periods of use. In addition, the absence or presence of specific classes of artifacts (e.g., groundstone, pottery) can provide general insight into temporal context of archaeological sites. It is essential to consider other factors when using temporally sensitive artifacts for dating sites, such as site activities, material reuse, cultural preferences, and trade (Blumel and Sutton 2023). Chronometric dating is often obtained by radiocarbon samples (e.g., charcoal, bone, and shell) and/or obsidian-hydration and sourcing of material. Geomorphological dates of mapped shorelines, dune formation or alluvial fans, stream channels, or luminescence dating of formations can assist in determining the age of archaeological sites.

Some questions related to temporal control include the following:

1. What is the full temporal extent of the occupation of the sites discovered? Do these sites represent the full occupational sequence of the region or just a subset of the sequence?
2. What was the intensity of prehistoric use of the general Study Area over time?

3. Does evidence of occupational "overprinting" exist? If so, how does this affect the dating of components?

Data Requirements: Archaeological data requirements include recording of temporally sensitive artifacts (e.g., projectile points, shell beads), thermal features such as hearths or roasting pits for radiocarbon dates, lab analysis of collected obsidian artifacts, and the location of sites on dated landforms.

5.1.3 Subsistence Systems

Subsistence systems are essential for the success of human life and deal with the acquisition and procurement of various food resources, fresh water, and shelter. Activities that are focused on subsistence would result in a variety of site types such as habitation sites, camps, hunting-related sites, gathering and processing sites, lithic scatters, and features (e.g., hearths, roasting pits). Archaeological evidence of subsistence processes would include floral and faunal remains (e.g., botanical remains, bone), technological implements such as projectile points, lithic tools, and milling equipment.

Some questions related to subsistence systems include the following:

1. What botanical remains are present at the sites? Do they match any known ethnographic use?
2. Does evidence exist for how botanical remains were processed or used?
3. In the absence of macrobotanical remains, can microbotanical (pollen and/or phytolith) analysis tell us anything about resource use?
4. In the absence of macro or microbotanical remains, can protein-residue analysis identify resources used?
5. Does any evidence exist for "imported" botanical materials (e.g., juniper firewood from the mountains)?
6. Does evidence exist for how animals were obtained, processed, or used?
7. Is freshwater shell present at any of the sites? If so, what kind, and where did it come from?
8. Where did the people at sites in the Study Area get their water? Springs are likely sources of water and several are known to the west and southwest. In addition, several ephemeral washes cross the Study Area.

Data Requirements: Archaeological data required for examining subsistence research questions for botanical processing include items such as burned seeds (potentially including seeds or pods from Joshua trees, juniper) and milling equipment or features. Faunal procurement data needs may include items such as projectile points, lithic tools, burnt faunal bone, intact features such as hearths or fire pits, and, potentially, milling equipment to process marrow. Data collection methods can include sampling features for palaeobotanical and faunal evidence and conducting protein residue analysis on lithic tools (e.g., projectile points, utilized flakes) and milling equipment.

5.1.4 Settlement Systems

Settlement systems examine how specific groups inhabited a geographic area and arranged its settlements on the landscape in culturally significant ways (e.g., sacred places, resource patches, travel corridors, habitation) that may depend on different variables (Blumel and Sutton 2023). Studies of settlement systems across a landscape require an understanding of cultural affiliation, site function, analysis of traits, site(s) layout, and site activity types.

Sutton (2017) theorizes that after 4,000 BP, large regions of the Mojave Desert were sparsely inhabited, and that groups resided in the adjacent foothills and portions of the Mojave Desert functioned as a resource area shared by different groups as circumstances allowed. Ethnographic data suggest that ethnographic boundaries may have been a bit fluid in the southwestern Mojave Desert with the Kawaiisu, the Kitanemuk, and the Desert Serrano allowing overlapping (or shared) use of specific resource areas, or "common pool resource patches" (Blumel and Sutton 2023). Such patch types in relation to sites should also be considered in settlement systems. See Table 5-1 for common pool resource patches and archaeological expectations for sites.

Table 5-1. Resource Patches and Archaeological Expeditions in the Western Mojave Desert Common Pool Resource Zone[1/]

Patch Type	Site Type	Social Unit	Predictability	Frequency	Examples
Perpetual Resource Patches					
Perennial springs	Large seasonal sites with midden and domestic refuse, use of nearby resource patches	Task groups to several families	Very good	Uncommon	Willow Springs, Buckhorn Springs
Abiotic raw materials	Extraction localities (quarries and mines) and associated short-term camps and reduction localities (small to large lithic scatters, individual reduction events, often merged)	Task groups	Excellent	Common	CVF obsidian source, rhyolite and cryptocrystalline rock quarries, salt mines
Ritual places	Small to large temporary camps reoccupied over time, some single-use places	Variable	Excellent	Uncommon	Rock-imagery sites, Eggshell Cave
Recurring Resource Patches					
Abundant seasonal biotic resources (e.g., mesquite, pinyon, and yucca)	Large seasonal sites with midden and domestic refuse	Families	Excellent	uncommon	Sites around Rosamond and Rogers Lakes
Limited seasonal biotic resources (e.g., small seeds, certain reptiles)	Small to large seasonally reoccupied sites with milling equipment, lithic debris	Task groups	Good	very common	Many examples
Large-game hunting	Wing traps, cairn complexes, associated small camps	Male task groups	Moderate	common	No archaeological examples of traps but some ethnographic data
Small-animal procurement	Day spot, small lithic scatters, trap features, processing localities	Families	Fair	very common	Bickel and Last Chance sites

Patch Type	Site Type	Social Unit	Predictability	Frequency	Examples
Biotic raw materials (e.g., basketry materials, medicinal plants, tobacco)	Day spot, few remains	female task groups	Good	Common	Difficult to recognize, no reported examples
Storage	Caches of equipment, supplies, and resources stored in sheltered localities, probably associated with resource patches	task groups	Good	Probably common	None so far identified
Transitory Resource Patches					
Infrequent but long-term biotic resource localities (e.g., multiyear lake stands)	Long-term habitation sites with midden and domestic refuse	families	Initially poor, then excellent	Rare	Koehn Lake
Ancillary Places					
Travel routes	Trails, cairns, circles, shrines, small overnight camps	task groups	Excellent	Common	Mojave Trail, trails to permanent resource localities, everyday trails
Opportunistic resource patches	Small lithic scatters, material prospects, single-event hunting sites, isolated hearths	individuals	Poor	Probably common	Few such specifically recognized sites
Resource monitoring	Small camps, often associated with other activities	in general, task groups	Poor	Probably common	Few such specifically recognized sites

1/ from Blumel and Sutton (2023), *Key CVF= Coso Volcanic Field

Some questions related to settlement systems include the following:

1. What types of sites are present in the Study Area? These could include permanent habitations (villages), temporary camps, quarries, lithic scatters, or other resource extraction sites.
2. What were the functions of the sites investigated?
3. What are the temporal spans of site use?
4. Can the sites be assigned to an archaeological tradition, pattern, and/or phase?
5. What do the site types reveal about intensity of use of the Study Area, such as being a focus of the use of a common pool resource area?
6. What is the evidence of changing settlement patterns through time?
7. Are there any human remains from the Study Area? If so, what is their nature (e.g., internments, cremations, primary or secondary, isolated or collective)?
8. Is there any evidence of a travel route through the Study Area?
9. The Kawaiisu are known to have put some cairns along trails. Are there any prehistoric cairns in the Study Area?

Data Requirements: Settlement systems may be addressed through identifying the functional classification of sites and corresponding phases, the distribution of site types within the Study Area and outside the Study Area, small ephemeral sites that may indicate a common pool resource area,

and temporary camps that lack architecture or cemeteries. Cultural indicators can include beads, pendants, milling equipment, a variety of lithic tools for resource processing, some projectile points (since communal hunts typically included nets or traps), and features such as cairns or shines along travel routes (Blumel and Sutton 2023).

5.1.5 Lithic Resource Acquisition and Technology

This topic characterizes the lithic artifact assemblages present at archaeological sites and how they change through time. The Phase I field survey for the Study Area identified 15 lithic scatters and 5 lithic and tool scatters consisting primarily of rhyolite and cryptocrystalline silicate, and to a lesser extent, obsidian.

Some questions related to lithic resource acquisition and technology include the following:

1. What is the nature of the tool stone for flaked stone tools that was reduced, used, maintained, and discarded at each of the sites? If large bifaces are present, were they quarry blanks, bifacial cores, or finished tools? If finished tools are found, is there evidence to suggest a focus on rhyolite that might be related to a Pinto Pattern occupation? If quarry material is present, what reduction strategies can be identified?
2. Do patterns of procurement and use of tool stone for flaked stone tools vary by material type? What kind of tool stone is present in cobble form in the Study Area and did people use that material on an expedient basis?
3. How did these patterns change over time, and what was the role of these sites in changing technological organization and subsistence strategies?
4. What types of stone were used to manufacture the recovered milling tools? If local materials were used, it may suggest that the area was used by highly mobile people that did not carry heavy tools with them. If not local, the stone sources might suggest that the people coming to the Study Area came from those areas.
5. Is the fire affected rock found at the Study Area obtained locally or was it brought in from other sources?

Data requirements: Data requirements include an examination and understanding of lithic reduction technology, methods, and source materials. Analysis of lithic assemblages may illustrate a preference for formal or expedient tools, methods of reduction and manufacture, raw material preferences, etc. The Study Area is within proximity to buttes and other potential locations for lithic materials that may have been acquired for lithic tool production. Table 5-2 includes site expectations and associated archaeological artifact assemblage types.

Table 5-2. A Simplified Lithic Reduction System[1/]

Action	Procedure	Site Type	Archaeological Signature
Raw Material Selection	Test material for suitability	Quarry or prospect	Fractured cobbles and primary flakes, all materials present if source rejected

Action	Procedure	Site Type	Archaeological Signature
Initial Reduction	Produce multidirectional cores	Quarry or prospect, possibly workshop or habitation site	Broken or rejected cores, primary and secondary flakes and platform preparation flakes, all debitage present
	Produce bifacial cores	Quarry or prospect, possibly workshop or habitation site	Broken or rejected early-stage bifaces, primary and secondary flakes, biface thinning flakes, all debitage present
Secondary Reduction	Reduce core into tool form	Habitation site, possibly workshop, quarry, or prospect	Broken or rejected cores, secondary and tertiary flakes and platform preparation flakes, some flakes missing
	Removal of large flakes from bifacial core to tool manufacture	Habitation site, possibly workshop, quarry, or prospect	Broken or rejected early to middle-stage bifaces, biface reduction flakes missing
Tool Manufacture	Complete tool by shaping, sharpening, and notching	Habitation site or workshop	Broken late-stage bifaces, biface thinning, pressure, and notching tertiary flakes, edge preparation, all debitage present
Tool Rejuvenation	Reform and resharpen broken or worn edges	Any site where tool was used and broken,	Percussion and pressure tertiary flakes, all debitage present

1/ from Blumel and Sutton (2023)

5.1.6 Obsidian Exchange

Obsidian artifacts recovered from various archaeological sites in the western Mojave Desert have been sourced to the Coso Volcanic Field (CVF; Blumel and Sutton 2023). Hence, it is expected that obsidian artifacts identified in the Study Area are most likely sourced from the CVF. If sourced from elsewhere, it may provide insight to mobility and exchange models. The survey of the Study Area for this Project identified 12 isolates and 5 sites that included obsidian. A total of 19 obsidian artifacts were recorded and include 1 Pinto type projectile point, 1 projectile point fragment (tip), 3 bifaces, and 14 pieces of debitage. No cultural material was collected as part of this Phase I survey. The research questions below are presented here for any potential future studies.

Some questions related to obsidian exchange include the following:

1. What general periods are represented by obsidian-hydration rims at the various sites?
2. Is there evidence of diachronic change in obsidian frequency at the sites?
3. Which obsidian sub-sources within the CVF are represented in the various sites? Did the preference of different sub-sources change through time?
4. Are there multiple hydration rims of arrow points that might suggest scavenging?

Data requirements: if possible, obsidian artifacts recovered from archaeological sites should undergo laboratory testing of obsidian samples (e.g., geochemical, obsidian hydration). It should be noted that no shell beads were observed during the Phase I field survey for the project.

5.1.7 Trade and Exchange

Trade and exchange activities include interaction with other prehistoric groups, trade travel routes (trails), trade systems, and how such systems changed through time. It is still uncertain what type of commodities were exported by western Mojave groups, but they may have include items such as

mesquite stumps, salt (from playas), exotic siliceous stone for tool manufacture, and exotic or important plant and animal resources (Blumel and Sutton 2023). Imported items to the western Mojave Desert groups have included shell beads and obsidian. A large quantity of shell beads was recovered from the Cottonwood Creek site (CA-KER-303) in the northwestern Mojave Desert.

Some questions related to trade and exchange include the following:

1. What was the nature of obsidian usage within the Study Area, and how does it relate to the obsidian trade within the western Mojave Desert?
2. What other lithic resources are represented at each of the sites in the Study Area? Is there rhyolite from sources other than the Middle Buttes or nearby Rosamond Hills? Are other lithic materials present, such as cryptocrystalline rock, and what were the sources of these materials?
3. Is there any evidence of exotic materials, such as Colorado River pottery or turquoise at any of the sites?
4. Are there shell beads at the sites? If so, what was their origin (e.g., Pacific coast or Gulf of California)? If shell beads are present, are there indications they are lost trade items?

Data requirements: Trade and exchange may be addressed through the recovery of exotic materials or specific artifact materials such as obsidian and shell beads. Archaeological site assemblages with lithic artifacts that can be sourced or shell beads that can be examined for use may serve as an indication of a trade commodity resource. Trade may also be addressed by trails that served as a trade route.

5.2 Historic and Built Environment Resources Research Framework

5.2.1 Mining

While there are no mines or mining-related historic built environment features within the Study Area, there are archaeological sites present or potentially present that could be evaluated. Mineral discoveries within the Study Area occurred in the mid-1880s and resulted in settlement of the area by miners and industrial entities that developed major nearby mines used for decades. Some questions relating to mining include the following:

1. What types of prospecting and mining activity occurred in the Study Area (what processing techniques) and what was the main source of transportation represented by the archaeological sites?
2. Is there information on miners and other workers based on the features found and can any conclusions be drawn about the ethnic or socio-economic background of the workers at the mines?
3. Is there evidence that can provide information on what industries or businesses made use of the minerals extracted from the mines adjacent to the Study Area?

4. Is there evidence from archaeological sites that can provide information on mining sites and their association with markets and supply networks?

Data Requirements: Archaeological sites related to mines adjacent to the Survey Area would have to contain reasonable evidence of transportation (roads, railroad alignment, etc.) to address transportation questions. For questions related to industrial use of minerals extracted, industry-related artifacts or information related to contracts between mines and other entities or other relevant evidence would need to be directly associated with mining features.

5.2.2 Transportation

There are numerous unpaved and paved roads and segments of roads within the Study Area; see Chapter 4, Section 4.3.3 for historic context discussion.

Some questions relating to roads include the following:

1. For roads and railroad spurs within the Survey Area, is there a predominate use for those roads (for example, travel to mines, former residences, or to places beyond the Survey Area)?
2. Can information be gleaned as to who constructed the roads within the Survey Area?
3. For the roads associated with the mines, does their alignment provide information as to where workers or other travelers were coming from to get to the mines?
4. There was little recreational use of the Survey Area, so it is unlikely that tourists used the roads, but could the roads have been used for travel to other places within the desert?

Data requirements: To answer research questions, roadside refuse scatter may provide some indication of who used the roads, who constructed them, and/or what they were used for. The start and ending points of the roads may yield information regarding their purpose.

5.2.3 Water and Electricity Conveyance

The Los Angeles Aqueduct runs through the Study Area generally in a northeast-to-southwest direction; see Chapter 4, Section 4.3.4 for historic context. Questions relating to water and electricity conveyance include the following:

1. What does the refuse scatter along the Los Angeles Aqueduct indicate about workers who constructed the aqueduct, including their demographics?
2. Is there refuse scatter along transmission line corridors and, if so, what does it indicate about workers or construction techniques of transmission line construction?
3. The climate in desert conditions are often volatile. Do the material remains within the Study Area provide information on construction practices to combat the desert climate?

Data Requirements: To answer these questions, domestic features could be examined and compared to written documentation and literature on work camps associated with the construction of the Los Angeles Aqueduct. Similarly, features related to construction of a transmission line in the 1950s could be researched to determine if the artifacts found are related to the construction of transmission lines adjacent to the Survey Area.

5.2.4 Isolated Refuse Deposits

Historic era refuse deposits are concentrations of intentionally abandoned domestic, construction, and industrial refuse that often lack association with a known habitation, or have no identifiable spatial association with habitation, mining, or agricultural sites. Some questions relating to isolated refuse deposits include:

1. What was the chronological time frame of the deposit?
2. Does the deposit represent several dumping episodes over time?
3. Which functional domains are represented (e.g., homesteading, mining, railroad, Los Angeles Aqueduct)?
4. Is the deposit associated with an historic road?

Data Requirements: Analysis of historic-era records and documents of the properties near the refuse can provide information on occupants and activities in the region. Historic artifacts (glass, ceramics, metal, cans, etc.) can allow the archaeologist to draw conclusions about the chronology of the refuse and the duration of dumping episodes.

6.0 FIELD SURVEY RESULTS

Tetra Tech conducted a non-collection Phase I archaeological pedestrian survey of accessible and undeveloped areas of the Study Area. The field survey was conducted by a crew of 14 archaeologists (Section 1.3).

6.1 Archaeological Resources

Tetra Tech's qualified archaeologists conducted the Phase I field surveys for the Project over the course of five separate field sessions between October 2022 and April 2024. The field sessions occurred from: October 10 through November 10, 2022; April 23 through May 12, 2023; May 17 through 18, 2023; November 12 through 18, 2023; and April 22 through 27, 2024. See Appendix D for surveyed area maps. See Chapter 1 Section 1.3.2 for list of field staff.

Tetra Tech surveyed a total of 8,535.8 acres within the 8,540-acre Study Area. The field team was unable to access and survey 4.2 acres of the Study Area due to safety concerns, which included properties with off-leash hostile dogs. This 4.2 acres is a highly disturbed and developed, currently occupied property, and is unlikely to contain archaeological or cultural resources. These areas will be surveyed at a later date, and the results of the survey will be provided as an addendum report.

The Study Area is primarily situated on the southeastern alluvial fan of the Tehachapi Mountains and to a lesser extent on piedmonts in the northwestern region. The elevation within the Study Area ranges from 2,900 feet to 3,900 feet amsl, and the slope is 0 to 15 percent with an average of 2.7 percent. The environmental landscape of the westernmost and northwestern region of the Study Area consists of increased elevation with deeply cut washes that bisect the alluvial fan. The north, central, and eastern portion of the Study Area is situated on a northwest to southeast alluvial fan that is bisected by several large to small ephemeral drainage and washes (Oak Creek and tributaries of Oak Creek), is within a wind energy generating facility corridor with large turbines and is approximately 2 miles west of Soledad Mountain. The southeast and southern extent of the Study Area is also within the alluvial plain that extend to the foothills of the Middle Buttes. The southwest portion of the Study Area reaches the extent to Bean Canyon and is also within northwest to southeast trending alluvial fan bisected by ephemeral drainage extending from Bean Canyon and Sandy Wash. See Appendix E for representative photographs of the Project conditions with an associated map of photograph locations. The Los Angeles Aqueduct and associated roads bisects the center of the northern and southern portion of the Study Area.

The vegetative community throughout the Project Site and Study Area is largely composed of creosote, Joshua trees, fiddleneck, white bursage, chemise, and grasses. Areas with an elevation between 3,600 to 3,900 feet, as in the west, support flora such as juniper, ephedra, Mojave aster, rabbitbrush, Hooker's onion, desert mariposa lily, chia, and few Joshua tree. The northern region averages an elevation range between 3,100 to 3,600 feet and supports globemallow, buckwheat, cholla, cheatgrass, filaree, tumble mustard, and desert dandelion. The central, eastern, and southeastern region is within the 2,960- and 3,140-feet elevation range and vegetation communities include Joshua tree and creosote bush. Similarly, the southwest portion of the Study Area is less

diverse in flora and largely supports creosote bush, buckwheat, and goldfield within an elevation range of 3,160 to 3,500 feet.

The ground surface visibility overall was very good and ranged from 60 to 100 percent, which provided high confidence in the identification of resources. Disturbances observed include environmental erosion from high energy sheet wash and storm events (several ephemeral drainages and washes, extreme high winds), modern refuse, recreational vandalism, and heavy machinery used during construction of the Los Angeles Aqueduct, wind energy generating facilities, large transmission lines, and roads. The southwestern portion of the Study Area (and surrounding area) is frequently used by the public for activities such as four-wheel-drive off roading, firearm target practice, camping, and illegal refuse disposal (domestic and industrial items). Environmental disturbance had the highest rate of observed impact. Modern refuse was the second most common disturbance and was primarily observed along major roadways and within the many ephemeral drainages that cut into the alluvial fan. The refuse consisted of plastics (wrappers, bags, bottles), glass shards, furniture, cans, cardboard, rubber tires, etc. Recreational vandalism was observed with historic-era cement foundations as well as in open fields to include shotgun shells, clay pigeons, camp sites, and modern refuse glass. Less frequently encountered disturbance was bioturbation as well as heavy machinery activity near roadways and large infrastructure such as the wind energy generating facilities, transmission lines, and aqueduct.

Previously recorded resources included 21 sites, 5 built environment resources (see Section 6.2), and 34 isolates. These resources included 4 prehistoric sites, 20 historic sites, and 2 multicomponent sites; and isolates included 15 prehistoric, 18 historic, and 1 multicomponent. The newly recorded resources are composed of 83 sites and 93 isolates. The sites include 11 prehistoric, 65 historic, and 7 multicomponent and the isolates include 40 prehistoric, 47 historic, and 6 multicomponent. Descriptions of the sites and isolates are detailed below. Newly recorded and updated sites and isolates, location maps, and DPR 523 forms are included in Appendix G. No artifacts were collected.

6.1.1 Previously Recorded Archaeological Resources in the Study Area

Tetra Tech updated a total of 55 previously recorded resources within the Study Area. These resources are composed of 21 sites and 34 isolates. Tetra Tech was unable to relocate 4 previously recorded sites and 20 isolates, most likely due to resource disturbance from modern development, erosional processes, incorrect previously recorded boundary coordinates, the paucity of cultural material of isolates, etc.

6.1.1.1 Previously Recorded Sites

The 21 previously recorded archaeological sites consist of 15 historic, 4 prehistoric, and 2 multicomponent sites. See Table 6-1 for the summary of previously recorded sites updated by Tetra Tech. A detailed description of the resources is included in Table 6-1.

Table 6-1. Previously Recorded Sites within the Study Area

Primary/Trinomial Number	Time Period[1/]	Description	Comment
P-15-010952 (CA-KER-6341)	Historic	Refuse scatter	Relocated; Same as previously recorded
P-15-012677 (CA-KER-7135)	Historic	Refuse scatter	Relocated; Same as previously recorded
P-15-012678 (CA-KER-7136)	Multicomponent	Prehistoric lithic scatter, Historic refuse scatter	Relocated; Same as previously recorded; expanded southern site boundary
P-15-012714 (CA-KER-7172)	Historic	Foundations, refuse scatter	Relocated; updated conditions, expanded boundary, recorded new resources
P-15-013838	Prehistoric	Lithic scatter	Not Relocated; likely impacted from modern heavy machinery tire tracks and is no longer extant
P-15-013839	Multicomponent	Prehistoric lithic scatter, Historic refuse scatter	Relocated; Same as previously recorded
P-15-013917 (CA-KER-7801)	Historic	Refuse scatter	Not Relocated; likely impacted from wind energy generating facility construction and is no longer extant
P-15-013918 (CA-KER-7802)	Historic	Refuse scatter	Relocated; Artifact quantity declined; likely due to impact from wind energy generating facility construction
P-15-013919 (CA-KER-7803)	Historic	Refuse scatter	Relocated; Artifact quantity declined; likely due to impact from wind energy generating facility construction
P-15-013920 (CA-KER-7804)	Historic	Refuse scatter	Relocated; Artifact quantity declined; likely due to impact from wind energy generating facility construction
P-15-013921 (CA-KER-7805)	Historic	Refuse scatter	Relocated; Artifact quantity declined, new mulched area, site boundary expanded; likely due to impact from wind energy generating facility construction
P-15-014703 (CA-KER-8269)	Historic	Campsite	Relocated; Same as previously recorded, site boundary expanded
P-15-016244 (CA-KER-8979)	Prehistoric	Lithic scatter	Not Relocated; within heavy drainage, likely washed away or inundated with sediment
P-15-016252	Historic	Foundation, refuse scatter	Relocated; updated conditions, expanded boundary, recorded new resources
P-15-016508 (CA-KER-9088)	Historic	Homestead, refuse scatter	Relocated; Same as previously recorded; expanded site boundary
P-15-016511	Historic	Refuse scatter	Relocated, observed artifacts less than previously documented
P-15-016514 (CA-KER-9094)	Historic	Refuse scatter	Relocated; Same as previously recorded, site boundary expanded
P-15-016518 (CA-KER-9098)	Prehistoric	Lithic scatter	Relocated; Same as previously recorded, site location updated
P-15-016519 (CA-KER-9099)	Historic	Homestead, refuse scatter	Not Relocated; site boundary partially overlaps Project boundary
P-15-016528 (CA-KER-9108)	Prehistoric	Lithic scatter	Relocated; Same as previously recorded, site boundary expanded
P-15-016875 (CA-KER-9264)	Historic	Hearth (possible), refuse scatter	Relocated; Same as previously recorded, site boundary expanded

1/ Multicomponent resources include both prehistoric and historic time periods

P-15-010952 (CA-KER-6341)

Site P-15-010952 was previously recorded as a historic era refuse scatter in 2003 by Hubert Switalski with AMEC Earth and Environmental, Inc.

Tetra Tech visited P-15-010952 during the field survey for this Project and monitored any changes. The field team located the previously recorded site boundary, observed the previously recorded artifacts and no new diagnostic artifacts or changes to the site were identified. The site appeared as previously recorded. Ground surface visibility was at 60 to 80 percent.

P-15-012677 (CA-KER-7135)

Site P-15-012677 was previously recorded by Syd Lippman and Brad Brown as a dense historic era refuse scatter located on a flat plain and on both sides of the Los Angeles Aqueduct (P-15-003549) (URS Corporation, Inc. 2002).

Tetra Tech visited P-15-012677 during the field survey for this Project to verify the site location and record any site changes. The field team located the site, and it appeared unchanged since the original recording. Ground surface visibility ranged from 80 to 90 percent.

P-15-012678 (CA-KER-7136)

Site CA-KER-7136 (P-15-012678) was previously recorded by Syd Lippman and Brad Brown as a dense historic refuse scatter and an isolated prehistoric biface by URS Corporation, Inc., in 2002Noted disturbances within the site consist of mechanically constructed earthen berms from the maintenance of the Second Los Angeles Aqueduct access road corridor.

Tetra Tech visited P-15-012678 during the field survey for this Project to verify the site location and updated any changes. The field team located the site and it appeared unchanged except that the southern portion of the boundary was moved and expanded to the southeast. Environmental impact from heavy precipitation events is the likely cause of the artifact relocation and site boundary expansion. Wind energy generating facilities are located just northeast of the site. Ground surface visibility was 60 to 80 percent.

P-15-012714 (CA-KER-7172)

Site P-15-012714 was originally recorded by Brad Brown and Syd Lippman as a historic-era homestead (circa [ca.] 1914 to 1945) consisting of foundations and refuse (URS Corporation Inc. 2002). The site was updated in 2010 by Pacific Legacy, Inc., as a historic-era homestead with historic refuse, modern trash, five structural features, and five artifact concentrations (Locus A through E). LSA Associates, Inc., noted heavy disturbance and possible looting of Locus D.

Tetra Tech visited P-15-012714 during the field survey for this Project to verify the site location and record any observed site changes. Tetra Tech recorded additional refuse and the southeast boundary of the sitewas also expanded by 50 feet.

The site is situated in an area heavily used by the public and within the intersection of the north-to-south trending road and an unnamed east-to-west trending improved dirt road. Another southwest-to-northeast trending improved dirt road is to the east of the site boundary. A steel lattice

transmission line tower is northeast of the northern site boundary, and the Los Angeles Aqueduct is to the southeast. A recreational area and homeless camp were observed approximately 0.85 mile to the northwest.

Locus A includes three features and four FSs. Feature 1 (site datum) is a dilapidated concrete and rock foundation. Feature 2 is a partially collapsed shed/structure that was severely overgrown by fiddleneck. Feature 3 is a wooden-lined cold storage box. FS1 is a glass bottle base (green) with the Owens-Illinois maker's mark and is embossed "702/GALLO/FLAVOR GUARD/ GLASS/230." FS2 is green glass bottle neck shard with a screw cap lid still attached that is embossed "MADE, BOTTLED & SEALED BY GALLO IN CALIF". This type of Gallo Wine Flavor Guard logo was used from 1958 to the 1990s (Lockhart et al. 2015), the Owens-Illinois type maker's marks dates from 1929 to 1966 (Lockhart et al. 2015). The FS4 consist of several colorless bottle shards and three with a pyroglaze label of red and white, with "Dr Pepper" in script white, and the number "4" in red. FS5 is a ceramic sherd with a "Parker Pottery Co." maker's mark, and FS6 is a large can (knife-opened, soldered seam). Glass Dr. Pepper bottles with the pyroglaze label of red and white were manufactured between 1950 and 1969 (The Henry Ford Museum 2024).

Locus B was described as an artifact concentration of 200+ cans and remains largely in the same condition as previously recorded. This update recorded 191 hole-in-top cans with an "X" opening, 113 miscellaneous crushed cans, 27 large sanitary cans, 25 hole-in-top cans, 8 sanitary cans, 5 windowpane glass shards, 5 red glass shards, 4 condensed milk hole-in-top cans, 2 small meat cans, 2 church key-opened cans, and 1 rectangular meat can.

Locus C was described as a trash scatter of 100+ cans, glass, and domestic refuse. Tetra Tech documented the following: a ceramic earthenware transfer print sherd (FS5), a colorless drinking glass (sherry glass; FS7), a teacup sherd (FS8), a tobacco tin (FS9), 2 amber "Purex" bottle shards (FS10 and FS11), a colorless glass shard: milk glass shard, embossed "Marble's …" (FS12), and a milk glass shard (salt and pepper shaker base; FS13). The brand Purex was introduced in 1922 as the first commercial laundry bleach product, and amber glass bottles with the Purex logo most likely date between the 1920s and the 1970s; the company later transitioned to blue plastic bottles in 1981 (WorthPoint 2024).

Locus D was not updated in this recording as it was outside the proposed Project Site.

Feature 4 was previously described as an earthen and concrete foundation composed of a coarse rocky cement superseded by a fine-grained cement over top. It appears as previously recorded.

Locus E was previously recorded as a foundation and refuse included a 1942 liberty half dollar. Feature 5 is a concrete square slab with metal pipe (possibly a drain). This Locus update only updated the cement slab. The previously recorded artifact scatter and coin were not observed.

Locus F is a refuse scatter. Diagnostic type artifacts include a Japanese ceramic die-shaped vessel with "MADE IN / JAPAN" (FS14), a decorative plate shard with "Kikusui China / Made in Japan" (FS15), a sardine can embossed with "KIPPERED HERRINGS/PACKED IN NORWAY" (FS16), and a can with Ovaltine embossed on lid (FS17). Additional artifacts 49 large sanitary cans, 49 medium sanitary cans with missing lids, 38 hole-in-top puncture-opened cans, 38 condensed milk cans, 22 can opener-

opened cans, 17 small meat cans, 16 miscellaneous crushed cans, 15 extra-large sanitary cans, 15 medium can opened sanitary cans, 14 beverage cans, 12 large sanitary can opener-opened, 8 rectangular cans, 6 cans (Ovaltine type), 6 large cans (meat type), 6 small sanitary cans, 4 large sardine cans, 3 small sanitary cans, 2 lids, 1 complete Hershey's Coco can, 1 Hershey's Coco lid, 1 twist key can, 1 rectangular can, 1 oil can, 1 can embossed with "Ghirardelli Chocolate", and 1 small crushed can. The glass assemblage consists of 8 colorless glass shards, 4 cobalt blue glass shards, 2 yellow glass shards, 2 light green glass shards, and 1 colorless glass bottle neck. The metal items are a container and a small cosmetic tin. The ceramic component includes eight white ceramic sherds.

Three diagnostic type artifacts were documented in the general refuse scatter. FS3 is includes three small ceramic earthenware transfer print sherds with a green flower print glaze on both ventral and dorsal sides. FS18 is an amber bottle base shard embossed with "L / PUREX / 6" (Latchford Glass ca. 1931 to 1989 and Purex ca. 1922 to 1981 (Lockhart et al. 2017, WorthPoint 2024), and FS19 is a Certo pectin amber bottle shards with attached bottle cap located between Locus C and Locus F.

Southeast of Locus F is a refuse scatter that includes: 95 sanitary cans, 38 crushed hole-in-top cans, 23 condensed milk cans, 22 sanitary cans, 15 crushed meat cans, 12 crushed beverage cans, 7 crushed small sanitary cans, 6 coffee cans, 5 small meat cans, 4 Ovaltine cans, 2 sardine cans, 2 small paint cans, 2 small sanitary cans, 1 aluminum top can, 1 seasoning can, and 1 gas container. The glass component includes 40 colorless glass shards, 27 colorless jug shards, 22 amber glass shards, 5 aqua glass shards, 2 solarized amethyst shards, and 2 amber glass bottle shards. There are also three porcelain ceramic sherds (one with a Made in Japan maker's mark) and a metal bedspring.

The "Made in Japan" maker's mark stamped with a Cherry Blossom flower is by the Nippon Toki Kasha Company (Noritake Company: ca. 1924 to 1952: Nilsson 2024). The Italian-based chocolate company Ghirardelli opened their first American store in 1849 and has sold their product in tin cans since 1890s to 2024 (Ghirardelli 2024). Similarly, the Hershey Chocolate Company was established in 1894 and continues to produce chocolate confections to this day (Hershey 2024). Ovaltine is a Swiss brand of chocolate milk flavoring product, first manufactured in the United States in Illinois between 1915 and 1988 (Recipe Reminiscing 2016) and continues to be produced to date under the company Nestle. Glass with a yellow color was typically used for bottles of milk, alcohol, and medicine from 1916 to 1930 whereas cobalt blue glass was used for cosmetics, medicine, ink, and poison from 1890 to 1960 (Holm et al. 2018).

Historic aerial imagery (1956, 1959, 1974, 1982) shows a northwest-to-southeast trending dirt road extending northwest from an existing road and dead ending at Locus F in 1956. By 1959, this road is no longer extant, and a building is depicted at the intersection two existing roads. The building is is within the area of Locus A. The building is no longer extant on aerial imagery by 1983. Review of historic USGS topographical maps (1959, 1961, 1967, 1976) illustrate a building near Locus A in 1959, and to the west is the Los Angeles Aqueduct and adjacent road. The building and adjacent roads are still illustrated on the 1967 and 1976 maps at Locus A.

Based on the artifact assemblage and historic map and aerial imagery review, the site appears to date between the 1940s to the 1970s. The site condition is fair and exhibits low integrity from decades of

erosional processes (sites is within and adjacent to ephemeral drainages), in conjunction with public access to the area and possible looting or other disturbances and disposal of modern refuse.

P-15-013838

Site P-15-013838 was previously recorded by K. R. Way and K. S. Norwood as a prehistoric light lithic scatter and habitation debris located in an open area with minimal disturbance (Pacific Legacy, Inc., 2008). Previously recorded artifacts included an obsidian Pinto series projectile point and several lithic flakes [no material type provided], fire-affected rock, and one burnt bone fragment. The site area was later visited by Sapphos Environmental, Inc., in 2011 and none of the cultural material previously reported was observed. Sapphos Environmental, Inc. (2011) was unable to relocate the site and suggests it was most likely due to the combination of incorrect previously recorded data point location, the extremely small size of the site and low artifact density, and the lack of a sketch map.

Tetra Tech visited P-15-013838 during the field survey for this Project to verify the site location and update any observed site changes. The field team was unable to relocate any previously recorded cultural material within or adjacent to the site boundary. The team did observe a solder dot can and heavy machinery tracks within the site boundary. No cultural material was observed or recorded. Ground surface visibility was 80 to 90 percent. The site is also situated on an alluvial plain with several ephemeral drainages (Oak Creek is 0.4 mile to the east) and is surrounded by a utility corridor with a transmission line and wind and solar energy generating facilities. As Sapphos Environmental, Inc. (2022) suggests, the previously recorded Universal Transverse Mercator (UTM) coordinates are possibly incorrect or erosional processes (e.g., ephemeral drainages, storm events) may have obscured surface visibility of the site.

P-15-013839

The previously recorded multicomponent site P-15-013839 was originally recorded in 2008 by K. R. Way and K. S. Norwood with Pacific Legacy, Inc., consisting of a light historic artifact scatter with an undescribed prehistoric component. The site was described as bisected by an existing SCE service line and access road (i.e., 100th St. West). Recorded artifacts include mostly cans, glass shards, milled lumber, and an undescribed prehistoric component. The site area was later visited by A. White and C. Purtell with Sapphos Environmental, Inc., in 2011 and none of the cultural material previously reported was observed. Sapphos Environmental, Inc. (2011) was unable to relocate the site and suggests it was due to the combination of incorrect previously recorded UTM coordinates, the extremely small size of the site and low artifact density, and the lack of a sketch map.

Tetra Tech visited P-15-013839 during the field survey for this Project to verify the site location and update any observed site changes. The boundary is as previously recorded, and the crew identified the historic-era component and one rhyolite secondary flake. The field team observed 30 solarized amethyst glass shards, 10 amber glass shards, 1 colorless glass bottle base, 1 solder dot can, 1 tobacco tin, 2 condensed milk cans, 1 paint can, 2 economy jar lids, and 3 pieces of milled lumber. Solarized amethyst glass was produced between ca. 1885 and 1920 (Horn 2005:11). Solder dot cans date from the 1840s through the 1920s (Merritt 2014). No other cultural material was observed. Ground surface visibility was good at 80 percent. Construction of utility features include an adjacent

single pole transmission line (bisects the site), a northwest-to-southeast trending 500-kV steel lattice transmission line (site within corridor), and a wind energy facility (several near-by wind energy generating facilities).

P-15-013917 (CA-KER-7801)

Site P-15-013917 was originally recorded by A. Fergusson, H. Calicher, and R. Rolston as a sparce historic-era refuse scatter of cans (CH2M Hill 2009). The site was described as small sparce can scatter in a relatively undisturbed area. Previously recorded artifacts included 8 sanitary cans, 7 solder dot cans, 3 metal bands, 2 motor oil cans, 1 one-gallon paint can, and 1 friction coffee lid. CH2M Hill (2009) suggests the site represents a single historical episode of refuse disposal followed by several disposal episodes into the modern era.

Tetra Tech visited site P-15-013917 during the field survey for this Project to verify the site location and update any changes. Tetra Tech was unable to relocate the resource. The previously recorded site location is within the disturbance footprint of an existing wind generating facility turbine and adjacent road. The site has likely been impacted (i.e., artifacts moved or removed from original location due to grading with heavy machinery) due to construction of the wind energy generating facilities and road improvements that include grading and imported gravel onto General Petroleum Road. Ground surface visibility was 80 to 90 percent.

P-15-013918 (CA-KER-7802)

Site P-15-013918 was originally recorded by A. Fergusson, H. Calicher, and R. Rolston as a historic-era refuse scatter of cans and glass (CH2M Hill 2009). The site was described as a short-term camp located north of General Petroleum Road, east of the Los Angeles Aqueduct, and south of Oak Creek Road. Previously recorded artifacts included 15 sanitary cans, 33 hole-in-top cans, 9 ceramic sherds, 3 meat or tuna cans, 3 amber glass shards, 2 metal bands, and 1 solarized amethyst glass shard.

Tetra Tech visited P-15-013918 during the field survey for this Project to verify the site location and update any observed site changes. The field team located the site and observed fewer artifacts than originally recorded. Artifacts observed include three amber glass shards, three small crushed sanitary cans, two pieces of miscellaneous scrap metal, two hole-in-top cans with two punctures, and two metal sanitary can lids. Ground surface visibility was 60 to 80 percent. The site is situated in a wind energy facility corridor and bisected by a road. The difference in artifact count is most likely due to construction of the existing southwest-to-northeast trending Petroleum Road (graded and improved) and wind energy facility (site within corridor). The site is bisected by the road and is within the disturbance footprint of a wind energy generating facility (disturbances are visible on aerial imagery from 2012 to present). The site may have also been previously tested (excavated) in 2010 by CH2M Hill for the *Cultural Testing Report for the Alta Oak Creek Mojave Wind Project, Kern County, California*; however, the report is missing from the SSJVIC.

P-15-013919 (CA-KER-7803)

Site P-15-013919 was originally recorded by A. Fergusson, H. Calicher, and R. Rolston as historic-era refuse (CH2M Hill 2009). The site is recorded as consisting of 20 sanitary cans, 5 corrugated sheet metal fragments, 4 shovels, 4 buckets, 4 solder dot cans, 1 clear ketchup bottle, 1 broken insulator,

and fragments of metal cables, wires, strapping, and flue elbow. CH2M Hill (2009) suggest the site is the result of a single refuse disposal episode.

Tetra Tech visited P-15-013919 during the field survey for this Project to verify the site location and update any observed site changes. The field team located the site and observed fewer artifacts than previously recorded. Artifacts observed include 20 metal straps, 13 paint cans with no lid, 3 shovels (crucible steel), 3 buckets without a handle, 1 bucket with a handle, 1 small sanitary can, 1 bent pitchfork, 1 medium-sized cable wire, 1 thin metal wire, and 1 large metal wire. The site is situated within a wind facility corridor. Ground surface visibility was 60 to 80 percent. The difference in artifact count is most likely due to construction of the wind farm. The site is within the construction disturbance footprint of a wind energy generating facility, and previous ground disturbance is visible on aerial imagery from 2012 to present. The site may have also been previously tested (excavated) in 2010 by CH2M Hill for the *Cultural Testing Report for the Alta Oak Creek Mojave Wind Project, Kern County, California*; however, the report is missing from the SSJVIC.

P-15-013920 (CA-KER-7804)

The historic site P-15-013920 is previously recorded as historic era refuse in 2009 by A. Fergusson, H. Calicher, and R. Rolston with CH2M Hill. Recorded artifacts include 50 solarized amethyst shards, 10 clear glass shards, 6 ceramic sherds, 5 small galvanized sheet metal fragments, 4 wire nails, 3 square fuel tops, 3 solarized amethyst glass bases, 1 solarized amethyst glass finish, 1 mason jar with milk glass seal, 1 metal strap, 1 Karo lid, 1 hole-in-top can, 1 broken strap hinge, and 1 silverware handle from a spoon or fork.

Tetra Tech visited site 15-013920 during the field survey for this Project to verify the site location and update any observed site changes. The field team located the site and observed fewer artifacts than previously recorded. Artifacts observed include 34 solarized amethyst glass jar shards, 16 white ceramic sherds, 5 miscellaneous rectangular metal cans, 3 miscellaneous circular metal, 3 oil cans, 3 long round nails, 2 cans with internal friction lid opening, 1 Karo lid, 1 internal friction lid, and 1 large metal tube. Ground surface visibility was 60 to 80 percent. The site is situated within an existing wind energy facility corridor and an existing improved road. Previous ground disturbance is visible on aerial imagery from 2012 to present. The difference in artifact count is most likely associated with construction of the wind energy facility (site within wind corridor). The site may have been previously tested (excavated) in 2010 by CH2M Hill for the *Cultural Testing Report for the Alta Oak Creek Mojave Wind Project, Kern County, California;* however, the report is missing from the SSJVIC.

P-15-013921 (CA-KER-7805)

Site P-15-013921 is previously recorded as a historic-era refuse scatter by N. Lawson, E. Peters, and B. Harmon with CH2M Hill in 2009. The site was documented as a widely dispersed refuse scatter located in a relatively level area 200 meters west of the Los Angeles Aqueduct. Recorded artifactual material included 8 knife-opened solder dot cans, 1 large solder dot can, 3 square solder dot gas can lids, 8 sanitary cans, 1 hole-in-top can, 2 paint cans, 4 pieces of scrap metal, and 1 metal joint and coupling.

Tetra Tech visited site P-15-013921 during the field survey for this Project to verify the site location and update any observed site changes. The field team located the site and observed fewer artifacts

than previously recorded. The site is situated within a cleared area with mulching remnants and within a wind energy facility corridor and access road (a wind energy generating facility is within/adjacent to the site boundary. The boundary was expanded to the southeast due to the previous vegetation clearing and moving of artifacts. Ground surface visibility ranged from 80 to 90 percent. The difference in the artifact count is most likely associated with construction of the wind energy facility. The site is within the construction disturbance footprint of the wind energy generating facility corridor, and previous ground disturbance is visible on aerial imagery from 2012 to present. The site may have also been previously tested (excavated) in 2010 by CH2M Hill for the *Cultural Testing Report for the Alta Oak Creek Mojave Wind Project, Kern County, California*; however, the report is missing from the SSJVIC.

P-15-014703 (CA-KER-8269)

Site P-15-014703 was first recorded in 2009 by N. Lawson, E. Peters, and B. Harmon with CH2M Hill as a small historic era campsite and refuse scatter. Recorded artifacts include cans of various types (solder dot and tobacco cans), solarized amethyst and aqua glass shards, shell casings, ceramic sherds, metal cot springs, a metal pipe, and remains of three campfire rings. CH2M Hill tested the site and excavated seven shovel test pit that were all negative for subsurface deposits.

Tetra Tech visited site P-15-014703 during the field survey for this Project to verify the site location and update any observed site changes. The field team located the site and observed additional artifacts beyond the boundary of the site. The site was updated to include the additional observed artifacts: 100-50 colorless glass shards, 25-50 amber glass shards, 2 shards of solarized amethyst, 10-25 aqua glass shards, 10 pieces of miscellaneous scrap metal, 2 hole-in-top and 1 hole-in-top cans, 3 small sanitary cans, 1 motor oil can and 2 lids, 1 church key-opened sanitary can, 1 small meat can, 1 piece of thin wire, 1 small bucket pail, and 4 crushed cans.

The site is situated in an existing wind energy facility. The site is previously disturbed due to construction of the wind energy facility, and previous ground disturbance is visible on aerial imagery from 2012 to present. The site may have been previously tested (excavated) in 2010 by CH2M Hill for the *Cultural Testing Report for the Alta Oak Creek Mojave Wind Project, Kern County, California*; however, the report is missing from the SSJVIC.

P-15-016244 (CA-KER-8979)

Site P-15-016244 is previously recorded as a precontact lithic scatter by I. Fraser-Shapiro, J. Roberson, S. Zolnoski, and B. Bartram with Pacific Legacy, Inc., in 2010. The site is recorded as consisting of eight lithic flakes located in a sub-drainage of Oak Creek, south of an unnamed dirt road. Recorded artifacts include one weathered basalt biface fragment, one chert core, and six lithic flakes, including one obsidian, two rhyolite, two CSS, and one agate.

Tetra Tech visited site P-15-016244 during the field survey for this Project to verify the site location and update any observed site changes. The field team located the previously recorded boundary but was unable to relocate any of the previously recorded artifacts. The site is 252 meters east of the ephemeral Oak Creek and within several ephemeral dry washes that dissect the alluvial fan. The inability to locate the site may be due to an incorrect geographic information system (GIS) data point

location in conjunction with environmental erosional processes. The site may have been previously tested (excavated) in 2010 by CH2M Hill for the *Cultural Testing Report for the Alta Oak Creek Mojave Wind Project, Kern County, California*; however, the report is missing from the SSJVIC.

P-15-016252

Site P-15-016252 was first recorded in 2010 by I. Fraser-Shapiro, S. Clark, and S. Zolnoski with Pacific Legacy, Inc., as a post-1945 historic era concrete foundation, fence line, and a sparce refuse scatter. Recorded artifacts include green-painted stoneware ceramic sherds, and an iron hinge with square cut nails. The foundation was recorded as a large pad with a lower-tier concrete pad, a front or eastern porch, and a side porch at the north end. The fence line was described as a chain link fence attached to metal pipes serving as fence posts.

Tetra Tech visited site P-15-014703 during the field survey for this Project to verify the site location and update any observed site changes. The field team located the site and observed additional artifacts and features, and the boundary was updated.

Additional features include a cement rectangular slab engraved “Brandon / 91-98”, a small rock pile 50 feet southeast of the slab, and a large cut tree trunk. The metal chain link fence line is no longer extant except for two metal t-posts. The green ceramic earthenware sherds were relocated in-situ and the iron hinge was identified behind a creosote bush north of the northeast corner of the foundation with a small collection of nails. The previously recorded square cut nails appear to be round nails that have been heavily eroded, resembling the appearance of square cut nails.

Review of historic aerial imagery (1956, 1959, 1974, 1982) shows a building at the site location in 1963 (Netronline 2024). Review of historic USGS topographical maps (1959, 1961, 1967, 1976) illustrate a building near the site location in 1697 and 1976. The building is no longer extant on aerial imagery by 1986.

Disturbances at the site include public vandalism indicated by modern trash left behind (i.e., glass shards, shotgun shells, black clay pigeons, bullet casings) and the foundation exhibited several shotgun bullet impacts. In addition, modern aerial imagery shows the site as cleared of vegetation and graded in 2020; the scars are still visible today. The site may have served as a campsite for recreationalist. There is a makeshift gun firing range approximately 0.8 mile east of the site.

P-15-016508 (CA-KER-9088)

Site P-15-016508 is previously recorded as a historic era refuse scatter and possible homestead by C. Purtell, L. Carias, & D. McIntosh with Sapphos Environmental, Inc., in 2009. Recorded artifacts include broken concrete fragments (possibly was a foundation) and glass, ceramic dishware, and assorted metal of cut nails, springs, wire, nuts and bolts, kerosene stove, metal cans of various types, and wood barrel fragments. Sapphos Environmental, Inc. (2009) notes that the recorded site boundary only includes the largest artifact density and a diffused scatter of refuse continued to the southeast and northwest and was not recorded.

Tetra Tech visited site P-15-016508 during the field survey for this Project to verify the site location and update any observed site changes. The field team located the site and the site appeared as

originally recorded. The field team expanded the boundary to include the diffuse scatter of artifacts noted by Sapphos Environmental, Inc. that extends beyond the original site boundary. Tetra Tech also observed a Winchester 20-gauge shotgun shell (ca. 1925 to 1972) not previously recorded. The site is situated on an alluvial fan and is 0.2 mile west of the northwest-to-southeast trending Bean Canyon wash. An unnamed northwest-to-southeast trending improved dirt road bisects the southwestern boundary of the site.

Historic aerial imagery (1956, 1959, 1963, 1974, 1982) shows undeveloped desert land in 1956 with two parallel north-to-south trending roads to the west and ground disturbance within the site area by 1963, no buildings or features are depicted in 1974 and 1982. Review of historic USGS topographical maps (1943, 1965, 1974) do not illustrate any buildings or features within the site boundary (except the adjacent roads in 1963).

P-15-016511

Site P-15-016511 was previously recorded as a historic-era refuse scatter and concentration by Sapphos Environmental, Inc., in 2010. The recorded artifact scatter consists of metal cans, glass, porcelain, and various metal items. The artifact concentrations consist of domestic refuse of colorless and green glass shards, 47 hole-in-top cans, glass jars, complete bottles, metal bicycle wheels, a hand mixer, and various cans and miscellaneous metal (possible heater parts). Based on identified diagnostic artifacts, Sapphos Environmental, Inc. (2010) suggests the site dates between the mid-1930s and the 1940s.

Tetra Tech visited site P-15-016508 during the field survey for this Project to verify the site location and update any observed site changes. The field team located the site and the site appeared as originally recorded. The site is situated near a large unnamed wash on an alluvial fan. The observed artifacts consists of 30 porcelain sherds, 25 colorless glass shards, 22 crushed sanitary cans, 12 hole-in-top cans, 4 miscellaneous machine parts, 3 rubber tires, 2 tobacco tins, 2 miscellaneous sheet metal fragments, 1 ceramic sherd with a flower print, and 1 metal barrel fasting. The general surrounding scatter includes 15 hole-in-top cans, 10 sanitary cans, 3 colorless glass shards, 2 large sanitary cans, 1 tobacco tin, and 1 sanitary can lid. No other cultural material was observed or recorded. Ground surface visibility ranged from 80 to 90 percent.

P-15-016514 (CA-KER-9094)

Site P-15-016514 is originally recorded as a historic era refuse scatter and a recreational firing range by K. Holland and A. White with Sapphos Environmental, Inc., in 2012. Recorded artifacts include approximately 100 glass shards, sanitary cans with bullet holes, 10 miscellaneous metal can lids, rubber fragments, nails, bolts, wire cord, possible barrel hoops, concrete fragments, brick, wood, bottlecaps, and bullet shells.

Tetra Tech visited site P-15-016508 during the field survey for this Project to verify the site location and update any observed site changes. The field team located the site and the site appeared as originally recorded. No other cultural material was observed or recorded. Ground surface visibility ranged from 80 to 90 percent.

P-15-016518 (CA-KER-9098)

The previously recorded prehistoric site P-15-016518 was originally recorded in 2011 by Sapphos Environmental, Inc., consisting of a lithic scatter located on an alluvial plain between ephemeral washes. Recorded materials include 8 rhyolite flakes, 1 chert flake, and 1 piece of chert shatter. No tools or utilized flakes were identified.

Tetra Tech visited site P-15-016518 during the field survey for this Project to verify the site location and update any observed site changes. The field team located the site and the site appeared as originally recorded except for six more flakes and a retouched flake were observed. SiteP-15-016518 was updated and consists of 16 rhyolite and chert flakes, and a modified rhyolite flake with unifacial retouching along one edge. The site boundary was updated for this recording. Ground surface visibility ranged from 80 to 90 percent. The site is situated near an ephemeral creek and within associated ephemeral drainages that dissect the alluvial fan.

P-15-016519 (CA-KER-9099)

Site P-15-016519 is recorded as a historic-era refuse scatter and possible homestead by Environmental, Inc., in 2012. Recorded items include at least 100 cans, pieces of sheet metal, milled wood fragments, glass shards, milk glass shard (cosmetic type: Pond's cream), ceramics sherds, a steel lantern base, and a possible chicken coop feature. Based on diagnostic artifacts, Sapphos Environmental, Inc. (2012) suggest the site dates between 1914 and 1945.

Tetra Tech visited site P-15-016518 during the field survey for this Project to verify the site location and update any observed site changes. The field team was unable to locate P-15-016518. The previously recorded site boundary is situated primarily outside of the Project Site, a small portion of the eastern boundary extends 60 feet within. No cultural material was observed within the Project Site. Ground surface visibility ranged from 80 to 90 percent. The previously recorded GIS data/recorded UTM coordinates on the DPR form may be incorrect. The previously recorded site sketch map illustrates an east-to-west trending road that bisects the northern portion of the site and continues in both directions. The field team did not observe a road within the previously recorded eastern portion of P-15-016518 or within the Project Site. Historic aerial imagery (1959, 1963, 1974, 1982, 1994) shows the site area as undeveloped desert until 1994, when a north-to-south trending road and east-to-west trending roads are visible near the previously recorded site boundary. Review of historic USGS topographical maps (1943, 1947, 1954, 1961, 1976, 2012) do not illustrate any buildings or features within the site boundary.

P-15-016528 (CA-KER-9108)

Site P-15-016528 is previously recorded as a moderately dense lithic scatter by Karl Holland, AJ White, and Robbie Thomas with Sapphos Environmental, Inc., in 2022. This site is located on an alluvial plain between washes and consists of 110 rhyolite flakes and 14 chert flakes. No tools or utilized flakes were documented.

Tetra Tech visited site P-15-016518 during the field survey for this Project to verify the site location and update any observed site changes. The field team located the site and the site appeared as originally recorded. Ground surface visibility ranged from 80 to 90 percent. The site is situated on an

alluvial fan in a broad sheetwash area between two large northwest-to-southeast trending ephemeral drainages: an unnamed ephemeral drainage 1.2 kilometers west and an ephemeral creek is 1.6 kilometers to the east.

P-15-016875 (CA-KER-9264)

Site P-15-016875 is previously recorded as a historic era refuse scatter and possible hearth feature by Sapphos Environmental, Inc., in 2009. Recorded artifacts include approximately 30 amber glass shards, 20 to 30 metal nails, 10 solarized glass shards, 10 aqua glass shards, 4 pieces of metal strapping, 3 hole-in-top cans with side solder seams, 2 square tobacco tins, 2 church key-opened sanitary cans, and 1 can lid (Royal Baking Powder). The feature is described as consisting of a cluster of 8 fire-affected rocks.

Tetra Tech visited site P-15-016875 during the field survey for this Project to verify the site location and update any observed site changes. The field team located the site and the site appeared as previously recorded. No other cultural material was observed or recorded. Ground surface visibility ranged from 80 to 90 percent. The site is situated on an alluvial fan and is just west of a north-to-south trending ephemeral drainage. Review of historic aerial imagery (1959, 1963, 1972, 1974) and historic USGS topographical maps (1959, 1967, 1976) did not identify any buildings or features within or near the site boundary.

6.1.1.2 Previously Recorded Isolates

The 34 previously recorded isolates are composed of 15 prehistoric, 18 historic resources, and 1 multicomponent resource. See Table 6-2 for the summary of previously recorded isolates updated by Tetra Tech. A detailed description of the resources is below.

Table 6-2. Previously Recorded Isolates within the Study Area

Primary Number	Time Period	Description	Comment
P-15-011160	Prehistoric	Rhyolite flake	Not Relocated; likely impacted from utility road development or erosional processes
P-15-012477	Prehistoric	Basalt flake	Relocated; Same as previously recorded; recorded new resources
P-15-012478	Prehistoric	Rhyolite flakes	Relocated; Same as previously recorded, site location updated
P-15-012487	Prehistoric	Obsidian and rhyolite flakes	Not Relocated; likely due to erosional processes
P-15-012488	Prehistoric	Rhyolite flake	Not Relocated; likely due to erosional processes
P-15-013697	Prehistoric	Chert flake	Not Relocated; Recorded new obsidian biface fragment; Heavy machinery treads nearby
P-15-013971	Historic	Solder dot can	Not Relocated; likely due to erosional processes
P-15-013972	Historic	Buick hub cap	Not Relocated; likely due to erosional processes
P-15-013990	Multicomponent	Igneous flake; can	Not Relocated; likely due to erosional processes
P-15-013991	Historic	Solder dot condensed milk can	Relocated; Same as previously recorded
P-15-013992	Historic	Crushed solder dot condensed milk can	Relocated; Same as previously recorded, updated resource location
P-15-013999	Historic	Solder dot food can	Not Relocated; likely due to erosional processes
P-15-014000	Historic	Gas can, milk can	Not Relocated; likely due to erosional processes

Primary Number	Time Period	Description	Comment
P-15-014013	Historic	Solarized amethyst shard	Not Relocated; likely due to erosional processes
P-15-014020	Historic	Large solder dot can	Relocated; Same as previously recorded
P-15-015579	Historic	Tobacco tin	Relocated; Same as previously recorded
P-15-016838	Historic	Small intact light green glass bottle, Owens scar	Relocated; Same as previously recorded
P-15-016839	Historic	Canteen	Not Relocated; recorded new resources
P-15-016840	Historic	Gas flare or highway torch canister	Relocated; Same as previously recorded
P-15-016841	Historic	Refuse	Relocated; Same as previously recorded
P-15-016842	Historic	Metal can lid	Relocated; Same as previously recorded
P-15-016843	Prehistoric	Rhyolite flake	Not Relocated; likely due to erosional processes
P-15-016844	Historic	Hole in Top cans	Relocated; Combined with site P-15-022395, CA-KER-11833H
P-15-016845	Prehistoric	Rhyolite flake	Not Relocated; likely due to erosional processes
P-15-016846	Historic	Glass shards	Relocated; Same as previously recorded
P-15-016847	Prehistoric	Rhyolite flake	Not Relocated; likely due to erosional processes
P-15-016848	Prehistoric	Obsidian flake	Not Relocated; likely due to erosional processes
P-15-016849	Prehistoric	Chert or rhyolite flake	Not Relocated; likely due to erosional processes
P-15-016852	Prehistoric	Chert flake	Not Relocated; likely due to erosional processes
P-15-016854	Prehistoric	Rhyolite flakes	Not Relocated; likely due to erosional processes
P-15-016855	Prehistoric	Rhyolite flake	Relocated; Same as previously recorded, site location updated
P-15-017239	Historic	4 large glass bottle shards	Relocated; Same as previously recorded, recorded new resources
P-15-017240	Historic	Hole-in-cap can	Not Relocated; recorded new resources
P-15-017242	Prehistoric	Rhyolite flake	Not Relocated; likely due to erosional processes

P-15-011160

Isolate P-15-011160 was previously recorded as a tertiary rhyolite flake by CAR in 2003. Tetra Tech visited the previously recorded isolate location during the field survey and was unable to locate the isolate. Ground surface visibility was 60 to 80 percent.

P-15-012477

Isolate P-15-012477 is previously recorded as a tertiary fine grained basalt flake by ECORP Consulting Inc., in 2006. Tetra Tech visited the previously recorded isolate location during the field survey for this Project to verify the location and update any observed changes. Tetra Tech located the isolate as previously recorded and identified 6 solarized amethyst glass shards around the flake and updated the isolate form. The surrounding vegetation includes Joshua trees, creosote, ephedra, and grasses.

P-15-012478

Isolate P-15-012478 is previously recorded as two lithic flakes, a secondary and tertiary flake of rhyolite with purple banding, by ECORP Consulting, Inc., in 2006. Tetra Tech visited the previously recorded isolate location during the field survey for this Project to verify the location and update any

observed changes. Tetra Tech located the isolate as previously recorded. The surrounding vegetation includes Joshua trees, creosote, ephedra, buckwheat, and cheesebush.

P-15-012487

Isolate P-15-012487 is previously recorded as two tertiary lithic flakes (one obsidian, one rhyolite) by ECORP Consulting, Inc., in 2006. Tetra Tech visited the previously recorded isolate location during the field survey for this Project to verify the location and update any observed site changes. Tetra Tech was unable to locate the isolate. Ground surface visibility was 60 to 80 percent. The previously recorded isolate location is situated on an alluvial fan within a broad sheetwash area of Oak Creek (0.5 kilometer to the east).

P-15-012488

Isolate P-15-012488 is previously recorded as a tertiary lithic flake (rhyolite) by ECORP Consulting, Inc., in 2006. Tetra Tech visited the previously recorded isolate location during the field survey for this Project to verify the location and update any observed site changes. Tetra Tech was unable to locate the isolate. Ground surface visibility was 60 to 80 percent. The previously recorded isolate location is situated on an alluvial fan within a broad sheetwash area an ephemeral creek (1.2 kilometers to the west).

P-15-013697

Isolate P-15-013697 is previously recorded as a lithic flake (CCS) by Cogstone Resource Management in 2009.

Tetra Tech visited the previously recorded isolate location during the field survey for this Project to verify the location and update any observed changes. Tetra Tech relocated the isolate location but did not relocate the CCS lithic flake. The field team did identify an obsidian bifacial flake that was not previously recorded. The obsidian flake is located north of an east-to-west trending unnamed wind energy generating facility utility road and adjacent (east) to the north-to-south trending road. The isolate is situated on an alluvial fan within a broad sheetwash area of an ephemeral creek.

P-15-013971

Isolate P-15-013971 is previously recorded as a historic era solder dot can by CH2M Hill in 2009. Tetra Tech visited the previously recorded isolate location during the field survey for this Project to verify the location and update any observed site changes. Tetra Tech was unable to locate the isolate. Ground surface visibility was 60 to 80 percent.

P-15-013972

Isolate P-15-013972 is previously recorded as a historic era aluminum tire hub cap (Buick type) by CH2M Hill in 2009. Tetra Tech visited the previously recorded isolate location during the field survey for this Project to verify the location and update any observed changes. The field team relocated the isolate and the isolate appeared as previously recorded.

P-15-013990

Isolate P-15-013990 is previously recorded as a multicomponent isolate of one igneous flake fragment with two dorsal scars and one Prince Albert tobacco tin by CH2M Hill in 2009. Tetra Tech visited the previously recorded isolate location during the field survey for this Project to verify the location and update any observed site changes. Tetra Tech was unable to locate the isolate. Ground surface visibility was 80 to 90 percent.

P-15-013991

Isolate P-15-013991 is previously recorded as a historic-era solder dot can by CH2M Hill in 2009. Tetra Tech visited the previously recorded isolate location during the field survey for this Project to verify the location and update any observed changes. The field team relocated the isolate 100 feet southeast from its originally recorded location. The isolate is a complete condensed milk solder dot (hole-in-top) can in good condition with two knife punctures and internal friction. The DPR form was updated to reflect the updated information.

P-15-013992

Isolate P-15-013992 is previously recorded as a historic-era solder dot can (milk type, crushed) by CH2M Hill in 2009. Tetra Tech visited the previously recorded isolate location during the field survey for this Project to verify the location and update any observed changes. Tetra Tech relocated the isolate 106 feet southwest from the previously recoded location. The isolate is characterized as a crushed hole-in-top can in poor condition with a machine-soldered seam. The DPR form was updated to reflect the updated information.

P-15-013999

Isolate P-15-013999 is previously recorded as a historic era can (solder dot type) by CH2M HILL in 2009. Tetra Tech visited the previously recorded isolate location during the field survey for this Project to verify the location and update any observed changes. Tetra Tech relocated the isolate and it appeared as previously recorded. Ground surface visibility was 60 to 80 percent.

P-15-014000

Isolate P-15-014000 is previously recorded as a historic-era round gas can with a soldered seam and screw top, and a solder dot milk can by Ch2M Hill in 2009. Tetra Tech visited the previously recorded isolate location during the field survey for this Project to verify the location and update any observed site changes. Tetra Tech was unable to locate the previously recorded isolate and no other artifacts were observed. This is likely from heavy precipitation events to cause artifact relocation and sediment inundation. Ground surface visibility was 60 to 80 percent.

P-15-014013

Isolate P-15-014013 is previously recorded as a solarized amethyst shard by CH2M Hill in 2009. Tetra Tech visited the previously recorded isolate location during the field survey for this Project to verify the location and update any observed site changes. Tetra Tech was unable to locate the isolate. Ground surface visibility was 60 to 80 percent.

P-15-014020

Isolate P-15-014020 is previously recorded as a can (solder dot type, crushed) by CH2M Hill in 2009. Tetra Tech visited the previously recorded isolate location during the field survey for this Project to verify the location and update any observed changes. Tetra Tech relocated the isolate and an additional can (sanitary type, crushed). No other artifacts were observed. Ground surface visibility was 60 to 80 percent. The DPR form was updated to reflect the updated information.

P-15-015579

Isolate P-15-015579 is previously recorded as a historic-era tobacco can with a partially attached hinged lid by CH2M Hill in 2011. Tetra Tech visited the previously recorded isolate location during the field survey for this Project to verify the location and update any observed changes. Tetra Tech relocated the isolate and it appeared as previously recorded. Ground surface visibility was 60 to 80 percent. No other artifacts were observed. The isolate is situated within an energy corridor with wind energy generating facilities and transmission lines.

P-15-016838

Isolate P-15-016838 is previously recorded as a historic-era glass bottle (light green in color, seam on lip, and an unidentifiable maker's mark on the base) by Sapphos Environmental, Inc., in 2009. Tetra Tech visited the previously recorded isolate location during the field survey for this Project to verify the location and update any observed changes. The field team relocated the isolate and the isolate appeared as previously recorded. No other artifacts were observed. Ground surface visibility was 60 to 80 percent.

P-15-016839

Isolate P-15-016839 is previously recorded as a historic-era canteen by Sapphos Environmental, Inc., in 2009. The canteen is described as made from a zinc-coated steel, and exhibits a repaired handle made of barbed and bailing wire. Tetra Tech visited the previously recorded isolate location during the field survey for this Project to verify the location and update any observed site changes. Tetra Tech was unable to locate the previously recorded isolate and no other artifacts were observed. Ground surface visibility was 60 to 80 percent.

P-15-016840

Isolate P-15-016840 is previously recorded as a historic-era steel 'gas flare' or highway torch canister stamped "D_TZ / _WAY TOR_ / MADE IN / U.S.A." on one side by Sapphos Environmental, Inc., in 2009. Tetra Tech visited the previously recorded isolate location during the field survey for this Project to verify the location and update any observed changes. Tetra Tech relocated the isolate and it appeared as previously recorded. Ground surface visibility was 60 to 80 percent. No additional cultural material was observed.

P-15-016841

Isolate P-15-016841 is previously recorded as historic era glass shards and cans by Sapphos Environmental, Inc., in 2009. Recorded artifacts include approximately 30 solarized amethyst glass

bottle shards, approximately 50 amber glass bottle shards, 20 aquamarine glass bottle shards, and 5 metal can fragments. Tetra Tech visited the previously recorded isolate location during the field survey for this Project to verify the location and update any observed changes. Tetra Tech relocated the site, updated the site boundary to the southeast, and assessed its condition as otherwise unchanged. No additional artifacts were observed. Ground surface visibility was 80 to 90 percent.

P-15-016842

Isolate P-15-016842 is previously recorded as a historic-era can lid (embossed with "KC BAKING POWDER 15 CTS SATISFACTION GUARANTEED") by Sapphos Environmental, Inc., in 2009. Tetra Tech visited the previously recorded isolate location during the field survey for this Project to verify the location and update any observed changes. Tetra Tech relocated the isolate and it appeared as previously recorded. No other artifacts were observed. Ground surface visibility was 60 to 80 percent.

P-15-016843

Isolate P-15-016843 is previously recorded as a prehistoric rhyolite flake by Sapphos Environmental, Inc., in 2009. The isolate location is adjacent to an east-to-west trending road. Tetra Tech visited the previously recorded isolate location during the field survey for this Project to verify the location and update any observed site changes. Tetra Tech was unable to locate the previously recorded isolate. No artifacts were observed. Ground surface visibility was 60 to 80 percent.

P-15-016844

Isolate P-15-016844 is previously recorded as 20 hole-in-top cans by Sapphos Environmental, Inc., in 2009. Tetra Tech visited the previously recorded isolate location during the field survey for this Project to verify the location and update any observed changes. Tetra Tech relocated the isolate as previously recorded and observed several additional cans and glass artifacts. P-15-016844 has been expanded to and combined with site P-15-022395, CA-KER-11833H, see newly recorded resources below.

P-15-016845

Isolate P-15-016845 is previously recorded as prehistoric lithic flake (rhyolite, tertiary) by Sapphos Environmental, Inc., in 2009. to consist of one broken rhyolite tertiary flake with one dorsal scar and simple platform located north 50 meters of a dirt road. Tetra Tech visited the previously recorded isolate location during the field survey for this Project to verify the location and update any observed site changes. Tetra Tech was unable to locate the previously recorded isolate. Ground surface visibility was 60 to 80 percent. The isolate location is situated on an alluvial fan dissected by the fluvial path of an ephemeral creek.

P-15-016846

Isolate P-15-016846 is previously recorded as historic era glass shards (11 solarized amethyst shards from a wide mouth jar) by Sapphos Environmental, Inc., in 2009. Tetra Tech visited the previously recorded isolate location during the field survey for this Project to verify the location and update any observed changes. Tetra Tech relocated the isolate, and it appeared as previously recorded. No other artifacts were observed. Ground surface visibility was 60 to 80 percent.

P-15-016847

Isolate P-15-016847 is previously recorded as a prehistoric lithic flake (rhyolite, tertiary) by Sapphos Environmental, Inc., in 2010. Tetra Tech visited the previously recorded isolate location during the field survey for this Project to verify the location and update any observed site changes. The field team was unable to locate the isolate. No other artifacts were observed. Ground surface visibility was 60 to 80 percent.

P-15-016848

Isolate P-15-016848 is previously recorded as a prehistoric lithic flake (tertiary, obsidian) by Sapphos Environmental, Inc., in 2011. Tetra Tech visited the previously recorded isolate location during the field survey for this Project to verify the location and update any observed site changes. Tetra Tech was unable to locate the previously recorded isolate. No cultural material was observed. Ground surface visibility was 60 to 80 percent.

P-15-016849

Isolate P-15-016849 is previously recorded as a prehistoric lithic flake (CCS) by Sapphos Environmental, Inc., in 2011. Tetra Tech visited the previously recorded isolate location during the field survey for this Project to verify the location and update any observed site changes. Tetra Tech was unable to locate the previously recorded isolate. No cultural material was observed. Ground surface visibility was 60 to 80 percent.

P-15-016852

Isolate P-15-016852 is previously recorded as a prehistoric lithic flake (tertiary), CCS by Sapphos Environmental, Inc., in 2011. Tetra Tech visited the previously recorded isolate location during the field survey for this Project to verify the location and update any observed site changes. Tetra Tech was unable to locate the previously recorded isolate. No cultural material was observed. Ground surface visibility was 60 to 80 percent.

P-15-016854

Isolate P-15-016854 is previously recorded as two prehistoric lithic flakes (both tertiary, rhyolite) by Sapphos Environmental, Inc., in 2011. Tetra Tech visited the previously recorded isolate location during the field survey for this Project to verify the location and update any observed site changes. Tetra Tech was unable to locate the previously recorded isolate. No cultural material was observed. Ground surface visibility was 60 to 80 percent.

P-15-016855

Isolate P-15-016855 is previously recorded as a prehistoric lithic flake (tertiary, rhyolite) by Sapphos Environmental, Inc., in 2011. Tetra Tech visited the previously recorded isolate location during the field survey for this Project to verify the location and update any observed changes. Tetra Tech relocated the isolate and it appeared as previously recorded. No other artifacts were observed. Ground surface visibility was 60 to 80 percent.

P-15-017239

Isolate P-15-017239 is previously recorded as a historic-era colorless glass bottle (broken into four fragments) by Sapphos Environmental, Inc., in 2011. Tetra Tech visited the previously recorded isolate location during the field survey for this Project to verify the location and update any observed changes. Tetra Tech relocated the isolate and it appeared as previously recorded. No other artifacts were observed. Ground surface visibility was 60 to 80 percent.

P-15-017240

Isolate P-15-017240 is previously recorded as a historic era hole-in-top can (embossed with "ESTABL 22") by Sapphos Environmental, Inc., in 2009. to consist of a historic hole-in-top metal can embossed with "ESTABL 22". On October 13, 2022, a team of Tetra Tech archaeologists visited the previously recorded resource location based on previously recorded GIS locational data provided by the SSJVIC. Tetra Tech visited the previously recorded isolate location during the field survey for this Project to verify the location and update any observed site changes. Tetra Tech was unable to locate the previously recorded isolate but a few additional artifacts were observed within the same area: five cement block fragments, three condensed milk cans, one hole-in-top can, an enamelware kettle, and one sanitary can. No other artifacts were observed. The DPR form was updated to reflect the additional information. Ground surface visibility was 60 to 80 percent.

P-15-017242

Isolate P-15-017242 is previously recorded as a prehistoric lithic flake (tertiary, rhyolite) by Sapphos in 2009. Tetra Tech visited the previously recorded isolate location during the field survey for this Project to verify the location and update any observed site changes. Tetra Tech was unable to locate the previously recorded isolate. Ground surface visibility was 60 to 80 percent.

6.1.2 Newly Recorded Resources in the Project Site

During the Phase I pedestrian survey, Tetra Tech identified and recorded a total of 176 newly identified resources. These resources are composed of 83 sites and 93 isolates and account for 51 prehistoric, 112 historic, and 13 multicomponent resources.

6.1.2.1 Newly Recorded Sites

A total of 83 archaeological sites were recorded and consist of 11 prehistoric, 65 historic, and 7 multicomponent newly identified resources. See Table 6-3 for the summary of the sites. A detailed description of the resources is below. The newly recorded resource DPR-523 forms are in Appendix G.

Table 6-3. Newly Recorded Sites within the Study Area

Primary/Trinomial Number	Time Period[1/]	Description
P-15-022359, CA-KER-11797/H	Multicomponent	Prehistoric lithic scatter; Historic refuse scatter
P-15-022360, CA-KER-11798	Prehistoric	Lithic scatter
P-15-022361, CA-KER-11799H	Historic	Refuse scatter
P-15-022362, CA-KER-11800H	Historic	Mining cairn, test pits, and refuse
P-15-022363, CA-KER-11801/H	Multicomponent	Prehistoric lithic scatter; Historic mining refuse

Primary/Trinomial Number	Time Period[1/]	Description
P-15-022364, CA-KER-11802/H	Multicomponent	Prehistoric lithic scatter; Historic refuse scatter
P-15-022365, CA-KER-11803H	Historic	Refuse scatter
P-15-022366, CA-KER-11804	Prehistoric	Lithic scatter
P-15-022367, CA-KER-11805/H	Multicomponent	Prehistoric isolate: flake; Historic vast refuse scatter
P-15-022368, CA-KER-11806H	Historic	Refuse scatter
P-15-022369, CA-KER-11807H	Historic	Refuse scatter
P-15-022370, CA-KER-11808H	Historic	Placer pit, piles, tobacco tins
P-15-022371, CA-KER-11809H	Historic	Tailings pile and possible pit, ceramics, solarized amethyst glass, metal
P-15-022372, CA-KER-11810H	Historic	Large excavated pit, small pits, cans
P-15-022373, CA-KER-11811H	Historic	Refuse scatter
P-15-022374, CA-KER-11812H	Historic	Refuse scatter
P-15-022375, CA-KER-11813H	Historic	Excavated pit, milled lumber
P-15-022376, CA-KER-11814H	Historic	Refuse scatter
P-15-022377, CA-KER-11815H	Historic	Structure remnants, concrete footers, refuse scatter
P-15-022378, CA-KER-11816	Prehistoric	Lithic scatter
P-15-022379, CA-KER-11817	Prehistoric	Lithic scatter
P-15-022380, CA-KER-11818H	Historic	Refuse scatters
P-15-022381, CA-KER-11819H	Historic	Large excavated pit, spoils piles, and refuse scatter
P-15-022382, CA-KER-11820H	Historic	Dilapidated fence/corral remnants
P-15-022384, CA-KER-11822H	Historic	Refuse scatter
P-15-022385, CA-KER-11823H	Historic	Refuse scatter
P-15-022386, CA-KER-11824H	Historic	Refuse scatter
P-15-022387, CA-KER-11825H	Historic	Dilapidated fend/corral remnants
P-15-022388, CA-KER-11826H	Historic	Refuse scatter
P-15-022389, CA-KER-11827H	Historic	Excavated pit and tailings pile
P-15-022390, CA-KER-11828	Prehistoric	Lithic and tool scatter (rhyolite triangular point: Cottonwood type; flakes: 3 rhyolite)
P-15-022391, CA-KER-11829H	Historic	Refuse scatter
P-15-022392, CA-KER-11830H	Historic	Refuse scatter
P-15-022393, CA-KER-11831H	Historic	Refuse scatter
P-15-022394, CA-KER-11832H	Historic	Refuse scatter
P-15-022395, CA-KER-11833H	Historic	Refuse scatter; Previously recorded isolate P-15-016844 is combined with this site
P-15-022396, CA-KER-11834H	Historic	Refuse scatter and dug out pits
P-15-022398, CA-KER-11836	Prehistoric	Lithic scatter
P-15-022399, CA-KER-11837H	Historic	Refuse scatter
P-15-022400, CA-KER-11838H	Historic	Foundations, refuse scatter, former housing type community, GLO survey markers
P-15-022401, CA-KER-11839	Prehistoric	Lithic scatter
P-15-022402, CA-KER-11840/H	Multicomponent	Prehistoric Isolate: rhyolite flake; Historic Refuse Scatter
P-15-022403, CA-KER-11841/H	Multicomponent	Prehistoric Site: rhyolite lithic scatter; Historic Isolate: Refuse scatter
P-15-022404, CA-KER-11842H	Historic	Refuse scatter
P-15-022405, CA-KER-11843H	Historic	Refuse scatter

Primary/Trinomial Number	Time Period[1/]	Description
P-15-022407, CA-KER-11845H	Historic	Refuse scatter in drainage
P-15-022408, CA-KER-11846	Prehistoric	Lithic scatter
P-15-022409, CA-KER-11847	Prehistoric	Lithic and tool scatter
P-15-022410, CA-KER-11848	Prehistoric	Lithic scatter
P-15-022411, CA-KER-11849H	Historic	Wooden corral debris
P-15-022412, CA-KER-11850H	Historic	Glass scatter
P-15-022324, CA-KER-11852H	Historic	Refuse scatter
P-15-022325, CA-KER-11763/H	Multicomponent	Prehistoric Isolate: rhyolite flake; Historic Site: Refuse scatter
P-15-022326, CA-KER-11764H	Historic	Refuse scatter
P-15-022327, CA-KER-11765H	Historic	Refuse scatter
P-15-022329, CA-KER-11767H	Historic	Refuse scatter
P-15-022330, CA-KER-11768H	Historic	Refuse scatter
P-15-022331, CA-KER-11769H	Historic	Refuse scatter
P-15-022332, CA-KER-11770H	Historic	Refuse scatter
P-15-022333, CA-KER-11771H	Historic	Refuse scatter, and potential mine claim
P-15-022334, CA-KER-11772H	Historic	Refuse scatter
P-15-022335, CA-KER-11773H	Historic	Refuse scatter
P-15-022337, CA-KER-11775H	Historic	Refuse scatter, and a rock cairn mining claim
P-15-022338, CA-KER-11776H	Historic	Refuse scatter
P-15-022339, CA-KER-11777H	Historic	Refuse scatter and a rock cairn mine claim
P-15-022340, CA-KER-11778H	Historic	Refuse scatter
P-15-022341, CA-KER-11779H	Historic	Refuse scatter, GLO marker, and circle of rhyolite rocks
P-15-022342, CA-KER-11780H	Historic	Refuse scatter
P-15-022343, CA-KER-11781H	Historic	Refuse scatter
P-15-022344, CA-KER-11782H	Historic	Refuse scatter
P-15-022345, CA-KER-11783H	Historic	Refuse scatter
P-15-022346, CA-KER-11784H	Historic	Refuse scatter
P-15-022347, CA-KER-11785H	Historic	Refuse scatter
P-15-022348, CA-KER-11786H	Historic	Refuse scatter
P-15-022349, CA-KER-11787H	Historic	Refuse scatter
P-15-022350, CA-KER-11788H	Historic	Refuse scatter
P-15-022351, CA-KER-11789H	Historic	Refuse scatter
P-15-022352, CA-KER-11790H	Historic	Refuse scatter
P-15-022353, CA-KER-11791H	Historic	Refuse scatter, rock rings (possible cairn)
P-15-022354, CA-KER-11792H	Historic	Refuse scatter
P-15-022356, CA-KER-11794H	Historic	Refuse scatter
P-15-022357, CA-KER-11795H	Historic	Refuse scatter, homestead
P-15-022358, CA-KER-11796H	Prehistoric	Bedrock milling slick

1/ Multicomponent resources include both prehistoric and historic time periods

P-15-022359, CA-KER-11797/H

Site P-15-022359, CA-KER-11797/H consists of a prehistoric lithic scatter (18 pieces of debitage) and a historic era isolate. The site is situated on an open, alluvial basin with a slight southeast trending slope within a Joshua tree and creosote bush environment. An unnamed north-to-south trending two-track road bisects the western portion of the site, and a wind energy generating facility is east of the southeastern site boundary.

The observed prehistoric surface component consists of seven rhyolite and seven CCS pieces of shatter, and four rhyolite flakes (two primary, and two secondary). The historic isolate includes two milk glass shards and one church key-opened steel beverage can. The two milk glass shards are from a single vessel that refits as a bowl. The bowl base is embossed with the maker's mark "OVEN" over "*Fire King*". The script type Fire King logo was used between 1945 and 1948 (Obanla 2021). Milk glass was in use from 1890 to 1960 primarily for medicine, cosmetic, toiletry, and specialty items, whereas the church key can opener was invented in 1935 with peak use to 1960 (Holm et al. 2018).

Based upon the historic era artifact assemblage, the site dates to 1945 to 1960. Review of historic aerial imagery (1959, 1963, 1972, 1974) and historic USGS topographic maps (1959, 1967, 1976) shows the site as undeveloped rural land in 1959 and remained unchanged through 1963 (Netronline 2024). By 1972, a grid of roads that define four parcels are approximately 0.28 kilometer west of the site. No buildings or features are illustrated within the site area on the aerial imagery or historic maps. Both integrity and condition of the site is fair due to the existing road that bisects the site, and environmental processes such as heavy precipitation events that often result in artifact displacement and decomposition.

P-15-022360, CA-KER-11798

Site P-15-022360, CA-KER-11798 is a low-density prehistoric lithic scatter with 3 pieces of debitage and a core situated on an alluvial fan with a slight southeast trending slope within a Joshua tree and creosote bush environment. A north to south trending two-track road is located along the northwestern boundary of the site. Ground surface visibility was between 60 to 90 percent.

The observed prehistoric assemblage consists of one CCS core and three CCS flakes. The core material is a light whitish grey, roundish, and multi-faceted. Both the integrity and condition of the site is fair due to the existing road near the site, and environmental processes such as heavy precipitation events that often result in artifact displacement and decomposition.

P-15-022361, CA-KER-11799H

Site P-15-022361, CA-KER-11799H consists of a historic era diffused refuse scatter with a discrete refuse concentration. The refuse is a combination of domestic that consists of cans, glass, ceramics, and metal. The site is situated on an alluvial basin with a slight southeast trending slope within the Antelope Valley.. The site is within a rural area that is often used by the public for recreation and unlawful disposal of refuse. A north-to-south trending two-track road is located

western boundary, and an improved (graded) northwest-to-southeast trending two-track road is located over 100 feet of the eastern boundary of the site.

The concentration (Feature 1) is located within the northwestern portion of the boundary. The general refuse scattered most likely originated from the concentration and has been dispersed due to environmental conditions (i.e., wind, storm events, and sheetwash activity). The refuse scatter consists of cans similar to those observed in the concentration.

Feature 1 consists of approximately 48 sanitary cans (25 church key-opened, two knife-opened; 17 condensed milk type, 4 meat: tuna), 15 aerosol cans, 4 rectangular cans (3 meat type: sardine, key wind-opened, and 1 oil type), seven hole-in-top cans, 1, 5-gallon can, and 2 aluminum top pull tab cans, several key wind openers, a can lid with the brand "Crisco" logo, miscellaneous can fragments, and a horn. Sanitary and hole-in-top cans are generally attributed to post-1900 (Rock 1989:12, 14; Waechter 2010). Church key openers were introduced in 1935 according (Horn 2005), and removable pull tab cans were introduced in 1962 and ceased production in 1975 (Schroder 2019, Waechter 2010,). Aerosol cans have been produced since the 1920s in the United States.

The glass assemblage includes approximately 50 colorless glass shards, 30 amber glass shards, 20 green glass shards (from one bottle), one large wide mouth jar lid (external thread) with glass jar neck still attached (1-gallon size), two external thread jars, and three complete machine-made glass bottles. One whole bottle is a colorless glass condiment type bottle. The second is a teardrop-shaped colorless glass bottle (nail polish type) and the base is embossed with the brand "AVON" and a maker's mark of an S inside a circle, produced by Swindell Bros, Baltimore, Maryland, between 1920 and 1959 (Toulouse 1971:452-454). The third is a rectangular-shaped colorless glass bottle, and the base is embossed with "BRECK" and the Owens Illinois Glass Company maker's mark of an I inside circle () used since 1954 (Toulouse 1971:403). The ceramic assemblage includes two porcelain plate sherds with a cattail pattern and a maker's mark "OVEN PROOF – MADE IN THE U.S.A.," and in a circle is printed "CAMWOOD IVORY UNIVERSAL CAMBRIDGE, O," and five tan stoneware crockery sherds (one rim sherd). Regarding the colorless glass bottles, in 1910, John H. Breck began his haircare business then introduced the first pH balanced liquid shampoo "Breck" on the market in 1930 and was in production through the early 1960s (Hairstory 2024). Regarding the ceramic assemblage, the Universal Pottery Company of Cambridge, Ohio manufactured the popular Cattail dinnerware line from 1934 until 1956 (Old Soul Antiques 2024).

A review of federal land patents identified one early patent issued to William Rohde in 1913 for the site area (BLM 2024). No additional historical information was available for William Rohde through census and genealogic sources, historic newspaper articles, or other online sources. Although the property is associated with William Rohde, there is no evidence connecting him to the site.

Review of historical aerial imagery (1959, 1963, 1972, 1974) and historic USGS topographical maps (1959, 1967, 1976) shows the site as undeveloped rural land with an unnamed northwest-to-southeast trending dirt road in 1959 (Netronline 2024). By 1963, a rudimentary north-to-south dirt road that connects to the earlier dirt road is present and later improved by 1972. The area remains unchanged except the road is no longer visible and appears overgrown and no longer in use as of 2012. No buildings or features are illustrated within the site on historic aerial imagery or maps.

Based upon the artifact assemblage and archival review, the site appears to be a single refuse disposal episode dating between the 1930s and the early 1970s. The integrity and condition of the site is fair

due to environmental impact from heavy precipitation events to result in artifact displacement and decomposition.

P-15-022362, CA-KER-11800H

Site P-15-022362, CA-KER-11800H consists of historic-era rock cairn (Feature 1), two prospect mining pits (Feature 2 and 3), and a light refuse scatter of glass shards and cans.

Feature 1 is a deflated rock cairn that most likely served as a mining claim marker. The deflated cairn is composed of approximately 24 rocks of quartz monzonite stacked one tier high. The rocks vary in shape and size and range from 6 inches to 10 inches in diameter. No claim box or central post was observed. Feature 2 consists of two adjacent mining exploration prospect test pits located approximately 200 feet east-southeast from Feature 1. The pits are situated on the southwest slope of a small hill or knoll with exposed bedrock at the top. The two pits are open and shallow, squared off, and both measure 12 feet (west to east) by 8 feet (north to south) and less than 1.5 feet in depth. Tailings of quartz monzonite are located immediately adjacent to both test pits. Test pit A is upslope and test pit B is downslope.

The glass assemblage includes 13 colorless glass shards from the same bottle (body, neck, and base). The base shard exhibits an Owens-Illinois Glass Company maker's mark of a diamond and oval with an I in the center, "D 525, 88 …" (ca. 1930 to the late 1950s) (Whitten 2023; Toulouse 1971). The can assemblage incudes two crushed hole-in-top and one pull tab can. Hole-in-cap cans were produced between ca. 1820 to ca. 1930 (Rock 1987:12). The pull tab can is an aluminum-topped steel beverage can. The removable pull tab type cans were introduced in 1962 and ceased production in 1975 (Schroder 2019). No other cultural materials or features were observed on-site. Ground surface visibility was between 90 to 100 percent.

Based upon the artifact assemblage the site dates from the 1920s to the 1960s. The site is likely tied to the early mining period of Antelope Valley and extensive mining operations which took place throughout the valley during the latter parts of the 19th century into the 20th century.

A review of federal land patents identified one patent for the site area issued to Herman D. Schmidt in 1913 (for T10N, R13W, SW1/4, Section 4) under the Homestead Act (3 Stat. 566) of 1862 (BLM 2024). The U.S. World War I Draft registration card from 1917 to 1918 list a Herman Dan Schmidt, living and employed in Mojave, Kern County, California (Ancestry 2024). Schmidt is listed as a natural born citizen born on December 14, 1886, and an Emma Dau Schmidt is listed as a relative (Ancestry 2024). The 1910 to 1918 California Voter Registration list a Herman Dan Schmidt as a republican and rancher (also a democrat and a farmer) living in Mojave, California. No additional archival information was available regarding Herman Dan Schmidt or use of the site area.

Review of historical aerial imagery (1959, 1963, 1972, 1974, 1983) and historic USGS topographical maps (1959, 1961, 1967, 1976) shows the site as undeveloped rural land with a north-to-south trending road and an east-to-west trending road approximately 0.5 mile to the west in 1959 (Netronline 2024). By 1963, a rock quarry is present to the southeast. The site area appears unchanged through 2020. No building, features, or mining prospects were depicted on the reviewed historic aerial

imagery and maps. The integrity and condition of the site is fair due to environmental impact from heavy precipitation events to result in artifact displacement and decomposition.

P-15-022363, CA-KER-11801/H

The multicomponent site P-15-022363, CA-KER-11801/H consists of a prehistoric lithic scatter and historic-era refuse.. A northwest-to-southeast trending two-track road bisects the southwestern portion of the site and a north-to-south trending arroyo bisects the southeastern most portion of the site. The surface soils are pale brown sand and gravels, with quartz monzonite rocks. Vegetation within and surrounding the site includes creosote bush and Joshua trees. Ground surface visibility was 100 percent.

The prehistoric component consists of a lithic scatter with 65 pieces of debitage concentrated (42 meters by 18 meters) along the southwestern portion of a saddle between the two knolls. The two-track road is adjacent to the northeastern boundary of the concentration. The arroyo is about 30 meters to the east. Specifically, the assemblage includes 12 CCS flakes and 53 rhyolite flakes. The CCS flake types include one primary (FS1), seven secondary, and four tertiary. The rhyolite flake types include 24 primary, 22 secondary, and 7 tertiary. One rhyolite flake was observed outside the lithic concentration and appears as possibly impacted by fire (FS2).

The historic component consists of a low-density, widespread refuse scatter of primarily cans and a few glass shards. The assemblage includes 14 cans which include 4 complete sanitary cans (1 church key open, 1 coffee type), 2 complete hole-in-top cans (1 knife-opened), 5 aluminum top pull tab cans (brands include Dr. Pepper and Canada Dry), 1 crushed hole-in-top can, 1 rectangle sardine type can fragment, 2 can lids (one marked Crisco), and 1 can fragment. Hole-in-top cans are generally attributed to post-1900 (Rock 1987:12, 14; Waechter 2010). The removable aluminum top pull tab can was introduced in 1962 and ceased production in 1975 (Schroder 2019). The glass assemblage includes 35 colorless glass shards, 1 light green-aqua glass shard (embossed Coca-Cola), and 1 colorless glass bottle with a “waved or swirled” body and an applied color label with the logo “*Pepsi*” in red letters with a white background. The design of the wave on the bottle body with the red and white Pepsi brand logo dates from the 1940s to the 1950s (Lockhart 2017:62-63).

Based upon the characteristics of the historic-era artifacts, the site dates from the 1940s to the 1960s. The historic artifact scatter is pervasive, mostly low-density, and most likely represents a series of intermittent brief occupations of the area by a limited number of individuals. A review of federal land patents identified one patent for the site area issued to Herman D. Schmidt in 1913 (for T10N, R13W, SW1/4, Section 4) under the Homestead Act (3 Stat. 566) of 1862 (BLM 2024). (BLM 2024). The 1910 to 1918 California Voter Registration both list a Herman Dan Schmidt as a republican and rancher living in Mojave, California, in Kern County. The U.S. World War I Draft registration from 1917 to 1918 lists a Herman Dan Schmidt as still living and employed in Mojave, a natural born citizen (born December 14, 1886), and an Emma Dau Schmidt as a relative (Ancestry 2024). No additional archival information was available regarding Herman Dan Schmidt, or on the use of the site area. Although the property is associated with Herman Schmidt, there is no archival information connecting him directly to the site. No additional information was available regarding other previous landowners during the dates of the site.

Review of historical aerial imagery (1959, 1963, 1972, 1974) shows the site area as undeveloped rural land with an unnamed dirt road to the north of the site in 1959, the site area remained unchanged through 2020 (Netronline 2024). Review of historical topographical maps (USGS 1959, 1967, 1976) illustrate several roads to the east. By 1967, a road and ephemeral drainage is illustrated (both bisect the site), and an east-to-west trending road is also present. The area remains unchanged through 1976. No building, features, or mining prospects were depicted on the reviewed historic aerial imagery and maps. The integrity and condition of the site ranges from good to fair based on the minimal artifact displacement despite environmental erosional processes.

P-15-022364, CA-KER-11802/H

Site P-15-022364, CA-KER-11802/H is a multi-component and consists of a prehistoric lithic scatter and a historic era isolate consisting of cans. The prehistoric assemblage consists of three primary CCS flakes. The historic era material consists of four corrugated metal cans, one of which is church-key open. Church key can openers were introduced in 1935 and continue to be used today (Rock 1993; Horn 2005:14). The site is situated on an alluvial plain with a slight southeast trending slope within the Antelope Valley. An active concrete material mining operation is south. The site is within an active sheetwash area with a slight undulating terrain. The surface soils are a pale brown sand and vegetation on site and surrounding the site includes creosote bush and Joshua trees.

Based upon the characteristics of the historic-era artifacts, the site is estimated to date from 1935 to the 1970s. A review of federal land patents identified one patent for the site area issued to Herman D. Schmidt in 1914 (160 acres, SW1/4 of Section 4) under the Homestead Act (12 Stat. 392) of 1862 (BLM 2024). The 1910 to 1918 California Voter Registration all list a Herman Dan Schmidt as a republican and rancher living in Mojave, California, in Kern County. The U.S. World War I Draft registration from 1917 to 1918 lists a Herman Dan Schmidt as still living and employed in Mojave, a natural born citizen (born December 14, 1886), and an Emma Dau Schmidt as a relative (Ancestry 2024). No additional archival information was available regarding Herman D. Schmidt or use of the site area. Although the property is associated with Herman Schmidt, there is no archival evidence connecting him directly to the site. No additional information was available regarding other previous landowners during the dates of the site.

Review of historic aerial imagery (1959, 1963, 1972, 1974) shows the site as undeveloped rural land with an unnamed southwest-to-northeast trending dirt road to the north, an improved road to the east, an ephemeral drainage to east (Netronline 2024). The conditions remained unchanged through 2020. Review of historical topographical maps (USGS 1959, 1967, 1976) illustrate roads east of the site (Netronline 2024). The area remained relatively unchanged from 1959 to 1976. No building, features, or mining prospects were depicted on the reviewed historic aerial imagery and maps. Both integrity and condition of the site is fair due to environmental erosional processes and artifact displacement and decomposition during storm events.

P-15-022365, CA-KER-11803H

The historic site P-15-022365, CA-KER-11803H is a sparse and highly diffused refuse scatter of cans and a complete bottle. The historic era assemblage consists of six steel beverage cans and a lid fragment

(all church key-opened, one can has a bullet hole), three sanitary cans, one aluminum pull tab can, one square gas can, and one piece of sheet metal. The glass assemblage includes one colorless glass bottle with a continuous thread lip and one amber glass beer bottle. The amber glass bottle is embossed with “PLEASE DON’T LITTER” and “LAO REC. U.S. PAT. & T. H. 011” along the heal. The phrase “Please Don’t Litter” inscription dates from the 1970s into the early 1980s (Schulz et al. 2019). The surface soils are pale brown sand and exposed decomposing granite. The vegetation on site and surrounding the site includes creosote bush and Joshua trees.

The site is situated on an alluvial basin with a slight southeast trending slope within the Antelope Valley. A north-to-south graded and improved road bisects the western portion of the site, where the densest amount of refuse is located. A northeast-to-southwest trending overhead transmission line corridor with three steel lattice tower type lines are to the east and southeast, and a large wind energy generating facility is to the east-northeast. The site is within an active sheetwash area with a slight undulating terrain.

Based upon the characteristics of the artifacts, the site is estimated to date from the 1950s to the 1980s. Two federal land patent holders with land that overlap the site area include the Southern Pacific Railroad Co. in 1891 (for T10N, R13W, Section 3), and later Ole M. Thanke in 1919 (for 160 acres, T10N, R13W, SW/14 of Section 2) under the Desert Land Act (19 Stat. 377) of 1877 (BLM 20024). Thanke was born about 1851 and died on July 28, 1928, in Kern, California (Ancestry 2024). No additional archival information was available regarding Ole Thanke or use of the site area. Although the property is associated with Ole Thanke, no archival evidence was available that connects them to the use of the site.

Review of historical aerial imagery (1959, 1963, 1972, 1974) shows the a road near the site in 1959. By 1972, a western road that connects to the road while the site area remained unchanged through 2020 (Netronline 2024). Review of historical topographical maps (1943, 1957, 1976) illustrate a road that bisects site and another road to the south in 1943. A southwest-to-northeast trending transmission line is illustrated to the east of the site by 1957. The area remains unchanged by 1976 to current time. No buildings, features, or mining prospects were depicted on the reviewed historic aerial imagery and maps. Both integrity and condition of the site is fair due to environmental erosional processes and artifact displacement and decomposition due to high winds and storm events.

P-15-022366, CA-KER-11804

Site P-15-022366, CA-KER-11804 is a prehistoric site and consist of a low-density lithic scatter with four pieces of debitage. The assemblage consists of three rhyolite tertiary flakes and one CCS tertiary flake. The site is situated on an alluvial basin with a slight southeast trending slope within the Antelope Valley. A north to south trending unnamed two-track road is located west of the site boundary. A wind energy generating facility is northwest of the site. The site is within an active sheetwash area with a slight undulating terrain. The soil consists of sand with small gravels and the vegetation within and surrounding the site boundary consists primarily of creosote bush with a few scattered Joshua trees. Ground surface visibility was good at 80 percent.

P-15-022367, CA-KER-11805/H

Site P-15-022367, CA-KER-11805/H is a dense historic-era refuse scatter and an isolated flake. The site is situated on an alluvial basin within a slight southeast trending slope within the Antelope Valley. Surface ground visibility was excellent between 90 to 100 percent. An east-to-west trending improved graded dirt road bisects the northernmost portion of the site. The site is adjacent (east) to a utility corridor right-of-way for three overhead steal lattice transmission lines and associated improved northeast-to-southwest trending access road is east of the site boundary. Site integrity is poor, as the ground surface of the site appears to be disturbed from heavy machinery and grading type activities, most likely due to construction of the adjacent transmission lines and roads. The artifacts appear disturbed and may have been previously subjected to illegal excavation or artifact collecting due to easy access via the road that bisects the site and other adjacent roads.

The prehistoric isolate is a CCS (jasper) primary flake. The historic era refuse consists primarily of domestic items of cans, glass, and ceramics sherds. The can assemblage consists of seven tobacco cans, one aerosol can fragment, and one crushed sanitary can. The glass assemblage consists of approximately 60 to 70 colorless glass shards, 50 ceramic sherds, 30 to 40 green glass shards, 25 to 35 solarized amethyst glass shards, 20 to 30 cloudy glass shards, 20 to 30 aqua glass shards, 12 olive green glass shards, 1 colorless jar neck shard, 1 glass jar base, 1 small glass jar neck, 1 colorless Tabasco jar bottle base, 1 screw top glass bottle, 1 blown glass solarized amethyst shard, and 1 amber bottle base. The ceramics assemblage includes 16 whiteware sherds, 10 blue floral patterned porcelain ceramic cup fragments, 9 ceramic glazed stoneware sherds, 3 brick fragments, 2 terracotta flowerpot sherds, 1 brick fragment, and 1 figurine mid-section. Other artifacts include two metal barrel hoops. Solarized amethyst glass dates between 1885 and 1925 (Newman 1970:74) and olive green glass dates between 1840 and 1880 (Jones and Sullivan 1989). Aqua-colored glass was produced between ca. 1800 and the 1920s (Fike 1987). The site most likely dates between 1900 and the 1950s based on the diagnostic artifacts that are present.

Federal land office patent records indicate the property was granted to Hans Visser in 1920 (for 320 acres, T10N, R13W, E1/2 of Section 10) under the Homestead Act (12 Stat. 392) of 1862 (BLM 2024). Visser was born on October 15, 1880, and died on January 28, 1945. He is originally from Friesland, Netherlands and is buried at the Mojave Cemetery in Mojave, California (Find A Grave 2024). Based on a U.S. World War I Draft registration card (ca. 1917 to 1918), Hans Visser is listed as a naturalized citizen, employed as a miner, and residing in Kern County, California (Ancestry 2024). A review of archival census and genealogic sources, historic newspaper articles, or other online sources did not reveal any additional information regarding Hans Visser or any other landowners. Review of historic aerial imagery (1959 1963, 1974, 1983) and historic USGS topographic maps (1943, 1947, 1954, 1964, 1976) indicates a road bisects northern portion of site as early as 1943 and the transmission line corridor was developed between 1964 and 1976 (Netronline 2024). A larger north-to-south trending swath of land (including the site area) appears previously graded in 1959. By 1976, the area appears as it does today with the utility corridor and associated roads. No buildings or mining prospects were depicted on the reviewed historic aerial imagery or USGS topographical maps within or adjacent to the site location.

P-15-022368, CA-KER-11806H

Site P-15-022368, CA-KER-11806H consists of a historic refuse scatter of domestic debris located along an unnamed dirt road. The site is situated in a mostly level area with a slight slope to the southeast, and is almost entirely devoid of organic topsoil, leaving only exposed decomposing granite. The site is widely dispersed, measuring approximately 200 feet west-to-east by 100 feet north-to-south. Joshua trees and creosote bush are predominate in the area, with some cholla cactus present. Ground surface visibility was good at 80 to 100 percent.

The artifacts include cans and bottles, including 19 church key-opened cans, 12 condensed milk cans (one of which has a can opener opening), 2 sanitary meat cans with a can opener opening, 6 sanitary cans with missing top, 5 amber glass shards, 2 tobacco tins (embossed Prince Albert), 2 sanitary can lids, 1 complete amber medicine bottle with external thread screw top and embossed: "Whitehall" on body side, with a "" Owens-Illinois maker's mark on the base which was in use from 1954 to 2005 (Lockhart and Hoening 2018:300, Glass Bottle Marks 2024), 1 amber bottle base, 1 sardine can with missing lid, 1 "Danmark" square can (meat type), 1 aerosol can, and 1 square powder can lid. The R.J. Reynolds Tobacco Company produced Prince Albert tobacco tins between 1909 and 1975 (Wesseler 2015). Amber glass has been produced since ca. 1860 to present. Sanitary cans have been produced from 1904 to present (Merritt 2014). The Whitehall medicine bottle is attributed to the pain reliver "Anacin" and was manufactured by the Whitehall Laboratories (a division of American Home Products Corporation) post-1945 (Vintage Advertising and company Histories 2024, New York Times 1964). The site most likely dates between the mid-1950s to 1960 based on the diagnostic artifacts that are present.

Federal land office patent records indicate the property was granted to the Southern Pacific Railroad Co. in 1891 (BLM 2024). No additional archival information regarding the property or previous owners was available. Review of historic aerial imagery (1959 1963, 1974, 1983) and historic USGS topographic maps (1959, 1961, 1967, 1976) indicates the site location is undeveloped land from 1959 to present (Netronline 2024). The north-to-south trending road is present in 1959 west of the site P-15-022368. No buildings, features, or mining prospects were depicted on the reviewed historic aerial imagery or USGS topographical maps within or adjacent to the site location. The site most likely represents a roadside, single refuse disposal episode of refuse.

P-15-022369, CA-KER-11807H

Site P-15-022369, CA-KER-11807H consists of a widely dispersed, historic era refuse scatter of domestic debris of food, beverage, and toiletry items. The site is situated in a mostly level area with a slight slope to the southeast, and appears devoid of organic topsoil, leaving only exposed decomposing granite. Vegetation on-site consist of Joshua trees and creosote bush, with some cholla cactus present.

The artifacts include glass, cans, and ceramics. The glass assemblage includes 20+ colorless glass shards, 2 milk glass shards, 1 colorless glass bottle (toiletry type: aftershave), 1 colorless jar (toiletry type: cream), 1 colorless bottle (condiment), 1 bottle base embossed with the maker's mark "" Anchor Hocking (1938 to ca. 1980), and 1 colorless glass bottle base embossed with the maker's mark "" Glass Containers, Inc. (ca. 1937 to 1964) (Lockhart et al. 2015). The cans consist of three sanitary

cans with an open lid, one sanitary can with a knife opening, one church key-opened can, and one can lid. The ceramics include five yellow-colored glazed ceramic and one amber-colored square ceramic sherd. Milk glass was in use from 1890 to 1960 primarily for medicine, cosmetic, toiletry, and specialty items (Holm et al. 2018). The site most likely dates between late-1930s to 1960 based on the diagnostic artifacts that are present.

No archival information regarding the property or previous owners was available. Review of historic aerial imagery (1959 1963, 1972, 1974, 1983) and historic USGS topographic maps (1959, 1961, 1967, 1976) indicates the site location is undeveloped land from 1959 to present. Several unnamed two-track roads in various alignments are present south and west of the site by 1959 to present. An east-to-west trending two-track road is adjacent (north) to the site in 1959 and is no longer in use and faintly visible today. No buildings, features, or mining prospects were depicted on the reviewed historic aerial imagery or USGS topographical maps within or adjacent to the site location.

P-15-022370, CA-KER-11808H

Site P-15-022370, CA-KER-11808H consists of a historic prospect pit (Feature 1) and refuse (2 cans). Feature 1 consists of a large, excavated prospect pit with associated waste pile. The side profile of the pit has a significant slope. The waste pile measures 0.5 to 0.75 feet above ground surface and is composed of many loose cobbles. The refuse consists of 2 tobacco tins (Prince Albert type, crushed, one with lid), and a single tobacco tin lid. The R.J. Reynolds Tobacco Company produced Prince Albert tobacco tins between 1909 and 1975 (Wesseler 2015). The site is situated on an alluvial fan within the Antelope Valley. Vegetation on site includes creosote bush, Joshua trees, and small desert forbs and grasses. The northeast side of the Middle Buttes and Cactus Queen mine is about 1.14 miles west from the resource. applicable

Federal land office patent records indicate the property was granted to Hans Visser in 1920 (for 320 acres, T10N, R13W, E1/2 of Section 10) under the Homestead Act (12 Stat. 392) of 1862 (BLM 2024). Visser was born on October 15, 1880, in Friesland, Netherlands. Visser died on January 28, 1945, and is buried at the Mojave Cemetery in Mojave, California (Find A Grave 2005). Based on a 1917 to 1918 U.S. World War I Draft registration cards, Hans Visser's U.S. World War I registration card (ca. 1917 to 1918) indicates he was a naturalized citizen, employed as a miner, and living in Kern County, California (Ancestry 2013). No additional historic was available for Hans Visser through census and genealogical sources, historic newspaper articles, or other available online or archival sources.

Review of historic aerial imagery (1959 1963, 1972, 1974, 1983) and historic USGS topographic maps (1959, 1961, 1967, 1976) indicates the site location is undeveloped land from 1959 to present. Aerial imagery shows a faint southwest-to-northeast trending two-track road north of the site in 1963, the road is no longer visible by 1974. This road is not illustrated on USGS topographical maps. No buildings, features, or mining prospects were depicted on the reviewed historic aerial imagery or USGS topographical maps within or adjacent to the site location.

P-15-022371, CA-KER-11809H

Site P-15-022371, CA-KER-11809H is a spoils pile within an excavated pit (Feature 1) and a refuse scatter of cans and glass. The site is situated on an alluvial fan in the Antelope Valley and is northeast

of a northwest-to-southeast trending road and a rock quarry is to the west. Vegetation on site consist of creosote bush and Josua trees. Integrity of the site is fair due to environmental erosional processes.

Feature 1 is a spoils pile consisting of small angular rocks and gravels mixed with sands. The spoils pile appears to fill a previously excavated pit (possible a prospect pit). The refuse scatter consist of 20+ white glazed ceramic earthenware sherds, 10 solarized amethyst glass bottle shards, 7 glazed ceramic plate sherds, 2 porcelain sherds (plate type) with a maker's mark "Kenwood / Alfred Meakin / England", 1 white ceramic teacup handle, 1 white glazed ceramic sherd, 1 small sanitary can, 1 condensed milk can, and 1 can lid (Royal Baking Powder). Sanitary cans were produced from 1904 to present (Merritt 2014).

Alfred Meakin Ltd. was established in 1875 in England by a family of potters who manufactured ironstone and semi-porcelain dinnerware, tea wares, and toilet wares to the United States through mail order catalogs until the family sold the company in 1976 (Rinker 2003). The "Kenwood / Alfred Meakin / England" maker's mark with the tilted globe and wavy banner was first produced in 1891 (Rinker 2023). Solarized amethyst glass dates between 1885 and 1925 (Newman 1970:74). Sanitary cans were produced from 1904 to present (Merritt 2014). Royal Baking Powder was produced in tin canisters by the Royal Company until about 1963 (SODA 2024). The site most likely is a single refuse disposal episode that dates between the 1890s and the 1930s based on the diagnostic artifacts that are present.

Federal land office patent records indicate the property was granted to Edwin H. Kelly in 1915 (for T10N, R13W, NW1/4 of Section 4) under the Sale-Cash Entry (3 Stat. 566) act of 1820 (BLM 2024). No additional historical information was available for Edwin H Kelly through census and genealogic sources, historic newspaper articles, or other archival or online sources.

Review of historic aerial imagery (1959 1963, 1972, 1974, 1983), historic USGS topographic maps (1959, 1961, 1967, 1976), and GLO Plat (1856) indicates the site location is undeveloped land from 1959 to present (Netronline 2024). Aerial imagery and topographic maps shows a southwest-to-northeast trending two-track road west of the site in 1959. No buildings, features, or mining prospects were depicted on the reviewed historic aerial imagery or USGS topographical maps within or adjacent to the site location.

P-15-022372, CA-KER-11810H

Site P-15-022372, CA-KER-11810H consists of three features (excavated pits and spoils piles), a modified sanitary can, and "Budweiser" pull tab cans. The site is located on the northwestern intersection of the Second Aqueduct Road (P-15-003549) and an unnamed east-to-west trending dirt road. Active wind energy generating facilities are in all cardinal directions and an east-to-west transmission line is to the south. Vegetation includes creosote, Joshua trees, and small desert forbs and grasses.

The three Features include a large machine excavated pit and associated tailings pile (Feature 1), a small adjacent excavated pit (Feature 2) located about 50 feet south of Feature 1, and a small pit (Feature 3) located 60 feet south of Feature 2 and is situated immediately north of an unnamed west-to-east trending road. Linear spoil piles line the top of the excavated area of Feature 1, and an earthen

ramp leads down into its northern corner. The artifact assemblage consists of 11 Budweiser pull tab cans and 1 knife-modified sanitary can (puncture holes) located at the base of Feature 2. The removable pull tab type cans were introduced in 1962 and ceased production in 1975 (Schroder 2019). A large modern refuse scatter of tires, plastic, wooden furniture, and cinder blocks is within and adjacent to Feature 1.

Federal land office patent records indicate the property was granted to Wilbern F. Green in 1911 (T11N, R13W, SE1/4 of Section 28) under the Homestead Act (12 Stat. 392) of 1862 (BLM 2024). No additional historical information was available for Wilbern F. Green through census and genealogic sources, historic newspaper articles, or other archival or online sources. Nor was any additional archival information regarding the property or previous owners available.

Review of historic aerial imagery (1963, 1972, 1974, 1983), historic USGS topographic maps (1943, 1956, 1958, 1967, 1976) indicates the site location is adjacent and within a utility corridor. Aerial imagery shows a large northeast-to-southeast trending graded swath of land (cleared of vegetation) in 1972 within and adjacent (east) to the site, including what appears to be a large pit within the site area. The site and adjacent areas appear relatively unchanged until 2012 when the wind energy facility was developed to the east and west of the site.

Based upon the artifact assemblage, the site dates from the 1950s to the 1980s. The excavation pits (Features 1-3) were most likely created in the 1970s during construction of the Second Aqueduct Road (P-15-003549). The eastern half of this resource is outside the Project Site.

P-15-022373, CA-KER-11811H

Site P-15-022373, CA-KER-11811H is a diffused refuse scatter of cans and glass. The site is surrounded by a utility corridor consisting of a modern wind energy generating facility and the Los Angeles Aqueduct and associated aqueduct roads (P-15-003549). The site is within a mostly level area with a slight slope to the southeast. Vegetation includes creosote, Joshua trees, and small desert forbs and grasses.

The refuse scatter assemblage includes 13 solder dot cans, 11 solarized amethyst glass bottle shards, 8 amber glass bottle shards, 8 metal barrel hoops, 6 large solder dot cans, 2 crushed sanitary cans, 1 knife-opened sanitary can, 1 aluminum pull tab can, 1 large sanitary can, 1 Perrier glass bottle, and 1 amber glass bottle neck and shoulder shard, embossed with “Wright & Taylor Distillers Louisville” (whiskey type). Solarized amethyst glass dates between 1885 and 1925 (Newman 1970:74). Sanitary cans were produced from 1904 to present (Merritt 2014). The removable pull tab type cans were introduced in 1962 and ceased production in 1975 (Schroder 2019). The Wright and Taylor Distillers owned the Old Charter Distillery which was in operation from 1874 to about 1935 (Veech 1996, Preston 2023).

Federal land office patent records indicate the property was granted to the State of California in 1960 (BLM 2024). No additional archival information regarding the property or previous owners was available. Review of historic aerial imagery (1963, 1972, 1974, 1983) and historic USGS topographic maps (1943, 1956, 1958, 1967, 1976) indicates the site is within a utility corridor. The utility corridor and associated roads are present by 1943 east of site. Aerial imagery shows a large northeast-to-

southeast trending graded swath of land (cleared of vegetation) in 1972 within and adjacent (east) to the site (Second Aqueduct Road). The site and adjacent areas appear relatively unchanged until 2012 when the wind energy facility was developed to the east and west of the site.

Based upon the artifact assemblage, the site dates from the 1900s to 1960s and is most likely associated with construction of the Los Angeles Aqueduct.

P-15-022374, CA-KER-11812H

Site P-15-022374, CA-KER-11812H is a historic-era refuse concentration (Feature 1) and refuse scatter composed of domestic and industrial debris. The site is situated on an alluvial fan within the Antelope Valley. Vegetation on site includes creosote bush, Joshua trees, and small desert forbs and grasses. Both integrity and condition of the site is fair due to environmental erosional processes.

Feature 1 is located immediately north of a collapsed, dead Joshua tree and consist of cans, glass, and metals. Feature 1 assemblage includes 14 bi-metal pull tab cans, 34 sanitary cans (10 corrugated knife-opened, 7 church key-opened, 3 condensed milk type), 5 paint cans (no lids), 2 metal lids embossed “MJB / Vacuum Packed”, 1 spice can, 1 hole-in-top can, 1 aerosol can, and 1 metal screw cap. Glass and ceramic consist of over 30 colorless glass shards, 2 colorless glass bottle bases embossed with the “” Owens Illinois maker’s mark, a green glass shard, 10 milk glass shards, a green glass bottle body and base shard with an applied logo “7-up” in white and red, 1 amber glass shard, 2 colorless glass bases with an “ ”Anchor Hocking maker’s mark, and 7 ceramic plate sherds (one with a “THE CRONIN CHINA CO. / NATIONAL BROTHERHOOD OF OPERATIVE POTTERY / MINERVA. OHIO” maker’s mark). Other artifacts include bicycle parts (frame, tire rims, tire fender), 3 metal bars in a shape of a triangle, 1 metal pipe, several miscellaneous metal parts (outlet plate, lid, vehicle part), 1 milled lumber fragment, and miscellaneous rubber (hose fragment, sole of shoe, insole of shoe, bicycle tire).

The refuse scatter consist of cans, glass, ceramics, and metal. The cans include 13 condensed milk hole-in-top cans, 9 church key-opened cans, 8 bi-metal pull tab cans, 8 paint cans, 6 aerosol cans, 3 tobacco tins, 2 metal screw tops, 1 gas can, 1 colorless base with a “Glass Container Corp.” maker’s mark, 1 bottle base, and 1 aqua glass shard.

The Cronin China Company was in operation from 1934 to 1956 (Yakula 2011). Milk glass was in use from 1890 to 1960, primarily for medicine, cosmetic, toiletry, and specialty items (Holm et al. 2018), and hole-in-top cans were produced from 1900 to about 1985 (Rock 1988). The 7-up bottle type with an applied “7-up logo, lemon-lime drink” was produced by the 7-up Company post-1953 (Lockhart 2007). The removable pull tab type cans were introduced in 1962 and ceased production in 1975 (Schroder 2019).

Federal land office patent records indicate the property was granted to the Southern Pacific Railroad Co. in 1891 (BLM 2024). No other patents are listed. No additional archival information regarding the property or previous owners was available.

Review of historic aerial imagery (1959, 1963, 1972, 1974, 1983) and historic USGS topographic maps (1943, 1956, 1958, 1967, 1976) indicates the site is within an undeveloped rural desert landscape by

1963 (Netronline 2024). A building and a northwest-to-southeast trending road, extending from the road to the building, is illustrated on the 1967 topographical (and 1972 aerial imagery) about over 150 feet west of the site location. By 1983, the structure no longer appears extant.

Based upon the artifact assemblage and archival review, the site most likely dates to the 1960s to the late 1970s. The site appears to be a single refuse disposal episode possibly from the previous inhabitants of site P-15-022377, CA-KER-11815H (west of site).

P-15-022375, CA-KER-11813H

Site P-15-022375, CA-KER-11813H is a large, excavated pit (Feature 1) and associated spoils pile and three pieces of milled lumber. The site is situated on an alluvial fan within the Antelope Valley. Vegetation on site includes creosote bush, Joshua trees, and small desert forbs and grasses.

Feature 1 is a large, excavated pit that measures approximately 25 feet in diameter by 3 feet below ground surface. The spoils pile is immediately east of the pit and measures approximately 20 feet north-to-south by 10 feet east-to-west. The three pieces of lumber are near the pit. A modern piece of decomposing cardboard is within the pit. No other cultural constituents were observed.

Federal land office patent records indicate the property was granted to Edwin H. Kelly in 1915 (Y10N, R13W, NW1/4 of Section 10) under the Sale-Cash Entry (3 Stat. 566) act of 1820 (BLM 2024). No additional archival information regarding the property or previous owners was available.

Review of historic aerial imagery (1959, 1963, 1972, 1974, 1983) and historic USGS topographic maps (1943, 1956, 1958, 1967, 1976) indicates the site location is within a large swath of land (at least 10 acres) that appears graded with minimal vegetation regrowth, and a northwest-to-southeast trending dirt road is to the west of the site in 1959 (Netronline 2024). The conditions remained unchanged through 1994. No buildings, features, or mining prospects were depicted on the reviewed historic aerial imagery or USGS topographical maps within or adjacent to the site location.

No diagnostic information regarding the date of the site was available and the age is unclear, it may be associated with the grading of the area in 1959 or some later earth moving activity (e.g. prospect).

P-15-022376, CA-KER-11814H

Site P-15-022376, CA-KER-11814H consists of a historic-era diffused refuse scatter with two dense artifact concentrations (Features 1 and 2) composed of domestic and industrial refuse, and a collapsed wooden frame. No structures or house remnants are evident. The site is situated on an alluvial fan within the Antelope Valley. Vegetation on site includes creosote bush, Joshua trees, and small desert forbs and grasses. An east-to-west trending dirt road is adjacent to the southern boundary of the site. The site is in fair condition and exhibits medial to low integrity due to environmental erosional processes (e.g., storm events, sheet wash, high winds) resulting in artifact displacement. The site is also near a road, making it easily accessible to the public and susceptible to illegal collecting of artifacts.

Feature 1 is an artifact concentration that measures 11 feet in diameter and consists of cans, glass, and metal. The can assemblages include 9 tuna cans, 7 condensed milk cans, 6 church key-opened cans, 6 aerosols cans, 6 bi-metal pull tab cans, 5 corrugated cans, 4 paint cans, 1 metal screw top, and

1 square liquid can. The glass component includes 2 colorless bottles (milk type) with Owens Illinois maker's marks, 2 green soda bottles with an Owens Illinois maker's mark, 1 amber medicine bottle with the "Vicks" logo, 1 colorless glass bottle embossed "Aftershave / 2429 / P 8", 1 bottled embossed with "Manfull" and an Owens Illinois maker's mark, and 1 bottle with a "Vernor's Ginger Ale" logo and an Owens Illinois maker's mark. The metal includes 1 clothing wire.

Feature 2 is an artifact concentration that measures 20 feet north-to-south by 18 feet east-to-west and consists of glass, cans, and ceramics. The glass artifacts include 20 shards of melted glass, 3 shards of glass refitted as same bottle with an Anchor Hocking maker's mark and embossed "Before we Squeeze", 2 glass bases, 2 mason jar bases, 1 cobalt blue bottle embossed "Bromo-Seltzer" (ca. 1888 to 1975: Cohn 1980), 1 milk glass cup, and 1 colorless glass base with an Owens Illinois maker's mark. The can assemblage consists of 6 condensed milk cans, 4 bi-metal pull tab cans, 4 sanitary cans, and 2 aerosol cans. The ceramic component includes 2 ceramic plate sherds, 1 with a "Harker Potter Co." maker's mark.

The diffuse refuse scatter includes cans and glass. The can component includes 32 sanitary cans, 31 condensed milk cans, 16 hole-in-top cans, 8 bi-metal pull tab cans, 7 tuna cans, 7 corrugated cans, 7 aerosol cans, 6 church key-opened cans, 4 spam cans, 3 paint cans, 1 paint lid, and 1 square metal tin. The glass component includes 5 shards of aqua glass, 2 colorless glass shards, and 1 olive glass shard.

Milk glass was in use from 1890 to 1960, primarily for medicine, cosmetic, toiletry, and specialty items (Holm et al. 2018). The removable pull tab type cans were introduced in 1962 and ceased production in 1975 (Schroder 2019). The Thatcher Manufacturing Co. maker's mark dates to 1900 to 1947 (Toulouse 1971:496-499). Sanitary and hole-in-top cans are generally attributed to post-1900 (Rock 1987:12, 14; Waechter 2010). Church key openers were introduced in 1935 (Horn 2005). Owens-Illinois maker's mark dates to 1929 to present day (Glass Bottle Marks 2024). Based upon the artifact assemblage, the site dates from the 1920s to the 1970s.

Federal land office patent records indicate the property was granted to Edwin H. Kelly in 1915 (Y10N, R13W, NW1/4 of Section 10) under the Sale-Cash Entry (3 Stat. 566) act of 1820 (BLM 2024). No additional historical information was available for Kelly through census and genealogic sources, historic newspaper articles, or other online sources to connect the patentee with the site.

Review of historic aerial imagery (1959, 1963, 1972, 1974, 1983) and historic USGS topographic maps (1943, 1956, 1958, 1967, 1976) indicates the site location is within a large swath of land (at least 15 acres) that appears graded with minimal vegetation regrowth, and a northwest-to-southeast trending road is to the east of the site in 1959 (Netronline 2024). The road is on the 1947 topographical map. In 1972, a quarry (currently Holiday Rock Quarry) is depicted southwest of the site. The conditions remained unchanged through 1994, except for faint east-to-west trending road is present. No buildings, features, or mining prospects were depicted on the reviewed historic aerial imagery or USGS topographical maps within or adjacent to the site location.

P-15-022377, CA-KER-11815H

Site P-15-022377, CA-KER-11815H consists of the remnants of a historic-era building or structure (Feature 1) and an associated refuse scatter composed of domestic and industrial debris. The site is

situated on an alluvial fan within the Antelope Valley. Vegetation includes creosote bush, Joshua trees, and small desert forbs and grasses. Both integrity and condition of the site are fair due to environmental erosional processes.

Feature 1 is the remnant of a building and consists of nine formed concrete footings (aggregate of small gravel, sand, clay) that are cylindrical in shape with a single large nail embedded on top (one with a "W" stamped on the head), aligned in rows of three to form a square (measures 20 feet east-to-west and 10 feet north-to-south). Collapsed structural remains near the footings include milled lumber of various sizes (complete and fragments from walls and roof), several asphalt shingles, window glass shards, and wire nails.

The refuse scatter includes glass, cans, and metal. The glass assemblage includes at least 150 bottle glass shards (Coca-Cola type), 10 green glass bottle bases with an Anchor Hocking maker's marks, 5 colorless glass shards, 3 aqua glass bases, 1 colorless bottle base embossed with "Aftershave" embossed on body and an Owens-Illinois maker's mark, 1 amber bottle base with an Anchor Hocking maker's mark (ca. 1937 to 1969: Lockhart et al. 2021:456), 1 glass bottle neck embossed "DES / PET", 1 glass jar with an Owens-Illinois maker's mark, and 1 glass bottle with the logo "ADHOR Farms / Tarzana CA" (ca. 1916 to mid-1960s: CSUN 2020). The cans include 15 bi-metal pull tab cans, 7 sanitary cans, 6 sanitary cans, 4 church key-opened cans, 2 meat tins, 2 corrugated cans, 1 "Tops 'n Pop Cola" can (ca. 1962-post: Morean 2023), 1 condensed milk can, 1 long meat tin, and 1 external friction lid. The metal component includes 1 metal frying pan, mattress springs and a pullout bed frame, and 1 large steel container.

Owens-Illinois maker's mark dates to 1929 to date and Anchor Hocking maker's mark date to 1945 to the 1950s (Glass Bottle Marks 2024). The Tops n' Pop Cola brand was produced ca. 1962 to ca. 1970 (Morean 2023).

Federal land office patent records indicate the property was granted to the Southern Pacific Railroad Co. in 1891 (BLM 2024). No other patents are listed. No additional historical information was available about the property.

Review of historic aerial imagery (1959, 1963, 1972, 1974, 1983) and historic USGS topographic maps (1943, 1956, 1958, 1967, 1976) indicates the site location is within an undeveloped rural desert landscape by 1963 (Netronline 2024). A building and a northwest-to-southeast trending road, extending from another road to the building, is illustrated on the 1967 topographical map (and 1972 aerial imagery) and is within the site area. By 1983, the structure no longer appears extant. In 1972, a quarry (currently Holiday Rock Quarry) is depicted about southwest of the site.

Based on the aerial imagery and map review and the chronology of the artifact assemblage, the site dates from the early 1960s to sometime in the 1970s. The refuse is most likely associated with the former occupants of the building.

P-15-022378, CA-KER-11816

Site P-15-022378, CA-KER-11816 is a prehistoric lithic scatter of 20 flakes primarily of rhyolite. The observed assemblage includes 12 secondary rhyolite flakes (red), 4 tertiary rhyolite flakes (red), and 4 primary CCS flakes. The site is situated on an alluvial plan and is 30 meters southeast of an ephemeral

drainage that generally trends northeast-to-southwest. The western boundary of the site is adjacent to an unnamed northwest-to-southeast trending two-track road. The vegetation on-site and in the surrounding area consists of Joshua trees and creosote bush. Ground surface visibility was excellent at 90 to 100 precent.

P-15-022379, CA-KER-11817

Site P-15-022379, CA-KER-11817 is a prehistoric lithic scatter of 39 flakes. The assemblage includes 35 secondary rhyolite flakes (red) and 4 secondary CCS flakes. The site is situated on an alluvial plan and is 260 meters west of an ephemeral drainage that trends generally northeast to southwest. A northeast-to-southeast trending two-track road is adjacent to the southern boundary of the site. The vegetation on-site and in the surrounding area consists of Joshua trees and creosote bush. Ground surface visibility was excellent at 90 to 100 percent.

P-15-022380, CA-KER-11818H

Site P-15-022380, CA-KER-11818H is a historic era refuse scatter and two concentrations of refuse (Features 1 and 2). The site is situated west of an ephemeral drainage that trends slightly northeast to southwest and is located on an alluvial fan within the Antelope Valley. A northwest-to-southeast trending dirt road is to the northeast. Vegetation includes creosote bush, Joshua trees, and small desert forbs and grasses.

Feature 1 consist of 19 corrugated cans, 6 bi-metal pull tab cans, 6 aerosol cans, 6 paint cans, 5 condensed milk cans, 2 tuna tins, 1 meat tin, 1 muffin tin, and 1 tobacco tin. The glass component includes four colorless glass bases with Owens-Illinois maker's marks, three complete bottles with Owens-Illinois maker's marks, three glass jar shards (Ball brand type), three glass bottle bases embossed "Glass Container Corp", two glass bases with Thatcher Manufacturing Company maker's marks, two glass bases with Brockway Glass Co. maker's marks, one glass base with Latchford Glass Co maker's mark, one cobalt blue glass bottle embossed on the shoulder with "Bromo-Seltzer", and one amber bottle with Brockway Glass maker's mark.

Feature 2 consist of cans, glass, and metal. The can assemblage includes 11 corrugated cans, 7 sanitary cans, 4 aerosol cans, 2 paint cans, 2 bi-metal pull tab cans, and 2 metal external friction lids. The glass consists of two Glass Container Corp glass base shards, two Owens-Illinois glass shards, and one green glass bottle (Gallo Wine). The metal includes one galvanized steel tub.

Artifacts in the general scatter include cans of various types (like described above), glass, and ceramics. The refuse scatter consist of 11 colorless glass shards, 9 corrugated cans, 4 sanitary cans, 2 tuna tins, 2 bi-metal pull tab cans, 1 large meat tin, 1 church key-opened can, 1 paint can, and 1 aerosol can. The glass includes 11 colorless glass shards. The ceramics include 9 pieces of coarse earthenware. The metal includes a toolbox.

Bromo-Selter was first introduced as an antacid and headache remedy in 1888 and packaged in cobalt blue bottles between 1900 to ca. 1992 (Munsey 1992:7). The ingredients sodium bromide and phenacetin were removed from the ingredient list in 1975 by the Food and Drug Administration due to their toxicity, which eventually caused the product to become discontinued (Cohn 1980). Gallo began distribution of Gallo Wines in ca. 1933 and continues to sell wine today (Gallo 2024). Removable pull

tab type cans were introduced in 1962 and ceased production in 1975 (Schroder 2019). Thatcher Manufacturing Co. maker's mark were in circulation between 1900 to 1985 (Lockhart et al. 2007). Sanitary cans are generally attributed to post-1900 (Rock 1987:12, 14; Waechter 2010). The Owens-Illinois maker's mark has been used since 1929 through as of 2022 (Glass Bottle Marks 2024).

Federal land office patent records indicate the property was granted to Edwin H. Kelly in 1915 (Y10N, R13W, NW1/4 of Section 10) under the Sale-Cash Entry (3 Stat. 566) act of 1820 (BLM 2024). No additional historical information was available for Edwin Kelly through census and genealogic sources, historic newspaper articles, or other archival or online sources to connect the patentee (or other previous owners) with the site.

Review of historic aerial imagery (1959, 1963, 1972, 1974, 1983), historic USGS topographic maps (1943, 1956, 1958, 1967, 1976) indicates the site location is within an undeveloped rural desert landscape by 1963 (Netronline 2024). The northwest-to-southeast trending road (east of the site) is present in 1959. A building (see P-15-022377, CA-KER-11815H) and a northwest-to-southeast trending road, extending from a road to the building, is illustrated on the 1967 topographical map (and 1972 aerial imagery) and is 0.15 mile east of the site area. By 1983, the structure no longer appears extant. In 1972, a quarry (currently Holiday Rock Quarry) is depicted southwest of the site.

P-15-022381, CA-KER-11819H

P-15-022381, CA-KER-11819H is a historic site to consist of an elongated machine excavated pits (Feature 1), two associated spoils piles (Features 2 and 3), and a light refuse scatter of domestic and industrial material. The site is situated between two north-to-south trending parallel, improved, dirt roads. The northern boundary of the site is adjacent to the improved, northeast-to-southwest trending road.

Feature 1 is an excavated area that generally extends north to south and is approximately 100 feet in length, 50 feet in width, and 3 feet in depth. Both sides of the channel are slightly sloped. The excavated area is overgrown with creosote bush. Feature 2 is located north of Feature 1 and consist of leveled spoils from the excavated area. Feature 3 is located south of Feature 1 and consist of a spoils pile from the excavated area.

The refuse scatter assemblage consists of glass, cans, and metal. The glass includes 19 colorless glass shards, 6 green glass shards, 1 glass shard embossed with "Federal Law Prohibits… / Do Not Litter", and 1 amber glass bottle with an Owens-Illinois maker's mark on the base and an eagle emblem with an "A" embossed on the neck (Anheuser-Bush logo). The cans consists of three knife-opened sanitary cans, two condensed milk cans, two larger condensed milk cans, two sanitary cans, two meat tins with external friction lid, a square metal external friction lid imprinted with "Drummond", and one small jar lid. Metal items include two thin sheet metal fragments.

The phrase "Federal Law Prohibits" was required on glass bottles from 1934 to 1965 but can also appear on bottles through 1974 (Lindsey 2022). Sanitary cans are generally attributed to post-1900 (Rock 1987:12, 14; Waechter 2010). Owens-Illinois maker's mark was in use since 1929 through as of 2022 (Glass Bottle Marks 2024).

A search for federal land patents through GLO records identified no patent holders associated with the site. Historical aerial imagery (1959, 1963, 1972) shows General Petroleum Road and the unnamed dirt road as early as 1959 (Netronline 2024). By 1963, rudimentary roads in the area, an unnamed east-to-west road, and an unnamed south-to-northeast road, and are improved by 1972 (Netronline 2024). By 1967, two parallel north-to-south roads appear, and an east-to-west unnamed road is present. The area appears unchanged to 1976. Based on the aerial imagery and map review and the chronology of the artifact assemblage, the site dates between the 1930s to the late 1970s.

P-15-022382, CA-KER-11820H

Site P-15-022382, CA-KER-11820H is an abandoned corral and four pieces of refuse. The site is situated on a rock pediment along the eastern-southeastern-facing toe slope of the Tehachapi Mountains, within the northwestern Antelope Valley. An unnamed east-to-west trending improved two-track road is over 400 feet south. A wind energy generating facility is 0.4 mile east. Vegetation on the site and surrounding area consists of creosote bush and scattered Joshua trees. The soil consists of Randsburg sandy loam (weathered bedrock at 12 to 16 inches) with a slope range of 2 to 15 percent.

The abandoned and dilapidated corral consists of a wooden post and four studded-steel T-posts. The woodened post enclosure is constructed from non-dimensional rough timbers that appear split with hand tools. The posts are 21 feet apart from one another and barbed wire is strung between each post, forming a corral-like area. Much of the barbed wire is no longer intact and has collapsed. Four studded steel T-posts are located along the southern portion of the site and the position of the steel T-posts suggest a possible animal chute. One of the T-posts has collapsed, and the barbed wire is no longer completely intact. Two dead fallen Joshua trees are located near the T-posts on the east side and may have served as fence supports. The scattered refuse consists of a thin metal wire spool holder, a rectangular oil can, a metal 5-gallon barrel hoop, and a metal bucket handle.

Federal land office patent records indicate the property was granted to the State of California in 1929 (BLM 2024). No additional historical information was available about the property.

Review of historic aerial imagery (1963, 1974, 1983) shows the site as undeveloped desert land with several unnamed roads to the west, south, and east (Netronline 2024). The site area appears unchanged to modern times except for a faint north-to-west two-track road that heads towards the site in 1983. Review of historic USGS topographical maps (1943, 1956, 1958, 1965, 1967, 1976) shows the site as undeveloped land through 1986 (Netronline 2024). Surrounding roads are illustrated in 1967. No buildings, features, or mining prospects were depicted on the reviewed historic aerial imagery or USGS topographical maps within or adjacent to the site location.

Based on the characteristics of the site and archival review, the site most likely dates between the 1960s to the late 1980s. The integrity and condition of the site is fair due to environmental erosional processes.

P-15-022384, CA-KER-11822H

Site P-15-022384, CA-KER-11822H consists of a sparse historic-era refuse scatter of glass, cans, and automobile parts. The site is situated on a rock pediment along the eastern-southeastern-facing toe slope of the Tehachapi Mountains, within the northwestern Antelope Valley. An unnamed north-to-

south two-track road is west of the site boundary. A wind energy generating facility is east. The soil consists of sandy loam (bedrock at 12 to 16 inches) and the vegetation within and surrounding the site boundary consists primarily of creosote bush with a few scattered Joshua trees.

The historic-era assemblage includes glass, cans, and metal. The glass assemblage includes two brown glass bottle bases (no maker's mark), two aqua glass shards (one embossed "Dr. P…" [Dr. Pepper type drink] and the other with an Owens-Illinois maker's mark), one colorless glass shard with embossing but illegible, two complete glass bottles (one colorless), and one glass bottle (broken in half).The can assemblage includes four sanitary cans (crushed, two with bullet holes), one sardine can (crushed), one condensed milk can, one can stamped with "Ghirardellis," two aluminum top steel beverage can (one crushed), one tobacco can, one can base fragment, and one oil type can (crushed). The ceramic component includes two white ceramic sherds (two prong, outlet plate with raised letters "MADE IN U.S."), and one porcelain sherd. The metal includes two vehicle hub caps (with bullet holes), one muffler and muffler pipe segment, two unidentifiable automotive parts, one vehicle door (with bullet holes), one bench seat frame and spring (wood frame still intact on one side), and a dashboard fragment.

In addition, one refillable lighter (300 milliliters) was observed. The lighter is inscribed "Balboa" near the igniting unit. The body of the lighter is embossed with an image of a person on a speed boat with the advertisement "Brandt Bros.," over the business address "379 West Ave. Lancaster, California." The back inset has "Performer Boats" over "Johnson Motors" over "American Trailers," printed in black. The Wellington Balboa company in Japan manufactured refillable promotional lighters in the 1950s and the 1960s. Brandt Bros. was a boat and motor retailer in Lancaster, California in the 1960s. The style and type of automotive parts are indicative of a vehicle from the 1950s or the 1960s.

Two prong outlets were in use from the 1930s through the 1960s (Rytec Electric LLC 2023). Sanitary and hole-in-top cans are generally attributed to post-1900 (Rock 1987:12, 14; Waechter 2010). Owens-Illinois maker's mark was in use since 1929 through as of 2022 (Glass Bottle Marks 2024). Dr. Pepper entered the U.S. market in 1904 and continues to produce the soft drink to present (Dr. Pepper Museum 2024).

Based upon the artifact assemblage, the site is a single refuse disposal episode that most likely dates between the 1940s to the 1970s. Federal land office patent records indicate the property was granted to the State in California in 1929 (BLM 2024). No additional patent or archival information was available about the previous landowners of the property.

Review of historic aerial imagery (1963, 1974, 1983) shows the site as undeveloped desert land with an unnamed east-to-west trending road to the south, several unnamed roads to the west, south, and east (Netronline 2024). The site area appears unchanged to modern times except for a faint north-to-west two-track road that heads towards the site in 1983. Review of historic USGS topographical maps (1943, 1956, 1958, 1965, 1967, 1976) shows the site as undeveloped land through 1986 (Netronline 2024). Surrounding roads are illustrated in 1967. No buildings, features, or mining prospects were depicted on the reviewed historic aerial imagery or USGS topographical maps within or adjacent to the site location.

The site is in fair condition and exhibits low integrity based upon decades of impact caused by environmental weathering and public access via two-track roads resulting in potential looting and destruction of artifacts (e.g., bullet holes in artifacts).

P-15-022385, CA-KER-11823H

Site P-15-022385, CA-KER-11823H is a historic site consisting of a refuse scatter of domestic material located within a small drainage near an unnamed two-track dirt road. The site is near an active wind energy generating facility within an open range on the southeastern alluvial fan of the Tehachapi Mountains. A north-to-south trending unnamed two-track dirt road is east of the site. The site is situated within a small drainage and the soil consists of light brown sand with subangular pebbles. Vegetation on-site and in the surrounding area includes creosote, ephedra, broom snakeweed, Joshua tree, narrow leaf goldenbush, buckwheat, and grasses.

Observed surface cultural constituents include cans, glass, metal, ceramics, rubber, and plastic. The can assemblage includes 21 aluminum top beverage “Fisher” cans (ca. 1950s to 1967: Fisher Beer 2022), 7 aluminum beverage cans, 3 knife punch-opened cans, 2 “Olympia” beer cans (ca. 1950 to 1974), 2 circular tuna cans, 2 aluminum pie tins, 1 tobacco tin, 1 church key-opened hole-in-top can, 1 crushed fuel can, and 1 rectangular meat tin. The glass assemblage includes one small colorless glass bottle with a screw cap and decorative design embossed with an Owens-Illinois maker’s mark “23 04 / 9408-8 4” (ca. 1954: Lockhart et al. 2024), one glass bottle with a Brockway Glass maker’s mark (ca. 1933 to 1980: Lockhart et al. 2024), one glass bottle with a Latchford Glass maker’s mark (ca. 1957 to 1989: Lockhart et al. 2024), one colorless glass bottle neck and finish, and one colorless glass bowl shard with a white gold clove/leaf design. The metal includes three mattress springs, two pieces of sheet metal, one metal bicycle fender, one metal spoon strainer, and one square cooking pan. The ceramic component includes one “Fiestaware” ceramic sherd. The rubber and plastic component include one rubber tube and one plastic ball fragment.

Federal land office patent records indicate the property was granted to the Southern Pacific Railroad in 1894 (BLM 2024). No additional patent or archival information was available about the previous landowners of the property.

Review of historic aerial imagery (1963, 1974, 1983) shows the site as undeveloped desert land with an unnamed northwest-to-southeast trending road to the east (Netronline 2024). By 1974, an east-to-west road is present 47 feet to the north, and by 1983 the site area appears graded without vegetation. Review of historic USGS topographical maps (1943, 1956, 1958, 1965, 1967, 1976) shows the site as undeveloped land through 1986 (Netronline 2024). No buildings, features, or mining prospects were depicted on the reviewed historic aerial imagery or USGS topographical maps within or adjacent to the site location.

Based upon the artifact assemblage and archival review, the site is most likely a refuse disposal episode that dates between the 1960s and 1983.The site is in fair condition and exhibits low integrity due to erosional processes (drainage) and public access (via two-track roads).

P-15-022386, CA-KER-11824H

Site P-15-022386, CA-KER-11824H is a low-density, historic-era refuse scatter of cans and glass shards located near an improved, north to south trending two-track road and an active wind energy generating facility to the north, south, and east. The site is within a flat area on the southeastern alluvial fan of the Tehachapi Mountains. The soil consists of dry light brown sand with subangular pebbles. Surrounding vegetation includes creosote bush, ephedra, Joshua tree, and grasses.

Cultural constituents include: a collection of four colorless glass jars with external thread screw top lids and all are embossed with the Alexander H. Kerr & Co.  maker's mark (FS1) (ca. 1969 to 1996: Lockhart et al. 2024), three condensed milk cans with church key and puncture openings (FS2), four can lids (rotary-opened), one meat can (knife or rotary opening), one church key-opened can, one corrugated sanitary can, one sanitary can, and one fruit or meat can. The glass component includes two colorless clear glass bottles with associated shards. Church key can openers entered the U.S. market in ca. 1935 and are still used today (Holm et al. 2018).

A search for federal land patents records identified no patent holders associated with the resource location. Review of historic aerial imagery (1963, 1974, 1983) shows the site as undeveloped desert land with a north-to-south trending road west of the site through 1963 to 1974 (Netronline 2024). By 1983, a short northwest-to-southeast two-track road extends from an existing road to the site area, and several additional roads that follow section lines are present to the east. Historic USGS topographical maps (1943, 1956, 1958, 1956, 1967, 19766) illustrate the site as undeveloped land through current times. By 1967, the road is illustrated. No buildings, features, or mining prospects were depicted on the reviewed historic aerial imagery or USGS topographical maps within or adjacent to the site location.

Based on the characteristics of the site and archival review, the site most likely is a single roadside refuse disposal episode dating between the mid-1940s to the early 1980s. The site is in fair condition and exhibits low integrity based upon environmental processes (e.g., storm events, wind) and potential disturbance as a result of site accessibility via several roads providing public access and use of the area.

P-15-022387, CA-KER-11825H

Site P-15-022387, CA-KER-11825H consists of a collapsed abandoned corral (Feature 1) and an isolated can located in a flat area of the southeastern alluvial fan of the Tehachapi Mountains. The soil consists of dry light brown silt sand with subangular pebbles. Surrounding vegetation includes creosote, ephedra, Joshua tree, cholla, cheesebush, and grasses.

Feature 1 is an abandoned corral of simple construction, primarily built with metal pipes and metal T-posts, metal barbed wire, and steel cable. It is supported by one milled lumber post in the southeast corner, one central metal rebar pipe to the east, and Joshua trees on all four corners. Two of the Joshua trees have collapsed at the southern end. The corral measures 100 feet long (north to south) by 75 feet wide (east to west). The isolate is a meat can that was knife-opened around the perimeter edge with its attached lid. It is located about 50 feet east of the northeastern corner of the corral.

A search for federal land patents identified no patent holders associated with the resource location. No additional patent or archival information was available about the previous landowners or use of the property.

Review of historic aerial imagery (1963, 1974, 1983) shows the site as undeveloped desert land with a north-to-south trending road west of the site between 1963 and 1974 (Netronline 2024). By 1983, a short east-to-west two-track road extends from the north to south trending road toward the site area and dead ends (about 500 feet west of site), and several additional roads are present to the east. Historic USGS topographical maps (1943, 1956, 1958, 1956, 1967, 19766) illustrate the site as undeveloped land through current times. By 1967, north-to-south trending road is illustrated. No buildings, features, or mining prospects were depicted on the reviewed historic aerial imagery or USGS topographical maps within or adjacent to the site location.

Based on the characteristics of the site and archival review, the site most likely represents stock grazing in the area dating between the mid-1940s to the early 1980s. The site is in fair condition and exhibits low integrity based upon environmental processes (e.g., storm events, wind) and potential disturbance as a result of site accessibility via several roads providing public access and use of the area**.**

P-15-022388, CA-KER-11826H

P-15-022388, CA-KER-11826H is a historic-era, low-density refuse scatter of cans, glass shards, and eight modern rubber tires. The site is situated in an ephemeral drainage branching out from a larger ephemeral drainage. The soil consists of light brown sand and gravels. Surrounding vegetation includes creosote, ephedra, Joshua tree, cholla, cheesebush, and grasses. Disturbances at the site consist of weathering, erosion, and artifact displacement that may occur during storm events (an ephemeral drainage bisects the site).

The refuse scatter consists of a hole-in-top can with two large church key openings and a colorless glass bottle base embossed with an Owens-Illinois maker's mark "DI / S6-S0 /  / 5." Additional artifacts include eight rubber tires in a pile, two hole-in-top condensed milk cans (church key-opened), two aluminum top/steel body type beverage cans, two beverage cans with church key openings, one crushed beverage can (church key-opened), one crushed hole-in-top can, one rounded meat (opened on both ends), one pull tab aluminum top beverage can, one slightly crushed sanitary can, and one insect repellant aerosol can. Sanitary and hole-in-top cans are generally attributed to post-1900 (Rock 1987:12, 14; Waechter 2010). The diamond-and-circle-with-an-I Owens-Illinois maker's mark were in use between 1929 and the late 1950s to 1966 (Lockhart et al. 2018). Aerosol cans have been produced since the 1940s in the U.S. (AEDA 2024).

Federal land office patent records indicate the property was granted to the Southern Pacific Railroad in 1894 (BLM 2024). No additional patent or archival information was available regarding previous landowners or use of the property.

Historical aerial imagery as early as 1959 shows the site as undeveloped land situated east of two roads. In 1972, the eastern drainage is used as a road and the site area appears unchanged. By 2010, a transmission line is present to the northwest. In 2022, the wind energy generating facilities are present

in all cardinal directions from the site (Netronline 2024). Historical topographical maps as early as 1943 illustrate the site within undeveloped rural land directly east of an ephemeral drianage, a roadto the east, and the Los Angeles Aqueduct to the southeast. Between 1967 and 1976 the site area is unchanged, and an ephemeral drainage and several roads are illustrated to the north and east (an unnamed roads: USGS 1943, 1967). No buildings, features, or mining prospects were depicted on the reviewed historic aerial imagery or USGS topographical maps within or adjacent to the site location. Based upon the artifact assemblage and archival review, the site most likely dates between the 1950s to the 1970s.

P-15-022389, CA-KER-11827H

Site P-15-022389, CA-KER-11827H is a large machine excavated pit, tailings pile (Feature 1) and a light scatter of industrial refuse. The site is surrounded by a wind energy facility and located west of a north-to-south trending dirt road. Vegetation includes creosote, Joshua tree, winterfat, and grasses. The soil consists of dry yellowish-brown sand with subangular pebbles.

Feature 1 consists of a pit and associated tailings pile. The pit measures about 40 feet northwest to southeast by 25 feet northeast to southwest with a depth of about 5 feet below surface. The tailings pile is located north of the pit and measures 40 feet north to south by 36 feet east to west and approximately 10 feet in height from surface level. Cultural constituents include three crushed 55-gallon steel drums. A metal wheelbarrow (upside down, rusted) is located on the northeast side of the tailings pile.

Review of federal land patents indicates a patent that overlaps with the site area was granted to Arthur W. Hursey in 1895 (BLM 2024). No additional patent or archival information was available regarding Hursey or other previous landowners or use of the property. Historical aerial imagery (1963, 1972, 1974, 1983) shows the site as undeveloped land in 1963, with a faint east-to-west tending unnamed road 0.15 mile to the north (Netronline 2024). By 1972, the tailings pile is visible within the site area and a large gravel quarry appears developed and in use north of the site area, and an improved, north-to-south trending road is 0.3 mile to the east. The conditions of the site and northern quarry remain unchanged to modern times. The size of the site and large quarry remained the same and vegetation regrowth is visible by the 1980s, suggesting the site and quarry were most likely used for a short period. Review of historic maps (1943, 1956, 1965, 1976) shows the site as undeveloped land with a north-to-south trending road to the east in 1943 (Netronline 2024). By 1976, the gravel pit is illustrated north of the site and site area (it is labeled as Gravel Pit in 1994). The site appears unchanged to modern times, with surrounding infrastructure such as additional various roads illustrated by the 1960s to 2022.

In 1905, the 55-gallon steel drum was invented and is still in use to this day with its original purpose to hold oil, although by the 1950s industries including railway, tanker trucks, and pipelines terminated the barrels use within the oil industry in its entirety (Muller 2017; Wells and Wells 2021). Based on the site characteristics and archival review of the site area, the site most likely represents rock quarry exploration for the large quarry to the north during the early 1970s.

P-15-022390, CA-KER-11828

Site P-15-022390, CA-KER-11828 is a very low-density, prehistoric lithic scatter and tool scatter. The site is situated on northwest-to-southeast trending alluvial fan of the Tehachapi Mountains. An unnamed ephemeral drainage trending northwest-to-southeast to the west, and ephemeral creek is to the east. The soils consist of yellowish-brown sand with subangular pebbles. Vegetation at and surrounding the site includes creosote bush, Joshua tree, and grasses.

The site assemblage consists of one rhyolite triangular projectile point and two rhyolite tertiary flakes. FS1 is a complete triangular rhyolite projectile point that measures 4 centimeters in length, 1.5 centimeters in width, and 1 centimeter thick. The color is brown with white mottling. The style and characteristics of the projectile point suggest it is of the Cottonwood Triangular type series (Justice 2002). The Cottonwood triangular type projectile points are attributed to the Kohen Lake Phase (1,300 to 600 BP; Sutton 2023). The lithic flakes include: a rhyolite tertiary flake with mottled brown and white stripes and a rhyolite tertiary flake with brown and gray banding.

P-15-022391, CA-KER-11829H

Site P-15-022391, CA-KER-11829H is a historic-era refuse scatter and refuse concentration (Feature 1) of cans, glass, and ceramics. The northern portion of the site is bisected by an east-to-west trending road. The site is situated in a slightly undulating area located on a southeastern trending alluvial fan of the Tehachapi Mountains. The soil consists of pale brown sandy gravel and brown loamy sand with subangular gravels and pebbles. Vegetation at the site and surrounding area includes creosote, Joshua tree, ephedra, cheesebush, buckwheat, rabbitbrush, and grasses. The ground surface visibility was good and ranged from 90 to 100 percent.

Feature 1 consists of an artifact concentration of glass, cans, and ceramics that trends to the southeast and measures 75 feet long (northwest to southeast) by 55 feet wide (north to south). The glass assemblage includes 30 colorless glass shards (1 with a finger handle), 15 amber glass shards, 13 lime green glass bottle shards, 9 olive green glass shards, 2 colorless glass base shards, 1 green bottle neck and shoulder shard embossed with “E & J Gallo” (Gallo Glass Co. ca. 1958: Gallo 2022), 1 amber bottle base embossed with “PATD. S…/N 6/ CLOROX ® [within a diamond]/ C 61” (ca. 1950s to 1960: The Clorox Company 2024), 1 amber glass jug top with attached handle for two fingers (Clorox type), 1 colorless glass bottle neck shard (condiment type), 1 colorless glass shard (cup) with a floral print, 1 colorless glass pie dish shard, 1 colorless glass bottle top with screw cap top, 1 colorless glass cup handle shard, and 1 colorless corrugated decorative glass shard. The can assemblage includes 8 church key-opened cans (crushed with bullet holes), 3 rotary-opened cans, 2 metal crown caps, 1 coffee can lid labeled “REGULAR GRIND COFFEE POT OR PERCOLATOR” (ca. 1953: SODA 2024), 1 internal friction lid embossed with “STORE IN REFRIGERATOR / OSCAR MAYER / MADE …PAT. NO. 2.737.SS28 PAT. PEND.” (ca. 1940s), 1 friction lid (oval can), 1 oval can (lid partially opened), 1 square spice can, 1 hole-in-top can with bullet holes, 1 metal funnel lid (crushed), 1 large crushed can, and 1 crushed sanitary can. Ceramics include 2 floral printed ceramic plate sherds and 2 whiteware ceramic cup or vessel sherds.

The refuse scatter includes an assemblage of cans to consist of 62 church key opened cans, 28 sanitary cans of various sizes (2 are embossed with “B5 30”), 8 aluminum cans (6 are Coors), 4 meat cans, 1 gas

tank, 1 aerosol can, 1 metal lid, and 1 aluminum top/steel body pull tab can. Aerosol cans have been produced since the 1940s in the U.S. (AEDA 2024). The removable pull tab type cans were introduced in 1962 and ceased production in 1975 (Schroder 2019).

A search for federal land patents identified no patent holders associated with the resource location. Review of historic aerial imagery (1959, 1963, 1974, 1984) and historic topographical maps (1959, 1967, 1976) shows the site as undeveloped desert land in 1959.. By 1963, an east-to-west trending road is to the west. The site area remains unchanged to current times. No buildings, features, or mining prospects were depicted on the reviewed historic aerial imagery or USGS topographical maps within or adjacent to the site location.

Based upon the artifact assemblage and archival review, the site appears to represent a civilian single refuse disposal episode most likely dating between the late 1950s to the 1970s. The site is in fair condition and exhibits low integrity based upon decades of impact caused by environmental weathering (e.g., displacement and fragmentation) and recreational access to the site by the public resulting in destruction or removal of artifacts (e.g., bullet holes in artifacts.)

P-15-022392, CA-KER-11830H

Site P-15-022392, CA-KER-11830H is a historic-era refuse scatter of cans and glass. The site is situated within a dry ephemeral drainage that dissects the alluvial fan. The soil consists of pale brown sandy gravel and brown loamy sand with subangular gravels and pebbles. Vegetation at the site and surrounding area includes creosote, Joshua tree, ephedra, cheesebush, buckwheat, rabbitbrush, and grasses. The ground surface visibility was excellent and ranged from 90 to 100 percent.

Cultural constituents include 16 sanitary cans, 6 coffee cans, 4 condensed milk cans, 50 colorless glass shards, 10 amber bottle shards, 5 cobalt blue glass shards, 5 milk glass shards, 3 colorless bottles (Carnation Milk type), 3 colorless glass jars, 1 colorless glass salt or pepper shaker, 1 aqua glass shard, 1 emerald green glass shard, 1 colorless glass jar (embossed *Duraglas* with an Owens-Illinois maker's mark), 1 colorless glass jar (with a "" Hazel Atlas maker's mark), 20 wire hangers, 4 metal soap holders, 1 bed spring, 1 doorknob, 1 blue marble, 3 cinderblock fragments, 2 ceramic plate sherds (one with a maker's mark of "ROYAL CHINA INC. / D 55 / UNDERGLAZE"), 1 ceramic plate with blue floral transfer print, 1 brick fragment, 1 terracotta pot, several miscellaneous rubber fragments, and plastic shotgun shells. Milk glass was in use from 1890 to 1960 primarily for medicine, cosmetic, toiletry, and specialty items (Holm et al. 2018) and Royal China was in production from 1934 to 1986 (Rinker 2024). Hazel Atlas maker's marks were produced from 1923 to 1982, and Owens-Illinois maker's marks generally date to 1929-2005 (Lockhart et al. 2016; Glass Bottle Marks 2024).

A search for federal land patents did not identify any patent holders associated with the resource location. Review of historic aerial imagery (1959, 1963, 1947, 1984) and historic topographical maps (1959, 1967, 1976) shows the site as undeveloped desert land and within an ephemeral wash in 1959. By 1963, a southwest-to-northeast trending two-track road (unnamed) is visible south of the. The site area remains relatively unchanged to current times. No buildings, features, or mining prospects were depicted on the reviewed historic aerial imagery or USGS topographical maps within or adjacent to the site location.

Based upon the artifact assemblage and archival review, the site appears to represent a domestic refuse disposal episode and most likely dates between the late 1950s to the 1970s. The site is within an ephemeral drainage and is in fair condition and exhibits low integrity due to episodic storm events and water runoff resulting in soil erosion and artifact displacement and fragmentation.

P-15-022393, CA-KER-11831H

Site P-15-022393, CA-KER-11831H consists of a historic-era refuse scatter of domestic debris of cans, glass, ceramics, and miscellaneous metal. The site is situated within the flow pattern of several dry ephemeral drainages that dissect the alluvial fan. The soil consists of pale brown sandy gravel and brown loamy sand with subangular gravels and pebbles. Vegetation at the site and surrounding area includes creosote, Joshua tree, ephedra, cheesebush, buckwheat, rabbitbrush, and grasses. The ground surface visibility was good and ranged from 90 to 100 percent.

The refuse scatter of a small intact cobalt blue glass jar with an attached metal lid (external thread lid, base embossed Noxzema; FS1), over 30 juice beverage cans, over 20 pull tab beverage cans, over 10 colorless glass jars, 10 glass amber bottles (Coors beer type), 7 cans (with “Ready To Eat/Enfamil…” baby formula label), 7 tuna cans (rotary-opened), 5 colorless glass maple jars, 2 colorless glass bottles (pill type, external thread), 2 aerosol cans, 1 green glass bottle base shard embossed “Gallo Flavor Guard” logo, 1 metal square tuna can, 1 metal spoon, 1 large metal frying pan, and 1 small metal frying pan. The blue glass Noxzema jar type was produced in the 1950s, as plastic jars were introduced in 2012 (*The Washington Post* 2024). Enfamil baby formula was manufactured by Mead Johnson and available to public consumers by 1959 – present day (Forbes 2024). The removable pull tab beverage type cans were introduced in 1962 and ceased production in 1975 (Schroder 2019).

A search for federal land patents identified no patent holders associated with the resource location (BLM 2024). Review of historic aerial imagery (1959, 1963, 1947, 1984) and historic topographical maps (1959, 1967, 1976) shows the site as undeveloped desert land and within an ephemeral wash in 1959. The northwest-to-southeast trending road is also present to the west. By 1974, an unnamed east-to-west trending road is to the north of the site. The site area remains relatively unchanged to current times. No buildings, features, or mining prospects were depicted on the reviewed historic aerial imagery or USGS topographical maps within or adjacent to the site location.

Based upon the artifact assemblage and archival review, the site appears to represent a civilian single refuse disposal episode most likely dating between the late 1950s to the 1970s. The site is in fair condition and exhibits low integrity caused by environmental processes and by public disturbance due to easy access to the site via various desert roads, resulting in destruction or removal of artifacts (e.g., several of the glass bottles were cut in half with a glass cutter, with one half of the bottles missing).

P-15-022394, CA-KER-11832H

Site P-15-022394, CA-KER-11832H is a historic-era refuse scatter and refuse concentration (Feature 1) of domestic debris of cans, glass, ceramics, and miscellaneous metal. The northern portion of the site is adjacent to an east-to-west trending road. The site is situated in a slightly undulating area located on a southeastern trending alluvial fan of the Tehachapi Mountains. The soil consists of pale brown

sandy gravel and brown loamy sand with subangular gravels and pebbles. Vegetation at the site and surrounding area includes creosote, Joshua tree, ephedra, cheesebush, buckwheat, rabbitbrush, and grasses. The ground surface visibility was good and ranged from 90 to 100 percent.

Feature 1 consists of 30 to 40 church key-opened cans, 30 to 40 green glass shards, 30 to 40 colorless glass shards, 30 to 40 colorless jars, 20 to 30 amber glass shards, 10 to 20 milk glass shards, 8 aqua glass shards, 6 terra cotta pot fragments, 3 sherds of a transfer print teacup (Countryside design, Nasco maker's mark) (FS2), 3 hole-in-top cans, 3 wooden stakes, 2 modern shot gun shells, 2 piece of concrete rubble, 1 metal shoe shaper (FS1), 1 sanitary can, 1 tobacco tin, 1 oil can, 1 glass shard (with Pepsi Co. logo), 1 aqua glass shard (Coca-Cola type), 1 rubber shoe liner, 1 colorless nail polish bottle (base embossed with a Ⓜ maker's mark: Maryland Glass Corp. ca. 1921 to 1971: Lockhart et al. 2017), and 1 chicken wire fragment.

The refuse scatter includes 6 church key-opened cans, 3 corrugated sanitary cans, 2 sanitary cans, 1 condensed milk can (knife-opened), 1 internal friction can, 1 corrugated church key-opened can, 1 hole-in-top can, and 1 aluminum pull tab can.

The church key can opener was introduced in 1935 (Gillio et al. 1980:9) and the hole-in-top was in production from ca. 1900 to 1985 (Rock 1988). The Pepsi brand logo dates from the 1940s to the 1950s (Lockhart 2017:62-63). The removable pull tab type cans were introduced in 1962 and ceased production in 1975 (Schroder 2019).

A search for federal land patents through the Bureau of Land Management's GLO records identified no patent holders associated with the resource location. Review of historic aerial imagery (1959, 1963, 1947, 1984) and historic topographical maps (1959, 1967, 1976) shows the site as undeveloped desert land in 1959 (Netronline 2024). By 1963, an east-to-west trending road is visible to the west. The site area remains unchanged to current times. No buildings, features, or mining prospects were depicted on the reviewed historic aerial imagery or USGS topographical maps within or adjacent to the site location.

Based upon the artifact assemblage and archival review, the site appears to represent a civilian single refuse disposal episode most likely dating between the late 1950s to the 1970s. The site is in fair condition and exhibits low integrity based upon decades of impact caused by environmental weathering (e.g., displacement and fragmentation) and recreational access to the site by the public resulting in destruction or removal of artifacts (e.g., bullet holes in artifacts.)

P-15-022395, CA-KER-11833H

Site P-15-022395, CA-KER-11833H is a historic-era, low-density refuse scatter of cans (about 99 cans) and glass shards. The site is situated on an alluvial fan dissected by several northwest-to-southeast trending ephemeral drainages of an ephemeral creek. The site is bisected by the east-to-west trending dirt road. Due to its proximity to the site, the previously recorded isolate P-15-016844 (20 hole-in-top cans) has been incorporated into this site. The soil consists of dry pale brown sand with subangular gravels and pebbles. Vegetation includes creosote, Joshua tree, and grasses.

The artifact scatter consists of 27 hole-in-top crushed cans with bullet holes, 23 sanitary knife opened crushed cans, 6 condensed milk knife opened cans, 3 amber glass fragments, and 1 crushed church

key opened can. Hole-in-top cans were first introduced in 1900 by Carnation for evaporated milk until the early 1990s (Horn 2005:4) The sanitary can began to be sold in the U.S. market in 1904 (Rock 1987:14) Church key can openers entered the U.S. market in ca. 1935 and are still used today (Gillio et al. 1980:9). Amber glass has been produced since ca. 1860s (Horn 2005:11). Several of the cans were crushed and had bullet holes.

Federal land office patent records indicate the property was granted to the Arthur W. Hursey in 1895 (BLM 2024). No additional patent or archival information was available regarding previous landowners or use of the property. Review of historic aerial imagery (1959, 1963, 1974, 1984) and historic topographical maps (1959, 1961,1967, 1976) shows the site as undeveloped desert land (dry wash area) in 1959, with the east-to-west trending road (Netronline 2024). The site area remains unchanged to current times except for the surrounding wind energy generating facility and associated infrastructure developed by the 2010s. No buildings, features, or mining prospects were depicted on the reviewed historic aerial imagery or USGS topographical maps within or adjacent to the site location.

Based upon the artifact assemblage and archival review, the site appears to represent a civilian single refuse disposal episode most likely dating between the late 1950s to the 1970s. The site is in fair condition and exhibits low integrity based upon decades of impact caused by environmental weathering (e.g., displacement and fragmentation) and recreational access to the site by the public resulting in destruction or removal of artifacts (e.g., bullet holes in artifacts). Erosional processes are evident as the refuse scatter is distributed in a northwest-to-southeast direction of the ephemeral drainages.

P-15-022396, CA-KER-11834H

Site P-15-022396, CA-KER-11834H consists of two dug-out earthen depressions (Features 1 and 2), a spoils pile (Feature 3), and sparce refuse scatter of domestic and industrial debris. The site is situated within the southeast corner of the intersection of two roads. The north-to-south trending road and an adjacent (west) unnamed road bisects the northern portion of the site. The soil consists of a pale brown sand with subangular large rocks, gravels, and pebbles. Vegetation on-site and in the surrounding area includes creosote, Joshua tree, buckwheat, and grasses. Ground surface visibility was from 90 to 100 precent.

Feature 1 consists of one dug-out pit located. Feature 2 is a rectangular excavated pit, and Feature 3 is a spoils and tailings pile. The cultural constituents include an intact amber bottle with a threaded screw cap finish, embossed on the shoulder with “GENERAL BREWING COMPANY / VANCOUVER, WA 98660” and the base is embossed with “RECYCLABLE BOTTLE / BEER 11FL. OZ / 21 ℄ 79 15” (General Brewing Company, ca. 1972 to 1975) (FS1), 6 amber glass shards, 7 solarized amethyst glass shards, 10 wooden stake fragments, 18 sanitary cans (8 crushed, 7 knife-opened with bullet holes, 1 rotary-opened, 2 with missing tops), 5 tobacco tins, 4 large metal rims, 5 hole-in-top can (2 crushed, 3 knife-opened), 2 knife-opened beverage cans, 2 crushed hole-in-top condensed milk cans, 2 knife-opened jug rims, 2 oil cans, 4 aerosol cans (2 crushed, 4 crushed with bullet holes), 2 pieces of sheet metal with bullet holes (crushed), 2 aluminum pull tab cans (crushed), 1 knife-opened tuna can, 1 can lid (crushed, knife-opened), 1 crushed square can, 1 hole-in-top can top lid, 1 bent round nail, 1 bucket

lid, 1 knife-opened beverage can, 1 gas tank, 1 rim of a large tank, 1 square can (knife-opened), 1 bucket, 1 aerosol can, 1 knife-opened aluminum can, and 1 brick.

The General Brewing Company manufactured beer between 1972 and 1975 (Old Breweries 2023). Hole-in-top and sanitary cans are generally attributed to post-1900 (Rock 1987:12, 14; Waechter 2010). Aerosol cans have been produced since the 1940s in the U.S. (AEDA 2024). The removable aluminum top pull tab can was introduced in 1962 and ceased production in 1975 (Schroder 2019). Solarized amethyst glass dates between 1885 and 1925 (Newman 1970:74).

A search for federal land patents through GLO records identified no patent holders associated with the resource location. Review of historic aerial imagery (1959, 1963, 1974, 1984) and historic topographical maps (1959, 1967, 1976) shows the site as undeveloped desert land that appears to have been cleared of vegetation in 1959, and several roads are also present in the area (Netronline 2024). By 1963, a north-to-south trending road is present near the site. The site area remains unchanged to current times except for the wind energy generating facility and associated infrastructure that is present by 2012 to the west, north, and east of the site. No buildings, features, or mining prospects were depicted on the reviewed historic aerial imagery or USGS topographical maps within or adjacent to the site location.

Based on the artifact assemblage and archival review, the site most likely dates between the 1940s to the 1970s. The site is in fair condition and exhibits low integrity based upon decades of impact caused by environmental weathering (e.g., displacement and fragmentation) and recreational access to the site by the public (via adjacent roads) resulting in destruction or removal of artifacts (e.g., bullet holes in artifacts).

P-15-022398, CA-KER-11836

Site P-15-022398, CA-KER-11836 consists of a sparse prehistoric lithic scatter consisting of four flakes. Cultural constituents include three rhyolite secondary flakes and one CCS tertiary flake. The site is situated on an alluvial fan dissected by several northwest-to-southeast trending dry drainages of Oak Creek. There is an unnamed east-to-west two-track road south of the site boundary. A north-to-south trending road is to the west. Vegetation within and surrounding the site boundary consists primarily of creosote bush with a few scattered Joshua trees. The surface soil is light brown loamy sand to gravelly loamy sand (Cajon series). The condition and integrity of the site is fair due to erosional process from channeling by Oak Creek (e.g., artifact displacement).

P-15-022399, CA-KER-11837H

Site P-15-022399, CA-KER-11837H is a historic-era refuse scatter of cans, glass, ceramics, metal, and a U-shaped campfire ring/hearth. The site is bisected by General Petroleum Road. The site consists of an artifact concentration (Feature 1), a U-shaped hearth (Feature 2), and refuse scatter. The site is situated on an alluvial fan dissected by several northwest-to-southeast trending dry drainages of a larger ephemeral drainage.

Feature 1 is an artifact concentration located west of General Petroleum Road and consists of 20 colorless glass shards, 13 hole-in-top cans, 5 paint cans, 2 knife-opened sanitary cans, 2 meat cans, 2 square seasoning tins, 2 external friction lids, 1 ceramic vessel base with the maker's mark "CHINA O-

P-C-O", 1 glass base embossed with "Cons. Comp" and a "", Hazel-Atlas maker's mark, 1 glass bottle with a "" Hazel-Atlas maker's mark, 1 colorless glass bottle base with a "" Hazel-Atlas maker's mark, 1 glass shard with a Brockway Glass Corp maker's mark, 1 colorless bottle base with an Owens-Illinois maker's mark, 1 light green glass bottle base embossed "4/5 quart" and with an Owens-Illinois maker's mark, 1 ceramic teacup sherd, an internal friction lid, an internal treated metal rim, 1 metal disc, 1 fence wire fragment, and indeterminate metal fragments.

Feature 2 is located east of General Petroleum Road and consists of a one-tier U-shaped modern era hearth (campfire ring) of nine large rocks with two charred wood fragments in the center and one larger charred wood piece west of the feature.

The refuse scatter assemblage includes 25 amber glass shards, 17 colorless glass shards, 3 aqua glass shards, 1 colorless glass sherd (cone-shaped), 1 amber glass base embossed with the "Purex" logo, 1 colorless glass base with an Owens-Illinois maker's mark, 1 glass mason jar, 9 hole-in-top cans (church key-opened), 2 paint can rims, 2 paint can lids, 2 long metal bands, 3 sanitary cans (1 church key-opened), and indeterminant metal fragments.

Hazel-Atlas maker's marks were produced from 1923 to 1982, and Owens-Illinois maker's marks date to 1929 to 1960 (Lockhart et al. 2024). Brockway Glass maker's marks were produced from 1933 to the 1980s (Lockhart et al. 2024). The church key can opener was introduced in 1935 (Gillio et al. 1980:9). The brand Purex was introduced in 1922 as the first commercial laundry bleach product, later they produced other detergent products in amber glass, and then transitioned to their iconic blue plastic bottle in 1981 (WorthPoint 2024).

Federal land office patent records indicate the property was granted to the Helena K. Spencer in 1920 (BLM 2024). No additional patent or archival information was available regarding Spencer or previous landowners or use of the property. Review of Historic aerial imagery (1959, 1963, 1972, 1974, 1983) and historic topographical maps (1959, 1967, 1976) shows the site as undeveloped desert land in 1959, with two nearby roads: anorthwest-to-southwest trending road and north to south trending road (Netronline 2024). The site area appears unchanged to current times. No buildings, features, or mining prospects were depicted on the reviewed historic aerial imagery or USGS topographical maps within or adjacent to the site location.

Based on the artifact assemblage and archival review, the site most likely dates between the 1930s to the 1970s. The site is in fair condition and exhibits low integrity based upon decades of impact caused by environmental erosion (e.g., displacement and fragmentation) and recreational access to the site by the public (via adjacent roads) resulting in destruction or removal of artifacts (e.g., bullet holes in artifacts, modern campfire ring).

P-15-022400, CA-KER-11838H

Site P-15-022400, CA-KER-11838H consists of historic-era concrete foundations and associated refuse scatter located adjacent (north-northeast) to an intersection of two roads. The site extends beyond the boundary of the Project Site and Study Area to the east. The site is within a northwest-to-southeast trending alluvial fan in the Antelope Valley. Ground surface visibility was 85 percent.

Vegetation within the site and surrounding area includes a Joshua tree and creosote bush environ. The soil is yellowish brown, loose silty sand with subangular pebbles and gravels.

The main components of the site include 4 loci, 13 features, 16 FSs, and a refuse scatter. The features include 7 concrete foundation pads, 3 GLO survey markers, 1 rock ring/hearth, and 1 subterranean wooden box. An unnamed east-to-west trending two-track road bisects the northern portion of the site. A northwest-to-southeast trending artifact scatter is within the fluvial flow of an ephemeral drainage and consist of glass and cans. A telephone line with wooden posts is west of the site and parallel to an existing improved road.

The first four FSs are not associated with a loci. FS1 is a crushed kerosene lantern base (ca. 1939-1953) (Embury Manufacturing Company 2021) embossed with “EMBURY NO.2 / AIR PILOT / …MFG. CO. / -US… /”and the underside of the bottom is a large, embossed star located about 20 feet southwest of Feature 3. FS2 includes 5 colorless glass bottle shards with embossing on the base of “67 / E / 8” and medial shard of “LAW FORBIDS / …SE OF THIS”. FS3 consists of 12 colorless embossed glass shards from one screw cap bottle. FS4 is a sniffing tobacco can with external friction lid embossed with “RED SEAL” within a multiple pointed star outline.

Feature 1 is a concrete foundation pad and is in the most northwestern area of the site. The concrete is deteriorated and consists of a wooden seal beam with nails and washers, and a 6-foot by 6-foot area of plumbing and subterranean pipes in the northeast corner. Feature 2 is in the north-central area of the site. It is a concrete foundation pad with an adjacent stoop foundation constructed of large rocks in a circle on top of wood beams. The concrete is decomposing, and rebar surrounds the perimeter of the foundation. A scatter of cans and glass shards surround the foundation. Feature 3 is the southeastern-most concrete foundation with attached wooden beams. The concrete is deteriorated, and flat windowpane glass shards (light aqua in color) were observed along the southern portion of the foundation. Feature 4 consists of a decomposing concrete foundation with metal rebar pipes along the perimeter with a modern refuse scatter of a metal grill rack, an emerald-green intact glass bottle, colorless flat glass, nails, modern shotgun shells, two wooden beams with light burn marks or charring, terracotta pipe sherds, and several Corona beer bottles located around the foundation.

Locus A is a largely dispersed refuse scatter that trends in a northwest-to-southeast direction located within a fluvial flow zone. There are no features or FSs within this locus. The refuse is composed of glass, cans, ceramics, plastic, and industrial material. The glass assemblage is composed of 100-200 windowpane shards, 100-200 colorless shards, 50-75 green glass shards, 25-35 amber glass shards, 13 cobalt blue glass shards, 4 Owens-Illinois glass bottle shards, 2 intact General Glass Co. (from 1931 to 1937) (Lockhart et al. 2015) glass bottles, 2 milk glass shards embossed with a Thatcher Manufacturing Co. maker’s mark from 1889 to 1946 (Lockhart et al. 2019:47), 1 green glass bottle neck shard, 1 aqua Coca-Cola bottle base shard embossed with “Salinas Calif”, 1 amber glass bottle base shard embossed with “MLC 16/4” and the Thatcher Manufacturing Co. (from 1889 to 1946) maker’s mark, 1 glass base shard with a diamond pattern embossed with “PINT”, 1 colorless glass bottle base shard embossed with “DUART 8”, 1 Owens-Illinois bottle base shard, 1 Glass Container Co. bottle base shard, 1 Northwestern Glass Co. bottle base shard, and 1 green glass bottle base shard with an S in a circle.

The Locus A can assemblage includes 117 sanitary cans, 41 intact condensed milk cans, 35 hole-in-top cans, 21 meat can fragments, 17 corrugated cans, 16 aluminum pull tab cans, 11 intact church key-opened sanitary cans, 10 fuel cans, 6 church key-opened can fragments, 3 metal internal friction lids, 2 square spice can, 2 paint can fragments, 2 small cans, 2 sardine can base fragments, 2 external friction screw cap lid fragments, 1 fragmented metal can lid, 1 red coffee can embossed with "Original Coffee Hills Bros", 1 oil can fragment embossed with "Pennzoil Sae 30", 1 metal screw cap, 1 square can, 1 paint can, 1 propane can, 1 Lincoln Brooklyn can, 1 internal friction can, 1 aerosol can, 1 metal can lid, and 1 aerosol can embossed with "Food Guard."

The Locus A ceramic assemblage consists of 16 black ceramic bowl sherds. The plastic component includes one Bakelite bracelet (ca. 1907 to 1930s) (Bellis 2019). The metal component includes 20 nails in a cluster, 1 metal oven/BBQ grill rack, 1 bucket, and 1 miscellaneous sheet metal fragment. The wood assemblage includes two wood slabs and one intact wooden bedframe.

Locus B consists of concrete foundations and associated refuse scatter. Feature 5 is a rectangular concrete housing foundation and Feature 6 is a large circular concrete foundation that is southwest to Feature 5. Feature 7 is a one-tier rock circle of eight stones with broken cement that is adjacent to the circular foundation. Feature 8 is a GLO survey marker located 142 feet north of Feature 1. Feature 9 is a GLO survey marker located 142 feet slightly northeast of Feature 5. Feature 10 is a GLO survey marker located 42 feet northeast of Feature 5.

The Locus B refuse scatter is composed of glass, ceramics, metal, cans, and wood. FS5 is a colorless condiment bottle base, heel, and partially medial shard missing the other medial sides, neck, and top embossed with "MCILHENNY-CO / 179 / TABASCO / 6 / NEW-IBERIA, LA" on the base. FS6 consists of two Jadeite shards of a bowl rim and cup handle. FS7 is an amber bottle base shard embossed with "23-Ⓘ-06 / 7A / 20" on the base. FS8 consists of two colorless glass shards with a transfer print logo of "Pepsi" in red within a white label circle. FS9 consists of three Dr. Pepper colorless bottle shards of medial body with printed label of "10 / 2 / PE / PER" and embossed base with "23-Ⓘ-05 / 3A / CONTE / 12 FL". FS10 consists of four possible stove components and includes a rectangular metal frame with two metal coils. FS11 is a church key-opened Lucky beer can with partially visible label. FS12 is a thin corrugated metal stove chimney pipe with a soldered hood and an overlapping seam connecting two pieces of sheet metal screwed together. FS13 is a large metal stove pipe with hood. It is composed of two thin corrugated sheet metal with a soldered hood and overlapping seam. The Tabasco brand pepper sauce of FS5 was established in 1868 and changed bottle design sometime between 1927 and 1931 with continued use to this day apart from varied embossments (Orser and Babson 1990:107-114, Tabasco 2024). The embossed marks on FS7 and FS9 are an Owens-Illinois Glass maker's mark in use from ca. 1954 to present (Holm et al. 2018).

Additional Locus B artifacts include a glass assemblage of 1,000-2,000 colorless glass shards, 100-200 olive green glass shards, 30-25 windowpane shards, 25-20 colorless glass shards, 15-25 emerald-green glass shards, 1 aqua glass shard, and 1 colorless Tabasco bottle base. The ceramic assemblage includes 300-400 fine earthenware shards, 300-400 terracotta shards, and 200-300 coarse earthenware shards. The metal includes 50 nails, 6 miscellaneous scrap metal, 3 metal piping, 2 metal stove parts, 2 sheet metal sidings, and 1 metal hinge. The can assemblage includes two aluminum punch and pry

cans, one paint can lid, one church key-opened beverage can, and one screw cap oil can. The wood includes three milled and bolted framing structure wood and one structure beam.

Locus C consists of a concrete foundation (Feature 11) and associated refuse scatter of industrial and domestic debris. Feature 11 is a rectangular concrete house foundation aggregate. It has 14 metal bolts where a wooden frame once existed, and 2 pieces of wooden frame still exist on the north end. It also has a metal/steal awning bolted down, round head nails, and 10 wooden fragments. FS14 is a green Gallo Glass bottle base with partial heel and is embossed with "1009M / © /  / 188" on the base and "OZ" on the heel. FS15 is a metal lamp with a long-ribbed cord and exposed wire. Additional artifacts within Locus C include 1,000-2,000 windowpane shards, 100-500 colorless glass shards, 100-200 olive green glass shards, 50 miscellaneous scrap metal fragments, 18 nails, 6 milk glass shards, 2 sanitary cans, 1 church key-opened beverage can, 1 internal friction lid, 1 metal hose clamp, 1 light bulb base, 1 external friction can lid, 1 paint can, and 1 sanitary can lid. A recent furniture dump and shot gun shells are within the locus.

Locus D consists of two Features and a refuse scatter of domestic and industrial material. Feature 12 is a decomposing concrete foundation. Feature 13 is a possible shaft collar reinforced with wood with tile siding and is filled with sand and overgrown vegetation. FS16 is a colorless glass shard of a rectangular base and heel from a liquor bottle embossed with "R-105 / 118 /  / 66 / 8" on the base. Additional artifacts include 200-300 coarse earthenware ceramic sherds, 50-100 colorless glass shards, 100 nails, 50 miscellaneous scrap metal, 25-50 green glass shards, 20 nail bolts, 1 bottle neck shard, and 1 church key-opened can. The embossed mark on FS16 is a Glass Containers maker's mark in use from 1934 to ca. 1968 (Lockhart et al. 2015).

A search for federal land patents through the GLO records identified seven patent holders associated with the site location. No additional historic information was available for the patent holders through census and genealogic sources, historic newspaper articles, or other online sources.

Historical aerial imagery (1952, 1959, 1963, 1976, 1983) depicts the site and adjacent area as vacant desert land with was an ephemeral drainage to the east in 1952. By 1959, the six graded areas (possible concrete foundations) are visible within the site area, as well as the north to south trending road (to the west of the foundations) and east to west trending road (south; environmental Data Resources imagery: EDR; Netronline 2024). In 1963, six buildings are visible within the site area. By 1974, the buildings are no longer extant and only the footprint of the concrete foundations are visible. Site conditions remain unchanged through 1983 (EDR, Netronline 2024). Historical topographical maps (USGS 1943, 1959, 1965, 1976) from 1943 depict the site and surrounding area as undeveloped land between the merging of two ephemeral tributaries of a larger ephemeral drainage and a mine to the southeast. By 1965, six buildings are illustrated within the site area along with adjacent roads. Conditions remain unchanged through 1976.

Modern vandalism of a dump as well as shotgun shells and clay pigeons were observed within the southern area of the site along an existing road. Additionally, modern disturbance partially overlaps the southwest area of Locus B to consist of heavy machinery tracks and three streel beams imbedded in the ground. There is an aerosol paint can and wooden stake within this disturbance that reads "March 2023". The site is also easily accessible from adjacent roads and appears to have been

disturbed by the public as evident of the modern trash and scavenging of artifacts (a couple dug out artifact areas observed).

Due to the proximity of several historic-era mines, the patent holders of 1960s, and the characteristics of the site and historical archival, aerial, and map review of the area, the site most likely represents short-term, temporary housing, possibly provided by a nearby mining company or a failed homesteading event between the 1950s and the 1970s.

P-15-022401, CA-KER-11839

Site P-15-022401, CA-KER-11839 consists of a prehistoric lithic scatter of 29 pieces of debitage. The site is situated on a northwest-to-southeast trending alluvial fan. An unnamed northwest-to-southeast road is just west of the site. The lithic assemblage consists of 17 rhyolite secondary flakes, 4 rhyolite tertiary flakes, 1 piece of obsidian shatter, 1 CCS primary flake, and 6 CCS secondary flakes. See for an example of a rhyolite flake from the site. Vegetation on the site and surrounding area consist of Joshua tree, creosote bush, rabbit brush, buckwheat, ephedra, and annual grasses. Ground surface visibility was at 90 to 100 percent. Site P-15-022400, CA-KER-11838H (historic era foundations and refuse scatters) is south of the southern boundary of P-15-022401, CA-KER-11839.

P-15-022402, CA-KER-11840/H

Site P-15-022402, CA-KER-11840/H consists of a historic-era refuse scatter and an isolated prehistoric rhyolite tertiary flake. The site is located at the intersection of two roads, and adjacent to another road. A north-to-south trending single pole transmission line is adjacent to the site. Vegetation on site consist of creosote bush, cheesebush, and ephedra. Ground surface visibility was at 80 to 100 percent. P-15-022402, CA-KER-11840/H (prehistoric lithic scatter and refuse scatter) is 140 feet (42 meters) south.

The historic refuse assemblage consists of nine earthenware sherds (red floral print), six solarized amethyst glass shards (insulator type), three amber glass shards, four sanitary cans (3 church key-opened), two metal wire fragments, one tobacco tin, one bent barrel rim, one cut telephone pole, and one stoneware ceramic plate sherd with a floral motif and “TEA/ RO../ USA” maker’s mark. Solarized amethyst glass dates between 1885 and 1925 (Newman 1970:74). The church key can opener was introduced in 1935 and is still in use today (Gillio et al. 1980:9). The hole-in-top can was in production from ca. 1900 to 1985 (Rock 1988). Sanitary cans are generally attributed to post-1904 (Rock 1987:12, 14; Waechter 2010). The Tea Rose pattern by Pfaltzgraff was first produced in 1985 (Replacements, LTD. 2024).

Federal land office patent records indicate the property was granted to the Helena K. Spencer in 1920 (BLM 2024). No additional patent or archival information was available regarding Spencer or previous landowners or use of the property.

Review of historic aerial imagery (1959, 1963, 1972, 1974, 1983) and historic topographical maps (1959, 1967, 1976) shows the site as undeveloped desert land in 1959, with the northwest-to-southwest trending road and north-to-south trending road present (Netronline 2024). The site area appears unchanged to current times. No buildings, features, or mining prospects were depicted on the reviewed historic aerial imagery or USGS topographical maps within or adjacent to the site location.

Based on the artifact assemblage and archival review, the site most likely dates between the 1930s to the 1980s. The site is in fair condition and exhibits low integrity based upon decades of impact caused by environmental erosion (e.g., displacement and fragmentation) and recreational access to the site by the public (via adjacent roads) resulting in destruction or removal of artifacts (e.g., bullet holes in artifacts).

P-15-022403, CA-KER-11841/H

Site P-15-022403, CA-KER-11841/H is a multicomponent site and consists of a low density prehistoric lithic scatter and a historic refuse scatter. The site is situated on a northwest-to-southeast trending alluvial fan and is located adjacent to a road. Vegetation on site consists of creosote bush, cheesebush, and ephedra. Ground surface visibility was at 80 to 100 percent. Site P-15-022402, CA-KER-11840/H (refuse scatter and prehistoric isolate) is 140 feet (42 meters) north. Ground surface visibility was at 80 to 100 percent.

The prehistoric component of the site consists of primarily rhyolite and a few CCS flakes. The lithic scatter trends northwest-to-southeast along the alluvial fan and is situated between several ephemeral drainages (Oak Creek to the east). The densest concentration of lithics is located at the northern portion of the site. Prehistoric cultural constituents include 13 rhyolite primary flakes, 51 rhyolite secondary flakes, 12 rhyolite tertiary flakes, 3 primary CCS flakes, and 2 CCS secondary flakes.

The historic component consists of approximately 50 white-glazed tile sherds, 20 amber glass shards, 1 amber glass bottle base, 2 sanitary cans, and 1 church key-opened sanitary can. The hole-in-top was in production from ca. 1900 to 1985 (Rock 1988). Sanitary cans are generally attributed to post-1904 (Rock 1987:12, 14; Waechter 2010). The church key can opener was introduced in 1935 (Gillio et al. 1980:9).

Federal land office patent records indicate the property was granted to the Helena K. Spencer in 1920 (BLM 2024). No additional patent or archival information was available regarding Spencer or other previous landowners or use of the property. Review of historic aerial imagery (1959, 1963, 1972, 1974, 1983) and historic topographical maps (1959, 1967, 1976) shows the site as undeveloped desert land in 1959, with the northwest-to-southwest trending road and north-to-south trending road npresent (Netronline 2024). The site area appears unchanged to current times. No buildings, features, or mining prospects were depicted on the reviewed historic aerial imagery or USGS topographical maps within or adjacent to the site location.

Based on the artifact assemblage and archival review, the site most likely dates between the 1930s to the 1970s. The site is in fair condition and exhibits low integrity based upon decades of impact caused by environmental erosion (e.g., displacement and fragmentation) and recreational access to the site by the public (via adjacent roads) resulting in destruction or removal of artifacts (e.g., bullet holes in artifacts).

P-15-022404, CA-KER-11842H

Site P-15-022404, CA-KER-11842H is a historic refuse scatter of cans and glass shards. The site is situated on a northwest-to-southeast trending alluvial fan dissected by an ephemeral drainage and is located adjacent to of a road. An overgrown southwest-to-northeast trending dirt road bisects the

southern portion of the site. Vegetation on-site consist of Joshua tree, creosote bush, cheesebush, and ephedra. Ground surface visibility was at 80 to 100 percent.

The refuse scatter consists of 16 colorless glass shards, 1 colorless glass shard (liquor type), 1 colorless glass bottleneck, 1 colorless glass base (olive oil type), 18 sanitary cans (2 without lids), 16 hole-in-top cans (6 knife-opened), 5 cans (4 church key-opened, 1 oil type), 4 ceramic insulator sherds, 3 sanitary cans (square), 2 tuna/meat cans, 1 unidentified type tin, and 1 square shaped tin with a hinge. No maker's marks were observed. The hole-in-top can was in production from ca. 1900 to 1985 (Rock 1988). Sanitary cans are generally attributed to post-1904 (Rock 1987:12, 14; Waechter 2010). The church key can opener was introduced in 1935 (Gillio et al. 1980:9).

Federal land office patent records indicate the property was granted to the Southern Pacific Railroad in 1884 (BLM 2024). No additional patent or archival information was available regarding previous landowners or use of the property. Review of Historic aerial imagery (1959, 1963, 1972, 1974, 1983) and historic topographical maps (1959, 1967, 1976) shows the site as undeveloped desert land in 1959, with the north-to-south trending road and a northeast-to-southwest trending unnamed two-track road present near the site (Netronline 2024). The site area appears unchanged to current times. No buildings, features, or mining prospects were depicted on the reviewed historic aerial imagery or USGS topographical maps within or adjacent to the site location.

Based on the artifact assemblage and archival review, the site most likely dates between the 1930s to 1970s. The site is in fair condition and exhibits low integrity based upon decades of impact caused by environmental erosion from ephemeral drainages (e.g., displacement and fragmentation) and recreational access to the site by the public (via adjacent roads) resulting in destruction or removal of artifacts.

P-15-022405, CA-KER-11843H

Site P-15-022405, CA-KER-11843H is a historic refuse scatter of cans and glass bottles. The site is situated on a northwest-to-southeast trending alluvial fan dissected by an ephemeral drainage branching from Oak Creek. The site is within an ephemeral wash. The vegetation surrounding the area consists of Joshua trees, creosote bushes and desert grass. The soil consist of a brown sand with subangular pebbles. Ground surface vegetation was at 80 to 90 percent. The northern portion of the site exhibits recent east-to-west trending heavy machinery tracks.

Cultural constituents include an amber glass bottle with the shoulder embossed "FEDERAL LAW PROHIBITS SALE /HALF PINT / OR REUSE OF THIS BOTTLE / HALF PINT" while the base is embossed with "D-126 / ⚓ / 67 / 56", an Anchor Hawking maker's mark. Additional artifacts consist of two hole-in-top can fragments (1 church key-opened), four sanitary can fragments (one condensed milk type, one church key-opened), one sanitary can fragment (stamped "HUN"), one pull tab can fragment, one can fragment (meat type), and one colorless glass bottle shard with aluminum top with a Brockway Glass maker's mark. The hole-in-top was in production from ca. 1900 to 1985 (Rock 1988). Sanitary cans are generally attributed to post-1904 (Rock 1987:12, 14; Waechter 2010). The phrase "Federal Law Prohibits" was required on glass bottles from 1934 to 1965 but can also appear on bottles through 1974 (Lindsey 2022). The Anchor Hawing maker's mark was produced between ca. 1937 to 1969 (Lockhart et al. 2021:456).

Federal land office patent records indicate the property was granted to the Southern Pacific Railroad in 1894 (BLM 2024). No additional patent or archival information was available regarding previous landowners or use of the property. Review of historic aerial imagery (1959, 1963, 1972, 1974, 1983) and historic topographical maps (1959, 1967, 1976) shows the site as undeveloped desert land in 1959 (Netronline 2024). The site area appears unchanged to current times. No buildings, features, or mining prospects were depicted on the reviewed historic aerial imagery or USGS topographical maps within or adjacent to the site location.

Based on the artifact assemblage and archival review, the site most likely dates post-1950s. The site is in fair condition and exhibits low integrity based upon decades of impact caused by environmental erosion from ephemeral drainages (e.g., displacement and fragmentation) and recreational access to the site by the public (via adjacent roads) resulting in destruction or removal of artifacts.

P-15-022407, CA-KER-11845H

Site P-15-022407, CA-KER-11845H historic-era refuse scatter of domestic items consisting of glass, cans, and ceramic. The site is situated on a northwest-to-southeast trending alluvial fan dissected by an ephemeral drainage. The site is located south of an existing road. The scatter trends from northwest to southeast along the ephemeral drainage. Vegetation on the site consist of creosote bush, desert grasses, and Joshua trees. Ground surface visibility was at 80 to 100 percent. The soil consists of a brown sand with subangular pebbles.

The glass and ceramic artifacts consist of two amber glass bottle shards (screw top finish), two colorless glass bottle bases, one glass bottle base shard (beer type), one glass vase base shard (diamond shaped), one colorless glass base shard, one glass vase neck shard (red tint), one milk glass base shard, one emerald-green glass bottle neck shard, one ceramic plate sherd with a blue floral design and “O.P.C.O. Syracuse China” maker’s mark, and one ceramic white ware plate sherd. The “O.P.C.O.” of the Syracuse China stand for Onondaga Potter Company and were produced from 1897 to 1946 (Restaurant Ware Collectors Network 2024).

The can artifacts include 13 sanitary fragments (circular-opened), 4 complete metal can lids, 3 hole-in-top cans, 2 complete metal coffee can lids, 2 condensed milk can fragments, 1 metal cooking pot lid fragment, 1 square can fragment, 1 can fragment (church key-opened), 1 coffee can fragment, 1 sardine can fragment, 1 meat can fragment, 1 long square can fragment, 1 complete metal fork, and 1 oval shaped can fragment. The hole-in-top was in production from ca. 1900 to 1985 (Rock 1988). Sanitary cans are generally attributed to post-1904 (Rock 1987:12, 14; Waechter 2010).

Review of federal land office patent records did not identify any patents issued within or adjacent to the site area (BLM 2024). No additional patent or archival information was available regarding previous landowners or use of the property. Review of historic aerial imagery (1959, 1963, 1972, 1983) and historic topographical maps (1959, 1967, 1976) shows the site as undeveloped desert land in 1959 (Netronline 2024). The site area appears unchanged to current times. No buildings, features, or mining prospects were depicted on the reviewed historic aerial imagery or USGS topographical maps within or adjacent to the site location. The site most likely dates to the 1970s to the 1980s and represents a civilian single refuse disposal of household refuse. The site is in poor condition due to environmental erosional processes of the ephemeral drainage.

P-15-022408, CA-KER-11846

Site P-15-022408, CA-KER-11846 is a prehistoric lithic scatter of seven pieces of debitage. The site is situated on a northwest-to-southeast alluvial fan. The lithic assemblage consists of two CCS secondary flakes, one CCS primary flake, three secondary rhyolite flakes, and one tertiary rhyolite flake. The site is located west of an existing road and near a large wind energy generating facility. Vegetation at the site consists of Joshua tree, creosote bush, and grasses. The soil is a light brown coarse and fine grain sand with angular and subangular gravels. Ground surface visibility was at 80 to 90 percent. The condition and integrity of the site appeared good to fair due to environmental erosional processes.

P-15-022409, CA-KER-11847

Site P-15-022409, CA-KER-11847 is a prehistoric lithic and tool scatter. The site is situated on a northwest-to-southeast alluvial fan of the Tehachapi Mountains. A large unnamed northwest-to-southeast drainage is 0.9 kilometer to the west and an ephemeral creek 1.4 kilometer to the southwest of the site. Vegetation on site includes Joshua tree, creosote bush, cheesebush, grasses, cholla, and buckwheat. Soil consists of coarse- and fine-grain sand with angular and subangular gravel inclusions. Ground surface visibility was at 80 to 90 percent.

The lithic flake assemblage includes 14 rhyolite secondary flakes, 1 rhyolite tertiary flake, 1 CCS secondary flake, 1 CCS tertiary flake, and 1 secondary obsidian flake. The lithic tools include a CCS (chalcedony) projectile point (FS1, leaf shape, Cottonwood type) that measures 39 millimeters (mm) long by 23 mm wide by 7 mm thick; a rhyolite leaf shaped projectile point with a fractured base (FS2) that measures 49 mm long by 23 mm wide by 10 mm thick; a CCS biface (FS3); a rhyolite core (FS4); a modified rhyolite flake (FS5, scrapper); and a rhyolite projectile point (FS7, contracting stem, lanceolate shape, possible Gypsum type; Justice 2002) that measures 55 mm long by 26 mm wide by 9 mm thick. The Gypsum type projectile points are attributed to the Montane I phase (5,000-1,300 BP) and Cottonwood types are attributed to the Koehn Lake Phase (1,300 to 600; Sutton 2023).

P-15-022410, CA-KER-11848

P-15-022410, CA-KER-11848 is a prehistoric lithic scatter of five pieces of debitage. The site is situated on a northwest-to-southeast alluvial fan of the Tehachapi Mountains. The assemblage includes two rhyolite tertiary flakes, one rhyolite secondary flake, one obsidian tertiary flake, and one CCS secondary flake. The site trends in a northwest-to-southeast direction and may extend north of the recorded boundary (outside of Study Area). Vegetation at the site consist of Joshua tree, grasses, creosote bush, ephedra, and cheesebush. The soil is a brown sand with subangular pebbles. The overall integrity of the site is fair due to high energy environmental erosional processes. An unnamed north-to-south trending road is 59 meters to the east.

P-15-022411, CA-KER-11849H

Site P-15-022411, CA-KER-11849H consists of wood remnants (possible corral) and a small refuse scatter. The site is situated on an alluvial fan and is located adjacent to (west of) an unnamed north-to-south dirt road. Site P-15-022412, CA-KER-11850H (refuse scatter) is located 120 feet to the south.

Site P-15-022384, CA-KER-11822H consist of milled lumber fragments, plywood, a cement post with rebar and a single chain link, metal hinges, washers and nuts, a wooden brush (possibly for horse), 3 sardine type cans (key type open, embossed “Imported Out/Packed in/ Prepare En Portugal/55”), 12 amber glass shards (one base embossed “CG/42, 87/C77”), ceramic plate sherds (oval), and an “Energizer” brand battery.

A search for federal land patents through the GLO records did not identify any patent holders for the site area. Review of historic aerial imager (1959, 1963, 1974, 1983) and USGS topographical maps (1959, 1961, 1967, 1976) shows the site area as undeveloped land from 1959 through 1983, with no adjacent roads or other features present (Netronline 2024). A north-to-south trending road is depicted 0.5 mile to the east by 1959. By 1986, several unnamed roads lead to the site area, the area appears graded, and a small building or structure is present just south of the site; the building is no longer extant in 2005. No historic era buildings, features, or mining prospects were depicted on the reviewed historic aerial imagery or USGS topographical maps within or adjacent to the site location.

Based on the characteristics of the site and archival review (aerials and maps), this resource most likely dates between the 1970s and the 1980s.

P-15-022412, CA-KER-11850H

Site P-15-022412, CA-KER-11850H is a refuse concentration (Feature 1) and scatter consisting primarily of bottle glass shards. The site is situated on an alluvial fan and is located adjacent to (west of) an unnamed north-to-south trending two-track road. Site P-15-022411, CA-KER-11849H (wood remnants and refuse scatter) is located 120 feet to the north.

Feature 1 is an artifact concentration and consist of 100-120 brown glass shards (9 of which are bottle base shards), 50-60 aqua green glass shards, 100-120 metal bullet casings. The refuse scatter consists of three milled lumber fragments, one aqua green glass bottle base shard, an amber bottle base embossed with “” a Hillsboro Glass Co. maker’s mark over “CI3/76/4C2-6/96” (ca. 1961 to 1997: Lockhart et al.), and a complete aqua liquor bottle embossed with an Owen Illinois maker’s mark and “200 ml 10/ 123.95/26.”

A search for federal land patents through GLO records did not identify any patent holders for the site area. Review of historic aerial images (1959, 1963, 1974, 1983) and USGS topographical maps (1959, 1961, 1967, 1976) shows the site area as undeveloped land from 1959 through 1983, with no adjacent roads or other features present (Netronline 2024). A north-to-south trending road is depicted to the east by 1959. By 1986, several unnamed roads lead to the site area, the site area appears graded, and a small building or structure is present just north of the site; the building is no longer extant in 2005. No historic era buildings, features, or mining prospects were depicted on the reviewed historic aerial imagery or USGS topographical maps within or adjacent to the site location.

Based on the diagnostic artifacts and archival review (aerials and maps), this resource most likely dates to the 1980s.

P-15-022324, CA-KER-11852H

Site P-15-022324, CA-KER-11852H is a historic-era refuse scatter of domestic debris of glass, cans, ceramics, and metal. An unnamed east-to-west trending two-track road bisects the southernmost portion of the site. The site is located within a slightly undulating alluvial fan extending from the southeastern Tehachapi Mountains. The vegetation within the site and surrounding area consists of creosote bush, brittle bush, cheesebush, buckwheat, and grasses. The soil is brown sand with subangular pebbles. The ephemeral Sandy Wash is located 0.28 mile southwest.

The refuse scatter consists of an aqua glass base with a connected "AB" maker's mark that is attributed to either the American Bottle Company (ca. 1886 to 1921) or the Adolphus Busch Glass Manufacturing Co. (ca. 1905 to 1929: Glass Bottle Marks 2024), 30 amber glass shards (4 embossed with a Buck Glass Co. maker's mark), 27 aqua glass shards (1 bottle neck shard with double rings), 21 colorless glass shards (1 bottle neck, 1 base embossed with a B in a circle and "/16/76/3" Brockway glass maker's mark), 14 solarized amethyst glass shards, 3 aqua glass shards, and 2 decorative green glass shards with a design. The can assemblage consists of four sanitary cans (three large, one small), one condensed milk can, one crushed solder dot can, one sardine type tin knife-opened, and one tobacco tin. The ceramic assemblage includes six ceramic rim sherds, one porcelain rim sherd, a porcelain plate sherd with a transfer print of "SEMI-VITREOUS PORCELAIN" with a maker's mark of three lines over an eagle in a circle and "M.T. & K. Co.", and a decorative porcelain plate sherd with a Japanese design. The metal component includes one double coiled barbed wire and one sheet metal fragment. The porcelain plate maker's mark with the eagle is a coat-of-arms symbol produced by the Knowles, Taylor, & Knowles Company prior to 1904 (Kovels Antique Trader 2017). Solarized amethyst glass dates between 1885 and 1925 (Newman 1970:74). Aqua glass was produced between ca. 1800 and the 1920s (Fike 1987).

A search for federal land patents through GLO records identified one patent issued to Lee K. Strobel in 1917. U.S. Census, the California, U.S. Registrations of Motor Vehicle Registration and Voter Registration records all list a Lee K. Stobel as living in Los Angeles from 1915 through the 1950s (Ancestry 2024). He was born in 1884 and died in 1973 in Los Angeles, California. No additional information was available for Lee K. Stobel through census and genealogical sources, historic newspaper articles, or other available online or archival sources.

Review of historic aerial imagery (1959, 1963, 1974, 1983) and topographical maps (USGS 1959, 1964, 1976) shows the site area as undeveloped land by 1963 and an existing road to the east (Netronline 2024). By 1974, the site area appears sectioned (rectangular shape) and remains undeveloped. The site remained unchanged to the 1980s. Based upon the artifact assemblage and historical review, the site is likely a single refuse disposal episode dating from 1900 to the 1930s.

The overall condition of the site is fair to poor due to sheet wash activity from Sandy Wash and erosional processes and public access via adjacent roads.

P-15-022325, CA-KER-11763/H

Site P-15-022325, CA-KER-11763/H consists of an isolated prehistoric rhyolite tool (unifacial tool) and a sparce historic-era refuse scatter. The site is adjacent to a north-to-south trending unnamed dirt

road (overgrown) located within an active wind energy generating facility and is south of a row of wind turbines and an associated utility road. The vegetation within the site and surrounding area includes Joshua tree and creosote bush environment. The soil is light yellowish-brown sand with subangular gravels and pebbles.

The historic refuse scatter consist of a church key-opened can (FS1), three colorless glass shards with illegible embossing, three cans embossed with "JULY" and illegible numbers (crushed), a colorless glass bottle base with a Glass Containers Co. maker's mark (FS3), a colorless glass mason jar with a "Ball" brand logo (FS4), and a colorless glass bottle neck and finish (FS5, Pepsi brand), two carbon dioxide cylindrical canisters with a cone top, and one metal lid. The Glass Containers Co. maker's mark was produced between 1937 and 1968 (Lockhart et. al, 2015:385-386). Pepsi Cola was established in 1893 and began to manufacture in glass bottles in 1931 (Bellis 2019).

Federal land office patent records indicate the property was granted to the Southern Pacific Railroad in 1891 (BLM 2024). No additional patent or archival information was available regarding previous landowners or use of the property.

Review of historical aerial imagery (1963, 1972, 1974, 1983) and topographical maps (USGS 1943, 1956, 1965, 1976) shows the resource location as undeveloped land with the adjacent north-to-south trending road present by 1963 (Netronline 2024). Based upon the historic-era artifact assemblage and historical review of the area, the site dates from the 1950s to the 1970s.

P-15-022326, CA-KER-11764H

Site P-15-022326, CA-KER-11764H consists of a large historic-era refuse scatter of food-, beverage-, and industrial-related material. It is located adjacent (east) of an existing road and within an active wind energy generating facility. A large wind turbine is to the west. Vegetation within the site and surrounding area includes a Joshua tree and creosote bush environment. The soil is composed of light yellowish-brown sand with subangular gravels and pebbles.

The refuse scatter consists of a rectangular meat can with soldered seam and embossed with "BRASIL / 7 / SIE" (FS1), a sanitary can (knife-opened with an X, embossed with "C6-77"; FS2), a condensed milk can with a soldered seam (FS3), a hole-in-top can (rotary type opener with serrated edge; FS4), 2 tobacco cans (crushed, hinged lid; FS5), 10 crushed cans, 6 beverage cans, 6 condensed milk cans, 2 rectangular meat cans, 2 paint buckets, 1 large metal lid with attached handle, 1 large metal can, 1 church key-opened can, 1 sardine can, 1 miscellaneous circular metal item, and 7 amber glass bottle base shards. The church key can opener was introduced in 1935 (Gillio et al. 1980:9) and the hole-in-top was in production from ca. 1900 to 1985 (Rock 1988). The upright tobacco tin was in use from 1907 to the 1960s (Holm et al. 2018).

Federal land patents identified one patent holder in 1891 as the Southern Pacific Railroad. Review of historic aerial imagery (1963, 1972, 1974, 1983) and topographical maps (USGS 1943, 1956, 1965, 1976) shows the site area as undeveloped land and a road is present by 1963 (Netronline 2024). The site area remains unchanged to modern times. Based upon the artifact assemblage and archival review of the site area, the site most likely represents a single refuse disposal episode that dates from the 1940s to the 1960s.

P-15-022327, CA-KER-11765H

Site P-15-022327, CA-KER-11765H consists of a historic-era refuse scatter of domestic debris intermixed with a modern refuse dump. The site is situated within a large wind energy generating facility and located adjacent (southeast) to the intersection of two existing roads. The site is within a Joshua tree and creosote environment. The soil is yellowish brown silty sand with subangular gravels and pebbles.

The refuse scatter incudes an intact amber glass bottle (the base is embossed with "531 / NW / 72 / C26" which is a Northwestern Glass Co. maker's mark, and the heel is embossed "No Deposit" and "Please Help Fight Litter" [FS1]), an aqua bottle heel and base embossed with "NTR" (FS2), two aerosol cans with a "Country Bouquet Vanilla Air Freshener" brand label "Made in Canada" (FS3), seven colorless glass shards, two amber glass shards, three miscellaneous television parts, two carbon dioxide cylindrical canisters with a cone top, one plastic orange rectangular ammo box, and one colorless medicinal bottle with attached aluminum cap and rubber inset. The Northwestern Glass Co. was a Seattle based company in operation from 1931 to 1987 (Lockhart et al. 2018:35) The "No Deposit, Help Fight Litter" was embossed on glass bottles between 1971 and the early 1980s (Schulz et al. 2019). Intermixed with this site are modern glass shards (painted) and mechanical parts from a Hitachi laptop and one large television refuse pile.

A search for federal land patents through GLO records identified one patent holder in 1891, Southern Pacific Railroad (BLM 2024). A review of historic aerial imagery (1959, 1963, 1972, 1974, 1983) and topographical maps (USGS 1959, 1967, 1976) shows the site as undeveloped desert from 1959 to the 1980s (Netronline 2024). Based upon the artifact assemblage and archival review of the site area, the site likely represents a single refuse disposal episode from the late 1970s and possibly the 1980s.

P-15-022329, CA-KER-11767H

Site P-15-022329, CA-KER-11767H is a large historic-era refuse scatter of glass and cans. The site is situated between a utility corridor. The vegetation within the site and in the surrounding area is a Joshua tree and creosote bush environment. The soil is brown loose silty sand with subangular pebbles.

The refuse scatter consist of an "Ortega Chilies" brand can, a colorless liquor bottle base and heel embossed with "D 379 " Owens-Illinois maker's mark, an oil can with a spout opening embossed with "STANDARD OIL COMPANY OF CAL/EASTERN OPERATIONS, INC/S.A.E/80", a partially dented church key-opened cylindrical can with two bullet holes and a seam, a sanitary can embossed with "61/3M/02", four colorless glass shards, eight medium sized crushed cans, nine tobacco tins with attached hinged lids, one tobacco hinge lid, one small sanitary can with attached lid, one sanitary can lid, nine small cans (seven rotary style-opened, two church key-opened), four cans (beverage type, church key-opened), three cans (crushed, church key-opened), one rectangular can, one can top lid, two hole-in-top cans (punctured open), two large sanitary (can opener type-opened), three sanitary cans (rotary style-opened), six sardine cans (three key-opened, one pull tab-opened, one embossed "NORWAY", and one embossed "FRANCE"), three condensed milk cans (one punctured open), one cone top can, one aluminum can, one aluminum and steel can with a punched opening, one internal friction paint can, one mason jar metal lid, one pail bucket with missing handle, one aluminum can

punch and pry opening, one oil can, and one miscellaneous scrap metal fragment. The upright tobacco tin was in use from 1907 into the 1960s and the church key can opener was introduced in 1935 and is still in use today (Holm et al. 2018). The Owens-Illinois maker's mark dates from ca. 1929 to 1960 (Lockhart et al. 2024). The Standard Oil Company produced petroleum products between 1882 and 1911 (Britannica Money 2024)

A search for federal land patents through GLO records identified one patent holder, Southern Pacific Railroad, in 1891 (BLM 2024).

Review of historical aerial imagery (1963, 1974, 1983) and topographical maps (USGS 1943, 1959, 1967, 1976) shows the site as undeveloped desert land with the adjacent (north) utility present in 1943 (Netronline 2024). The site remains unchanged to the 1980s. By 2012, the wind energy generating facility is present along the General Petroleum Road.

Based upon the artifact assemblage and historic review of the area, the site appears to date between 1900s and the 1960s and is mostly associated with construction of the Los Angeles Aqueduct.

P-15-022330, CA-KER-11768H

Site P-15-022330, CA-KER-11768H consists of a small historic-era refuse scatter of food-related items located south of a gravel utility road surrounded by an active wind energy generating facility within a flat alluvial valley. The vegetation within the site and surrounding area consists of cholla, Joshua tree, creosote bush, white bursage, California suncup, cheesebush, cheatgrass, desert dandelion, filaree, gold field, fiddleneck, hop sage, California buckwheat, and tumble mustard. The soil is brown, loose, silty sand, and gravel with subangular gravels and pebbles.

The refuse scatter includes green glass shards of a 7-Up bottle (FS1), a hole-in-top can (FS2), an aluminum and steel pull tab beverage can (FS3), a hole-in-top condensed milk can (FS4), and a tobacco tin can with missing lid (FS5). Additional artifacts include eight green glass shards, two aluminum top cans with punch and pry openings, one crushed tuna can, one sanitary can, one sanitary can opener/knife-opened can, one condensed milk hole-in-top, and one can lid. Modern trash of a weathered utility glove and a crushed aluminum can were observed. The upright tobacco tin was in use from 1907 to the 1960s (Holm et al. 2018). The hole-in-top was in production from ca. 1900 to 1985 (Rock 1988). Cans with an aluminum top and steel body were in production from the late 1950s into the early 1970s (Holm et al. 2018).

A search for federal land patents through GLO records identified one patent holder, Southern Pacific Railroad issued on October 7, 1891 (BLM 2024). No evidence to connect the patentee with the resource was determined.

Review of historical aerial imagery (1963, 1974, 1983) from 1963 shows the resource location at the road intersection of two existing roads with unchanged conditions until 2012 when wind energy generating facilities are constructed along an existing road, which remained in the same condition through 2020 (Netronline 2024). Historical topographical maps (USGS 1943, 1959, 1967, 1976) from 1943 depict the resource location bisected by General Petroleum Road and the Los Angeles Aqueduct in the northwest with unchanged conditions until 1967. In 1967, the east-to-west road on which the resource is situated is illustrated to the east and west, with unchanged conditions through 1976.

Based upon the artifact assemblage and historic review of the area, the site is likely associated with construction of the Los Angeles Aqueduct from the 1930s to the 1960s.

P-15-022331, CA-KER-11769H

Site P-15-022331, CA-KER-11769H consists of a historic-era refuse scatter and concentration (Feature 1) located south of an existing road near an active wind energy generating facility within a flat alluvial valley. The surrounding vegetation consists of Joshua trees, creosote bush, fiddleneck, cheatgrass, goldfield, Mojave aster, California suncup, Anderson's thornbush, filaree, and cheesebush. The soil is brown, loose sand with subangular gravels and pebbles.

Feature 1 is an Artifact Concentration, and five Field Specimens (FS). Feature 1 consists of 21 miscellaneous scrap metal fragments, 10 hole-in-top church key-opened cans, 10 4-inch nails, 6 church key-opened beverage cans, 6 hole-in-top cans, 6 cast iron pipe fragments, 3 amber glass bottle shards, 2 meat cans with missing lids, 1 large metal wire cable, 1 rectangular box with hinge and side locks, 1 cone top can, 1 bucket pail with attached handle, 1 metal automobile headlight, 1 mason jar, 1 length of chicken wire, 1 fine earthenware yellow sherd, 1 colorless bottle neck shard, and 1 decomposing rubber tube.

The Field Specimens include a beer can (FS1), a complete Glass Containers Co. mason jar (FS2), a colorless glass bottle base embossed with Iris Coffee and an Owens-Illinois maker's mark (FS3), a small colorless glass medicine bottle (FS4), and a metal paint brush head with attached bristles (FS5). Other artifacts on site include cans, steel cable wire, chicken wire, automobile parts, a metal box with hinges, a square wooden block, sheet metal, cast iron piping with internal threads (couplers), metal wire hanger, large bucket with handle, amber bottle with chemical inside, can lids, miscellaneous scrap metal, round nails, rubber tube, colorless bottle finish and shoulder, and fine earthenware ceramic plate sherds. The angular monogram of the style of maker's mark by Glass Containers Co. on FS2 was in use from 1937 to 1968 (Lockhart et. al, 2015:385-386). Haas, Baruch & Co. was established in Los Angeles in 1889 as a leading wholesale grocer that distributed Iris Coffee (FS3) among other goods throughout California, Arizona, and New Mexico that eventually became todays Smart and Final grocery chain (*Los Angeles Herald* 1905:2-3; JMAW 2019).

A search for federal land patents through GLO records identified one early patent holder of the land on which the site is located that was issued to Herman D. Schmidt in 1914 (BLM 2024). Schmidt owned this property from at least September 17, 1914. The U.S. World War I Draft registration cards from 1917 to 1918 list a Herman Dan Schmidt, living and employed in Mojave, Kern County, California, as a natural born citizen who was born on December 14, 1886, with one listed closest relative at the time, Emma Dau Schmidt (Ancestry 2024). Although the property is associated with Herman D. Schmidt, there is no evidence to connect him to the site.

A review of historical aerial photography (1959, 1963, 1974, 1983) from 1959 indicates the resource as undeveloped land surrounded by established roads (Netronline 2024). Then by 1963, one road was in the early phase of development, whereas a southern road was established and remained unchanged through 1983. Historical topographical maps (USGS 1959, 1967, 1976) from 1959 illustrate the resource as undeveloped land southeast of existing road and utility. Then by 1967, the roads to the

north, and east, an unnamed southern road are illustrated and in 1976 additional roads to the east are depicted. Based upon the artifact assemblage, the site dates from the 1930s to the 1950s.

P-15-022332, CA-KER-11770H

Site P-15-022332, CA-KER-11770H consists of a historic-era refuse scatter of food- and beverage-related material of ceramic earthenware sherds, glass shards in various colors, and cans. The site is situated on a rocky knoll bisected by an unnamed two-track dirt road. The site trends in an east-to-west direction with ground surface visibility that ranged from 90 to 100 percent. The vegetation within the site and surrounding area consists of juniper, Hooker's onion, Joshua tree, rabbit brush, Mojave aster, desert mariposa lily, Fremont pin cushion, chia, fiddleneck fern, bunch grass, cheat, buckwheat, California suncup, ephedra, creosote, action brittle bush, and narrow leaf goldenbush. The soil is yellowish brown sand with large angular rocks and exposed boulders.

The observed surface component consists of five FSs and a general scatter. FS1 is an aqua glass bottle base and heel shard embossed with "ONE PINT" on the heel and "20 ⓘ 64 / 8AA / 18341-G" on the base. FS2 is a rectangular thin metal plate embossed with "FRONT / ←". FS3 is both an aqua glass crown cap bottleneck finish shard, and 400-410 glazed coarse earthenware ceramic sherds of bottle molds colored brown and tan. FS4 is a colorless glass bottle base embossed with "Ball / 3 / a 71" (ca. 1960-present). FS5 is a Glass Containers Corporation (ca. 1934-1964) amber glass bottle base shard with partial heel embossed with "TO BE REFILLED" on the heel and "V 5 / 4799 / 40" on the base. Additional artifacts include 20 glass shards, 6 cans, and a metal lid. Most of the FSs were identified on the west side of the unnamed road. The maker's mark of FS1 is Owens-Illinois with a date range of ca. 1954 to present (Holm et al. 2018).

A search for federal land patents through GLO records identified one early patent holder that overlaps with the site, the California Portland Cement Co., issued on January 18, 1973 (BLM 2024). The patent includes part of the Lupen Extension No. 2 (L2), a granted mineral load of aggregate. The California Portland Cement Company's Mojave Plant (P-15-013905 c. 1955, expanded 1980s) is a previously recorded built environment resource located about 3.5 miles to the northeast of the site and outside the boundary of the Project site. The California Portland Cement Company's Mojave Plant has been open and operating since 1955 and modernized in the 1980s (The Center for Land Use Interpretation 2024). The California Portland Cement Company is the oldest producing Portland cement company west of the Rocky Mountains with the opening of their Colton, California cement plant established in 1891 (CalPortland 2024). The Mojave Plant is still in operation today.

Review of historic aerial imagery (1963, 1974, 1983) from 1963 indicates the resource location bisected with a north-to-south road surrounded by a large wash in the north and another wash to the south, with roads in the north and south (Netronline 2024). Conditions remained the same through 1983. Historic topographical maps (USGS 1959, 1967, 1976) from 1959 depict the resource location as undeveloped land between two ephemeral drainages. By 1967, the road associated with this resource is illustrated as well as the roads in the north and south with mining activity in the southwest, with unchanged conditions into 1976. Based upon the artifact assemblage and historical review of the area, the date range for the site is from the 1950s to the 1970s.

P-15-022333, CA-KER-11771H

Site P-15-022333, CA-KER-11771H is a widely dispersed historic-era refuse scatter of food-, beverage-, and industrial-related material (i.e., car parts, sheet metal), a deflated rock cairn (Feature 1: possible mining claim marker), a deflated rock ring (Feature 2: campfire ring), and two artifact concentrations (Feature 3 and 4). The site is located within the intersection of two unnamed dirt roads: a south-to-southwest trending road and a northwest-to-southeast trending road. The site is south of a large ephemeral drainage and is situated on a slightly undulating alluvial fan southeast of the Tehachapi Mountains. Vegetation within the site and surrounding area consists of rabbitbrush, cheatgrass, Hooker's onion, fiddleneck fern, juniper, creosote, Joshua tree, narrow leaf goldenbush, white margin sand mat, chia, Dorr's sage, ephedra, and Mojave aster. The soil is yellowish brown, loose sand with angular and rounded rocks, cobbles, and gravels. Ground surface visibility was excellent at 90 to 100 percent.

Feature 1 is a deflated rock cairn consisting of a one-tier tall rock cluster of gneiss boulders and four adjacent decomposing wooden beams. One beam has a nail embedded and outline of where a sign (marker) was once posted (possible mining claim marker).

Feature 2 is a deflated rock ring (campfire pit) of seven dispersed sandstone rocks with charcoal fragments and an amber glass bottle shard in the center. The feature is located adjacent to an existing road.

Feature 3, Artifact Concentration 1, consists of 10 cans (sanitary, church key- and rotary type-opened, 1 meat type), 1 aluminum red vehicle reflector, 1 metal saw, 1 complete colorless glass condiment bottle embossed with the "KRAFT" brand logo on the neck, sides, and base, and 1 rectangular metal component box with 2 vent holes in the back (with several bullet holes). The Kraft-Heinz company started bottling condiments (horseradish, ketchup) in clear glass jars in 1869 (horseradish) and 1876 (Ketchup: Heinz 2024). Sanitary cans were produced from 1904 to present (Merritt 2014). Red reflectors were required on cars in 1965 and are continued into 2024 (Casetext 2024).

Feature 4, Artifact Concentration 2, consists of 50 to 100 colorless glass shards, 25 to 50 cobalt blue glass shards, 5 fine earthenware sherds (colorless glaze), 2 colorless glass shards (bottle base and heel) embossed on the base with "PACKED / BY / CAL-PACK-CORP" and embossed on the heel with "Cedar U.S.A", 1 colorless glass bottle base and partial heel embossed with "S / 3 Sierra Club". The S-within-a-diamond Sierra Club maker's mark is attributed to the Southern Glass Co. that bottled soda (ca. 1930 to 1950: Lockhart et al. 2024). Cobalt-colored glass has been produced since ca. 1890s (Horn 2005:11). Based on the artifact assemblage, this concentration most likely dates between the 1930s to the 1950s.

The refuse scatter includes 400+ glass bottle and jar shards of various colors, 1 colorless glass bottle neck with metal screw cap, 27 cans (primarily sanitary type, church key-opened), 1 aluminum can with a non-removable tab opening (1975 to ca. 2015: Schroeder 2019) and a "SUGAR/FREE/ICE/TEA" label, 1 aluminum pull tab can "Coors" brand, 11 ceramic sherds, 4 planks of wood, 1 metal saw, 1 square metal container with two spouts, 1 vehicle headlight reflector shard, 1 nail, 1 miscellaneous sheet metal fragment, and an aqua glass bottle base.

A search for federal land patents through GLO records identified one early patent holder that overlaps with the site, the California Portland Cement Co., issued on January 18, 1973 (BLM 2024). The patent includes part of the Lupen Extension No. 2 (L2), a granted mineral load of aggregate. The California Portland Cement Company's Mojave Plant (P-15-013905 c. 1955, expanded 1980s) is a previously recorded built environment resource located about 3.5 miles to the northeast of the site and outside the boundary of the Project site. The California Portland Cement Company's Mojave Plant has been open and operating since 1955 and modernized in the 1980s (The Center for Land Use Interpretation 2024). The California Portland Cement Company is the oldest producing Portland cement company west of the Rocky Mountains with the opening of their Colton, California cement plant established in 1891 (CalPortland 2024). The Mojave Plant is still in operation today.

Review of historic aerial imagery (1963, 1974, 1983), the 1935 GLO plat, and topographical maps (USGS 1959, 1967, 1976) shows the site area as undeveloped desert land except for a south-to-southwest trending unnamed road (unimproved) within the site area, a road to the west, and a large east-to-west trending ephemeral drainage to the north in 1935 (Netronline 2024). By 1967, a northwest-to-southeast trending road intersects with the south-to-southwest trending road in the site area. The conditions remained the same through 1976. No buildings or features were depicted within the site area except the two roads. Based upon the archival review and artifact assemblage, the site appears to contain two separate refuse disposal episodes of use from the 1920s to the 1950s and again from the 1960s to the 1970s. The site may represent early aggregate exploration or general recreational camping. The site condition is fair and exhibits low integrity due to disturbance from natural erosion processes as well as use by the public (bullet holes in metal artifacts, and all glass and ceramic fragmented) and impact from the roads.

P-15-022334, CA-KER-11772H

Site P-15-022334, CA-KER-11772H is a historic-era refuse scatter of glass bottles and shards, cans, ceramic sherds, and miscellaneous wire. The site is located adjacent to (southwest of) a northwest-to-southeast trending road and south-southeast of P-15-022333, CA-KER-11771H (refuse scatter). The site is located on an alluvial fan of the Tehachapi Mountains. The vegetation within the site and surrounding area consists of chia, fiddleneck fern, juniper trees, bunch grass, rabbit brush, cheatgrass, narrow leaf goldenbush, ephedra, sand blossom, California suncup, and white daisy tidy tips. The soil is light yellowish-brown sand with angular rocks and gravels. The ground surface visibility ranged from 90 to 100 percent.

The refuse scatter consists of a complete sardine can (twist key-opened with the key still attached; FS1). The can is embossed "KIPPERED HERRING PACKED IN NORWAY", a brown/beige earthenware lip and body sherd (elongated oval form, canning type, small indented pattern, tempered fired; FS2), 2 light solarized amethyst glass shards (milk bottle neck and medial side: FS3), a heavy-duty hitch with an external threading connection on one end and bolted in hitch on the other end (FS4), an oval can with a "Kork-N-Seal" type opening (still attached, crushed; FS5), 2 amber bottle base shards embossed with "CLOROX / REG" on the base (FS6), 28 sanitary cans, 6 hole-in-top condensed milk cans, 2 small sanitary cans, 2 meat type cans, 2 external friction lid cans, 2 white fine earthenware shards, 2 colorless glass shards, 1 metal pipe, 1 large crushed can, 1 oil can with missing spout, and 1

aqua glass shard. The Kork-N-Seal bottle cap closure style was in production from 1911 to the 1960s, and peak use occurred between 1910 and the 1940s (Lindsey 2024). The bottle base Clorox logo style was in production from 1929 to 1930 (The Clorox Company 2024). Solarized amethyst glass dates between 1885 and 1925 (Newman 1970:74). Sanitary cans were produced from 1904 to present (Merritt 2014). Twist key or key wind cans have been used in the U.S. since 1866 (Rock 1987; Waechter 2010).

A search for federal land patents through GLO records identified one early patent holder that overlaps with the site, the California Portland Cement Co., issued on January 18, 1973 (BLM 2024). The patent includes part of the Lupen Extension No. 2 (L2), a granted mineral load of aggregate. The California Portland Cement Company's Mojave Plant (P-15-013905 c. 1955, expanded 1980s) is a previously recorded built environment resource located about 3.5 miles to the northeast of the site and outside the boundary of the Project site. The California Portland Cement Company's Mojave Plant has been open and operating since 1955 and modernized in the 1980s (The Center for Land Use Interpretation 2024). The California Portland Cement Company is the oldest producing Portland cement company west of the Rocky Mountains with the opening of their Colton, California cement plant established in 1891 (CalPortland 2024). The Mojave Plant is still in operation today.

Review of historic aerial imagery (1963, 1974, 1983), the 1935 GLO plat, and topographical maps (USGS 1959, 1967, 1976) shows the site area as undeveloped desert land except for a south-to-southwest trending unnamed road (unimproved) west of the site area, a road to the west, and a large east-to-west trending ephemeral drainage to the north in 1935 (Netronline 2024). By 1967, the northwest-to-southeast trending road is located adjacent to (north of) the site. The conditions remained the same through 1976. No buildings or features were depicted within the site area except the two roads. Based upon the archival review and artifact assemblage, the site appears to date between the 1920s and the 1950s and may represent early aggregate exploration or general recreational camping. The site condition is fair and exhibits low integrity due to the displacement and fragmentation of artifacts from natural erosion processes and use by the public (bullet holes in metal artifacts, all glass and ceramic fragmented). Based upon the artifact assemblage, the date range for the site is from the 1920s to the 1950s.

P-15-022335, CA-KER-11773H

Site P-15-022335, CA-KER-11773H is a historic-era refuse scatter of food-related glass bottles and shards, cans, ceramics, and miscellaneous wire. The site is bisected by an unnamed northwest-to-southeast trending road (dirt two-track). The site is situated within an alluvial fan of the Tehachapi Mountain piedmont and undulating terrain. The refuse scatter is dispersed in a downslope direction. The vegetation within the site and surrounding area consists of chia, ephedra, Fremont pin cushion, fiddleneck fern, California buck wheat, juniper, Wallace's woolly daisy, white margin sand mat, creosote bush, cheatgrass, rabbit brush, narrow leaf gold bush, Mojave aster, bunch grass, and desert dandelion. The soil is dark yellowish brown, loose sandy gravel. The ground surface visibility ranged from 90 to 100 percent.

The refuse scatter consist of 2 colorless glass shards with a "" Owen's maker's mark (ca. 1919 to 1929: Lockhart et al. 2024; FS1), 17 aqua glass bottle shards (same vessel: a base and heal, a neck and

crown cap finish, and fifteen medial body shards) and the base is embossed “8739-4/10/ /64/3” with an Anchor Hocking maker’s mark, a decorative fine earthenware ceramic plate sherd with a white glaze and gold rim and flower pattern along the rim (FS3), an amber glass bottle base and partial heel embossed with “V 67” a Glass Container maker’s mark, and a colorless glass bottle with a crown cap finish and embossed on the shoulder “10 FL OZ NO REFILL” and on the base “ 9121/15/28/15” with a Brockway Glass maker’s mark (FS4). The cans include 21 sanitary cans, 12 hole-in-top cans (10 condensed milk), 3 rectangular cans, 2 oil cans, and 2 church key-opened cans. The glass includes 36 aqua glass shards, 10 amber glass shards, and 10 colorless glass shards. The ceramics include four earthenware ceramic sherds and two white ceramic sherds. The Owen’s maker’s mark was in use between ca. 1919 to 1929 (Lockhart et al. 20024). The Anchor Hawking maker’s mark was produced between ca. 1937 to 1969 (Lockhart et al. 2021:456). Brockway Glass maker’s marks were produced from 1933 to the 1980s (Lockhart et al. 2024). The Glass Containers Co. maker’s mark was produced between 1937 and 1968 (Lockhart et. al, 2015:385-386). The church key can opener was introduced in 1935 and is still in use (Gillio et al. 1980:9).

A search for federal land patents through GLO records did not identify any patent holders for the site area. Review of historic aerial imagery (1963, 1974, 1983), the 1935 GLO plat, and topographical maps (USGS 1959, 1967, 1976) shows the site area as undeveloped desert land with a south-to-southwest trending unnamed road (unimproved) 0.21 mile west of the site area, a road to the west, and a large east-to-west trending ephemeral drainage to the north in 1935 (Netronline 2024). By 1967, the northwest-to-southeast trending road that bisects the site is present. The conditions remained the same through 1976. No buildings or features were depicted within the site area except the road. Based upon the archival review and artifact assemblage, the site appears to date between the 1920s and the 1960s and may represent early aggregate exploration or general recreational camping. The site condition is fair and exhibits low integrity due to natural erosion processes and has been disturbed due to use by the public.

P-15-022337, CA-KER-11775H

Site P-15-022337, CA-KER-11775H consists of a historic-era refuse scatter of cans, glass, metal and a rock pile (Feature 1). The site is located on the undulating southeastern piedmonts of the Tehachapi Mountains. The slope is 0-5 degrees with a southeast aspect and 360-degree exposure. Vegetation within the site and surrounding area includes rabbitbrush, creosote, fiddleneck, cheatgrass, Fremont pincushion, wild onion, Juniper (burnt/dead), bunch grass, desert parsley, goldfield, wishbone bush, and cheesebush. The soil is brown loose sandy loam, angular rocks, and subangular granules.

Feature 1 is a one-tier tall rock pile of 26 large stones that may have served as a stacked rock mining claim marker. The refuse scatter includes a pink glass jar shard with a patina (depression type glass, partial rim, body, and base; FS1), a sanitary can embossed “S/ESTAB-262/F-F” (FS2), and a complete puncture and prey-opened hole-in-top can (FS3), four decorative light green glass shards (bowl or cup), three sanitary cans (rotary type opening), one metal lid (rectangular), one sanitary can lid, and one miscellaneous cylindrical metal object with hole in the middle. Depression glass was produced and distributed throughout the United States and Canada from the 1930s and the 1940s (Depression Glass 2024).

A search for federal land patents through the Bureau of Land Management's General Land Office records identified one patent holder, Hugho Wilhelm Herrmann, issued on January 6, 1981. No additional historic information was available for Hugho Wilhelm Herrmann or other landowners through census and genealogic sources, historic newspaper articles, or other online sources.

Review of historic aerial imagery (1963, 1976, 1983) and topographical maps (USGS 1959, 1967, 1976) shows the site as undeveloped land between two ephemeral drainages with a road to the east (Netronline 2024). The conditions remained the same through 1976. No buildings, features, or mining prospects were depicted on the reviewed historic aerial imagery or USGS topographical maps within or adjacent to the site location. Based upon the artifact assemblage and historical review of the area, the site is likely a mining-related refuse disposal episode that dates from the 1920s to the 1960s.

P-15-022338, CA-KER-11776H

Site P-15-022338, CA-KER-11776H consists of a historic-era refuse scatter of food- and beverage-related cans and glass. A northwest-to-east-to-southeast trending dirt road bisects the southern portion of the site. The site is situated on an undulating southeastern-facing piedmont of the Tehachapi Mountains. Vegetation within the site and surrounding area includes Joshua tree, rabbitbrush, creosote, fiddleneck, white bursage, California buckwheat, hopsage, ephedra, cholla, beavertail, winterfat, cheatgrass, and filaree. The soil is dark brown, loose, coarse grained silty sandy loam. Ground surface visibility was 90 to 100 percent.

The refuse scatter consists of a clear glass bottleneck and finish with a crown cap (FS1), an emerald bottle base shard (heal) and embossed with a" [illegible]" Hazel Atlas maker's mark (ca. 1923 to 1982: Lockhart et al. 2024: 328; FS2), and two green glass shards (body and base) with a 7-up brand label in white and the base is embossed "23/196/[illegible]/94-6" an Owens-Illinois maker's mark (ca. 1940 to 1964: Lockhart et al. 2024:209; FS3). Additional artifacts include 100 to 500 olive green glass shards, 25 to 50 opaque white (milk glass) shards, 2 large church key-opened sanitary cans, 2 long aluminum top pull tab beverage cans, 1 cylindrical miscellaneous metal rim, 2 crushed can opener-opened sanitary cans, 1 sanitary can lid, and a weathered rectangular oil can. Sanitary cans were produced from 1904 to present (Merritt 2014). The church key can opener was introduced in 1935 (Gillio et al. 1980:9).

Review of GLO records did not identify any patent holders for the site area. Review of historic aerial imagery (1963, 1976, 1983) and topographical maps (USGS 1959, 1967, 1976) shows the site and surrounding aera as undeveloped land except for a northwest-to-east-to-southeast trending road within the site area in 1963, with two ephemeral washes to the north and south of the site Netronline 2024). The conditions remained unchanged to the 1980s. No buildings, features, or mining prospects were depicted on the reviewed historic aerial imagery or USGS topographical maps within or adjacent to the site location. Based on the artifact assemblage and historical review of the area, the site presents as a single refuse disposal episode that dates between the 1920s and the 1960s. The site is in fair condition and exhibits low integrity. Site disturbances include natural erosional processes, as the site is situated between two ephemeral drainages and subjected to sheetwash activity, erosion, displacement, and its location next to a road.

P-15-022339, CA-KER-11777H

Site P-15-022339, CA-KER-11777H is a historic-era refuse scatter of food- and drink-related debris and a mining claim (Feature 1). The site is bisected by an unnamed northwest-to-east-to-southeast trending dirt road. The site is situated on an undulating southeastern-facing piedmont of the Tehachapi Mountains. Vegetation within the site and surrounding area includes Joshua tree, rabbitbrush, creosote bush, fiddleneck, white bursage, California buckwheat, hopsage, ephedra, cholla, beavertail, winterfat, cheatgrass, and filaree. The soil is light yellowish brown, loose gravely sand with angular and subangular gravels.

Feature 1 consist of a one-tier tall collapsed rock cairn mining claim of 27 granitic rocks located north of the unnamed dirt road that bisects the site. No wood stake, tags or identification mark was observed within or near the collapsed cairn.

The refuse scatter is primarily south of the unnamed dirt road and incudes a colorless glass bottle shard with the “Dr. Pepper” brand logo (white and red) and “WALLA-WALLA/23/ 𝕆 /66/6A/WASH” with a Owens-Illinois Glass Company maker’s mark (ca. 1954 to present: Lockhart 2024:341; FS1) embossed on the base; an emerald green glass base and heel with the “7-Up” brand logo with “S/65/W/L608” embossed on the base (FS2); a green glass bottle base and heel shard with “29/ 𝕆 /55/64/ /94C” Owens-Illinois Glass Company maker’s mark (ca. 1954 to 1964: Lockhart et al. 2024:209; FS3) embossed on the base;, a circular metal key wind can lid with key still attached (FS4); and a complete aluminum top and steel body pull tab can with an “Olympia” beer brand label (FS5). Additional artifacts include 100 to 500 shards of green glass shards, 50 to 100 colorless glass shards, 25 to 50 amber glass shards, 2 aqua glass shards, 6 weathered aluminum top pull tab cans (beverage, 2 beer type), 2 cylindrical metal lids, 4 sanitary cans (3 church key-opened), 2 miscellaneous metal scraps, and miscellaneous square scrap metal. The 7-Up brand was bottled and produced by the 7-Up Company post-1953 (Lockhart 2007). Cans with an aluminum top and steel body were in production from the late 1950s to the early 1970s (Holm et al. 2018).

Review of GLO records did not identify any patent holders for the site area. Review of historic aerial imagery (1963, 1976, 1983) and topographical maps (USGS 1959, 1967, 1976) shows the site and surrounding area as undeveloped land except for a northwest-to-east-to-southeast trending road within the site area in 1963, and two ephemeral washes to the north and south of the site Netronline 2024). The conditions remained unchanged to the 1980s. No buildings, features, or mining prospects were depicted on the reviewed historic aerial imagery or USGS topographical maps within or adjacent to the site location. Based on the artifact assemblage and historical review of the area, the site presents as a single refuse disposal episode that dates between the 1950s and the 1970s. The site is in fair condition and exhibits low integrity. Site disturbances include natural erosional processes, as the site is situated between two ephemeral drainages and subjected to sheetwash activity, erosion, displacement, as well as its location next to a road.

P-15-022340, CA-KER-11778H

Site P-15-022340, CA-KER-11778H consists of a historic-era refuse scatter of primarily glass shards and a few cans. The northwest-to-southeast trending ephemeral wash bisects the northern portion of the site and an unnamed northwest-to-southeast trending road bisects the center of the site. Vegetation

on and near the site includes Joshua tree, rabbitbrush, creosote, fiddleneck, white bursage, California buckwheat, hopsage, ephedra, cholla, beavertail, winterfat, cheatgrass, and filaree. The soil is yellowish brown loose coarse to fine gravely sand.

The refuse scatter consists of 10 aqua glass shards (2 embossed "RLETT"; FS1), 2 solarized amethyst glass shards (1 is a cup type vessel; FS2), 100 to 500 green glass shards, 50 to 100 colorless glass shards, 50 to 100 amber glass shards, 50 to 100 aqua glass shards, 1 cobalt blue glass shard, 2 bottle caps, 2 cylindrical caps with an inner lining, 4 sanitary cans (2 with corrugated sides), an aluminum pull tab beverage can, and 50+ bullet shell casings (.22 caliber shells). Solarized amethyst glass dates between 1885 and 1925 (Newman 1970:74). Amber glass has been produced since ca. 1860s, while cobalt-colored glass has been produced since ca. 1890s (Horn 2005:11). Sanitary cans were produced from 1904 to present (Merritt 2014). The removable pull tab type cans were introduced in 1962 and ceased production in 1975 (Schroder 2019).

Review of GLO records did not identify any patent holders for the site area. Review of historic aerial imagery (1963, 1976, 1983) and topographical maps (USGS 1959, 1967, 1976) shows the site and surrounding aera as undeveloped land except for a northwest-to-southeast trending road, a southeast-to-south trending road segment, and a large wash within the site area in 1963 (Netronline 2024). The conditions remained unchanged to the 1980s. No buildings, features, or mining prospects were depicted on the reviewed historic aerial imagery or USGS topographical maps within or adjacent to the site location.

The site is in poor condition and exhibits low integrity due to environmental processes (sheet wash, weathering, artifact fragmentation and displacement) and use by the public (bullet casings). Based on the artifact assemblage and archival review, the site most likely consist of a single refuse disposal episode between the 1920s and the 1950s and a second disposal episode by a firearm enthusiast using the site area for target practice (based on all the bullet casings and many glass shards) sometime between the 1960s to the 1970s.

P-15-022341, CA-KER-11779H

Site P-15-022341, CA-KER-11779H is a large and diffuse, historic-era refuse scatter of cans, metal, glass, wood, rubber, ceramics, a GLO benchmark from 1934 (Feature 1), and a rock circle (Feature 2). The site is 30 feet south of P-15-022340, CA-KER-11778H and is bisected by an unnamed northwest-to-southeast trending two-track dirt road. It is located within a slightly undulating alluvial fan of the Tehachapi Mountain piedmonts. The vegetation within the site and surrounding area consists of narrow leaf goldenbush, cheesebush, juniper, fiddleneck fern, cheatgrass, bunch grass, rabbit brush, Joshua tree, creosote bush, cholla, sand blossom, desert wishbone bush, and datura. The soil is pale brown, loose gravely sandy loam with granite boulders and subangular rocks.

Feature 1 consist of a GLO survey marker from 1934. The marker is embossed "U.S. General Land Office Survey – 1934/Penalty $250 for Removal. / ¼ S2 over S11." Three large granitic boulders are just north of the maker and a small refuse scatter of amber glass bottle shards, a colorless glass vial, a church key-opened can, and a vehicle speedometer surrounds the maker.

Feature 2 consists of approximately seven volcanic rocks (dacite type), and several of the rocks appear naturally fractured. The rocks are somewhat aligned in a semicircular shape. No other artifacts or charcoal were observed near the feature.

The diffused refuse scatter consists of a rectangular can with pointed sides, a friction lid, and embossed with "Stollwerck" in a banner over a circular shape (FS1); a porcelain plate sherd with a white-to-pink ombre and a raised flower design (FS2); a metal can with an external aluminum screw cap lid and embossed on the base with a R in a circle (FS3); an enamelware bowl/basin (FS4); an upright tobacco can with a hinged lid (FS5); a can lid stamped with "Ghirardelli Chocolate" (FS6); a metal pail with attached handle (FS7); and a metal corrugated curved pipe (stove pipe type; FS8). The glass assemblage consists of 30 to 40 amber shards, 30 to 40 colorless shards, 22 green glass shards, 3 solarized amethyst shards, 1 amber bottle base shard, and 1 colorless glass bottle neck shard. The cans consists of 24 sanitary cans (15 crushed, 8 intact, 1 with friction lid), 6 hole-in-top cans, 3 miscellaneous crushed cans, 2 oil cans (1 is a crushed rectangular with solder dot and a 2-finger handle on top, punctured opening), 1 beverage can with 6 interlocking seams (church key-opened), 1 oval meat can, 1 rectangular spice can, 1 hinged can lid (spice type), 1 rectangular soldered can, 1 paint can, 1 upright tobacco can with attached hinged-lid (crushed), 1 aluminum pull tab can, and 1 small can with internal friction lid (crushed). The metal assemblage includes 10 to 20 barbed wire segments, 3 corrugated sheet metal fragments, 3 screw top nails, 3 short and large flathead nails, 2 bolts, 1 barrel ring with 2 fasteners, 1 fastener, 1 metal grate fragment, 4 decorative floral enamelware bowl sherds, and 1 crown cap from a glass bottle. The wood component includes three particle board fragments and two wood fragments. The rubber component includes a decomposing hose, and a decomposing shoe heel with eight intact nails.

The church key can opener was introduced in 1935 (Gillio et al. 1980:9) and the hole-in-top was in production from ca. 1900 to 1985 (Rock 1988). Sanitary cans were produced from 1904 to present (Merritt 2014). The upright tobacco tin was in use from 1907 to the 1960s (Holm et al. 2018). The German-based confections company Stollwerck was established in 1839 and began selling their products in America by 1904 (Camden History 2009). The observed Stollwerck can type was used for "Gold Brand, Stollwerck, Milk Cocoa" drink mix. The Italian-based chocolate company, Ghirardelli, opened their first American store in 1849 and sold their chocolate products in tin cans from the 1890s to present (Ghirardelli 2024). Solarized amethyst glass dates between 1885 and 1925 (Newman 1970:74).

A search for federal land patents through GLO records identified one patent holder, Southern Pacific Railroad, issued on July 10, 1894 (BLM 2024). No additional historic information was available regarding any other landowners through patent, census and genealogic sources, historic newspaper articles, or other online sources.

Review of historic aerial imagery (1963, 1976, 1983) and topographical maps (USGS 1959, 1967, 1976) shows the site and surrounding area as undeveloped land except for a northwest-to-southeast trending road and a southeast-to-south trending road segment within the site area, and a wash to the north in 1963 (Netronline 2024). The conditions remained unchanged to the 1980s. No buildings, features, or mining prospects were depicted on the reviewed historic aerial imagery or USGS topographical maps within or adjacent to the site location. Based upon the artifact assemblage and

historical review of the area, the site is likely a single refuse disposal episode which dates to the 1900s to the 1950s. The site is in fair condition and exhibits low integrity due to natural erosional processes (sheet wash, weathering, artifact fragmentation and displacement), and its location next to a wash and road.

P-15-022342, CA-KER-11780H

Site P-15-022342, CA-KER-11780H consists of a historic-era refuse scatter of glass and cans. The site is bisected by a northwest-to-southeast trending road and is situated within the path of an ephemeral wash that flows in the same direction. The site is located on a slightly undulating alluvial fan of the Tehachapi Mountain southeast-facing piedmonts. The vegetation within the site and surrounding area consists of sage thistle, rabbit brush, bunch grass, juniper, Joshua tree, fiddleneck fern, gold field, creosote, cheatgrass, and white daisy tidy tips. The soil is yellowish brown, loose sandy loam with large to medium angular and subangular rocks and gravels. Site P-15-022341, CA-KER-11779H is 30 feet to the north of this site.

The refuse scatter consist of a hole-and-cap can with a side twist key opening and a side seam solder and is stamped “ESTAB 2-A” (FS1); three colorless glass bottles (beverage type) embossed with “NOT TO BE REFILLED” on the base, “NO DEPOSIT NO RETURN/10FL OZ” on the shoulder, and “Howdy” on the body over “THE FRIENDLY DRINK” (FS2); and a colorless glass bottle (external screw cap lid, condiment type, indented pattern across bottle) and embossed base “12005/34/34 70” (FS3). Cans include seven sanitary cans, four aluminum pull tab cans, two paint cans, one hole-in-top lid stamped “punch here”, three hole-in-top cans (one large, one crushed, one rectangular), one hole-in-top can, one paint bucket, and one gas can (rectangular, four-finger handle, screw top lid). Cans embossed with the phrase “punch here” were in production from 1935 into the 1950s (Holm et al. 2018). Hole-in-top cans were produced from ca. 1810 to ca. 1930, while the sanitary cans are generally attributed to post-1900 (Rock 1987:12, 14; Waechter 2010). The removable pull tab type cans were introduced in 1962 and ceased production in 1975 (Schroder 2019). Owens-Illinois added the phrase “No Deposit No Return” on bottles in 1965 through the early 1970s, and the phrase “Not to Be Refilled” was in use from 1939 through 1975 (Schultz et al. 2019:16, 22, 28). The Howdy Corporation produced the “Howdy” orange flavored drink from the 1920s to the 1929 (Sedelmaier 2012).

A GLO records search identified one patent holder, Southern Pacific Railroad, issued on July 10, 1894 (BLM 2024). No additional historic information was available regarding any other landowners through patent, census and genealogic sources, historic newspaper articles, or other online sources.

Review of historic aerial imagery (1963, 1976, 1983) and topographic maps (USGS 1959, 1967, 1976) shows the site location as undeveloped desert land within a northwest-to-southeast trending wash in 1963, with a north-to-south trending road to the east and an east-to-west trending road that veers northwest to the south (Netronline 2024). The conditions remained unchanged to current times. No buildings, features, or mining prospects were depicted on the reviewed historic aerial imagery or USGS topographical maps within or adjacent to the site location.

Based upon the artifact assemblage and historic review of the area, the site is likely a single refuse disposal episode that dates between the 1930s to the 1960s. The site is in fair condition and exhibits low integrity due to environmental processes (sheet wash, weathering, artifact fragmentation and

displacement) and use by the public. A modern amber Coors beer bottle (ca. 2021-2022) was identified nearby.

P-15-022343, CA-KER-11781H

Site P-15-022343, CA-KER-11781H consists of a light-density, historic-era scatter of cans, glass, and a piece of metal wire. The site is bisected by a northwest-to-southeast ephemeral wash. The site is located on a slightly undulating alluvial fan of Tehachapi Mountain southeast-facing piedmonts. The surrounding vegetation consists of Joshua tree, creosote, fiddleneck fern, desert dandelion, filaree, rabbit brush, and desert mariposa lily. The soil is light brownish gray, loose gravel sandy loam with angular and subangular cobbles and gravels.

The refuse scatter consists of a hole-in-top can (partially crushed; FS1), a church key-opened can with five interlocking seams, three aluminum pull tab cans, five sanitary cans (three church key-opened, one rotary, one with missing lid), three medium sized cans (church key-opened), three tall beverage cans (church key-opened), two hole-in-top cans, two sanitary cans with interlocking seams, one aluminum top can with four interlocking seams, one gas can (crushed, external thread opening), one miscellaneous metal, one colorless glass shard, one amber glass shard, and one miscellaneous thick metal wire. Two modern Goodyear tires were identified near the site. The church key can opener was introduced in 1935 (Gillio et al. 1980:9) and the hole-in-top was in production from ca. 1900 to 1985 (Rock 1988). The removable pull tab type cans were introduced in 1962 and ceased production in 1975 (Schroder 2019).

A search of GLO records identified one patent holder, Southern Pacific Railroad, issued on July 10, 1894. No evidence to connect the patentee with the resource was determined. No additional historic information was available regarding any other landowners through patent, census and genealogic sources, historic newspaper articles, or other online sources.

Review of historic aerial imagery (1963, 1976, 1983) and topographic maps (USGS 1959, 1967, 1976) shows the site location as undeveloped desert land within a northwest-to-southeast trending wash in 1959, with an unnamed northwest-to-southeast trending road to the south, and an road further south (Netronline 2024). The site area remains unchanged to the 1980s, except the road to the south appears improved.

Based upon the artifact assemblage and historic review of area, the site is likely a single refuse disposal episode from the 1960s to the 1970s. The site is in fair condition and exhibits low integrity due to environmental processes (sheet wash, weathering, artifact fragmentation and displacement) and use by the public, car tires were identified near the site.

P-15-022344, CA-KER-11782H

Site P-15-022344, CA-KER-11782H is a very light-density, historic-era refuse scatter of glass and cans. The site is bisected by a northwest-to-southeast ephemeral wash. The site is located on a slightly undulating alluvial fan of Tehachapi Mountain southeast-facing piedmonts. The vegetation within the site and surrounding area consists of creosote, rabbitbrush, fiddleneck, cheatgrass, gold field, bird's eye gilia, filaree, ephedra, wishbone bush, tumble mustard, and Joshua tree. The soil is brown, loose gravel sandy loam with large to small angular and sub-rounded boulders, cobbles, and gravels.

The refuse scatter consists of a colorless glass shard embossed “IDT/RN” (FS1), a large can with attached handle and spout (FS2), a hole-in-top can (crushed; FS3), two aluminum pull tab cans, two gas cans with a four-finger handle, one sanitary can, one aerosol can, one tall can (church key-opened, beverage type), one meat can, one can with four interlocking seams, and one miscellaneous scrap metal fragment. The hole-in-top can was in use from 1900 to 1985 and cans with an interlocking seam were produced from the 1960s to 1975 (Holm et al. 2018). The church key can opener was introduced in 1935 (Gillio et al. 1980:9). Aerosol cans have been produced since the 1940s in the U.S. (AEDA 2024). The removable pull tab type cans were introduced in 1962 and ceased production in 1975 (Schroder 2019).

A search of GLO records identified one patent holder, Southern Pacific Railroad, issued on July 10, 1894. No evidence to connect the patentee with the resource was determined. No additional historic information was available regarding any other landowners through patent, census and genealogic sources, historic newspaper articles, or other online sources.

Review of historic aerial imagery (1963, 1976, 1983) and topographic maps (USGS 1959, 1967, 1976) shows the site location as undeveloped desert land within a northwest-to-southeast trending wash in 1959, with an unnamed northwest-to-southeast trending road to the south (Netronline 2024). The site area remains unchanged to the 1980s, except the road to the south appears improved.

Based upon the artifact assemblage and historic review of the area, the site is likely a single refuse disposal episode that dates from the 1950s to the 1970s. The site is in fair condition and exhibits low integrity due to environmental processes (sheet wash, weathering, artifact fragmentation and displacement) and use by the public, car tires were identified near the site.

P-15-022345, CA-KER-11783H

Site P-15-022345, CA-KER-11783H consists of a light-density, historic-era refuse scatter primarily cans, a glass shard, a metal T-post fragment, a piece of sheet metal, and a piece of milled lumber. The site is located within a slightly undulating alluvial fan with a southeast trending aspect and 360-degree exposure. The surrounding vegetation consists of ephedra, California buckwheat, lacy phacelia, fiddleneck, cheatgrass, Joshua tree, creosote bush, bunch grass, cheesebush, wishbone bush, gold field, golden head and cooper goldenbush. The soil is yellowish brown, loose gravely sandy loam with angular and subangular rocks, gravels, and pebbles.

The refuse scatter consist of a colorless glass jar embossed on the base with “425.16A/Ball [underline]l 4/7” (Ball brand, mason type), a weathered and fragmented wooden post beam (FS2), a metal T-post fragment (rusted; FS3), a hole-in-top condensed milk can that is puncture and pry-opened (FS4), an aluminum can with attached key (twist key-opened, sardine type) with an embossed base “NORWAY/209/NORVEGE”(FS5), 19 sanitary cans (15 corrugated, 2 crushed,1 missing lid and crushed, 1 church key-opened), 12 condensed milk cans (8 church key-opened, 3 knife-opened, 1 crushed), 2 aluminum sardine cans, 1 church key-opened can, 1 gas can, 3 sheet metal fragments (1 with bullet holes), 4 weathered wood posts, 2 mason jar lids, 1 wire fragment, and 1 colorless glass shard. Twist key or key wind cans have been used in the U.S. since 1866 (Rock 1987; Waechter 2010). The church key can opener was introduced in 1935 (Gillio et al. 1980:9) and the hole-in-top was in production from

ca. 1900 to 1985 (Rock 1988). Ball mason jars have been produced since 1884, and the cursive Ball with an underline extending for the letter l has been produced in different variations from 1900 to 1923, 1933 to 1962, and 1960 to present (Mason Jars 2024).

A search of GLO records identified one patent holder, Southern Pacific Railroad, issued on July 10, 1894. No additional historic information was available regarding any other landowners through patent, census and genealogic sources, historic newspaper articles, or other online sources.

Review of historic aerial imagery (1963, 1974, 1983) and topographic maps (USGS 1959, 1967, 1976) shows the site location as undeveloped desert land within an unnamed northwest-to-southeast trending road, an east-to-west trending road, and a north-to-south road segment are present to the northwest and west of the site in 1963 (Netronline 2024). On the 1963 aerial, a temporary type of structure is visible southeast of the site location and the structure is also illustrated on the 1967 topographical map. By 1972, the north-to-south trending road continues south and the building or structure is still present, and the ground surface appears graded all around it. By 1987, the structure is no longer extant.

Based upon the artifact assemblage and historical review of the area, the site appears to be a single refuse disposal episode that most likely dates between the 1930s and the 1960s. The site is in fair condition and exhibits low integrity due to environmental processes (sheet wash, weathering, artifact fragmentation and displacement) and use by the public (the area is used by offroad and firearm type recreationists).

P-15-022346, CA-KER-11784H

Site P-15-022346, CA-KER-11784H is a historic-era site of refuse scatter of cans, glass, and a metal bucket. The site is situated within a small ephemeral wash on a slightly undulating alluvial fan extending southeast from the Tehachapi Mountains. The vegetation within the site and surrounding area includes fiddleneck, peachthorn bush, rabbitbrush, cheatgrass, Joshua tree, creosote, Juniper, bunch grass, cheesebush, wishbone bush, gold field, bird's eye gilia, desert mariposa lily, Mojave Desert star, desert dandelion, tapered tip onion, white margin sandmat, and California suncup. The soil is brown, loose coarse gravel to fine silt sand with angular and subangular cobbles, rocks, and gravels. The ground surface visibility ranged from 90 to 100 percent.

The refuse scatter consists of a solarized amethyst bottle (body and partial heel; FS1), two hole-in-top cans (puncture opening and traces of a soldered seam; FS2), an aluminum top steel body beverage can (church key-opened, nine interlocking seams; FS3), a crushed bucket with an attached handle (FS4), two sanitary cans, four hole-in-top cans (one large, one medium, one small, one corrugated body, one crushed), two undiagnostic crushed cans, one aqua glass shard, and one length of thin wire. The hole-in-top can was in use from 1904 to 1985 and sanitary cans were produced from 1904 to present (Holm et al. 2018; Merritt 2014). Solarized amethyst glass dates between 1885 and 1925 (Newman 1970:74).

A search of GLO records identified one patent holder, Southern Pacific Railroad, issued on July 10, 1894. No additional historic information was available regarding any other landowners through patent, census and genealogic sources, historic newspaper articles, or other online sources.

Review of historic aerial imagery (1963, 1976, 1983) and topographical maps (USGS 1943, 1959, 1967, 1976) shows the resource location within a large, deeply incised northwest-to-southeast trending ephemeral wash in 1963, with a northwest-to-southeast trending road to the south. The site area remains unchanged to date (Netronline 2024). No buildings, features, or mining prospects were depicted on the reviewed historic aerial imagery or USGS topographical maps within or adjacent to the site location.

Based upon the artifact assemblage and historical review of the area, the site is likely a single refuse disposal episode most likely dating between 1930 and the 1960s. The site is in poor condition and exhibits low integrity due to environmental processes (ephemeral drainage activity).

P-15-022347, CA-KER-11785H

Site P-15-022347, CA-KER-11785H is a small refuse scatter of cans. The site is within a northwest-to-southeast ephemeral drainage and is situated on a slightly undulating alluvial fan extending southeast of the Tehachapi Mountains. The vegetation within the site and surrounding area includes fiddleneck, cheatgrass, Joshua tree, creosote, bunch grass, ephedra, cheesebush, buckwheat, Fremont pincushion, and California suncup. The soil is brown, loose coarse gravel to fine silt sand with angular and subangular cobbles, rocks, and gravels. The ground surface visibility ranged from 90 to 100 percent.

The refuse scatter includes a partially crushed condensed milk hole-in-top can (FS1), a partially crushed tall beverage can (church key-opened, 5 interlocking seams; FS2), 10 tall beverage cans (church key-opened), 8 sanitary cans (5 intact, 1 with corrugated sides, 1 crushed, 1 large), 6 church key-opened cans with 5 interlocking seams, 4 condensed milk cans, 5 aluminum pull tab cans, and 3 hole-in-top cans. Modern black clay pigeon fragments and modern aluminum cans were observed within the site. The church key can opener was introduced in 1935 (Holm et al. 2018). The removable pull tab type cans were introduced in 1962 and ceased production in 1975 (Schroder 2019).

A search of GLO records identified one patent holder, Southern Pacific Railroad, issued on July 10, 1894. No evidence to connect the patentee with the resource was determined. No additional historic information was available regarding any other landowners through patent, census and genealogic sources, historic newspaper articles, or other online sources.

Review of historic aerial imagery (1959, 1964, 1976, 1983) and topographical maps (USGS 1959, 1967, 1976) shows the site area as an ephemeral drainage within undeveloped Desert land in 1959 (Netronline 2024). By 1963, a road is present to the east and a northwest-to-southeast trending road is present to the south. A large storm event may have occurred just prior to 1983, as a broad swath of sheet wash activity appears within the ephemeral drainage path. No buildings, features, or mining prospects were depicted on the reviewed historic aerial imagery or USGS topographical maps within or adjacent to the site location. The site is in poor condition and exhibits low integrity due to environmental processes (ephemeral drainage activity). Based upon the artifact assemblage and historical review of the area, the site is likely a single refuse disposal episode from the 1930s to the 1970s.

P-15-022348, CA-KER-11786H

Site P-15-022348, CA-KER-11786H consists of a light-density, historic-era refuse scatter of cans, ceramics, and glass, located adjacent to (north of) an unnamed northwest-to-southeast dirt road. The north-to-south trending road intersects with an unnamed road southeast of the site. The site is situated on a slightly undulating alluvial fan extending southeast of the Tehachapi Mountains. The vegetation within the site and surrounding area includes rabbitbrush, wishbone bush, creosote, cheatgrass, bunchgrass, birdseye gilia, narrow leaf goldenbush, filaree, buckwheat, ephedra, cheesebush, and white margin sandmat. The soil is yellowish brown, loose gravel sandy loam with angular and subangular rocks, gravels, and pebbles. The ground surface visibility ranged from 90 to 100 percent.

The refuse scatter consist of 2 hole-in-top cans (1 stamped “PUNCH HERE”; FS1), a ceramic transferware plate sherd with decorative green leaf design and thin blue line along the rim (FS2), 10 sanitary cans (8 crushed, 1 intact, 1 rotary-opened, lid attached; FS3), 4 miscellaneous crushed cans, 1 small meat can, 8 fine earthenware sherds, 23 terracotta sherds, 20 green glass chard, and 1 length of thin wire. Cans embossed with the phrase “Punch Here” were in production from 1935 into the 1950s and the hole-in-top can was in use from 1904 to 1985 (Holm et al. 2018).

A search of GLO records identified one patent holder, Southern Pacific Railroad, issued on July 10, 1894. No additional historic information was available regarding any other landowners through patent, census and genealogic sources, historic newspaper articles, or other online sources.

Review of historic aerial imagery (1959, 1964, 1976, 1983) from 1959 indicates the resource location northeast of the unnamed northwest-to-southeast trending road as well as a road in the southeast between two ephemeral drainages with unchanged conditions through 2020 (Netronline 2024). Historic USGS topographical maps (USGS 1959, 1967, 1976) from 1959 depict the resource location as undeveloped land south of an ephemeral drainage with a road to the northeast, a utility to the southeast, and wash to the southwest. By 1967, the road and an ephemeral wash are illustrated with unchanged conditions through 1976. Based upon the artifact assemblage and historical review of the area, the site is likely a single refuse disposal episode from the 1930s to the 1970s. The site condition is fair and exhibits low integrity due to the displacement and fragmentation of artifacts from natural erosional processes (artifact fragmentation and weathering) and its location alongside the road.

P-15-022349, CA-KER-11787H

Site P-15-022349, CA-KER-11787H is a large historic-era refuse scatter of domestic and industrial debris intermixed with modern refuse. The site is on all sides of the intersection of a north-to-south trending two-track road and east-to-west trending improved dirt road. The site is situated within a slightly undulating alluvial fan extending southeast of the Tehachapi Mountains. A generally northwest-to-southeast trending ephemeral drainage crosses the northern portion of the site. The vegetation within the site and surrounding area includes creosote, fiddleneck, cheatgrass, goldfield, buckwheat, rabbitbrush, desert mariposa lily, spring blossom, Perry gilia, white margin sandmat, and Joshua tree. The soil is brown, loose coarse gravel to fine silt sand with angular and subangular cobbles, rocks, and gravels. The ground surface visibility ranged from 90 to 100 percent.

Feature 1 is an artifact concentration that includes cans, glass, ceramics, and metal. The cans include a “Rumford Baking Powder” lid, a “KC Baking Powder” can lid, 23 hole-in-top cans (crushed), 27 small sanitary cans (small and large), 10 condensed milk cans, 7 miscellaneous cans (crushed), 3 large meat cans (2 intact, 1 crushed), 1 aluminum pull tab can, 1 crushed hole-in-top can, 1 tobacco can, and 1 rectangular hand soldered meat can. The glass component includes 25 to 50 colorless glass shards, 30 amber glass shards, 20 aqua glass shards, 10 to 25 solarized amethyst glass shards, and 10 to 25 olive green glass shards. The ceramics include 25 to 50 ceramic sherds. The metal includes four miscellaneous metal fragments, and three miscellaneous scrap metal fragments.

Feature 2 appears to be a hand (shovel)-excavated depression with several disturbed glass shards (colorless, amber, amethyst) that appear to have been purposely placed on the east side of the depression. The depression measures 11 feet long (north to south) by 9 feet wide (east to west) and 21 inches deep. The depression may have been excavated by an illegal artifact collector.

Cultural constituents within the refuse scatter consist of glass, cans, ceramics, and metal. The glass includes 1000+ milk glass shards, 100 to 500 solarized amethyst glass shards, 100 to 500 amber glass shards, 50 to 100 aqua glass shards, 50 to 100 olive green glass shards, 50 colorless glass bottle bases, 3 cobalt blue glass shards, and 1 colorless glass bottle base with illegible embossing. The cans are composed of 14 unidentifiable cans (crushed), 21 sanitary cans (12 crushed, 6 large, 3 small intact), 4 sanitary can lids, 11 hole-in-top cans (crushed), 8 condensed milk cans, 4 steel beverage cans, 6 hole-in-top cans, 3 tobacco tins, 2 crushed paint cans, 2 meat cans (knife cut), 1 oil can, 1 soldered seam can, 1 external friction lid, 1 tall beverage can, 1 spice can, and 1 meat can. The ceramics include 100 to 200 fine earthenware shards, 45 ceramic mold sherds, 1 light blue earthenware sherd, and a porcelain decorative plate sherd. The metal and wood component includes 13 wood planks, 7 nails, 3 barbed wire, 1 broken bed spring, a railroad spike, 1 metal barrel hoop, 1 bucket, 1 paint lid, and 1 bolt with fastener.

Solarized amethyst glass dates between 1885 and 1925 and was typically used for medicinal bottles and liquor flasks (Newman 1970:74). Amber glass has been produced since ca. 1860s, while milk and cobalt-colored glass have been produced since ca. 1890s and often used for cosmetics and medicinal products (Horn 2005:11). The upright tobacco tin was in use from 1907 to the 1960s (Holm et al. 2018). KC Baking Powder was produced from 1925 through 1927 (SODA 2024). The removable pull tab type cans were introduced in 1962 and ceased production in 1975 (Schroder 2019).

The modern refuse observed was located primarily north of Backus Road and includes a stack of rubber tires at the intersection, plastic cups and bottles, amber beer bottles, plywood (8 feet long by 4.5 feet wide), colorless bottles, shotgun shells, .308 cartridge and .22 caliber bullet casings, clay pigeons, emerald glass bottle shards, brick fragments, a mattress frame, terracotta pipe sherds, aerosol cans, plastic decomposing bucket, a “Modelo” beer carboard box, and a cellular mobile phone case.

A search of GLO records identified three patent holders. The patent holders include the Southern Pacific Railroad issued on July 10, 1894, and the other two include Flora Clarks (neé Harsh) and Rosa Harsh, both issued on October 23, 1916. No additional historic information was available for the

patent holders or other landowners through archival census and genealogic sources, historic newspaper articles, or other sources.

Review of historic aerial imagery (1963, 1976, 1983) and topographic maps (USGS 1959, 1961, 1967, 1976) shows the site area as undeveloped land in 1959 and 1963, except for the east-to-west trending road is present (Netronline 2024). By 1974, the road appears improved and widened. In 1983, the unnamed north-to-south trending road is present within the site area and a parallel road is to the east. No buildings, features, or mining prospects were depicted on the reviewed historic aerial imagery or USGS topographical maps within or adjacent to the site location.

The site is in poor condition and exhibits low integrity due to environmental processes (ephemeral drainage activity) and public access via adjacent roads and use by recreationalist (e.g., target practice), residential refuse disposal, and excavation (potential looting). Based upon the artifact assemblage and historical review of the area, the site is most likely associated with a few separate refuse disposal episodes dating between 1900s into the 1970s.

P-15-022350, CA-KER-11788H

Site P-15-022350, CA-KER-11788H is a low-density, historic-era refuse scatter of glass, cans, and metal. The site is bisected by a north-to-south trending overgrown, two-track road. The site is located on a slightly undulating alluvial fan extending southeast from the Tehachapi Mountains. The vegetation within the site and surrounding area includes creosote, Joshua tree, bunchgrass, ephedra, rabbitbrush, cheatgrass, fiddleneck, goldfield, and white bur sage. The soil is brown, loose coarse gravel to fine silt sand with subangular gravels and pebbles. The ground surface visibility ranged from 90 to 100 percent.

The refuse scatter includes 33 sanitary cans (17 sanitary medium, 11 large, 5 small rotary-opened), 6 hole-in-top cans, 5 zinc canning lids with milk glass liners, 3 oil cans, 2 miscellaneous crushed cans, 2 paint can lids, 2 beverage cans, 2 tobacco tins, 3 cans (2nternal friction lids, 1 rectangular), 2 spice containers, and 1 condensed milk can. The metal consists of 10 miscellaneous scrap metal, 1 miscellaneous tool or lunch lid, 1 paint bucket, 1 shovel head, and 1 metal strainer with handle. The glass component includes a complete colorless glass embossed with “18 A / CAL.CONS.CO./0-9052” a Hazel Atlas maker’s mark (FS1), an amber bottle base shard embossed with “REC C.S. / CLOROX / AT OFF” (FS2), 200 amber glass shards, 200 colorless glass shards, and 11 depression glass shards.

Hazel Atlas maker’s marks were produced from 1923 to 1982 (Lockhart et al. 2024:328). The upright tobacco tin was in use from 1907 into the 1960s (Holm et al. 2018). Hole-in-top cans were in production from 1900 to 1985 (Holm et al. 2018). The Clorox brand glass bottles were produced from 1929 to 1960 (Clorox 2024).

A search of GLO records identified one patent holder, Flora Clarks (neé Harsh), issued October 23, 1916, although no evidence was available to connect Clarks with the resource.

Historical aerial photography (1959, 1963, 1976, 1983) topographic maps (USGS 1959, 1967, 1976, 1983) shows undeveloped desert land and a north-to-south tending road that bisects the site area in 1959, and an ephemeral drainage is to the south (Netronline 2024). The site area remains unchanged

by the 1980s. No buildings, features, or mining prospects were depicted on the reviewed historic aerial imagery or USGS topographical maps within or adjacent to the site location.

Based upon the artifact assemblage and historical review of the area, the site is likely a single refuse disposal episode from the 1920s to the 1960s. The site condition is fair and exhibits low integrity from decades of impact by natural erosional processes and weathering.

P-15-022351, CA-KER-11789H

Site P-15-022351, CA-KER-11789H is a low-density, historic-era refuse scatter of domestic debris. The site is adjacent to (south of) a northwest-to-southeast trending ephemeral drainage and is situated on a slightly undulating alluvial fan extending southeast from the Tehachapi Mountains. An existing road is to the north. The surrounding vegetation includes creosote, Joshua tree, buckwheat, sand blossom, cheesebush, ephedra, rabbitbrush, cheatgrass, fiddleneck, goldfield, and wishbone bush. The soil is brown, loose coarse gravel to fine silt sand with angular and subangular rocks, gravels, and pebbles. The ground surface visibility ranged from 90 to 100 percent.

The refuse scatter consists of a complete colorless glass bottle embossed with "[illegible] / 12" Hazel Atlas maker's mark on the base (FS1), a solarized amethyst glass bottle neck and a shard, 5 amber glass shards, 12 sanitary cans, 6 condensed milk cans, 2 hole-in-top cans, 2 unidentified cans (crushed), and 1 meat can. Hazel Atlas maker's marks were produced from 1923 to 1982 (Lockhart et al. 2024:328). Hole-in-top cans were in production from 1900 to 1985 (Holm et al. 2018). Sanitary cans were produced from 1904 to present (Merritt 2014).

A search of GLO records identified one patent holder, Southern Pacific Railroad, issued on July 10, 1894. No additional historic information was available for the patent holders or other landowners through archival census and genealogic sources, historic newspaper articles, or other sources.

Review of historic aerial imagery (1959, 1964, 1976, 1983) and topographic maps (USGS 1959, 1967, 1976, 1983) shows the site area as undeveloped land with a very faint east-to-west trending road adjacent (to southern boundary or just within), and a northwest-to-southeast ephemeral drainage adjacent (north) in 1959 to 1963 (Netronline 2024). In 1959, a road and utility are present to the southeast. By 1974, the existing road appears improved and widened. The conditions at the site area remained through 1983. Based upon the artifact assemblage and historical review of the area, the site is likely a single refuse disposal episode that dates from the 1920s to the 1930s. The site is in poor condition and exhibits low integrity due to environmental processes (ephemeral drainage activity).

P-15-022352, CA-KER-11790H

Site P-15-022352, CA-KER-11790H consists of a concentration of building materials (wood, dry wall fragments; Feature 1) and a widely diffused refuse scatter of cans, glass, and metals. The site is situated adjacent to (north of) and within the fluvial path of a large northwest-to-southeast trending ephemeral wash extending southeast from a canyon of the Tehachapi Mountains. The northern portion of the site is bisected by an unnamed northwest-to-southeast two-track road. Ground surface visibility is 90 to 100 percent. The vegetation within the site and surrounding area includes creosote bush, Joshua tree, bunchgrass, fiddleneck, and buckwheat. The soil is brown, compact sand with subrounded pebbles and gravels.

Feature 1 consists of construction debris and includes milled lumber, plaster, roofing material, and a low-density refuse scatter. The milled lumber consists of about 15 to 20 pieces and fragments of varying size (lath, planks approximately 4 inches by 4 to 6 feet by 1 inch thick, 10 inches by 3 to 4 feet by 2 inches thick). One large piece of milled lumber served as a door, as it has a metal door handle and hinges attached. The plaster is broken in varying sized fragments and crumbling. The plaster is reinforced with thin woven wire. The roofing material consist of a thin black liner and a coarse-grained (red in color) material mixed with plaster. The construction material is located adjacent to (south of) the unnamed two-track road.

The refuse scatter consists of several round nails, five sanitary cans (rotary-opened), two large cans of anti-freeze with one stamped on the base “SEALED AT THE FACTORY/EVEREADY/TRADE-MARKS/PRESTON/ANTI-FREEZE/FOR YOUR PROTECTON” (crushed with bullet holes; FS1), two hole-in-top cans (one P-38 opened, one rotary-opened with overlapping seams; FS3), two beverage cans (church key-opened), two aluminum top/steel body pull tab cans (one with an “Olympia” beer brand label; FS2), and one oil can. The church key can opener was introduced in 1935 (Gillio et al. 1980:9). The removable pull tab type cans were introduced in 1962 and ceased production in 1975 (Schroder 2019). The Eveready Preston automotive antifreeze was produced by the National Carbon Company post-ca. 1920 (LJAC Digital Access 2024). The P-38 can opener was introduced in 1942 by the U.S. military to be issued with can rations (Foster 2009).

A search of GLO records identified one patent holder, Harley G. Cretcher, issued on July 6, 1916. There was no additional historic information available for Cretcher or other landowners through census and genealogic sources, historic newspaper articles, or other sources.

Historical aerial photography (1959, 1963, 1976, 1983) and topographical maps (USGS 1963 1967, 1976) shows the resource location as undeveloped desert land in 1959, adjacent to a large, deeply incised, ephemeral wash and a northwest-to-southeast two-track road that parallels the wash to the south (Netronline 2024).

The building materials are adjacent to the road and no foundation was observed on the site and the materials were most likely dumped adjacent to the road by local residents. Alternatively, the material may have been for a temporary structure near the area. Based upon the artifact assemblage and historical review of the area, the site is likely a single refuse disposal episode with a date range from the 1950s to the 1970s. The site is in poor condition and exhibits low integrity due to environmental processes (ephemeral drainage).

P-15-022353, CA-KER-11791H

Site P-15-022353, CA-KER-11791H is a light density historic era refuse scatter of metal, glass, and cans, a deflated rock cairn or rock ring, and a rock ring (possible campfire ring). The site is located west of a north-to-south trending improved dirt road. A north-to-south trending two-track road leads north to the site area and loops around the site, the road is accessed via the unnamed east-to-west trending dirt road. Ground surface visibility was 90 to 100 percent. The vegetation within the site and surrounding area includes creosote bush, Joshua tree, bunchgrass, and buckwheat. The soil is brown, loose sand with subrounded rocks, pebbles, and gravel.

Feature 1 is a one-tier rock ring of 17 large rocks, situated on top of the ground surface, and approximately 3 feet in width across the center. Feature 2 is the remnants of a rock ring or deflated rock cairn of 15 large rocks with a metal television component and metal frame adjacent to the rocks. The refuse scatter consists of a metal television frame from the 1950s to the 1960s (FS1), a hole-and-cap can (FS2), and a hole-in-top can (FS3), 20 to 30 colorless glass shards, 5 to 15 green glass shards, 8 sanitary cans (7 corrugated, 1 can opener-opened), 1 sardine can, 1 external friction can lid, 8 miscellaneous metal fragments, and 1 length of metal wire. The site area has been previously cleared of vegetation. The hole-and-cap can was in use from ca. 1810 to the 1930s, the hole-in-top can was in use from ca. 1900 to 1985, and sanitary cans are from ca. 1904 to present day (Rock 1988).

A search of GLO records identified one patent holder, Harley G. Cretcher, issued on July 6, 1916. There was no additional historic information available for Cretcher or other landowners through census and genealogic sources, historic newspaper articles, or other sources.

Historic aerial imagery (1963, 1976, 1983, 1995) and topographical maps (USGS 1959, 1967, 1967) shows the site area as undeveloped desert land from 1959 to 1983. By 1963, a north-to-south trending improved dirt road is to the east, an unnamed east-to-west trending improved dirt road is to the south, and a northwest-to-southeast road is to the west. The site area remains unchanged to 983. Between 1983 and 1995, a north-to-south trending two-track road leads north to the site area and loops around the site at its terminus, this road is accessed via the unnamed east-to-west trending dirt road.

Based upon the artifact assemblage and archival review of the site area, it is most likely a recreational camp site dating between the 1950s to the 1980s. The site is in poor condition and exhibits low integrity due to environmental processes and public access via adjacent roads and use by recreationalist (e.g., target practice, a bullet hole in can) and refuse disposal.

P-15-022354, CA-KER-11792H

Site P-15-022354, CA-KER-11792H is a diffused, historic-era artifact concentration (Feature 1) and a refuse scatter of domestic- and industrial-related material such as cans, glass, and corrugated sheet metal. The site is situated within a broad sheet wash area (presents a high erosion force) with several ephemeral drainages that dissects the northwest-to-southeast trending alluvial fan extending from the Tehachapi Mountains. An ephemeral drainage bisects the northern portion of the site. The site is also bisected by an unnamed northwest-to-southeast trending two-track road (improved, graded). Ground surface visibility was 90 to 100 percent. The vegetation within the site and surrounding area includes creosote bush, Joshua tree, bunchgrass, coyote melon, goldenbush, ephedra, cholla, turkey mullein, fiddleneck, thistle sage, small wire lettuce, rabbitbrush, and buckwheat. The soil is dark yellowish brown, loose sand with subrounded rocks, pebbles, and gravel.

Feature 1 is a concentration of refuse located within a northwest-to-southeast ephemeral drainage north of the northwest-to-southeast trending dirt road (improved, graded). The refuse includes 20 to 30 colorless glass shards, 6 milk glass shards, 2 small amber bottles with the "O" Owens-Illinois maker's mark (medicine type; FS1), and 1 amber glass shard. Cans include 10 to 20 large sanitary cans, 10 to 20 small sanitary cans, 5 motor oil cans, and 1 weathered can lid. The ceramics include 5 red brick fragments and 3 fine earthenware pink ceramic sherds, and metals include 30 to 40

miscellaneous scrap metal fragments. The Owens-Illinois I-in-a-circle maker's mark dates to ca. 1954 to post (Lockhart and Hoenig 2018:299-300, Glass Bottle Marks 2024).

The refuse scatter includes 34 miscellaneous crushed cans, 31 small sanitary cans, 11 large sanitary cans, 10 church key-opened cans, 9 medium sized meat cans, 8 motor oil cans, 8 pull tab cans, 3 aerosol cans, 2 metal jar lids, 1 hole-in-top can, and 1 spice can. The metal consists of eight fragments of miscellaneous scrap metal, eight corrugated sheet metal panels, and one large drum with concrete. The church key can opener was introduced in 1935 (Gillio et al. 1980:9) and the hole-in-top was in production from ca. 1900 to 1985 (Rock 1988). Aerosol cans have been produced since the 1940s in the U.S. (AEDA 2024). The removable pull tab type cans were introduced in 1962 and ceased production in 1975 (Schroder 2019).

A search of GLO records identified one patent holder, Catherine Haws, issued on May 15, 1919. There was no additional historic information available for Haws through census and genealogic sources, historic newspaper articles, or other sources.

Historical aerial photography (1959, 1963, 1976, 1983) and topographic maps (USGS 1959, 1965, 1976) show the site area as undeveloped desert land in 1959, with the northwest-to-southeast two-track road to the north and a north-to-south trending road to the east of the site (Netronline 2024). By 1963, aerial imagery shows a building over 125 feet west of the site and a north-to-south trending road adjacent (west) to the site area. By 1974, the building is no longer extant, and the area appears graded (Netronline 2024).

Based upon the artifact assemblage and historical review of the area, the site most likely dates between the 1960s to 1974 and may be the result of refuse disposal associated with the nearby foundation. The site is in poor condition and exhibits low integrity due to environmental erosional processes (ephemeral drainage and displacement of artifacts) and public access via adjacent road. The refuse is widely spread across the site and the artifacts are crushed and fragmented.

P-15-022356, CA-KER-11794H

Site P-15-022356, CA-KER-11794H is a low-density, historic era refuse scatter of cans, glass, ceramics, and industrial debris. The site is located within a broad sheet wash area with several ephemeral drainages on an alluvial fan extending southeast from the Tehachapi Mountains. An east-to-west trending two-track road is south of the site. Ground surface visibility was 90 to 100 percent. Vegetation within the site and surrounding area includes creosote bush, Joshua tree, fiddleneck, cheatgrass, buckwheat, granite prickly phlox, turkey mullein, small wire lettuce, and cattle saltbush. The soil is brown silt sand with subrounded rocks, gravels, and pebbles.

The refuse scatter includes a square can (rotary-opened) with embossing on lid "OPEN OTHER / SS / 42 / END" (FS1); a 5-gallon metal bucket with metal handle and wooden hand grip with tar inside the bottom (FS2); a hole-in-top can (knife-opened; FS3); a modified hole-in-top can with half of the medial side cut (FS4); nine ceramic earthenware sherds from a jar painted brown with a light pink stripe, the base is debossed "ADE / IN / AND" (FS5); two solarized amethyst shards from a small bowl (rim, base, starburst design; FS6); eight sanitary cans (four large, three small, one small crushed); one crushed

hole-in-top can; two unidentifiable cans (crushed); one colorless glass shard; two wooden stakes; and a miscellaneous scrap metal fragment.

Hole-in-top cans were in use from ca. 1900 to 1985 (Rock 1988) while solarized amethyst glass has a range from 1880 to 1925 (Newman 1970:74).

A search of GLO records identified one patent issued to Southern Pacific Railroad on July 10, 1894. No additional historic archival information was available about the property or landowners.

Historical aerial imagery (1959, 1964, 1976, 1983) and topographical maps (USGS 1959, 1967, 1976) show the site as undeveloped desert land surrounded by two ephemeral drainages in 1959, with the Los Angeles Aqueduct to the southeast and an east-to-west trending road to the south. By 1974, the second Los Angeles Aqueduct's second road appears under construction and a large swath of land appears graded adjacent to (east of) the site. The site remains unchanged in 1983.

Based upon the artifact assemblage and historic archival review of the area, the site is likely a single refuse disposal episode that most likely dates between the 1920s and the 1980s. The site is in poor condition and exhibits low integrity due to environmental erosional processes (ephemeral drainage and displacement of artifacts) and public access via adjacent road. Most of the artifacts are crushed, decomposing, and fragmented.

P-15-022357, CA-KER-11795H

Site P-15-022357, CA-KER-11795H is a historic-era refuse scatter of domestic and industrial debris, concrete fragments (dilapidated foundation), and a fence line (Feature 1). The site is located adjacent to (west of) the north-to-south trending improved dirt road, single pole wooden telephone line, and a steal lattice tower transmission line. The site is situated within a broad sheet wash area bisected by several ephemeral drainages.

Feature 1 consists of a square fence line made up of wooden posts, metal T-posts, and chicken wire. The refuse scatter includes an aqua glass 5-gallon water jug lip, neck and shoulder shard (FS1); 2 amber glass shards (bottle base) embossed with " [redacted] / W 78", a Alexander H. Kerr & Co. maker's mark; 50 to 100 colorless glass shards; 50 to 100 aqua glass shards; 50 to 100 colorless windowpane glass shards; 25 to 75 green glass shards; and 25 to 50 amber glass shards. The can and metal assemblage includes 50 to 100 aluminum top/steel body pull tab cans, 50 to 100 scrap metal fragments, 25 to 50 small sanitary cans, 10 to 25 metal wire fence fragments, 10 to 25 large sanitary cans, 2 metal screen fragments, 2 metal pipes, 1 motor oil can, 1 coffee can lid, and 1 metal pipe (chimney type). The ceramic and wood assemblage consist of 100 to 500 terracotta sherds, 50 to 100 white earthenware ceramic sherds (toilet), 20 to 50 concrete fragments, 10 to 25 wood plank fragments, 1 wooden bedframe with metal springs, and 1 stoneware plumbing fragment. Most the concrete fragments and wood are within the fence line (Feature 1) and the refuse is dispersed in a south-southeast direction from the fence line.

The Alexander H. Kerr & Co. maker's mark was in use between ca. 1969 to 1996 (Lockhart et al. 2016:145-146). The removable pull tab type openings were introduced in 1962 and ceased production in 1975 (Schroder 2019).

A search of GLO records identified one patent holder, Pearl Whiteside, issued on May 25, 1938. A Mrs. Pearl Whiteside is listed as living in Rosamond, California between 1924 to 1932 (US Voter Registration 1900-1968: Ancestry 2024). There was no additional historic information available for Whiteside or other landowners through census and genealogic sources, historic newspaper articles, or other sources. Historical aerial photography (1959, 1964, 1976, 1983) from 1959 shows a building and enclosed area at the resource location west of two existing roads which is then demolished by 1983 (Netronline 2024). Historical topographical maps (USGS 1959, 1967, 1976) from 1959 show the resource location as undeveloped land with an existing road in the northeast, a utility in the southeast, and a canyon in the southwest. Illustrated on maps from 1967 and 1976 is a building at the resource location west of two existing roads.

Based upon the artifact assemblage and historical review, the site cultural material is most likely associated with the former residential location and dates between the 1950s and the 1970s. The site is in poor condition and exhibits low integrity due to environmental erosional processes (ephemeral drainage and displacement of artifacts) and public access via adjacent road. The refuse is widely spread across the site and the artifacts are crushed and fragmented.

P-15-022358, CA-KER-11796H

Site P-15-022358, CA-KER-11796H consists of a prehistoric bedrock milling slick on a granitic boulder (Feature 1).. Ground surface visibility was 90 to 100 percent. The vegetation within the site and surrounding area includes creosote bush, Joshua tree, cheatgrass, buckwheat, and cholla. The soil is brown loose sand with subrounded cobbles, rocks, and gravels.

The milling slick is within a natural depression area of environmental and chemical weathering located on the south side of the boulder. The slick exhibits use wear in both north-to-south and east-to-west directions with light pecking in the slightly concave area. The slick measures 15 centimeters long by 13 centimeters wide by 2.5 centimeters deep with no observed contents within the use wear area. Lichen surrounds the outside edges of the boulder. No other cultural constituents were observed.

6.1.2.2 Newly Recorded Isolates

Tetra Tech identified and recorded a total of 93 isolates during the Phase I intensive pedestrian survey. These comprise 40 prehistoric, 47 historic, and 6 multicomponent newly identified resources. Assigned primary numbers have not yet been received for some of these resources, which maintain their temporary numbers due to a backlog of requests from the SSJVIC. See Table 6-4 for the isolate summary. A detailed description of the resources is below.

Table 6-4. Newly Recorded Isolates within the Study Area

Primary/Trinomial Number/Temporary Isolate Number	Time Period[1/]	Description
P-15-022383, CA-KER-11821/H	Multicomponent	Projectile point base (Elko type); 6 cans
P-15-022271	Prehistoric	Basalt flake
P-15-022272	Prehistoric	Cryptocrystalline silicate flakes
EDS-MK-ISO-03	Prehistoric	Basalt leaf shaped projectile point (Cottonwood type)

Primary/Trinomial Number/Temporary Isolate Number	Time Period[1/]	Description
P-15-022273	Prehistoric	Tested cobbles
P-15-022274	Multicomponent	Prehistoric rhyolite biface fragment and rhyolite flake; Historic solarized amethyst glass shards
P-15-022275	Prehistoric	Cryptocrystalline silicate flake
P-15-022276	Prehistoric	Obsidian flake
P-15-022277	Prehistoric	Cryptocrystalline silicate flake tool or scraper
P-15-022278	Prehistoric	Rhyolite flake
P-15-022279	Prehistoric	Cryptocrystalline silicate flake
P-15-022280	Prehistoric	Cryptocrystalline silicate flake, rhyolite flake
P-15-022281	Historic	Hole-in-top can, solarized amethyst bottle shards
P-15-022282	Prehistoric	Rhyolite flake
P-15-022283	Prehistoric	Rhyolite flake
P-15-022284	Prehistoric	CCS flake
P-15-022285	Prehistoric	Rhyolite flake
P-15-022286	Historic	Prince Albert tobacco tin and bucket
P-15-022287	Historic	cans
P-15-022288	Historic	cans
P-15-022289	Historic	Hole-in-top can
P-15-022290	Historic	Sardine and sanitary cans, milled lumber
P-15-022291	Prehistoric	Rhyolite flake
P-15-022292	Prehistoric	Obsidian biface
P-15-022293	Prehistoric	Rhyolite flake
P-15-022294	Prehistoric	Obsidian biface, rhyolite flake
P-15-022295	Multicomponent	Prehistoric CSS flake; and historic era cans
EDS-SK-ISO-13	Prehistoric	Obsidian flake, rhyolite flake
P-15-022296	Prehistoric	CCS flake
P-15-022297	Multicomponent	Prehistoric rhyolite flake; Historic glass shard, and 1934 GLO Kern County survey marker
P-15-022298	Prehistoric	Rhyolite flakes
P-15-022299	Prehistoric	Obsidian flake
P-15-022300	Multicomponent	Prehistoric rhyolite flakes; Historic condensed milk can
P-15-022301	Prehistoric	Rhyolite flake
P-15-022302	Prehistoric	Rhyolite flake
P-15-022303	Prehistoric	Cryptocrystalline silicate flake
P-15-022304	Historic	Glass shards and cans
P-15-022305	Historic	Solarized amethyst glass (insulator)
P-15-022306	Historic	Glass shards, base
P-15-022307	Prehistoric	Rhyolite flake
P-15-022308	Prehistoric	Rhyolite flake
P-15-022309	Prehistoric	Rhyolite flakes
P-15-022310	Historic	Solarized amethyst glass shard
P-15-022311	Historic	Solarized amethyst and aqua glass shards

Primary/Trinomial Number/Temporary Isolate Number	Time Period[1/]	Description
P-15-022312	Prehistoric	Rhyolite flake
P-15-022313	Prehistoric	Obsidian projectile point tip
P-15-022314	Prehistoric	Obsidian flake
P-15-022315	Historic	Solarized amethyst glass shards and cans
P-15-022316	Historic	Glass, cans, and an automobile part
P-15-022317	Prehistoric	Rhyolite lanceolate shape projectile point (Lake Mojave type)
P-15-022318	Multicomponent	Prehistoric cryptocrystalline flake; and historic era cans
P-15-022319	Historic	Fairmount Glass Co. bottle
P-15-022320	Prehistoric	Rhyolite flake, CSS shatter
P-15-022321	Prehistoric	Rhyolite flake, CSS flake
P-15-022322	Historic	Solarized amethyst glass shard
EDS-SK-ISO-41	Prehistoric	Obsidian flakes
EDS-SK-ISO-42	Historic	Solarized amethyst bottle neck, solder dot church key-opened can, and ceramic sherd
P-15-022328, CA-KER-11766H	Historic	Cans, glass shards, a bottle
P-15-022336, CA-KER-11774H	Historic	Cans
P-15-022251	Historic	Solder dot and sanitary cans
P-15-022252	Prehistoric	CCS unifacial modified flake
P-15-022253	Historic	Church key-opened can
P-15-022254	Prehistoric	Rhyolite lanceolate projectile point
P-15-022255	Prehistoric	Rhyolite bifacial tool
P-15-022256	Historic	Key-wind side strip with lid and notch coffee can
P-15-022257	Historic	Solder dot and sanitary cans
P-15-022258	Prehistoric	CCS flake
P-15-022259	Historic	Condensed milk solder dot can
P-15-022260	Historic	Church key-opened can
P-15-022261	Historic	Tobacco tin
ALT-SK-ISO-12	Historic	Tobacco tin
ALT-SK-ISO-13	Historic	Solder dot can, barbed wire
ALT-SK-ISO-14	Historic	Ortega's Chiles sanitary can
ALT-SK-ISO-15	Historic	Cone top beverage, oil filter, decomposing can
ALT-SK-ISO-16	Historic	Church key opened, solder dot, and tobacco cans
ALT-SK-ISO-17	Historic	Church key opened and pull tab cans
ALT-SK-ISO-18	Historic	Church key opened can, solarized amethyst glass, metal fork
ALT-SK-ISO-19	Historic	Hole-in-top, sanitary, and meat cans
ALT-SK-ISO-20	Historic	Church key-opened can
ALT-SK-ISO-21	Historic	Condensed milk solder dot can
ALT-SK-ISO-22	Historic	Cans, glass, and metal
ALT-SK-ISO-23	Historic	Church key and tobacco cans
ALT-SK-ISO-24	Historic	Sanitary and condensed milk cans
ALT-SK-ISO-25	Historic	Solarized amethyst bottle base and shards
P-15-022262	Historic	Cans and glass shards

Primary/Trinomial Number/Temporary Isolate Number	Time Period[1/]	Description
P-15-022263	Historic	Glass and cans, Latchford Glass Co. jar
P-15-022264	Historic	Dietz lantern
P-15-022265	Prehistoric	CCS flake
P-15-022266	Historic	Church key and sanitary cans
P-15-022267	Historic	Sanitary and church key-opened cans
P-15-022268	Historic	Glass bottle shards
P-15-022269	Historic	Solarized amethyst glass shards
P-15-022270	Historic	Aqua Diet-Rite glass bottle

1/ Multicomponent resources include both prehistoric and historic time periods

P-15-022383, CA-KER-11821/H

P-15-022383, CA-KER-11821/H consists of a prehistoric isolate (projectile point fragment) and six cans. The isolate is situated on a rock pediment along the eastern-southeastern-facing toe slope of the Tehachapi Mountains..

The prehistoric isolate (FS1) consists of a single corner notched projectile point base and midsection fragment. FS1 is made of rhyolite and exhibits a lateral fracture across the upper midsection and the distal portion is missing. The tip of a tang is also broken. The point consists of an irregular flaking pattern and measures 6.2 centimeters long, 4.3 centimeters wide, and 1.1 centimeters thick. The characteristics of the point suggest it is of the Elko-Corner Notched series attributed to the Montane I Phase (5,000 to 1,300 BP; Sutton 2023). No other prehistoric material was observed.

The historic isolate consist of six cans (twist key, sanitary, pull tab type cans) of domestic food and beverage.

P-15-022271

Isolate P-15-022271 consists of one prehistoric fine-grained tertiary basalt flake. The resource is situated in a rural landscape surrounded by active wind energy generating facilities to the north, east, south, and west. Ground surface visibility was 60 to 80 percent. Surrounding vegetation consist primarily of scattered creosote bush and a few Joshua trees. The soil consists of yellow-brown coarse gravelly loamy sand.

P-15-022272

Isolate P-15-022272 consists of two prehistoric CCS flakes (secondary and tertiary). The first lithic artifact is a cryptocrystalline silicate flake, its phase of reduction is secondary, it is medium gray in color mottled with white, and the cortex is orangish brown, which covers 40 percent of the dorsal surface. The second is a cryptocrystalline silicate flake, its phase of reduction is tertiary, and is light gray in color. The soil is brown coarse sand with subangular pebbles. The surrounding vegetation consists of Joshua tree, creosote bush, and a prickly pear.

EDS-MK-ISO-03

Isolate EDS-MK-ISO-03 consists of a prehistoric fine-grained basalt projectile point that exhibits an ovoid shape with an irregular flaking pattern. The tool resembles the Cottonwood leaf shaped series type. The soil is dry brown sand with subangular pebbles. The surrounding vegetation consists of creosote bush, cheese bush, Joshua tree, and desert grasses.

P-15-022273

Isolate P-15-022273 consists of two prehistoric CCS tested cobbles. One coble is light gray in color and exhibits three flake scars. The second is dark gray in color and exhibits one flake scar. The surrounding soil is light grey loamy sand with subangular pebbles. Vegetation consists of creosote bush, cheesebush, Joshua trees, and desert grasses.

P-15-022274

Isolate P-15-022274 consists of a prehistoric lithic biface fragment and flake, and a historic-era glass fragment. The biface fragment is made of rhyolite, is ovoid in shape, and is fractured at the midsection. The other artifact is a rhyolite tertiary flake. The historic era artifact is a solarized amethyst glass shard. The soil is pale brown loamy sand with subangular pebbles. Vegetation surrounding the isolate includes Joshua trees, creosote bush, rabbitbrush, and ephedra.

P-15-022275

Isolate P-15-022275 consists of two prehistoric pieces of lithic debitage. The artifacts include one CCS tertiary flake and one piece of CCS shatter. The soil is dry pale brown sand with subangular pebbles and gravel. The surrounding vegetation consists of Joshua trees, creosote, and grasses. The resource is located north of an ephemeral drainage at the northeastern foothills of the Middle Buttes.

P-15-022276

Isolate P-15-022276 consists of a prehistoric obsidian flake. The flake appears recently fractured in two fragments that retrofit back together. The isolate was identified near a modern geocache location used by the public. The artifact is situated on the southeastern alluvial fan of the Tehachapi Mountains. Wind energy generating facilities are to the northwest, north, northeast, and east. The soil consists of pale brown sand with subangular gravels and pebbles. The vegetation surrounding the area include Joshua trees and creosote bushes.

P-15-022277

Isolate P-15-022277 consists of a prehistoric lithic tool, a CCS scraper. It is light brown in color. The soil consists of pale brown sand with subangular gravels and pebbles. The vegetation surrounding the area includes scattered Joshua trees and creosote bush.

P-15-022278

Isolate P-15-022278 consists of a prehistoric rhyolite secondary flake. The soil consists of pale brown sand with subangular gravels and pebbles. The vegetation surrounding the area includes scattered Joshua trees and creosote bush.

P-15-022279

Isolate P-15-022279 consists of a prehistoric CCS secondary flake. The soil consists of pale brown sand with subangular gravels and pebbles. The vegetation surrounding the area includes scattered Joshua trees and creosote bush.

P-15-022280

Isolate P-15-022280 consists of two prehistoric lithic flakes: one rhyolite secondary flake and one CCS flake located approximately 24 meters apart Ground surface visibility was 100 percent. The soil consists of a pale brown loamy sand with subangular gravels and pebbles. The vegetation consists primarily of creosote bush with a few scattered Joshua trees.

P-15-022281

Isolate P-15-022281 consists of historic-era refuse. The artifacts include a crushed hole-in-top can that has been knife-opened, and 13 solarized amethyst shards (ca. 1890s to 1925) including a base with no maker's mark. The isolate is located north of an unnamed east-to-west trending dirt road. Ground surface visibility was 100 percent. The soil consists of pale brown loamy sand with subangular gravels and pebbles. The vegetation is predominately Joshua trees and creosote bush.

P-15-022282

Isolate P-15-022282 consists of prehistoric secondary rhyolite flake. Ground surface visibility was 100 percent. The soil consists of a pale brown loamy sand with subangular gravels and pebbles. The vegetation is predominately Joshua trees and creosote bush.

P-15-022283

Isolate P-15-022283 consists of a prehistoric secondary rhyolite flake. Ground surface visibility was 100 percent. The soil consists of pale brown sand with subangular gravels and pebbles. The vegetation surrounding the area includes Joshua trees and creosote bushes.

P-15-022284

Isolate P-15-022284 consists of a prehistoric CCS flake. The soil consists of light brown sand with subangular pebbles. Surrounding vegetation includes broom snakeweed, ephedra, Joshua tree, juniper, creosote, and grasses.

P-15-022285

Isolate P-15-022285 consists of a prehistoric rhyolite tertiary flake. The flake is light brownish-purple in color. Wind energy generating facilities are in the northeast, east, and southeast from the resource. The soil consists of light brown loamy sand with subangular pebbles. Surrounding vegetation includes ephedra, Joshua trees, and grasses.

P-15-022286

Isolate P-15-022286 consists of two pieces of historic-era refuse: one tobacco tin and one bucket. The tobacco tin has an attached hinged lid embossed on the top "NET WT. 15 / 8 OZ." and embossed on

the bottom is “PRINCE ALBERT”. Prince Albert began selling tobacco in tins in 1909, with a peak popularity from the 1930s to the 1950s (Wesseler 2015). The soil consists of light brown sand with subangular pebbles. Surrounding vegetation include cholla, Joshua trees, and grasses.

P-15-022287

Isolate P-15-022287 consists of historic-era refuse. The artifacts include clear colorless glass shards from two bottles, one church key-opened can, a tobacco tin, two bi-colored aluminum pull tab cans, and a domed metal lunch box with two clasps. Based upon the characteristics of the artifacts, the isolate dates from 1909 to the 1970s. The isolate is in fair condition and integrity due to environmental disturbance. Ground surface visibility was 100 percent. The soil consists of light brown sand with subangular pebbles. Surrounding vegetation includes creosote bush, cholla, Joshua tree, and ephedra.

P-15-022288

Isolate P-15-022288 consists of historic-era refuse of four cans and a tin insect replant sprayer. The artifacts include one church key-opened can, one solder dot can, one sanitary can, one cone top can, and an insect repellant sprayer with attached solder dot can. Based upon the characteristics of the artifacts, the resource dates from 1935 to the 1950s. The isolate is in fair condition and integrity due environmental erosional processes. The soil consists of light brown sand with subangular pebbles. Surrounding vegetation includes creosote and grasses. Ground surface visibility was 100 percent. The soil consists of light brown sand with subangular pebbles. Surrounding vegetation include creosote bush and grasses.

P-15-022289

Isolate P-15-022289 consists of a historic-era hole-in-top can. Modern refuse from ca. 1980s was noted nearby. Ground surface visibility was 100 percent. The soil consists of light brown sand with subangular pebbles. Surrounding vegetation includes creosote bush, Joshua trees, and grasses.

P-15-022290

Isolate P-15-022290 consists of historic-era refuse: five sardine cans with attached twist keys, four crushed sanitary cans, and a piece of milled lumber. A transmission line and substation are located over 150 feet east of the isolate and wind energy generating facilities are in all cardinal directions. Ground surface visibility was 100 percent. The soil consists of light brown sand with subangular pebbles. Surrounding vegetation include creosote bush, Joshua trees, and grasses.

P-15-022291

Isolate P-15-022291 consists of a prehistoric secondary rhyolite flake. Ground surface visibility was 100 percent. The soil consists of light brown silty sand with subangular pebbles. Surrounding vegetation includes creosote bush, Joshua trees, Indian rice grass, and grasses.

P-15-022292

Isolate P-15-022292 consists of a prehistoric obsidian biface fragment. The biface exhibits a snap fracture. It is charcoal grey in color with no banding, has a random flaking pattern, and an elliptical cross section Ground surface visibility was 100 percent. The soil consists of a light yellowish-brown sand with subangular pebbles. Surrounding vegetation includes creosote bush, Joshua trees, and grasses.

P-15-022293

Isolate P-15-022293 is a prehistoric secondary rhyolite flake. The flake is situated within the broad fluvial zone of an ephemeral creek that bisects the southeastern trending alluvial fan extending from the Tehachapi Mountains. Ground visibility was 100 percent. The soil consists of light brown sand with subangular pebbles. Vegetation in the area incudes creosote bush, Joshua trees, winterfat, and grasses.

P-15-022294

Isolate P-15-022294 consists of a prehistoric obsidian biface fragment and a tertiary rhyolite flake. The biface fragment exhibits a snap fracture, is charcoal grey in color, has a random flaking pattern, and an elliptical cross section. The flake is mottled with red, grey, and brown colors. The biface fragment was observed within an east-to-west trending set of heavy machinery tracks, north of an east-to-west fence boundary of a wind energy generating facility, which has structures present in all cardinal directions. The resource is situated on an alluvial fan and 0.50 mile northeast of Oak Creek. The soil consists of light yellowish-brown sand with subangular pebbles. Surrounding vegetation includes creosote bush, Joshua trees, and grasses. Ground visibility was 100 percent.

P-15-022295

P-15-022295 consists of a prehistoric lithic flake, four historic-era cans, and a depression. The prehistoric component is a CCS tertiary flake. The historic element consists of a dug-out pit and four cans. The depression is rectangular in shape and measures 15 feet long northeast to southwest and 11 feet wide northwest to southeast with a possible spoils pile (depression may be the result of sheetwash erosion). The cans include two can opener-opened with attached lids, one can opener-opened with rough edge and a corrugated side with attached lid, and one meat can with lid attached and embossed “B 404/MM 213”. Based upon the characteristics of the historic-era components, the date range is from the 1940s to the 1970s. Vegetation consists of creosote, Joshua tree, grasses, cheesebush, and cholla. The soil is brown sand with subangular pebbles and gravels.

EDS-SK-ISO-13

Isolate EDS-SK-ISO-13 consists of two prehistoric lithics: a rhyolite tertiary flake and an obsidian tertiary flake with a patina surface. The isolate is situated within a flat southeastern alluvial fan of the Tehachapi Mountains. The soil consists of brown sand with subangular pebbles. The surrounding vegetation includes creosote, cholla, and grasses.

P-15-022296

Isolate P-15-022296 consists of prehistoric CCS tertiary flake. The soil consists of brown sand with sub angular pebbles. Vegetation includes creosote bush, Joshua trees, and grasses.

P-15-022297

The multicomponent isolate P-15-022297 consists of a piece of prehistoric rhyolite tertiary flake, historic-era glass, and two GLO survey markers. The historic-era component includes an intact colorless glass bottle with attached metal screw cap (Owen Illinois maker's mark, ca. 1954), a broken colorless glass jug (top portion) with an attached metal screw cap lid and six associated glass shards, a GLO survey marker embedded in a downed Joshua tree, and a GLO benchmark survey marker. One survey marker is debossed with "KERN COUNTY SURVEYOR / 118.67." The other GLO benchmark survey marker is embossed with "U.S. GENERAL LAND OFFICE SURVEY- 1934 / PENTALTY $250 FOR REMOVAL / ¼ S31 | S6". Based upon the historic-era component of the resource, the date range is from 1934 to the 1950s with fair condition and integrity. Ground surface visibility was 100 percent. The soil consists of brown sand with subangular pebbles. Vegetation includes creosote bush, Joshua tree, ephedra, and grasses.

P-15-022298

Isolate P-15-022298 consists of two prehistoric rhyolite tertiary flakes. The soil consists of brown sand and gravel with subangular pebbles. Vegetation includes Joshua trees, cheesebush, creosote bush, buckwheat, and grasses.

P-15-022299

Isolate P-15-022299 consists of a prehistoric obsidian tertiary flake. The flake has a weathered patina finish It is situated on a southeastern alluvial fan of the Tehachapi Mountains. The soil consists of brown sandy gravel and loamy sand with subangular pebbles. Vegetation includes creosote bush, buckwheat, and grasses.

P-15-022300

Isolate P-15-022300 consists of two prehistoric rhyolite secondary flakes and a historic can. The historic can is a crushed hole-in-top condensed milk can in poor condition and integrity. Based upon the characteristics of the historic-era component, the date ranges from 1875 to 1985 (Holm et al. 2018). It is situated along a southeast trending alluvial fan of the Tehachapi Mountains. The soil consists of pale brown loamy sand to loamy sand with gravels. Vegetation includes creosote bush, Joshua trees, cheesebush, buckwheat, and grasses.

P-15-022301

Isolate P-15-022301 consists of a prehistoric rhyolite tertiary flake. The flake is purple-brown in color. Ground surface visibility was 100 percent. The soil consists of pale brown sand with subangular gravels. Vegetation includes creosote, Joshua trees, cheesebush, ephedra, and grasses.

P-15-022302

Isolate P-15-022302 consists of a prehistoric rhyolite tertiary flake. The color is brown with tan mottled stripes. It is located within the fluvial flow zone of an ephemeral drainage. Wind energy generating facilities are to the northwest, north, and northeast. The soil consists of pale brown sand with subangular pebbles. Vegetation includes creosote bush and grasses.

P-15-022303

Isolate P-15-022303 consists of a CCS primary flake. The isolate is within the fluvial flow zone of an ephemeral drainage. The soil consists of pale brown sand with subangular pebbles. Vegetation includes creosote and grasses.

P-15-022304

Isolate P-15-022304 consists of five pieces of historic-era refuse: two solarized colored amethyst glass shards with an external thread finish from the same vessel (possibly a jar), one sanitary can, one church key-opened beverage can, and one colorless glass shard with patina. Based upon the characteristics of the artifacts, the resource dates from the 1920s to the 1950s. The resource condition and integrity are poor due to fragmentation and redistribution from environmental disturbance. The soil consists of pale brown sand with subangular pebbles. Vegetation includes creosote bush and grasses.

P-15-022305

Isolate P-15-022305 consists of a historic-era telephone pole insulator. The glass insulator is solarized amethyst in color, broken into three shards, and contains an internal thread. Air pockets, or bubbles, are visible within the glass. Based upon the characteristics of the artifact, the resource dates from the 1900s to the 1930s. The soil consists of pale brown sand with subangular pebbles. Vegetation includes creosote bush, Joshua trees, and grasses. The condition and integrity of the resource is fair due to fragmentation and weathering from environmental disturbances.

P-15-022306

Isolate P-15-022306 consists of historic-era glass bottle shards; 20 amber, 12 lime green, 5 olive, and 2 colorless. The shards appear to be from two or three bottles based on the observed bottle body portion. One lime green bottle base is embossed with “GALLO FLAVOR GUARD BOTTLE / 15 / REFILLING PROHIBITED / 202 / REG / CAL” which dates from 1958 into the mid-1990s (Lockhart et al. 2015:512). Amber shards included an amber bottle base and bottle neck with a machine mold seam and crown finish. The amber bottle base is embossed with the Northwestern Glass maker’s mark “NW / 523 60 / 19” indicating a ca. 1931 production date (Toulouse 1971). The olive glass shards appear to be from one small vessel. Based upon the artifact assemblage, the resource dates from the 1930s to the 1970s. The condition and integrity of the resource is poor due to fragmentation and relocation from environmental disturbance. The isolate is within the fluvial flow zone of an ephemeral drainage and vegetation consists of moderate creosote bush and grass. The soil is a light brown sand with subangular pebble inclusions.

P-15-022307

Isolate P-15-022307 consists of a prehistoric rhyolite secondary flake. The color is brown-orange with tan mottling. The vegetation consists of creosote bush and grasses. The soil is a pale brown silty sand with subangular pebble inclusions.

P-15-022308

Isolate P-15-022308 consists of a prehistoric rhyolite secondary flake. The flake is predominantly brown in color, mottled with black, and appears retouched. The soil is a brown sand with subangular pebbles. The surrounding vegetation consists of creosote bush, Joshua trees, desert grasses, and unknown dry bushes.

P-15-022309

Isolate P-15-022309 consists of prehistoric lithic debitage. The first piece is an orange rhyolite tertiary flake located along the southeastern side of General Petroleum Road. The second is an obsidian secondary flake. The vegetation in this area includes creosote bush, scattered Joshua trees, and rabbit brush. Surface soil is a coarse grain sand and with subangular gravel.

P-15-022310

Isolate P-15-022310 consists of a historic-era solarized amethyst glass shard. The resource is a rim shard of a wide mouth vessel from a jar or bottle (ca. 1900s to 1925The vegetation in the area consists of creosote bush, Joshua trees, and desert grasses. The soil is a pale brown sand with subangular pebbles.

P-15-022311

Isolate P-15-022311 consists of a historic-era refuse: 16 solarized amethyst shards, 16 aquamarine shards, and 1 aqua bottle neck shard with visible air pockets. No maker's marks were observed. The surrounding vegetation in the area consists of creosote bush, grasses, and scattered Joshua trees. The soil is a light brown coarse sand with subangular pebble inclusions.

P-15-022312

Isolate P-15-022312 consists of a prehistoric rhyolite secondary flake. The flake is gray with purple-brown banding. The soil is grayish brown sand with subangular pebbles. Vegetation in the area consists of creosote bush, various desert grasses, and Joshua trees.

P-15-022313

Isolate EDS P-15-022313 consists of a prehistoric obsidian projectile point fragment. It is fractured at the mid-section and exhibits a random flaking pattern. The soil is a grayish brown sand with subangular pebbles. Vegetation in the area consists of creosote bush, various desert grasses, and Joshua trees.

P-15-022314

Isolate P-15-022314 consists of a prehistoric obsidian tertiary flake. The soil is a brown sandy loam with subangular pebbles. Vegetation in the area consists of creosote bush and various desert grasses.

P-15-022315

Isolate P-15-022315 consists of historic-era refuse: 10 solarized amethyst glass shards and 3 cans. The solarized amethyst shards are presumed to belong to the same vessel based upon their distribution, as well as color and size. The cans consist of a single corrugated can and two sanitary cans, all of which are crushed. Based upon the artifact assemblage, the resource dates from the 1900s to the 1950s. The artifacts are in poor condition and exhibit low integrity based on fragmentation from environmental disturbance. The soil is brown coarse grain sand with subangular pebbles. Vegetation in the area consists of creosote bush, intermittent rabbit brush, and Joshua trees.

P-15-022316

Isolate P-15-022316 consists of small historic-era refuse: five milk glass shards, five emerald-green glass shards one colorless glass headlight (in shards), one Whitehall (Anchor Hawking) amber colored glass bottle, one “Log Cabin Syrup” colorless glass base, one Owens-Illinois Jar, one colorless jar, three metal screw caps, one metal binder spine, one metal clothing hanger, one metal clasp lock, and one mouse trap spring. The cans include one church key-opened can, one crushed sanitary can, and one internal friction lid. Based upon the artifact assemblage, the resource dates from the 1920s to the 1960s. The condition and integrity is fair due to artifact fragmentation and disturbance from environmental weathering. The soil is grayish brown sand with subangular pebbles. Vegetation in the area consists of creosote bushes, various desert grasses, and an unknown dry bush.

P-15-022317

Isolate P-15-022317 consists of a prehistoric rhyolite projectile point. It exhibits a lanceolate shape with an elongated and narrow stem and has possibly been reshaped. The point measures 5.3 centimeters long, 2.1 centimeters wide, and 0.9 centimeters thick. The characteristic of the point suggests it is part of the Gypsum type series. The Gypsum type projectile points are attributed to the Montane I phase (5,000-1,300 BP; Sutton 2023The soil is dry coarse and fine grain sandy soil with light brown subangular gravel. Vegetation in the area consists of creosote bushes, various desert grasses, sparse Joshua tree coverage, and cheesebush. Ground surface visibility was 100 percent.

P-15-022318

Isolate P-15-022318 consists of a single prehistoric CCS tertiary flake and two historic-era cans. The flake is white and cream in color with a slight pink tint. The two historic-era cans consist of one church key-opened can with several bullet holes and one bi-colored pull tab can (“Olympia Beer” label illustrated on the body). The removable pull tab type cans were introduced in 1962 and ceased production in 1975 (Schroder 2019). The condition and integrity of the resource is fair based on impact from environmental weathering Vegetation in the area consists of creosote bush, various desert grasses, Joshua trees, as well as ephedra shrubs.

P-15-022319

Isolate P-15-022319 consists of an intact historic-era colorless glass bottle. The bottle is round and has a mold seam around the base and at the finish at the top of the bottle. The base is embossed with "722 / F / 6" and the neck is embossed with "2 ½ OZ". The maker's mark is Fairmount Glass Works, which was active from 1945 to 1960 (Toulouse 1971). Vegetation in the area consists of creosote bush, various desert grasses, and Joshua Trees.

P-15-022320

Isolate P-15-022320 consists of prehistoric rhyolite tertiary flake and a CCS shatter. The soil is dry a light brown silty sand and brown coarse sand with subangular gravel inclusions. Vegetation in the area consists of creosote bush, cheesebush, cholla, buckwheat, and Joshua trees.

P-15-022321

Isolate P-15-022321 consists of a prehistoric rhyolite tertiary flake and a CCS tertiary flake, semi-translucent beige in color. The soil is light brown sand with subangular pebbles. Vegetation in the area consists of ephedra shrubs, various desert grasses, brittlebushes, and Joshua trees.

P-15-022322

Isolate P-15-022322 consists of one historic-era solarized amethyst glass shard. The glass shard has a visible mold seam with various decorative indentations. Based upon the artifact characteristics, the glass shard dates from the 1900s to 1930. The condition and integrity of the resource is fair and has been subject to environmental disturbance, which has caused decomposition and relocation. The isolate is located east of an existing road within modern refuse. The soil is a light brown sand with subangular pebbles. Vegetation in the area consists of creosote bush, various desert grasses, and Joshua trees.

EDS-SK-ISO-41

Isolate EDS-SK-ISO-41 consists of three tertiary obsidian flakes. The surface soil is light brown sandy loam with small gravel inclusions that account for approximately 20 percent of the matrix. The condition and integrity of the resource is fair due to the natural erosional processes of the ephemeral drainages streaming from Oak Creek. The surrounding vegetation coverage is moderate to heavy and consists of creosote bush, dried grasses, and weeds. The soil is composed of pale brown sandy loam with small gravel inclusions.

EDS-SK-ISO-42

Isolate EDS-SK-ISO-42 consists of historic-era refuse: one church key-opened solder dot can, a white glaze ceramic sherd, a smashed can, and a solarized amethyst double bead/ring bottle neck with an attached finish. Based upon the artifact assemblage, the resource dates from the 1900s to the 1940s. The surrounding vegetation coverage is moderate to heavy and consists of creosote bush, dried grasses, and weeds. The soil is composed of pale brown sandy loam with small gravel inclusions.

P-15-022328, CA-KER-11766H

Isolate P-15-022328, CA-KER-11766H consists of a historic-era refuse of glass shards (11 amber, 5 solarized amethysts, an amber glass bottle, and 3 cans). An unnamed east-to-west trending dirt road bisects the resource. The site is within a Joshua tree and creosote bush environment. The soil is brown silty sand with subangular gravels and pebbles. An amber bottle base shard was embossed with a Glass Containers maker's mark (FS1), the amber bottle has an Owens-Illinois maker's mark, 11 amber glass shards, 5 solarized amethyst glass shards, 1 large cylindrical can with missing lid, 1 crushed pull tab can, and 1 miscellaneous scrap metal fragment. The Glass Containers Co. maker's mark was produced from 1937 to 1968 (Lockhart et al. 2015:385-386). The Owens-Illinois maker's mark is ca. 1954 to 2005(Lockhart and Hoenig 2018:299-300, Glass Bottle Marks 2024). The removable pull tab type cans were introduced in 1962 and ceased production in 1975 (Schroder 2019). Based upon the artifact assemblage, the isolate most likely dates between the 1920s to the 1970s.

P-15-022336, CA-KER-11774H

Isolate P-15-022336, CA-KER-11774H consists of seven cans of food-related items. Vegetation within the resource and surrounding area includes rabbitbrush, Joshua tree, creosote, fiddleneck, wishbone bush, Fremont pincushion, chia, cheatgrass, and white daisy tidy tip. The soil is pale brown loose silty loam with angular rocks and gravels. The cans include three hole-in-top (knife-opened-can; FS1; two weathered and lids missing) and four sanitary cans (one rotary-opened; FS2; three crushed). Hole-in-top cans were first introduced in 1900 by Carnation for evaporated milk; this style of can continued production through the early 1990s (Horn 2005:4). Sanitary cans were first manufactured in 1897 as an improvement to the hole-in-top can and were in full production by 1904; these later dominated the market by 1911 (Horn 20005:4).

P-15-022251

Isolate P-15-022251 consists of historic-era refuse: three hole-in-top cans with two puncture holes and one sanitary can (rotary-opened). Hole-in-top cans were in production from 1900 to 1985 (Holm et al. 2018). Based upon the artifact assemblage, the resource dates from the 1930s to the 1970s. The soil is light brown sand with subangular pebbles. The surrounding vegetation consists of white bursage, creosote, ephedra, weed grass, small yellow flowers, Joshua tree, filaree, fiddleneck, and gold fields.

P-15-022252

Isolate P-15-022252 consists of one prehistoric CCS edge modified flake. The color is light grey with traces of orange and one area of a unifacial edge modification. It has two visible pressure flake scars. The surrounding vegetation consists of creosote bush, Joshua trees, bristly fiddleneck, and desert grasses. The soil is light grey sand with subangular pebbles and gravels.

P-15-022253

Isolate P-15-022253 consists of a historic-era metal church key can and one wooden spool. The can is complete and not crushed, contains an interlocking seam with seven notches on the side profile, and is church key-opened. The church key can opener was introduced in 1935 (Holm et al. 2018). The

surrounding vegetation consists of creosote bush, Joshua trees, bristly fiddleneck, and desert grasses. The soil is light grey sand with subangular pebbles and gravels.

P-15-022254

Isolate P-15-022254 consists of a complete prehistoric rhyolite projectile point. It is lanceolate in shape, has weak shoulders, and a horizontal flaking pattern. The color is orangish brown with white stripes. The dimensions are 63 mm long, 22 mm wide, and 8 mm thick. The projectile point is characteristic of a Great Basin Stemmed, Lake Mojave type that is attributed to the Lake Mojave I and II Phases (12,000 to 8,500 BP; Justice 2002, Sutton 2023). The isolate is situated within an area of previous ground disturbance as it was observed within the footprint of a large wind turbine. The surrounding vegetation is creosote, dry white bush, and cheatgrass. The soil is light yellowish brown silty sand with subangular gravel and pebbles.

P-15-022255

Isolate P-15-022255 consists of a prehistoric rhyolite biface fragment. The tool exhibits pressure flaking on one edge, indicative of possible serration, with a parallel flaking pattern. It is purple-gray in color with brown stripes. The southwestern foothills of Cactus Queen Mine is 509 meters (0.32 miles) southeast. The soil is yellowish brown, loose silty sand with subrounded gravels and pebbles. The surrounding vegetation consists of cheesebush, creosote, cheatgrass, desert dandelion, goldfield, California suncup, and rabbitbrush. The resource is located within a broad ephemeral wash on a southeast trending alluvial fan.

P-15-022256

Isolate P-15-022256 consists of a historic-era complete key wind side strip coffee can with attached internal friction lid and key attachment notch. The key wind strip can technology was introduced in 1895 and was in peak use from ca. 1903 until the 1960s (Rock 1984:105, Rock 1988:81-95). The soil is very pale brown with loose subangular medium sand. The vegetation consists of creosote, cheatgrass, ephedra, lacy phacelia, desert dandelion, California suncup, filaree, sage thistle, and Bigelow tickseed.

P-15-022257

Isolate P-15-022257 consists of a small historic-era refuse scatter consisting of four cans and a glass bottle. The artifacts include a partially crushed church key-opened beverage can with seven interlocking seams, a crushed hole-in-top can with internal locking seam and puncture, an oil can with fading illegible label with one spout opening and slice puncture with four bullet holes and embossed base with “SAE/40”, and an aluminum top pull tab can with a steel body and top and seven interlocking seams. The bottle is an Owens-Illinois complete amber glass with a screw cap finish/opening embossed with “21 ⓫ 82” and “Please do not litter” on the base. The phrase “Please Do Not Litter” inscription dates from 1970 into the early 1980s (Schulz et al. 2019). Based upon the artifact assemblage, the resource dates from the 1960s to the 1980s. Both condition and integrity of the resource is poor due to its rusted, crushed condition, and from heavy precipitation events to cause relocation and deterioration. The soil is yellowish brown, loose silty sand with few subangular

pebbles. The vegetation consists of creosote, cheatgrass, goldfield, winter fat, ephedra, cheesebush, lacy phacelia, desert dandelion, California suncup, filaree, sage thistle, and Bigelow tickseed.

P-15-022258

Isolate P-15-022258 consists of one prehistoric CCS secondary flake. It measures 30 mm long by 16 mm wide by 4 mm thick. The surrounding vegetation includes fiddleneck fern, creosote, cheatgrass, sand blossom, bunch grass, narrow leaf goldenbush, and juniper. The soil is brown, loose sandy gravel with angular and subangular rocks. From the resource, the ephemeral Bear Canyon Wash is 2.75 miles southwest and Oak Creek is 3 miles east.

P-15-022259

Isolate P-15-022259 consists of one historic-era hole-in-top condensed milk can. It is partially crushed, has two opposite knife slits, and a solder dot in the center. The hole-in-top can was in use from 1885 to 1985 (Holm et al. 2018). The soil is brown sandy loose loam with angular and rounded rocks and pebbles. The surrounding vegetation is creosote, fiddleneck, Fremont pincushion, cheatgrass, cheesebush, wishbone bush, bunchgrass, rabbit brush, juniper and hookers' onion.

P-15-022260

Isolate P-15-022260 consists of a historic-era church key-opened can with eight bullet holes, five interlocking seams, and knife puncture holes. The church key can opener was introduced in 1935 and is still in use today (Holm et al. 2018). The soil is brown sandy loose loam with angular and rounded rocks and pebbles. The surrounding vegetation is creosote bush, juniper, fiddleneck fern, desert wire lettuce, and a dead dry tree.

P-15-022261

Isolate P-15-022261 consists of one historic-era tobacco tin can with attached two-hinged lid. It is partially crushed. The upright pocket tobacco tin dates ca. 1907 to the 1960s (Holm et al. 2018). The surrounding vegetation consists of creosote bush, Fremont pincushion, Hooker's onion, fiddleneck, cheatgrass, and juniper. The soil is brown, loose, sandy loam with sand, gravel, and angular and rounded rocks.

ALT-SK-ISO-12

Isolate ALT-SK-ISO-12 consists of one historic-era tobacco tin can, crushed with missing lid. The upright pocket tobacco tin dates ca. 1907 to the 1960s (Holm et al. 2018). It is located within a slightly undulating southeastern piedmont of the Tehachapi Mountains. The surrounding vegetation consists of fiddleneck, cheatgrass, goldfield, and California buckwheat. The soil is brown loose sand with subangular rocks and gravels.

ALT-SK-ISO-13

Isolate ALT-SK-ISO-13 consists of one historic-era hole-in-top can and one length of barbed wire. Based upon the measurements of the can, it dates from ca. 1914 to 1931 (Holm et al. 2018). The barbed wire is long, trends east, and is not attached to a support beam. Based upon the artifact

assemblage, the resource dates from 1914 to the 1930s. The surrounding vegetation consists of bunch grass, cheatgrass, juniper, fiddleneck, Joshua tree, rabbit brush, wishbone bush, and cholla. The soil is dark, yellowish brown loose sandy loam with angular rocks.

ALT-SK-ISO-14

Isolate ALT-SK-ISO-14 consists of one historic-era sanitary can embossed with "ORTEGA'S / CHILES" on the bottom and opened with a P-38 opener with missing lid and internal fold seam. The P-38 can opener was introduced in 1942 by the U.S. military to be issued with can rations (Foster 2009). Based upon the artifact characteristics, the resource dates to the 1940s to the 1960s. The resource is located on a slightly undulating southeast alluvial fan the Tehachapi Mountains. The vegetation consists of Joshua trees, creosote bush, goldfield, fiddleneck, cheatgrass, desert dandelion, rabbit brush, and wishbone bush. The soil is brown, loose gravel, medium coarse sandy loam.

ALT-SK-ISO-15

Isolate ALT-SK-ISO-15 consists of three historic-era cans: a cone top beverage can, one oil can filter, and one decomposing undiagnostic fragment. The cone top is a high-profile style with six interlocking seams and a decomposing external screw cap top. Mass production of the cone top beverage cans began in 1935 and went through 1960 (Holm et al. 2018). Based upon the artifact assemblage, the resource dates from the 1930s to the 1960s. The soil is a very dark grayish brown, loose coarse surface sandy loam, and coarse to fine grained sand. The surrounding vegetation consists of white daisy tidy tips, rabbit brush, fiddleneck fern, cheatgrass, juniper, creosote, gold field, bunch grass, cheesebush, wishbone bush, narrow leaf, and golden brush.

ALT-SK-ISO-16

Isolate ALT-SK-ISO-16 consists of a light historic-era refuse scatter: three church key-opened cans (one hole-in-top and two sanitary), one tobacco can, one bi-colored pull tab can, and one miscellaneous metal fragment. Based upon the artifact assemblage, the resource dates from the 1940s to the 1960s (Holm et al. 2018). The surrounding vegetation consists of fiddleneck, cheatgrass, creosote bush, bunch grass, wishbone bush, rabbit brush, Joshua trees, filaree, and ephedra. The soil is yellowish brown, loose gravel sandy loam with large angular to medium subangular boulders, rocks, and gravel.

ALT-SK-ISO-17

Isolate ALT-SK-ISO-17 consists of a small historic-era refuse scatter of three bi-colored pull tab beverage cans and one church key-opened sanitary can. Bi-colored pull tab cans with an aluminum top and steel body were in use from the late 1950s to ca. 1970 (Holm et al. 2018). The surrounding vegetation consists of bunch grass, cheatgrass, sage thistle, fiddleneck fern, wishbone bush, California suncup, gold field, and cheesebush. The soil is dark yellowish brown, silty gravel, fine to coarse sandy loam, and large to medium angular and rounded cobbles and gravel.

ALT-SK-ISO-18

Isolate ALT-SK-ISO-18 consists of a solarized amethyst bottle neck and finish shard, an amber bottle base, a sanitary can with church key openings, a church key-opened can lid, a metal forklift tooth, a

broken metal bar, and a decomposing rubber tire. The solarized amethyst shard has a straight brandy or wine finish style and machine mold seam (Holm et al. 2018). The amber bottle heel is embossed with "PLEASE HELP FIGHT LITTER" and on the base with "AHK/W/80/53". The style of Kerr Glass Manufacturing Company maker's mark on this amber shard was in use from 1969 to ca. 1996, and the embossing on the heel was in use from 1971 (Schultz et al. 2019:28). Based upon the artifact assemblage, the resource dates from the 1910s to the 1970s.

ALT-SK-ISO-19

Isolate ALT-SK-ISO-19 consists of historic-era refuse: four condensed milk hole-in-top cans (1900 to 1985) (Holm et al. 2018), three sanitary cans, three sanitary cans with corrugated indentations, and one square meat can lid. Based upon the artifact types, the resource dates from the 1930s to the 1970s. The soil consists of yellow brown loose coarse gravel to fine sandy silt, with angular to subangular rocks and gravels. Vegetation includes ephedra, bunchgrass, fiddleneck, creosote, cheatgrass, goldfield, California suncup, birds eye gilia, and rabbitbrush.

ALT-SK-ISO-20

Isolate ALT-SK-ISO-20 consists of one historic-era church key-opened can. Based upon the artifact characteristics, the resource dates from the 1930s to the 1970s. The surrounding vegetation consists of fiddleneck fern, bunch grass, ephedra, wishbone bush, creosote, Joshua tree, and rabbit brush. The soil is yellowish brown, loose loamy sand and gravels with angular and subangular pebbles.

ALT-SK-ISO-21

Isolate ALT-SK-ISO-21 consists of two historic-era solder dot condensed milk cans (1900 to 1985: Holm et al. 2018) and the other has a church key opening. The surrounding vegetation consists of fiddleneck, rabbit brush, wishbone brush, Joshua trees, creosote, bunchgrass, goldfield, birds' eye gilia, cheesebush, filaree, and cheatgrass. The soil is brown, loose angular and subangular rocks with coarse gravel surface and sandy silt loam.

ALT-SK-ISO-22

Isolate ALT-SK-ISO-22 consists of one emerald green bottle base, one 50-gallon metal drum, one 10-gallon rectangular gas can, one sanitary lid, one aluminum modern pull tab can, one crushed sanitary can, one crushed church key-opened can, one decomposing tire, and one unknown crushed can. The emerald base is embossed with "62802A 72 17" and has a manufacturing date of 1972 (Lockhart et al. 2021:464). The isolate is located within a slightly undulating alluvial fan of the Tehachapi Mountains. The tire is by B.F. Goodrich (ca. 1870 to 1989) (Akron Beacon Journal 1989) and is marked with "H.D. TRAILER BF (maker's mark) 1870 COMMERCIAL 15 6 PLY RATING [RAYON inside an oval]". Based upon the artifact assemblage, the resource dates from the 1950s to the 1970s. Vegetation includes fiddleneck, bunchgrass, creosote, goldfield, filaree, cheatgrass, Joshua tree, juniper, and desert dandelion. The soil is brown, loose, sandy loam with angular to subangular cobbles, rocks, gravels, and pebbles.

ALT-SK-ISO-23

Isolate ALT-SK-ISO-23 consists of one historic-era church key-opened beverage can and one tobacco tin can. Based upon the artifact assemblage, the resource dates from the 1930s to the 1970s. Vegetation includes ephedra, wishbone bush, fiddleneck, bunch grass, cheatgrass, rabbitbrush, goldfield, California suncup, Joshua trees, creosote, filaree, beavertail cactus, and lacy phacelia. The soil is pale brown sandy loam with subangular gravels and pebbles.

ALT-SK-ISO-24

Isolate ALT-SK-ISO-24 consists of three historic-era cans. The artifacts include two sanitary cans with lid attached opened with a P-38 utility tool and one hole-in-top can with two knife slit openings. Hole-in-top cans were in production from 1900 to 1985 and the P-38 can opener was introduced in 1942 (Holm et al. 2018). Based upon the artifact assemblage, the resource dates from the 1940s to the 1960s. The condition and integrity of the resource is fair based on environmental disturbance and artifact displacement and decomposition. Vegetation includes of ephedra, creosote, fiddleneck, bunchgrass, silver puffs, blue-eyed gilia, chia sage, Mojave Desert star, phacelia, rabbit bush, cheatgrass, filaree, wishbone bush, and Joshua trees. The soil is pale brown, loose gravely sand with subangular pebbles and gravels.

ALT-SK-ISO-25

Isolate ALT-SK-ISO-25 consists of 1 historic-era solarized amethyst bottle base and 10 body shards. Solarized amethyst glass was in production from the mid-1870s to 1930 (Holm et al. 2018). The surrounding vegetation consists of creosote bush, Joshua trees, fiddleneck fern, cheatgrass, buckwheat, rabbit brush, cheesebush, ephedra, wishbone bush, goldfield, and bunch grass. The soil is brown, loose sandy loam, coarse grain gravel, and angular and subangular gravels and pebbles.

P-15-022262

Isolate P-15-022262 consists of a historic-era refuse located north of a northwest-to-southeast trending road. The refuse includes six amber bottle shards from a single vessel with a Latchford Glass Company maker's mark "" (ca. 1957 to 1989); one intact colorless Coca-Cola bottle with embossing on the base of the Owens-Illinois maker's mark with a manufacturer code and date code, "L/ 7-0D/  /69"; a small, corrugated juice can with a pull tab opening; one crushed sanitary can with a church key opening; one church key-opened can with at least seven interlocking seams; and one bi-colored aluminum top can with a pull tab opening. Based upon the artifact assemblage, the isolate dates from the 1950s to the 1970s. The isolate is situated within an alluvial fan. Surrounding vegetation consists of Joshua trees, creosote bush, ephedra, bunch grass, buckwheat, and fiddleneck. The soil is brown, compact sand with subrounded gravels and pebbles. One modern black .45 colt bullet casing was observed.

P-15-022263

Isolate P-15-022263 consist of historic-era refuse: one colorless glass jar with attached metal screwcap lid, with a Latchford Glass Co. maker's mark (ca. 1957 to 1989: Lockhart et al. 2017:52-53) with decorative vertical embossing on the heel and embossed measurements on the body by quarter inch

intervals base embossing of “915-D/ Ⓛ/5”, one crushed bi-colored aluminum top pull tab can with bullet holes, one corrugated can with two small church key openings and two sets of three horizontal corrugations with an inside overlapping seam, and one aluminum pull tab can. Based on the artifact assemblage, the isolate dates from the 1950s to the 1970s. The vegetation consists of creosote bush, Joshua trees, fiddleneck, buckwheat, and winterfat. The soil is brown, wet, loose silty sand with subangular pebbles and gravels.

P-15-022264

Isolate P-15-022264 consists of one historic-era Dietz lantern base (ca. 1840 to 1992: Hunter 2016) with a detached metal handle and wiring (to hold glass in place). The base is made of blue enamel and is crushed and decomposing. The fill cap is embossed with “MADE IN UNITED STATES OF AMERICA” in a circle around the maker’s mark “DIETZ”. The vegetation consist of dry grass, fiddleneck, Joshua tree, brittle bush, creosote, chemise, rabbit brush, and cheatgrass. The soil is brown, loose sandy silt.

P-15-022265

Isolate P-15-022265 consists of one prehistoric CCS tertiary flake located north of Oak Creek Road. The flake is white with tan inclusions, is weathered, and measures 27.19 mm long, 21.06 mm wide, and 6.78 mm thick. The surrounding vegetation consists of globemallow, cheatgrass, creosote, narrow leaf goldenbush, and filaree. The ground surface visibility ranged from 30 to 50 percent due to vegetation; exposed soil from rodent bioturbation was also observed. The soil is brown, dry sand with subrounded rocks, gravels, and pebbles. The condition of the isolate is fair from biological weathering and its integrity is low to moderate due to artifact displacement from heavy precipitation events.

P-15-022266

Isolate P-15-022266 consists of three historic-era cans located within an active wind energy generating facility. The artifacts consist of one tall beverage church key-opened can with five notched seams, one small beverage church key-opened crushed can, and one large crushed sanitary can. The surrounding vegetation consists of narrow leaf goldenbush, cheatgrass, globemallow, and tumble mustard. The ground surface visibility was 50 percent. The soil is brown, dry sand with subrounded rocks, gravels, and pebbles. Based upon the characteristics of the isolate, the resource dates from the 1960s to the 1970s. The condition of the isolate is fair caused by biological weathering and its integrity is low due to artifact displacement and decomposition from heavy precipitation events.

P-15-022267

Isolate P-15-022267 consists of two historic-era cans located within an ephemeral drainage. The artifacts consist of one knife-opened sanitary can with bullet holes and one church key-opened can. The surrounding vegetation consists of cheatgrass, creosote, tumble mustard, bunch grass, white bursage, and chemise. The ground surface visibility was 70 percent. The soil is brown, dry sand with subrounded rocks, gravels, and pebbles. Based upon the characteristics of the isolate, the resource dates from the 1930s to the 1960s. The condition of the isolate is fair due to biological weathering and its integrity is low caused by artifact displacement and decomposition from heavy precipitation events.

P-15-022268

Isolate P-15-022268 consists of a historic-era refuse of glass bottle shards located between two dirt roads. The artifacts consist of about 50 colorless glass shards, 25 aqua Dr. Pepper bottle shards, 2 large Carnation bottles, and 1 colorless bottle with crown cap finish and a Brockway Glass Co. maker's mark (ca. 1907 to the 1980s: Lockhart et al. 2013). The surrounding vegetation consists of cheatgrass, creosote, bunch grass, goldfield, and Joshua tree. The soil is brown dry sand with subrounded rocks and pebbles.

P-15-022269

Isolate P-15-022269 consists of a historic-era refuse solarized amethyst glass bottle base embossed with the number four inside a circle with three air bubbles, and two body shards. Solarized amethyst glass dates between 1885 and 1925 (Newman 1970:74). The surrounding vegetation consists of goldfield, creosote, chemise, cheatgrass, rabbitbrush, and Joshua trees. The soil is brown dry sand with subrounded rocks and pebbles.

P-15-022270

Isolate P-15-022270 consists of a historic-era aqua glass bottle of Diet-Rite soda. The artifact is intact from the neck to base with broken and missing neck and finish. It has a red label with white print and has an embossed Owens-Illinois maker's mark (in use since 1954) on the base of "23 ⓘ 64 / 6AA / 18586-6" (Toulouse 1971:403). Diet-Rite was the first diet soda introduced by RC Cola in 1955 then was later bought by Keurig Dr. Pepper (Muse 2024). The surrounding vegetation consists of goldfield, creosote, chemise, cheatgrass, rabbitbrush, and Joshua trees. The soil is brown dry sand with subrounded rocks and pebbles.

6.2 Built Environment Resources

6.2.1 Previously Recorded Built Environment Resources

Five previously recorded architectural resources are within the Survey area and summarized below in Table 6-5. All site records and DPR forms, including previous recordation and updated DPR 523 forms prepared for this Project, are in Appendix G.

Table 6-5. Built Environment Resources within the Survey Area

Site Number	Time Period	Description	Comment
P-15-003537 (CA-KER-3537)	Historic	Oak Creek Road (paved)	Relocated; Same as previously recorded
P-15-003549 (CA-KER-3549)	Historic	The Los Angeles Aqueduct	Relocated; Same as previously recorded
P-15-013928	Historic	Unnamed dirt road	Relocated; Same as previously recorded
P-15-013929	Historic	Unnamed dirt road	Relocated; Same as previously recorded
P-15-016251 (CA-KER-8984)	Historic	Unnamed dirt road	Relocated; Same as previously recorded

P-15-003537

Oak Creek Road was previously recorded in 1993 by Macko Archaeological Consulting as an improved two-lane, asphalt-and-concrete road that follows the historic era alignment. Macko Archaeological Consulting recommended P-15-003537 not eligible for listing to the NRHP. The resource was updated

in 2010 by CH2M Hill as an improved segment of Oak Creek Road from the north end of Mojave, California, continuing west for about 10.5 miles where it intersects with Tehachapi-Willow Springs Road. The recorded segment is noted as generally within the 1915 Mojave 30-minute USGS topographic map alignment. CH2M Hill (2010) recommended the resource as not eligible for listing to the CRHR.

On April 23, 2024, a team of two Tetra Tech archaeologists visited the previously recorded resource segment within the Study Area (a total of 1,298 feet). The team located, examined, and photographed the resource the for the update. The resource appears as previously recorded. The improved asphalt road is raised from the ground surface approximately 4 inches with sloped and graveled road shoulders on either side. The road is also heavily used for travel by vehicles and trucks. No cultural material was observed. Ground surface visibility approached 100 percent along the developed corridor.



Figure 6-1. P-15-003537, CA-KER-3537: Oak Creek Road, view west (left) and view east (right) (IMG_2341-2342).

P-15-003549 Los Angeles Aqueduct

The Los Angeles Aqueduct (Site CA-KER-3549H) has been recorded and updated over several years. It was first recorded in 1992 by J. Costello, J. Marvin, and J. Tordoff of Foothill Resources Ltd. It was determined eligible as an NRHP district and was updated in 1993, with more features added. It was updated again in 2000, with no changes recorded and again in 2015. Underground portions of the aqueduct were recorded in 2009. Tetra Tech's cultural resources specialists revisited portions of the aqueduct, which runs through the Study Area in a northeast-to-southwest direction, on April 26, 2024 and prepared an updated DPR 523L form for this project, finding it visually unchanged from the previous recordation.



Figure 6-2. P-15-003549, CA-KER-3549: Overview of road toward wind energy generating facilities (left background) (view southwest, IMG_4574).

P-15-013928

This unnamed road was previously surveyed in 2009 by CH2M Hill and given the resource name S-33. The road appears on the 1947 Mojave 15-minute quadrangle, and in 2009 it was recorded on DPR forms as a maintained and graded dirt road that begins at the Los Angeles Aqueduct Road and runs northeast for 2 miles; widely spaced unidentified wood poles (potentially telephone poles) were cut down with stumps remaining, which were visible along the road during the 2009 survey (CH2M Hill 2009a). This road is within the Survey Area. Tetra Tech's cultural resources specialists completed a field check for Oak Creek Road for this Project on April 26, 2024, and found it visually unchanged from the previous recordation (Figure 6-3).



Figure 6-3. P-15-13928: Overview of dirt road (center to background) from gravel utility road (left foreground) toward wind energy generating facilities (view northeast, IMG_4585).

P-15-013929

This unnamed road was previously surveyed in 2009 by CH2M Hill and given the resource name S-34. The road appears on the 1947 Mojave 15-minute quadrangle, and in 2009 was recorded on DPR forms as a graded, dirt road that begins at another dirt road then travels south for 1 mile, then southeast for another mile. The previous recordation indicated no information regarding the original construction and purpose for it. Tetra Tech's cultural resources specialists completed a field check for this road on April 26, 2024 (Figure 6-4) and found it visually unchanged from the previous recordation.



Figure 6-4. P-15-13929: Overview of road (left-center to center-background) toward wind energy generating facilities (background) (view north, IMG_4586).

P-15-016251 Abandoned Tehachapi-Willow Springs Road

P-15-016251 was previously recorded in 2010 by Pacific Legacy, Inc., as a segment of the abandoned Tehachapi-Willow Springs Road. The previously recorded segment measures 127 feet wide by approximately 1.1 miles in length and is flanked by earthen berms. A widely diffused refuse scatter of cans and glass shards within a seasonal drainage and a water control channel with reinforced rock corners were also observed (Pacific Legacy 2010). P-15-016251's condition was reported as fair, with impacts from a seasonal drainage, modern use, and modern refuse disposal along the road segment. The road first appears on 1965 USGS Willow Springs and 1966 Monolith USGS Quadrangle maps; the 2010 site record states it was abandoned from use as a public highway in 1973. Pacific Legacy (2010) recommended the resources as ineligible for listing to the CRHR. Tetra Tech's cultural resources specialists completed a field check for this road on April 26, 2024 (Figure 6-5) and found it visually unchanged from the previous recordation except the reinforced rock corners were not observed. P-15-016251 is expanded to include the southern portion of the road within the Project site that has not been previously recorded. This segment travels approximately 0.36 mile southeast from the southern boundary of the recorded segment to the Project site boundary near the intersection of Northern Aqueduct Road and P-15-016251. The newly recorded segment is drivable and features a mechanically prepared, unpaved two-track surface with minimal vegetation along the segment.



Figure 6-5. P-15-016251: Overview of dirt road toward the Tehachapi Mountains (left background), transmission lines and wind energy generating facilities (right background) (view northwest, IMG_4591).

6.2.2 Newly Recorded Architectural Resources

An architectural review was conducted for this Project. Previously recorded architectural features within the Study Area were field checked by Tetra Tech's Cultural Resources specialists (as indicated in Section 6.2.1). The field inspections concluded no newly recorded built environments were recorded nor major visible changes present for any of the previously recorded built environment features.

There are 83 unnamed, minor roads within the Study Area that are very similar to the previously unnamed roads described in Section 6.2.1. Other than when these roads first appear on historic maps and aerial images, there is little information available in the historical data to determine who constructed them or how they were used. It is reasonably assumed that these roads were developed for local access, to travel from one local point to another and, in some cases, used only for short periods. In comparison, roads in and just outside the Study Area that were more important to regional connections were improved over time and have been continually in use. The importance of these unimproved, unnamed roads to the broader historic context is assumed to be minimal, given the information gleaned from the previous recording of a sample of them (see Section 6.2.1). In contrast, the two older roads adjacent to and within the Study Area, Oak Road and the Los Angeles and Tehachapi Road (which may have been an early alignment of the Tehachapi/Willow Springs Road), were constructed to connect the Study Area with other parts of the region and therefore have a greater importance to the history of the overall region.

7.0 CALIFORNIA REGISTER OF HISTORICAL RESOURCES ELIGIBILITY EVALUATIONS

As discussed in Section 1.2.1, Kern County (lead agency) must determine whether a project could have a substantial adverse change in the significance of a historical resource or tribal cultural resource under CEQA (CEQA, PRC Sections: 21084.1 and 21074 [a][1][A]-[B]).

Preliminary recommendations for a historically significant resource under CEQA are evaluated under specific criteria for eligibility listing in the CRHR (PRC SS5024.1, Title 14, Code of Regulations, Section 4852). In order to be eligible for listing, a resource must:

1. Be associated with events that have made a significant contribution to the broad patterns of local or regional history or the cultural heritage of California or the United States;
2. Be associated with the lives of persons important to local, California, or national history;
3. Embody the distinctive characteristics of a type, period, region, or method of construction or represent the work of a master craftsman or possess high artistic value; or
4. Have yielded, or have the potential to yield, information important to the prehistory or history of the local area, California, or the nation.

If an archaeological resource does not fall within the definition of a historical resource, it may meet the definition of a “unique archaeological resource” (PRC 21083.2(g)). Unique archaeological resources include archaeological artifacts, objects, or sites that meet criteria codified under PRC 21083.2(g). A unique archeological resource:

1. Contains information needed to answer important scientific research questions and that there is a demonstrable public interest in that information;
2. Has a special and particular quality such as being the oldest of its type or the best available example of its type; or
3. Is directly associated with a scientifically recognized important prehistoric or historic event or person.

Archaeological resources were evaluated based on the criteria listed above. Eligible sites are those that display one or more of the criteria for eligibility. In addition to meeting the above criteria, resources must have integrity for the period of significance: the date or span of time within which significant events transpired, or significant individuals made important contributions (important archaeological resources must be at least 50 years old to be considered). In addition, sites evaluated as eligible must retain physical integrity. Seven qualities are used to assess integrity: location, design, setting, materials, workmanship, feeling, and association (National Park Service 2000).

If an archaeological resource is found eligible for listing in the CRHR, then it is considered under CEQA a historical resource. CEQA requires an assessment of a project’s impact on unique archaeological resources. If an archeological resource that qualifies as a historical resource or unique archeological resource may be adversely impacted by a project, avoidance and preservation in place is the preferred alternative. Consistent with CEQA Guidelines Section 15126.4(b)(3)(C), if it is demonstrated that a

historical resource cannot be avoided, appropriate treatment measures (e.g., testing, data recovery, capping, etc.), developed in consultation with the lead agency and Tribes (as appropriate) must be implemented to lessen impacts to the environment to a less-than-significant level. If the archaeological resource is not recommended eligible for listing in the CRHR and it is not a unique archaeological resource, then no further action is required as impacts would not be considered significant.

Tribal Cultural Resources (Prehistoric/Precontact Resources)

Kern County, lead agency under CEQA, shall consider the significance of Tribal Cultural Resources (as defined PRC Section 21074) to a California Native American Tribe through AB52 consultation or other coordination with the interested Tribes. This study does not include CRHR eligibility evaluations for prehistoric sites that may be considered significant and important to a Tribe, as tribal cultural knowledge and tribal consultation is necessary for such determinations and any considerations for management (e.g., avoidance, testing, data recovery, etc.) of such resources.

7.1 Evaluation of Archaeological Resources within the Study Area

Presented below are Tetra Tech's CRHR-eligibility recommendations for sites and isolated finds that are discussed in Chapter 6 of this report and the research questions presented in Chapter 5. These resources include newly recorded sites, newly recorded isolated finds, and previously recorded sites and isolates that were updated as part of this study.

7.1.1 Previously Recorded and Newly Recorded Isolates

Isolate finds are typically considered not eligible for listing in the CRHR due to the limited amount of information they can provide and lack of associated context. Exceptions are made under unusual circumstances, such as when the archaeological record is lacking in data, or the isolate is considered rare or unusual and may be associated with rare or unusual events. The previously recorded and newly recorded isolates identified during the survey do not fall under these circumstances and possess little probability for new information that would contribute substantially to the local history (criterion 4). All the isolates were identified with good ground surface visibility, and no other cultural material or features were observed. The documentation of these resources provides sufficient data, and their research potential has been fulfilled through their documentation. As a result, the isolates are recommended not eligible for listing on the CRHR and no further management is necessary for these isolates. Therefore, isolates are not discussed in this chapter. See Chapter 6 for description of isolates and Chapter 8, Table 8-3 for recommendations.

7.1.2 Previously Recorded Sites

The CRHR eligibility and management recommendations for previously recorded sites are presented below.

P-15-003537

Built Environment Resource P-15-003537, Oak Creek Road, was previously recorded in 1993 by Macko Archaeological Consulting as an improved two-lane, asphalt-and-concrete road that follows the

historic-era alignment. Macko Archaeological Consulting recommended P-15-003537 not eligible for listing in the NRHP. The resource was updated in 2010 by CH2M Hill as an improved segment of Oak Creek Road from the north end of Mojave, California, continuing west for about 10.5 miles where it intersects with Tehachapi-Willow Springs Road. CH2M Hill (2010) recommended the resource as not eligible for listing in the CRHR. Tetra Tech visited P-15-003537 and the site appears as previously recorded. Tetra Tech agrees with both previous recommendations of P-15-003537 as not eligible for listing in the CRHR. Therefore, Tetra Tech recommends P-15-010952 as not eligible for listing in the CRHR and it does not qualify as a historical resource under CEQA. In addition, site P-15-003537 is within the Study Area but not within the Project site and will be avoided and not impacted by Project activities. No further management is recommended.

P-15-003549

The Built Environment Resource P-15-003549: the Los Angeles Aqueduct (first constructed ca. 1907 to 1913; a second, and parallel Los Angeles Aqueduct and road added in ca. 1965 to 1970) is a 215-mile-long water conveyance system with associated reservoirs, dams, channels, siphons, spillways, tunnels, and roads. The aqueduct spans Inyo, Kern, and Los Angeles Counties. P-15-003549 has been previously recommended as eligible for listing as an NRHP district. Tetra Tech visited P-15-003549 and the site appears as previously recorded. Tetra Tech agrees with this recommendation. Site P-15-003549 is within the Study Area but not within the Project site and will be avoided and not impacted by Project activities. No further management is recommended.

P-15-010952 (CA-KER-6341)

Site P-15-010952 (CA-KER-6341) was originally recorded by AMEC Earth (2003) as a historic-era refuse scatter of approximately 20 cans (evaporated milk and Prince Albert tobacco types), a brown glass bottle base shard, several fragments of milled wood, and a solarized purple glass shard. The site was also revisited by Sapphos in 2011 but they were unable to relocate any cultural material. The site was not evaluated for listing in the CRHR.

Tetra Tech visited P-15-010952 and the site appeared as previously recorded. Based on the historic production dates of the cultural material, the site dates to approximately 1900 to the 1940s and presents as a single episode of refuse disposal. Ground surface visibility at the time of recording was good. Review of historic aerial imagery (1959, 1963, 1974, 1983), GLO plats (1877, 1896), and historic USGS topographical maps (1959, 1961, 1967, 1976) depicts the site area as undeveloped desert land with a road (west) and an unnamed east-to-west trending road (north; road dead ends at 0.5 mile east) present by 1959 (Netronline 2024, BLM 2024). By 1963, both roads appear improved. The site area appears unchanged to date. No buildings, structures, or features were observed. Review of federal patents for the site area identified one patent near the site area, John D. Jones. (T11N, R13W, Section 8), under Homestead Entry-Stock Raising (39 Stat. 862) act of 1916 (BLM 2024). A John D. Jones was born in 1919 and passed in 1976 and is buried at the Shafter Memorial Park (near Bakersfield), in Kern County, California (Ancestry 2024). No additional archival historical information was available about Jones or other property owners, mining claims, or use for the site area through census and genealogic sources, historic newspaper articles, historic aerial imagery or maps, or other online sources.

Although John Jones had a patent overlapping with the site area, there is no evidence connecting Jones to the site. P-15-010952 does not appear to be associated with a person important to national, local or local history, it also does not appear to be associated with a significant event in national or local history (Criteria 1 and 2). By its nature, the diffuse refuse scatter does not embody the distinctive characteristics of a type, period, region, or method of construction or represent the work of a master craftsman or possess high artistic value (Criteria 3). The site is a single surficial refuse disposal episode. As such, the site has little to no information potential and the recordation of the refuse has likely exhausted the data potential of the site (Criteria 4). Therefore, P-15-010952 is recommended not eligible for listing in the CRHR. It also does not meet the definition of a unique archaeological resource (PRC Section 21083.2). Tetra Tech recommends P-15-010952 as not eligible for listing in the CRHR and it does not qualify as a historical resource under CEQA. No further management is recommended.

P-15-012677 (CA-KER-7135)

Site P-15-012677 (CA-KER-7135) is an extremely sparse but widely distributed historic-era refuse scatter located on a flat plain and the refuse is located on both sides of the Los Angeles Aqueduct (P-15-003549: eligible as an NRHP district) (URS Corporation, Inc. 2002). The historic-era refuse scatter consists of cans, glass shards, two brick fragments, and miscellaneous metal (i.e., rebar, wire, barrel hoops, and a possible ladder). URS Corporation, Inc. (2002) noted the site was previously disturbed due to construction and maintenance of the second Los Angeles Aqueduct corridor (aqueduct, road, and associated features), which caused the artifacts to be redistributed within the site.

Tetra Tech located the previously recorded site and observed the recorded artifacts and disturbances. The site appears unchanged since the original 2002 recording and no refuse was observed within the associated Aqueduct roads. Based upon the characteristics of the site, it presents as a refuse disposal locale associated with the initial construction of the Los Angeles Aqueduct (1907 to 1913). Both the integrity and condition of the site is poor due to disturbances caused by construction and maintenance of the Second Los Angeles Aqueduct and road (ca. 1965 to 1970) that bisects P-15-012677, and easy public access that may have resulted in illegal artifact collection. Although the site is associated with the construction of the Los Angeles Aqueduct (P-15-003549, eligible as an NRHP district), the site has been extensively disturbed by mechanical movement of soils and lacks integrity to convey significance as a contributing element of P-15-003549 under any CRHR criteria. It is unlikely that intact subsurface deposits exist, and the recordation of the refuse has likely exhausted the data potential of the site (Criteria 4). The site also does not convey significance as a unique archaeological resource under Section 21083.2 of the PRC. Therefore, P-15-012677 is recommended not eligible for listing in the CRHR and is not a historical resource under CEQA. As such, Tetra Tech recommends that no further management consideration is necessary for this site.

P-15-012678 (CA-KER-7136)

Site P-15-012678 (CA-KER-7136) is a dense historic-era refuse scatter associated with the initial construction of the Los Angeles Aqueduct (P-15-003549, c. 1907 to 1913), and an isolated prehistoric chert biface (URS Corporation, Inc. 2002). The historic era refuse scatter consists of cans, glass shards, and miscellaneous metal (i.e., nuts, bolts, wire nails). Noted disturbances within the site consist of

mechanically constructed earthen berms from the maintenance of the second Los Angeles Aqueduct (ca. 1965 to 1970) and access road corridor.

Tetra Tech visited P-15-012678 during the field survey for this Project and observed the previously recorded artifacts. The site appears as originally recorded and the boundary was updated and expanded to the southeast to ensure all cultural material was captured. The site is within the right-of-way corridor of the Los Angeles Aqueduct, primarily located between the first and second aqueducts. The site has been disturbed by construction and maintenance activities associated with the Los Angeles Aqueduct. The prehistoric component is an isolate, and isolates are typically considered not eligible for listing in the CRHR due to the limited amount of information they can provide and lack of associated context. The historic era refuse was most likely disposed of during initial construction of the Los Angeles Aqueduct (1907 to 1913). Although the site is associated with construction of the Los Angeles Aqueduct (P-15-003549: eligible as an NRHP district), the site has been extensively disturbed by mechanical movement of soils and lacks integrity to convey significance as a contributing element of P-15-003549 under any CRHR criteria. It is unlikely that intact subsurface deposits exist, and the recordation of the refuse has likely exhausted the data potential of the site (Criteria 4). The site also does not convey significance as a unique archaeological resource under Section 21083.2 of the PRC. Therefore, P-15-012678, is recommended not eligible for listing in the CRHR and is not a historical resource under CEQA. As such, Tetra Tech recommends that no further management consideration is necessary for this site.

P-15-012714 (CA-KER-7172)

Site P-15-012714 (CA-KER-7172) is a historic-era homestead (ca. 1914 to 1945) consisting of foundations and refuse (URS Corporation, Inc. 2002). Ten features were recorded and include: a small structural foundation, a wood-lined privy pit, a large can dump, a smaller can dump, a glass concentration, and excavated pits. URS Corporation described the site to be in good condition with high data potential due to the presence of subsurface artifact deposits. The site was updated in 2010 by Pacific Legacy, Inc. as a historic-era homestead with historic refuse, modern trash, five structural features, and five artifact concentrations (Locus A through E). In 2016, LSA Associates, Inc. updated and expanded the boundary of Locus D, in the northeastern portion of the site. LSA Associates, Inc. described the site to be in fair condition and noted heavy disturbance with possible looting of Locus D, modern trash disposal, historic and modern agriculture, rodent activity, and off-road vehicle activity. LSA Associates, Inc. noted that Locus D artifacts were dispersed over a greater area, most likely transported by intense storm events (flooding). The site is within and adjacent to several ephemeral drainage and is bisected by the north-to-south trending road and an unnamed east-to-west trending road.

Tetra Tech visited the previously recorded site and observed the previously recorded artifacts (domestic refuse) and features (concrete foundations). Tetra Tech expanded the site boundary to the north, southwest, and southeast; Locus A, B, C, E, and Features 1, 3, 4 and 5 were updated, and a new artifact concentration, Locus F, was recorded. The site condition appeared fair and exhibits low integrity from decades of erosional processes such as storm events, public access via adjacent roads (e.g., illegal collection of artifacts, camping, firearm target practice), and disposal of modern refuse.

Based on historic aerial imagery and topographical map review (see Chapter 6) of P-15-0012714, a building is illustrated at the location of Locus A (foundation) in 1959. By 1983, the building is no longer extent. A review of federal land patents of the site area identified one early patent issued to Flora Clark (formerly Flora Hash) in 1916, under the Homestead Act of 1862 (BLM 2024). The patent overlaps with the site area. No additional historical information was available for Flora Clark (or other landowners) through census and genealogic sources, historic newspaper articles, or other online sources that connect them to the site. Based on the historic archival review and artifact types, the refuse scatter, concentrations, and features are most likely the remains of a historic homestead constructed sometime before 1959 and most likely occupied from the early to mid-20th century to the 1970s.

Although Fiona Clark appears to have a homestead patent for the area within and surrounding the site, there is no evidence directly connecting her to the site or any significant individual or event. Therefore, the site does not appear to be associated with an event or person who played a significant role in national or local history (Criterion 1 and 2). The dilapidated foundations within the site do not embody the distinctive characteristics of an architectural style or architect or exhibit high artistic value (Criteria 3). The site is within a highly disturbed area. The original residence was demolished, and the features and refuse has been impacted by erosional processes and public activity. It is unlikely that significant intact subsurface cultural deposits exist. The previous recordation and Tetra Tech's updated recordation of P-15-012714 has likely exhausted the data potential of the site (Criteria 4). Therefore, Tetra Tech recommends the site as not eligible for listing on the CRHR. No further management is recommended.

P-15-013838

Site P-15-013838 was previously recorded as a light prehistoric lithic scatter and habitation debris located in an open area with minimal disturbance (Pacific Legacy, Inc. 2008). Previously recorded artifacts included an obsidian Pinto series projectile point and several lithic flakes (no material type documented), fire-affected rock, and one burnt bone fragment. The site area was later visited by Sapphos in 2011 and none of the cultural material previously reported was observed and they did not relocate the site. Sapphos noted this was most likely due to incorrect previously recorded UTMs and plotting of the site location, the extremely small size of the site and low artifact density, and the lack of a sketch map.

Tetra Tech visited the previously documented site location and was unable to relocate any previously recorded cultural material within or adjacent to the previously recorded site boundary. The team did observe a solder dot can and heavy machinery tracks within the previously recorded site location. The site is situated on an alluvial plain bisected by several ephemeral northwest-to-southeast trending drainages extending from the Tehachapi Mountains and is surrounded by a utility corridor with a transmission line and wind and solar energy-generating facilities. It is possible that the previously recorded site location UTMs are incorrect, but more than likely, recent nearby energy infrastructure construction activities and erosional processes (e.g., storm events, sheetwash) have disturbed the artifacts and obscured visibility of the site. Due to this disturbance, the site lacks integrity and it is unlikely that intact subsurface deposits exist that would yield information important to local prehistory. The previous recordation of P-15-016252 has likely exhausted the data potential of the site

(Criteria 4). Tetra Tech recommends the site as not eligible for listing in the CRHR. Tetra Tech recommends avoidance of the site until Kern County consults with interested Tribes under AB52 regarding P-15-013838 and Tribal Cultural Resources (as appropriate) including recommended Tribal mitigation measures. This site is within the Study Area but not within the Project site and will be avoided and not impacted by Project activities.

P-15-013839

Site P-15-013839 is previously recorded as a light historic artifact scatter consisting mostly of cans, glass shards, and milled lumber (Pacific Legacy, Inc. 2008). The site was previously recorded as both a historic and prehistoric site on the DPR 523 form, but no data was provided for a prehistoric component (Pacific Legacy, Inc. 2008). The site is bisected by an existing SCE service line and access road. The site was later visited by A. White and C. Purtell with Sapphos in 2011 and none of the cultural material previously reported was observed. Sapphos (2011) was unable to relocate the site and suggests it was due to the combination of incorrect previously recorded UTM coordinates, the extremely small size of the site and low artifact density, and the lack of a sketch map.

Tetra Tech visited the site and observed the historic-era component (i.e., cans, glass shards, milled lumber) and an isolated prehistoric rhyolite flake (secondary). An adjacent single pole transmission line bisects the site, and the site is surrounded by energy infrastructure: a 500 kV steel lattice transmission line (site within corridor) and a wind energy facility. Based on review of historic maps and aerial imagery (see Chapter 6) no buildings or features were observed within the site area. The historic component appears to be a single episode of roadside refuse disposal dating to the early 20th century. By its nature, the isolated flake is not eligible for listing in the CRHR. The historic component is not associated with any significant person or event (Criteria 1 and 2). It also does not embody the distinctive characteristics of an architectural style or architect or exhibit high artistic value (Criteria 3). Furthermore, the site is near a large ephemeral wash and lacks integrity due to episodic water runoff resulting in soil erosion and it is unlikely that significant intact subsurface cultural deposits exist. As such, recordation of the refuse has likely exhausted the data potential of the site (Criteria 4). It also does not convey significance as a unique archaeological resource under Section 21083.2 of the PRC. Therefore, P-15-013839 is recommended not eligible for listing in the CRHR and no further management is recommended.

P-15-013917 (CA-KER-7801)

Site P-15-013917 was previously recorded as a sparce historic-era refuse scatter of cans located in a relatively undisturbed area (CH2M Hill 2009). The site was perceived to represent a single historical disposal episode followed by several disposal episodes into the modern era and was recommended not be eligible for listing in the CRHR (CH2M Hill 2009).

Tetra Tech visited the site location and was unable to relocate the resource. The site has been impacted due to construction of the wind energy-generating facilities and improvements to the General Petroleum Road. As such, the site is no longer extant and does not retain integrity to convey significance under any CRHR criteria. It also does not convey significance as a unique archaeological

resource under Section 21083.2 of the PRC. Therefore, P-15-013917 is recommended not eligible for listing in the CRHR. Tetra Tech recommends no further management for this site.

P-15-013918 (CA-KER-7802)

Site P-15-013918 was previously recorded as a historic-era refuse scatter of cans, glass, ceramics, and metal (CH2M HILL 2009). The site was described as a short-term historic camp located north of two roads and a utility. CH2M HILL (2009) recommended the site not eligible for listing in the CRHR.

Tetra Tech visited the site location and updated any observed site changes. The field team located the site and observed fewer artifacts than originally recorded as well as previous disturbance to the site. The site appears to have been impacted by construction of the wind energy-generating facility and associated access road bisects the site and improvements to an existing road that bisects site. Tetra Tech concurs with the previous recommendation as not eligible for listing in the CRHR. The site has been impacted by previous construction activities and no longer retains integrity, and the recordation of the refuse has likely exhausted the data potential of the site (Criteria 4). It also does not convey significance as a unique archaeological resource under Section 21083.2 of the PRC. Therefore, P-15-013918 is recommended not eligible for listing in the CRHR. Tetra Tech recommends no further management for this site.

P-15-013919 (CA-KER-7803)

Site P-15-013919 was previously recorded as a historic-era refuse scatter of cans, metal, and glass (CH2M HILL 2009). The site was described as a single refuse disposal episode associated with either mining/prospecting or construction of the Los Angeles Aqueduct. CH2M HILL (2009) recommended the site as not eligible for listing in the CRHR.

Tetra Tech visited the site location and observed fewer artifacts than originally documented and the site appeared previously disturbed. The site is within the construction disturbance footprint of a wind turbine of a wind energy-generating facility. Previous ground disturbance (clearing of vegetation and grading) in the site area is visible on aerial imagery from 2012 to present (Netronline 2024). The site has been impacted by construction of a wind energy-generating facility. Hence, the artifacts have been impacted and disturbed and the site no longer retains integrity, and the recordation of the refuse has likely exhausted the data potential of the site (Criteria 4). Tetra Tech concurs with the previous recommendation as not eligible for listing in the CRHR. Therefore, P-15-013919 is recommended not eligible for listing in the CRHR. Tetra Tech recommends no further management for this site.

P-15-013920 (CA-KER-7804)

Site P-15-013920 was previously recorded as a historic-era refuse scatter of glass, ceramics, metal, and cans (CH2M HILL 2009). The site was described as a single refuse disposal episode possibly associated with either the nearby historic road, mining activities, or construction of the Los Angeles Aqueduct. CH2M HILL (2009) recommended the site as not eligible for listing in the CRHR.

Tetra Tech visited the site location and updated any observed site changes. The field team located the site, observed fewer artifacts than originally recorded, and noted the site appeared previously

impacted by construction of the adjacent wind energy-generating facility. Previous ground disturbance in the site area is also visible on aerial imagery from 2012 to present (Netronline 2024). Hence, the artifacts have been impacted and disturbed and the site no longer retains integrity. In addition, Tetra Tech concurs with the previous recommendation as not eligible for listing in the CRHR. It also does not convey significance as a unique archaeological resource under Section 21083.2 of the PRC. Therefore, P-15-013919 is recommended not eligible for listing in the CRHR. Tetra Tech recommends no further management for this site.

P-15-013921 (CA-KER-7805)

Site P-15-013921 was previously recorded as a historic-era widely dispersed refuse scatter of cans and metal (CH2M HILL 2009). The site was described to be possibly associated with construction of the Los Angeles Aqueduct. CH2M HILL (2009) recommended the site not eligible for listing in the CRHR.

Tetra Tech visited the site location and observed the site had been heavily disturbed from construction of the wind energy-generating facility (the site is within the footprint of a wind turbine and access road) and associated access road. The cultural material appeared mechanically strewn across the site and beyond the original site boundary. The previous ground disturbance is visible on aerial imagery from 2012 to present. Hence, the site appears to be no longer extant and lacks integrity due to this disturbance, and the previous recordation of the refuse has likely exhausted the data potential of the site (Criteria 4). It also does not convey significance as a unique archaeological resource under Section 21083.2 of the PRC. Therefore, P-15-013921 is recommended not eligible for listing in the CRHR and is not a historical resource under CEQA. Tetra Tech recommends that no further management is necessary for this site. This resource is within the Study Area but not within the Project site and will be avoided and not impacted by Project activities.

P-15-013928 (CA-KER-7812)

Site P-15-013928 was previously recorded as a historic-era maintained and graded unnamed road (CH2M HILL 2009). The road was described to originate at the Los Angeles Aqueduct then continue northeast for about 2 miles with widely spaced unidentified wood poles (potentially telephone poles) that have been cut down to stumps. CH2M HILL (2009) recommended the site as not eligible for listing on the CRHR.

Tetra Tech located the previously recorded site, observed the previously recorded constituents, and no new diagnostic artifacts or changes to the site were identified. Tetra Tech concurs with CH2M Hill's (2009) pervious site recommendation as not eligible for listing in the CRHR. Therefore, P-15-013928 is recommended not eligible for listing in the CRHR. Tetra Tech recommends no further management for this site.

P-15-013929 (CA-KER-7813)

Site P-15-013929 was previously recorded as a historic-era unnamed graded dirt road (CH2M Hill 2009). The previous recordation indicated there was no available information regarding the original construction and purpose of the road. CH2M HILL (2009) recommended the site as not eligible for listing in the CRHR.

Tetra Tech visited P-15-013929 and the site appeared as previously recorded. The site is adjacent to (north of) the Project site. Tetra Tech concurs with CH2M Hill's (2009) pervious site recommendation as not eligible for listing in the CRHR. It also does not convey significance as a unique archaeological resource under Section 21083.2 of the PRC. Therefore, P-15-013929 is recommended not eligible for listing in the CRHR. This site is also outside the Project site (adjacent, north of Project site boundary). Tetra Tech recommends no further management for this site.

P-15-014703 (CA-KER-8269)

Site P-15-014703 (CA-KER-8269) was first recorded as a small historic-era campsite and refuse scatter of cans, glass, ceramic, metal, rock rings, and bullet shell casings from the 1920s to 1950s (C2HM Hill 2009). Modern refuse and disturbance were also noted. C2HM Hill (2009) conducted shovel testing at the site and the results were negative, and the site was recommended as not eligible for listing in the CRHR (Lawson and Cruz 2009).

Tetra Tech visited the site location and observed the site had been impacted from construction of the wind energy-generating facility as the cultural material appeared strew across the original site boundary and beyond. The site was previously tested by C2HM Hill (2009) and recommended as not eligible. Tetra Tech concurs with the previous evaluation; the site is no longer extant and no longer retains integrity. Therefore, P-15-014703 is recommended not eligible for listing in the CRHR. It also does not convey significance as a unique archaeological resource under Section 21083.2 of the PRC. Tetra Tech recommends no further management for this site. This resource is within the Study Area but not within the Project site and will be avoided and not impacted by Project activities.

P-15-016244 (CA-KER-8979)

Site P-15-016244 was previously recorded as a precontact lithic scatter of eight flakes in various stone materials and phases of production (Pacific Legacy, Inc. 2010). Pacific Legacy (2010) recommended the site not eligible for listing in the CRHR.

Tetra Tech visited site P-15-016244 but did not observe any previously recorded artifacts or any new cultural material. The lack of artifact identification may be due to incorrect previously recorded location data or erosional processes. This site is located within the fluvial path of the an ephemeral wash that dissects the alluvial fan via episodic high energy flows from storm events, which presents a high erosion force for the movement and deposition of sediment. Hence, the site was not observed at the previously recorded location and may have been previously incorrectly plotted or have been impacted due to heavy sheet wash activity. Due to erosional processes, the site lacks integrity and it is unlikely that intact subsurface deposits exist; the previous recordation of P-15-016244 has likely exhausted the data potential of the site (Criteria 4). Therefore, P-15-016244 is recommended not eligible for listing in the CRHR. It also does not convey significance as a unique archaeological resource under Section 21083.2 of the PCR. Although Tetra Tech recommends the site is not a historical resource under CEQA, Tetra Tech also recommends avoidance of the site until Kern County consults with interested Tribes under AB52 regarding P-15-016244 and Tribal Cultural Resources (as appropriate) and recommended Tribal mitigation measures.

P-15-016251 (CA-KER-8984)

Historic era site P-15-016251 is previously recorded as two mechanically prepared surfaces (road segments), a sparce refuse scatter (cans and glass shards), and water control channels with reinforced rock corners (Pacific Legacy, Inc. 2010). The road was abandoned in 1973 for use of the improved alignment to the east. The site was described to be in fair condition due to modern refuse observed and impacts from modern road usage. Pacific Legacy (2009) recommended P-15-016251 as not eligible for listing in the CRHR.

Tetra Tech visited the site location, and the site appeared as previously recorded but the road is heavily overgrown intermittently along the recorded segment. A second parallel road was not observed during survey due to overgrowth and erosion but is visible on aerial imagery. Previously recorded reinforced rock corners were also not observed during survey.

The earliest known recordation of the road appears on an 1856 GLO plat. The road also appears on 1882 GLO plats with the same alignment. Review of the road's path in 1856 in areas beyond Project site boundaries reveals that the road had different names along its route. Until the mid-20th century, the road was one of few thoroughfares that allowed passage from the Antelope Valley north through the Tehachapi Mountains. The road was likely initially developed and used by the Kitanemuk or other indigenous peoples prior to non-native exploration, and then later used following rapid settlement in California spurred by the Gold Rush in the 1840s and 1850s.

USGS topographic maps (1915, 1943) and aerial imagery (1952) demonstrate that the road's alignment remained intact until the mid-20th century. In the early 1960s, an improved alignment of the road was constructed to the east of P-15-016251. The new alignment first appears on aerial imagery from 1963. It branches off from P-15-016251 approximately 0.5 mile north of the previously recorded segment. P-15-016251 was abandoned in 1973, and the improved alignment is still in use today. Review of federal patents for the site area identified two patent holders, Lee K. Strobel in 1917 and Joseph C. Orth in 1919, under the Homestead Act (12 Stat. 392) of 1862 (BLM 2024). Review of archival census and genealogic sources, historic newspaper articles, historic maps and aerial imagery, and other online sources did not reveal any information connecting Strobel, Orth, or other historic-era landowners to the site or provide information of the use of the site (see Chapter 6).

Site P-15-016251 is not associated with a significant historic event (Criteria 1). Although Lee Strobel and Joseph Orth were issued homestead patents that overlap with the site area, no information was found directly connecting Strobel, Orth, or other landowners to the site (Criteria 2). The segment does not represent a special type or method of construction, nor does it possess high artistic values or the work of a master. Additionally, integrity of setting, design, and feeling have been diminished by modern use and disturbance (Criteria 3). Due to disturbance, it is unlikely that the site would yield information significant to local history (Criteria 4). Tetra Tech recommends the site not eligible for listing in the CRHR. The site also does not meet the definition of a unique historical resource (PRC Section 21083.2). In summary, P-15-016251, CA-KER-8984 does not qualify as a historical resource under CEQA. No further management is recommended.

P-15-016252

Site P-15-016252 was previously recorded as a historic-era cement foundation, fence line, and a sparce refuse scatter (c. post 1945; Pacific Legacy, Inc. 2010). The site was classified to be in good condition. Pacific Legacy (2010) determined the site was not eligible for listing in the CRHR but also recommended avoidance of the resource.

Tetra Tech visited the site location and observed additional artifacts and features, expanded the boundary, and updated the site form. The site is adjacent to (west of) an improved dirt that parallels a transmission line corridor. Review of historic aerial imagery (1956, 1963, 1974, 1983) and historic USGS topographical maps (1959, 1961, 1967, 1976) illustrate a building at the site location in 1967 and 1976 (Netronline 2024). The building no longer appears extant on aerial imagery by 1986. Review of federal patents for the site area identified one patent holder, Pearl Whiteside in 1938, under the Homestead Act of 1862 (BLM 2024). The patent overlaps with the site area. The California U.S. Voter Registration of 1924 to 1932 list a Mrs. Pearl Whiteside as living in Rosamond, California (Ancestry 2024). Rosamond is approximately 14 miles south of the site. No additional historical information was available for Pearl Whiteside (or other landowners) through census and genealogic sources, historic newspaper articles, or other online sources that connect them to the site. Based on the historic archival review and artifact types, the refuse scatter, concentrations, and features are most likely the remains of a historic homestead constructed sometime between 1959 and 1967, and most likely occupied or used through the 1970s. Modern disturbance includes a cement slab engraved with a name and date of 1991 to 1998, modern refuse, and several shotgun shells. The site appears to have been used by a firearm recreationist for target practice (artifacts and foundations have bullet holes, bullet casings, clay pigeon fragments, glass bottles broken in many shards). Aerial imagery indicates the site had been graded and cleared of vegetation in 1995 and later in 2020.

Due to modern disturbances from public off-road use, shooting range activities, and grading, P-15-016252 is in poor condition and lacks integrity. Although Pearl Whiteside appears to have a homestead patent that overlaps with the site area, there is no evidence directly connecting the site to her or any significant event or individual. Therefore, the site does not appear to be associated with an event or person who played a significant role in national or local history (Criterion 1 and 2). The dilapidated foundations within the site do not embody the distinctive characteristics of an architectural style or architect or exhibit high artistic value (Criteria 3). The site is within a highly disturbed area. The original buildings or structures were demolished, and the features and refuse has been impacted by erosional processes and public activity. It is unlikely that significant intact subsurface cultural deposits exist. The previous recordation and Tetra Tech's update recordation of P-15-016252 has likely exhausted the data potential of the site (Criteria 4). It also does not retrain historic integrity of design, setting, materials, workmanship, feeling, and association. Therefore, Tetra Tech recommends the site as not eligible for listing on the CRHR and does not qualify as a historical resource under CEQA. No further management is recommended.

P-15-016508 (CA-KER-9088)

Site P-15-016508 was previously recorded as a historic-era refuse scatter (i.e., cans, glass shards, solarized amethyst glass fragments, ceramic with "K.T. & K. Co." maker's mark, lantern, stove parts),

and broken concrete (Sapphos Environmental Inc. 2009). Sapphos Environmental (2009) noted that the concrete may have been indicative of a homestead or structure, but no intact foundation was present. The site was also described to be in fair condition with impacts of natural erosion and off-highway vehicle traffic.

Tetra Tech visited the site location and the site appeared as originally recorded, except the boundary was expanded to include the diffuse refuse scatter noted but not recorded by Sapphos (2009). Observed disturbance included erosional processes and public access via adjacent roads. Review of historic aerial imagery (1963, 1974, 1983), GLO plats (1881), and historic USGS topographical maps (1959, 1961, 1967, 1976) depicts the site area as undeveloped desert land with two parallel north-to-south trending roads to the west by the 1960s (Netronline 2024, BLM 2024). No changes appear to modern times. Review of federal patents for the site area identified one patent holder, Harley G. Cretcher in 1916, under the Homestead Act of 1862 (BLM 2024). The patent overlaps with the site area. The U.S. Registration of Motor Vehicles from 1900 to 1968 lists a Harley G. Cretcher as registering a Ford in Mojave, California in 1917 (Ancestry 2024). The California U.S. Voter Registration from 1910 to 1918 lists a Harley G. Cretcher as an employee of Gen. Pet. Co. and living in Rosamond, California, and later in 1938 as retired and still living in Rosamond (Ancestry 2024). No additional historical information was available for Harley Cretcher (or other landowners) through census and genealogic sources, historic newspaper articles, or other online sources that connect them to the site. Based on the cultural constituents and historic review, site P-15-016508 dates to the turn of the 20th Century.

Although Harley G. Cretcher appears to have a homestead patent that overlaps with the site area, there is no evidence directly connecting Cretcher to the site or any significant event or individual. Therefore, the site does not appear to be associated with an event or person who played a significant role in national or local history (Criterion 1 and 2). No standing building, structures, or other features were identified on the site (only concrete fragments). The site does not embody the distinctive characteristics of an architectural style or architect or exhibit high artistic value (Criteria 3). The site exhibits poor integrity, and the features and refuse has been impacted by erosional processes and public activity. It is unlikely that significant intact subsurface cultural deposits exist. The previous recordation and Tetra Tech's updated recordation of P-15-016508 has likely exhausted the data potential of the site (Criteria 4). It does not retain historic integrity of design, setting, materials, workmanship, feeling, and association. Therefore, Tetra Tech recommends the site as not eligible for listing on the CRHR and that it does not qualify as a historical resource under CEQA. No further management is recommended.

P-15-016511

Site P-15-016511 was previously recorded as a historic-era refuse scatter and concentration composed of cans (hole-in-cap type), glass shards, a glass bottle and a jar, ceramics sherds (dishware), and miscellaneous metal (heater parts, beater, a sprinkler coupling and bracket, butter knife, bicycle wheels) dating to the mid-1930s through the 1940s (Sapphos Environmental Inc. 2010).

Tetra Tech located the previously recorded site and observed the previously recorded artifacts. It appears unchanged since the original recording. Review of historic aerial imagery (1963, 1974, 1983), GLO plats (1881), and historic USGS topographical maps (1959, 1961, 1967, 1976) depicts the site area

as undeveloped desert land with a northwest-to-southeast trending ephemeral dry wash (deeply incised) to the west (Netronline 2024, BLM 2024). No changes appear to modern times. Review of federal patents for the site area identified one patent holder, the Southern Pacific Railroad Co. in 1894, under the Grant-RR-Atlantic and Pacific Railroads of 1866 (BLM 2024).

No additional archival historical information was available for any landowners or mining claim through census and genealogic sources, historic newspaper articles, historic aerial imagery or map, or other online sources. The site does not appear to be associated with any significant person or event (Criteria 1 and 2). The refuse scatter does not embody the distinctive characteristics of an architectural style or architect or exhibit high artistic value (Criteria 3). Furthermore, the site is near a large ephemeral wash and lacks integrity due to episodic water runoff resulting in soil erosion and it is unlikely that significant intact subsurface cultural deposits exist. As such, recordation of the refuse has likely exhausted the data potential of the site (Criteria 4). It also does not convey significance as a unique archaeological resource under Section 21083.2 of the PRC. Therefore, P-15-016511 is recommended not eligible for listing in the CRHR and does not qualify as a historical resource under CEQA. No further management is recommended.

P-15-016514 (CA-KER-9094)

Site P-15-016514 was previously recorded by Sapphos Environmental Inc. (2010) as a historic-era refuse scatter and concentration composed of cans (sanitary cans, most with bullet holes), glass shards, rubber, concrete and brick fragments, wood, and various metal (nails, bolts, wire cord, fragments) located adjacent to a northwest-to-southeast two-track road. No foundations or other features were observed. Based on the artifacts, that site was interpreted as a historic period dump dating between the 1950s to the 1960s (Sapphos Environmental Inc. 2010). The resource was reported to be in fair condition with the possible remains of modern recreational shooting activities due to the large number of observed bullet casings and shattered glass.

Tetra Tech was able to relocate the site and assessed its condition as otherwise unchanged. The team noted an ephemeral wash (Sandy Wash) bisects the eastern portion of the site boundary. A large undesignated recreational area and camp used by the public for off-road and shooting range activities is over 600 feet to the southwest of the site. Review of historic aerial imagery (1959, 1963, 1974, 1983), GLO plats (1881), and historic USGS topographical maps (1959, 1961, 1967, 1976) depicts the site area as undeveloped desert land with a northwest-to-southeast trending road to the west by 1959 (Netronline 2024; BLM 2024). The area remains unchanged to date. Review of federal patents for the site area identified one patent holder, Dennis Smith in 1927, under the Homestead Act (12 Stat. 392) of 1862 (BLM 2024). No additional archival historical information was available for any landowners or a mining claim through census and genealogic sources, historic newspaper articles, historic aerial imagery or map, or other online sources.

P-15-016514 does not appear to be associated with any significant person or event (Criteria 1 and 2). The site appears as a single refuse disposal episode of refuse and does not embody the distinctive characteristics of an architectural style or architect or exhibit high artistic value (Criteria 3). The condition of the site is poor and lacks integrity due to environmental impacts from Sandy Wash and episodic heavy storm events that cause erosion and artifact displacement, and from modern

recreationalist use as a shooting range (evident by bullet holes in artifacts and shattered glass). It is unlikely that significant intact subsurface cultural deposits exist. As such, recordation of the refuse has likely exhausted the data potential of the site (Criteria 4). It also does not convey significance as a unique archaeological resource under Section 21083.2 of the PRC. Therefore, P-15-016514 is recommended not eligible for listing in the CRHR and does not qualify as a historical resource under CEQA. No further management is recommended.

P-15-016518 (CA-KER-9098)

Site P-15-016518 was previously recorded by Sapphos Environmental Inc. (2011) as a prehistoric lithic scatter of 10 rhyolite and chert flakes, and a piece of chert shatter, indicative of late-stage core reduction and tool manufacturing. No tools or utilized flakes were identified. The site was not evaluated for listing on the NRHP or CRHR. Tetra Tech visited the site during this study and observed P-15-016518 as originally recorded and identified an additional six flakes and a retouched flake. In total, the site consists of 16 rhyolite and chert flakes, and a modified rhyolite flake with unifacial retouching along one edge. The site boundary was updated to include the additional lithics.

The integrity of the site is fair due to the high-energy sheetwash activity caused by the ephemeral drainages. P-15-016518 does not appear to be associated with any significant person or event (Criteria 1 and 2). The site appears as a single refuse disposal episode of refuse and does not embody the distinctive characteristics of an architectural style or architect or exhibit high artistic value (Criteria 3). Due to environmental disturbances, it is unlikely that significant intact subsurface cultural deposits exist. As such, recordation of the refuse has likely exhausted the data potential of the site (Criteria 4). Therefore, P-15-016518 is recommended not eligible for listing in the CRHR. Although Tetra Tech recommends the site not be considered eligible under CEQA, Tetra Tech recommends avoidance of the site until Kern County consults with interested Tribes under AB52 regarding P-15-016518 and Tribal Cultural Resources (as appropriate) including recommended Tribal mitigation measures.

P-15-016519 (CA-KER-9099)

Site P-15-016519 was previously recorded by Sapphos Environmental Inc. (2012) as a historic-era refuse scatter (cans, milled wood fragments, pieces of sheet metal, ceramic, glass shards), and a potential chicken coup. Sapphos (2012) suggest the cultural constituents may represent a former homestead. The resource was reported to be in fair condition with moderate disturbance from a northwest-to-southeast trending dirt road adjacent to the site. The site was not evaluated for listing on the NRHP or CRHR.

Tetra Tech visited the previously recorded site location and was unable to locate P-15-016519 within the current Project site. The previously recorded site boundary is situated primarily outside (west) of the Project site. A small portion of the eastern site boundary extends approximately 60 feet within the Project site. No cultural material was observed within the portion of P-15-016519 that extends into the Project site. There is a discrepancy between the plotted location of the site on the DPR 523 site form location map verses the GIS Shapefile location provided by the SSJVIC. The DPR site form location map depicts the site 1000 feet north of the SSJVIC GIS plotted location, and outside of the Project site and Study Area. Tetra Tech notified the SSJVIC regarding the location discrepancy and that no

artifacts or features were observed within the GIS Shapefile site boundary. The eastern site boundary partially overlaps the Study Area and no further management is recommended for P-15-016519.

P-15-016528 (CA-KER-9108)

Site P-15-016528 was previously recorded by Sapphos Environmental Inc. (2012) as a moderately dense lithic scatter of 124 lithic flakes of primarily tertiary type of rhyolite, and CCS to a lesser extent. No tools or utilized flakes were documented. The Middle Buttes, a possible lithic source, are 4 kilometers to the south. Sapphos (2012) did not provide a recommendation for or CRHR eligibility. Tetra Tech visited the site location and observed the site as previously recorded. This site remains unevaluated for eligibility listing in the CRHR. Tetra Tech recommends avoidance of the site until Kern County consults with interested Tribes under AB52 regarding P-15-016528 and Tribal Cultural Resources (as appropriate) including recommended Tribal mitigation measures.

P-15-016875 (CA-KER-9264)

Site P-15-016875 was previously recorded by Sapphos Environmental Inc. (2009) as a historic-era refuse scatter (7 cans, 50 glass shards, 30 nails) and a cluster of 8 fire affected rocks (possible hearth). The resource was reported to be in fair condition with the eastern area of the site disturbed by a dirt road. Sapphos (2009) suggest the site dates to the turn of the 20th century (1890 to 1920s). The site was not evaluated for listing on the NRHP or CRHR.

Tetra Tech visited the site location and determined the site appeared as originally recorded. The site is within and adjacent to a northwest-to-south trending ephemeral drainage of Oak Creek.

Review of historic aerial imagery (1959, 1963, 1974, 1983), GLO plats (1856, 1935), and historic USGS topographical maps (1959, 1961, 1967, 1976) depicts the site area as undeveloped desert land with a northeast-to-southwest trending road to the east by 1959 (Netronline 2024, BLM 2024). By 1972, the road appears improved and is forked to the north and northeast. The area appears unchanged to date. Review of federal patents for the site area identified one patent near the site area, Helena K. Spencer in 1920, under the Desert Land Act (19 Stat. 377) of 1877 (BLM 2024). No additional archival historical information was available for Spencer or other historic landowner, mining claims, or use for the site area through census and genealogic sources, historic newspaper articles, historic aerial imagery or map, or other online sources.

Although Helena K. Spencer acquired a patent near the site area, there is no direct evidence connecting Spencer to the site. Hence, P-15-016875 does not appear to be associated with any significant person or event (Criteria 1 and 2). No structures or features were observed, and the refuse scatter represents a single refuse disposal episode and does not embody the distinctive characteristics of an architectural style or architect or exhibit high artistic value (Criteria 3). Furthermore, the low density refuse scatter is near a large ephemeral wash and lacks integrity due to episodic precipitation events resulting in soil erosion, and it is unlikely that significant intact subsurface cultural deposits exist. As such, recordation of the refuse has likely exhausted the data potential of the site (Criteria 4). It also does not convey significance as a unique archaeological resource under Section 21083.2 of the PRC. Therefore, P-15-016875 is recommended not eligible for

listing in the CRHR and does not qualify as a historical resource under CEQA. No further management is recommended.

7.1.3 Newly Recorded Resources

The CRHR eligibility and management recommendations for newly recorded sites are presented below.

P-15-022359, CA-KER-11797/H

Site P-15-022359, CA-KER-11797/H consists of a prehistoric lithic scatter and a historic-era isolate. The prehistoric component consists of 18 pieces of lithic debitage of local material (rhyolite, CCS) consisting primarily of shatter and to a lesser extent primary and secondary flakes. The site represents the early lithic tool reduction stage of local material. The historic isolate includes two milk glass fragments and one church key-opened steel beverage can. An unnamed north-to-south trending two-track road bisects the western portion of the site. Site P-15-022360, CA-KER-11798 (prehistoric lithic scatter) is 87 meters to the south. The condition of the site is fair due to erosional processes and the two-track road that bisects the site. This site is unevaluated for eligibility for the CRHR. Tetra Tech recommends avoidance of the site until Kern County consults with interested Tribes under AB52 regarding P-15-022359, CA-KER-11797/H and Tribal Cultural Resources (as appropriate) including recommended Tribal mitigation measures.

P-15-022360, CA-KER-11798

Site P-15-022360, CA-KER-11798 is a low density prehistoric lithic scatter composed of three CCS flakes and a multi-faceted CCS core. Ground surface visibility was good. A north-to-south trending two-track road is located along the northwestern boundary of the site. P-15-022359, CA-KER-11797/H is 87 meters to the north of the site. This site is unevaluated for eligibility for the CRHR. Tetra Tech recommends avoidance of the site until Kern County consults with interested Tribes under AB52 regarding P-15-022360, CA-KER-11798, and Tribal Cultural Resources (as appropriate) including recommended Tribal mitigation measures.

P-15-022361, CA-KER-11799H

Site P-15-022361, CA-KER-11799H consists of a historic-era refuse scatter and a refuse concentration. The refuse consists of domestic material (i.e., cans, glass, ceramics, and metal) dating between the 1920s and 1960s. No buildings, structures, or foundations were observed. The site is situated between a north-to-south trending unnamed two-track road (west of and adjacent to) and a northwest-to-southeast trending two-track road (east of) and the refuse is likely associated with roadside-refuse disposal activities. The overall condition of the site is fair due to environmental erosional processes (episodic storm events, periods of high winds) that result in artifact displacement (artifact scatter widely disbursed from concentration), and public access via the adjacent roads.

Review of historic aerial imagery and topographic maps (see Chapter 6) did not identify any buildings, features, mining claims, or structures within the site area. One federal land patent held by William Rohde in 1913, under the Sale-Cash Entry (3 Stat. 566) act of 1820 (T10N, R13W, SE1/4, Section 4) overlaps with the site area (BLM 2024). No additional historical information was available for William

Rohde or other property owners or use of the site area through census records, genealogic sources, historic newspaper articles, historic maps or aerial imagery, and other online sources.

The site appears as a single refuse disposal event that cannot be connected to a significant event or person (Criteria 1 and 2). The site consists of ubiquitous utilitarian refuse and no buildings or features are present. As such, it does not represent the work of a master craftsman or possess high artistic value (Criteria 3). Roadside refuse disposal events tend to be surficial artifact concentrations and scatters, and it is unlikely that subsurface deposits exist that would yield information important to local history. The recordation of P-15-022361, CA-KER-11799H has likely exhausted the data potential of the site (Criteria 4). Tetra Tech therefore recommends the site not eligible for listing in the CRHR. It also does not meet the definition of a unique historical resource (PRC Section 21083.2). In summary, P-15-022361, CA-KER-11799H does not qualify as a historical resource under CEQA. No further management is recommended.

P-15-022362, CA-KER-11800H

Site P-15-022362, CA-KER-11800H is a historic-era mining site and refuse situated at the base of the northeastern-most knoll of the Middle Buttes. The site consists of a rock cairn (possible mining claim marker), two surface prospecting pits and tailings, and a light refuse scatter of 14 glass shards and 2 cans dating between the late 1920s to 1960s. No mining claim identifier (e.g., metal tag with number) was observed at or near the rock cairn. Review of historic maps and aerial imagery, and other online database sources, did not identify a mining prospect or claim at the site location. One federal land patent held by Herman D. Schmidt in 1913 under the Homestead Act (3 Stat. 566) act of 1862 overlaps with the site area (BLM 2024). The U.S. World War I Draft Registration of 1917 to 1918 lists a Herman D. Schmidt as 32 years old, working as a laborer, and living in Mojave, California (Ancestry 2024). The 1910 to 1918 U.S. Voter Registration lists a Herman D. Schmidt as a republican and rancher and later a farmer and democrat in Mojave, California. By 1920 to 1922 Schmidt is listed as a fireman still living in Mojave (Ancestry 2024). No additional historical information was available for Herman D. Schmidt (or any other landowners) through census records, genealogic sources, historic newspaper articles, and no evidence was found to connect Schmidt to the site.

Although the site appears to be associated with exploratory mining activity, there is no evidence indicating the site is a significant mine or associated with a significant mine in the region. The site is typical of several exploratory prospecting-type locales in the region. Hence, the site could not be connected to a significant event or person (Criteria 1 and 2). It also does not depict a significant method of construction or the work of a master craftsman or possess high artistic value (Criteria 3). The site contains isolated mining features and a refuse scatter that are surficial in nature. Hence, it is unlikely that intact subsurface deposits exist that would yield information important to local history, and the recordation of P-15-022362, CA-KER-11800H has likely exhausted the data potential of the site (Criteria 4). Tetra Tech therefore recommends the site not eligible for listing in the CRHR. It also does not meet the definition of a unique historical resource (PRC Section 21083.2). In summary, P-15-022362, CA-KER-11800H does not qualify as a historical resource under CEQA. No further management of the site is recommended.

P-15-022363, CA-KER-11801/H

Site P-15-022363, CA-KER-11801/H is a multicomponent site that consists of a prehistoric lithic scatter and historic-era refuse situated at the base of the northeastern-most knoll of the Middle Buttes. An unnamed two-track road bisects the site. The prehistoric component consists of 65 local rhyolite and CCS early-reduction stage flakes. The historic component consists of a low-density, widespread refuse scatter of 14 cans and 37 glass shards that date between the 1940s and 1960s. Site P-15-022362, CA-KER-11800H (mining prospect and refuse) is 130 feet to the southwest. Review of historic maps and aerial imagery does not depict any building, structures, features, mining prospects, or claims at the site location. One federal land patent held by Herman D. Schmidt in 1913 under the Homestead Act (3 Stat. 566) act of 1862 overlaps with the site area (BLM 2024). The U.S. World War I Draft Registration of 1917 to 1918 lists a Herman D. Schmidt as 32 years old, working as a laborer, and living in Mojave, California (Ancestry 2024). The 1910 to 1918 U.S. Voter Registration lists a Herman D. Schmidt as a republican and rancher and later a farmer and democrat in Mojave, California. By 1920 to 1922 Schmidt is listed as a fireman still living in Mojave (Ancestry 2024). No additional historical information was available for Herman D. Schmidt (or any other landowners) through census records, genealogic sources, historic newspaper articles, and no evidence was found to connect Schmidt to the site.

The historic component of the site appears as a single refuse disposal event that cannot be connected to a significant event or person (Criteria 1 and 2). The site consists of ubiquitous utilitarian refuse and no buildings or features are present. As such, it does not represent the work of a master craftsman or possess high artistic value (Criteria 3). Isolated refuse disposal events tend to be surficial artifact concentrations and scatters, and it is unlikely that subsurface deposits exist that would yield information important to local history. The recordation of P-15-022363, CA-KER-11801/H has likely exhausted the data potential of the site (Criteria 4). Tetra Tech therefore recommends the historic component of the site as not eligible for listing in the CRHR. The historic component of the site does not meet the definition of a unique historical resource (PRC Section 21083.2). In summary, the historic component of P-15-022363, CA-KER-11801/H does not qualify as a historical resource under CEQA. No further management is recommended.

The prehistoric component of the site is unevaluated for eligibility to the CRHR. Tetra Tech recommends avoidance of the site until Kern County consults with interested Tribes under AB52 regarding P-15-022363, CA-KER-11801/H and Tribal Cultural Resources (as appropriate) including recommended Tribal mitigation measures.

P-15-022364, CA-KER-11802/H

Site P-15-022364, CA-KER-11802/H is a multicomponent site composed of prehistoric lithic scatter (three primary CCS flakes) and 4 isolated historic-era cans. The isolated historic component is not eligible for listing in the CRHR, and no further management is recommended.

The prehistoric component of P-15-022364, CA-KER-11802/H is unevaluated for eligibility for listing in the CRHR. Tetra Tech recommends avoidance of the site until Kern County consults with interested Tribes under AB52 regarding P-15-022364, CA-KER-11802/H and Tribal Cultural Resources (as appropriate) including recommended Tribal mitigation measures.

P-15-022365, CA-KER-11803H

The historic site P-15-022365, CA-KER-11803H is a sparse and highly diffused refuse scatter (12 cans and one bottle) dating between 1950s to the 1980s. A north-to-south graded and improved road bisects the western portion of the site, where the densest amount of refuse is located. Review of historical maps, aerial imagery, and other sources did not identify any additional information regarding the site (see Chapter 6).

The site appears as a single roadside refuse disposal event that cannot be connected to a significant event or person (Criteria 1 and 2). The site consists of ubiquitous utilitarian refuse and no buildings or features are present. As such, it does not represent the work of a master craftsman or possess high artistic value (Criteria 3). Roadside refuse disposal events tend to be surficial artifact concentrations and scatters, and it is unlikely that subsurface deposits exist that would yield information important to local history, and the recordation of P-15-022365, CA-KER-11803H has likely exhausted the data potential of the site (Criteria 4). Tetra Tech therefore recommends the site not eligible for listing in the CRHR. It also does not meet the definition of a unique historical resource (PRC Section 21083.2). In summary, P-15-022362, CA-KER-11800H does not qualify as a historical resource under CEQA. In addition, this site is within the Study Area but not within the Project site and will be avoided and not impacted by Project activities. No further management is recommended.

P-15-022366, CA-KER-11804

The prehistoric site P-15-022366, CA-KER-11804 is a low-density lithic scatter of local material (three rhyolite flakes and one CCS tertiary flake).

Site P-15-022366, CA-KER-11804 is unevaluated for eligibility for listing in the CRHR. Tetra Tech recommends avoidance of the site until Kern County consults with interested Tribes under AB52 regarding P-15-022364, CA-KER-11802/H and Tribal Cultural Resources (as appropriate) including recommended Tribal mitigation measures.

P-15-022367, CA-KER-11805/H

Site P-15-022367, CA-KER-11805/H is a multicomponent site consisting of a prehistoric isolated flake and a large historic refuse scatter. The prehistoric isolate is a CCS (jasper) primary flake and is not eligible for listing in the CRHR. The historic component consists primarily of domestic refuse (cans, glass, and ceramics sherds) that dates from the 1900s to the 1950s. An east-to-west trending improved graded dirt road bisects the northernmost portion of the site. A review of federal patents, archival census and genealogic sources, historic newspaper articles, historic maps and aerial imagery, and other online sources did not reveal any information connecting a historic-era landowner to the site or use of the site (see Chapter 6). Site P-15-018673 (large refuse scatter) is located east of the site. Site P-15-018673 was previously archaeologically tested in 2014 with negative results and the site was determined not eligible to the CRHR and NRHP (Powers Engineers 2015). The two sites may represent one or two roadside refuse disposal episodes by nearby residents.

P-15-022367, CA-KER-11805/H appears as a roadside refuse disposal event that cannot be connected to a significant event or person (Criteria 1 and 2). The site consists of ubiquitous utilitarian refuse and no buildings or features are present. As such, it does not represent the work of a master craftsman or

possess high artistic value (Criteria 3). Roadside refuse disposal events tend to be surficial artifact concentrations and scatters, and it is unlikely that subsurface deposits exist that would yield information important to local history. The recordation of P-15-022367, CA-KER-11805/H has likely exhausted the data potential of the site (Criteria 4). Tetra Tech therefore recommends the site not eligible for listing in the CRHR. It also does not meet the definition of a unique historical resource (PRC Section 21083.2). In summary, P-15-022367, CA-KER-11805/H does not qualify as a historical resource under CEQA. In addition, this site is outside the Project site and will not be impacted by Project activities. No further management is recommended.

P-15-022368, CA-KER-11806H

Site P-15-022368, CA-KER-11806H consists of a historic-era refuse scatter of domestic debris of 41 cans, 6 glass shards, and a glass bottle, and dates between 1950s to 1960s. The site is bisected by an unnamed east-to-west trending two-track road, and a north-to-south graded and improved road is along the eastern boundary of the site. A review of federal patents, archival census and genealogic sources, historic newspaper articles, historic maps and aerial imagery, and other online sources did not reveal any information connecting a historic-era landowner to the site or use of the site (see Chapter 6).

P-15-022368, CA-KER-11806H appears as a roadside refuse disposal event that cannot be connected to a significant event or person (Criteria 1 and 2). The site consists of ubiquitous utilitarian refuse and no buildings or features are present. As such, it does not represent the work of a master craftsman or possess high artistic value (Criteria 3). Roadside refuse disposal events tend to be surficial artifact concentrations and scatters, and it is unlikely that subsurface deposits exist that would yield information important to local history. The recordation of P-15-022368, CA-KER-11806H has likely exhausted the data potential of the site (Criteria 4). Tetra Tech therefore recommends the site not eligible for listing in the CRHR. It also does not meet the definition of a unique historical resource (PRC Section 21083.2). In summary, P-15-022368, CA-KER-11806H does not qualify as a historical resource under CEQA. No further management is recommended.

P-15-022369, CA-KER-11807H

Site P-15-022369, CA-KER-11807H consists of a historic-era refuse scatter of domestic debris (cans and glass) dating between 1935 to the 1960s. The site is situated adjacent to an unnamed east-to-west trending two-track road. A review of federal patents, archival census and genealogic sources, historic newspaper articles, historic maps and aerial imagery, and other online sources did not reveal any information connecting a historic-era landowner to the site or use of the site (see Chapter 6).

P-15-022369, CA-KER-11807H appears as a single roadside refuse disposal event that cannot be connected to a significant event or person (Criteria 1 and 2). The site consists of ubiquitous utilitarian refuse and no buildings or other features are present. As such, it does not represent the work of a master craftsman or possess high artistic value (Criteria 3). Roadside refuse disposal events tend to be surficial artifact concentrations and scatters, and it is unlikely that subsurface deposits exist that would yield information important to local history. The recordation of P-15-022369, CA-KER-11807H has likely exhausted the data potential of the site (Criteria 4). Tetra Tech therefore recommends the

site not eligible for listing in the CRHR. It also does not meet the definition of a unique historical resource (PRC Section 21083.2). In summary, P-15-022369, CA-KER-11807H does not qualify as a historical resource under CEQA. No further management is recommended.

P-15-022370, CA-KER-11808H

Site P-15-022370, CA-KER-11808H is a historic-era mining site and refuse scatter situated on an alluvial plain. The site consists of a surface prospecting pit and tailings, and a light refuse scatter of two cans dating between the late 1920s to 1960s. No shafts, adits, or other mining-related features were observed. A review of federal patents, archival census and genealogic sources, historic newspaper articles, historic maps and aerial imagery, and other online sources did not reveal any information connecting a historic-era landowner to the site, a mining claim, or use of the site (see Chapter 6).

Although the site appears to be associated with exploratory mining activity, there is no evidence indicating the site is a significant mine or associated with a significant mine in the region. The site is typical of several similar prospecting-type locales in the region. Hence, the site could not be connected to a significant event or person (Criteria 1 and 2). It also does not depict a significant method of construction or the work of a master craftsman or possess high artistic value (Criteria 3). The site contains an isolated mining feature and two pieces of refuse (cans) that are surficial in nature. Hence, it is unlikely that intact subsurface deposits exist that would yield information important to local history. The recordation of P-15-022370, CA-KER-11808H has likely exhausted the data potential of the site (Criteria 4). Tetra Tech therefore recommends the site not eligible for listing in the CRHR. It also does not meet the definition of a unique historical resource (PRC Section 21083.2). In summary, P-15-022370, CA-KER-11808H does not qualify as a historical resource under CEQA. This site is within the Study Area but not within the Project site and will be avoided and not impacted by Project activities. No further management of the site is recommended.

P-15-022371, CA-KER-11809H

Site P-15-022371, CA-KER-11809H is a historic-era mining prospect site consisting of an excavated pit, spoils pile (angular rocks and gravels), and a refuse scatter consisting of 2 cans, 10 glass sherds, and 31 ceramic sherds dating between the 1890s to 1940s. No shafts, adits, or other mining-related features were observed. A review of federal patents, archival census and genealogic sources, historic newspaper articles, historic maps and aerial imagery, and other online sources did not reveal any information connecting a historic-era landowner to the site, a mining claim, or use of the site (see Chapter 6).

Although the site appears to be associated with exploratory mining activity, there is no evidence indicating the site is a significant mine or associated with a significant mine in the region. The site is typical of several similar prospecting-type locales in the region. Hence, the site could not be connected to a significant event or person (Criteria 1 and 2), It also does not depict a significant method of construction or the work of a master craftsman or possess high artistic value (Criteria 3). The site contains an isolated mining feature and refuse scatters are surficial in nature. Hence, it is unlikely that intact subsurface deposits exist that would yield information important to local history, and the recordation of P-15-022371, CA-KER-11809H has likely exhausted the data potential of the site

(Criteria 4). Tetra Tech therefore recommends the site not eligible for listing in the CRHR. It also does not meet the definition of a unique historical resource (PRC Section 21083.2). In summary, P-15-022371, CA-KER-11809H does not qualify as a historical resource under CEQA. No further management of the site is recommended.

P-15-022372, CA-KER-11810H

Site P-15-022372, CA-KER-11810H consists of a historic machine-excavated pit with an earthen ramp, two adjacent smaller excavated pits, associated tailing piles, a modified sanitary can, and Budweiser pull-tab cans. The site is located at the northwestern intersection of the Second Aqueduct Road and an unnamed east-to-west trending dirt road. The site is also just west of the Los Angeles Aqueduct and associated road (P-15-003549). Both roads are maintained and currently used by the public. Based on historic aerial imagery (1963, 1972) and topographical maps (1943, 1956, 1958, 1965, 1967, 1976), the site area appears as undeveloped land in 1963. In 1967 the second aqueduct road is present adjacent (east of) to the site, and by 1972 aerial imagery depicts a large, excavated pit within the site (Netronline 2024). The site dates to between 1967 and 1972 and was most likely used for fill material during construction of the Second Aqueduct Road (ca. 1965 to 1976). A review of federal patents, archival census and genealogic sources, historic newspaper articles, historic maps and aerial imagery, and other online sources did not reveal any information connecting a historic-era landowner to the site, a mining claim, or other use of the site (see Chapter 6). The site is surrounded by a utility corridor consisting of a modern wind energy-generating facility.

The site is within the right-of-way corridor of the Los Angeles Aqueduct. The site appears most likely used for fill material (soil and aggregate) during construction of the Second Aqueduct Road (ca. 1956 to 1970). The site consists of excavated pits and represents the typical use of a convenient local material source for construction along the aqueduct. Although the site was used in the construction of the Second Aqueduct Road, it is not a significant contributing event. It is also not associated with a significant person (Criteria 1 and 2), nor does it depict a significant method of construction or the work of a master craftsman or possess high artistic value (Criteria 3). The site contains an isolated excavated feature and the refuse scatter (cans) is surficial in nature. Hence, it is unlikely that intact subsurface deposits exist that would yield information important to local history, and the recordation of P-15-022372, CA-KER-11810H has likely exhausted the data potential of the site (Criteria 4). Tetra Tech therefore recommends the site not eligible for listing in the CRHR. It also does not meet the definition of a unique historical resource (PRC Section 21083.2). In summary, P-15-022372, CA-KER-11810H does not qualify as a historical resource under CEQA. No further management of the site is recommended.

P-15-022373, CA-KER-11811H

Site P-15-022373, CA-KER-11811H is a diffuse refuse scatter of 35 cans, 70 glass shards, a glass bottle, and 6 metal barrel hops dating between 1900 to the 1960s. The site is situated adjacent to (west of) the Second Aqueduct Road and west of the Los Angeles Aqueduct and associated road (P-15-003549). Both roads are maintained and are currently used by the public. The site is surrounded by a utility corridor consisting of a modern wind energy-generating facility.

The site is within the right-of-way corridor of the Los Angeles Aqueduct. The site has been disturbed by construction and maintenance activities associated with the Second Aqueduct Road. The historic-era refuse was most likely deposited during initial construction of the Los Angeles Aqueduct (ca. 1907 to 1913). Although the site is associated with construction of the Los Angeles Aqueduct (P-15-003549: eligible as an NRHP district), the site has been extensively disturbed by construction of the Second Aqueduct Road and lacks integrity to convey significance as a contributing element of P-15-003549 under any CRHR criteria. It is unlikely that intact subsurface deposits exist, and the recordation of the refuse has likely exhausted the data potential of the site (Criteria 4). Therefore, P-15-022373, CA-KER-11811H is recommended not eligible for listing in the CRHR and is not a historical resource under CEQA. It also does not meet the definition of a unique historical resource (PRC Section 21083.2). In summary, P-15-022373, CA-KER-11811H does not qualify as a historical resource under CEQA. No further management of the site is recommended. In addition, P-15-022373, CA-KER-11811H is outside the boundary of the Project site and will be avoided and not impacted by Project activities.

P-15-022374, CA-KER-11812H

Site P-15-022374, CA-KER-11812H is a historic-era refuse concentration and refuse scatter composed of cans, glass shards, and metal, and dates between the 1960s to 1970s. Site P-15-022377, CA-KER-11815H (historic refuse, possible homestead) is 180 feet to the west. The condition of the site is fair due to environmental erosional processes (episodic storm events, high winds). A review of federal patents, archival census and genealogic sources, historic newspaper articles, historic maps and aerial imagery, and other online sources did not reveal any information connecting a historic-era landowner to the site or use of the site (see Chapter 6). Review of historic maps and aerial imagery depicted a building or structure present at P-15-022377, CA-KER-11815H between 1967 and 1983; the building was no longer extant by 1983.

Site P-15-022374, CA-KER-11812H appears as a local residential (most likely from the residents of P-15-022377, CA-KER-11815H) refuse disposal event that cannot be connected to a significant event or person (Criteria 1 and 2). The site consists of ubiquitous domestic utilitarian refuse and industrial domestic refuse (i.e., paint cans, aerosol cans) and no buildings or other features are present. As such, it does not represent the work of a master craftsman or possess high artistic value (Criteria 3). Local refuse disposal events tend to be surficial artifact concentrations and scatters, and it is unlikely that subsurface deposits exist that would yield information important to local history. The recordation of P-15-022374, CA-KER-11812H has likely exhausted the data potential of the site (Criteria 4). Tetra Tech therefore recommends the site not eligible for listing in the CRHR. It also does not meet the definition of a unique historical resource (PRC Section 21083.2). In summary, P-15-022374, CA-KER-11812H does not qualify as a historical resource under CEQA. No further management is recommended.

P-15-022375, CA-KER-11813H

Site P-15-022375, CA-KER-11813H is a is a large excavated pit (mining prospect pit), associated spoils pile, and three pieces of milled lumber. A review of federal patents, archival census and genealogic sources, historic newspaper articles, historic maps and aerial imagery, and other online sources did not reveal any information connecting a significant historic-era landowner to the site, a mining claim, or use of the site (see Chapter 6). No mining shafts, adits, or other features were observed.

Although the site appears to be associated with exploratory mining activity, there is no evidence indicating the site is a significant mine or associated with a significant mine in the region. The site is typical of several similar prospecting-type locales in the region. Hence, the site could not be connected to a significant event or person (Criteria 1 and 2). It also does not depict a significant method of construction or the work of a master craftsman or possess high artistic value (Criteria 3). The site contains an isolated mining feature and refuse (wood) are surficial in nature. Hence, it is unlikely that intact subsurface deposits exist that would yield information important to local history, and the recordation of P-15-022375, CA-KER-11813H has likely exhausted the data potential of the site (Criteria 4). Tetra Tech therefore recommends the site not eligible for listing in the CRHR. It also does not meet the definition of a unique historical resource (PRC Section 21083.2). In summary, P-15-022375, CA-KER-11813H does not qualify as a historical resource under CEQA. No further management of the site is recommended.

P-15-022376, CA-KER-11814H

The historic site P-15-022376, CA-KER-11814H consists of a historic-era diffuse refuse scatter with two dense artifact concentrations composed of domestic and industrial refuse, and a collapsed wooden frame dating between the 1920s to 1970s. No structures or house remnants were observed. An unnamed east-to-west trending two-track road is adjacent to the southern boundary of the site. The site is in fair condition due to environmental erosional processes (e.g., storm events, sheet wash, high winds) resulting in artifact displacement and public access via an adjacent road. A review of federal patents, archival census and genealogic sources, historic newspaper articles, historic maps and aerial imagery, and other online sources did not reveal any information connecting a significant historic-era landowner to the site or use of the site (see Chapter 6). No buildings, features, structures, or mining claims were depicted on the reviewed historic maps or aerial imagery within or adjacent to the site area.

Site P-15-022376, CA-KER-11814H appears as one or two refuse disposal events and possibly a temporary structure (possible animal coop) that cannot be connected to a significant event or person (Criteria 1 and 2). The site consists of ubiquitous domestic utilitarian refuse and industrial domestic refuse (i.e., paint cans, aerosol cans) and no buildings or structures are present. As such, it does not represent the work of a master craftsman or possess high artistic value (Criteria 3). Local refuse disposal events tend to be surficial artifact concentrations and scatters, and it is unlikely that intact subsurface deposits exist that would yield information important to local history. The recordation of P-15-022376, CA-KER-11814H has likely exhausted the data potential of the site (Criteria 4). Tetra Tech therefore recommends the site not eligible for listing in the CRHR. It also does not meet the definition of a unique historical resource (PRC Section 21083.2). In summary, P-15-022376, CA-KER-11814H does not qualify as a historical resource under CEQA. No further management recommended.

P-15-022377, CA-KER-11815H

Site P-15-022377, CA-KER-11815H consists of the remnants of a historic-era building or structure (possible homestead) and an associated refuse scatter composed of domestic and industrial debris dating from the 1960s to late 1970s or early 1980s. A review of federal patents, archival census and genealogic sources, historic newspaper articles, historic maps and aerial imagery, and other online

sources did not reveal any information connecting a historic-era landowner to the site or use of the site (see Chapter 6). Review of historic maps and aerial imagery depicted a building or structure present and a two-track road, leading to the structure via an existing road, between 1967 and 1983; the building was no longer extant by 1983.

Site P-15-022377, CA-KER-11815H is most likely a homestead and associated domestic (cans, glass shards) and industrial (e.g., paint cans, building material) refuse disposal. The homestead was occupied for a short duration or intermittently between 1967 to the early 1980s, and the site is not connected to a significant event or person (Criteria 1 and 2). The site consists of ubiquitous domestic utilitarian refuse and no standing buildings or other features are present. As such, it does not represent the work of a master craftsman or possess high artistic value (Criteria 3). It appears the residents of the site disposed of their refuse adjacent to the site and on the surface (as evident by the surface refuse scatters). It is unlikely that subsurface deposits exist that would yield information important to local history, and the recordation of P-15-022377, CA-KER-11815H has likely exhausted the data potential of the site (Criteria 4). Tetra Tech therefore recommends the site not eligible for listing in the CRHR. It also does not meet the definition of a unique historical resource (PRC Section 21083.2). In summary, P-15-022377, CA-KER-11815H does not qualify as a historical resource under CEQA. No further management is recommended.

P-15-022378, CA-KER-11816

The prehistoric site P-15-022378, CA-KER-11816 is a low-density lithic scatter of 20 primary, secondary, and tertiary flakes, primarily of local rhyolite with some CCS. The site is situated on an alluvial plain and is 30 meters southeast of an ephemeral drainage that generally trends northeast-to-southwest.

Site P-15-022378, CA-KER-11816 is unevaluated for eligibility for listing in the CRHR. Tetra Tech recommends avoidance of the site until Kern County consults with interested Tribes under AB52 regarding P-15-022378, CA-KER-11816 and Tribal Cultural Resources (as appropriate) including recommended Tribal mitigation measures.

P-15-022379, CA-KER-11817

The prehistoric site P-15-022379, CA-KER-11817 is a low-density lithic scatter of 35 local rhyolite and 4 CCS flakes. The site is situated on the south-facing slope and southwest-to-northeast trending unnamed two-track road. A northeast-to-southeast trending two-track road is adjacent to the southern boundary of the site.

Site P-15-022379, CA-KER-11817 is unevaluated for eligibility for listing in the CRHR. Tetra Tech recommends avoidance of the site until Kern County consults with interested Tribes under AB52 regarding P-15-022379, CA-KER-11817 and Tribal Cultural Resources (as appropriate) including recommended Tribal mitigation measures.

P-15-022380, CA-KER-11818H

Site P-15-022380, CA-KER-11818H is a historic-era refuse scatter with two widely diffused concentrations of refuse consisting of domestic and industrial debris dating between the 1960s and 1970s. A northwest-to-southeast trending dirt road (to the northeast. A review of federal patents,

archival census and genealogic sources, historic newspaper articles, historic maps and aerial imagery, and other online sources did not reveal any information connecting a historic-era landowner to the site or use of the site (see Chapter 6). Review of historic maps and aerial imagery depicted a building or structure present at P-15-022377, CA-KER-11815H (900 feet northeast of the site) between 1967 and 1983; the building was no longer extant by 1983.

Site P-15-022380, CA-KER-11818H appears as a local residential refuse disposal event (most likely from the residents of P-15-022377, CA-KER-11815H) that cannot be connected to a significant event or person (Criteria 1 and 2). The site consists of ubiquitous domestic and industrial utilitarian type refuse and no standing buildings or other features are present. As such, it does not represent the work of a master craftsman or possess high artistic value (Criteria 3). Local refuse disposal events tend to be surficial artifact concentrations and scatters, and it is unlikely that subsurface deposits exist that would yield information important to local history. The recordation of P-15-022380, CA-KER-11818H has likely exhausted the data potential of the site (Criteria 4). Tetra Tech therefore recommends the site not eligible for listing in the CRHR. It also does not meet the definition of a unique historical resource (PRC Section 21083.2). In summary, P-15-022380, CA-KER-11818H does not qualify as a historical resource under CEQA. No further management is recommended.

P-15-022381, CA-KER-11819H

The historic site P-15-022381, CA-KER-11819H consist of an elongated machine-excavated pit, two adjacent spoils piles, and a light refuse scatter of domestic (8 can, 19 glass shards, and 1 glass bottle) and industrial material (a thin metal sheet) that dates between the 1930s and 1970s. The site is situated between two north-to-south trending parallel dirt roads one improved and one graded. A review of federal patents, archival census and genealogic sources, historic newspaper articles, historic maps and aerial imagery, and other online sources did not reveal any information connecting a historic-era landowner to the site or use of the site (see Chapter 6). Review of historic maps and aerial imagery did not depict any buildings, structures, features, or mining claims in the site area.

The site is not directly linked to any particular use and is most likely used for local excavated fill material (soil and aggregate) for nearby road maintenance, or the result of exploratory mineral excavation and the refuse appears as a single roadside disposal event. The site is not associated with a significant event or person (Criteria 1 and 2), and the site does not depict a significant method of construction or the work of a master craftsman or possess high artistic value (Criteria 3). The site contains an isolated excavated feature and refuse scatter is surficial in nature. Hence, it is unlikely that intact subsurface deposits exist that would yield information important to local history, and the recordation of P-15-022381, CA-KER-11819H has likely exhausted the data potential of the site (Criteria 4). Tetra Tech therefore recommends the site not eligible for listing in the CRHR. It also does not meet the definition of a unique historical resource (PRC Section 21083.2). In summary, P-15-022381, CA-KER-11819H does not qualify as a historical resource under CEQA. No further management of the site is recommended.

P-15-022382, CA-KER-11820H

The historic site P-15-022382, CA-KER-11820H is an abandoned corral of wooden posts, four studded-steel T-posts, and four pieces of refuse (a thin metal wire spool holder, a rectangular oil can, a metal 5-gallon barrel hoop, and a metal bucket handle). Barbed wire is strung between each post, forming a corral-like area. The site is in poor condition as several of the post are no longer standing and the barbed wire is no longer intact or completely strung around the post. A review of federal patents, archival census and genealogic sources, historic newspaper articles, or other online sources did not reveal any information connecting a historic-era landowner to the site or use of the site (see Chapter 6). Review of historic aerial imagery depicts the site area as undeveloped land with an unnamed two-track road to the south and east in 1963 (Netronline 2024). By 1974, a faint northwest-to-southeast 1960s two-track road leads to the site area and terminates. No buildings, structures, homesteads, or features are depicted in the site area or surrounding area. Based on the archival review and cultural material, the site most likely served as a temporary/seasonal livestock corral for grazing goats or sheep in the area and dates between the 1960s and 1980s.

P-15-022382, CA-KER-11820H is not clearly associated with any significant event (Criteria 1). Historic research did not indicate that the site is associated with a person significant in history (Criteria 2). The feature is most likely the remnants of a small livestock corral, and structural elements are no longer intact. The site does not depict a significant method of construction or the work of a master craftsman or possess high artistic value (Criteria 3). The dilapidated nature of the corral has compromised the site's integrity of design, materials, workmanship, feeling, and association. The resource is not likely to yield important information to history. It also does not yield the potential to answer specific important research questions. The recordation of this segment has likely exhausted the data potential of the resource (Criteria 4). Tetra Tech therefore recommends P-15-022382, CA-KER-11820H not eligible for listing in the CRHR. It also does not meet the definition of a unique historical resource (PRC Section 21083.2). In summary, P-15-022382, CA-KER-11820H does not qualify as a historical resource under CEQA. No further management of the site is recommended.

P-15-022384, CA-KER-11822H

Site P-15-022384, CA-KER-11822H consists of a sparse historic-era refuse scatter of 5 domestic glass shards, 1 bottle, 13 cans, a lighter, a ceramic outlet, and automobile parts (vehicle door, dashboard panel, car seat spring, hubs, tires). The site is situated west of an unnamed north-to-south two-track road and is likely associated with roadside disposal. Based on the cultural material, the site dates between the 1940s and 1970s. A review of federal patents, archival census and genealogic sources, historic newspaper articles, historic maps and aerial imagery, and other online sources did not reveal any information connecting a significant historic-era landowner to the site or use of the site (see Chapter 6). No buildings, features, structures, or mining claims were depicted on the reviewed historic maps or aerial imagery within or adjacent to the site area.

Site P-15-022384, CA-KER-11822H appears as an isolated refuse disposal event that cannot be connected to a significant event or person (Criteria 1 and 2). The site consists of common types of domestic utilitarian refuse and industrial domestic refuse (car parts); no buildings or structures are present. As such, it does not represent the work of a master craftsman or possess high artistic value

(Criteria 3). Local refuse disposal events tend to be surficial artifact concentrations and scatters, and it is unlikely that intact subsurface deposits exist that would yield information important to local history. Therefore, the recordation of P-15-022384, CA-KER-11822H has likely exhausted the data potential of the site (Criteria 4). Tetra Tech recommends the site not eligible for listing in the CRHR. It also does not meet the definition of a unique historical resource (PRC Section 21083.2). In summary, P-15-022384, CA-KER-11822H does not qualify as a historical resource under CEQA. No further management is recommended.

P-15-022385, CA-KER-11823H

P-15-022385, CA-KER-11823H is a historic-era refuse scatter and concentration of cans, glass shards, ceramic shards, and metal items (bike fender, pan, spoon) located within a small ephemeral drainage near an unnamed two-track dirt road. A review of federal patents identified one patent holder that overlaps with the site area, the Southern Pacific Railroad in 1894. No other patents were listed. A review of archival census and genealogic sources, historic newspaper articles, historic maps and aerial imagery, and other online sources did not reveal any information connecting a historic-era landowner to the site or use of the site (see Chapter 6). Aerial imagery depicts the site area as undeveloped land. By 1974, an east-to-west road is present to the north of the site, and by 1983 the site area appears possibly graded or cleared of vegetation (Netronline 2024). Review of historic maps and aerial imagery did not depict any buildings, structures, features, or mining claims within or near the site.

Site P-15-022385, CA-KER-11823H is a single refuse disposal event of domestic food and utilitarian debris dating to the mid- to late 20th century that cannot be directly connected to a significant event or person (Criteria 1 and 2). The site consists of common types of domestic utilitarian refuse. As such, it does not represent the work of a master craftsman or possess high artistic value (Criteria 3). Local refuse disposal events tend to be surficial in nature and it is unlikely that intact subsurface deposits exist that would yield information important to local history. In addition, the site is adjacent to an ephemeral drainage and lacks integrity due to episodic water runoff resulting in soil erosion and displacement of artifacts. Therefore, the recordation of P-15-022385, CA-KER-11823H has likely exhausted the data potential of the site (Criteria 4). Tetra Tech recommends the site not eligible for listing in the CRHR. It also does not meet the definition of a unique historical resource (PRC Section 21083.2). In summary, P-15-022385, CA-KER-11823H does not qualify as a historical resource under CEQA. No further management is recommended.

P-15-022386, CA-KER-11824H

The historic site P-15-022386, CA-KER-11824H consists of a low-density, historic-era refuse scatter of cans and glass shards dating to the mid-20th century. The site is located east of the north-to-south trending improved dirt road and the site is likely associated with roadside refuse disposal. A review of federal patents, archival census and genealogic sources, historic newspaper articles, historic maps and aerial imagery, and other online sources did not reveal any information connecting a significant historic-era landowner to the site or use of the site (see Chapter 6). No buildings, features, structures, or mining claims were depicted on the reviewed historic maps or aerial imagery within or adjacent to the site area.

Site P-15-022386, CA-KER-11824H appears as an isolated refuse disposal event that cannot be connected to a significant event or person (Criteria 1 and 2). The site consists of common types of domestic food- and beverage-type refuse, and no buildings or structures are present. As such, it does not represent the work of a master craftsman or possess high artistic value (Criteria 3). Local refuse disposal events tend to be surficial artifact concentrations and scatters, and it is unlikely that intact subsurface deposits exist that would yield information important to local history. Therefore, the recordation of P-15-022386, CA-KER-11824H has likely exhausted the data potential of the site (Criteria 4). Tetra Tech recommends the site not eligible for listing in the CRHR. It also does not meet the definition of a unique historical resource (PRC Section 21083.2). In summary, P-15-022386, CA-KER-11824H does not qualify as a historical resource under CEQA. No further management is recommended.

P-15-022387, CA-KER-11825H

The historic site P-15-022387, CA-KER-11825H consists of a collapsed livestock corral and a can (meat-type) situated on undeveloped desert land. The corral is simply constructed and consists of one wooden post, a metal pipe, use of a standing Joshua tree, and steel and barbed wire. A review of federal patents, archival census and genealogic sources, historic newspaper articles, historic maps and aerial imagery, and other online sources did not reveal any information connecting a significant historic-era landowner to the site or use of the site (see Chapter 6). No buildings, features, homesteads, structures, or mining claims were depicted on the reviewed historic maps or aerial imagery within or adjacent to the site area. Based on the archival review and cultural material, the site most likely served as a temporary livestock corral for grazing goats or sheep in the area and dates between the 1960s and 1980s.

P-15-022387, CA-KER-11825H is not clearly associated with any significant event (Criteria 1). Historic research did not indicate that the site is associated with a person significant in history (Criteria 2). The feature is most likely the remnants of a small livestock corral, and structural elements are no longer intact. The site does not depict a significant method of construction or the work of a master craftsman or possess high artistic value (Criteria 3). The dilapidated nature of the corral has compromised the sites integrity of design, materials, workmanship, feeling, and association. The resource is not likely to yield important information to history and does not yield the potential to answer specific important research questions. The recordation of this segment has likely exhausted the data potential of the resource (Criteria 4). Tetra Tech therefore recommends P-15-022387, CA-KER-11825H not eligible for listing in the CRHR. It also does not meet the definition of a unique historical resource (PRC Section 21083.2). In summary, P-15-022387, CA-KER-11825H does not qualify as a historical resource under CEQA. No further management of the site is recommended.

P-15-022388, CA-KER-11826H

The historic site P-15-022388, CA-KER-11826H consists of a low-density, historic-era refuse scatter of cans, glass, and modern tires situated in an ephemeral drainage branching out a larger ephemeral drainage. Based on the historic production dates of the refuse, the site dates to approximately the 1950s to 1970s. A search of available literature, historic maps and aerial imagery, and online newspapers did not identify any additional information regarding the site location.

Site P-15-022388, CA-KER-11826H appears as an isolated refuse disposal event from the late 20th century that cannot be connected to a significant event or person (Criteria 1 and 2). The site consists of common types of domestic food- and beverage-type refuse, and no buildings or structures are present. As such, it does not represent the work of a master craftsman or possess high artistic value (Criteria 3). The site is within an ephemeral drainage and is highly disturbed, and lacks integrity due to episodic water runoff resulting in soil erosion and displacement of artifacts. Therefore, the recordation of P-15-022388, CA-KER-11826H has likely exhausted the data potential of the site (Criteria 4). Tetra Tech recommends the site not eligible for listing in the CRHR. It also does not meet the definition of a unique historical resource (PRC Section 21083.2). In summary, P-15-022388, CA-KER-11826H does not qualify as a historical resource under CEQA. No further management is recommended.

P-15-022389, CA-KER-11827H

The historic site P-15-022389, CA-KER-11827H consists of a large machine-excavated pit, tailings pile, and light industrial refuse (50-gallon drum cans) dating between 1963 and 1972. The site is situated west of an unnamed north-to-south trending dirt road. A review of federal patents, archival census and genealogic sources, historic newspaper articles, historic maps and aerial imagery, and other online sources did not reveal any information connecting a historic-era landowner to the site or use of the site (see Chapter 6). Review of historic maps and aerial imagery did not depict any buildings, structures, features, or mining claims in the site area.

The site is not directly linked to any particular use and is possibly associated with the use of local excavated fill material (soil and aggregate) for nearby road maintenance or a gravel pit that is located to the north (outside Project site and Study Area). The site could not be directly associated with a significant event or person (Criteria 1 and 2). It does not embody distinctive characteristics of a method of construction or the work of a master craftsman or possess high artistic value (Criteria 3). The site is a machine-excavated feature, and the refuse is surficial in nature. Hence, it is unlikely that intact subsurface deposits exist that would yield information important to local history. Therefore, the recordation of P-15-022389, CA-KER-11827H has likely exhausted the data potential of the site (Criteria 4). Tetra Tech recommends the site not eligible for listing in the CRHR. It also does not meet the definition of a unique historical resource (PRC Section 21083.2). In summary, P-15-022389, CA-KER-11827H does not qualify as a historical resource under CEQA. No further management is recommended.

P-15-022390, CA-KER-11828

The prehistoric site P-15-022390, CA-KER-11828 consists of a small lithic and tool scatter. The site consists of one rhyolite triangular projectile point and two rhyolite tertiary flakes. The characteristics of the point suggest it is of the Cottonwood triangular type attributed to the Kohen Lake Phase (1,300 to 600 BP; Sutton 2023).

Site P-15-022367, CA-KER-11805/H is unevaluated for eligibility for listing in the CRHR. Tetra Tech recommends avoidance of the site until Kern County consults with interested Tribes under AB52

regarding P-15-022367, CA-KER-11805/H and Tribal Cultural Resources (as appropriate) including recommended Tribal mitigation measures.

P-15-022391, CA-KER-11829H

Site P-15-022392, CA-KER-11830H is a historic refuse scatter and refuse concentration of cans, glass, and ceramics. The northern portion of the site is bisected by the east-to-west trending improved dirt road. The site is situated within an ephemeral drainage. Based upon the artifact assemblage and archival review, the site appears to represent a roadside refuse disposal event that dates between the late 1950s and 1970s. The site is in fair condition and exhibits low integrity due to erosional processes and easy public access and use, resulting in destruction or removal of artifacts (i.e., several artifacts with bullet holes). A review of federal patents, archival census and genealogic sources, historic newspaper articles, historic maps and aerial imagery, and other online sources did not reveal any information connecting a historic-era landowner to the site or use of the site (see Chapter 6). Review of historic maps and aerial imagery did not depict any buildings, structures, features, or mining claims in the site or nearby area.

Site P-15-022392, CA-KER-11830H is most likely a roadside refuse disposal event of domestic debris from the latter half of the 20th century that cannot be directly connected to a significant event or person (Criteria 1 and 2). The site consists of common types of domestic food- and beverage-type refuse. As such, it does not represent the work of a master craftsman or possess high artistic value (Criteria 3). Local refuse disposal events tend to be surficial artifact concentrations and scatters, and it is unlikely that intact subsurface deposits exist that would yield information important to local history. In addition, the site is within and adjacent to an ephemeral drainage and lacks integrity due to episodic water runoff resulting in soil erosion and displacement of artifacts. Therefore, the recordation of P-15-022392, CA-KER-11830H has likely exhausted the data potential of the site (Criteria 4). Tetra Tech recommends the site not eligible for listing in the CRHR. It also does not meet the definition of a unique historical resource (PRC Section 21083.2). In summary, P-15-022391, CA-KER-11829H does not qualify as a historical resource under CEQA. No further management recommended.

P-15-022392, CA-KER-11830H

Site P-15-022392, CA-KER-11830H is a historic refuse scatter of cans and glass dating between the 1950s and 1970s. The site is situated within a large ephemeral wash. A review of federal patents, archival census and genealogic sources, historic newspaper articles, historic maps and aerial imagery, and other online sources did not reveal any information connecting a historic-era landowner to the site or use of the site (see Chapter 6). Review of historic maps and aerial imagery did not depict any buildings, structures, features, or mining claims on the site or nearby area.

Site P-15-022392, CA-KER-11830H appears to be a single refuse disposal event of domestic debris dating to the latter half of the 20th century and it cannot be directly connected to a significant event or person (Criteria 1 and 2). The site consists of common types of domestic food- and beverage-type refuse. As such, it does not represent the work of a master craftsman or possess high artistic value (Criteria 3). The site is within an ephemeral drainage and lacks integrity due to episodic water runoff

resulting in soil erosion and displacement of artifacts. Therefore, the recordation of P-15-022392, CA-KER-11830H has likely exhausted the data potential of the site (Criteria 4). Tetra Tech recommends the site not eligible for listing in the CRHR. It also does not meet the definition of a unique historical resource (PRC Section 21083.2). In summary, P-15-022393, CA-KER-11831H does not qualify as a historical resource under CEQA. No further management is recommended.

P-15-022393, CA-KER-11831H

Site P-15-022393, CA-KER-11831H is a historic-era refuse scatter situated within an unnamed ephemeral drainage (a tributary of the Oak Creek) and south of an unnamed east-to-west trending two-track road. A review of federal patents, archival census and genealogic sources, historic newspaper articles, historic maps and aerial imagery, and other online sources did not reveal any information connecting a historic-era landowner to the site or use of the site (see Chapter 6). Review of historic maps and aerial imagery did not depict any buildings, structures, features, or mining claims on the site or nearby area.

Site P-15-022393, CA-KER-11831H is a roadside refuse disposal event of domestic debris from the latter half of the 20th century that cannot be directly connected to a significant event or person (Criteria 1 and 2). The site consists of common types of domestic food- and beverage-type refuse. As such, it does not represent the work of a master craftsman or possess high artistic value (Criteria 3). The site is within an ephemeral drainage and lacks integrity due to episodic water runoff resulting in soil erosion and displacement of artifacts. Therefore, the recordation of P-15-022393, CA-KER-11831H has likely exhausted the data potential of the site (Criteria 4). Tetra Tech recommends the site not eligible for listing in the CRHR. It also does not meet the definition of a unique historical resource (PRC Section 21083.2). In summary, P-15-022393, CA-KER-11831H does not qualify as a historical resource under CEQA. No further management is recommended.

P-15-022394, CA-KER-11832H

Site P-15-022394, CA-KER-11832H is a historic-era refuse scatter of cans, glass, ceramics, and miscellaneous metal situated adjacent to (south of) the east-to-west trending improved dirt road and within the path of several ephemeral drainages. Based upon the artifact assemblage and archival review, the site appears to represent a roadside refuse disposal event that dates between the late 1950s to the 1970s. The site is in fair condition and exhibits low integrity due to erosional processes and easy public access and use, resulting in destruction or removal of artifacts (i.e., several artifacts with bullet holes, presents of later period beer cans). A review of federal patents, archival census and genealogic sources, historic newspaper articles, historic maps and aerial imagery, and other online sources did not reveal any information connecting a historic-era landowner to the site or use of the site (see Chapter 6). Review of historic maps and aerial imagery did not depict any buildings, structures, features, or mining claims in the site or nearby area.

Site P-15-022394, CA-KER-11832H is most likely a roadside refuse disposal event of domestic food and utilitarian debris from the latter half of the 20th century that cannot be directly connected to a significant event or person (Criteria 1 and 2). The site consists of common types of domestic food- and beverage-type refuse. As such, it does not represent the work of a master craftsman or possess high

artistic value (Criteria 3). Local refuse disposal events tend to be surficial artifact concentrations and scatters, and it is unlikely that intact subsurface deposits exist that would yield information important to local history. In addition, the site is within and adjacent to an ephemeral drainage and lacks integrity due to episodic water runoff, resulting in soil erosion and displacement of artifacts. Therefore, the recordation of P-15-022394, CA-KER-11832H has likely exhausted the data potential of the site (Criteria 4). Tetra Tech recommends the site not eligible for listing in the CRHR. It also does not meet the definition of a unique historical resource (PRC Section 21083.2). In summary, P-15-022394, CA-KER-11832H does not qualify as a historical resource under CEQA. No further management is recommended.

P-15-022395, CA-KER-11833H

Site P-15-022395, CA-KER-11833H consists of a sparce historic-era refuse scatter of domestic debris of cans and glass shards dating between the 1940s and 1970s. The site is located within the fluvial path of an ephemeral drainage. The site is bisected by the east-to-west trending graded dirt road. The northern portion of the site has been impacted by modern heavy machinery (deep tracks observed). The site overlaps the previously recorded historic isolate P-15-016844 of 20 hole-in-top cans on the south side of an existing road and the isolate was combined with this site. A review of federal patents identified Arthur W. Hursey as holding a patent in 1895 overlapping with the site area. No other patents were listed. A review of archival census and genealogic sources, historic newspaper articles, historic maps and aerial imagery, and other online sources did not reveal any information connecting a historic-era landowner such as Hursey or others to the site or use of the site (see Chapter 6). Review of historic maps and aerial imagery did not depict any buildings, structures, features, or mining claims in the site or nearby area.

The site is in fair condition and exhibits low integrity due to decades of environmental erosional processes and surface and subsurface disturbance caused by heavy machinery, both resulting in the displacement and fragmentation of artifacts. Site P-15-022395, CA-KER-11833H is most likely a roadside refuse disposal event of domestic food and utilitarian debris from the latter half of the 20th century that cannot be directly connected to a significant event or person (Criteria 1 and 2). The site consists of common types of domestic food- and beverage-type refuse. As such, it does not represent the work of a master craftsman or possess high artistic value (Criteria 3). Local refuse disposal events tend to be surficial artifact concentrations and scatters, and it is unlikely that intact subsurface deposits exist that would yield information important to local history. In addition, the site is within and adjacent to an ephemeral drainage and lacks integrity due to episodic water runoff resulting in soil erosion and displacement of artifacts. Therefore, the recordation of P-15-022395, CA-KER-11833H has likely exhausted the data potential of the site (Criteria 4). Tetra Tech recommends the site not eligible for listing in the CRHR. It also does not meet the definition of a unique historical resource (PRC Section 21083.2). In summary, P-15-022395, CA-KER-11833H does not qualify as a historical resource under CEQA. No further management is recommended.

P-15-022396, CA-KER-11834H

Site P-15-022396, CA-KER-11834H consists of two shallow dug-out earthen depressions, a spoils pile, and a sparce refuse scatter dating between the 1920s and 1970s. The site contains both domestic

food-type cans and glass and some industrial items such as two pieces of sheet metal and a gas tank. Due to the nature of the refuse scatter, it appears one earlier refuse disposal event followed by a later disposal event marked by mid- to late 20th century beer bottles. Many of the artifacts had bullet holes. The western portion of the site is bisected by two parallel, north-to-south trending, improved dirt roads, and the site is just south of a graded dirt road. The 1915 USGS quadrangle illustrates a structure near the eastern portion of the site boundary. By 1943, the structure is no longer extant on the quadrangle. No evidence of a structure (i.e., a foundation, milled lumber) was observed. A review of federal patents, archival census and genealogic sources, historic newspaper articles, historic maps and aerial imagery, and other online sources did not reveal any information connecting a historic-era landowner to the site or use of the site (see Chapter 6).

The site is not directly linked to any particular use and is possibly associated with exploratory surface mineral extraction, residential refuse disposal, and recreational use due to the proximity to maintained dirt roads (firearm-enthusiast evident by bullet holes in artifacts). The site could not be directly associated with a significant event or person (Criteria 1 and 2). It does not embody distinctive characteristics of a method of construction or the work of a master craftsman or possess high artistic value (Criteria 3). The site is a machine-excavated feature, and the refuse scatter is surficial in nature. Hence, it is unlikely that intact subsurface deposits exist that would yield information important to local history. Therefore, the recordation of P-15-022396, CA-KER-11834H has likely exhausted the data potential of the site (Criteria 4). Tetra Tech recommends the site not eligible for listing in the CRHR. It also does not meet the definition of a unique historical resource (PRC Section 21083.2). In summary, P-15-022396, CA-KER-11834H does not qualify as a historical resource under CEQA. No further management is recommended.

P-15-022398, CA-KER-11836

Site P-15-022398, CA-KER-11836 consists of a sparse prehistoric lithic scatter consisting of three rhyolite secondary flakes and one CSS tertiary flake.

Site P-15-022375, CA-KER-11813H is unevaluated for eligibility for listing in the CRHR. Tetra Tech recommends avoidance of the site until Kern County consults with interested Tribes under AB52 regarding P-15-022375, CA-KER-11813H and Tribal Cultural Resources (as appropriate) including recommended Tribal mitigation measures.

P-15-022399, CA-KER-11837H

Site P-15-022399, CA-KER-11837H historic-era refuse scatter of domestic and industrial debris of cans, glass, ceramics, metal, and a modern U-shaped campfire/hearth ring. Based on the cultural material observed, the site dates between the 1940s to 1970s. The site is bisected by the northwest-to-southwest trending improved dirt road and the campfire/hearth is located adjacent to the road. Review of federal patents identified Helena K. Spencer in 1920 with a patent that overlaps with the site. No other patents were listed. A review of archival census and genealogic sources, historic newspaper articles, historic maps and aerial imagery, and other online sources did not reveal any information connecting a historic-era landowner such as Spencer or others to the site or use of the

site (see Chapter 6). Review of historic maps and aerial imagery did not depict any buildings, structures, features, or mining claims in the site or nearby area.

Site P-15-022399, CA-KER-11837H is most likely a roadside refuse disposal event of domestic food and utilitarian debris from the mid- to late 20th century that cannot be directly connected to a significant event or person (Criteria 1 and 2). The site consists of common types of domestic food- and beverage-type refuse. As such, it does not represent the work of a master craftsman or possess high artistic value (Criteria 3). Local refuse disposal events tend to be surficial artifact concentrations and scatters, and it is unlikely that intact subsurface deposits exist that would yield information important to local history. Therefore, the recordation of P-15-022399, CA-KER-11837H has likely exhausted the data potential of the site (Criteria 4). Tetra Tech recommends the site not eligible for listing in the CRHR. It also does not meet the definition of a unique historical resource (PRC Section 21083.2). In summary, P-15-022399, CA-KER-11837H does not qualify as a historical resource under CEQA. No further management is recommended.

P-15-022400, CA-KER-11838H

Site P-15-022400, CA-KER-11838H consists of concrete foundation pads and associated refuse scatter located adjacent to the intersection of two existing roads. The site is in fair to poor condition due to erosional processes, and the site is easily accessible via adjacent roads; modern vandalism and looting, shotgun shells, and clay pigeons were observed within the southern area of the site. Seven separate federal patents issued in 1960 were identified as overlapping with the site area. Based on historic map and aerial imagery review, several buildings and associated roads are present within the site area by 1959. A review of archival census and genealogic sources, historic newspaper articles, historic maps and aerial imagery, other online sources did not reveal any information connecting the patent holders or other historic-era landowner to the site or use of the site (see Chapter 6). In addition, Tetra Tech contacted the Antelope Valley Rural Museum and the West Antelope Valley Historical Society to request any archival data regarding the site area (i.e., mining related, homesteads, or employee housing). No additional information was provided by these two sources. Based on the characteristics of the site and historical archival, aerial, and map review of the site area, the site most likely represents short-term, temporary housing associated with a mining company or a failed homesteading event during the mid-20th century.

Site P-15-022400, CA-KER-11838H most likely represents temporary, short-term housing possibly provided by a nearby mining company or represents a failed homesteading event that occurred between the mid- to late 20th century. Although six patent holders were identified as overlapping with the site area, there is no evidence directly connecting the site to any of the patent holders, mine, or any significant event or individual. Therefore, the site does not appear to be associated with an event or person who played a significant role in national or local history (Criterion 1 and 2). The concrete foundations within the site do not embody the distinctive characteristics of an architectural style or architect or exhibit high artistic value (Criteria 3). The site is within a highly disturbed area. The original buildings or structures were demolished, and the refuse scatter is surficial and has been impacted by erosional processes and public activity. It is unlikely that significant intact subsurface cultural deposits exist. Tetra Tech's recordation of Site P-15-022400, CA-KER-11838H has likely

exhausted the data potential of the site (Criteria 4). It also does not retain historic integrity of design, setting, materials, workmanship, feeling, and association. Therefore, Tetra Tech recommends the site as not eligible for listing on the CRHR and does not qualify as a historical resource under CEQA. No further management is recommended.

P-15-022401, CA-KER-11839

Site P-15-022401, CA-KER-11839 consists of a prehistoric lithic scatter consisting primarily of rhyolite and CCS of local material, and one obsidian flake (exchange/trade material) located northeast of an unnamed ephemeral drainage.

Site P-15-022378, CA-KER-11816 is unevaluated for eligibility for listing in the CRHR. Tetra Tech recommends avoidance of the site until Kern County consults with interested Tribes under AB52 regarding P-15-022378, CA-KER-11816 and Tribal Cultural Resources (as appropriate) including recommended Tribal mitigation measures.

P-15-022402, CA-KER-11840/H

Site P-15-022402, CA-KER-11840/H consists of an isolated prehistoric flake and a sparse historic-era refuse scatter of cans, glass shards, and ceramics. The middle of the site is bisected by the northeast-to-southeast trending improved dirt road and is adjacent to (east of) an existing road. The prehistoric component is a rhyolite tertiary flake and due to its isolated nature, is not eligible to the CRHR.

Review of federal patents identified Helena K. Spencer in 1920 with a patent that overlaps with the site. No other patents were listed. A review of archival census and genealogic sources, historic newspaper articles, historic maps and aerial imagery, and other online sources did not reveal any information connecting a historic-era landowner such as Spencer or others to the site or use of the site (see Chapter 6). Review of historic maps and aerial imagery did not depict any buildings, structures, features, or mining claims in the site or nearby area.

Due to site P-15-022402, CA-KER-11840/H's proximity to the road, it is most likely a single roadside refuse disposal event of domestic food and utilitarian debris from the early 20th century. The site is not directly connected to a significant event or person (Criteria 1 and 2). The site consists of common types of domestic food-and beverage-type refuse. As such, it does not represent the work of a master craftsman or possess high artistic value (Criteria 3). Local refuse disposal events tend to be surficial artifact concentrations and scatters, and it is unlikely that intact subsurface deposits exist that would yield information important to local history. Therefore, the recordation of P-15-022401, CA-KER-11839 has likely exhausted the data potential of the site (Criteria 4). Tetra Tech recommends the site not eligible for listing in the CRHR. It also does not meet the definition of a unique historical resource (PRC Section 21083.2). In summary, P-15-022402, CA-KER-11840/H does not qualify as a historical resource under CEQA. No further management is recommended.

P-15-022403, CA-KER-11841/H

Site P-15-022403, CA-KER-11841/H is a multi-component site consisting of a prehistoric lithic scatter and a sparse historic-era refuse scatter. The middle of the site is bisected by an unnamed east-to-west trending two-track road.

The prehistoric component of the site consists of primarily local rhyolite flakes and a few CCS flakes. The prehistoric component of P-15-022403, CA-KER-11841H is unevaluated for eligibility for listing in the CRHR. Tetra Tech recommends avoidance of the site until Kern County consults with interested Tribes under AB52 regarding P-15-022403, CA-KER-11841/H and any Tribal Cultural Resources (as appropriate) including recommended Tribal mitigation measures.

Review of federal patents identified Helena K. Spencer in 1920 with a patent that overlaps with the site. No other patents were listed. A review of archival census and genealogic sources, historic newspaper articles, historic maps and aerial imagery, and other online sources did not reveal any information connecting a historic-era landowner such as Spencer or others to the site or use of the site (see Chapter 6). Review of historic maps and aerial imagery did not depict any buildings, structures, features, or mining claims in the site or nearby area.

Due to site P-15-022403, CA-KER-11841/H's proximity to the road, it is most likely a single roadside refuse disposal event consisting of domestic food and utilitarian debris from the early to mid-20th century. Although Helena K. Spener had a patent that overlaps with the site area, no direct connection could be made with Spencer or other landowners to the site. Hence, the site is not directly connected to a significant event or person (Criteria 1 and 2). The site consists of common types of domestic food- and beverage-type refuse. As such, it does not represent the work of a master craftsman or possess high artistic value (Criteria 3). Local refuse disposal events tend to be surficial artifact concentrations and scatters, and it is unlikely that intact subsurface deposits exist that would yield information important to local history. Therefore, the recordation of P-15-022403, CA-KER-11841 has likely exhausted the data potential of the site (Criteria 4). Tetra Tech recommends the site not eligible for listing in the CRHR. It also does not meet the definition of a unique historical resource (PRC Section 21083.2). In summary, P-15-022403, CA-KER-11841 does not qualify as a historical resource under CEQA. No further management is recommended.

P-15-022404, CA-KER-11842H

Site P-15-022404, CA-KER-11842H is a low-density, historic-era refuse scatter of cans and glass shards. The site is located adjacent to an existing graded road and an overgrown southwest-to-northeast trending dirt road bisects the southern portion of the site. The site is within an ephemeral drainage. A review of federal patents identified one patent holder that overlaps with the site area, the Southern Pacific Railroad in 1894. No other patents were listed. A review of archival census and genealogic sources, historic newspaper articles, historic maps and aerial imagery, and other online sources did not reveal any information connecting a historic-era landowner to the site or use of the site (see Chapter 6). Review of historic maps and aerial imagery did not depict any buildings, structures, features, or mining claims in the site or nearby area.

Site P-15-022404, CA-KER-11842H is most likely a single roadside refuse disposal event of domestic food and utilitarian debris dating to the early to mid-20th century that cannot be directly connected to a significant event or person (Criteria 1 and 2). The site consists of common types of domestic food- and beverage-type refuse. As such, it does not represent the work of a master craftsman or possess high artistic value (Criteria 3). Local refuse disposal events tend to be surficial artifact concentrations and scatters, and it is unlikely that intact subsurface deposits exist that would yield information

important to local history. In addition, the site is within and adjacent to an ephemeral drainage and lacks integrity due to episodic water runoff, resulting in soil erosion and displacement of artifacts. Therefore, the recordation of P-15-022404, CA-KER-11842H has likely exhausted the data potential of the site (Criteria 4). Tetra Tech recommends the site not eligible for listing in the CRHR. It also does not meet the definition of a unique historical resource (PRC Section 21083.2). In summary, P-15-022404, CA-KER-11842H does not qualify as a historical resource under CEQA. No further management recommended.

P-15-022405, CA-KER-11843H

Site P-15-022405, CA-KER-11843H is a low-density, historic-era refuse scatter of cans and glass shards located within an unnamed ephemeral wash. The northern boundary of the site contains modern heavy machinery tracks that trend east to west that bisect the northern portion of the site. A review of federal patents identified one patent holder that overlaps with the site area, the Southern Pacific Railroad, in 1894. No other patents were listed. A review of archival census and genealogic sources, historic newspaper articles, historic maps and aerial imagery, and other online sources did not reveal any information connecting a historic-era landowner to the site or use of the site (see Chapter 6). Review of historic maps and aerial imagery did not depict any buildings, structures, features, or mining claims in the site or nearby area. In 1959, aerial imagery depicts a northeast-to-southwest trending unnamed two-track road north of the site area.

Site P-15-022405, CA-KER-11843H is most likely a single refuse disposal event of domestic food debris dating to the mid-20th century that cannot be directly connected to a significant event or person (Criteria 1 and 2). The site consists of common types of domestic food- and beverage-type refuse. As such, it does not represent the work of a master craftsman or possess high artistic value (Criteria 3). The site is within an ephemeral drainage and lacks integrity due to episodic water runoff, resulting in soil erosion and displacement of artifacts. It is unlikely that intact subsurface deposits exist. Therefore, the recordation of P-15-022405, CA-KER-11843H has likely exhausted the data potential of the site (Criteria 4). Tetra Tech recommends the site not eligible for listing in the CRHR. It also does not meet the definition of a unique historical resource (PRC Section 21083.2). In summary, P-15-022405, CA-KER-11843H does not qualify as a historical resource under CEQA. No further management is recommended.

P-15-022407, CA-KER-11845H

Site P-15-022407, CA-KER-11845H is a low-density, historic-era refuse scatter of cans, glass shards, and ceramic sherds located within an unnamed ephemeral drainage and adjacent to (south of) a northeast-to-southwest trending improved dirt road. A review of federal patents did not identify any patent holders within or overlapping the site area. A review of archival census and genealogic sources, historic newspaper articles, historic maps and aerial imagery, and other online sources did not reveal any information connecting a historic-era landowner to the site or use of the site (see Chapter 6). Review of historic maps and aerial imagery did not depict any buildings, structures, features, or mining claims in the or near the site.

Site P-15-022407, CA-KER-11845H appears to be a single refuse disposal event of domestic food and beverage debris dating to the early to mid-20th century that cannot be directly connected to a significant event or person (Criteria 1 and 2). The site consists of common types of domestic food- and beverage-type refuse. As such, it does not represent the work of a master craftsman or possess high artistic value (Criteria 3). The site is within an ephemeral drainage and lacks integrity due to episodic water runoff resulting in soil erosion and displacement of artifacts. It is unlikely that intact subsurface deposits exist. Therefore, the recordation of P-15-022407, CA-KER-11845H has likely exhausted the data potential of the site (Criteria 4). Tetra Tech recommends the site not eligible for listing in the CRHR. It also does not meet the definition of a unique historical resource (PRC Section 21083.2). In summary, P-15-022407, CA-KER-11845H does not qualify as a historical resource under CEQA. No further management is recommended.

P-15-022408, CA-KER-11846

The prehistoric site P-15-022408, CA-KER-11846 consists of a prehistoric lithic scatter. The lithic scatter contains rhyolite and CSS flakes in various stages of reduction.

Site P-15-022408, CA-KER-11846 is unevaluated for eligibility for listing in the CRHR. Tetra Tech recommends avoidance of the site until Kern County consults with interested Tribes under AB52 regarding P-15-022408, CA-KER-11846 and Tribal Cultural Resources (as appropriate) including recommended Tribal mitigation measures.

P-15-022409, CA-KER-11847

Site P-15-022409, CA-KER-11847 consists of a prehistoric lithic and tool scatter including various stages of rhyolite, CCS, and obsidian flakes, a CCS (Chalcedony) leaf-shaped projectile point type, two rhyolite projectile points (one leaf-shaped with a partially broken base), a CCS biface, a rhyolite core, a modified rhyolite flake/scrapper, and rhyolite projectile point.

Site P-15-022409, CA-KER-11847 is unevaluated for eligibility for listing in the CRHR. Tetra Tech recommends avoidance of the site until Kern County consults with interested Tribes under AB52 regarding P-15-022409, CA-KER-11847 and any Tribal Cultural Resources (as appropriate) including Tribal mitigation measures.

P-15-022410, CA-KER-11848

Site P-15-022410, CA-KER-11848 is a light density, prehistoric lithic scatter of five flakes including rhyolite, cryptocrystalline, and obsidian flakes in various stages of production.

Site P-15-022410, CA-KER-11848 is unevaluated for eligibility for listing in the CRHR. Tetra Tech recommends avoidance of the site until Kern County consults with interested Tribes under AB52 regarding P-15-0224010, CA-KER-11847 and Tribal Cultural Resources (as appropriate) including recommended Tribal mitigation measures.

P-15-022411, CA-KER-11849H

Site P-15-022411, CA-KER-11849H consists of wood remnants and a low-density refuse scatter of a few cans and industrial-type objects (chain link, bolts, a cement post with rebar) situated adjacent to

(west of) an unnamed north-to-south dirt road. A review of federal patents did not identify any patent holders within or overlapping the site area. A review of archival census and genealogic sources, historic newspaper articles, historic maps and aerial imagery, and other online sources did not reveal any information connecting a historic-era landowner to the site or use of the site (see Chapter 6). Review of historic maps and aerial imagery did not depict any historic-era buildings, structures, features, or mining claims in the or near the site. However, aerial imagery from 1986 depicts several unnamed roads lead to the site area. The area appears graded, and a small building or structure is present just south of the site; the building is no longer extant in 2005 (Netronline 2024).

The site may represent a dilapidated small corral or pen for livestock dating to the late 20th century (ca. 1970s to 1980s) that cannot be directly connected to a significant event or person (Criteria 1 and 2). The site consists of common types of domestic and utilitarian type refuse and there are no foundations or standing buildings or structures. As such, it does not represent the work of a master craftsman or possess high artistic value (Criteria 3). The site is a surface scatter and of low density, it is unlikely that intact subsurface deposits exist. Therefore, the recordation of P-15-022411, CA-KER-11849H has likely exhausted the data potential of the site (Criteria 4). Tetra Tech recommends the site not eligible for listing in the CRHR. It also does not meet the definition of a unique historical resource (PRC Section 21083.2). In summary, P-15-022411, CA-KER-11849H does not qualify as a historical resource under CEQA. No further management is recommended.

P-15-022412, CA-KER-11850H

Site P-15-022412, CA-KER-11850His a refuse scatter and concentration consisting primarily of bottle glass shards, metal bullet casings, and a few milled lumber fragments. The site is situated adjacent to (west of) an unnamed north-to-south trending two-track road and site P-15-022411, CA-KER-11849H (wood remnants and refuse scatter) is located to the north. Based upon the artifact assemblage, the site is a recreational shooting range that dates from the late 1970s to 1980s. A review of federal patents did not identify any patent holders within or overlapping the site area. A review of archival census and genealogic sources, historic newspaper articles, historic maps and aerial imagery, and other online sources did not reveal any information connecting a historic-era landowner to the site or use of the site (see Chapter 6). Review of historic maps and aerial imagery did not depict any historic-era buildings, structures, features, or mining claims in the or near the site. However, aerial imagery from 1986 depicts several unnamed roads leading to the site area. The area appears graded, and a small building or structure is present just south of the site; the building is no longer extant in 2005 (Netronline 2024).

Site P-15-022412, CA-KER-11850H is most likely used by firearm recreationalists for target practice (based on the bottle shards) dating to the late 20th century (ca. 1970s to 1980s). The site could not be directly connected to a significant event or person (Criteria 1 and 2). The site consists of primarily of bottle shards and bullet casings and there are no foundations or standing buildings or structures. As such, it does not represent the work of a master craftsman or possess high artistic value (Criteria 3). The site is a surface scatter and of low density, and it is unlikely that intact subsurface deposits exist. Therefore, the recordation of P-15-022412, CA-KER-11850H has likely exhausted the data potential of the site (Criteria 4). Tetra Tech recommends the site not eligible for listing in the CRHR. It also does not

meet the definition of a unique historical resource (PRC Section 21083.2). In summary, P-15-022412, CA-KER-11850H does not qualify as a historical resource under CEQA. No further management recommended.

P-15-022324, CA-KER-11852H

Site P-15-022324, CA-KER-11852H is a historic-era refuse scatter of domestic debris of glass, cans, ceramics, and metal. An unnamed east-to-west trending two-track road bisects the southernmost portion of the site. Review of federal patents identified Lee K. Strobel in 1890 with a patent that overlaps with the site. No other patents were listed. A review of archival census and genealogic sources, historic newspaper articles, historic maps and aerial imagery, and other online sources did not reveal any information connecting a historic-era landowner such as Strobel or others to the site or use of the site (see Chapter 6). Review of historic maps and aerial imagery did not depict any buildings, structures, features, or mining claims in or near the site.

Due to site P-15-022324, CA-KER-11852H's proximity to the roads, the site most likely represents a roadside refuse disposal event consisting of domestic food and utilitarian refuse dating between the early to mid-20th century. Although Lee K. Strobell had a patent that overlaps with the site area, no direct connection could be made with Strobell (or other landowners) to the site. Hence, the site is not directly connected to a significant event or person (Criteria 1 and 2). The site consists of common types of domestic utilitarian refuse and no features or buildings are present. As such, it does not represent the work of a master craftsman or possess high artistic value (Criteria 3). Local refuse disposal events tend to be surficial artifact concentrations and scatters, and it is unlikely that intact subsurface deposits exist that would yield information important to local history. Therefore, the recordation of P-15-022324, CA-KER-11852H has likely exhausted the data potential of the site (Criteria 4). Tetra Tech recommends the site not eligible for listing in the CRHR. It also does not meet the definition of a unique historical resource (PRC Section 21083.2). In summary, P-15-022324, CA-KER-11852H does not qualify as a historical resource under CEQA. No further management is recommended.

P-15-022325, CA-KER-11763/H

Site P-15-022325, CA-KER-11763/H consists of an isolated prehistoric lithic tool and a sparse historic-era refuse scatter of cans (including carbon canisters) and glass shards. The condition of the site is fair due to erosional processes and weathering. The prehistoric component is a red rhyolite uniface tool and due to its isolated nature, it is not eligible for listing in the CRHR.

The historic-era component consists of domestic refuse. Review of federal patents identified the Southern Pacific Railroad in 1891 with a patent that overlaps with the site. No other patents were listed. A review of archival census and genealogic sources, historic newspaper articles, historic maps and aerial imagery, and other online sources did not reveal any information connecting a historic-era landowner to the site or provide information of the use of the site (see Chapter 6). Review of historic maps and aerial imagery did not depict any buildings, structures, features, or mining claims in or near the site.

P-15-022325, CA-KER-11763/H is near a road and the site most likely represents a roadside refuse disposal event consisting of domestic food and industrial refuse dating to the mid to late 20th century. No direct connection could be made with a landowner or event to the site. Hence, the site is not directly connected to a significant event or person (Criteria 1 and 2). The site consists of common types of domestic utilitarian refuse and no features or buildings are present. As such, it does not represent the work of a master craftsman or possess high artistic value (Criteria 3). The site contains a small amount of refuse on the surface, and it is unlikely that intact subsurface deposits exist that would yield information important to local history. Therefore, the recordation of P-15-022325, CA-KER-11763/H has likely exhausted the data potential of the site (Criteria 4). Tetra Tech recommends the site not eligible for listing in the CRHR. It also does not meet the definition of a unique historical resource (PRC Section 21083.2). In summary, P-15-022325, CA-KER-11763/H does not qualify as a historical resource under CEQA. No further management is recommended.

P-15-022326, CA-KER-11764H

Site P-15-022326, CA-KER-11764H consists of a historic-era refuse scatter cans and glass shards. It is located adjacent to an existing road and within an active wind energy-generating facility. A large wind turbine is to the west. The site condition is fair due to environmental processes such as weathering and erosion, and the artifacts are widely dispersed across the site.

Review of federal patents identified the Southern Pacific Railroad in 1891 with a patent that overlaps with the site. No other patents were listed. A review of archival census and genealogic sources, historic newspaper articles, historic maps and aerial imagery, and other online sources did not reveal any information connecting a historic-era landowner to the site or provide information of the use of the site (see Chapter 6). Review of historic maps and aerial imagery did not depict any buildings, structures, features, or mining claims in or near the site.

P-15-022326, CA-KER-11764H is near a road and the site most likely represents a roadside refuse disposal event consisting of domestic refuse dating to the mid-20th century. No direct connection could be made with a landowner or event to the site. Hence, the site is not directly connected to a significant event or person (Criteria 1 and 2). The site consists of common types of domestic utilitarian refuse and no features or buildings are present. As such, it does not represent the work of a master craftsman or possess high artistic value (Criteria 3). The site contains a small amount of refuse on the surface, and it is unlikely that intact subsurface deposits exist that would yield information important to local history. Therefore, the recordation of P-15-022326, CA-KER-11764H has likely exhausted the data potential of the site (Criteria 4). Tetra Tech recommends the site not eligible for listing in the CRHR. It also does not meet the definition of a unique historical resource (PRC Section 21083.2). In summary, P-15-022326, CA-KER-11764H does not qualify as a historical resource under CEQA. No further management is recommended.

P-15-022327, CA-KER-11765H

Site P-15-022327, CA-KER-11765H consists of a low-density, historic-era refuse scatter of cans, glass shards, and a glass bottle, intermixed with a modern refuse disposal event (plastic ammo box, carbon dioxide canisters, car parts, laptop, ca. 1990s to 2000s). The site is situated within a row of wind

turbines and located adjacent to (southeast of) the intersection of two existing improved roads. The condition of the site is fair and exhibits low integrity due to environmental weathering and modern disturbance from road traffic and modern refuse.

Review of federal patents identified the Southern Pacific Railroad in 1891 with a patent that overlaps with the site. No other patents were listed. A review of archival census and genealogic sources, historic newspaper articles, historic maps and aerial imagery, and other online sources did not reveal any information connecting a historic-era landowner to the site or provide information on the use of the site (see Chapter 6). Review of historic maps and aerial imagery did not depict any buildings, structures, features, or mining claims in or near the site.

P-15-022327, CA-KER-11765H is near a road and the site most likely represents a roadside refuse disposal event consisting of domestic utilitarian refuse dating to the mid- to late 20th century. No direct connection could be made with a landowner or event to the site. Hence, the site is not directly connected to a significant event or person (Criteria 1 and 2). The site consists of common types of domestic utilitarian refuse and no features or buildings are present. As such, it does not represent the work of a master craftsman or possess high artistic value (Criteria 3). The site contains a small amount of historic era refuse on the surface and the site has been disturbed by modern recreationalist refuse disposal and off-road activities. It is unlikely that intact subsurface deposits exist that would yield information important to local history. Therefore, the recordation of P-15-022327, CA-KER-11765H has likely exhausted the data potential of the site (Criteria 4). Tetra Tech recommends the site not eligible for listing in the CRHR. It also does not meet the definition of a unique historical resource (PRC Section 21083.2). In summary, P-15-022327, CA-KER-11765H does not qualify as a historical resource under CEQA. No further management is recommended.

P-15-022329, CA-KER-11767H

Site P-15-022329, CA-KER-11767H is a large historic-era refuse scatter of glass and cans. The site is situated between the Los Angeles Aqueduct (north) and a row of several wind turbines. The site is in fair condition and exhibits low integrity due to environmental weathering of artifacts and disturbance from construction of the wind generating facility. Review of federal patents identified the Southern Pacific Railroad in 1891 with a patent that overlaps with the site. No other patents were listed. A review of archival census and genealogic sources, historic newspaper articles, historic maps and aerial imagery, and other online sources did not reveal any information connecting a historic-era landowner to the site or provide information of the use of the site (see Chapter 6). Review of historic maps and aerial imagery did not depict any buildings or at the structures, except the Los Angeles Aqueduct is depicted on maps by the 1940s (see Chapter 6).

Although the site is most likely associated with construction of the Los Angeles Aqueduct (P-15-003549: eligible as an NRHP district), the site has been disturbed by construction of the wind turbines and lacks integrity to convey significance as a contributing element of P-15-003549 under any CRHR criteria. Due to modern disturbance, it is unlikely intact subsurface deposits exist, and the recordation of the refuse has likely exhausted the data potential of the site (Criteria 4). Therefore, P-15-022329, CA-KER-11767H is recommended not eligible for listing in the CRHR and is not a historical resource under CEQA. It also does not meet the definition of a unique historical resource (PRC Section 21083.2). In

summary, P-15-022329, CA-KER-11767H does not qualify as a historical resource under CEQA. No further management of the site is recommended.

P-15-022330, CA-KER-11768H

Site P-15-022330, CA-KER-11768H is a low-density refuse scatter of cans and glass shards and is bisected by an east-to-west trending two-track road. It is within the footprint of a wind turbine and just south of the wind energy-generating facility graveled utility road. Review of federal patents identified the Southern Pacific Railroad in 1891 with a patent that overlaps with the site. No other patents were listed. A review of archival census and genealogic sources, historic newspaper articles, historic maps and aerial imagery, and other online sources did not reveal any information connecting a historic-era landowner to the site or provide information of the use of the site (see Chapter 6). Review of historic maps and aerial imagery did not depict any buildings, structures, features, or mining claims in or near the site.

P-15-022330, CA-KER-11768H is near a road and the site most likely represents a roadside refuse disposal event possibly associated with construction of the Los Angeles Aqueduct (P-15-003549: eligible as an NRHP district) dating to the mid to late-20th century. Although the site is may be associated with construction of the Los Angeles Aqueduct (P-15-003549: eligible as an NRHP district), the refuse could not be directly connected to a significant event or person (Criteria 1 and 2). The site consists of common types of domestic utilitarian refuse. As such, it does not represent the work of a master craftsman or possess high artistic value (Criteria 3). The site contains a small amount of historic-era refuse on the surface and the site has been disturbed by construction of the wind energy-generating facility (access road and within the footprint of a wind turbine). It is unlikely that intact subsurface deposits exist that would yield information important to local history. Therefore, the recordation of P-15-022330, CA-KER-11768H has likely exhausted the data potential of the site (Criteria 4). Tetra Tech recommends the site not eligible for listing in the CRHR. It also does not meet the definition of a unique historical resource (PRC Section 21083.2). In summary, P-15-022330, CA-KER-11768H does not qualify as a historical resource under CEQA. No further management is recommended.

P-15-022331, CA-KER-11769H

Site P-15-022331, CA-KER-11769H consists of a historic-era refuse scatter and concentration of domestic food-type debris (cans and glass shards) and industrial-type items (automobile parts, scrape metal, rubber tube, nails) located south of an existing improved road near an active wind energy-generating facility. Review of federal patents identified a Herman D. Schmidt with a patent in 1914 that overlaps with the site. No other patents were listed. Between 1917 to 1918, U.S. Draft Registration Card list Schmidt as a natural-born citizen (born in 1886) who lived and worked in Mojave, California (Ancestry 2024). A review of archival census and genealogic sources, historic newspaper articles, historic maps and aerial imagery, and other online sources did not reveal any additional information connecting Schmidt or other historic-era landowners to the site or provide information on the use of the site (see Chapter 6). Review of historic maps and aerial imagery did not depict any buildings, structures, features, or mining claims in or near the site.

P-15-022331, CA-KER-11769H represents a refuse disposal event consisting of domestic utilitarian and industrial refuse dating to the early to mid-20th century. No direct connection could be made with a landowner or event to the site. Hence, the site is not directly connected to a significant event or person (Criteria 1 and 2). The site consists of common types of domestic refuse and no features or buildings are present. As such, it does not represent the work of a master craftsman or possess high artistic value (Criteria 3). Local refuse disposal events tend to be surficial artifact concentrations and scatters and it is unlikely that intact subsurface deposits exist that would yield information important to local history. Therefore, the recordation of P-15-022331, CA-KER-11769H has likely exhausted the data potential of the site (Criteria 4). Tetra Tech recommends the site not eligible for listing in the CRHR. It also does not meet the definition of a unique historical resource (PRC Section 21083.2). In summary, P-15-022330, CA-KER-11768H does not qualify as a historical resource under CEQA. The site is within the Study Area but not within the Project site and will be avoided and not impacted by Project activities. No further management is recommended.

P-15-022332, CA-KER-11770H

Site P-15-022332, CA-KER-11770H consists of a refuse scatter of cans, glass shards, and ceramic sherds (earthenware). The site is bisected by an unnamed northeast-to-southeast two-track road. Review of federal patents identified the California Portland Cement Co. with a patent in 1973 that overlaps with the site. The patent includes part of the Lupen Extension No. 2 (L2), a granted mineral load of aggregate. The California Portland Cement Co. (P-15-013905 ca. 1955, expanded 1980s; not evaluated for the CRHR) is a previously recorded built environment resource located over several miles to the northeast of the site and outside the boundary of the Project site. The plant is still in operation today. No other patents were listed. A review of archival census and genealogic sources, historic newspaper articles, historic maps and aerial imagery, and other online sources did not reveal any additional information regarding the Lupen Extension No. 2 or connecting the California Portland Cement Co. or other landowners to the site or provide information of the use of the site (see Chapter 6).

Review of historic maps and aerial imagery did not depict any buildings, structures, features, or mining claims in or near the site. The refuse consists of domestic utilitarian items and dates to the mid-to late 20th century. No direct connection could be made with a landowner or event to the site and the site does not appear to be directly connected to a significant event or person (Criteria 1 and 2). The site consists of common types of domestic refuse and no features or buildings are present. As such, it does not represent the work of a master craftsman or possess high artistic value (Criteria 3). The site is a surface scatter located on a piedmont with no soil development, and it is unlikely that intact subsurface deposits exist that would yield information important to local history. Therefore, the recordation of P-15-022332, CA-KER-11770H has likely exhausted the data potential of the site (Criteria 4). Tetra Tech recommends the site not eligible for listing in the CRHR. It also does not meet the definition of a unique historical resource (PRC Section 21083.2). In summary, P-15-022332, CA-KER-11770H does not qualify as a historical resource under CEQA. Site P-15-022332, CA-KER-11770H is within the Study Area but not within the Project site and will be avoided and not impacted by Project activities. No further management is recommended.

P-15-022333, CA-KER-11771H

Site P-15-022333, CA-KER-11771H is a widely dispersed historic-era refuse scatter of cans, glass shards, and industrial-related material (such as car parts, a metal saw, sheet metal fragment), a mining claim marker, a deflated rock ring (campfire ring), and two artifact concentrations. The site is bisected by the intersection of two unnamed dirt roads: a south-to-southwest trending road and a northwest-to-southeast trending road. Review of federal patents identified the California Portland Cement Co. with a patent in 1973 that overlaps with the site. The patent includes part of the Lupen Extension No. 2 (L2), a granted mineral load of aggregate. The California Portland Cement Co. (P-15-013905 ca. 1955, expanded 1980s; not evaluated for the CRHR) is a previously recorded built environment resource located over several miles to the northeast of the site and outside the boundary of the Project site. The plant is still in operation today. No other patents were listed. A review of archival census and genealogic sources, historic newspaper articles, historic maps and aerial imagery, and other online sources did not reveal any additional information about the Lupen Extension No. 2 load or connecting the California Portland Cement Co. or other landowners to the site or provide information of the use of the site (see Chapter 6).

Based upon the archival review and artifact assemblage consisting of common domestic food items (condiments, food cans, soda and beer type beverages) and utilitarian industrial type items, the site appears to contain two separate refuse disposal events, one between the 1920s and 1950s and the second between the 1960s and 1970s. This site most likely represent historic-era mineral and aggregate exploration and prospecting and general recreational camping. The site condition is fair and exhibits low integrity due to disturbance from natural erosion processes as well as use by the public (bullet holes in metal artifacts, and all glass and ceramic fragmented). No direct connection could be made with a landowner such as the California Portland Cement Co. (or other) or event to the site and the site does not appear to be directly connected to a significant event or person (Criteria 1 and 2). The site consists of common types of domestic refuse and no features, surface mining pits, or buildings are present. As such, it does not represent the work of a master craftsman or possess high artistic value (Criteria 3). The site is a surface scatter located on a piedmont with little soil development, and it is unlikely that intact subsurface deposits exist that would yield information important to local history. Therefore, the recordation of P-15-022333, CA-KER-11771H has likely exhausted the data potential of the site (Criteria 4). Tetra Tech recommends the site not eligible for listing in the CRHR. It also does not meet the definition of a unique historical resource (PRC Section 21083.2). In summary, P-15-022333, CA-KER-11771H does not qualify as a historical resource under CEQA. Site P-15-022333, CA-KER-11771H is within the Study Area but not within the Project site and will be avoided and not impacted by Project activities. No further management is recommended.

P-15-022334, CA-KER-11772H

Site P-15-022334, CA-KER-11772H is a low-density, historic-era refuse scatter of cans, glass shards, ceramic sherds, and metal pipes. The site is located adjacent to (southwest of) a northwest-to-southeast trending road and south-southeast of P-15-022333, CA-KER-11771H (refuse scatter). Review of federal patents identified the California Portland Cement Co. with a patent in 1973 that overlaps with the site. The patent includes part of the Lupen Extension No. 2 (L2), a granted mineral load of aggregate. The California Portland Cement Co. (P-15-013905 ca. 1955, expanded 1980s; not evaluated

for the CRHR) is a previously recorded built environment resource located over several miles to the northeast of the site and outside the boundary of the Project site. The plant is still in operation today. No other patents were listed. A review of archival census and genealogic sources, historic newspaper articles, historic maps and aerial imagery, and other online sources did not reveal any additional information about the Lupen Extension No. 2 load or connecting the California Portland Cement Co. or other landowners to the site or provide information of the use of the site (see Chapter 6).

Based upon the archival review and artifact assemblage consisting of common domestic food items (condiments, food cans, soda and beer type beverages) and utilitarian industrial type items (such as a hitch, Clorox-brand bleach), the site appears as a single refuse disposal event dating to the early to mid-20th century. This site most likely represents historic-era mineral and aggregate exploration and prospecting. Although the California Portland Cement Co. held a patent at the site, no direct connection to a significant event or person could be identified for the site (Criteria 1 and 2). The site consists of common types of domestic refuse and no features, surface mining pits, or buildings are present. As such, it does not represent the work of a master craftsman or possess high artistic value (Criteria 3). The site is a surface scatter located on a piedmont with little soil development, and it is unlikely that intact subsurface deposits exist that would yield information important to local history. Therefore, the recordation of P-15-022334, CA-KER-11772H has likely exhausted the data potential of the site (Criteria 4). Tetra Tech recommends the site not eligible for listing in the CRHR. It also does not meet the definition of a unique historical resource (PRC Section 21083.2). In summary, P-15-022334, CA-KER-11772H does not qualify as a historical resource under CEQA. Site P-15-022334, CA-KER-11772H is within the Study Area but not within the Project site and will be avoided and not impacted by Project activities. No further management is recommended.

P-15-022335, CA-KER-11773H

Site P-15-022335, CA-KER-11773H is a historic-era refuse scatter of glass bottles and shards, cans, ceramic sherds, and miscellaneous wire. The site is bisected by an unnamed northwest-to-southeast trending road (dirt two-track). A review of federal patents did not identify any patent holders within or overlapping with the site area. A review of archival census and genealogic sources, historic newspaper articles, historic maps and aerial imagery, and other online sources did not reveal any information connecting a historic-era landowner to the site or use of the site (see Chapter 6). Review of historic maps and aerial imagery did not depict any historic-era buildings, structures, features, or mining claims in the or near the site.

Based upon the archival review and artifact assemblage, the site appears to date between the 1920s and 1960s and may represent historic-era mineral or aggregate exploration refuse disposal, or general recreational use roadside refuse disposal event. The site condition is fair and exhibits low integrity due to natural erosion processes, as the artifacts are dispersed in a downslope direction. The site could not be directly connected to a significant event or person (Criteria 1 and 2). The site consists of primarily of domestic food-type items and there are no foundations or standing buildings or structures. As such, it does not represent the work of a master craftsman or possess high artistic value (Criteria 3). The site is a surface scatter in an area with little soil development and the refuse is of low density; it is unlikely that intact subsurface deposits exist. Therefore, the recordation of P-15-022335,

CA-KER-11773H has likely exhausted the data potential of the site (Criteria 4). Tetra Tech recommends the site not eligible for listing in the CRHR. It also does not meet the definition of a unique historical resource (PRC Section 21083.2). In summary, P-15-022335, CA-KER-11773H does not qualify as a historical resource under CEQA. No further management is recommended.

P-15-022337, CA-KER-11775H

Site P-15-022337, CA-KER-11775H consists of a historic refuse scatter of cans, glass, a piece of a metal object, and a deflated rock cairn. The site is situated east of a northwest-to-southeast trending unnamed dirt road. The site is within the path of an ephemeral drainage that is to the east. Review of federal patents identified Hugho Wilhelm Herrmann in 1981 with a patent that overlaps with the site. No other patents were listed. A review of archival census and genealogic sources, historic newspaper articles, historic maps and aerial imagery, and other online sources did not reveal any information connecting a historic-era landowner such as Hermann or others to the site or use of the site (see Chapter 6). Review of historic maps and aerial imagery did not depict any buildings, structures, features, or mining claims in or near the site.

Based on the characteristics of the site, it most likely represents historic-era prospecting (the deflated cairn appears as a possible mining claim) and a single refuse disposal event consisting of domestic food and utilitarian debris dating to the early to mid-20th century. Although Herrmann had a patent that overlaps with the site area, no direct connection could be made with Herrmann (or other landowners) to the site. Hence, the site is not directly connected to a significant event or person (Criteria 1 and 2). The site consists of common types of domestic utilitarian refuse and no features or buildings are present. As such, it does not represent the work of a master craftsman or possess high artistic value (Criteria 3). The site is a surface scatter in an area with little soil development and the refuse is of low density; it is unlikely that intact subsurface deposits exist that would yield information important to local history. Therefore, the recordation of P-15-022337, CA-KER-11775H has likely exhausted the data potential of the site (Criteria 4). Tetra Tech recommends the site not eligible for listing in the CRHR. It also does not meet the definition of a unique historical resource (PRC Section 21083.2). In summary, P-15-022337, CA-KER-11775H does not qualify as a historical resource under CEQA. No further management is recommended.

P-15-022338, CA-KER-11776H

Site P-15-022338, CA-KER-11776H consists of a historic-era refuse scatter primarily of glass shards, but also includes nine cans. The site is bisected by an unnamed northwest-to-southeast trending two-track road. A review of federal patents did not identify any patent holders within or overlapping with the site area. A review of archival census and genealogic sources, historic newspaper articles, historic maps and aerial imagery, and other online sources did not reveal any information connecting a historic-era landowner to the site or use of the site (see Chapter 6). Review of historic maps and aerial imagery did not depict any historic-era buildings, structures, features, or mining claims in the or near the site.

The site is most likely a roadside refuse disposal event of domestic food and beverage items dating to the early to mid-20th century. No direct connection could be made with a landowner or event to the

site and the site does not appear to be directly connected to a significant event or person (Criteria 1 and 2). The site consists of common types of domestic refuse and no features or buildings are present. As such, it does not represent the work of a master craftsman or possess high artistic value (Criteria 3). The site is a low-density roadside surface scatter with little soil development, and it is unlikely that intact subsurface deposits exist that would yield information important to local history. Therefore, the recordation of P-15-022338, CA-KER-11776H has likely exhausted the data potential of the site (Criteria 4). Tetra Tech recommends the site not eligible for listing in the CRHR. It also does not meet the definition of a unique historical resource (PRC Section 21083.2). In summary, P-15-022338, CA-KER-11776H does not qualify as a historical resource under CEQA. No further management is recommended.

P-15-022339, CA-KER-11777H

Site P-15-022339, CA-KER-11777H is a historic-era refuse scatter of cans and glass shards and a collapsed rock cairn (mining claim). The site is bisected by an unnamed northwest-to-east-to-southeast trending dirt road. A review of federal patents did not identify any patent holders within or overlapping the site area. A review of archival census and genealogic sources, historic newspaper articles, historic maps and aerial imagery, and other online sources did not reveal any information connecting a historic-era landowner to the site or use of the site (see Chapter 6). Review of historic maps and aerial imagery did not depict any historic-era buildings, structures, features, or mining claims in the or near the site.

The site appears to be a mining claim and roadside refuse disposal event of domestic food and beverage items dating to the mid- and late 20th century. No identifying claim markers were present. No direct connection could be made with a landowner or event to the site and the site does not appear to be directly connected to a significant event or person (Criteria 1 and 2). The site consists of common types of domestic refuse and a deflated claim marker; no intact features or buildings are present. As such, it does not represent the work of a master craftsman or possess high artistic value (Criteria 3). The site is a low-density roadside surface scatter with little soil development, and it is unlikely that intact subsurface deposits exist that would yield information important to local history. Therefore, the recordation of P-15-022339, CA-KER-11777H has likely exhausted the data potential of the site (Criteria 4). Tetra Tech recommends the site not eligible for listing in the CRHR. It also does not meet the definition of a unique historical resource (PRC Section 21083.2). In summary, P-15-022339, CA-KER-11777H does not qualify as a historical resource under CEQA. No further management recommended.

P-15-022340, CA-KER-11778H

Site P-15-022340, CA-KER-11778H consists of a historic-era refuse scatter of primarily glass shards, a few cans, and several bullet shell casings. The northwest-to-southeast trending Sandy Wash (ephemeral) bisects the northern portion of the site, and an unnamed northwest-to-southeast trending road bisects the center of the site. A review of federal patents did not identify any patent holders within or overlapping the site area. A review of archival census and genealogic sources, historic newspaper articles, historic maps and aerial imagery, and other online sources did not reveal any information connecting a historic-era landowner to the site or use of the site (see Chapter 6).

Review of historic maps and aerial imagery did not depict any historic-era buildings, structures, features, or mining claims in the or near the site.

The characteristics of the site suggest a roadside refuse disposal event of domestic food and beverage items dating to the early to mid-20th century. The site is in poor condition and exhibits low integrity due to environmental process of the ephemeral drainage (soil erosion and displacement of artifacts) and public access via adjacent road and artifacts used for firearm target practice, as evident by the bullet shell casings, bullet holes in artifacts, and the glass shards. No direct connection could be made with a landowner or event to the site and the site does not appear to be directly connected to a significant event or person (Criteria 1 and 2). The site consists of common types of domestic refuse and a deflated claim marker; no intact features or buildings are present. As such, it does not represent the work of a master craftsman or possess high artistic value (Criteria 3). The site is a low-density roadside surface scatter that lacks integrity due to previous disturbances to artifacts, and it is unlikely that intact subsurface deposits exist that would yield information important to local history. Therefore, the recordation of P-15-022340, CA-KER-11778H has likely exhausted the data potential of the site (Criteria 4). Tetra Tech recommends the site not eligible for listing in the CRHR. It also does not meet the definition of a unique historical resource (PRC Section 21083.2). In summary, P-15-022340, CA-KER-11778H does not qualify as a historical resource under CEQA. No further management is recommended.

P-15-022341, CA-KER-11779H

Site P-15-022341, CA-KER-11779H is a widely diffuse, historic-era refuse scatter of cans, metal (bucket, vent pipe fragment), glass, wood fragments, rubber, ceramic sherds, a GLO benchmark from 1934, and a rock circle (possible campfire ring). The site is bisected by an unnamed northwest-to-southeast trending two-track dirt road. Review of federal patents identified the Southern Pacific Railroad in 1891 with a patent that overlaps with the site. No other patents were listed. A review of archival census and genealogic sources, historic newspaper articles, historic maps and aerial imagery, and other online sources did not reveal any information connecting a historic-era landowner to the site or provide information of the use of the site (see Chapter 6). Review of historic maps and aerial imagery did not depict any buildings, structures, features, or mining claims in or near the site.

Based on the characteristics of the site, it is most likely a single roadside refuse disposal episode that dates to the early to mid-20th century and associated with historic-era prospecting, recreational camping and roadside disposal of debris, and USGS land survey activities. The site is in fair condition and exhibits low integrity due to natural erosional processes (ephemeral drainage and weathering, artifact fragmentation and displacement) and public access via the road that bisects the site. No direct connection could be made with a landowner or event to the site and the site does not appear to be directly connected to a significant event or person (Criteria 1 and 2). The site consists of common types of domestic refuse and no intact features or buildings are present. As such, it does not represent the work of a master craftsman or possess high artistic value (Criteria 3). The site is a surface scatter that lacks integrity due to previous disturbances to artifacts, and it is unlikely that intact subsurface deposits exist that would yield information important to local history. Therefore, the recordation of P-15-022341, CA-KER-11779H has likely exhausted the data potential of the site (Criteria 4). Tetra Tech

recommends the site not eligible for listing in the CRHR. It also does not meet the definition of a unique historical resource (PRC Section 21083.2). In summary, P-15-022341, CA-KER-11779H does not qualify as a historical resource under CEQA. No further management is recommended for the refuse scatter.

Since the cadastral marker is associated with the U.S. Department of the Interior topographical landmarks and is part of the official Land Status and Cadastral Survey records, Tetra Tech recommends it be avoided as cadastral markers are protected under United States Code (18 U.S. Code § 1858). If a cadastral marker must be removed or realigned, the State of California Business and Professions Code Section 8726 requires a licensed land surveyor employed by the state of California or a California city or county to conduct the work.

P-15-022342, CA-KER-11780H

Site P-15-022342, CA-KER-11780H consists of a low-density, historic-era refuse scatter of primarily cans and a few glass shards. The site is bisected by a northwest-to-southeast trending road and is situated within the path of an ephemeral wash that flows in the same direction. Review of federal patents identified the Southern Pacific Railroad in 1891 with a patent that overlaps with the site. No other patents were listed. A review of archival census and genealogic sources, historic newspaper articles, historic maps and aerial imagery, and other online sources did not reveal any information connecting a historic-era landowner to the site or provide information of the use of the site (see Chapter 6). Review of historic maps and aerial imagery did not depict any buildings, structures, features, or mining claims in or near the site.

Site P-15-022342, CA-KER-11780H appears to be a single refuse disposal event of domestic food and beverage debris dating to the mid-20th century that cannot be directly connected to a significant event or person (Criteria 1 and 2). The site consists of common types of domestic food- and beverage-type refuse. As such, it does not represent the work of a master craftsman or possess high artistic value (Criteria 3). The site is within an ephemeral drainage and lacks integrity due to episodic water runoff resulting in soil erosion and displacement of artifacts. It is unlikely that intact subsurface deposits exist. Therefore, the recordation of P-15-022342, CA-KER-11780H has likely exhausted the data potential of the site (Criteria 4). Tetra Tech recommends the site not eligible for listing in the CRHR. It also does not meet the definition of a unique historical resource (PRC Section 21083.2). In summary, P-15-022342, CA-KER-11780H does not qualify as a historical resource under CEQA. No further management is recommended.

P-15-022343, CA-KER-11781H

Site P-15-022343, CA-KER-11781H consists of a low-density, historic-era scatter of primarily cans, a few glass shards, and piece of metal wire. The site is bisected by a northwest-to-southeast ephemeral wash and is northeast of a northwest-to-southeast trending two-track road. Review of federal patents identified the Southern Pacific Railroad in 1891 with a patent that overlaps with the site. No other patents were listed. A review of archival census and genealogic sources, historic newspaper articles, historic maps and aerial imagery, and other online sources did not reveal any information connecting a historic-era landowner to the site or provide information of the use of the site (see Chapter 6).

Review of historic maps and aerial imagery did not depict any buildings, structures, features, or mining claims in or near the site.

Site P-15-022343, CA-KER-11781H appears to be a single refuse disposal event of domestic food and beverage debris dating to the mid- to late 20th century that cannot be directly connected to a significant event or person (Criteria 1 and 2). The site consists of common types of domestic food- and beverage-type refuse. As such, it does not represent the work of a master craftsman or possess high artistic value (Criteria 3). The site is a surface scatter and within an ephemeral drainage and lacks integrity due to episodic water runoff resulting in soil erosion and displacement of artifacts. It is unlikely that intact subsurface deposits exist. Therefore, the recordation of P-15-022343, CA-KER-11781H has likely exhausted the data potential of the site (Criteria 4). Tetra Tech recommends the site not eligible for listing in the CRHR. It also does not meet the definition of a unique historical resource (PRC Section 21083.2). In summary, P-15-022343, CA-KER-11781H does not qualify as a historical resource under CEQA. No further management recommended.

P-15-022344, CA-KER-11782H

Site P-15-022344, CA-KER-11782H is a very low-density, historic-era refuse scatter of glass and cans. The site is bisected by a northwest-to-southeast ephemeral wash and northeast of an unnamed two-track road. Review of federal patents identified the Southern Pacific Railroad in 1891 with a patent that overlaps with the site. No other patents were listed. A review of archival census and genealogic sources, historic newspaper articles, historic maps and aerial imagery, and other online sources did not reveal any information connecting a historic-era landowner to the site or provide information of the use of the site (see Chapter 6). Review of historic maps and aerial imagery did not depict any buildings, structures, features, or mining claims in or near the site.

Site P-15-022344, CA-KER-11782H appears to be a single refuse disposal event of domestic food and beverage debris dating to the mid- to late 20th century that cannot be directly connected to a significant event or person (Criteria 1 and 2). The site consists of common types of domestic food and beverage type refuse. As such, it does not represent the work of a master craftsman or possess high artistic value (Criteria 3). The site is a low-density surface scatter and within an ephemeral drainage that lacks integrity due to episodic water runoff. resulting in soil erosion and displacement of artifacts. It is unlikely that intact subsurface deposits exist. Therefore, the recordation of P-15-022344, CA-KER-11782H has likely exhausted the data potential of the site (Criteria 4). Tetra Tech recommends the site not eligible for listing in the CRHR. It also does not meet the definition of a unique historical resource (PRC Section 21083.2). In summary, P-15-022344, CA-KER-11782H does not qualify as a historical resource under CEQA. No further management recommended.

P-15-022345, CA-KER-11783H

Site P-15-022345, CA-KER-11783H consists of a light-density, historic-era refuse scatter of primarily cans, a glass shard, a metal T-post fragment, a piece of sheet metal, and a piece of milled lumber. Some of the artifacts have bullet holes. The site is situated adjacent to (west of) a north-to-south trending road two-track road. Review of federal patents identified the Southern Pacific Railroad in 1891 with a patent that overlaps with the site. No other patents were listed. A review of archival

census and genealogic sources, historic newspaper articles, historic maps and aerial imagery, and other online sources did not reveal any information connecting a historic-era landowner to the site or provide information of the use of the site (see Chapter 6). Review of historic maps and aerial imagery did not depict any buildings, structures, features, or mining claims in or near the site.

Based on the characteristics of the cultural material, P-15-022345, CA-KER-11783H appears to be a single roadside refuse disposal event of domestic and industrial debris dating to the early to mid-20th century that cannot be directly connected to a significant event or person (Criteria 1 and 2). The site consists of common types of domestic food and beverage type refuse. As such, it does not represent the work of a master craftsman or possess high artistic value (Criteria 3). The site is a light density surface scatter located adjacent to a road and lacks integrity due to previous disturbances (erosion and public access). It is unlikely that intact subsurface deposits exist. Therefore, the recordation of P-15-022345, CA-KER-11783H has likely exhausted the data potential of the site (Criteria 4). Tetra Tech recommends the site not eligible for listing in the CRHR. It also does not meet the definition of a unique historical resource (PRC Section 21083.2). In summary, P-15-022345, CA-KER-11783H does not qualify as a historical resource under CEQA. No further management is recommended.

P-15-022346, CA-KER-11784H

Site P-15-022346, CA-KER-11784H is a low-density, historic-era site of refuse scatter of cans, glass, and a metal bucket. The site is situated within a small ephemeral wash. Review of federal patents identified the Southern Pacific Railroad in 1891 with a patent that overlaps with the site. No other patents were listed. A review of archival census and genealogic sources, historic newspaper articles, historic maps and aerial imagery, and other online sources did not reveal any information connecting a historic-era landowner to the site or provide information of the use of the site (see Chapter 6). Review of historic maps and aerial imagery did not depict any buildings, structures, features, or mining claims in or near the site.

Site P-15-022346, CA-KER-11784H appears to be a single refuse disposal event of domestic food and beverage debris dating to the early to mid- to late 20th century that cannot be directly connected to a significant event or person (Criteria 1 and 2). The site consists of common types of domestic food- and beverage-type refuse. As such, it does not represent the work of a master craftsman or possess high artistic value (Criteria 3). The site is a low-density surface scatter within an ephemeral drainage and lacks integrity due to episodic water runoff, resulting in soil erosion and displacement of artifacts. It is unlikely that intact subsurface deposits exist. Therefore, the recordation of P-15-022346, CA-KER-11784H has likely exhausted the data potential of the site (Criteria 4). Tetra Tech recommends the site not eligible for listing in the CRHR. It also does not meet the definition of a unique historical resource (PRC Section 21083.2). In summary, P-15-022346, CA-KER-11784H does not qualify as a historical resource under CEQA. No further management is recommended.

P-15-022347, CA-KER-11785H

Site P-15-022347, CA-KER-11785H is a low-density, historic-era site of refuse scatter of cans. The site is within a northwest-to-southeast ephemeral drainage. The site is west of an existing improved road and an unnamed northwest-to-southeast trending road is to the south. Review of federal patents

identified the Southern Pacific Railroad in 1894 with a patent that overlaps with the site. No other patents were listed. A review of archival census and genealogic sources, historic newspaper articles, historic maps and aerial imagery, and other online sources did not reveal any information connecting a historic-era landowner to the site or provide information of the use of the site (see Chapter 6). Review of historic maps and aerial imagery did not depict any buildings, structures, features, or mining claims in or near the site.

Site P-15-022347, CA-KER-11785H appears to be a single refuse disposal event of domestic food and beverage cans dating to the early to mid-20th century that cannot be directly connected to a significant event or person (Criteria 1 and 2). The site consists of common types of domestic food- and beverage-type refuse. As such, it does not represent the work of a master craftsman or possess high artistic value (Criteria 3). The site is a light density surface scatter within an ephemeral drainage and lacks integrity due to episodic water runoff, resulting in soil erosion and displacement of artifacts. It is unlikely that intact subsurface deposits exist. Therefore, the recordation of P-15-022347, CA-KER-11785H has likely exhausted the data potential of the site (Criteria 4). Tetra Tech recommends the site not eligible for listing in the CRHR. It also does not meet the definition of a unique historical resource (PRC Section 21083.2). In summary, P-15-022347, CA-KER-11785H does not qualify as a historical resource under CEQA. No further management recommended.

P-15-022348, CA-KER-11786H

Site P-15-022348, CA-KER-11786H consists of a low-density, historic-era refuse scatter of cans, ceramics, and glass shards, located adjacent to (north of) an unnamed northwest-to-southeast dirt road. Review of federal patents identified the Southern Pacific Railroad in 1894 with a patent that overlaps with the site. No other patents were listed. A review of archival census and genealogic sources, historic newspaper articles, historic maps and aerial imagery, and other online sources did not reveal any information connecting a historic-era landowner to the site or provide information of the use of the site (see Chapter 6). Review of historic maps and aerial imagery did not depict any buildings, structures, features, or mining claims in or near the site.

Site P-15-022348, CA-KER-11786H appears to be a single roadside refuse disposal event of domestic food and beverage cans dating to the early to mid-20th century that cannot be directly connected to a significant event or person (Criteria 1 and 2). The site consists of common types of domestic food- and beverage-type refuse and no buildings, structures, or features are present. As such, it does not represent the work of a master craftsman or possess high artistic value (Criteria 3). The site is a low-density surface scatter, and it is unlikely that intact subsurface deposits exist that would yield information important to local history. Therefore, the recordation of P-15-022348, CA-KER-11786H has likely exhausted the data potential of the site (Criteria 4). Tetra Tech recommends the site not eligible for listing in the CRHR. It also does not meet the definition of a unique historical resource (PRC Section 21083.2). In summary, P-15-022348, CA-KER-11786H does not qualify as a historical resource under CEQA. No further management recommended.

P-15-022349, CA-KER-11787H

Site P-15-022349, CA-KER-11787H is a large historic-era refuse scatter of domestic and industrial debris intermixed with modern refuse. The site is on all sides of the intersection of a north-to-south trending two-track road and the east-to-west trending improved dirt road. The site is bisected by both roads. Review of federal patents identified the Southern Pacific Railroad in 1894, a Flora Clarks (neé Harsh) and Rosa Harsh, both issued in 1916, that overlap with the site area. A review of archival census and genealogic sources, historic newspaper articles, historic maps and aerial imagery, and other online sources did not reveal any information connecting a historic-era landowner to the site or provide information of the use of the site (see Chapter 6). No buildings, features, or mining prospects were depicted on the reviewed historic aerial imagery or USGS topographical maps within or adjacent to the site location.

The site is in poor condition and exhibits low integrity due to environmental processes (ephemeral drainage activity) and public access via adjacent roads and use by the public for recreation (e.g., target practice, bullet holes in artifacts), modern residential refuse disposal, and illegal artifact collection (potential looting). Site P-15-022349, CA-KER-11787H exhibits two to three roadside refuse disposal events of domestic food and industrial debris dating to the early to mid-20th century. Although a Flora Clarks (neé Harsh) and Rosa Harsh held a historic-era patent that overlaps with the site area, no information was available that would directly connect them to the site. Hence, the site is not associated with a significant event or person (Criteria 1 and 2). The site consists of common types of utilitarian refuse and no buildings, structures, or features are present. As such, it does not represent the work of a master craftsman or possess high artistic value (Criteria 3). The site is a surface scatter and lacks integrity due to past disturbances such as erosion, road maintenance, and public access, and it is unlikely that intact subsurface deposits exist that would yield information important to local history. Therefore, the recordation of P-15-022349, CA-KER-11787H has likely exhausted the data potential of the site (Criteria 4). Tetra Tech recommends the site not eligible for listing in the CRHR. It also does not meet the definition of a unique historical resource (PRC Section 21083.2). In summary, P-15-022349, CA-KER-11787H does not qualify as a historical resource under CEQA. No further management is recommended.

P-15-022350, CA-KER-11788H

Site P-15-022350, CA-KER-11788H is a historic-era refuse scatter of glass shards, cans, and metal items (shovel, strainer with handle, miscellaneous fragments). The site is bisected by an unnamed north-to-south trending two-track road (overgrown). Review of federal patents identified a Flora Clarks (neé Harsh) holding a patent issued in 1916 that overlaps with the site area. A review of archival census and genealogic sources, historic newspaper articles, historic maps and aerial imagery, and other online sources did not reveal any information connecting a historic-era landowner to the site or provide information of the use of the site (see Chapter 6). No buildings, features, or mining prospects were depicted on the reviewed historic aerial imagery or USGS topographical maps within or adjacent to the site location.

Site P-15-022350, CA-KER-11788H is a roadside refuse disposal event of domestic food and industrial debris dating to the early to mid-20th century. Although a Flora Clarks (neé Harsh) held a historic-era

patent that overlaps with the site area, no information was available that would directly connect Clarks (or other landowner) to the site. Hence, the site is not associated with a significant event or person (Criteria 1 and 2). The site consists of common types of utilitarian refuse and no buildings, structures, or features are present. As such, it does not represent the work of a master craftsman or possess high artistic value (Criteria 3). The site consists of a surface scatter of refuse, and it is unlikely that intact subsurface deposits exist that would yield information important to local history. Therefore, the recordation of P-15-022350, CA-KER-11788H has likely exhausted the data potential of the site (Criteria 4). Tetra Tech recommends the site not eligible for listing in the CRHR. It also does not meet the definition of a unique historical resource (PRC Section 21083.2). In summary, P-15-022350, CA-KER-11788H does not qualify as a historical resource under CEQA. No further management is recommended.

P-15-022351, CA-KER-11789H

Site P-15-022351, CA-KER-11789H is a low-density, historic-era small refuse scatter of cans and glass shards. Review of federal patents identified the Southern Pacific Railroad in 1894 with a patent that overlaps with the site. No other patents were listed. A review of archival census and genealogic sources, historic newspaper articles, historic maps and aerial imagery, and other online sources did not reveal any information connecting a historic-era landowner to the site or provide information of the use of the site (see Chapter 6). Review of historic maps and aerial imagery did not depict any buildings, structures, features, or mining claims in or near the site.

Site P-15-022351, CA-KER-11789H appears to be a single refuse disposal event of domestic food and beverage debris dating to the early 20th century. The site could not be directly connected to a significant event or person (Criteria 1 and 2). The site consists of common types of domestic food- and beverage-type refuse. As such, it does not represent the work of a master craftsman or possess high artistic value (Criteria 3). The site is a low-density surface scatter adjacent to an ephemeral drainage, and it is unlikely that intact subsurface deposits exist. Therefore, the recordation of P-15-022351, CA-KER-11789H has likely exhausted the data potential of the site (Criteria 4). Tetra Tech recommends the site not eligible for listing in the CRHR. It also does not meet the definition of a unique historical resource (PRC Section 21083.2). In summary, P-15-022351, CA-KER-11789H does not qualify as a historical resource under CEQA. No further management is recommended.

P-15-022352, CA-KER-11790H

Site P-15-022352, CA-KER-11790H consists of a concentration of building materials (wood, dry wall fragments) and a widely diffuse refuse scatter of cans, glass, and metals. The site is situated adjacent to (north of) and within the fluvial path of a large northwest-to-southeast trending ephemeral wash extending southeast from a canyon of the Tehachapi Mountains. The northern portion of the site is bisected by an unnamed northwest-to-southeast two-track road. Review of federal patents identified a Harley G. Cretcher with a patent issued in 1916 that overlaps with the site area. A review of archival census and genealogic sources, historic newspaper articles, historic maps and aerial imagery, and other online sources did not reveal any information connecting Cretcher or other historic-era landowners to the site or provide information of the use of the site (see Chapter 6). No buildings,

features, or mining prospects were depicted on the reviewed historic aerial imagery or USGS topographical maps within or adjacent to the site location.

Site P-15-022352, CA-KER-11790H consists of a roadside refuse disposal event of domestic food and industrial debris dating to the mid- to late 20th century. Although a Harley G. Cretcher held a historic-era patent that overlaps with the site area, no information was available that would directly connect Cretcher (or other landowner) to the site. Hence, the site is not associated with a significant event or person (Criteria 1 and 2). The site consists of common types of utilitarian refuse and no buildings, structures, or features are present. As such, it does not represent the work of a master craftsman or possess high artistic value (Criteria 3). The site consists of a roadside surface scatter of refuse, and it is unlikely that intact subsurface deposits exist that would yield information important to local history Therefore, the recordation of P-15-022352, CA-KER-11790H has likely exhausted the data potential of the site (Criteria 4). Tetra Tech recommends the site not eligible for listing in the CRHR. It also does not meet the definition of a unique historical resource (PRC Section 21083.2). In summary, P-15-022352, CA-KER-11790H does not qualify as a historical resource under CEQA. No further management is recommended.

P-15-022353, CA-KER-11791H

Site P-15-022353, CA-KER-11791H is a low-density, historic-era refuse scatter of metal, glass, and cans, a deflated rock cairn or rock ring, and an intact rock ring (possible campfire ring). A north-to-south trending two-track road leads north to the site area and loops around the site; the road is accessed via an unnamed east-to-west trending dirt road. Review of federal patents identified a Harley G. Cretcher with a patent issued in 1916 that overlaps with the site area. A review of archival census and genealogic sources, historic newspaper articles, historic maps and aerial imagery, and other online sources did not reveal any information connecting Cretcher or other historic-era landowners to the site or provide information of the use of the site (see Chapter 6). No buildings, features, or mining prospects were depicted on the reviewed historic aerial imagery or USGS topographical maps within or adjacent to the site location.

Site P-15-022353, CA-KER-11791H is most likely a recreational camp site consisting of a campfire ring and domestic food and industrial debris dating to the mid to late 20th century (ca. 1950s to the early 1980s). Although a Harley G. Cretcher held a historic-era patent that overlaps with the site area, no information was available that would directly connect Cretcher (or other landowner) to the site. Hence, the site is not associated with a significant event or person (Criteria 1 and 2). The site consists of common types of utilitarian refuse and no buildings, structures, or features are present. As such, it does not represent the work of a master craftsman or possess high artistic value (Criteria 3). The site consists of a surface scatter of refuse, and it is unlikely that intact subsurface deposits exist that would yield information important to local history Therefore, the recordation of P-15-022353, CA-KER-11791H has likely exhausted the data potential of the site (Criteria 4). Tetra Tech recommends the site not eligible for listing in the CRHR. It also does not meet the definition of a unique historical resource (PRC Section 21083.2). In summary, P-15-022353, CA-KER-11791H does not qualify as a historical resource under CEQA. No further management recommended.

P-15-022354, CA-KER-11792H

Site P-15-022354, CA-KER-11792H is a diffuse, historic-era artifact concentration and a refuse scatter of domestic- and industrial-related material such as cans, glass, and corrugated sheet metal. The site is situated within a broad sheet wash area (presents a high erosion force) and an ephemeral drainage bisects the northern portion of the site. The site is also bisected by an unnamed northwest-to-southeast trending two-track road (improved, graded). Review of federal patents identified a Catherine Haws with a patent issued in 1919 that overlaps with the site area. A review of archival census and genealogic sources, historic newspaper articles, historic maps and aerial imagery, and other online sources did not reveal any information connecting Haws or other historic-era landowners to the site or provide information of the use of the site (see Chapter 6). No buildings, features, or mining prospects were depicted on the reviewed historic aerial imagery or USGS topographical maps within the site location. In 1963, aerial imagery does depict a building over 100 feet west of the site and a north-to-south trending road adjacent to (west of) the site area. By 1974, the building is no longer extant, and the area appears graded (Netronline 2024).

Site P-15-022354, CA-KER-11792H appears as a single roadside refuse disposal event of domestic food and beverage dating to the mid- to late 20th century. The site is possibly associated with the refuse disposal of nearby residents associated with the former building to the northwest or others. Although a Catherine Haws held a historic-era patent that overlaps with the site area, no information was available that would directly connect Haws (or other landowners) to the site. Hence, the site is not associated with a significant event or person (Criteria 1 and 2). The site consists of common types of utilitarian refuse and no buildings, structures, or features are present. As such, it does not represent the work of a master craftsman or possess high artistic value (Criteria 3). The site consists of a roadside surface scatter of refuse, and it is unlikely that intact subsurface deposits exist that would yield information important to local history Therefore, the recordation of P-15-022354, CA-KER-11792H has likely exhausted the data potential of the site (Criteria 4). Tetra Tech recommends the site not eligible for listing in the CRHR. It also does not meet the definition of a unique historical resource (PRC Section 21083.2). In summary, P-15-022354, CA-KER-11792H does not qualify as a historical resource under CEQA. No further management is recommended.

P-15-022356, CA-KER-11794H

Site P-15-022356, CA-KER-11794H is a low-density, historic-era refuse scatter of cans, glass, ceramics, and industrial debris. The site is located within a broad sheet wash area and a northwest-to-southeast trending ephemeral wash bisects the northern portion of the site. Review of federal patents identified the Southern Pacific Railroad in 1894 with a patent that overlaps with the site. No other patents were listed. A review of archival census and genealogic sources, historic newspaper articles, historic maps and aerial imagery, and other online sources did not reveal any information connecting a historic-era landowner to the site or provide information of the use of the site (see Chapter 6). Review of historic maps and aerial imagery did not depict any buildings, structures, features, or mining claims in or near the site.

Based upon the artifact assemblage and historic archival review of the area, the site appears to be a low-density single refuse disposal event that dates to the early to mid-20th century. The site is in poor

condition and exhibits low integrity due to environmental erosional processes (ephemeral drainage within site and displacement of artifacts). Most of the artifacts are crushed, decomposing, and fragmented. The site could not be directly connected to a significant event or person (Criteria 1 and 2). The site consists of common types of domestic utilitarian refuse. As such, it does not represent the work of a master craftsman or possess high artistic value (Criteria 3). The site is a low-density surface scatter bisected by an ephemeral drainage, and it is unlikely that intact subsurface deposits exist. Therefore, the recordation of P-15-022356, CA-KER-11794H has likely exhausted the data potential of the site (Criteria 4). Tetra Tech recommends the site not eligible for listing in the CRHR. It also does not meet the definition of a unique historical resource (PRC Section 21083.2). In summary, P-15-022356, CA-KER-11794H does not qualify as a historical resource under CEQA. Site P-15-022356, CA-KER-11794H is within the Study Area but not within the Project site and will be avoided and not impacted by Project activities. No further management is recommended.

P-15-022357, CA-KER-11795H

Site P-15-022357, CA-KER-11795H is a historic-era refuse scatter of cans, glass shards, ceramic shards, and industrial home-type debris (i.e., window type glass, toilet fragments, T-post for fence line, chicken wire), concrete fragments (former foundation broken up), and a dilapidated fence line. The site is located adjacent to (west of) a north-to-south trending improved dirt road, a single pole wooden telephone line, and a steel lattice tower transmission line. The site is situated within a broad sheet wash area bisected by several ephemeral drainages. Review of federal patents identified a Pearl Whiteside with a patent issued in 1938 that overlaps with the site area. A Mrs. Pearl Whiteside is listed as living in Rosamond, California between 1924 to 1932 (U.S. Voter Registration 1900-1968; Ancestry 2024). A review of archival census and genealogic sources, historic newspaper articles, historic maps and aerial imagery, and other online sources did not reveal any information connecting Whiteside or other historic-era landowners to the site or provide information of the use of the site (see Chapter 6).

Site P-15-022357, CA-KER-11795H is the remnants of a former homestead dating to the mid- to late 20th century. Although a Pearl Whiteside held a historic-era patent that overlaps with the site area, no information was available that would directly connect Whiteside (or other landowner) to the site. Hence, the site is not associated with a significant event or person (Criteria 1 and 2). The site consists of common types of utilitarian refuse and no intact buildings, structures, or features are present. As such, it does not represent the work of a master craftsman or possess high artistic value (Criteria 3). The site consists of a surface scatter of refuse that has been disturbed by the demolition of the structure that once existed and grading of the area; it is unlikely that intact subsurface deposits exist that would yield information important to local history Therefore, the recordation of DIS-SK-6 has likely exhausted the data potential of the site (Criteria 4). Tetra Tech recommends the site not eligible for listing in the CRHR. It also does not meet the definition of a unique historical resource (PRC Section 21083.2). In summary, P-15-022357, CA-KER-11795H does not qualify as a historical resource under CEQA. Site P-15-022357, CA-KER-11795H is within the Study Area but not within the Project site and will be avoided and not impacted by Project activities. No further management is recommended.

P-15-022358, CA-KER-11796H

Site P-15-022358, CA-KER-11796H consists of a prehistoric bedrock milling slick on a granitic boulder.

Site P-15-022358, CA-KER-11796H is unevaluated for eligibility for listing in the CRHR. Tetra Tech recommends avoidance of the site until Kern County consults with interested Tribes under AB52 regarding P-15-022358, CA-KER-11796H and Tribal Cultural Resources (as appropriate) including recommended Tribal mitigation measures.

8.0 MANAGEMENT RECOMMENDATIONS

Tetra Tech, Inc. was contracted by Discovery Solar PV and Storage, LLC (Applicant) to conduct a Phase I cultural resource investigation for the proposed Discovery Solar PV and Storage Project (Project). This Phase I investigation included background archival research, SSJVIC records search, an archaeological pedestrian survey, site updates and recordation, CRHR eligibility evaluation recommendations for previously recorded and newly recorded resources, and reporting. As a result of this work, Tetra Tech updated 21 previously recorded archaeological sites, 5 built environment resources, and 34 isolates; and identified 83 newly recorded archaeological sites and 93 newly recorded isolates. Of these, 19 prehistoric sites remain unevaluated for listing in the CRHR until Kern County consults with interested Tribes under AB52 regarding Tribal Cultural Resources (as appropriate) including recommended Tribal mitigation measures (see Chapter 7). The remaining sites and isolates were recommended not eligible for listing in the CRHR (see Chapter 7 and tables below). Most of these sites consist of historic-era, surficial refuse disposal events associated with either roadside dumping, mine prospecting, or utility work dating between the early to late 20th century. These sites were evaluated under all CRHR criteria in consideration of archival research, their surface cultural constituents, integrity, and potential for intact subsurface deposits that would yield additional information (Chapter 7).

The cultural resources, recommended CRHR eligibility, and management measures resulting from this Phase I study of the Project are identified in the tables below.

Table 8-1 provides a summary of previously recorded and newly recorded archaeological sites, CRHR eligibility recommendations, and management recommendations. Table 8-2 provides a summary of previously recorded and newly recorded archaeological isolates, CRHR eligibility recommendations, and management recommendations. Table 8-3 presents a summary of previously recorded built environment resources, CRHR eligibility recommendations, and management recommendations. Section 8.3 provides recommended mitigation measures.

8.1 Archaeological Environment

8.1.1 Previously Recorded and Newly Recorded Archaeological Sites

The 21 previously recorded sites consist of 15 historic, 4 prehistoric, and 2 multicomponent (prehistoric and historic) sites. Of these, 17 sites are recommended not eligible and no further management necessary, and 4 sites (two recommended not eligible and two unevaluated) are pending Tribal consultation under AB52. Kern County, lead agency under CEQA, shall consider the significance of Tribal Cultural Resources (as defined PRC Section 21074) to a California Native American Tribe through AB52 consultation or other coordination with the interested Tribes including recommended Tribal mitigation measures (as appropriate).

Tetra Tech identified and recorded a total of 83 newly identified sites. The sites include 11 prehistoric, 65 historic, and 7 multicomponent resources. Of these, 68 sites are recommended not eligible and no further management necessary, and 15 sites are unevaluated pending Tribal consultation under AB52. See Table 8-1 for the previously recorded and newly recorded sites CRHR recommendations and

management recommendations within the Study Area. See Section 8.2 for the 5 previously recorded historic built environment management recommendations.

Table 8-1. Previously Recorded and Newly Recorded Sites within the Study Area

Primary/Trinomial	Time Period*	Description	Recommended CRHR Eligibility	Management Recommendations
Previously Recorded				
P-15-010952 (CA-KER-6341)	Historic	Refuse scatter.	Not Eligible	No further management.
P-15-012677 (CA-KER-7135)	Historic	Refuse scatter.	Not Eligible	No further management.
P-15-012678 (CA-KER-7136)	Multicomponent	Isolated prehistoric biface, historic era refuse scatter.	Not Eligible	No further management
P-15-012714 (CA-KER-7172)	Historic	Foundations, refuse scatter.	Not Eligible	No further management.
P-15-013838	Prehistoric	Lithic scatter.	Not Eligible	Avoidance pending Tribal consultation.
P-15-013839	Multicomponent	Isolated prehistoric flake, Historic era refuse scatter.	Not Eligible	No further management.
P-15-013917 (CA-KER-7801)	Historic	Refuse scatter.	Not Eligible (no longer extant)	No further management.
P-15-013918 (CA-KER-7802)	Historic	Refuse scatter.	Not Eligible (CH2M HILL (2009) Tetra Tech (current study)	No further management.
P-15-013919 (CA-KER-7803)	Historic	Refuse scatter.	Not Eligible (CH2M HILL (2009) Tetra Tech (current study)	No further management.
P-15-013920 (CA-KER-7804)	Historic	Refuse scatter.	Not Eligible (CH2M HILL (2009) Tetra Tech (current study)	No further management.
P-15-013921 (CA-KER-7805)	Historic	Refuse scatter.	Not Eligible (CH2M HILL (2009) Tetra Tech (current study)	No further management.
P-15-014703 (CA-KER-8269)	Historic	Historic era campsite.	Not Eligible (CH2M HILL (2009) Tetra Tech (current study)	No further management.
P-15-016244 (CA-KER-8979)	Prehistoric	Lithic scatter.	Not Eligible (CH2M HILL (2009) Tetra Tech (current study)	Avoidance pending Tribal consultation.
P-15-016252	Historic	Foundation, refuse scatter.	Not Eligible (CH2M HILL (2009) Tetra Tech (current study)	No further management.
P-15-016508 (CA-KER-9088)	Historic	Homestead, refuse scatter.	Not Eligible	No further management.
P-15-016511	Historic	Refuse scatter.	Not Eligible	No further management.
P-15-016514 (CA-KER-9094)	Historic	Refuse scatter.	Not Eligible	No further management.
P-15-016518 (CA-KER-9098)	Prehistoric	Lithic scatter.	Not Eligible	Avoidance pending Tribal consultation
P-15-016519 (CA-KER-9099)	Historic	Homestead, refuse scatter.	Unevaluated	No further management.
P-15-016528 (CA-KER-9108)	Prehistoric	Lithic scatter.	Unevaluated	Avoidance pending Tribal consultation
P-15-016875 (CA-KER-9264)	Historic	Refuse scatter, fire affected rocks.	Not Eligible	No further management.

Primary/Trinomial	Time Period*	Description	Recommended CRHR Eligibility	Management Recommendations
Newly Recorded Sites				
P-15-022359, CA-KER-11797/H	Multicomponent	Prehistoric lithic scatter; historic refuse scatter.	Historic: Not Eligible Prehistoric: Unevaluated	Historic: No further management. Prehistoric: Avoidance pending Tribal consultation
P-15-022360, CA-KER-11798	Prehistoric	Lithic scatter.	Unevaluated	Avoidance pending Tribal consultation
P-15-022361, CA-KER-11799H	Historic	Refuse scatter.	Not Eligible	No further management.
P-15-022362, CA-KER-11800H	Historic	Mining cairn, test pits, and refuse.	Not Eligible	No further management.
P-15-022363, CA-KER-11801/H	Multicomponent	Prehistoric lithic scatter; historic mining refuse.	Historic: Not Eligible Prehistoric: Unevaluated	Historic: No further management. Prehistoric: Avoidance pending tribal consultation
P-15-022364, CA-KER-11802/H	Multicomponent	Prehistoric lithic scatter; historic refuse scatter.	Historic: Not Eligible Prehistoric: Unevaluated	Historic: No further management. Prehistoric: Avoidance pending Tribal consultation
P-15-022365, CA-KER-11803H	Historic	Refuse scatter.	Not Eligible	No further management.
P-15-022366, CA-KER-11804	Prehistoric	Lithic scatter.	Unevaluated	Avoidance pending tribal consultation
P-15-022367, CA-KER-11805/H	Multicomponent	Prehistoric isolate: flake; historic vast refuse scatter.	Not Eligible	No further management.
P-15-022368, CA-KER-11806H	Historic	Refuse scatter.	Not Eligible	No further management.
P-15-022369, CA-KER-11807H	Historic	Refuse scatter.	Not Eligible	No further management.
P-15-022370, CA-KER-11808H	Historic	Placer pit, piles, tobacco tins.	Not Eligible	No further management.
P-15-022371, CA-KER-11809H	Historic	Tailings pile and possible pit, ceramics, solarized amethyst glass, metal.	Not Eligible	No further management.
P-15-022372, CA-KER-11810H	Historic	Large, excavated pit, small pits, cans.	Not Eligible	No further management.
P-15-022373, CA-KER-11811H	Historic	Refuse scatter.	Not Eligible	No further management.
P-15-022374, CA-KER-11812H	Historic	Refuse scatter.	Not Eligible	No further management.
P-15-022375, CA-KER-11813H	Historic	Excavated pit, milled lumber.	Not Eligible	No further management.
P-15-022376, CA-KER-11814H	Historic	Refuse scatter.	Not Eligible	No further management.
P-15-022377, CA-KER-11815H	Historic	Structure remnants, concrete footers, refuse scatter.	Not Eligible	No further management.
P-15-022378, CA-KER-11816	Prehistoric	Lithic scatter.	Unevaluated	Avoidance pending tribal consultation
P-15-022379, CA-KER-11817	Prehistoric	Lithic scatter.	Unevaluated	Avoidance pending Tribal consultation
P-15-022380, CA-KER-11818H	Historic	Refuse scatters.	Not Eligible	No further management.

Primary/Trinomial	Time Period*	Description	Recommended CRHR Eligibility	Management Recommendations
P-15-022381, CA-KER-11819H	Historic	Machine excavated pit, spoils piles, refuse scatter	Not Eligible	No further management.
P-15-022382, CA-KER-11820H	Historic	Dilapidated fence/corral remnants.	Not Eligible	No further management.
P-15-022384, CA-KER-11822H	Historic	Refuse scatter.	Not Eligible	No further management.
P-15-022385, CA-KER-11823H	Historic	Refuse scatter	Not Eligible	No further management.
P-15-022386, CA-KER-11824H	Historic	Refuse scatter.	Not Eligible	No further management.
P-15-022387, CA-KER-11825H	Historic	Dilapidated fend/corral remnants.	Not Eligible	No further management.
P-15-022388, CA-KER-11826H	Historic	Refuse scatter.	Not Eligible	No further management.
P-15-022389, CA-KER-11827H	Historic	Excavated pit and tailings pile.	Not Eligible	No further management.
P-15-022390, CA-KER-11828	Prehistoric	Lithic and tool scatter.	Unevaluated	Avoidance pending Tribal consultation
P-15-022391, CA-KER-11829H	Historic	Refuse scatter.	Not Eligible	No further management.
P-15-022392, CA-KER-11830H	Historic	Refuse scatter.	Not Eligible	No further management.
P-15-022393, CA-KER-11831H	Historic	Refuse scatter.	Not Eligible	No further management.
P-15-022394, CA-KER-11832H	Historic	Refuse scatter.	Not Eligible	No further management.
P-15-022395, CA-KER-11833H	Historic	Refuse scatter; previously recorded isolate P-15-016844 is combined with this site.	Not Eligible	No further management.
P-15-022396, CA-KER-11834H	Historic	Refuse scatter and dug out pits.	Not Eligible	No further management.
P-15-022398, CA-KER-11836	Prehistoric	Lithic scatter.	Unevaluated	Avoidance pending Tribal consultation
P-15-022399, CA-KER-11837H	Historic	Refuse scatter.	Not Eligible	No further management.
P-15-022400, CA-KER-11838H	Historic	Foundations, refuse scatter, former housing type community.	Not Eligible	No further management.
P-15-022401, CA-KER-11839	Prehistoric	Lithic scatter.	Unevaluated	Avoidance pending Tribal consultation
P-15-022402, CA-KER-11840/H	Multicomponent	Prehistoric Isolate: rhyolite flake; historic refuse Scatter.	Not Eligible	No further management.
P-15-022403, CA-KER-11841/H	Multicomponent	Prehistoric rhyolite lithic scatter; historic refuse scatter.	Historic: Not Eligible Prehistoric: Unevaluated	Historic: No further management. Prehistoric: Avoidance pending Tribal consultation
P-15-022404, CA-KER-11842H	Historic	Refuse scatter.	Not Eligible	No further management.
P-15-022405, CA-KER-11843H	Historic	Refuse scatter.	Not Eligible	No further management.
P-15-022407, CA-KER-11845H	Historic	Refuse scatter in drainage.	Not Eligible	No further management.
P-15-022408, CA-KER-11846	Prehistoric	Lithic scatter.	Unevaluated	Avoidance pending Tribal consultation
P-15-022409, CA-KER-11847	Prehistoric	Lithic scatter.	Unevaluated	Avoidance pending Tribal consultation

Primary/Trinomial	Time Period*	Description	Recommended CRHR Eligibility	Management Recommendations
P-15-022410, CA-KER-11848	Prehistoric	Lithic scatter.	Unevaluated	Avoidance pending Tribal consultation
P-15-022411, CA-KER-11849H	Historic	Wooden corral debris.	Not Eligible	No further management.
P-15-022412, CA-KER-11850H	Historic	Glass scatter.	Not Eligible	No further management.
P-15-022324, CA-KER-11852H	Historic	Refuse scatter.	Not Eligible	No further management.
P-15-022325, CA-KER-11763/H	Multicomponent	Prehistoric isolate: rhyolite flake; historic refuse scatter.	Not Eligible	No further management.
P-15-022326, CA-KER-11764H	Historic	Refuse scatter.	Not Eligible	No further management.
P-15-022327, CA-KER-11765H	Historic	Refuse scatter.	Not Eligible	No further management.
P-15-022329, CA-KER-11767H	Historic	Refuse scatter.	Not Eligible	No further management.
P-15-022330, CA-KER-11768H	Historic	Refuse scatter.	Not Eligible	No further management.
P-15-022331, CA-KER-11769H	Historic	Refuse scatter.	Not Eligible	No further management.
P-15-022332, CA-KER-11770H	Historic	Refuse scatter.	Not Eligible	No further management.
P-15-022333, CA-KER-11771H	Historic	Refuse scatter, and potential mine claim.	Not Eligible	No further management.
P-15-022334, CA-KER-11772H	Historic	Refuse scatter.	Not Eligible	No further management.
P-15-022335, CA-KER-11773H	Historic	Refuse scatter.	Not Eligible	No further management.
P-15-022337, CA-KER-11775H	Historic	Refuse scatter, and a rock cairn mining claim.	Not Eligible	No further management.
P-15-022338, CA-KER-11776H	Historic	Refuse scatter.	Not Eligible	No further management.
P-15-022339, CA-KER-11777H	Historic	Refuse scatter and a rock cairn mine claim.	Not Eligible	No further management.
P-15-022340, CA-KER-11778H	Historic	Refuse scatter.	Not Eligible	No further management.
P-15-022341, CA-KER-11779H	Historic	Refuse scatter, GLO marker, and circle of rhyolite rocks.	Not Eligible	No further management. Note: for GLO survey marker, follow State of California Business and Professional Code Section 8726 (see Chapter 7)
P-15-022342, CA-KER-11780H	Historic	Refuse scatter.	Not Eligible	No further management.
P-15-022343, CA-KER-11781H	Historic	Refuse scatter.	Not Eligible	No further management.
P-15-022344, CA-KER-11782H	Historic	Refuse scatter.	Not Eligible	No further management.
P-15-022345, CA-KER-11783H	Historic	Refuse scatter.	Not Eligible	No further management.
P-15-022346, CA-KER-11784H	Historic	Refuse scatter.	Not Eligible	No further management.
P-15-022347, CA-KER-11785H	Historic	Refuse scatter.	Not Eligible	No further management.
P-15-022348, CA-KER-11786H	Historic	Refuse scatter.	Not Eligible	No further management.
P-15-022349, CA-KER-11787H	Historic	Refuse scatter.	Not Eligible	No further management.
P-15-022350, CA-KER-11788H	Historic	Refuse scatter.	Not Eligible	No further management.
P-15-022351, CA-KER-11789H	Historic	Refuse scatter.	Not Eligible	No further management.
P-15-022352, CA-KER-11790H	Historic	Refuse scatter.	Not Eligible	No further management.
P-15-022353, CA-KER-11791H	Historic	Refuse scatter, rock rings (possible cairn).	Not Eligible	No further management.
P-15-022354, CA-KER-11792H	Historic	Refuse scatter.	Not Eligible	No further management.
P-15-022356, CA-KER-11794H	Historic	Refuse scatter.	Not Eligible	No further management.

Primary/Trinomial	Time Period*	Description	Recommended CRHR Eligibility	Management Recommendations
P-15-022357, CA-KER-11795H	Historic	Refuse scatter, homestead.	Not Eligible	No further management.
P-15-022358, CA-KER-11796H	Prehistoric	Bedrock milling slick.	Unevaluated	Avoidance pending Tribal consultation

*Multicomponent resources include both prehistoric and historic time periods

8.1.2 Previously Recorded and Newly Recorded Isolated Resources

Of the 34 previously recorded isolates, Tetra Tech was able to relocate and update 14 and was unable to locate the remaining 20. The 20 previously recorded isolates that were not relocated are most likely due to the low-density nature of isolates (few artifacts), erosional processes (e.g., the Study Area is braided with several ephemeral washes, storm events, high winds, etc.), incorrect previous locational information, or public disturbance.

Tetra Tech identified and recorded 93 new isolates of both prehistoric and historic type and the isolates include 40 prehistoric, 47 historic, and 6 multicomponent (prehistoric and historic) resources. All the isolates are recommended not eligible for the CRHR (see Chapter 7). Kern County, lead agency under CEQA, shall consider the significance of Tribal Cultural Resources (as defined PRC Section 21074) to a California Native American Tribe through AB52 consultation or other coordination with the interested Tribes including recommended tribal mitigation measures (as appropriate).

Table 8-2. Previously Recorded and Newly Recorded Isolate Recommendations

Primary or Temporary Number	Time Period*	Description	Recommended CRHR Eligibility	Management Recommendations
Previously Recorded Isolates				
P-15-012477	Prehistoric	Basalt flake.	Not Eligible	No further management.
P-15-012478	Prehistoric	Rhyolite flakes.	Not Eligible	No further management.
P-15-013991	Historic	Solder dot condensed milk can.	Not Eligible	No further management. Outside of Project site and will be avoided.
P-15-013992	Historic	Crushed solder dot condensed milk can.	Not Eligible	No further management.
P-15-014020	Historic	Large solder dot can.	Not Eligible	No further management.
P-15-015579	Historic	Tobacco tin.	Not Eligible	No further management.
P-15-016838	Historic	Small intact light green glass bottle, Owens scar.	Not Eligible	No further management.
P-15-016840	Historic	Gas flare or highway torch canister.	Not Eligible	No further management.
P-15-016841	Historic	Refuse.	Not Eligible	No further management.
P-15-016842	Historic	Metal can lid.	Not Eligible	No further management.
P-15-016844	Historic	Hole in Top cans.	Not Eligible	No further management.
P-15-016846	Historic	Glass shards.	Not Eligible	No further management.
P-15-016855	Prehistoric	Rhyolite flake.	Not Eligible	No further management.
P-15-017239	Historic	Four large glass bottle shards.	Not Eligible	No further management.
Newly Recorded Isolates				
P-15-022383	Multicomponent	Projectile point base (Elko type); six cans.	Not Eligible	No further management.

Primary or Temporary Number	Time Period*	Description	Recommended CRHR Eligibility	Management Recommendations
P-15-022271	Prehistoric	Basalt flake.	Not Eligible	No further management.
P-15-022272	Prehistoric	Cryptocrystalline silicate flakes.	Not Eligible	No further management.
EDS-MK-ISO-03	Prehistoric	Basalt leaf-shaped projectile point (Cottonwood type).	Not Eligible	Avoidance. Tribal consultation recommended.
P-15-022273	Prehistoric	Tested cobbles.	Not Eligible	No further management.
P-15-022274	Multicomponent	Prehistoric rhyolite biface fragment and rhyolite flake; historic solarized amethyst glass shards.	Not Eligible	No further management.
P-15-022275	Prehistoric	Cryptocrystalline silicate flake.	Not Eligible	No further management.
P-15-022276	Prehistoric	Obsidian flake.	Not Eligible	No further management.
P-15-022277	Prehistoric	Cryptocrystalline silicate flake tool or scraper.	Not Eligible	No further management.
P-15-022278	Prehistoric	Rhyolite flake.	Not Eligible	No further management.
P-15-022279	Prehistoric	CCS flake	Not Eligible	No further management.
P-15-022280	Prehistoric	CCS flake, rhyolite flake.	Not Eligible	No further management.
P-15-022281	Historic	Hole-in-top can, solarized amethyst bottle shards.	Not Eligible	No further management.
P-15-022282	Prehistoric	Rhyolite flake.	Not Eligible	No further management.
P-15-022283	Prehistoric	Rhyolite flake.	Not Eligible	No further management.
P-15-022284	Prehistoric	CCS flake.	Not Eligible	No further management.
P-15-022285	Prehistoric	Rhyolite flake.	Not Eligible	No further management.
P-15-022286	Historic	Prince Albert tobacco tin and bucket.	Not Eligible	No further management.
P-15-022287	Historic	Cans.	Not Eligible	No further management.
P-15-022288	Historic	Cans.	Not Eligible	No further management.
P-15-022289	Historic	Hole-in-top can.	Not Eligible	No further management.
P-15-022290	Historic	Sardine and sanitary cans, milled lumber.	Not Eligible	No further management.
P-15-022291	Prehistoric	Rhyolite flake.	Not Eligible	No further management.
P-15-022292	Prehistoric	Obsidian biface.	Not Eligible	No further management.
P-15-022293	Prehistoric	Rhyolite flake.	Not Eligible	No further management.
P-15-022294	Prehistoric	Obsidian biface, rhyolite flake.	Not Eligible	No further management.
P-15-022295	Multicomponent	Prehistoric CSS flake; and historic era cans.	Not Eligible	No further management.
EDS-SK-ISO-13	Prehistoric	Obsidian flake, rhyolite flake.	Not Eligible	No further management.
P-15-022296	Prehistoric	CCS flake.	Not Eligible	No further management.
P-15-022297	Multicomponent	Prehistoric rhyolite flake; Historic glass shard, and 1934 GLO Kern County survey marker.	Not Eligible	Avoidance. Prehistoric: Tribal Consultation recommended; Avoidance: Historic era GLO survey marker
P-15-022298	Prehistoric	Rhyolite flakes.	Not Eligible	No further management.
P-15-022299	Prehistoric	Obsidian flake.	Not Eligible	No further management.
P-15-022300	Multicomponent	Prehistoric rhyolite flakes; historic condensed milk can.	Not Eligible	No further management.
P-15-022301	Prehistoric	Rhyolite flake.	Not Eligible	No further management.

Primary or Temporary Number	Time Period*	Description	Recommended CRHR Eligibility	Management Recommendations
P-15-022302	Prehistoric	Rhyolite flake.	Not Eligible	No further management.
P-15-022303	Prehistoric	CCS flake.	Not Eligible	No further management.
P-15-022304	Historic	Glass shards and cans.	Not Eligible	No further management.
P-15-022305	Historic	Solarized amethyst glass (insulator).	Not Eligible	No further management.
P-15-022306	Historic	Glass shards, base.	Not Eligible	No further management.
P-15-022307	Prehistoric	Rhyolite flake.	Not Eligible	No further management.
P-15-022308	Prehistoric	Rhyolite flake.	Not Eligible	No further management.
P-15-022309	Prehistoric	Rhyolite flakes.	Not Eligible	No further management.
P-15-022310	Historic	Solarized amethyst glass shard.	Not Eligible	No further management.
P-15-022311	Historic	Solarized amethyst and aqua glass shards.	Not Eligible	No further management.
P-15-022312	Prehistoric	Rhyolite flake.	Not Eligible	No further management.
P-15-022313	Prehistoric	Obsidian projectile point tip.	Not Eligible	No further management.
P-15-022314	Prehistoric	Obsidian flake.	Not Eligible	No further management.
P-15-022315	Historic	Solarized amethyst glass shards and cans.	Not Eligible	No further management.
P-15-022316	Historic	Glass, cans, and an automobile part.	Not Eligible	No further management.
P-15-022317	Prehistoric	Rhyolite lanceolate shape projectile point (Lake Mojave type).	Not Eligible	Avoidance. Tribal consultation recommended.
P-15-022318	Multicomponent	Prehistoric cryptocrystalline flake; and historic era cans	Not Eligible	No further management.
P-15-022319	Historic	Fairmount Glass Co. bottle.	Not Eligible	No further management.
P-15-022320	Prehistoric	Rhyolite flake, CSS shatter.	Not Eligible	No further management.
P-15-022321	Prehistoric	Rhyolite flake, CSS flake.	Not Eligible	No further management.
P-15-022322	Historic	Solarized amethyst glass shard.	Not Eligible	No further management.
EDS-SK-ISO-41	Prehistoric	Obsidian flakes.	Not Eligible	No further management.
EDS-SK-ISO-42	Historic	Solarized amethyst bottle neck, solder dot church key-opened can, and ceramic sherd.	Not Eligible	No further management.
P-15-022328	Historic	Cans, glass shards, a bottle.	Not Eligible	No further management.
P-15-022336	Historic	Cans.	Not Eligible	No further management.
P-15-022251	Historic	Solder dot and sanitary cans.	Not Eligible	No further management.
P-15-022252	Prehistoric	CCS unifacial modified flake.	Not Eligible	No further management.
P-15-022253	Historic	Church key-opened can.	Not Eligible	No further management.
P-15-022254	Prehistoric	Rhyolite lanceolate projectile point (possible Lake Mojave type).	Not Eligible	Avoidance. Tribal consultation recommended.
P-15-022255	Prehistoric	Rhyolite bifacial tool.	Not Eligible	No further management.
P-15-022256	Historic	Key-wind side strip with lid and notch coffee can.	Not Eligible	No further management.
P-15-022257	Historic	Solder dot and sanitary cans.	Not Eligible	No further management.
P-15-022258	Prehistoric	CCS flake.	Not Eligible	No further management.
P-15-022259	Historic	Condensed milk solder dot can.	Not Eligible	No further management.
P-15-022260	Historic	Church key-opened can.	Not Eligible	No further management.

Primary or Temporary Number	Time Period*	Description	Recommended CRHR Eligibility	Management Recommendations
P-15-022261	Historic	Tobacco tin.	Not Eligible	No further management.
ALT-SK-ISO-12	Historic	Tobacco tin.	Not Eligible	No further management.
ALT-SK-ISO-13	Historic	Solder dot can, barbed wire.	Not Eligible	No further management.
ALT-SK-ISO-14	Historic	Ortega's Chiles sanitary can.	Not Eligible	No further management.
ALT-SK-ISO-15	Historic	Cone top beverage, oil filter, decomposing can.	Not Eligible	No further management.
ALT-SK-ISO-16	Historic	Church key-opened, solder dot, and tobacco cans.	Not Eligible	No further management.
ALT-SK-ISO-17	Historic	Church key-opened and pull tab cans.	Not Eligible	No further management.
ALT-SK-ISO-18	Historic	Church key-opened can, solarized amethyst glass, metal fork.	Not Eligible	No further management.
ALT-SK-ISO-19	Historic	Hole-in-top, sanitary, and meat cans.	Not Eligible	No further management.
ALT-SK-ISO-20	Historic	Church key-opened can.	Not Eligible	No further management.
ALT-SK-ISO-21	Historic	Condensed milk solder dot can.	Not Eligible	No further management.
ALT-SK-ISO-22	Historic	Cans, glass, and metal.	Not Eligible	No further management.
ALT-SK-ISO-23	Historic	Church key and tobacco cans.	Not Eligible	No further management.
ALT-SK-ISO-24	Historic	Sanitary and condensed milk cans.	Not Eligible	No further management.
ALT-SK-ISO-25	Historic	Solarized amethyst bottle base and shards.	Not Eligible	No further management.
P-15-022262	Historic	Cans and glass shards.	Not Eligible	No further management.
P-15-022263	Historic	Glass and cans, Latchford Glass Co. jar.	Not Eligible	No further management.
P-15-022264	Historic	Dietz lantern.	Not Eligible	No further management.
P-15-022265	Prehistoric	CCS flake.	Not Eligible	No further management.
P-15-022266	Historic	Church key and sanitary cans	Not Eligible	No further management.
P-15-022267	Historic	Sanitary and church key-opened cans.	Not Eligible	No further management.
P-15-022268	Historic	Glass bottle shards.	Not Eligible	No further management.
P-15-022269	Historic	Solarized amethyst glass shards.	Not Eligible	No further management.
P-15-022270	Historic	Aqua Diet-Rite glass bottle.	Not Eligible	No further management.

*Multicomponent resources include both prehistoric and historic time periods

8.2 Historic Built Environment

A desktop study was done for historic built environment resources for this Project. There is one resource eligible for the NRHP district and eligible for the CRHR within the built environment of the Study Area: the Los Angeles Aqueduct, P-15-003549. The Applicant determined this site will be avoided by creating a 50-foot buffer on each side of the aqueduct to maintain the historic visual appearance of the feature. See Table 8-3 for built environment resources recommendations.

Table 8-3. Built Environment Resources within the Study Area and Recommended CRHR Eligibility

Primary Number	Time Period*	Description	Recommended CRHR Eligibility	Management Recommendations
P-15-0033537 (CA-KER-3537)	Historic	Oak Creek Road (paved).	Not Eligible, CH2M Hill (2009), Tetra Tech (current study)	No further management.

Primary Number	Time Period*	Description	Recommended CRHR Eligibility	Management Recommendations
P-15-003549 (CA-KER-3549)	Historic	The Los Angeles Aqueduct.	Eligible to the NRHP District (also CRHR)	Avoidance. Implement 50-foot buffer from resource boundary.
P-15-013928 (CA-KER-7812)	Historic	Unnamed dirt road.	Not Eligible CH2M Hill (2009), Tetra Tech (current study)	No further management.
P-15-013929 (CA-KER-7812)	Historic	Unnamed dirt road (graded).	Not Eligible CH2M Hill (2009), Tetra Tech (current study)	No further management.
P-15-016251 (CA-KER-8984)	Historic	Road segment of the abandoned Tehachapi-Willow Springs Road.	Not Eligible, Pacific Legacy (2009), Tetra Tech (current study)	No further management.

*Multicomponent resources include both prehistoric and historic time periods

CRHR = California Register of Historic Places

8.3 Recommended Management Measures

Based on the natural environment of the Study Area, the westernmost part is composed of older Quaternary alluvial sediments and the northern and eastern sectors of the Study Area consist of younger (Holocene) alluvium. These sediments have the potential to contain unidentified subsurface archaeological material. Therefore, the following management measures are recommended:

MMCUL-1: Retain A Lead Archaeologist and Cultural Resources Sensitivity Training – The Project proponent/operator shall retain a Lead Archaeologist, defined as an archaeologist meeting the Secretary of the Interior's Standards for professional archaeology (National Park Service 1983) to carry out the mitigation measures related to archaeological and unique historical resources during ground-disturbing activities. The contact information for this Lead Archaeologist shall be provided to the Kern County Planning and Natural Resources Department prior to the commencement of construction activities onsite. Further, the Lead Archaeologist shall be responsible for ensuring the following employee training provisions are implemented during implementation of the proposed Project:

- Prior to commencement of ground-disturbing activities, the Lead Archaeologist, in coordination with the Native American Monitor(s), shall prepare Cultural Resources Sensitivity Training materials, including a Cultural Resources Sensitivity Training Guide, to be used in an orientation program given to all personnel working on the proposed Project. The training guide may be presented in video form. A copy of the proposed training materials shall be provided to the Planning and Natural Resources Department prior to the issuance of the grading or building permit.
- The Project proponent/operator shall ensure new employees or onsite workers who have not participated in earlier Cultural Resources Sensitivity Trainings shall meet provisions specified above.
- The training shall include an overview of potential cultural resources that could be encountered during ground-disturbing activities to facilitate worker recognition, avoidance, and subsequent immediate notification to the Lead Archaeologist for further evaluation and

action, as appropriate; and penalties for unauthorized artifact collecting or intentional disturbance of archaeological resources.

- A copy of the Cultural Resources Sensitivity Training Guide/Materials shall be kept onsite and available for Project personnel to review and be familiar with, as necessary. It is the responsibility of the Lead Archaeologist to ensure employees receive appropriate training before commencing work on-site.
- The services of Native American Monitors, as identified through consultation with appropriate Native American tribes, working under the supervision of the Lead Archaeologist, shall be retained to monitor initial excavation or ground-disturbing activities as identified in MMCUL-2 below.

MMCUL-2: Archaeological Treatment Plan – Prior to the issuance of the grading or building permit, the Project proponent shall submit to the Kern County Planning and Natural Resources Department a Cultural Resources Treatment Plan. The plan shall:

- Require that, prior to conducting initial ground disturbance in the vicinity of a prehistoric archaeological site that requires avoidance, an "exclusion area" (i.e., the recorded boundary of the archaeological site that require avoidance and the area within 50 feet thereof) shall be temporarily marked with exclusion markers or protective fencing as determined by the Lead Archaeologist in consultation with the Native American Monitor.
- Require that the construction zone shall be narrowed or otherwise altered to avoid exclusion areas.
- Provide an overview of best management practices to be utilized during ground-disturbing construction activities to ensure protection of cultural resources.
- Outline the process for evaluation of unanticipated cultural discoveries during project construction activities.
- Provide a Data Recovery Plan, if required, prepared by the Lead Archeologist in consultation with the Native American Monitor(s), for the recovery of known and unanticipated cultural discoveries that cannot be avoided or preserved in place.

MMCUL-3: Inadvertent Discovery of Archaeological Material — In the event that archaeological materials are encountered during construction, the Project contractor shall cease ground-disturbing activities within 50 feet of the find. The area of the discovery shall be marked off by temporary fencing that encloses a 50-foot radius from the location of the discovery. Signs shall be posted that establish it as an "Exclusion Area," and all entrance into the area shall be avoided until the discovery is assessed by the Lead Archaeologist and Native American Monitor. The Lead Archaeologist, in consultation with the Native American Monitor, shall evaluate the significance of the resources and recommend appropriate treatment measures. If further treatment of the discovery is necessary, the Environmentally Sensitive Area shall remain in place until the treatment is completed. Per CEQA Guidelines Section 15126.4(b)(3), Project redesign and preservation in place shall be the preferred means to avoid impacts to significant historical resources.

Consistent with CEQA Guidelines Section 15126.4(b)(3)(C), if it is demonstrated that resources cannot be avoided, the Lead Archaeologist, in consultation with Native American Monitor, shall develop additional treatment measures in consultation with Kern County, which may include data recovery or other appropriate measures. The County shall consult with appropriate Native American representatives in determining appropriate treatment for unearthed cultural resources if the resources are prehistoric or Native American in nature. Diagnostic archaeological materials with research potential recovered during an investigation shall be curated at an accredited curation facility. The Lead Archaeologist, in consultation with a designated Native American Monitor, shall prepare a report documenting evaluation and/or additional treatment of the resource. A copy of the report shall be provided to the Kern County Planning and Natural Resources Department and to the SSJVIC at California State University, Bakersfield.

MMCUL-4: Archaeological and Native American Monitor — The services of both an Archaeological and Native American Monitor, as identified through consultation with appropriate Native American Tribes, working under the supervision of the Lead Archaeologist, shall be retained by the Project proponent/operator to monitor initial ground-disturbing activities associated with Project-related construction activities, as follows:

- Initial excavation and ground-disturbing activities within 50 feet of prehistoric archaeological sites shall be monitored by Archaeological and Native American Monitors.
- During implementation of the Project, Archaeological and Native American monitoring shall be conducted for initial excavation or ground-disturbing activities. If no archaeological discoveries are made during the course of this monitoring, no additional monitoring will be required. If the Lead Archaeologist can demonstrate that the level of monitoring should be reduced or discontinued, or there is a need for continuing monitoring, the Lead Archaeologist, in consultation with the Kern County Planning and Natural Resources Department, may adjust the level of monitoring to circumstances as warranted.
- The Lead Archaeologist, Archaeological Monitors, and Native American Monitors shall be provided Project documentation related to cultural resources within the Project site prior to commencement of ground disturbance activities. Should the service of additional individuals be retained (as Lead Archaeologist, Archaeological Monitor, or Native American Monitor) subsequent to commencement of ground disturbing activities, such individuals shall be provided the same. Project documentation shall include but not be limited to previous cultural studies, surveys, maps, drawings, etc. Modifications or updates to Project documentation, including construction plans and schedules, shall be provided to the Lead Archaeologist, Archaeological Monitor, and Native American Monitor.
- The Archaeological Monitor(s) shall keep daily logs and the Lead Archaeologist shall submit monthly written updates to the Kern County Planning and Natural Resources Department and Native American Monitor. After monitoring has been completed, the Lead Archaeologist shall prepare a monitoring report that details monitoring results; assessment of inadvertent discoveries; communication with Tribal representatives; installation of, maintenance of, and guidance for environmentally sensitive areas; and general implementation of the required

mitigation. The final monitoring report shall act as a record of compliance with guiding documents and mitigation and shall be submitted to the Kern County Planning and Natural Resources Department and the Southern San Joaquin Valley Information Center at California State University, Bakersfield.

MMCUL-5: Inadvertent Discovery of Human Remains — If human remains are uncovered during Project construction, the Project contractor must halt work within 100 feet of the find and the person responsible for the excavation, or his or her authorized representative must contact the Kern County Sheriff's Office Coroner at (661) 868-0100. Existing regulations require that, if human remains and/or cultural items defined by Health and Safety Code Section 7050.5 are inadvertently discovered, there shall be no further excavation or disturbance of the site or nearby area reasonably suspected to overlie adjacent remains until the Kern County coroner has determined, in accordance with Chapter 10 (commencing with Section 27460) of Part 3 of Division 2 of Title 3 of the Government Code, that the remains are not subject to the provisions of Section 27491 of the Government Code or any other related provisions of law concerning investigation of the circumstances, manner and cause of any death, and the recommendations concerning the treatment and disposition of the human remains have been made to the person responsible for the excavation, or to his or her authorized representative, in the manner provided in Section 5097.98 of the Public Resources Code.

If the County Coroner determines that the remains are Native American, the coroner shall contact the NAHC, in accordance with Health and Safety Code Section 7050.5, subdivision (c), and Public Resources Code 5097.98 (as amended by Assembly Bill 2641). The NAHC shall designate a Most Likely Descendent for the remains per Public Resources Code 5097.98. Per Public Resources Code 5097.98, and in accordance with generally accepted cultural or archeological standards or practices, the landowner shall ensure that the immediate vicinity of the Native American human remains is not damaged or disturbed by further development activity until the landowner has discussed and conferred with the most likely descendent regarding their recommendations, if applicable, taking into account the possibility of multiple human remains. If the remains are determined to be neither of forensic value to the coroner, nor of Native American origin, provisions of the California Health and Safety Code (7100 et. seq.) directing identification of the next-of-kin will apply.

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APPENDIX A: SSJVIC RECORD SEARCH RESULTS – NOT INCLUDED - CONFIDENTIAL

APPENDIX B: HISTORIC FEATURES IN PROJECT SITE – NOT INCLUDED - CONFIDENTIAL

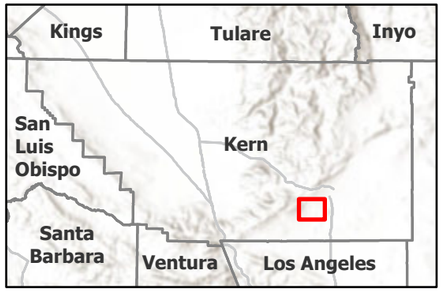
APPENDIX C: NAHC SLF SEARCH RESULTS – NOT INCLUDED - CONFIDENTIAL

APPENDIX D: SURVEYED AREAS

Discovery Solar PV and Storage Project

Kern County, CA

Appendix D. Surveyed Areas



Windhub High-voltage Substation (Existing)

Proposed Project Features

Project Site

Study Area

Other Applicant and/or Affiliate Controlled*

Step-up HV substation

Gen-tie Corridor

Surveyed Area

Surveyed Area

Not Surveyed

*Already approved under separate projects.

N

0 0.25 0.5 1 Miles

Scale is 1:48,000 when printed at 11"x17"

Not for Construction

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APPENDIX E: REPRESENTATIVE PHOTO LOCATIONS

Discovery Solar PV and Storage Project

Kern County, CA

Appendix E.
Representative Photo Locations

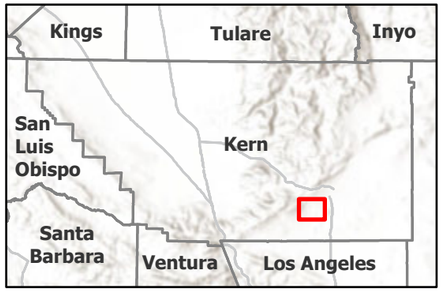

Figure 6-1
Figure 6-2
Figure 6-3
Figure 6-4
Figure 6-5
Figure 6-6
Figure 6-7
Figure 6-8

Windhub High-voltage Substation (Existing)

Photo Location

Proposed Project Features

Project Site

Study Area

Other Applicant and/or Affiliate Controlled*

Step-up HV substation

Gen-tie Corridor

*Already approved under separate projects.

N

0 0.25 0.5 1 Miles

Scale is 1:48,000 when printed at 11"x17"

Not for Construction

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APPENDIX E:
DISCOVERY SOLAR PV AND STORAGE PROJECT
STUDY AREA OVERVIEW PHOTOGRAPHS

Below are overview photographs of the Study Area, all photographs were taken during the field survey from 2022 to 2024. Photograph numbers correspond with the attached map.



Figure 6-1. Overview of the northwestern portion of the Study Area with wind turbines (middle and background) and Soledad Mountain (background, right) (view east, IMG_0026).



Figure 6-2. Overview of the north-central portion of the Study Area with wind turbines (background) and Middle Butte (background, left), (view south, IMG_0187).

APPENDIX E:
DISCOVERY SOLAR PV AND STORAGE PROJECT
STUDY AREA OVERVIEW PHOTOGRAPHS



Figure 6-3. **Overview of the northeastern region of the Study Area with wind turbines and transmission lines (background) (view south, IMG_4003).**



Figure 6-4. **Overview of the easternmost portion of the Study Area with wind turbines and the Tehachapi Mountains (background) (view west, IMG_0622).**

APPENDIX E:
DISCOVERY SOLAR PV AND STORAGE PROJECT
STUDY AREA OVERVIEW PHOTOGRAPHS



Figure 6-5. **Overview of the southern portion of the Study Area with existing transmission line (middle and background, right) (view north, IMG_1084).**



Figure 6-6. **Overview of the southwestern portion of the Study Area and a modern shooting range and privy (middle, right), and Middle Buttes (left) Rosamond Hills and Willow Springs Butte (background, central and right) (view southeast, IMG_4156).**

APPENDIX E:
DISCOVERY SOLAR PV AND STORAGE PROJECT
STUDY AREA OVERVIEW PHOTOGRAPHS



Figure 6-7. **Overview of the western portion of the Study Area with the Middle Buttes in background (view east-southeast, IMG_2809).**



Figure 6-8. **Overview of the central portion of the Study Area with wind turbines (background) and the Tehachapi Mountains (background, left) (view northwest, IMG_0873).**

APPENDIX F: MAP OF RECORDED RESOURCES – NOT INCLUDED - CONFIDENTIAL

APPENDIX G: DPR 523A SITE FORMS-
NOT INCLUDED - CONFIDENTIAL

Appendix E2
Addendum Infill Survey of the Phase 1 Cultural Resource Inventory for the Discovery Solar PV and Storage Project

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TETRA TECH

Memo

To: Amy Fuller, Senior Permitting Director

From: Jenna Farrell MA, RPA, Tetra Tech Inc., Principal Archaeologist and Sydni Kitchel, MA, RPA, Field Director

Date: October 30, 2025

Subject: Addendum Infill Survey of the Phase I Cultural Resource Inventory for the Discovery Solar PV and Storage Project

INTRODUCTION

This memorandum is an addendum to the Discovery Solar PV and Storage Project (Project) Cultural Resource Phase I Investigation Report (Farrell et al. 2025) and summarizes the methods and results of an additional Phase I archaeological survey of the Infill Survey Area (total 41.3 acres) conducted in September 2025.

The proposed Project will be located in an unincorporated area in southeastern Kern County, on generally undeveloped and privately owned land, along the northern edge of the Antelope Valley. The Project is bound by Cameron Canyon and Oak Creek Road to the north, the City of Mojave to the east, Willow Springs to the south, and the Tehachapi Mountains to the west. The Project is at 35.031861, -118.261616 (northern region), 34.998646, -118.273375 (central region), and 34.968221, -118.312971 (southern region) within the United States Geological Survey (USGS) 7.5-minute Monolith, California, quadrangle of Township 11 North, Range 13 West in portions of Sections 1, 16, 17, 21, 28, 31 and 33, and within 7.5-minute Willow Springs, California, quadrangle of Township 10 North, Range 14 West in portions of Sections 7 and 12. See Attachment 1, Map Figures 1 through 3.

METHODS

The study was completed by Tetra Tech on behalf of Discovery Solar PV and Storage, LLC, to determine the presence or absence of cultural resources within the Infill Survey Area. This study was conducted to assist in compliance with the California Environmental Quality Act (CEQA), Section 21084.1. The field survey and memo report were conducted and prepared in accordance with the guidelines of the Society of California Archaeology's *Fieldwork and Reporting Guidelines for Cultural Resources* (Society of California Archaeology 2020) and the California State Historic Preservation Office's (SHPO) *Archaeological Resources Management Reports (ARMR): Recommended Contents and Format* (OHP 1990) and the *Guidelines for Archaeological Research Design* (OHP 1991). This study was conducted by and overseen by Tetra Tech staff who meet the Secretary of the Interior (SOI) Professional Qualifications Standards for Archaeology and Architectural History.

This study included a record and literature search, California Native American Heritage Commission Sacred Lands File search, a pedestrian field survey, and reporting.

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REGULATORY COMPLIANCE

The Project requires compliance with CEQA, Section 21084.1. See Chapter 1.2 of the Cultural Resource Phase I Investigation Report (Farrell et al. 2025) for a discussion on the State and local laws and regulations expected to be applied to the Project.

RESULTS

RECORD SEARCH

Tetra Tech conducted a cultural resource record search through the California Historical Resources Information Center via the Southern San Joaquin Valley Information Center (SSJVIC), Division of Anthropology, California State University, Bakersfield. The records search included the Infill Survey Area and a 0.5-mile buffer extending beyond the Infill Survey Area boundary. For the discussion on the record search and literature review results, see Chapter 3 in the Project's Phase I Investigation Report (Farrell et al. 2025).

The SSJVIC record search identified 11 previously conducted cultural studies that overlap with the Infill Survey Area and 39 previously conducted surveys within 0.5-mile buffer. The previous surveys within the Infill Survey Area were conducted between 1984 and 2016. These previous investigations consisted of archaeological, field study, evaluation, excavation, architectural / historical, field study, monitoring, and other research (not defined), which are summarized in Table 1 below.

Table 1. Previously Conducted Reports within the Infill Survey Area and 0.5-mile Buffer

Report No.	Year	Author(s) / Affiliation	Title	Survey Type
Within the Infill Survey Area				
KE-00440	1991	Glover, Leslie G./ Far Western Anthropological Research Group, Inc.	A cultural resources inventory of selected route re-alignments for the Mojave Pipeline in California and Arizona	Archaeological, Field study
KE-01215	1986	Schiffman, Robert A./ Bakersfield College	Archaeological Investigation of Seawest Energy Group, Inc. 640 Acre Wind Generator Farm, Kern County, California	Archaeological, Field study
KE-01807	1991	Wohlgemuth, Eric and McGuire, Kelly / Far Western Anthropological Research Group, Inc.	A Cultural Resources Inventory of a Pipeline Corridor Expansion Tract and Re-Route in Kern County, California	Archaeological, Field study
KE-02233	1993	Costello, Julia G. and Marvin, Judith / SCA Newsletter	Recording the Los Angeles Aqueduct	Other research
KE-02406	2000	Hudlow, Scott M./ California Department of Transportation	Negative Historic Property Survey Report: Asphalt Overlay of Oak Creek Road	Architectural / historical, Field study
KE-03534	2006	Nilsson, Elena, Bevill, Russel, Kelly, Michael S., and Dwyer, Erin/ URS Corporation	Archaeological Inventory of the First and Second Los Angeles Aqueducts and Selected Access Roads, Kern, Inyo, and Los Angeles Counties, CA	Archaeological, Field study
KE-04053	2009	Lawson, Natalie / CH2M HILL	Cultural Resources Inventory Report for the Alta Oak Creek Mojave Wind Project, Kern County, California	Archaeological, Field study
KE-04359	2013	Ramirez, Robert, Hunt, Kevin, and Haas, Hannah / Rincon Consultants	Addendum Report: Phase I Cultural Resources Survey for the RE Columbia Two Solar Project, Mojave, Kern County, California	Archaeological, Field study

Report No.	Year	Author(s) / Affiliation	Title	Survey Type
KE-04472	2014	Honey, Linda L. / Great Basin Sage, Inc.	Phase I Cultural Resources Assessment for the Fremont Valley Preservation Project Proposed Transmission Line and Pipeline, Kern County and San Bernardino County, California	Archaeological, Field study
KE-04476	2013	Higgins, Courtney, Kellawan, Rebecca, Duke, Daron G., and Lucas, Thomas / Far Western Anthropological Research Group, Inc.	Cultural Resources Inventory of 5,300 Acres for the PG&E Pipelines 300A and 300B, San Bernardino and Kern Counties, California	Archaeological, Field study
KE-05191	2009	Gust, Sherri and Harper, Veronica / Cogstone Resource Management, Inc.	Archaeological Assessment, Segment 3B Tehachapi Renewable Transmission Project, 12KV Transmission Line, Kern County, California	Archaeological, Architectural / historical, Field study
Within 0.5-Mile Buffer				
KE-00440	1991	Glover, Leslie G./ Far Western Anthropological Research Group, Inc.	A cultural resources inventory of selected route re-alignments for the Mojave Pipeline in California and Arizona	Archaeological, Field study
KE-00633	1993	Macko, Michael E., Binning, Jeanne D., Earle, David D., and Langenwalter, Paul E./ Macko Archaeological Consulting	National Register Eligibility Determinations for Historic Resources Along the Proposed AT&T Lightguide System, Victorville to Bakersfield, California	Archaeological, Evaluation, Excavation, Field study
KE-01215	1986	Schiffman, Robert A./ Bakersfield College	Archaeological Investigation of Seawest Energy Group, Inc. 640 Acre Wind Generator Farm, Kern County, California	Archaeological, Field study
KE-01279	1987	Schiffman, Robert A. / Bakersfield College	Archaeological Investigation for Sea West's Wind Energy Farm West of Mojave, Kern County, California	Archaeological, Field study
KE-01772	1984	Weil, Edward B., Weisbord, Jill, and Blakley, E.R. / Applied Conservation Technology, Inc.	Cultural Resources Literature Search, Records Check and Sample Field Survey for the California Portion of the Celeron/All American Pipeline Project	Archaeological, Field study
KE-01807	1991	Wohlgemuth, Eric and McGuire, Kelly / Far Western Anthropological Research Group, Inc.	A Cultural Resources Inventory of a Pipeline Corridor Expansion Tract and Re-Route in Kern County, California	Archaeological, Field study
KE-02233	1993	Costello, Julia G. and Marvin, Judith / SCA Newsletter	Recording the Los Angeles Aqueduct	Other research
KE-02406	2000	Hudlow, Scott M./ California Department of Transportation	Negative Historic Property Survey Report: Asphalt Overlay of Oak Creek Road	Architectural / historical, Field study
KE-02438	2000	Hudlow, Scott M./ California Department of Transportation	Negative Archaeological Survey Report: Oak Creek Road, Kern County Roads Department	Archaeological, Field study
KE-03239	2002	Underwood, Jackson and Cleland, James H. / EDAW, Inc.	Cultural Resources Survey of Line 1903, All American Pipeline Conversion Project from Mettler, Kern County, CA to Daggett, San Bernardino County, California	Archaeological, Field study
KE-03490	2007	Hudlow, Scott M./ Hudlow Cultural Resource Associates	A Phase I Cultural Resource Survey for AERO Energy Wind Power Project, Application 4, Kern County, California	Archaeological, Field study
KE-03534	2006	Nilsson, Elena, Bevill, Russel, Kelly, Michael S., and Dwyer, Erin/ URS Corporation	Archaeological Inventory of the First and Second Los Angeles Aqueducts and Selected Access Roads, Kern, Inyo, and Los Angeles Counties, CA	Archaeological, Field study
KE-03546	2006	Ahmet, Koral, Mason, Roger, and Bholat, Sara / ECORP Consulting, Inc.	Cultural Resources Survey Report for Antelope Transmission Project: Segments 2 & 3 Los Angeles and Kern Counties	Archaeological, Field study
KE-03547	2007	Ahmet, Koral and Mason, Roger / ECORP Consulting	Cultural Resources Survey Report for Antelope Transmission Project: Segment 3, Option C, Kern County, CA	Archaeological, Field study

Report No.	Year	Author(s) / Affiliation	Title	Survey Type
KE-03553	2007	Hudlow, Scott M. / Hudlow Cultural Resource Associates	A Phase I Cultural Resource Survey for Aero Energy Wind Power Project, Application 5 Kern County, California	Archaeological, Field study
KE-03638	2008	Hudlow, Scott M. / Hudlow Cultural Resource Associates	A Phase I Cultural Resource Survey for AERO Energy Wind Power Project, Lower Resource Area Kern County, California	Archaeological, Field study
KE-03698	2009	Gust, Sherri and Harper, Veronica / Cogstone Resource Management, Inc.	Archaeological Assessment, Segment 3B Tehachapi Renewable Distribution Project, 12 kV Distribution Line, Kern County, California	Archaeological, Field study
KE-03763	2010	Hudlow, Scott M. / Hudlow Cultural Resource Associates	A Phase I Cultural Resource Survey for Aero Energy Wind Power Project, Windswept, Kern County, California	Archaeological, Field study
KE-03779	2010	Ferguson, A. / CH2M HILL	Culture Testing Report for the Alta Oak Creek Mojave Wind Project, Kern County, California	Archaeological, Evaluation, Excavation, Field study
KE-03941	2009	Price, Barry A., Baloian, Mary Clark, Lichtenstein, Robert, and Linder, Marc / Applied Earthworks, Inc.	Confidential Specialist Report: Cultural Resources Inventory for the Tehachapi Renewable Transmission Project Kern, Los Angeles, and San Bernardino Counties, California	Archaeological, Field study
KE-04053	2009	Lawson, Natalie / CH2M HILL	Cultural Resources Inventory Report for the Alta Oak Creek Mojave Wind Project, Kern County, California	Archaeological, Field study
KE-04117	2011	Mirro, Vanessa, McDougall, Dennis, and Earle, David / Applied EarthWorks, Inc.	Class III Cultural Resources Survey for the Horizon Wind Energy Rising Tree Wind Farm, Kern County, California	Archaeological, Field study
KE-04145	2011	Armstrong, Matthew, Panich, Lee, Cimino, Stephanie, and Holson, John / Pacific Legacy, Inc.	Archaeological Survey Report East Kern Wind Resource Area (EKWRA) 66 kV Reconfiguration Project, Kern County, CA	Archaeological, Field study
KE-04159	2011	Cardenas, Gloriella / URS, Sacramento	Cultural Resources Inventory Report for the Alta Infill II Wind Energy Project, Kern County, California	Archaeological, Field study
KE-04225	2010	Jackson, Thomas, Armstrong, Matthew, and Sikes, Nancy / Pacific Legacy, Inc.; Cogstone Resource Management, Inc.	Cultural Resources Inventory of the Southern California Edison Company Whirlwind to Rosamond and Rosamond to Windhub Telecommunication Line, Kern County, California	Archaeological, Field study
KE-04227	2010	Schneider, Tsim D. and Holson, John / Pacific Legacy, Inc.	Supplemental Archaeological Survey Report #2, Tehachapi Renewable Transmission Project Segment 10, Kern County, California	Archaeological, Field study
KE-04229	2010	Panich, Lee, Cimino, Stephanie, and Holson, John / Pacific Legacy, Inc.	Supplemental Archaeological Survey Report #1, Tehachapi Renewable Transmission Project Segment 10, Kern County, California	Archaeological, Field study
KE-04230	2011	Bischoff, Wayne / Pacific Legacy, Inc.	Third Supplemental Survey Report for Additional Roads on Segment 10, Tehachapi Renewable Transmission Project, Kern County, California	Archaeological, Field study
KE-04236	2012	Pacific Legacy, Inc.	Supplemental Archaeological Survey Report and Cultural Resources Management Plan, Tehachapi Renewable Transmission Project Segment 3B, Kern County, California	Archaeological, Field study
KE-04247	2010	Lawson, Natalie and Cardenas, Gloriella / CH2M HILL	Class III Cultural Resources Survey of the North Sky River Wind Energy Project, Kern County, California.	Archaeological, Field study
KE-04279	2011	Lawson, Natalie and Fergusson, Aaron / CH2M HILL	Alta East Wind Energy Project: Comprehensive Report of 2010-2011 Cultural Resources Investigations, Kern County, California.	Archaeological, Field study
KE-04359	2013	Ramirez, Robert, Hunt, Kevin, and Haas, Hannah / Rincon Consultants	Addendum Report: Phase I Cultural Resources Survey for the RE Columbia Two Solar Project, Mojave, Kern County, California	Archaeological, Field study

Report No.	Year	Author(s) / Affiliation	Title	Survey Type
KE-04472	2014	Honey, Linda L. / Great Basin Sage, Inc.	Phase I Cultural Resources Assessment for the Fremont Valley Preservation Project Proposed Transmission Line and Pipeline, Kern County and San Bernardino County, California	Archaeological, Field study
KE-04476	2013	Higgins, Courtney, Kellawan, Rebecca, Duke, Daron G., and Lucas, Thomas / Far Western Anthropological Research Group, Inc.	Cultural Resources Inventory of 5,300 Acres for the PG&E Pipelines 300A and 300B, San Bernardino and Kern Counties, California	Archaeological, Field study
KE-05158	2016	Hintzman, Marc / AECOM Inc.	Voyager Wind I, LLC - Wind Turbine Generators - 2016 Cultural Resources Survey	Archaeological, Field study
KE-05191	2009	Gust, Sherri and Harper, Veronica / Cogstone Resource Management, Inc.	Archaeological Assessment, Segment 3B Tehachapi Renewable Transmission Project, 12KV Transmission Line, Kern County, California	Archaeological, Architectural / historical, Field study
KE-05192	2009	Harper, Veronica and Glover, Amy / Cogstone Resource Management, Inc.	Archaeological Assessment, Tehachapi Renewable Transmission Project, Segments 4 and 10 Rosamond to Whirlwind and Rosamond to Windhub Proposed Telecommunications Line, Kern County, California	Archaeological, Architectural / historical, Field study
KE-05193	2011	Glover, Amy and Gust, Sherri / Cogstone Resource Management Inc.	Cultural Resources Monitoring Compliance Report for the Coram Brodie Project, Kern County, California	Monitoring

The SSJVIC record search identified 3 previously recorded cultural resources within the Infill Survey Area: 2 built environment resources (Oak Creek Road and the California Aqueduct) and one archaeological site (a historic era refuse scatter). The following previously recorded cultural resources are within the 0.5-mile buffer: 3 historic built environment, 27 prehistoric archaeological sites (lithic scatters, lithic quarry), and 11 historic era archaeological sites (refuse scatters), as well as 2 dual component sites. In addition, 43 previously recorded isolates were identified within 0.5 mile and consist of 15 prehistoric (lithic debitage) and 28 historic era (refuse types: cans and glass shards). All the isolates are listed as not eligible to the California Register of Historical Resources (CRHR) and are therefore not presented here. The previously recorded built environment and archaeological sites within the Infill Survey area and within 0.5 miles are listed in Table 2.

Table 2. Previously Recorded Cultural Resources within the Infill Survey Area and 0.5-Mile Buffer

Primary No.	Time Period	Site Type / Name	Date / Recorder	NRHP / CRHR Eligibility
Within the Infill Survey Area				
P-15-03537	Historic	Built Environment: Oak Creek Road	1993 (M. Macko, Macko Archaeological Consulting); 2010 (N. Lawson, CH2M HILL)	Not Eligible
P-15-03549	Historic	Built Environment: Los Angeles Aqueduct (both above ground and below); Aqueduct Road (unpaved); Alabama Gates and Spillway; PG&E gaslines 300 A and B (concrete conduit); concrete foundations.	1993 (M. Macko, Macko Archaeological Consulting); 2000 (Dr. J. Underwood, KEA Environmental); 2009 (Steven J. Melvin and Rebecca Flores; JRP Historical Consulting, LLC); 2010 (Fergusson, A., Calicher, H., Rolston, R., Lawson, N.; CH2M HILL); 2013 (Higgins, Courtney, Rebecca Kellawan, Daron Duke, Thomas Lucas); 2015 (Newcomb, Alyssa; SWCA)	Eligible as District
P-15-12688	Historic	Site: Refuse scatter (cans, glass, burnt faunal bone, pit)	2002 (B. Brown, S. Lippman, URS Corporation)	Not Evaluated

Primary No.	Time Period	Site Type / Name	Date / Recorder	NRHP / CRHR Eligibility
Within 0.5-Mile Buffer				
P-15-03537	Historic	Built Environment: Oak Creek Road	1993 (M. Macko, Macko Archaeological Consulting); 2010 (N. Lawson, CH2M HILL)	Not Eligible
P-15-03549	Historic	Built Environment: Los Angeles Aqueduct (both above ground and below); Aqueduct Road (unpaved); Alabama Gates and Spillway; PG&E gaslines 300 A and B (concrete conduit); concrete foundations.	1993 (M. Macko, Macko Archaeological Consulting); 2000 (Dr. J. Underwood, KEA Environmental); 2009 (Steven J. Melvin and Rebecca Flores; JRP Historical Consulting, LLC); 2010 (Fergusson, A., Calicher, H., Rolston, R., Lawson, N.; CH2M HILL); 2013 (Higgins, Courtney, Rebecca Kellawan, Daron Duke, Thomas Lucas); 2015 (Newcomb, Alyssa; SWCA)	Eligible as District
P-15-13927	Historic	Built environment: Road	2009 (N. Lawson, H. Calicher, E. Peters, CH2M HILL)	Not Eligible
P-15-12497	Prehistoric	Site: Lithic scatter (flakes, tools)	2006 (Koral Ahmet, Sara Bholat, Nicole Hofmeister, Evan Crabtree, ECORP Consulting, Inc.)	Not Evaluated
P-15-12498	Prehistoric	Site: Lithic scatter (flakes, tool)	2006 (Koral Ahmet, Sara Bholat, Nicole Hofmeister, Evan Crabtree, ECORP Consulting, Inc.)	Not Evaluated
P-15-12499	Prehistoric	Site: Lithic scatter (flakes, core)	2006 (Koral Ahmet, Sara Bholat, Nicole Hofmeister, Evan Crabtree, ECORP Consulting, Inc.)	Not Evaluated
P-15-12500	Prehistoric	Site: Lithic scatter (flakes, utilized debitage)	2006 (Sara Bholat, Nicole Hofmeister, Evan Crabtree, ECORP Consulting, Inc.)	Not Evaluated
P-15-12501	Prehistoric	Site: Lithic scatter (flakes, core, utilized debitage)	2006 (Koral Ahmet, Sara Bholat, Nicole Hofmeister, Evan Crabtree, ECORP Consulting, Inc.)	Not Evaluated
P-15-12502	Prehistoric	Site: Lithic scatter (flakes, core, utilized debitage)	2006 (Sara Bholat, Nicole Hofmeister, Evan Crabtree, ECORP Consulting, Inc.)	Not Evaluated
P-15-12503	Prehistoric	Site: Lithic scatter (flakes, core)	2006 (Koral Ahmet, Nicole Hofmeister, Evan Crabtree, ECORP Consulting, Inc.)	Not Evaluated
P-15-12504	Prehistoric	Site: Lithic scatter (flakes, core, utilized debitage)	2006 (Koral Ahmet, Sara Bholat, Nicole Hofmeister, Evan Crabtree, ECORP Consulting, Inc.)	Not Evaluated
P-15-12505	Prehistoric	Site: Lithic scatter (flakes, groundstone, cores, utilized debitage)	2006 (Koral Ahmet, Sara Bholat, Nicole Hofmeister, Evan Crabtree, ECORP Consulting, Inc.)	Not Evaluated
P-15-12506	Prehistoric	Site: Lithic scatter (flakes, core, utilized debitage)	2006 (Koral Ahmet, Sara Bholat, Nicole Hofmeister, Evan Crabtree, ECORP Consulting, Inc.)	Not Evaluated
P-15-12507	Prehistoric	Site: Lithic scatter (flakes, core, tested cobbles, utilized debitage)	2006 (Sara Bholat, Nicole Hofmeister, Evan Crabtree, ECORP Consulting, Inc.)	Not Evaluated
P-15-12508	Prehistoric	Site: Lithic scatter (flakes, core, utilized debitage)	2006 (Koral Ahmet, Sara Bholat, Nicole Hofmeister, Evan Crabtree, ECORP Consulting, Inc.)	Not Evaluated
P-15-12509	Prehistoric	Site: Lithic scatter (flakes, tested cobble)	2006 (Koral Ahmet, Sara Bholat, Nicole Hofmeister, Evan Crabtree, ECORP Consulting, Inc.)	Not Evaluated
P-15-12510	Prehistoric	Site: Lithic scatter (flakes, core, utilized debitage)	2006 (Sara Bholat, Nicole Hofmeister, Evan Crabtree, ECORP Consulting, Inc.)	Not Evaluated

Primary No.	Time Period	Site Type / Name	Date / Recorder	NRHP / CRHR Eligibility
P-15-12511	Prehistoric	Site: Lithic scatter (flakes, cores)	2006 (Sara Bholat, Nicole Hofmeister, Evan Crabtree, ECORP Consulting, Inc.)	Not Evaluated
P-15-12678	Prehistoric / Historic	Site: Refuse (Possible association with First Los Angeles Aqueduct); one chert biface	2002 (Syd Lippman, Brad Brown, URS Corporation)	Eligible
P-15-12688	Historic	Site: Refuse scatter (cans, glass, burnt faunal bone, pit)	2002 (B. Brown, S. Lippman, URS Corporation)	Not Evaluated
P-15-12689	Historic	Site: Refuse scatter (glass, cans, and earthen berm)	2002 (B. Brown, S. Lippman, URS Corporation)	Not Evaluated
P-15-12716	Historic	Ste: Refuse scatter (cans)	2002 (Brad Brown, URS Corporation); 2018 (S. Wolf, Dudek)	Not Eligible
P-15-13686	Historic	Site: Refuse scatter (cans, glass)	2008 (Steve McCormick, Cogstone Resource Management); 2013 (K.R. Way, H. Haas, A. Ginther, Rincon Consultants); 2013 (Linda Honey, Great Basin Sage, Inc.)	Not Eligible
P-15-13839	Historic	Site: Refuse scatter (cans, glass, lumber)	2008 (K.R. Way, K.S. Norwood, Naoma N. Staley, Pacific Legacy, Inc.); 2011 (A. White, C. Purtell, Sapphos Environmental, Inc.)	Not Evaluated
P-15-13909	Historic	Site: Refuse scatter (cans, glass)	2009 (A. Fergusson, H. Calicher, R. Rolston, CH2M HILL)	Not Eligible
P-15-13916	Historic	Site: Refuse scatter (cans)	2009 (A.Fergusson, H.Calcher, R.Rolston, CH2M HILL)	Not Eligible
P-15-13918	Historic	Site: Refuse scatter (cans, glass, ceramic)	2009 (A. Fergusson, H. Calicher, R. Rolston, CH2M HILL)	Not Eligible
P-15-13919	Historic	Site: Refuse scatter (cans, glass, sundry metal tools and implements)	2009 (A. Fergusson, H. Calicher, R. Rolston, CH2M HILL)	Not Eligible
P-15-13920	Historic	Site: Refuse scatter (glass, ceramic, nails, metal)	2009 (A. Fergusson, H. Calicher, R. Rolston, CH2M HILL)	Not Eligible
P-15-13921	Historic	Site: Refuse scatter (cans, metal fragments)	2009 (N .Lawson, E. Peters, B. Harmon, CH2M HILL)	Not Eligible
P-15-13922	Historic	Site: Refuse scatter (cans)	2009 (N. Lawson, E. Peters, B. Harmon, CH2M HILL)	Not Eligible
P-15-14699	Prehistoric	Site: Lithic scatter (flakes)	2009 (R. Harmon, H. Calicher, E. Peters, CH2M HILL)	Potentially Eligible
P-15-14700	Prehistoric	Site: Lithic scatter (flakes, core)	2009 (R. Harmon, H. Calicher, E. Peters, CH2M HILL)	Potentially Eligible
P-15-14701	Prehistoric	Site: Quarry, lithic scatter	2009 (A. Fergusson, H. Calicher, R. Rolston, CH2M HILL)	Potentially Eligible
P-15-14703	Historic	Site: Campsite (fire rings, cans, shell casings, glass, ceramic, metal)	2009 (N. Lawson, E. Peters, B. Harmon, CH2M HILL)	Not Eligible
P-15-16244	Prehistoric	Site: Lithic scatter: flakes (obsidian, rhyolite, chalcedony, agate), 1 core (chert), 1 biface (basalt)	2010 (I. Fraser-Shapiro, J. Roberson, S. Zolnoski, B. Bartam, Pacific Legacy, Inc.)	Not Evaluated
P-15-17186	Historic	Site: Refuse scatter (cans, glass, ceramic)	2011 (Aaron Fergusson, CH2M HILL)	Not Eligible

FIELD SURVEY RESULTS

Tetra Tech surveyed a total of 41.3 acres of the Infill Survey Area on September 1, 2, and 15, 2025 (see Attachment 1, Map Figures 4 and 5). Field personnel included Field Director Sydni Kitchel, MA, RPA, Crew Chief Astrid Molina, BA, RA, and Field Archaeologists Bianca Loyola, MA, and Yoana Esparza Lopez, BA. Ground surface visibility was very good and ranged from 90 to 100 percent with the soil composed of Munsell types 10YR 6/3 pale brown silty sand with sub-angular pebbles and 10YR 5/3 brown silty sand with sub-rounded rocks, gravels and pebbles. Observed vegetative communities include grasses (*Poaceae* sp.), western Joshua tree (*Yucca brevifolia)*, Mojave aster (*Xylorhiza tortifolia*), creosote (*Larrea tridentata*), cheesebush (*Ambrosia salsola*), ephedra (*Ephedra* sp.), white bursage (*Ambrosia dumosa*), juniper (*Juniperus californica*), cholla (*Cylindropuntia echinocarpa*), and Valley lessingia (*Lessingia glandulifera*).

The field team recorded 10 newly identified cultural resources that consist of 2 historic era sites (refuse scatters) and 8 historic era isolates (refuse). One previously recorded historic era site (refuse scatter) was updated. The summary of identified resources with their CRHR eligibility and management recommendations are listed in Tables 3, 4, and 5 below followed by their descriptions; see Attachment 2 for Map Figure 6, Infill Surveyed Area and Recorded Resource Location, and Department of Parks and Recreation (DPR) 523 forms.

ANALYSIS OF FINDINGS AND CRHR RECOMMENDATIONS

The CRHR serves as an authoritative guide for the preservation of significant cultural resources. Inclusion in the CRHR requires meeting one or more of the following criteria (Public Resources Code [PRC] SS5024.1, Title 14, Code of Regulations, Section 4852): association with significant historical events (Criterion 1), important persons (Criterion 2), distinctive architectural characteristics or artistic value (Criterion 3), or potential to yield important historical or prehistoric information (Criterion 4). Under CEQA, lead agencies must assess impacts on cultural resources eligible for CRHR listing, prioritizing avoidance and preservation; if not feasible, a data recovery plan is required. Resources not eligible for CRHR listing or not unique archaeological resources need no further protection. A detailed discussion of the CRHR regulations is presented in Chapters 1 and 7 of the Phase I Investigation Report (Farrell et al. 2025). See Tables 3, 4, and 5 for a summary of the CRHR recommended management measures for the resources within the Project site.

Table 3. Previously Recorded Resources within the Infill Survey Area with CRHR Eligibility and Management Recommendations

Site Number	Time Period	Resource Type and Description	CRHR Eligibility Recommendation	Impact Under CEQA	Recommended Management Measures
P-15-003537	Historic	Built Environment: Oak Creek Road (paved)	Not Eligible	Not Significant	No further management
P-15-003549	Historic	Built Environment: The Los Angeles Aqueduct	Eligible as District	Significant	Avoidance. Implement 50-foot buffer from resource boundary.
P-15-012688	Historic	Site: Refuse Scatter	Not Eligible	Not Significant	No further management

Previously Recorded Resources Within the Infill Survey Area

Of the three previously recorded resources, sites P-15-003537 and P-15-003549 were updated during the Phase I Investigation Report field efforts on April 23 and 24, 2024 (Farrell et al. 2025). As such, their discussions can be found in Chapters 6, 7, and 8 of the report, and the DPR forms are included in Appendix G for additional information (Farrell et al. 2025). Historic era archaeological site P-15-012688 was updated during this addendum Infill Survey field efforts and is described below.

P-15-012688

Site P-15-012688 was originally recorded in 2002 by B. Brown and S. Lippman of URS Corporation (URS). The archaeological site was described as a historic artifact scatter bisected by the First and Second Los Angeles Aqueduct and dirt roads. Brown and Lippman recorded a feature consisting of a circular pit utilized to burn trash, a diffused historic refuse scatter of approximately 1,000 tin cans (church key open, hole-in-cap types), glass fragments, two stovepipe sections, and burnt faunal remains. Based on the location of the site and diagnostic artifacts, URS states that the site appears to be associated with the construction of the First Los Angeles Aqueduct and later disturbed by the construction of the Second Aqueduct. URS did not provide a recommendation for listing on the National Register of Historic Places (NRHP) or CRHR. However, they described the site as in poor condition due to high disturbance from aqueduct maintenance and construction.

Tetra Tech visited the northwestern portion of P-15-012688 during the infill field survey for this Project to verify the site location and update any changes. The field crew located the previously recorded site boundary and observed the artifacts as described: hole-in-top cans, church key opened cans, and glass bottle shards (aqua, colorless) (Figure 1). The previously recorded circular pit, stovepipes, and can concentration is outside the proposed Project site boundary and therefore not included in this update. Tetra Tech expanded the northwestern site boundary by 160 feet to the west, by 40 feet in the northwest, and by 60 feet to the north to include additional artifacts (100+ colorless and aqua glass shards, 25 hole-in-top cans) that were dispersed from erosional storm events disturbance. Ground surface visibility was 90 to 100 percent.

Tetra Tech concurs with URS as the site within the Project Area is in poor condition due to fragmented and displaced artifacts from natural erosional processes caused by heavy precipitation events. Modern refuse of aluminum cans and miscellaneous metal and plastic were also observed within the newly expanded site boundary. The integrity is also poor as the site lacks integrity and does not provide further information about location, design, setting, material, workmanship, feeling, and association to a significant historical event, person, or design. Although the site is likely associated with the construction of the Los Angeles Aqueduct (P-15-003549, eligible as an NRHP district), the site has been extensively disturbed by natural erosional processes and modern refuse and lacks integrity to convey significance as a contributing element of P-15-003549 under any CRHR criteria. It is unlikely that intact subsurface deposits exist, and the recordation of the refuse has likely exhausted the data potential of the site (Criterion 4). The site also does not convey significance as a unique archaeological resource under Section 21083.2 of the PRC. In summary, Tetra Tech recommends the portion within the Project site as not eligible for listing on the NRHR under Criteria A through D nor under Criteria 1 through 4 of the CRHR and is not a historical resource under CEQA. As such, Tetra Tech recommends that no further management consideration is necessary for the portion of P-15-012688 within the Project site.



Figure 1. P-15-012688: Site overview within Project site of aqua and colorless glass shards scatter (view southeast, IMG_0229)

Newly Identified Sites

The infill survey resulted in the identification of two newly identified historic era sites (refuse scatters), discussed below. See Table 4 for a summary of the CRHR recommended management measures for the newly identified sites.

Table 4. Newly Recorded Sites CRHR Eligibility and Management Recommendations

Temporary Site Number	Time Period	Description	CRHR Eligibility Recommendation	Impact Under CEQA	Recommended Management Measures
GAL-SK-01	Historic	Site: Refuse Scatter	Not Eligible	Not Significant	No further management
DIS-AM-02	Historic	Site: Refuse Scatter	Not Eligible	Not Significant	No further management

GAL-SK-01

Site GAL-SK-01 consists of a large, diffused historic era refuse scatter of glass bottles and shards, cans, and metal located south of Oak Creek Road within rural undeveloped desert (Figure 2). The site is bounded by transmission lines 600 feet west and 50 feet north, and wind energy turbines 820 feet to the north and 0.5-mile southeast. A former north-to-south trending dirt road bisects the center of the site. The surface soils are a Munsell soil type 10YR 5/3 brown silt sand with sub-angular rocks, gravels, and pebbles. Vegetation within and surrounding the site includes Creosote, Mojave aster, white bursage, juniper, ephedra, cheesebush and grasses. Ground surface visibility was 90 percent.



Figure 2. GAL-SK-01: Southern overview of glass scatter (foreground) view toward Oak Creek Road, transmission line and wind turbines (background) (view north, IMG_0169)

Observed surface components include a widely diffused assemblage of glass, cans and metal. There are five Field Specimens (FS) that represent unique and/or diagnostic identification markers which are located in the central northwest area of the site. FS1 is a complete amber bottle with a crown cap finish and machine mold seam. It is embossed on the shoulder with "NO DEPOSIT ☆ NO RETURN" and the base with "[N] 23 / 63". The bottle measures 7½ inches length x 2½ inches diameter. The maker's mark is the Obear-Nester Glass Company (ca. 1915-1978; Lockhart et al. 2018). FS2 is a complete colorless glass square bottle, possible perfume type, with a screw cap finish and is embossed on the base with an unknown maker's mark of a 'P' in a pennant ▷. The bottle measures 3¼ inches length by 1½ inches width. FS3 is a fragmented amber bottle with a machine mold seam and thick patina. The base is embossed with "68 41 / 6 ◁D▷ / 3" and measures 5 inches length by 2½ inches diameter. The maker's mark is Owens-Illinois (ca. 1929-1960; Lockhart and Hoenig 2018). FS4 is a thick aqua glass bottle base shard embossed "COMA / WASH." and measures 1¾ inches length by 2½ inches diameter. FS5 is a colorless glass bottle bottom shard in an oval shape embossed on the base with an unknown maker's mark " 6 / drene" and measures 2¼ inches length by 1¼ inches diameter. Drene was a brand of shampoo produced in the mid-1930s through the 1970s (Smithsonian 2025).

Additional artifacts include 15 amber glass shards, 11 aqua glass shards, 5 colorless glass shards, 8 church key opened cans, 7 bicolored pull tab cans, 2 barbed wire fragments, and 1 metal washer. Artifacts are in poor condition and exhibit crushed bodies, bullet holes, and are rusted. Modern aluminum cans were observed throughout the site. The church key can opener was introduced in 1935 specifically for cone top cans (Horn 2005). Bi-colored cans were in use from the late 1950s to circa 1970s whereas sanitary cans were first introduced in 1904 and continue to be manufactured today (Holm et al. 2018; Merrit 2014).

A review of federal land patents identified one early patent issued to the Southern Pacific Railroad Company in 1891 under the Grant-RR-Atlantic and Pacific (14 Stat. 292) for the site area (BLM 2025). No additional

historical information was available to associate the Southern Pacific Railroad Company with the site. No additional information was available regarding other previous landowners during the dates of the site.

A review of historic aerial imagery from 1963 to 1972 depicts the site as rural undeveloped land south of the paved Oak Creek Road and bisected with a faint north-to-south dirt road in the center of the site. From 1983 to 1987, a dirt road appears to the northwest of the site and trends northwest-to-southeast toward the direction of GAL-SK-01, though it does not reach the site (Netronline 2025). Historic topographic maps from 1943 to 1963 depict the site as undeveloped rural land south of Oak Creek Road. By 1967, a north-to-south trending dirt road bisects the site and remained unchanged through 1986 (USGS 2025). No buildings or features are illustrated within the site area on the aerial imagery or historic maps from 1943 to 1987.

Based upon the artifact assemblage and historical map and aerial review of the area, site GAL-SK-01 is a single refuse disposal episode that dates between the 1950s to the 1970s. GAL-SK-01 is south of Oak Creek Road and a former road bisects the central area of the site. GAL-SK-01 is in poor condition and exhibits poor integrity due to environmental processes (sheetwash, weathering, artifact decomposition and displacement) and vandalism (bullet holes on can artifacts).

Review of historical maps and aerial imagery in addition to federal land patents determined that site GAL-SK-01 cannot be connected to a significant event or person (Criteria 1 and 2). The site consists of domestic related refuse (food, beverage, and possibly personal hygiene) and no buildings or features are present. As such, it does not represent the work of a master craftsman or possess high artistic value (Criterion 3). Roadside refuse disposal events tend to be surficial artifact concentrations and scatters, and it is unlikely that subsurface deposits exist that would yield information important to local history. The recordation of GAL-SK-01 has likely exhausted the data potential of the site (Criterion 4). Tetra Tech therefore recommends the site not eligible for listing in the CRHR. It also does not meet the definition of a unique historical resource (PRC Section 21083.2). In summary, GAL-SK-01 does not qualify as a historical resource under CEQA. No further management is recommended.

DIS-AM-02

Site DIS-AM-02 consists of a historic era refuse scatter consisting of a variety of 22 cans (hole-in-top, hole-in-cap, sanitary, pop top, church key opened, and twist key), an amber glass bottle neck shard, and miscellaneous scrap metal (Figure 3). The site is situated within a rural undeveloped desert with The Second Los Angeles Aqueduct Road 250 feet southeast from the site and The Los Angeles Aqueduct (P-15-003549) 550 feet southeast. The surface soil is a Munsell soil type 10YR 6/3 pale brown silty sand with sub angular pebbles. The surrounding vegetation consists of creosote, Joshua tree, grasses and Mojave aster. Ground surface visibility was 90 to 100 percent.



Figure 3. DIS-AM-02: Site overview with FS-1 Bishops Candy can lid (foreground) from the southwest boundary toward transmission line (background) (view north, IMG_0889)

Observed surface components include a variety of cans (hole-in-cap, hole-in-top, sanitary, large sanitary, external friction, standing, pop top, church key opened, twist key opened, oil), a glass bottle shard and miscellaneous scrap metal. There are three FS that represent unique and/or diagnostic identification markers. FS-1 is a can lid embossed with “Bishops Candy” brand and a bullet hole. The lid measures 4½ inches diameter. Bishops & Company (1887 to 1930) was a downtown Los Angeles candy and chocolate manufacturer that went bankrupt during the Great Depression (Berman and Carreno 2008). FS-2 is a key-wind opened circular meat can with attached key holder and measures 3 3/8 inches diameter. Key-wind cans were popularized in 1895 through the 1980s and adopted for tapered meat tins (Rock 1984:105; Holm et al. 2018). FS-3 is a small rotary opened sanitary can with missing lid and measures 2¾ inches length by 2 3/16 inches diameter. Sanitary cans and the commonly used rotary can opener were first introduced in 1904 (Holm et al. 2018). Additional cultural constituents include 10 hole-in-cap cans, 3 hole-in-top cans, 3 pop top cans, 1 church key opened corrugated can, 1 standing oil can, 1 large sanitary can, 1 amber glass bottle shard, and 1 miscellaneous scrap metal. The church key can opener was invented in 1935 (Rock 1987: 112). Pop-top cans (also known as zip-top or early pull-tab) were first produced in 1962 (Rock 1987: 15).

A review of federal land patents identified one early patent issued to Dennis B. Smith in 1927 under the Homestead EntryOriginal (12 Stat. 392) act of 1862 for the site area (BLM 2025). No additional historical information through census and genealogic sources, historic newspaper articles, or other online sources was available to associate Dennis B. Smith with the site.

Review of historical aerial imagery from 1959 to 1965 depict the site as undeveloped rural land north of an ephemeral drainage, west of Willow Springs Road (formerly Tihichipi Road), northwest of the Los Angeles

Aqueduct and rudimentary Second Los Angeles Aqueduct Road, and south of a northwest-to-southeast road (Netroline 2025). By 1974, aerial imagery review of DIS-AM-02 indicates the site area remained undeveloped while the Second Los Angeles Aqueduct Road appears to be in the process of expansion with an increase in vehicle tracks visible. By1983, the Second Los Angeles Aqueduct Road is established. The Old Tihichipi [Tehachapi]-Willow Springs Road is approximately 750 feet east-northeast from the resource.

Historical topographical maps from 1856 and 1881 depict DIS-AM-02 as undeveloped land west of "Tihichipi Road" (BLM 2025). By 1935, the site remained undeveloped with Tihichipi Road to the east, and the Los Angeles Aqueduct (P-15-03549) and Second Los Angeles Aqueduct Road to the southeast, and a northwest-to-southeast trending road is north of the resource. By 1959, the site remained as undeveloped west of Willow Springs Road (formerly Tihichipi Road) and northwest of the Los Angeles Aqueduct (USGS 2025). By 1967, an ephemeral drainage south and west of the resource is illustrated, as well as the Second Los Angeles Aqueduct Road to the southeast and a northwest-to-southeast trending road to the north with unchanged conditions to 1976. No features or cultural elements associated with DIS-AM-02 were depicted on historical maps or aerial imagery from 1853 to 1987.

Based upon the characteristics of the site and review of historic maps and aerial imagery, DIS-AM-02 is two refuse disposal events associated with the development of the Los Angeles Aqueduct (1907-1913) and Second Los Angeles Aqueduct (1965-1970). The site is in poor condition and exhibits poor integrity due to environmental processes (sheetwash, weathering, artifact decomposition and displacement) and vandalism (bullet holes on can artifacts).

Review of historical maps and aerial imagery in addition to federal land patents determined site DIS-AM-02 cannot be connected to a significant event or person (Criteria 1 and 2). The site consists of food and beverage related refuse, and no buildings or features are present. As such, it does not represent the work of a master craftsman or possess high artistic value (Criteria 3). Refuse disposal events tend to be surficial artifact concentrations and scatters, and it is unlikely that subsurface deposits exist that would yield information important to local history. The recordation of DIS-AM-02 has likely exhausted the data potential of the site (Criteria 4). Tetra Tech therefore recommends that the site not eligible for listing in the CRHR. It also does not meet the definition of a unique historical resource (PRC Section 21083.2). In summary, DIS-AM-02 does not qualify as a historical resource under CEQA. No further management is recommended.

Newly Identified Isolates

Isolates are typically considered not eligible for listing in the CRHR due to the limited amount of information they can provide and lack of associated context. Exceptions are made under unusual circumstances, such as when the archaeological record is lacking in data, or the isolate is considered rare or unusual and may be associated with rare or unusual events. The eight isolates identified do not fall under these circumstances and possess little probability for new information that would contribute substantially to the prehistoric or historic history (Criterion 4). The isolates were identified within an open, rural undeveloped landscape or within disturbed areas of heavy machinery tracks. The documentation of these isolates provides sufficient data and their research potential has been fulfilled through their documentation. As a result, the eight isolates are recommended not eligible for listing on the CRHR. It is recommended that no further management is necessary for these isolates. See Table 5 for a summary of recommendation measures for isolates.

Table 5. Newly Recorded Isolates CRHR Eligibility and Management Recommendations

Temporary Isolate Number	Time Period	Description	CRHR Eligibility Recommendation	Impact Under CEQA	Recommended Management Measures
GAL-SK-ISO-01	Historic	Isolate: Cans	Not Eligible	Not Significant	No further management
GAL-SK-ISO-02	Historic	Isolate: Refuse Scatter	Not Eligible	Not Significant	No further management
GAL-SK-ISO-03	Historic	Isolate: Cans	Not Eligible	Not Significant	No further management
GAL-SK-ISO-04	Historic	Isolate: Can	Not Eligible	Not Significant	No further management
GAL-SK-ISO-05	Historic	Isolate: Cans	Not Eligible	Not Significant	No further management
GAL-SK-ISO-06	Historic	Isolate: Can	Not Eligible	Not Significant	No further management
DIS-AM-ISO-01	Historic	Isolate: Glass Shards	Not Eligible	Not Significant	No further management
DIS-AM-ISO-02	Historic	Isolate: Glass Shards	Not Eligible	Not Significant	No further management

GAL-SK-ISO-01

Isolate GAL-SK-ISO-01 consists of two historic era crushed cans located within a highly disturbed area of heavy machinery tracks, transmission lines and wind energy infrastructure. Cultural constituents include one bi-colored pull tab can and one sanitary beverage can which are both decomposing and have bullet holes (Figure 4). The sanitary beverage can has a diameter of 2 inches while the bi-colored can is too crushed and fragmented to measure. Bi-colored cans are composed of a steel body with an aluminum top and date between the late 1950s to ca. 1970 (Holm et al. 2018). The isolate is situated within a vehicle turn-around area and 230 north of Oak Creek Road. The soil is a Munsell type 10YR 5/3 brown silty sand with sub-angular gravels. The surrounding vegetation includes Joshua tree, creosote, ephedra, and white bursage. Ground surface visibility was 100 percent.



Figure 4. GAL-SK-ISO-01: Isolate overview of bi-colored can (left) and sanitary can (right) (plan view, IMG_0142)

GAL-SK-ISO-02

Isolate GAL-SK-ISO-02 is historic era refuse consisting of a wooden bed frame with metal springs, metal springs from a vehicle cushion, a wooden barn door partially painted red, milled lumber with nails, colorless glass shards, a penny from 1981, miscellaneous metal (Figure 5) and a condensed milk hole-in-top can (ca. 1900-1985; Holm et al. 2018) located across the road. The resource is within an area of a large fallen Joshua tree along the north side of an unnamed dirt road. The resource is in poor condition and embodies poor integrity. The soil is a Munsell type 10YR 5/3 5/3 brown silty sand with sub-rounded rocks, gravels, and pebbles. The surrounding vegetation includes Joshua tree, creosote, Mojave aster, cholla, cheesebush, and grasses. Ground surface visibility was 90 percent.



Figure 5. GAL-SK-ISO-02: Eastern overview of refuse scatter (foreground and center) toward transmission lines and wind turbines (background) (view west, IMG_0193)

GAL-SK-ISO-03

Isolate GAL-SK-ISO-03 consists of a bi-colored pull tab can (Figure 6) located within rural undeveloped desert. The resource is debossed on the top with “LIFT RING PULL / PAT PEND / LIFT RING-PULL”, contains 9 indents on the seam, is not crushed and has bullet holes. Bi-colored cans are composed of a steel body with an aluminum top and date between the late 1950s to ca. 1970 (Holm et al. 2018). The resource is in fair condition and embodies poor integrity. The soil is a Munsell type 10YR 5/3 brown silty sand with sub-rounded rocks, gravels and pebbles. The surrounding vegetation includes Joshua tree, cholla, cheesebush, and grasses. Ground surface visibility was 90 percent.



Figure 6. GAL-SK-ISO-03: Bi-colored can, profile with bullet holes (plan view, IMG_0194)

GAL-SK-ISO-04

Isolate GAL-SK-ISO-04 consists of a large rectangular can (Figure 7) located within a creosote bush and fallen Joshua tree in a rural, undeveloped desert. The can has an internal friction lid and spout that was cut by hand. The can is complete, has bullet holes and measures 12 inches in length by 7.5 inches in width by 8 inches depth. Internal friction lid cans were first invented in 1906 and were commonly used for paint (Holm et al. 2018). The resource is in fair condition and embodies poor integrity. The soil is a Munsell type 10YR 5/3 brown silty sand with sub-rounded rocks, gravels, and pebbles. The surrounding vegetation includes Joshua tree, cholla, cheesebush, and grasses. Ground surface visibility was 90 percent.



Figure 7. GAL-SK-ISO-04: Large rectangular can, profile (plan view, IMG_ 0201)

GAL-SK-ISO-05

Isolate GAL-SK-ISO-05 consists of two crushed cans located on the west side of a north-to-south unnamed dirt road (Figure 8). One can is a hole-in-top and the other is a sanitary with knife opening. Hole-in-top cans were introduced in 1900 in use to ca. 1985 whereas sanitary cans were produced in 1904 and are still in use today (Holm et al. 2018). The resource is in poor condition and embodies poor integrity. The soil is a Munsell type 10YR 5/3 brown sandy silt with sub-rounded rocks and pebbles. The surrounding vegetation includes Joshua tree, cheesebush, creosote, white bursage, ephedra, Valley lessingia, and grasses. Ground surface visibility was 100 percent.



Figure 8. GAL-SK-ISO-05: Eastern in situ overview of cans from unnamed dirt road toward transmission lines (left background) and wind turbines (background) (view west, IMG_0211)

GAL-SK-ISO-06

Isolate GAL-SK-ISO-06 consists of a church key opened hole-in-top can and metal post located on the west side of a northwest-to-southeast trending unnamed dirt road (Figure 9). The metal post has a screw thread finish and measures 2 inches diameter by 3.4 feet above ground surface. The can has two church key openings, is partially crushed and measures 4 inches length by 3 inches diameter. Hole-in-top cans were manufactured in 1900 and the church key can opener was introduced in 1935 with a general termination of use into the 1960s (Holm et al. 2018). The resource is in poor condition and embodies poor integrity. The soil is a Munsell type 10YR 5/3 brown sandy silt with sub-rounded rocks and pebbles. The surrounding vegetation includes Joshua tree, cheesebush, creosote, white bursage, ephedra, Valley lessingia, and grasses. Ground surface visibility was 100 percent.



Figure 9. GAL-SK-ISO-06: Southern in situ overview of hole-in-top can (foreground) and metal post (left of Joshua Tree, background) toward unnamed dirt road (view north, IMG_0222)

DIS-AM-ISO-01

Isolate DIS-AM-ISO-01 consists of two amethyst glass bottle medial body shards located within undeveloped rural desert. The largest shard measures 2¼ inches length by 2¼ inches width by ¼ inch thick (Figure 10). Amethyst glass is the effect of manganese having a reaction to the sun and was used in bottle glass to give glass a clear appearance. Newman (1970:74) suggests a beginning date of 1880 and a terminal date of 1925 while Holm et al. (2018) dates amethyst from the mid-1870s to 1930s. The isolate is in poor condition due to natural erosional processes that have caused fragmentation, weathering, and displacement and overall lacks integrity. The soil is a Munsell type 10YR 6/3 pale brown silty sand with subangular pebbles. The surrounding vegetation consists of creosote, Joshua tree, grasses, and Mojave aster. Ground surface visibility was 90 percent.

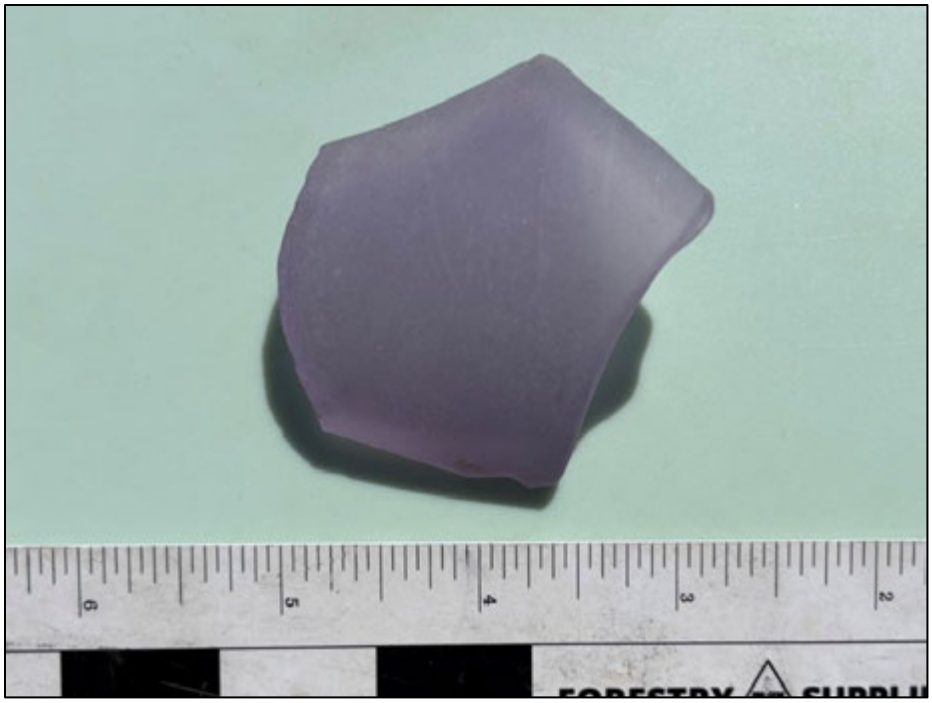

Figure 10. DIS-AM-ISO-01: Ventral side of amethyst glass shard (plan view, IMG_0858)

DIS-AM-ISO-02

Isolate DIS-AM-ISO-02 consists of colorless glass shards from two beverage bottles (Figure 11) located within rural undeveloped desert. The first bottle contains approximately seven colorless glass bottle shards from a Pepsi bottle with a swirl decorative body. Some shards still contain the white and red Pepsi transfer print label that reads “Pepsi / ..L.OZ”. The swirl Pepsi bottle was released in 1958 and was used into the early 1970s (Muse 2025). The second bottle contains 10 to 15 colorless glass bottle shards from a Vernor’s Ginger Ale bottle. The shards exhibit excessive weathering compared to the Pepsi shards. Some shards contain parts of the yellow and green label with the text, “Ver…/…ously different!/…ATURAL AN/..ND ARTI../…ged..”. Vernor’s Ginger Ale was bottled in glass from 1915 to 1985; however, Vernors originally had an apostrophe in the name but was removed in 1959 followed by the script logo in 1968 (Wunderlich 2025). The shard with the portion of the label that would have depicted an apostrophe was not identified. The isolate is in poor condition and lacks integrity. The soil is a Munsell type 10YR 6/3 pale brown silty sand with subangular pebbles. The surrounding vegetation consists of creosote, Joshua tree, grasses, and Mojave aster. Ground surface visibility was 90 percent.



Figure 11. DIS-AM-ISO-02: Pepsi glass bottle shards (left) and Vernor's glass bottle shards (right) (plan view, IMG_0871 and IMG_0872)

SUMMARY AND MANAGEMENT RECOMMENDATIONS

Tetra Tech conducted a Phase I field survey of 41.3 acres of the Infill Survey Area on September 1, 2, and 15, 2025. The infill survey resulted in the field check of a historic era refuse scatter site and the recordation of two new historic era refuse scatter sites and eight historic era isolates (see Tables 3, 4, and 5 above). One built environment resource, three archaeological sites, and the eight isolates are recommended as not eligible for listing to the CRHR. No further management is recommended for these resources.

The cultural resource record search identified existing cultural resources within the Project site. Based on the natural setting, SSJVIV records search results and literature review, distribution patterns of previously recorded sites within and near the Project site, current Phase I archaeological survey, and previous disturbance to native soils (i.e., wind energy generating facilities, transmission lines, roads, recreational activity), the Project is assessed as having an overall low to low-moderate sensitivity for intact cultural resources within undisturbed subsurface deposits.

Assuming compliance with the standard cultural resource management measures as described in Farrell et al. (2025) , implementation of the Project should exert no significant impact to cultural resources listed on or eligible for nomination to the CRHR.

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ATTACHMENT 1: FIGURES

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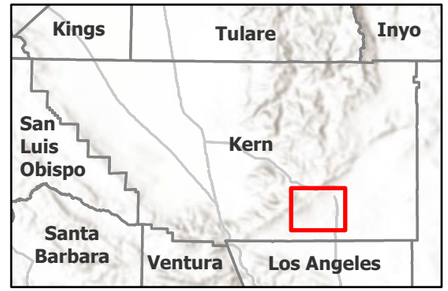
Discovery Solar PV and Storage Project

Kern County, CA

Figure 1. Regional Overview



Infill Survey Area

Watercourse

N

0 0.5 1 2 Miles

Scale is 1:100,000 when printed at 11"x17"

Not for Construction

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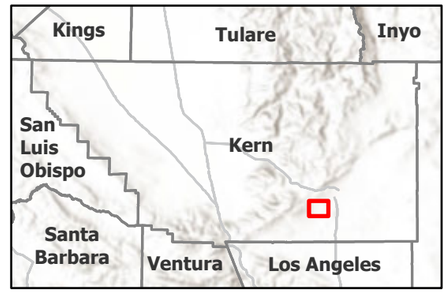
Discovery Solar PV and Storage Project

Kern County, CA

Figure 2. Project Location





Infill Survey Area

Watercourse

Road

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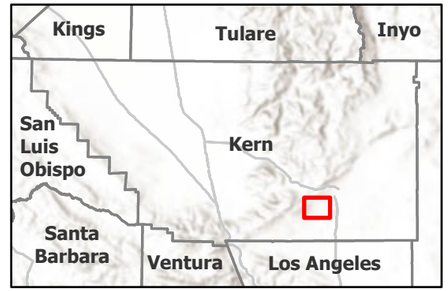
Discovery Solar PV and Storage Project

Kern County, CA

Figure 3. USGS Topographic Map



Infill Survey Area

USGS 7.5' Quads: Monolith (1976), Willow Springs (1977)
PLSS: T11N R13W S16, 17, 21, 28, 31, 33; T10N R 14W S12; T10N R13W S7

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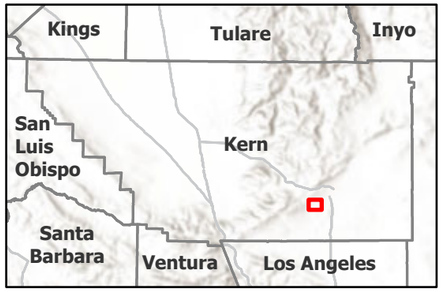
Discovery Solar PV and Storage Project

Kern County, CA

Figure 4. Infill Surveyed Areas



Surveyed Area

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Miles

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Not for Construction

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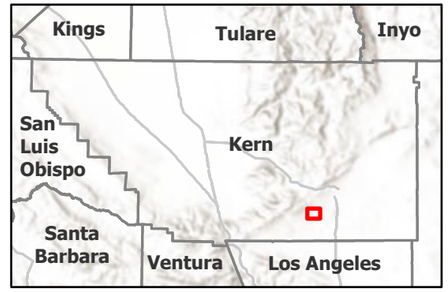
Discovery Solar PV and Storage Project

Kern County, CA

Figure 5. Infill Surveyed Areas



Surveyed Area

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Miles

Scale is 1:24,000 when printed at 11"x17"

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ATTACHMENT 2: DPR FORMS

CONFIDENTIAL

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Appendix F
Discovery Solar PV and Storage Project Energy Impact Analysis

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TETRA TECH

Memo

To: Amy Fuller, Senior Permitting Director

From: Jennifer Merrick, Project Director, Tetra Tech

Date: September 19, 2025

Subject: Discovery Solar PV and Storage Project Energy Impact Analysis

1.0 INTRODUCTION

Tetra Tech, Inc. (Tetra Tech), prepared this memorandum for Discovery Solar PV and Storage, LLC (Applicant) to assess possible construction and operational energy demand impacts associated with development of the Discovery Solar PV and Storage Project (Project). As concluded below, the Project would not result in wasteful, inefficient, or unnecessary consumption of energy resources. Moreover, the Project would be consistent with and would not conflict with or obstruct a state or local plan for renewable energy and would help California meet its renewable energy and greenhouse gas emission reduction goals.

2.0 PROJECT DESCRIPTION AND LOCATION

The Project includes development of a photovoltaic (PV) solar facility and associated infrastructure necessary to generate up to 1,400 megawatts (MW) of renewable electrical energy with up to 8 gigawatt-hours (GWh) of energy storage capacity (approximately 1,000 MW) on an approximately 7,700-acre Project site in an unincorporated area of southeastern Kern County, California. PV solar panels, a power collection system, including medium-voltage lines that connect the solar facilities, inverters, foundations, and transformers will be installed onsite. Associated Project infrastructure includes an operations and maintenance facility, telecommunication facilities, energy storage system(s), up to three onsite collector substations, a 230-kV switchyard, interconnection and transmission systems, and temporary laydown yards. The Project may be constructed in multiple phases.

The Project will interconnect to the existing Windhub Substation, which is owned and operated by Southern California Edison. The interconnection will be via a newly constructed 230-kilovolt (kV) generation tie line (gen-tie) that will extend north from the Project site towards the Windhub Substation from on-site collector substations. A portion of the Project 230-kV gen-tie would be co-located within an existing gen-tie corridor (controlled by the Applicant and/or its affiliates). A high-voltage switchyard located immediately north of the Union Pacific Railroad (UPRR) rail line will also be constructed.

The Project is located in an unincorporated area in southeastern Kern County, on generally undeveloped and privately owned land, along the northern edge of the Antelope Valley. The Project site is located approximately 6 miles southwest of the unincorporated community of Mojave, approximately 9 miles southeast of the City of Tehachapi, and approximately 8 miles northwest of the unincorporated community of Rosamond. State Route (SR)-58 is north of the Project site, SR-14 is east of the Project site, and Tehachapi Willow-Springs Road runs between the Project site's boundaries. A network of existing named and unnamed dirt roads traverses the Project site. While the Los Angeles Department of Water and Power (LADWP) aqueduct

roughly bisects the Project site, it is not included within the Project site. On-site, adjacent, and nearby land uses include renewable energy development, rural residential development, livestock grazing, heavy industrial and mining uses, and undeveloped lands. Elevations across the Project site are relatively flat, ranging from approximately 2,970 to 3,760 feet above mean sea level. The Project site is located within the U.S. Geological Survey (USGS) *Monolith, Willow Springs,* and *Soledad Mountain* 7.5-Minute Topographic Quadrangle Maps.

2.1 Thresholds of Significance

The Kern County Environmental Checklist identifies the following criteria, as established in Appendix G of the California Environmental Quality Act (CEQA) Guidelines, to determine if a project would have a significant impact on energy and energy resources. Consistent with Appendix G, this analysis considers whether the Project would:

a) Result in potentially significant environmental impacts due to wasteful, inefficient, or unnecessary consumption of energy resources, during project construction or operation; or

b) Conflict with or obstruct a state or local plan for renewable energy or energy efficiency.

3.0 ENERGY ASSESSMENT

3.1 Methodology

Tetra Tech estimated energy consumption for both construction and operation/maintenance of the Project using output from the California Emissions Estimator Model version 2022.1.1.21 (CalEEMod), consistent with the data presented in the Project's Air Quality and Greenhouse Gas Technical Report (Tetra Tech 2025), along with fuel consumption and efficiency factors derived from California's on-road and offroad mobile source tools, where applicable. CalEEMod is a statewide program designed to calculate pollutant emissions for development projects in California using land use data. Operational emissions were estimated using CalEEMod to include offroad, energy, and mobile source emissions. For calculation of on-road (off-site) mobile sources, CalEEMod uses the Emission Factor (EMFAC) 2021 emissions model, based on the presumed vehicle mix (CARB 2024a). The California Air Resources Board (CARB) Off-Road Web Platform provides California's emissions inventories of off-road mobile sources and was used to provide data for off-road equipment (CARB 2024b). The Project would operate for approximately 35 years, after which the Applicant may choose to update site technology and recommission, or to decommission the site and remove the systems and their components. As the nature of the equipment available at the time of decommissioning is unknown, nor is the extent of activities that will be required during decommissioning, the analysis conservatively assumes decommissioning activities would be consistent with construction activities.

The assumptions used in the energy consumption calculations are described in Table 1 and are based on values from Appendix B of the Air Quality and Greenhouse Gas Technical Report (Tetra Tech 2025).

The construction equipment types used in these calculations are described in Table 1. The energy consumption for equipment is based on the number of equipment, hours operated per day, horsepower, load factors, and number of days used. Energy consumption associated with construction vehicle trips is described

in Table 2. Energy consumption associated with operation vehicle trips is described in Table 3 and Table 4. For both construction and operation, workers are assumed to travel in gasoline-fueled passenger vehicles (50 percent light-duty automobiles, 25 percent light-duty trucks class 1, and 25 percent light-duty trucks class 2), onsite pickups are assumed to be gasoline-fueled light-duty trucks (50 percent light-duty trucks class 1 and 50 percent light-duty trucks class 2), and vendor deliveries, material transport, and onsite heavy-duty trucks are assumed to occur in diesel-fueled heavy-duty trucks.

Table 1. Fuel Consumption for Construction Equipment

Phase Name	Equipment Type	Number Per Day	Hours Per Day	HP Rating	Load Factor	Work Days Per Phase	Fuel Type	Fuel Consumption Rate (gallons/hp-hr)[1,2]	Fuel Consumption (gallons)
Site Preparation	Skid Steer Loaders	6	8	71	0.37	131	Diesel	0.056	9,327
	Graders	3	8	148	0.41	131	Diesel	0.055	10,475
	Rubber Tired Dozers	3	8	367	0.40	131	Diesel	0.045	20,817
	Rollers	6	8	36	0.38	131	Diesel	0.060	5,156
	Tractors/Loaders /Backhoes	2	8	84	0.37	131	Diesel	0.057	3,711
System Installation and Gen-Tie Construction	Forklifts	12	8	82	0.20	545	Diesel	0.058	49,666
	Skid Steer Loaders	18	8	71	0.37	545	Diesel	0.056	116,405
	Tractors/Loaders /Backhoes	6	8	84	0.37	545	Diesel	0.057	46,318
	Other Construction equipment (Pile drivers)	16	8	82	0.42	545	Diesel	0.056	135,433
	Generator Sets	3	8	7	0.74	545	Diesel	0.051	3,437
	Skid Steer Loaders	40	8	19	1	545	Gasoline	0.056	108,513
	Cranes	1	8	367	0.29	545	Diesel	0.052	23,965
Energy Storage System	Cranes	1	8	367	0.29	327	Diesel	0.052	14,379
	Graders	1	8	148	0.41	327	Diesel	0.055	8,716
	Forklifts	1	8	82	0.20	327	Diesel	0.058	2,483
	Skid Steer Loaders	2	8	71	0.37	327	Diesel	0.056	7,760
Underground Work	Excavators	3	8	36	0.38	87	Diesel	0.056	1,609
	Other Material Handling Equipment	2	8	93	0.40	87	Diesel	0.051	2,627
	Rollers	2	8	36	0.38	87	Diesel	0.060	1,141
	Forklifts	3	8	82	0.20	87	Diesel	0.058	1,982
	Tractors/Loaders /Backhoes	4	8	84	0.37	87	Diesel	0.057	4,929

Phase Name	Equipment Type	Number Per Day	Hours Per Day	HP Rating	Load Factor	Work Days Per Phase	Fuel Type	Fuel Consumption Rate (gallons/hp-hr)[1,2]	Fuel Consumption (gallons)
								Total Gasoline Use	**108,513**
								Total Diesel Use	**470,335**

Notes:
1/ Obtained using the CARB Off-Road Web Platform (CARB 2024b)
2/ Fuel consumption rates for generator sets and other material handling equipment were obtained from AP-42 Table 3.3-1 (EPA 1996).

Gasoline and diesel fuel consumption during Project construction and operation/maintenance were compared to the Statewide Fuel Resources, which were obtained from the California Energy Commission's (CEC) California Retail Fuel Outlet Annual Reporting (CEC-A15) Results for the year of 2022 (CEC 2024a).

3.2 Construction Phase

Fuel consumption during the construction phase is associated with construction equipment usage, equipment type, employee vehicle trips, vendor deliveries, onsite trucks, and transportation of materials. Fuel consumption associated with each of these activities are described in more detail below.

Construction equipment includes, but not limited to, graders, rollers, rubber-tired dozers, tractors, loaders, backhoes, cranes, excavators, forklifts and other construction equipment (Table 1). Construction phases include site mobilization, site preparation and clearing/grading, trenching-underground work, system installation and gen-tie construction, energy storage system, testing and commissioning, and general management. Fuel consumption from construction equipment was estimated by converting the total carbon dioxide (CO_2) emissions from the construction phase to gallons using conversion factors for CO_2 to gallons of diesel. The conversion factor for diesel is 10.21 kilograms CO_2 per gallon (The Climate Registry 2024). According to calculations in CalEEMod and construction equipment data provided by the Applicant, Project construction equipment is expected to consume approximately 470,335 gallons of diesel fuel and 108,513 gallons of gasoline.

Using a typical fuel efficiency of 27.01 miles per gallon, the construction worker gasoline fuel consumption (based on employee vehicle trips during construction) is expected to be approximately 453,657 gallons. The total diesel fuel use for construction vendor deliveries, material transport, and onsite heavy-duty trucks, using typical fuel efficiencies of 5.95 miles per gallon, is approximately 489,893 gallons (Table 2).

It is estimated that approximately 960,228 gallons of diesel fuel would be consumed during Project construction, based on construction equipment type, vendor deliveries, and material transport (Table 1 and Table 2). Approximately 562,169 gallons of gasoline fuel would be consumed during Project construction, based on employee vehicle trips and onsite trucks (Table 1 and Table 2). According to the CEC-A15 Results and Analysis ADA for the year of 2022 (the most recent year available), the estimated statewide diesel consumption based off retail diesel sales is 2,290,000,000 and gasoline consumption based off retail gasoline sales is 13,640,000,000 (CEC 2022). Tetra Tech estimated that the total diesel and gasoline consumption by Project construction represents approximately 0.04 percent and 0.004 percent of statewide fuel resources, respectively.

There are no unusual Project characteristics that would cause the use of construction equipment to be less energy efficient compared with other similar construction sites in other parts of California. The Project's fuel and energy consumption would also comprise a small percentage of the available resources within California. Thus, construction related fuel and energy consumption at the Project would not result in inefficient, wasteful, or unnecessary energy use.

Table 2. Fuel Consumption for Construction Vehicles

Phase Name	Trip Type	One-Way Trips per Day	Miles Per Trip	Vehicle Mix[1/]	Work Days per Phase	Fuel Type	Fuel Efficiency (miles/gallons)[2/]	Fuel Consumption (gallons)
Site Preparation	Worker[3/]	60.0	17.3	LDA,LDT1,LDT2	131	Gasoline	27.01	5,035
	Vendor	72.0	10.6	HHDT	131	Diesel	5.95	16,795
	Hauling	48.0	20.0	HHDT	131	Diesel	5.95	21,126
	Onsite Truck	22.0	3.50	HHDT	131	Diesel	5.95	1,694
System Installation and Gen-Tie Construction	Worker[5]	958	17.3	LDA,LDT1,LDT2	545	Gasoline	27.01	334,472
	Vendor	72.0	10.6	HHDT	545	Diesel	5.95	69,874
	Hauling	48.0	20.0	HHDT	545	Diesel	5.95	87,891
	Onsite Truck	44.0	3.50	HHDT	545	Diesel	5.95	14,099
Energy Storage System	Worker[5]	210	17.3	LDA,LDT1,LDT2	327	Gasoline	27.01	43,991
	Vendor	72.0	10.6	HHDT	327	Diesel	5.95	41,924
	Hauling	48.0	20.0	HHDT	327	Diesel	5.95	52,735
	Onsite Truck	0.00	—	HHDT	327	Diesel	5.95	--
Testing and Commissioning	Worker[3/]	60.0	17.3	LDA,LDT1,LDT2	523	Gasoline	27.01	20,103
	Vendor	72.0	10.6	HHDT	523	Diesel	5.95	67,053
	Hauling	48.0	20.0	HHDT	523	Diesel	5.95	84,343
	Onsite Truck	20.0	3.50	HHDT	523	Diesel	5.95	6,150
Underground Work	Worker[3/]	24.0	17.3	LDA,LDT1,LDT2	87	Gasoline	27.01	1,338
	Vendor	72.0	10.6	HHDT	87	Diesel	5.95	11,154
	Hauling	48.0	20.0	HHDT	87	Diesel	5.95	14,030
	Onsite Truck	20.0	3.50	HHDT	87	Diesel	5.95	1,023
General Management	Worker[3/]	100	17.3	LDA,LDT1,LDT2	741	Gasoline	27.01	47,470
	Vendor	0.00	10.6	HHDT,MHDT	741	Diesel	5.95	0
	Hauling	0.00	20.0	HHDT	741	Diesel	5.95	0
	Onsite Truck	—	—	HHDT	741	Diesel	5.95	--
Site Mobilization	Worker[3/]	30.0	17.3	LDA,LDT1,LDT2	65	Gasoline	27.01	1,249
	Vendor	0.00	10.6	HHDT,MHDT	65	Diesel	5.95	0
	Hauling	0.00	20.0	HHDT	65	Diesel	5.95	0
	Onsite Truck	0.00	—	HHDT	65	Diesel	5.95	--
						Total Gasoline Use for Workers		**453,657**
						Total Diesel Use for Trucks		**489,893**

Notes:
1/ LDA: Light Duty Auto; LDT: Light Duty Truck; HHDT: Heavy-Heavy Duty Truck and MHDT: Medium-Heavy Duty Truck
2/ Obtained from EMFAC emissions inventories of onroad mobile sources(https://arb.ca.gov/emfac/).
3/ Analysis assumes that construction worker trips are made by a fleet consisting of 25 percent light-duty auto (or passenger car), 50 percent light-duty truck type 1 (LDT1), and 25 percent light-duty truck type 2 (LDT2).

3.3 Operational Phase

Fuel consumption during the operational phase would result from emergency backup generators, employee vehicle trips, vendor deliveries, and additional employee vehicle trips for panel washing. Annual miles traveled are estimated to be 37,621 miles per year. Employee vehicle trips during operation and maintenance would require approximately 1,436 gallons of gasoline fuel per year. The estimated diesel fuel use for emergency backup generators and off highway trucks during operation and maintenance is approximately 55,050 gallons per year. Although the Project would increase gasoline and diesel fuel usage, worker vehicles would likely consume less energy as fuel efficiency standards are increased and vehicles are replaced over the Project's anticipated 35-year operational lifespan. Thus, operation-related fuel consumption at the Project would not result in inefficient, wasteful, or unnecessary energy use.

Table 3. Worker Fuel Consumption for Operation

Trip Type	One-Way Trips per Weekday	VMT/Weekday	Trips/Year	VMT/Year	Vehicle Mix[1/]	Fuel Type	Fuel Efficiency (miles/gallons)[2/]	Fuel Consumption (gallons/year)
Worker	12	144	3,129	37,621	CalEEMod Default	Gasoline	26.20	1,436

1/ Includes mix of light duty and medium duty vehicles.
2/ Obtained from EMFAC emissions inventories of on-road mobile sources (CARB 2024a).

Table 4. Off-Highway Trucks Fuel Consumption for Operation

Equipment Type	Number per Day	Hours Per Day	HP Rating	Load Factor	Work Days Per Year[1/]	Fuel Type	Fuel Consumption Rate (gallons/hp-hr)[2/, 3/]	Fuel Consumption (gallons/year)
Off-Highway Trucks	10.0	8.0	376	0.38	60	Diesel	0.051	34,659
Emergency Backup Generators	6.0	1.0	670	1.00	100[4/]	Diesel	0.051	20,391
Total Diesel Fuel								**55,050**

1/ Panel washing is expected to occur 2 times per year and would require approximately 15-30 days to complete per wash cycle.
2/ Obtained using the CARB Off-Road Web Platform (CARB 2024b).
3/ Fuel consumption rates for generator sets and other material handling equipment were obtained from AP-42 Table 3.3-1 (EPA 1996).
4/ Emergency backup generators are assumed to operate for 100 hours per year.

3.4 Compliance with State and Local Renewable Energy and Energy Efficiency Plans

3.4.1 Executive Order S-14-08

Executive Order S-14-08 was established by California Governor Schwarzenegger in November 2008. The order establishes a Renewables Portfolio Standard (RPS) for all retail sellers of electricity. The executive order includes the following:

- Requires retail sellers of electricity to serve 33 percent of their load with renewable energy by 2020;
- Requires various state agencies to streamline processes for the approval of new renewable energy facilities and determine priority renewable energy zones; and

- Establishes the requirement for the creation/adoption of the Desert Renewable Energy Conservation Plan process for the Mojave and Colorado Desert regions.

3.4.2 Climate Change Scoping Plan/ California's Renewable Portfolio Standard Program

First established in 2002 under Senate Bill (SB) 1078, California's RPS requires retail sellers of electric services to increase procurement from eligible renewable energy resources to 33 percent by 2020 and 60 percent by 2030 (CEC 2024b). In 2018, SB 100 further increased California's RPS and required retail sellers and local publicly owned electric utilities to procure eligible renewable electricity for 44 percent of retail sales by the end of 2024, 52 percent by the end of 2027, and 60 percent by the end of 2030; and that the California Air Resources Board (CARB) should plan for 100 percent of retail electricity to be supplied from eligible renewable energy and zero-carbon resources by the end of 2045. The California Public Utilities Commission and the CEC jointly implement the RPS program. The California Public Utilities Commission's responsibilities include: (1) determining annual procurement targets and enforcing compliance; (2) reviewing and approving each investor-owned utility's renewable energy procurement plan; (3) reviewing contracts for RPS-eligible energy; and (4) establishing the standard terms and conditions used in contracts for eligible renewable energy.

3.4.3 Senate Bill No. 100

SB 100 (De León, also known as the "California Renewables Portfolio Standard Program: emissions of greenhouse gases") was approved by the California legislature and signed by Governor Brown in September 2018. SB 100 increased the standards set forth in SB 350, establishing that 44 percent of the total electricity sold to retail customers in California per year by December 31, 2024, 52 percent by December 31, 2027, and 60 percent by December 31, 2030, be secured from qualifying renewable energy sources. SB 100 states that it is the State policy that eligible renewable energy resources and zero-carbon resources supply 100 percent of the retail sales of electricity to California by the end of 2045. This bill requires that the achievement of 100 percent zero-carbon electricity resources does not increase the carbon emissions elsewhere in the western grid of result from resource shuffling.

3.4.4 California Building Standards Code (California Code of Regulations, Title 24) of 2013, as amended in 2017

Part 6 of Title 24 of the California Code of Regulations was established in 1978 and serves to enhance and regulate California's building standards. Part 6 establishes energy efficiency standards for residential and non-residential buildings constructed in California to reduce energy demand and consumption. Part 6 is updated periodically (every 3 years) to incorporate and consider new energy efficiency technologies and methodologies. The 2016 Title 24 building energy efficiency standards, which became effective on January 1, 2017, further reduce energy used in California. In general, single-family homes built to the 2016 standards are anticipated to use approximately 28 percent less energy for lighting, heating, cooling, ventilation, and water heating than those built to the 2013 standards, and non-residential buildings built to the 2016 standards will use an estimated 5 percent less energy than those built to the 2013 standards. The 2019 Title 24 standards were approved and adopted by the California Building Standards Commission in December 2018. The 2019 standards became effective January 1, 2020. The standards require that all low-rise residential buildings have a PV system meeting the minimum qualification requirements such that annual electrical output is greater

than or equal to the dwelling's annual electrical usage. Notably, net energy metering rules limit residential rooftop solar generation to produce no more electricity than the home is expected to consume on an annual basis. Single-family homes built with the 2019 standards will use about 7 percent less energy due to energy efficiency measures than those built under the 2016 standards, while new non-residential buildings built with the 2019 standards will use about 30 percent less energy than those built under the 2016 standards.

3.4.5 Assembly Bill 32, the California Global Warming Solutions Act of 2006

Assembly Bill 32 requires CARB to design and implement emission limits, regulations, and other measures such that statewide greenhouse gas emissions are reduced to 1990 levels by 2020 in a technologically feasible and cost-effective manner. The statewide 2020 emissions limit is 431 million metric tons CO_2 equivalent (CO_2e); CO_2 emissions account for approximately 90 percent of this value. These goals were extended in 2016 with the adoption of SB 32, which requires the reduction of statewide greenhouse gas emissions by 40 percent below 1990 levels by 2030.

CARB adopted the 2022 Scoping Plan (CARB 2022) on December 15, 2022. The plan extends and expands upon earlier plans by providing measures to achieve targets for carbon neutrality and reduce anthropogenic greenhouse gas emissions by 85 percent below 1990 levels by 2045. The 2022 Scoping Plan relies on existing and emerging fossil fuel alternatives and clean technologies, as well as carbon capture and storage to achieve these targets.

On October 20, 2011, as part of its ongoing implementation of Assembly Bill 32, CARB adopted regulations to implement a cap-and-trade program for greenhouse gas emissions. CARB has specifically exempted from any compliance obligation a series of listed fuel types that have been demonstrated to be carbon neutral or carbon negative.

3.4.6 Kern County General Plan

3.4.6.1 Chapter 1: Land Use, Open Space, and Conservation Element

Section 1.9: Resources

Goal 4: Encourage safe and orderly energy development within the County, including research and demonstration projects, and to become actively involved in the decision and actions of other agencies as they affect energy development in Kern County.

3.4.6.2 Chapter 5: Energy Element

Section 5.4.5: Solar Energy Development

Goal 1: Encourage safe and orderly commercial solar development.

Policy 1: The County shall encourage domestic and commercial solar energy uses to conserve fossil fuels and improve air quality.

Policy 3: The County should permit solar energy development in the desert and valley planning regions that does not pose significant environmental or public health and safety hazards.

3.4.7 Soledad Mountain Elephant Butte Specific Plan

The Soledad Mountain Elephant Butte Specific Plan addresses issues of importance in the area by stating goals, policies, implementation measures, and general provisions specific to the area (Kern County 1973). There are no goals, policies, or implementation measures in the Soledad Mountain Elephant Butte Specific Plan that are applicable to energy. In Kern County, specific plans are used to implement goals, objectives, and policies of the General Plan in a more detailed and refined manner unique to a smaller area of the County. Since there are no applicable goals, policies, or implementation measures within the Soledad Mountain Elephant Butte Specific Plan, refer to the applicable policies and goals of the Kern County General Plan above.

3.4.8 Project Consistency with Energy Plans and Policies

Construction equipment would comply with federal, State, and regional requirements where applicable. The Project would include the development of a solar facility and associated infrastructure with the capacity to generate up to 1,400 MW of renewable electric energy and the installation of an energy storage facility and accessories that would provide energy storage capacity of up to 8 GWh for the electrical grid. The Project and other similar projects are essential to achieving the RPS. The Project is reasonably expected to displace region-wide and statewide emissions of greenhouse gases over the expected life of the Project. The reduction in greenhouse gas emissions is a direct result of increasing the share of renewable energy available to investor-owned utilities required to meet RPS. The Project directly aligns with the goals of RPS. Additionally, any buildings constructed as part of the Project would meet the Title 24 standards to reduce energy demand and increase energy efficiency. The Project would support implementation of the Kern County General Plan (Kern County 2009) and Soledad Mountain Elephant Butte Specific Plan (Kern County 1973) that encourage solar development, reduce use of fossil fuels, and promote energy conservation. For these reasons, the Project would be consistent with all applicable energy plans and policies.

4.0 CONCLUSION

Project construction is estimated to result in the consumption of approximately 960,228 gallons of diesel and 562,169 gallons of gasoline, while Project operations are estimated to result in a yearly consumption of approximately 55,050 of diesel and 1,436 gallons of gasoline. Once operational, the Project would generate up to 1,400 MW of carbon-free electricity with up to 8 GWh of energy storage capacity (approximately 1,000 MW). Based on the assumption that Project decommissioning will use similar equipment and vehicles as construction, it is projected that approximately 960,228 gallons of diesel and 562,169 gallons of gasoline will be consumed during decommissioning. Therefore, the Project would not result in wasteful, inefficient, or unnecessary consumption of energy resources. Furthermore, the Project is consistent with and would not conflict with or obstruct a State or local plan for renewable energy and would help California meet its renewable energy and greenhouse gas emission reduction goals.

5.0 REFERENCES

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Appendix G
Geologic Studies

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Appendix G1
Preliminary Geologic CEQA Report

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Discovery Solar

Preliminary Geologic CEQA Report

July 7, 2025 | Terracon Project No. LA225042

Prepared for:

Discovery Solar PV and Storage, LLC c/o Terra-Gen, LLC
11512 El Camino Real, Ste 370
San Diego, California 92130



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July 7, 2025

Discovery Solar PV and Storage, LLC c/o Terra-Gen, LLC
11512 El Camino Real, Ste 370
San Diego, California 92130

Attn: Ms. Bernadette Jendrusch
P: (303) 720-1708
E: BJendrusch@terra-gen.com

Re: Preliminary Geologic CEQA Report
Discovery Solar
Mojave, Kern County, California
Terracon Project No. LA225042

Dear Ms. Jendrusch:

We have completed the scope of Preliminary Geologic CEQA Report for the above referenced project. Terracon previously issued a Draft Geotechnical Engineering Report for this project dated March 28, 2024. This report presents geologic information regarding the proposed solar development to support California Environmental Quality Act reports and submittals being prepared by others. Revisions to a prior version of this document, based on comments from Kern County Planning, are incorporated herein.

We appreciate the opportunity to be of service to you on this project. If you have any questions concerning this report or if we may be of further service, please contact us.

Sincerely,

Terracon

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Principal Engineer

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Regional Fault Map A-004

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1. Executive Summary

Item	Overview Statement
Shallow Bedrock	Relatively shallow refusal was encountered at two boring locations B-86 and B-169 at 14 and 16½ ft below ground surface. However, shallow refusal was not observed in the remaining exploration locations within the upper 51½ ft of explored depth. Based on the exploration results obtained for this project and review of the publicly available database from USGS, shallow bedrock is not anticipated at the site.
Shallow Groundwater	Shallow groundwater was not encountered at the site. Groundwater is not anticipated within the upper 50 feet.
Liquefaction and Related Hazards	Based on the anticipated depth to historic groundwater and encountered subsurface conditions, liquefaction hazard potential at the site is considered to be low. Other hazards related to liquefaction, such as lateral spreading, are also considered low.
Karst	Karst is not a design concern at this site.
Frost Potential	Frost susceptibility and adfreeze forces are not anticipated at the site.
Expansive Soils	Expansive soils were not observed at the site and are not anticipated to be a design concern.
Mineral Resources	The project is not within an area assessed by California Department of Conservation for aggregate resources.1 Open pit mining has been historically active in nearby areas southeast of the project area but not within the noted project limits.
Collapsible Soils	Near-surface collapsible soils were encountered at the site within the substation area. Mitigative measures including over-excavation and re-compaction are provided in **Collapsible Soils**. Collapsible soils are not anticipated to adversely affect performance of driven steel piles or drilled piers.

[1] **https://maps.conservation.ca.gov/cgs/informationwarehouse/index.html?map=mlc**

2. Introduction

The Project includes development of a photovoltaic (PV) solar facility and associated infrastructure necessary to generate up to 1,400 megawatts (MW) of renewable electrical energy with up to 8 gigawatt-hours of energy storage capacity (approximately 1,000 MW) on an approximately 7,700-acre Project site in an unincorporated area of southeastern Kern County, California (Figure 1). PV solar panels, a power collection system, including medium-voltage lines that connect the solar facilities, inverters, a switchyard, foundations, and transformers will be installed onsite. Associated Project infrastructure includes an operations and maintenance facility, telecommunication facilities, energy storage system(s),up to three onsite collector substations, interconnection and transmission systems, and temporary laydown yards. The Project may be constructed in multiple phases.

The Project will interconnect to the existing Windhub Substation, which is owned and operated by Southern California Edison (SCE). The interconnection will be via a newly constructed 230-kilovolt (kV) generation tie line (gen-tie) that will extend north from the Project site towards the Windhub Substation from on-site collector substations. A portion of the Project 230-kV gen-tie would be co-located within an existing gen-tie corridor (controlled by the Applicant and/or its affiliates). A high-voltage switchyard located immediately north of the Union Pacific Railroad (UPRR) rail line will also be constructed.

The Project is located in an unincorporated area in southeastern Kern County, on generally undeveloped and privately owned land, along the northern edge of the Antelope Valley. The Project site is located approximately 6 miles southwest of the unincorporated community of Mojave, approximately 9 miles southeast of the city of Tehachapi, and approximately 8 miles northwest of the unincorporated community of Rosamond. State Route (SR)-58 is north of the Project site, SR-14 is east of the Project site, and Tehachapi Willow-Springs Road runs between the Project site's boundaries (Figure 1). A network of existing named and unnamed dirt roads traverses the Project site. While the Los Angeles Department of Water and Power (LADWP) aqueduct roughly bisects the Project site, it is not included within the Project site (Figures 2 and 3). On-site, adjacent, and nearby land uses include renewable energy development, rural residential development, livestock grazing, heavy industrial and mining uses, and undeveloped lands. Elevations across the Project site are relatively flat, ranging from approximately 2,520 to 2,750 feet above mean sea level. The Project site is located within the U.S. Geological Survey (USGS) Monolith, Willow Springs, and Soledad Mountain 7.5-Minute Topographic Quadrangle Maps.The purpose of this report is to evaluate potential for existing environmental impacts related to geologic conditions to affect the project area or nearby areas, and to present measures which can be implemented in the design and development of the project to reduce or mitigate these potential impacts.

3. Scope of Services

Our scope of services included the following:

- Reviewing readily available background materials, including geologic maps, aerial photographs, topographic data, and hazard maps.
- Compiling and analyzing of the findings from our background review.
- Preparation of this preliminary report presenting our findings, conclusions, and preliminary recommendations regarding potential geologic and soil impacts at the site. The findings were evaluated with respect to questions A through E listed in Section 6, "Geology and Soils" within Appendix G, "Environmental Checklist Form" of the "Guidelines for Implementation of California Environmental Quality Act (CEQA)."

4. Regulatory Framework

Geologic resources and geotechnical hazards within the proposed project area are governed by Kern County and the State of California. The site is also governed by the regulations of the California Code of Regulations (CCR), 2022 California Building Code (CBC) as administered by the California Building Standards Commission (CBSC).

5. Site and Project Description

Terracon should be notified if any of the above information is inconsistent with the planned construction, as modifications to our recommendations may be necessary.

Item	Description
Parcel Information	The project site is located at Mojave, Kern County, California and is approximately 7,000 acres in size. The proposed project will occupy multiple irregularly shaped parcels. Coordinates near the approximate center of site areas are: ***West side of Aqueduct Road:*** North parcel: 35.0068°N, 118.3211°W. Northeast parcel: 35.0054°N, 118.2909°W. Central parcel: 34.9893°N, 118.3059°W. South parcel: 34.9739°N, 118.3185°W. West parcel: 34.9753°N, 118.3370°W Southwest parcel: 34.9520°N, 118.3427°W ***East side of Aqueduct Road:*** Central-East parcel: 34.9838°N, 118.2573°W. Central-West parcel: 34.9777°N, 118.2882°W. See **Site Location**
Information Provided	The following information was provided to Terracon: ▪ Google Earth KMZ with array layout. ▪ Google Earth KMZ with BESS and substation locations. ▪ Google Earth KMZ with scour area and depths. The KMZ indicated potential scour depths on the order of 1 to 2 feet. ▪ Preliminary Pile Load Test Report, High Scour Areas – Enterprise B Solar, Mojave, Kern County, California, Terracon Project No. LA225042 dated October 25, 2022. ▪ Draft Geotechnical Engineering Report, Discovery Solar, Mojave, Kern County, California, Terracon Project No. LA225042, dated March 28, 2024. **References to boring or explorations throughout this report refer to these preliminary and draft reports.**

6. Geologic and Subsurface Conditions

Our findings regarding geologic setting, site geology, subsurface conditions, and groundwater conditions at the subject site are provided in the following sections.

6.1. Regional Geologic Setting

The site is located in the Mojave Desert portion of Kern County, southwest of the community of Mojave, southeast of the Tehachapi Mountains. The Mojave Desert is characterized by broad alluviated basins that receive sediments from adjacent uplands that bury the older topography. Hills and playa lakes are a common feature of the region, including Rosamond Lake to the southeast of the site.

The western-most Mojave Desert consists of a structural block bounded on the southwest by the San Andreas fault and on the north by the Garlock fault. A complex intersection of these faults occurs in Gorman, approximately 34 miles southwest of the site. The active Garlock fault is mapped approximately 3.2 miles northwest of the site. The Garlock fault is included within an Alquist-Priolo Earthquake Fault Zone (APEFZ) designated for traces of potential primary surface fault rupture.

Hazardous faults with the potential for surface ground rupture are not mapped within or projecting toward the site. Ground rupture due to active faulting is not expected within the proposed infrastructure area. Therefore, no fault investigation of the site associated hazardous faults is recommended.

Review of site conditions and the explorations confirms the presence of sands and silty sands in the native alluvium. A relatively small area of the northwest and southeastern portions of the site is mapped as quartz monzonite bedrock at the surface. Bedrock was not encountered in the majority of site exploratory borings and test pits. However, CPT-5, CPT-6 and CPT-7 encountered refusal at approximately 8 feet, 6.6 feet, and 9 feet bgs, consistent with the geologic maps indicating a very dense soil or weathered bedrock condition. Boring B-37, located near an area of mapped quartz monzonite outcrop, did not record bedrock within the 21.5-foot completed depth. Therefore, the majority of the site is expected to be underlain by alluvial sediments of varying density.

6.2. Site Geology

Based on our review of published geologic maps, our site explorations, and explorations, surficial materials at the project site consist of fill, alluvial soils, aeolian soils and granitic rock. A brief description of these units is presented below.

6.2.1. Fill

Fill materials associated with existing roadways and utilities are anticipated to be present within the project area.

6.2.2. Alluvium

Alluvium of two relative ages, as mapped by Dibblee (1967) and derived from highland areas northwest of the site, form the majority of surficial materials across the project area. Alluvium (map unit Qa) is comprised of undissected, unconsolidated sand, silt and gravel. Fanglomerate (map unit Qoa) is comprised of gravel, sand, silt and clay - mostly of granitic detritus.

6.2.3. Eolian

Eolian sands (map unit Qs) are mapped in a small area along the southeastern margin of the project area and are described as windblown sand, groundcover, and dunes.

6.2.4. Granitic Rock

Quartz Monzonite bedrock is mapped as outcrops in very limited areas in the northwest and southeast portions of the project area. CPT-5, CPT-6 and CPT-7 encountered refusal at approximately 8 feet, 6.6 feet, and 9 feet bgs, consistent with a shallow bedrock condition and the geologic maps. Boring B-37, located near an area of mapped quartz monzonite outcrop, did not record bedrock within the 21.5-foot completed depth.

6.3. Groundwater

Groundwater was not observed in the borings and test pits while drilling/excavation, or for the short duration the boring/test pits remained open to a maximum explored depth of 51½ feet.

Based on data obtained from well 11N13W29M001S located ½-mile on north of the project boundary for the time period between 1974 to 2010[2] and observation well 10N14W24A001S located about 1½-mile on south of the project boundary for the time

[2] https://wdl.water.ca.gov/WaterDataLibrary/GroundwaterBrowseData.aspx?SelectedCounties=&SiteCode=350153N1182924W001&LocalWellNumber=&StationId=10701&SelectedGWBasins=&StateWellNumber=11N13W29M001S

period between 1980 to 2006[3], historical groundwater depth at the site is anticipated to be deeper than 50 feet bgs.

As such, groundwater is not anticipated to occur within the depth of excavations or foundation installations at the site.

These observations represent groundwater conditions at the time of the field exploration and may not be indicative of other times, or at other locations.

Groundwater conditions may change because of seasonal variations in rainfall, runoff, and other conditions not apparent at the time of exploration. Therefore, groundwater levels during construction or at other times may be higher or lower than expected.

7. Geologic Hazards

In general, potential geologic hazards at the site include strong ground shaking (seismicity) as related to seismic design of structures. These considerations and other geologic hazards including faults, liquefaction, landsliding, slope failure, and tsunamis, are discussed in the following sections.

7.1. Faulting and Seismicity

The site is located in Southern California, which is a region of moderate to high seismic activity. The type and magnitude of seismic hazards affecting the site are dependent on the distance to causative faults, the intensity, and the magnitude of the seismic event. Seismic design parameters were provided for several site areas in the reference draft Geotechnical report. As estimated using the USGS Unified Hazard Tool for the location of the Summer Substation (site class 'C'), the Garlock and San Andreas faults, are considered to have the most significant effect at the site from a design standpoint. Based on the USGS deaggregation for peak ground acceleration (PGA), these faults are assigned earthquake magnitudes of 7.69 and 8.07, respectively for distances of 10 kilometers and 39 kilometers from the Summer Substation Area.

Based on the USGS Unified Hazard Tool, deaggregated mean and modal PGA of 7.03 and 7.71, respectively, are estimated for the Summer Substation.

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3 https://wdl.water.ca.gov/WaterDataLibrary/GroundwaterBrowseData.aspx?SelectedCounties=&SiteCode=349475N1183107W001&LocalWellNumber=&StationId=14366&SelectedGWBasins=&StateWellNumber=10N14W24A001S

In general, hazards associated with seismic activity may include ground surface rupture, strong ground motion, liquefaction and tsunamis. These hazards are discussed in the following sections.

7.1.1. Ground Rupture

The site is not located within an Alquist-Priolo Earthquake Fault Zone based on our review of the State Fault Hazard Maps.[4] Ground surface rupture due to active faulting is not considered likely in the project area due to the absence of known active faults underlying the site.

7.1.2. Strong Ground Motion

The 2022 California Building Code (CBC) specifies that the Risk-Targeted Maximum considered earthquake (MCER) ground motion response accelerations be used to evaluate seismic loads for design of buildings and other structures. The MCER ground motion response accelerations are based on the spectral response accelerations for 5 percent damping in the direction of maximum horizontal response and incorporate a target risk for structural collapse equivalent to 1 percent in 50 years with deterministic limits for near-source effects. The horizontal peak ground acceleration that corresponds to the MCER for the site was calculated as 0.46g using the United States Geological Survey (USGS, 2022b) seismic design tool (web-based). Spectral response acceleration parameters, consistent with the 2022 CBC, are also provided in the recommendations section of this report for the evaluation of seismic loads on buildings and other structures.

The 2022 CBC specifies that the potential for liquefaction and soil strength loss be evaluated, where applicable, for the Maximum Considered Earthquake Geometric Mean (MCEG) peak ground acceleration with adjustment for site class effects in accordance with the American Society of Civil Engineers (ASCE) 7-16 Standard. The MCEG peak ground acceleration is based on the geometric mean peak ground acceleration with a 2 percent probability of exceedance in 50 years. The MCEG peak ground acceleration with adjustment for site class effects (PGA_M) was calculated as 0.52g using the USGS (USGS, 2022b) seismic design tool that yielded a mapped MCEG peak ground acceleration of 0.46g for the site and a site coefficient (FPGA) of 1.145 for Site Class D.

The following table summarizes selected seismic events in the project region.

[4] https://maps.conservation.ca.gov/cgs/informationwarehouse/regulatorymaps/

Date	Distance from Site (miles)	Direction	Magnitude
7-21-1952	9.5	NW	5.2
7-11-1992	18	NE	5.7
1-10-1857	24	SW	5.6
1-17-1857	34	SSE	6.3
7-21-1952	35	W	7.5
2-29-1971	35	S	6.6
12-8-1812	53	SE	7.5
10-1-1987	60	SSE	5.9
7-6-2019	64	NE	7.1
7-4-2019	64	NE	6.4
1-1-1821	88	WSW	6.3
1-9-1857	125	NW	7.9

A search of the USGS earthquake catalog[5] for earthquakes of magnitude 4.5 or greater within 150 kilometers of the approximate project center returned 330 results including 3 events of magnitude 7 or greater, 13 events of magnitude 6 to 7, 98 events of magnitude 5 to 6, and 216 events of magnitude 4.5 to 5.

Based on the seismic setting and history of the greater Southern California and Eastern Mojave Desert regions, a potential exists for strong ground shaking to occur within the lifetime of the proposed project. Seismic shaking hazard can be addressed by application of building code provisions that consider building use and type, geographic location, site geologic conditions, and distance to seismic sources.

As noted, the nearest known active fault is the western section of the Garlock Fault, located approximately 3.2 miles northwest of the project area. Table 1 below lists principal active faults that may affect the subject site, the maximum moment magnitude (Mmax) and the site to fault distance.

[5] **https://earthquake.usgs.gov/earthquakes/search/**

Fault	Distance to project (miles)	Direction	Magnitude[6]
San Andreas	16.8	S	8.18
Garlock	3.2	NW	7.73
White Wolf	23	NW	7.14
Helendale	48	ESE	7.39
Lenwood-Lockhart	30	ENE	7.5
Kern Canyon	32	N	7.06
San Cayetano	43	SW	7.16
North Frontal	71	SE	7.16

7.1.3. Liquefaction and Seismically Induced Settlement

Liquefaction is a mode of ground failure that results from the generation of high porewater pressures during earthquake ground shaking, causing loss of shear strength. Liquefaction is typically a hazard where loose sandy soils exist below groundwater. The California Geological Survey (CGS) has designated certain areas as potential liquefaction hazard zones. These are areas considered at a risk of liquefaction-related ground failure during a seismic event, based upon mapped surficial deposits and the presence of a relatively shallow water table.

The site has not been mapped for liquefaction hazard by the California Geologic Survey. Based on the anticipated depth to historic groundwater, subsurface conditions encountered, and the Kern County GIS, liquefaction hazard potential at the site is considered to be low. Other hazards related to liquefaction, such as lateral spreading, are also considered low.

7.1.4. Tsunamis and Seiches

Tsunamis are long wavelength seismic sea waves (long compared to the ocean depth) generated by sudden movements of the ocean bottom during submarine earthquakes, landslides, or volcanic activity. Due to the inland location of the site, there is no potential for a tsunami to affect the site.

[6] **https://usgs.maps.arcgis.com/apps/webappviewer/index.html**

7.2. Landsliding and Slope Failure

Based on our review of published geologic literature, aerial photographs, and our site reconnaissance, no landslides or related features are known to underlie or be adjacent to the project site. Therefore, the potential for landslides at the project is considered low.

Global slope stability is not anticipated to be a design consideration at the project due to the relatively flat topography of the project area.

7.3. Regional Land Subsidence

Land subsidence is characterized as a shrinking of the ground surface relative to surrounding areas, and can generally occur where deep alluvial deposits are present in valley areas. Subsidence in alluvial valley areas is typically associated with groundwater withdrawal or other fluid withdrawal from the subsurface such as oil and/or natural gas. Extraction of these geologic fluids can cause subsidence, which can result in the development of surface ground cracks and fissures, particularly near valley margins. Cracks and earth fissures can cause damage to improvements including roads, transmission lines, foundations, structures, and pipelines. Review of the USGS report "Groundwater-Flow and Land-Subsidence Model of Antelope Valley" prepared in 2014, indicates that up to 6.6 feet of land subsidence occurred in the region from 1930 to 1992 as a result of groundwater withdrawal. This land subsidence primarily occurred to the southeast of the project site near the cities of Rosamond and Lancaster. No land subsidence has been reported in the project area.

During our site exploration, we did not observe ground cracks or earth fissures. We note however, that the site generally consists of loose surficial soils that may conceal underlying cracks or fissures.

7.4. Flood Hazards

Based on our review of the Federal Emergency Management Agency (FEMA) Mapping Information Platform website (2016), drainage channels cross the project site that are mapped as Special Flood Hazard Areas subject to inundation by the 1 percent annual chance flood. Portions of the project site are located within mapped 100-year floodways. Based on review of the flood maps and the elevation of the site, the potential for significant flooding to impact the project is considered to be a project constraint.

Based on the Kern County Emergency Operations Plan, the potential for inundation due to seismically-induced dam failure is not considered a project constraint.

7.5. Expansive Soils

Expansive soils generally result from specific clay minerals that have the capacity to shrink or swell in response to changes in moisture content. Shrinking or swelling of foundation soils can lead to damage to slabs, foundations, and other engineered structures, including tilting and cracking. Based on the draft geotechnical report for the site (Terracon, 2024), the site soils in project area have a low potential for expansion.

7.6. Corrosive Soils

The table below lists the results of laboratory pH, soluble sulfate, sulfides, soluble chloride, total salts, oxidation-reduction potential (redox), and laboratory electrical resistivity testing. The values may be used to estimate potential corrosive characteristics of the on-site soils with respect to contact with the various underground materials which will be used for project construction.

Corrosivity Test Results Summary

Parameter	Number of Tests	Min.	Max.	Average
pH	110	6.69	9.05	7.96
Water Soluble Sulfate (percent %)	110	<0.01	0.01	<0.01
Sulfides (mg/kg)	110	Nil	Nil	Nil
Soluble Chloride (mg/kg)	110	12	62	32.66
Total Salts (mg/kg)	110	63	509	210
Redox (mV)	110	300	737	559
Saturated Minimum Electrical Resistivity (Ω-cm)	110	1,005	29,000	5,563

Results of soluble sulfate testing can be classified in accordance with ACI 318 – Building Code Requirements for Structural Concrete. Based on review of ACI 318, soluble sulfate testing indicates samples of the on-site soils tested have sulfate concentrations ranging from exposure class S0 when classified in accordance with Table 19.3.1.1 of the ACI Design Manual. Concrete should be designed in accordance with the exposure class provisions of the ACI Design Manual, Section 318, Chapter 19.

Numerous sources are available to characterize corrosion potential to buried metals using the parameters above. Section 10.7.5 of the AASHTO LRFD Bridge Manual, 8th Edition, 2017, states the following soil or site conditions should be considered as indicative of potential deterioration or corrosion situation for steel piles:

- Soil electrical resistivity less than 2,000 ohm-cm
- Ph less than 5.5
- Ph between 5.5 and 8.5 with high organic content
- Sulfate concentration greater than 1,000 ppm (mg/kg)

These test results are provided to assist in determining the type and degree of corrosion protection that may be required. We recommend that a NACE certified corrosion professional be retained to analyze the need for corrosion protection and to design appropriate protective measures, if required.

7.7. Agricultural Soils

Based on the interactive map using the Web Soil Survey website (USDA, 2017), eight different soil units have been noted on the project site. These soils types include: Arizo Gravelly Loamy Sand, Cajon Sand, Cajon Loamy Sand, Cajon Gravelly Loamy Sand, Garlock Loamy Sand, Rosamond Clay Loam, Torriorthents-Rock Outcrop Complex, and general Rock Outcrops. Based on wind and water erosion and the surrounding paved and unpaved roadways, preexisting native soils are anticipated to have been removed and/or disturbed on the project site.

7.8. Mineral Resources

According to CGS Open-File Report OFR 99-15, Plate 21, portions of the southeastern project area lie within areas classified as mineral resource zones MRZ-3a or -3b defined as 'areas of known or inferred mineral occurrence with undetermined mineral resource significance' related to potential gold occurrences.

The project is not within an area assessed by California Department of Conservation for aggregate resources.[7] Open pit mining has been historically active in nearby areas southeast of the project area but not within the noted project limits.

[7] **https://maps.conservation.ca.gov/cgs/informationwarehouse/index.html?map=mlc**

8. Conclusions

Based on our review of the referenced background data, it is our opinion that geologic and geotechnical considerations at the project site include the following:

- Surface and near-surface soils at the project are mapped as alluvium. Fill materials associated with the construction of the existing roadways and utilities are also anticipated to be present at the project site. Geotechnical constraints related to soils at the project are:
    - Soft Ground – Areas with soft ground or loose soils can be found at the ground surface. In addition, surficial soils are susceptible to wind and water erosion.
    - Expansive Soils – The project soils are expected to have a low potential for expansion.
    - Collapsible Soils – The project soils in portions of the site may have low to moderate collapse potential in the upper 5 feet. These conditions have minor impact on the design and are typically mitigated with remedial grading to remove and replace potentially collapsible soils beneath shallow concrete foundations.
    - Fill Soils – Man-made fill soils placed without engineering supervision may be loosely or inadequately compacted, may contain oversize materials unsuitable for reuse in engineered fills, and may contain unsuitable organic or expansive materials and debris that may preclude their use in engineered fills.
- The depth to groundwater in the project area is anticipated to be deeper than 50 feet bgs.
- The closest known major active fault is the western Garlock segment of the Garlock Fault, which is located approximately 3.2 miles northwest of the northern edge of the project area.

Geotechnical constraints related to faulting and seismic events at the project are:

- Ground Shaking – The project has a moderate to high potential for strong ground motions due to earthquakes on nearby active faults.
- Liquefaction – Liquefaction is not anticipated to be a design consideration due to the absence of shallow groundwater at the project site. Alluvial soils situated both above and below groundwater may be susceptible to seismic settlement as a result of a nearby seismic event.

- The potential for landsliding in the project area is considered low.
- Dam inundation is not considered a project constraint.
- Based on the previous geotechnical report for the site (Earth Systems Southwest, 2009), the site soils are anticipated to be corrosive to buried metal pipes and concrete. Based on previous work in the project area, some soils at the project site may be expansive and corrosive.

The conditions described above would increase the cost and duration of grading and construction of the project, but would not preclude development of the project.

9. Preliminary Recommendations

Based on the geologic and geotechnical considerations at the project site presented in the previous sections and encountered in our study, our preliminary recommendations are presented below. These preliminary recommendations assume that further geotechnical evaluation, including subsurface evaluation and laboratory testing, will be conducted prior to finalization of project plans and that more specific recommendations will be provided at that time.

Item	Overview Statement [1]
Pile Drivability	Cobbles were encountered throughout the site within test pits to a maximum excavated depth of 10 feet below existing site grades (bgs). Furthermore, driving refusal occurred at 9 and 7 feet at pile load test locations PLT-24 and PLT-70, respectively. Based on the presence of cobbles and refusal encountered at the abovementioned locations, pile driving difficulty should be anticipated in between our test locations in areas of more dense concentrations of cobbles. Terracon recommends the design team and contractor prepare a pile mitigation protocol prior to the start of construction to clarify tolerances and procedures.
Shallow Bedrock	Relatively shallow refusal was encountered at two boring locations B-86 and B-169 at 14 and 16½ ft below ground surface. However, shallow refusal was not observed in the remaining exploration locations within the upper 51½ ft of explored depth. Based on the exploration results obtained for this project and review of the publicly available database from USGS, shallow bedrock is not anticipated at the site.
Shallow Groundwater	Shallow groundwater was not encountered at the site. Groundwater is not anticipated within the upper 50 feet.

Liquefaction and Related Hazards	Based on the anticipated depth to historic groundwater and encountered subsurface conditions, liquefaction hazard potential at the site is considered to be low. Other hazards related to liquefaction, such as lateral spreading, are also considered low.
Karst	Karst is not a concern at this site.
Frost Potential	Frost susceptibility is not anticipated at the site.
Expansive Soils	Expansive soils were not observed at the site.
Collapsible Soils	Near-surface collapsible soils were encountered at the site within the substation area. Due to the collapse potential of near surface soils, structures supported on a shallow foundation system should bear on engineered fill extending to a minimum depth of 3 feet below the bottom of foundation, or 5 feet below existing site grades, whichever is greater. Collapsible soils are not anticipated to adversely affect performance of driven steel piles or drilled piers.

1. This summary is for convenience only. It should be used in conjunction with the entire report for design purposes.

10. Impact Analysis

Based upon the results of our geologic reconnaissance, our findings, conclusions, and recommendations regarding potential geological impacts to the project are summarized in the following sections.

10.1. Significance Thresholds

In evaluating the significance of potential environmental concerns in a particular study area, the criteria to consider, as they relate to geologic and soil conditions, are presented in the CEQA Guidelines. In accordance with the scope of work, the findings of this study were evaluated with respect to Questions A through F of Section 7 "Geology and Soils" with Appendix G of the CEQA Guidelines (2023).

10.2. Project Impacts and Significance

Based on the above criteria and the results of the evaluation, the potential impact by geologic and soil conditions at the project have been identified, and are discussed below.

A. Would the project expose people or structures to potential substantial adverse effects, including the risk of loss, injury or death involving:

i. ***Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map, issued by the State Geologist for the area or based on other substantial evidence of a known fault? Refer to Division of Mines and Geology Special Publication 42.***

The potential for ground surface rupture due to active faulting is considered low in the project area due to the absence of known active faults underlying the site or projected towards the site. However, lurching or cracking of the ground surface as a result of nearby seismic events is possible. Mitigation of the potential impacts of fault rupture can be achieved through project design.

ii. Strong seismic ground shaking?

The project has a moderate potential for strong ground motions due to earthquakes on nearby active faults. Mitigation of the potential impacts of strong seismic shaking can be achieved through project design that incorporates recommendations from a site-specific geotechnical evaluation.

iii. Seismic related ground failure, including liquefaction?

Based on the absence of shallow groundwater at the site, it is our opinion that the potential for liquefaction over the majority of the project site is not a design consideration. The potential for liquefaction should be evaluated further.. Mitigation of the potential impacts of seismic related ground failure can be achieved through project design that incorporates recommendations from a site-specific geotechnical evaluation.

iv. Landslides?

Geologic mapping does not indicate the presence of mapped landslides on the project site. Additionally, landslides were not observed on or adjacent to the project. Therefore, the potential for existing landslides is considered low .

B. Would the project result in substantial soil erosion or the loss of topsoil?

If the site is developed in accordance with current building codes and industry standards, the potential for substantial soil erosion is considered to be low.

C. Would the project be located on a geologic unit or soil that is unstable or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction or collapse?

The alluvial deposits underlying the site may be subject to seismic settlement or liquefaction during a nearby seismic event. The site is not considered prone to landsliding or slope instability issues. Based on these items, we consider this impact to be less than significant with mitigation incorporated. Land subsidence may cause ground cracks or earth fissures which may lead to damage to foundations and engineered structures. The proposed structures should be designed to accommodate vertical movement associated with long-term ground subsidence. Remedial grading beneath proposed shallow concrete foundations is a typical measure to mitigate near surface collapse potential.

D. Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial direct or indirect risks to life or property?

The soils on the project site are expected to have a low expansion potential, we consider this impact to be less than significant.

E. Have soils incapable of adequately supporting the use of septic tanks or alternative waste water disposal systems where sewers are not available for the disposal of waste water?

The soils on the project site are expected to be able to support adequately designed septic tanks or alternative waste water disposal systems. We consider this impact to be less than significant with mitigation incorporated. Mitigation of the potential impacts of inadequate soils can be achieved through project design that incorporates recommendations from a site-specific geotechnical evaluation.

11. Limitations

Our analysis and opinions are based upon our understanding of the project, the geotechnical conditions in the area, and the data obtained from our site exploration. Variations will occur between exploration point locations or due to the modifying effects of construction or weather. The nature and extent of such variations may not become evident until during or after construction. Terracon should be retained as the Geotechnical Engineer, where noted in this report, to provide observation and testing services during pertinent construction phases. If variations appear, we can provide further evaluation and supplemental recommendations. If variations are noted in the absence of our observation and testing services on-site, we should be immediately notified so that we can provide evaluation and supplemental recommendations.

Our Scope of Services does not include either specifically or by implication any environmental or biological (e.g., mold, fungi, bacteria) assessment of the site or identification or prevention of pollutants, hazardous materials or conditions. If the owner

is concerned about the potential for such contamination or pollution, other studies should be undertaken.

Our services and any correspondence are intended for the sole benefit and exclusive use of our client for specific application to the project discussed and are accomplished in accordance with generally accepted geotechnical engineering practices with no third-party beneficiaries intended. Any third-party access to services or correspondence is solely for information purposes to support the services provided by Terracon to our client. Reliance upon the services and any work product is limited to our client and is not intended for third parties. Any use or reliance of the provided information by third parties is done solely at their own risk. No warranties, either express or implied, are intended or made.

Site characteristics as provided are for design purposes and not to estimate excavation cost. Any use of our report in that regard is done at the sole risk of the excavating cost estimator as there may be variations on the site that are not apparent in the data that could significantly affect excavation cost. Any parties charged with estimating excavation costs should seek their own site characterization for specific purposes to obtain the specific level of detail necessary for costing. Site safety and cost estimating including excavation support and dewatering requirements/design are the responsibility of others. Construction and site development have the potential to affect adjacent properties. Such impacts can include damages due to vibration, modification of groundwater/surface water flow during construction, foundation movement due to undermining or subsidence from excavation, as well as noise or air quality concerns. Evaluation of these items on nearby properties are commonly associated with contractor means and methods and are not addressed in this report. The owner and contractor should consider a preconstruction/precondition survey of surrounding development. If changes in the nature, design, or location of the project are planned, our conclusions and recommendations shall not be considered valid unless we review the changes and either verify or modify our conclusions in writing.

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Attachments

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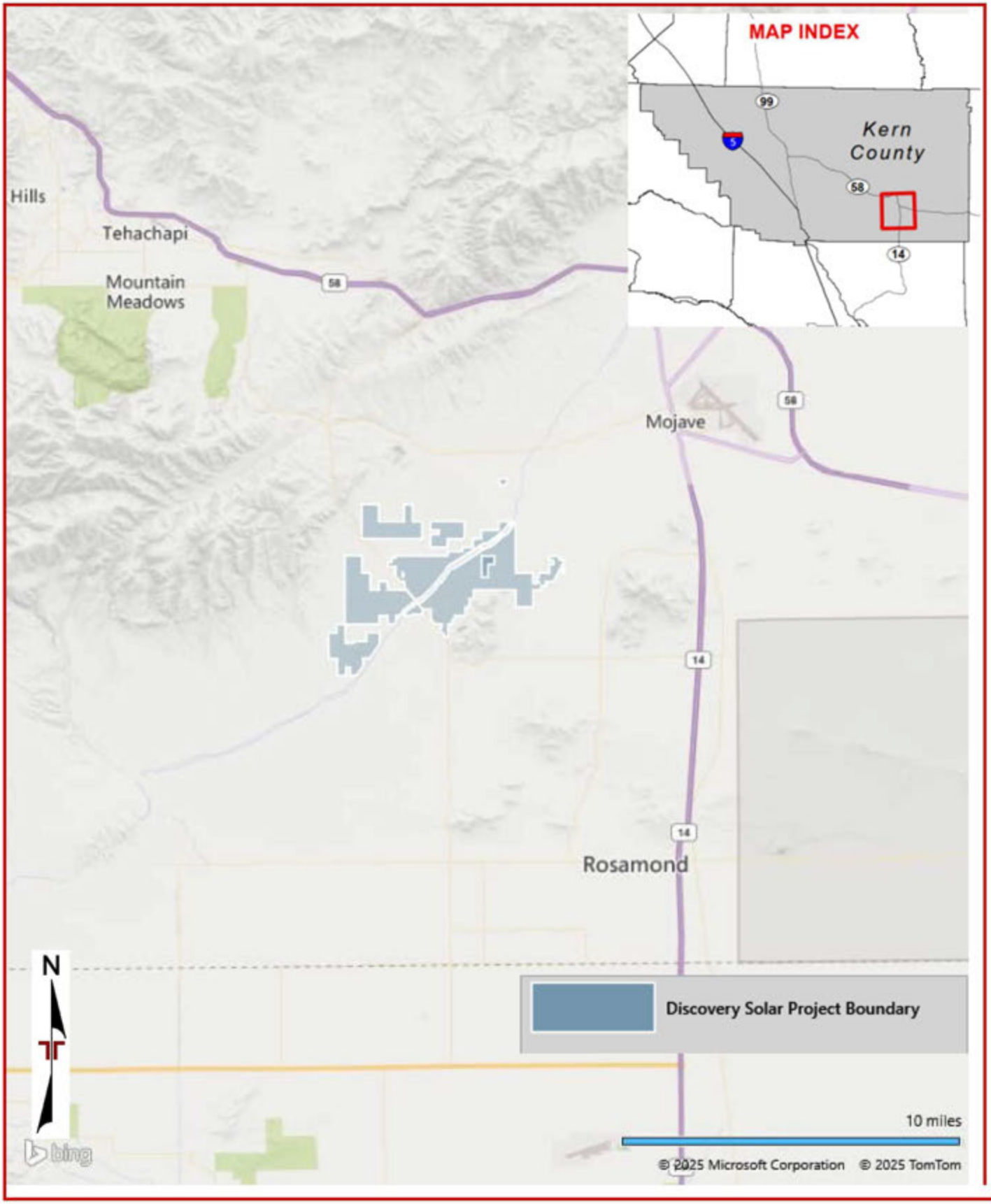
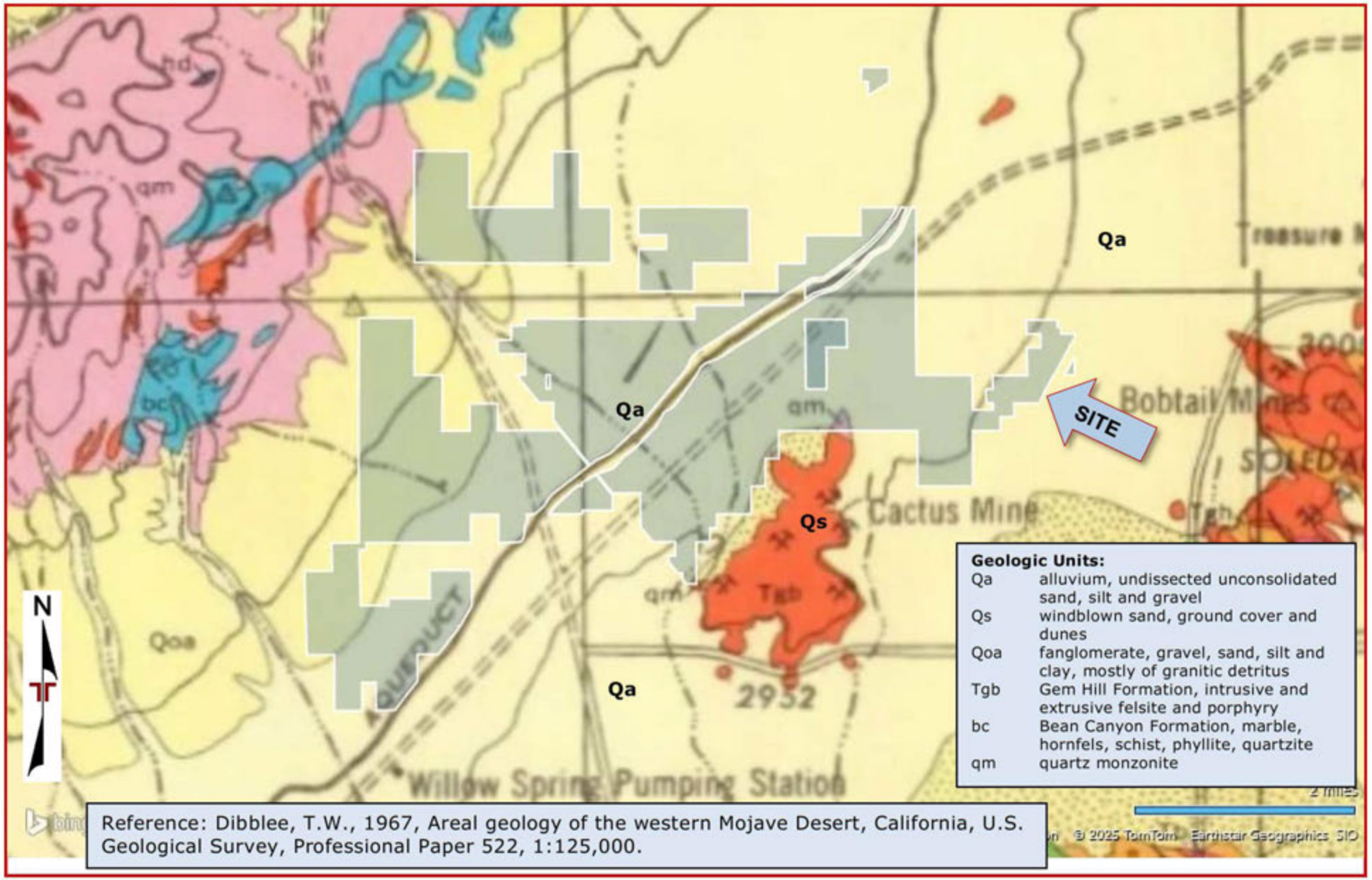
Project Area Location



Project Area and Vicinity

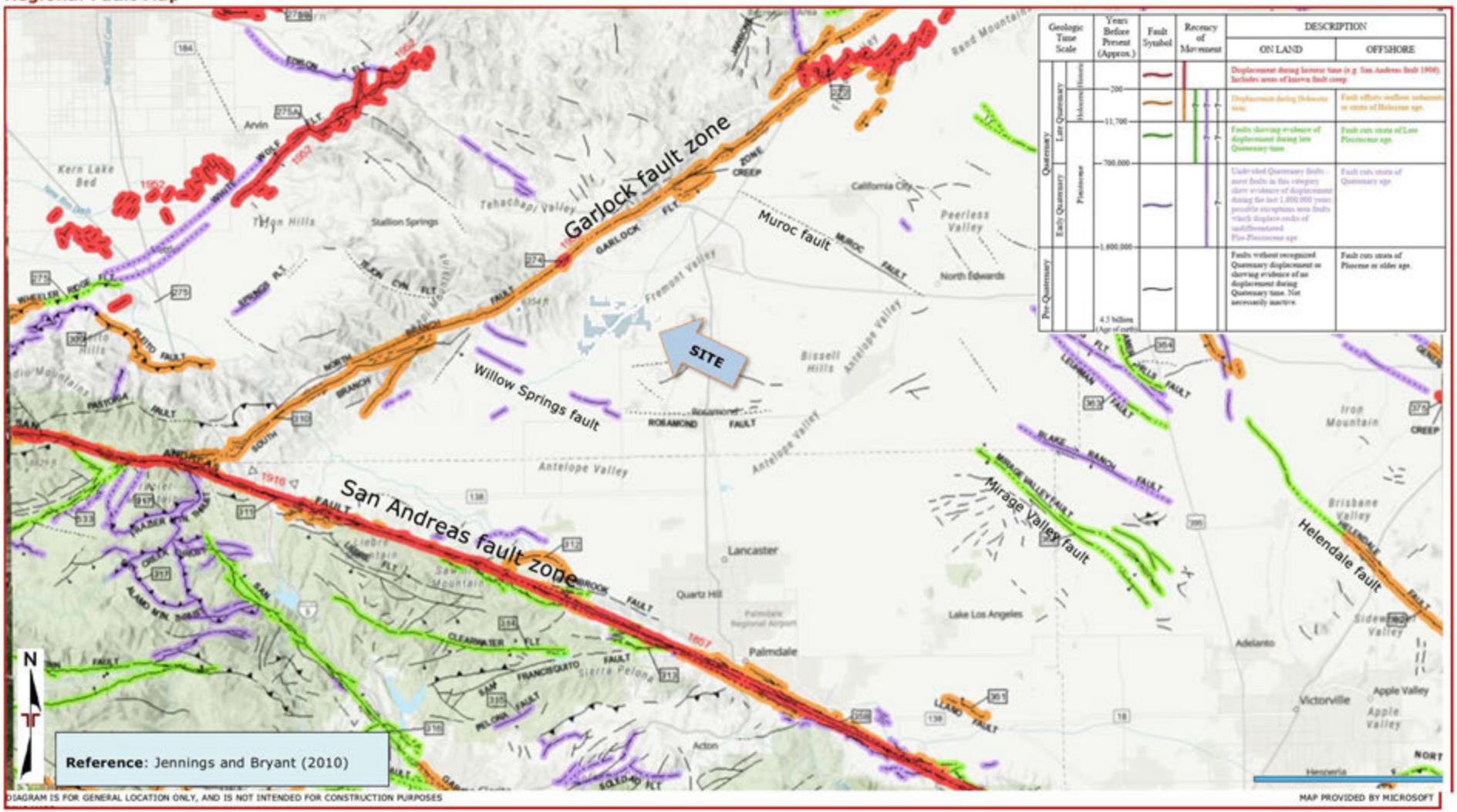


Geologic Map



Reference: Dibblee, T.W., 1967, Areal geology of the western Mojave Desert, California, U.S. Geological Survey, Professional Paper 522, 1:125,000.

Regional Fault Map



Appendix G2
Paleontological Resources Assessment Report

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Paleontological Resources Assessment Report for the Discovery Solar PV and Storage Project

Kern County, California

Prepared For:

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SEPTEMBER 2025

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EXECUTIVE SUMMARY

ECORP Consulting, Inc. (ECORP) was retained by Tetra Tech, Inc. in 2022 to conduct a paleontological resources assessment for the Discovery Solar PV and Storage Project (Project). Discovery Solar PV and Storage, LLC proposes to develop a utility-scale photovoltaic (PV) electricity generation and energy storage facility on approximately 7,700 acres of land located in southeastern Kern County, California, at the northern edge of the Antelope Valley, southwest of the community of Mojave (Figure 1). ECORP surveyed a total of 8,535.8 acres within the 8,540-acre Study Area, which encompasses the 7,700-acre Project site, some of which includes zone changes only and would not be disturbed, and the proposed generation tie line corridor, to determine the potential for discovering paleontological resources at the Project (Figure 2). The field team was unable to access and survey 4.2 acres of the Study Area due to safety concerns, which included properties with off-leash hostile dogs. These areas will be surveyed at a later date, and the results of the survey will be provided as an addendum report.

The paleontological resources assessment included records searches, a literature review, and four field surveys. The records search results indicate that no fossil localities have been recorded within the Study Area; however, 20 fossil localities have been recorded outside the Study Area. The documented fossil localities are from the same sedimentary deposits that occur within the Study Area, either at the surface or at depth.

Although ECORP did not identify any paleontological resources at the surface during field surveys, excavations at depth within the Project site have the potential to result in unanticipated subsurface discoveries. This report includes recommended measures to avoid and minimize potential Project impacts to paleontological resources.

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ACRONYMS AND ABBREVIATIONS

Term	Definition
BLM	Bureau of Land Management
CEQA	California Environmental Quality Act
ECORP	ECORP Consulting, Inc.
gen-tie	generation tie line
kV	kilovolt
LACNHM	Los Angeles County Natural History Museum
LADWP	Los Angeles Department of Water and Power
MW	megawatt
Project	Discovery Solar PV and Storage Project
PV	photovoltaic
SCE	Southern California Edison
SR	State Route
SVP	Society of Vertebrate Paleontology
UPRR	Union Pacific Railroad
USGS	U.S. Geological Survey

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1.0 INTRODUCTION

ECORP Consulting, Inc. (ECORP) was retained by Tetra Tech, Inc., in 2022 to conduct a paleontological resources assessment for the Discovery Solar PV and Storage Project (Project) in southeastern Kern County, California. ECORP surveyed a total of 8,535.8 acres within the 8,540-acre Study Area, which encompasses the 7,700-acre Project site and the proposed generation tie line (gen-tie) corridor, to determine the potential for discovering paleontological resources during Project construction (Figure 1). The field team was unable to access and survey 4.2 acres of the Study Area due to safety concerns, which included properties with off-leash hostile dogs. These areas will be surveyed at a later date, and the results of the survey will be provided as an addendum report. This Paleontological Resources Assessment Report presents the methods used, results, and recommendations for the Project.

2.0 PROJECT DESCRIPTION AND LOCATION

The Project includes development of a photovoltaic (PV) solar facility and associated infrastructure necessary to generate up to 1,400 megawatts (MW) of renewable electrical energy with up to 8 gigawatt-hours of energy storage capacity (approximately 1,000 MW) on an approximately 7,700-acre Project site, some of which includes zone changes only and would not be disturbed, in an unincorporated area of southeastern Kern County, California (Figure 1). PV solar panels, a power collection system, including medium-voltage lines that connect the solar facilities, inverters, a switchyard, foundations, and transformers will be installed onsite. Associated Project infrastructure includes an operations and maintenance facility, telecommunication facilities, energy storage system(s), up to three onsite collector substations, interconnection and transmission systems, and temporary laydown yards. The Project may be constructed in multiple phases.

The Project will interconnect to the existing Windhub Substation, which is owned and operated by Southern California Edison (SCE). The interconnection will be via a newly constructed 230-kilovolt (kV) gen-tie that will extend north from the Project site towards the Windhub Substation from on-site collector substations. A portion of the Project 230-kV gen-tie would be co-located within an existing gen-tie corridor (controlled by the Applicant and/or its affiliates). A high-voltage switchyard located immediately north of the Union Pacific Railroad (UPRR) rail line will also be constructed.

The Project is located in an unincorporated area in southeastern Kern County, on generally undeveloped and privately owned land, along the northern edge of the Antelope Valley. The Project site is located approximately 6 miles southwest of the unincorporated community of Mojave, approximately 9 miles southeast of the City of Tehachapi, and approximately 8 miles northwest of the unincorporated community of Rosamond. State Route (SR)-58 is north of the Project site, SR-14 is east of the Project site, and Tehachapi Willow-Springs Road runs between the Project site's boundaries (Figure 1). A network of existing named and unnamed dirt roads traverses the Project site. Although the Los Angeles Department of Water and Power (LADWP) aqueduct roughly bisects the Project site, it is not included within the Project site (Figures 2 and 3). On-site, adjacent, and nearby land uses include renewable energy development, rural residential development, livestock grazing, heavy industrial and mining uses, and undeveloped lands. Elevations across the Project site are relatively flat, ranging from approximately 2,970

to 3,760 feet above mean sea level. The Project site is located within the U.S. Geological Survey (USGS) *Monolith, Willow Springs,* and *Soledad Mountain* 7.5-Minute Topographic Quadrangle Maps.

3.0 METHODS

This section describes regional geology; laws, regulations, and standards associated with the preservation of paleontological resources; and inventory methods. Inventory methods included record searches, a review of published and unpublished literature, and pedestrian surveys. ECORP reviewed geological maps and reports that covered the geology of the Study Area to determine the exposed rock units and to delineate their respective areal distributions within the Study Area. ECORP reviewed published and unpublished geological and paleontological literature to document the number and locations of previously recorded fossil localities from rock units exposed within and near the Study Area and the type of fossil remains that each rock unit has produced.

3.1 Regional Geology

The Study Area is located in the Antelope Valley region of the western Mojave Desert of Southern California. The Antelope Valley is a closed basin that is surrounded by the San Gabriel Mountains to the south, the Sawmill-Liebre Mountains to the southwest, and the Tehachapi Mountains to the northwest. The Garlock Fault to the north separates the Mojave Desert Province from the Basin and Range Province, and the San Andreas Fault to the south separates it from the Transverse Range Province (Ward and Dixon 2002). The Mojave Desert Province is characterized by northwest-trending fault block mountain ranges that are separated by valleys. The northern portion of the Mojave Desert Province contains west-trending left-lateral faults that are roughly parallel to the Garlock Fault to the north. The region lies within a part of the western Mojave Desert that is mostly flat but includes low hills and volcanic buttes. The mountain ranges in this area consist of Mesozoic granitic and metamorphic rocks and early-Miocene sedimentary and extrusive volcanic rocks (Bureau of Land Management [BLM] 2013). Vegetation within the Study Area consists of sagebrush composed largely of burro bush and creosote bush, and Joshua tree woodland.

The Mojave Desert Province is characterized by deep Cenozoic sedimentary basins that are separated by low hills of Mesozoic granitic and metasedimentary rocks and Tertiary volcanics. These basins were depocenters for upper-Tertiary and lower-Quaternary sediments. Tectonic activity along the San Andreas and Garlock faults and the uplifting of the Transverse, Tehachapi, and southern Sierra Nevada ranges formed new closed basins in the Mojave Desert (Jordan 1941; Ward and Dixon 2002). The geology of the Study Area can be grouped into three main categories found to be prevalent in the western Mojave Desert region: crystalline rocks of pre-Tertiary age; pyroclastic, volcanic, and sedimentary rocks of Tertiary age; and alluvial sedimentary deposits of Quaternary age. Because these rock units have not yielded indigenous fossils, their ages had to be inferred from geologic relations and comparisons with similar rocks of known ages outside of the Study Area.

Aside from the neighboring hills that are composed of mostly Tertiary-age volcanic rocks, the ground surface of the Study Area consists of Holocene or recent alluvium that washed down from the neighboring hills. Holocene sediments are devoid of fossils. Beneath the young Holocene sediments are Quaternary older alluvium, lake, playa, and terrace deposits that consist of consolidated and semi-consolidated sediments. The following describes the geologic units that are present within the Study Area:

- **Holocene Alluvium (Recent):** Holocene alluvium comprises surficial deposits that fill the valley and consist of sand and silt with minor gravel, and contains unconsolidated and unsorted granitic sediments.
- **Quaternary Older Alluvium (Late Pleistocene):** Although not visible within the Study Area, Quaternary older alluvium is likely present below the surface. Quaternary older alluvium consists of fan alluvium, playa deposits, and terrace deposits. Fan deposits are moderately sorted sediment derived from local granitic rocks. Playa deposits consist of clay and silt.
- **Horned Toad Formation (Late Miocene to Early Pliocene):** The Horned Toad Formation includes five lithostratigraphic members that record alluvial fan, fluvial, lake margin, and lacustrine deposition within a small basin to the south of the active Garlock fault (May et al. 2011).

3.2 Record Search and Literature Review Methods

ECORP conducted two record searches through the Los Angeles County Natural History Museum (LACNHM). The results of the searches are presented below in Section 4.0. The purpose of the records searches was to determine the extent of previous surveys conducted within the Study Area, and whether previously documented paleontological resources exist within the vicinity from the same sedimentary deposits that occur within the Study Area, either at the surface or at depth. Alyssa Bell, a paleontologist at the LACNHM, completed and returned the record searches to ECORP on October 16, 2022 and January 7, 2024.

ECORP conducted a literature review to obtain a better understanding of the general geology, stratigraphy, and paleontological potential of the Study Area, as well as to identify any previously recorded fossil localities. ECORP also reviewed geologic maps to determine the presence and distribution of geologic units within the Study Area.

3.3 Pedestrian Field Survey Methods

ECORP conducted intensive pedestrian surveys using 15-meter-spaced transects from November 7 through 16, 2022; on July 1 and 2, 2023; from November 11 through 17, 2023; and on April 20 and 21, 2024. ECORP examined the ground surface for fossils as well as any exposed geology that may indicate the potential for fossils. Whenever possible, ECORP examined the locations of subsurface exposures caused by factors such as water or soil erosion. ECORP did not conduct any subsurface investigations or collect resources during the pedestrian survey.

Standard professional practice requires that all paleontological resources encountered during the survey be recorded using Survey 123 for ArcGIS, which is a program developed by Esri™ for creating, sharing, and analyzing surveys. The resources are usually photographed, mapped using a handheld Global Positioning System receiver, and sketched as necessary to document their presence.

3.4 Regulatory Context and Standards

3.4.1 California Environmental Quality Act

The California Environmental Quality Act (CEQA) Guidelines, Article 1, Section 15002(a)(3) states that CEQA is intended to "prevent significant, avoidable damage to the environment by requiring changes in projects through the use of alternatives or mitigation measures when the governmental agency finds the changes to be feasible." Appendix G of the State CEQA Guidelines (California Code of Regulations Title 14, Chapter 3) provides an Environmental Checklist of questions intended to guide analysis pertaining to project-level impacts, including those to geology and soils and paleontological resources. Relevant here, Appendix G indicates that lead agencies should consider whether a project will directly or indirectly destroy a unique paleontological resource or site or unique geologic feature.

3.4.2 Public Resources Code Section 5097.5

Public Resources Code Section 5097.5 states that no person shall knowingly and willfully excavate upon, or remove, destroy, injure or deface any historic or prehistoric ruins, burial grounds, archaeological or vertebrate paleontological sites, including fossilized footprints, inscriptions made by human agency, or any other archaeological, paleontological, or historical feature, situated on public lands, except with the express permission of the public agency having jurisdiction over such lands. Violation of this section is a misdemeanor. As used in this section, *public lands* mean lands owned by, or under the jurisdiction of, the State, or any city, county, district, authority, or public corporation, or any agency thereof.

3.4.3 Professional Standards

The Society of Vertebrate Paleontology (SVP)—a national scientific organization of professional vertebrate paleontologists—has established standard guidelines that outline acceptable professional practices in the conduct of paleontological resource assessments and surveys, monitoring and mitigation, data and fossil recovery, sampling procedures, specimen preparation, analysis, and curation. Most practicing professional paleontologists in the U.S. adhere to the SVP's assessment, mitigation, and monitoring requirements, as specifically spelled out in its standard guidelines.

As defined by the SVP guidelines (SVP 2010), significant paleontological resources are fossils and fossiliferous deposits, herein defined as consisting of identifiable vertebrate fossils, large or small, uncommon invertebrate, plant, and trace fossils, and other data that provide taphonomic, taxonomic, phylogenetic paleoecologic, stratigraphic, and/or biochronologic information. Paleontological resources are considered to be older than recorded human history and/or older than the Middle Holocene (i.e., older than about 5,000 radiocarbon years) (SVP 2010). Body fossils include bones, teeth, shells, leaves, and wood, while trace fossils include trails, trackways, footprints, burrows, coprolites, and eggshells. The fossil record is the only evidence that life on earth has existed for more than 3.6 billion years.

3.4.4 Paleontological Resource Significance Determination

The SVP defines fossils as "nonrenewable paleontological resources that are afforded protection by federal, state, and local environmental laws and regulations" (SVP 2010).

The SVP has adopted a criterion for evaluating paleontological potential, which has been used as a resource management tool to assess geologic units based on their likelihood to contain paleontological resources. Rock units are described as "having (a) high, (b) undetermined, (c) low, or (d) no potential for containing significant paleontological resources" (SVP 2010). Appendix A provides this determination in detail.

4.0 RESULTS

This section discusses results of the paleontological assessment. Because excavations within the Study Area will likely encounter Quaternary older alluvium, which is known to yield fossils, the Project could potentially encounter paleontological resources. Therefore, portions of the Study Area have a higher potential for encountering paleontological resources, particularly in the Horned Toad Formation and Quaternary older alluvium, than those portions of the Study Area underlain by Holocene alluvium. ECORP completed a stratigraphic and paleontological resources inventory to develop a baseline for the Study Area by rock unit and to assess the potential paleontological productivity of each rock unit.

4.1 Record Search and Literature Review

The LACNHM does not use a buffer when conducting a search on fossil localities within or outside of the Study Area. Rather, a search is conducted based on similar geologic units found within the Study Area. The resulting fossil localities found outside of the Study Area, as depicted in Table 1, are those derived from Holocene, Quaternary older alluvium (Pleistocene), and the Horned Toad Formation. The record search results provided by the LACNHM determined that 20 previously recorded paleontological resources are located outside the Study Area; none are located within the Study Area (Table 1). Because many of these findings are from vertebrates that date to the Pleistocene, the Quaternary older alluvium within the Study Area, which also dates to the Pleistocene, could possibly yield fossils. Furthermore, if the Horned Toad Formation is encountered at depths, this geologic unit may also yield fossils (as further described below) and, therefore, is a highly sensitive formation.

Previous research into the geology of the western Mojave Desert has been conducted by Dibblee (1958, 1963, 1967, 1980). Geologic maps of the area have been produced by Jenkins (1964) and Dibblee (1959, 2008). A paleontological resources assessment was conducted by LSA (2011) for the Alta East Wind Project, which is located within the Horned Toad Hills to the north of the Study Area (BLM 2013). The Early-Pliocene Horned Toad Formation, found here, was studied by LSA (2011) and CH2M Hill (2010) for the Alta East Wind Project. A field assessment conducted by LSA (2011) located 12 previously reported fossil localities and 69 new localities from exposures of the Horned Toad Formation during their survey. With existing reported localities and those discovered during the survey, 35 different taxa were found in total.

Table 1. Previously Recorded Paleontological Resources From Similar Geologic Units As Those Found Within The Study Area

Locality Number(s)	Location	Formation	Taxon	Depth (feet bgs)
LACM VP 7891	Near the California Aqueduct between the Tehachapi Mountains and the Rosamond Hills north of Willow Springs	Unknown (Pleistocene)	lamine camelid (*Hemiauchenia* sp.*)*	21
LACM VP 1552	Horned Toad Hills, West of Mojave	Horned Toad Formation (buff sandy siltstone)	uncatalogued small mammals	0 (Surface)
LACM VP 3722	City of Tehachapi	Unknown Formation (Pleistocene)	horse (*Equus* sp.)	Unknown (sewer excavation)
LACM VP 7853	Waste Management of North America Lancaster Landfill	Unknown formation (Pleistocene; sandy loess under a dune deposit strand, sandy siltstone, siltstone to clayey siltstone)	rabbit (*Sylvilagus* sp.) camel family (Camelidae) antelope squirrel (*Ammospermophilus* sp.) kangaroo rat *(Dipodomys* sp.) pocket mouse (*Perognathus* sp.) pack rat (*Neotoma* sp.) deer mouse (*Peromyscus* sp.) vole family (Microtinae) iguana *(Dipsosaurus* sp.) pocket gopher (*Thomomys* sp.) spiny lizard (*Sceloporus* sp.) side-blotched lizard (*Uta* sp.) colubrid snakes (*Trimorphodon* sp.*, Masticophis* sp.*,* and *Phyllorhynchus* sp.) night lizard (*Xantusia* sp.) western alligator lizard (*Elgaria* sp.) toothy skinks (*Plestiodon* sp.) whiptail lizard (*Aspidocelis* sp.) spiny lizards (Phyrynosomatidae) smelt (Osmeridae)	3–11

Table 1. Previously Recorded Paleontological Resources From Similar Geologic Units As Those Found Within The Study Area

Locality Number(s)	Location	Formation	Taxon	Depth (feet bgs)
LACM VP 7884	East of the southeastern corner of the intersection of East 3rd Street and East Avenue H-13	Unknown formation (Pleistocene; fluvial brown clayey silt)	camel (*Camelops hesternus*)	4
LACM IP 445	Lake Rogers north of the Mojave	Unnamed (Late Pleistocene lacustrine deposits)	invertebrates (unspecified)	Unknown
LACM VP 5942 LACM VP 5943 LACM VP 5944 LACM VP 5945 LACM VP 5946 LACM VP 5947 LACM VP 5948 LACM VP 5949 LACM VP 5950	Along Avenue S from Palmdale to Lake Los Angeles	Unknown Formation (Holocene)	kingsnake (*Lampropeltis* sp.) lizard (Lacertilia) leopard lizard (*Gambelia* sp.) snake (Ophidia) gopher snake (*Pituophis* sp.) rabbit (Lagomorpha) rodent (Rodentia) pocket gopher (*Thomomys* sp.) pocket mouse (*Chaetodipus* sp.) kangaroo rat (*Dipodomys* sp.) birds (Aves)	0–9
LACM VP 6263 LACM VP 6264 LACM VP 6265 LACM VP 6266 LACM VP 6267	Just west of Randsburg/Red Rock Road at intersection of Mesquite Canyon dirt road	Undetermined Pleistocene formation (greenish-white marly siltstone)	pronghorn (Antilocapridae) rabbit (Leporidae) horse (Equidae)	0 (Surface)

Note: bgs = below ground surface; IP = Invertebrate Paleontology, VP = Vertebrate Paleontology

In addition, the Rising Tree Wind Energy Project, which is near the Study Area (approximately 2 miles north of Oak Creek Road), exposed numerous fossils in exposures of the Horned Toad Formation (EDP Renewables North America, LLC 2013). This fauna, referred to as the Warren Local Fauna, includes a diverse assemblage of large herbivores (many now extinct in Noth America), including antilocaprids, camelids, rhinoceros, horse, and llama. Carnivores include the extinct bone-eating canid *Osteoborus* and the extinct large cat *Machairodus*. Smaller mammals recorded include the primitive hare *Hypolagus* and the packrat-like rodent *Repomys*. This faunal assemblage is significant in the fossil record because it represents a timeframe from 5.2 to 5.9 million years ago known as the Hemphillian Land Mammal Age in western North America.

4.2 Pedestrian Field Survey

Two ECORP paleontologists conducted intensive pedestrian surveys from November 7 through 16, 2022; on July 1 and 2, 2023; from November 11 through 17, 2023; and on April 20 and 21, 2024. The paleontologists conducted the surveys primarily in an east–west direction using transects spaced 15 meters apart.

The visibility of the ground surface varied throughout the Study Area due to low-lying vegetation dominated by dry grasses, creosote shrubs, and Joshua trees. Directly east of Tehachapi Willow Springs Road, dense vegetation obscured the ground surface except for soil exposures along deeply cut channels. In areas with higher ground visibility, sediment was composed primarily of fine- to coarse-grained, tan sands with larger, gravel-size rocks of sedimentary, igneous, and metamorphic origin derived from the neighboring hills. Although the geology suggests exposures of Quaternary older alluvium within the westernmost portions of the Study Area (Figure 4), ECORP did not observe any such exposures. Due to influence of alluvial processes within the Study Area, the ground surface is covered in Holocene or recent sediments; any fossils that may be discovered in Holocene alluvium have been washed down from neighboring hillsides and have no scientific significance because they have lost geologic context.

ECORP did not observe any paleontological resources within the Study Area. Appendix B provides photographs taken during the surveys.

5.0 DISCUSSION AND RECOMMENDATIONS

ECORP did not find any fossil localities within the Study Area during the records search, literature review, or pedestrian surveys. However, the LACNHM identified 20 fossil localities outside of the Study Area that came from the same sedimentary units found within the Study Area. During surveys, ECORP observed Holocene alluvium (which is not highly sensitive). While no highly sensitive Quaternary older alluvium or Horned Toad Formation were observed during surveys, they may be encountered with depth during Project excavations.

Use of heavy machinery and/or ground disturbance during construction activities have the potential to encounter highly sensitive Quaternary older alluvium and possibly the Horned Toad Formation that could be at depth within the Study Area. The Applicant proposes implementation of the following measures to minimize potential impacts to and recover paleontological resources, if encountered.

5.1 Recommended Management Measures

The Project proponent shall retain a qualified paleontologist, defined as a paleontologist meeting the Society for Vertebrate Paleontology's Professional Standards (SVP, 2010), to carry out all management measures related to paleontological resources:

- **PALEO-1**: Prior to the start of any ground disturbance activities, a qualified paleontologist shall prepare a Paleontological Resources Awareness Training program for all construction personnel working on the Project. A Paleontological Resources Awareness Training Guide approved by the qualified paleontologist shall be provided to all personnel. A copy of the Paleontological Resources Awareness Training Guide shall be submitted to the Kern County Planning and Natural Resources Department. The training guide may be presented in video form.
    - Paleontological Resources Awareness Training may be conducted in conjunction with other awareness training requirements.
    - The training shall include an overview of potential paleontological resources that could be encountered during ground disturbing activities to facilitate worker recognition, avoidance, and subsequent immediate notification to the qualified paleontologist for further evaluation and action, as appropriate; and penalties for unauthorized artifact collecting or intentional disturbance of paleontological resources.
    - The Project operator shall ensure all new employees who have not participated in earlier Paleontological Resources Sensitivity Trainings shall meet the provisions specified above.
    - The Paleontological Resources Awareness Training Guides shall be kept onsite and available for all personnel to review and be familiar with, as necessary.
- **PALEO-2**: Prior to construction, the qualified paleontologist shall review excavation plans to determine where paleontologically sensitive stratigraphic units will potentially be disturbed by ground-disturbing activities.

- **PALEO-3**: During construction, the qualified paleontologist or designated monitor shall monitor all initial excavations (with the exception of vibratory or hydraulic installation of tracking or mounting structures and foundations or supports) within paleontologically sensitive stratigraphic units that occur at a depth of 15 feet or deeper below ground surface. Monitoring protocols can be adjusted based on qualified paleontologist observations and updated evaluations of sensitivity subsequent to initial excavations.
- **PALEO-4**: If a paleontological resource is found, excavation activities shall cease within 50 feet of the find. The qualified paleontologist shall evaluate the significance of the resource and recommend appropriate treatment measures. At each fossil locality, field data forms shall be used to record pertinent geologic data, stratigraphic sections shall be measured, and appropriate sediment samples shall be collected and submitted for analysis. Any fossils encountered and recovered shall be catalogued and donated to a public, non-profit institution with a research interest in the materials. Accompanying notes, maps, and photographs shall also be filed at the repository.
- **PALEO-5**: Following completion of monitoring, the qualified paleontologist shall prepare a report documenting the absence or discovery of paleontological resources encountered at the Project during monitoring efforts.

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FIGURES

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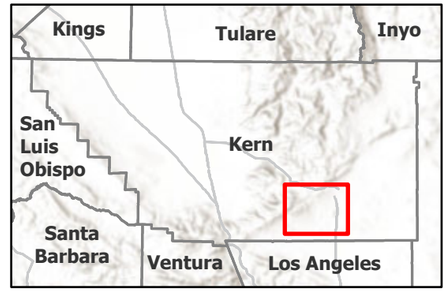
Discovery Solar PV and Storage Project

Kern County, CA

Figure 1. Regional Overview



- Windhub High-voltage Substation (Existing)
- Watercourse

Proposed Project Features

- Project Site
- Study Area
- Gen-tie Line (New)
- Medium-voltage/Transmission/Access Easements

Other Applicant and/or Affiliate Controlled*

- Step-up HV substation
- Gen-tie Corridor

*Already approved under separate projects.

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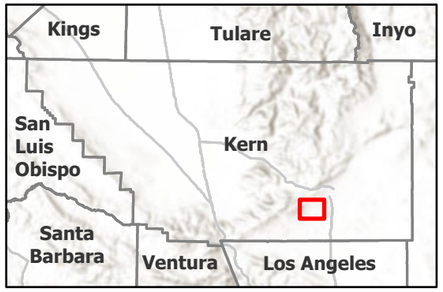
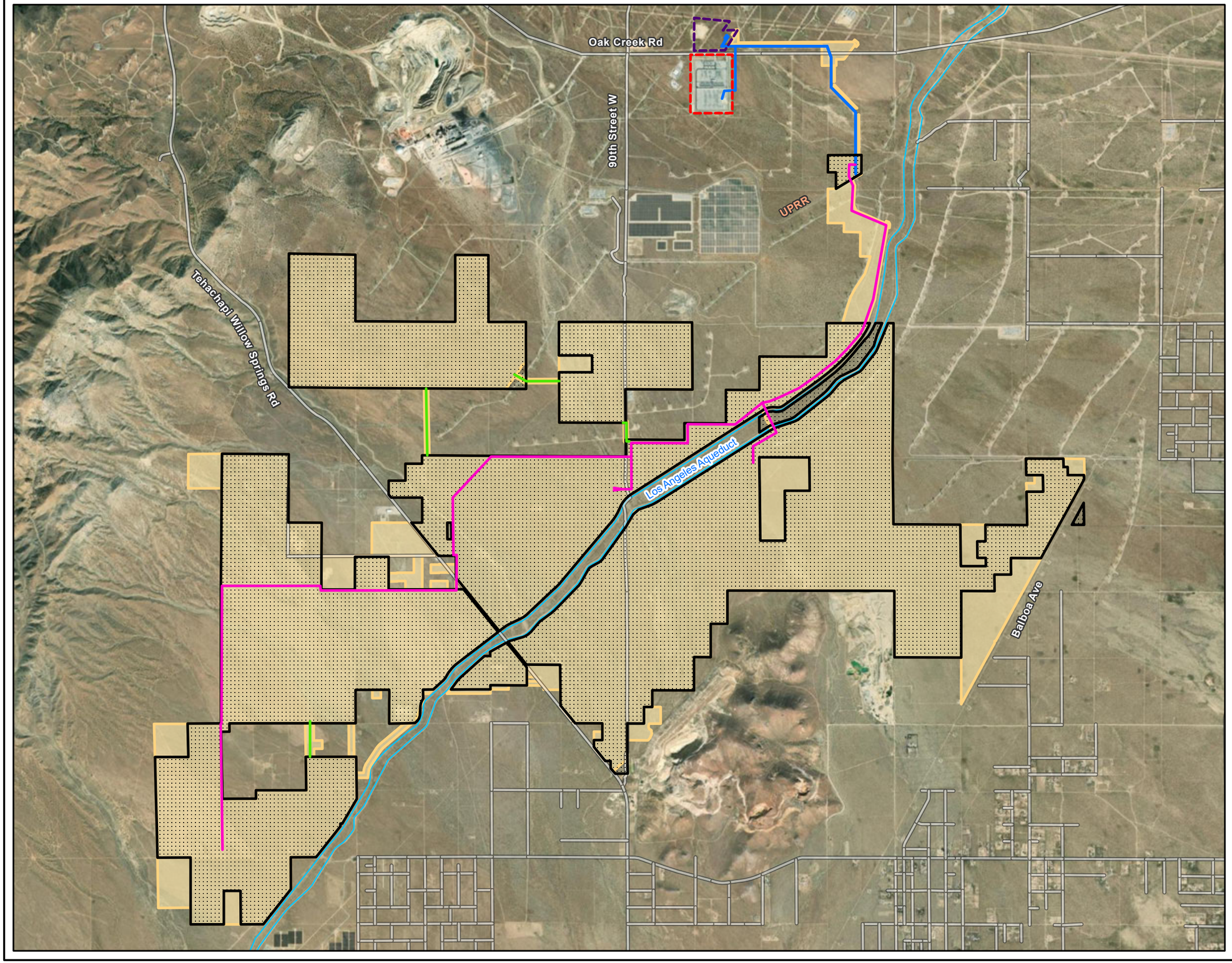
Discovery Solar PV and Storage Project

Kern County, CA

Figure 2. Project Location





Windhub High-voltage Substation (Existing)

Roads

Watercourse

Proposed Project Features

Project Site

Study Area

Gen-tie Line (New)

Medium-voltage/Transmission/Access Easements

Other Applicant and/or Affiliate Controlled*

Step-up HV substation

Gen-tie Corridor

*Already approved under separate projects.

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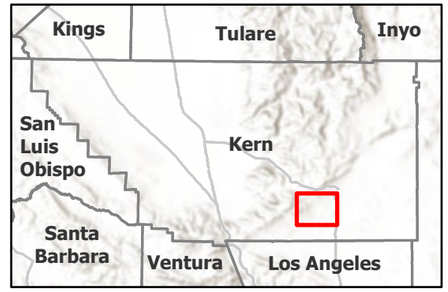
Discovery Solar PV and Storage Project

Kern County, CA

Figure 3. USGS Topographic Map



Windhub High-voltage Substation (Existing)

Proposed Project Features

- Project Site
- Study Area
- Gen-tie Line (New)
- Medium-voltage/Transmission/Access Easements

Other Applicant and/or Affiliate Controlled*

- Step-up HV substation
- Gen-tie Corridor

*Already approved under separate projects.

N

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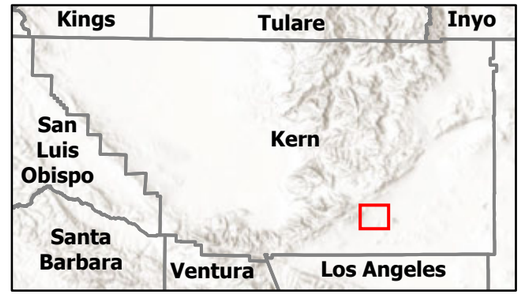
Discovery Solar PV and Storage Project

Kern County, CA

Figure 4. Geology of the Study Area



Sources:
California Department of Conservation - Geologic Atlas of California (2010)

Proposed Project Features

Study Area

Quaternary Deposits

Qs - Extensive marine and nonmarine sand deposits, generally near the coast or desert playas

Q - Alluvium, lake, playa, and terrace deposits; unconsolidated and semi-consolidated

Qoa - Older alluvium, lake, playa, and terrace deposits

Tertiary Volcanic Rocks

Ti - Tertiary intrusive rocks; mostly shallow (hypabyssal) plugs and dikes

Mesozoic Sedimentary and Metasedimentary Rocks

ls - Limestone, dolomite, and marble whose age is uncertain but probably Paleozoic or Mesozoic

Mesozoic Plutonic Rocks

grMz - Mesozoic granite, quartz monzonite, granodiorite, and quartz diorite

Paleozoic Sedimentary and Metasedimentary Rocks

Pz - Undivided Paleozoic metasedimentary rocks. Includes slate, sandstone, shale, chert, conglomerate, limestone, dolomite, marble, phyllite, schist, hornfels, and quartzite

Location: N:\2022\2022-206 Enterprise Kern County\MAPS\Paleo\EKC Discovery Solar Paleo.aprx - DAC Paleo 20250303 (trotellini - 3/3/2025)

Map Date: 3/3/2025

ECORP Consulting, Inc.
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APPENDIX A

SVP Guidelines

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Standard Procedures for the Assessment and Mitigation of Adverse Impacts to Paleontological Resources

Society of Vertebrate Paleontology
Impact Mitigation Guidelines Revision Committee

Abstract
Fossils are nonrenewable paleontological resources that are subject to impacts from land development. Procedures are presented for evaluating the potential for impacts of a proposed action on paleontological resources and for mitigating those impacts. Impact mitigation includes pre-project survey and salvage, monitoring and screen washing during excavation to salvage fossils, conservation and inventory, and final reports and specimen curation. The objective of these procedures is to offer standard methods for assessing potential impacts to fossils and mitigating these impacts.

Introduction
Fossils are nonrenewable paleontological resources that are afforded protection by federal, state, and local environmental laws and regulations. The Paleontological Resources Preservation Act (PRPA) of 2009 calls for uniform policies and standards that apply to fossils on all federal public lands. All federal land management agencies are required to develop regulations that satisfy the stipulations of the PRPA. Section 6302 of the PRPA mandates that federal agencies "*shall manage and protect paleontological resources on Federal land using scientific principles and expertise.*" Thus, federal agencies need the help of the professional paleontological community in the formulation and implementation of these PRPA-mandated policies and regulations. The potential for destruction or degradation of paleontological resources on both public and private lands selected for development under the jurisdiction of various governmental planning agencies is recognized. The standard procedures below are intended to be applicable to both private and public lands under the jurisdiction of local, city, county, regional, state, and federal agencies. Protection of paleontological resources includes: (a) assessment of the potential for land to contain significant paleontological resources which could be directly or indirectly impacted, damaged, or destroyed by proposed development and (b) formulation and implementation of measures to mitigate these adverse impacts, including permanent preservation of the site and/or permanent preservation of salvaged fossils along with all contextual data in established institutions.

Assessment of the Paleontological Potential of Rock Units
Rock units are described as having (a) high, (b) undetermined, (c) low, or (d) no potential for containing significant paleontological resources.

High Potential
Rock units from which vertebrate or significant invertebrate, plant, or trace fossils have been recovered are considered to have a high potential for containing additional significant paleontological resources. Rocks units classified as having high potential for producing paleontological resources include, but are not limited to, sedimentary formations and some volcaniclastic formations (e. g., ashes or tephras), and some low-grade metamorphic rocks which contain significant paleontological resources anywhere within their geographical extent, and sedimentary rock units temporally or lithologically suitable for the preservation of fossils (e. g., middle Holocene and older, fine-grained fluvial sandstones, argillaceous

and carbonate-rich paleosols, cross-bedded point bar sandstones, fine-grained marine sandstones, etc.). Paleontological potential consists of both (a) the potential for yielding abundant or significant vertebrate fossils or for yielding a few significant fossils, large or small, vertebrate, invertebrate, plant, or trace fossils and (b) the importance of recovered evidence for new and significant taxonomic, phylogenetic, paleoecologic, taphonomic, biochronologic, or stratigraphic data. Rock units which contain potentially datable organic remains older than late Holocene, including deposits associated with animal nests or middens, and rock units which may contain new vertebrate deposits, traces, or trackways are also classified as having high potential.

Undetermined Potential
Rock units for which little information is available concerning their paleontological content, geologic age, and depositional environment are considered to have undetermined potential. Further study is necessary to determine if these rock units have high or low potential to contain significant paleontological resources. A field survey by a qualified professional paleontologist (see "definitions" section in this document) to specifically determine the paleontological resource potential of these rock units is required before a paleontological resource impact mitigation program can be developed. In cases where no subsurface data are available, paleontological potential can sometimes be determined by strategically located excavations into subsurface stratigraphy.

Low Potential
Reports in the paleontological literature or field surveys by a qualified professional paleontologist may allow determination that some rock units have low potential for yielding significant fossils. Such rock units will be poorly represented by fossil specimens in institutional collections, or based on general scientific consensus only preserve fossils in rare circumstances and the presence of fossils is the exception not the rule, e. g. basalt flows or Recent colluvium. Rock units with low potential typically will not require impact mitigation measures to protect fossils.

No Potential
Some rock units have no potential to contain significant paleontological resources, for instance high-grade metamorphic rocks (such as gneisses and schists) and plutonic igneous rocks (such as granites and diorites). Rock units with no potential require no protection nor impact mitigation measures relative to paleontological resources.

Discussion
It is extremely important to distinguish between archaeological and paleontological resources (see "definitions" section in this document) when discussing the paleontological potential of rock units. The boundaries of an archaeological resource site define the areal/geographic extent of an archaeological resource, which is generally independent from the rock unit on which it sits. However, paleontological sites indicate that the containing rock unit or formation is fossiliferous. Therefore, the limits of the entire rock unit, both areal and stratigraphic, define the extent of paleontological potential.

It is also important to ascertain if the paleontological resources are uniformly distributed throughout a rock unit or if they are confined as localized concentrations to specific members or facies. Using this information, paleontologists can develop maps which suggest areas that are likely to contain paleontological resources. These maps (Paleontological Resource Potential Maps) form the basis for preliminary planning decisions on which areas require a detailed paleontological resource impact assessment by a qualified professional paleontologist and which areas do not. Lead agency evaluation of a proposed project relative to such paleontological resource potential maps should trigger a "request for

opinion" from a qualified professional paleontologist, state paleontological clearing house, or an accredited institution with an established paleontological repository housing paleontological resources from the region of interest.

The determination of the paleontological resource potential of an area proposed for development is first founded on a review of pertinent geological and paleontological literature, geological maps, and on records in fossil locality databases of paleontological specimens deposited in institutions (e. g., museums and universities). This preliminary review may clearly indicate that particular rock units have known high potential. If the paleontological resource potential of a rock unit cannot be delimited from the literature search and specimen records, a field survey by a qualified professional paleontologist will be necessary to determine the fossiliferous potential and the distribution or concentrations of fossils within the extent of the rock units present in a specific project area. The field survey may need to extend outside the defined project limits to areas where the relevant rock units are better exposed. If the rock units in an area are determined to have a high potential for containing paleontological resources, a program to mitigate impacts to fossil resources must be developed. In areas containing rock units with high potential, a preconstruction survey (intensive reconnaissance) may be necessary to locate surface concentrations of fossils which might require salvage in advance of excavations to avoid delays to construction schedules.

Measures to Mitigate Adverse Impacts from Development

Measures for adequate protection or salvage of significant paleontological resources are applied to areas determined to contain rock units that have either a high or undetermined potential for containing significant fossils. The Paleontological Resource Preservation Act of 2009 establishes a uniform code for decision-making on all federal lands. Specific mitigation measures generally need not be developed for areas of low paleontological potential. Developers (public and private) and contractors should be made aware, however, that if there is not an on-site monitor it will be necessary to contact a qualified professional paleontologist if fossils are unearthed in the course of excavation. This contingency should be planned for in advance. In order to save time and project delays, in the advance planning phases of a project the developer should contact a qualified professional paleontologist and arrange for the salvage of any unanticipated fossils. The paleontologist will then salvage the fossils and assess the necessity for further mitigation measures, if applicable. Decisions regarding the intensity of the paleontological resource impact mitigation program will be made by the project paleontologist on the basis of the significance of the paleontological resources, and their biostratigraphic, biochronologic, paleoecologic, taphonomic, and taxonomic attributes, not on the ability of a project proponent to fund the paleontological resource impact mitigation program.

In areas determined to have high or undetermined potential for significant paleontological resources, an adequate program for mitigating the impact of development must include:

1. an intensive field survey and surface salvage prior to earth moving, if applicable;

2. monitoring by a qualified paleontological resource monitor (see "definitions" section in this document) of excavations in previously undisturbed rock units;

3. salvage of unearthed fossil remains and/or traces (e. g., tracks, trails, burrows, etc.);

4. screen washing to recover small specimens, if applicable;

5. preparation of salvaged fossils to a point of being ready for curation (i. e., removal of enclosing matrix, stabilization and repair of specimens, and construction of reinforced support cradles where appropriate);

6. identification, cataloging, curation, and provision for repository storage of prepared fossil specimens; and

7. a final report of the finds and their significance.

All phases of mitigation must be supervised by a qualified professional paleontologist who maintains the necessary paleontological collecting permits and repository agreements. All field teams will be supervised by a paleontologist qualified to deal with the significant resources that might be encountered. The lead agency must assure compliance with the measures developed to mitigate impacts of excavation. To assure compliance at the start of the project, a statement that confirms the site's paleontological potential, confirms the repository agreement with an established public institution, and describes the program for impact mitigation, must be deposited with the lead agency and contractor(s) before any ground disturbance begins. In many cases, it will be necessary to conduct a salvage program prior to grading to prevent damage to known paleontological resources and to avoid delays to construction schedules. The impact mitigation program must include preparation, identification, cataloging, and curation of any salvaged specimens. All field notes, photographs, stratigraphic sections, and other data associated with the recovery of the specimens must be deposited with the institution receiving the specimens. Since it is not professionally acceptable to salvage specimens without preparation and curation of specimens and associated data, costs for this phase of the program must be included in the project budget. The mitigation program must be reviewed and accepted by the lead agency. If a mitigation program is initiated early during the course of project planning, construction delays due to paleontological salvage activities can be minimized or even completely avoided.

Standard Procedures
These standard procedures for paleontological resource impact assessment and mitigation are designed to apply to areas containing rock units with high, low, and undetermined paleontological resource potential.

Assessment before Construction Starts
An adequate preconstruction paleontological resource impact assessment is the key to developing an adequate paleontological resource impact mitigation program. Only a professional paleontologist is qualified to prepare a paleontological resource impact assessment. An adequate assessment of potential impacts typically includes all the following elements:

1. Literature Search—A review of the pertinent paleontological, geological, geotechnical, and environmental literature provides an information baseline for evaluating the extent of previous paleontological work in an area. Such a review also provides a fundamental basis for formulating mitigation plans and for understanding the significance of paleontological resources. The preconstruction assessment should also include examination of geotechnical reports, borehole logs, and geologic cross sections to address whether project excavations will impact rock units with high potential.

2. Records Search—A review of institutional localities and specimen records provides a means for determining the extent of previous fieldwork and fossil recovery in, and adjacent to, an area of interest. This task can be accomplished either by sending a written request for information to the relevant institution(s) or visiting the institution to review the records directly. A simple, on-line search of an institution's records is often incomplete and inadequate for determining the number and extent of known fossil localities in an area.

3. Consultation with Others—The preconstruction assessment should include consultation with geologists and paleontologists knowledgeable about the paleontological resource potential of rock units present in the vicinity of the proposed project.

4. Field Survey—The assessment should include a field survey by a qualified professional paleontologist and approved staff, as needed, to determine the paleontological potential of each rock unit, to re-examine any known fossil localities on or near the project, to search for unknown fossil localities, and to delimit the specific boundaries of rock units within the project area.

5. Reports—A paleontological resource impact assessment report and a project-specific paleontological resource impact mitigation program should be prepared based upon data gathered during the assessment.

6. Agency Confirmation—Prior to ground disturbance, the lead agency should review the paleontological resource impact assessment and proposed mitigation program to determine the adequacy of the proposed program.

7. Repository Agreement—The project paleontologist should have a repository agreement arranged prior to the start of earth-moving for the project.

8. Pre-excavation meetings—The project paleontologist should hold pre-excavation meetings with representatives of the lead agency, the developer or project proponent, and contractors to

explain the importance of fossils, the laws protecting fossils, the need for mitigation, the types of fossils that might be discovered during excavation work, and the procedures that should be followed if fossils are discovered. Defining the process of salvaging fossils will reduce project delays.

Paleontological Resource Mitigation Plan

Prior to any ground disturbance at the project site, a paleontological resource mitigation plan should be prepared by a qualified professional paleontologist, who then will implement the plan as the project paleontologist, program supervisor, and principal investigator. The paleontological resource mitigation plan establishes the ground rules for the entire paleontological resource mitigation program. Excavations at the project site may reveal conditions unanticipated when the paleontological resource mitigation plan was prepared. These conditions may require additional tasks not described in the previously prepared project impact mitigation plan. The project paleontologist should be the person who makes these project-specific modifications to the paleontological resource mitigation program in consultation with representatives of the lead agency and project proponent.

Adequate Monitoring

For excavations in rock units of known high potential, the project paleontologist or paleontological monitor will need to be present initially during 100% of the earth-moving activities. After 50% of excavations are complete in either an area or rock unit and no fossils of any kind have been discovered, the level of monitoring can be reduced or suspended entirely at the project paleontologist's discretion. For excavations in rock units with high or undetermined potential, it is never acceptable to have excavation monitoring done by construction workers, engineers, or persons who are not qualified paleontological resource monitors (see "definitions" section below). For excavations in rock units determined by a qualified professional paleontologist to have low potential, non-paleontologists may monitor for fossils. If potential paleontological resources are discovered during excavations in a rock unit with low potential, all ground disturbance in the vicinity of the find should stop immediately until a qualified professional paleontologist can assess the nature and importance of the find and recommend appropriate salvage, treatment, and future monitoring and mitigation.

Paleontologists who monitor excavations must be experienced in locating and salvaging fossils, and collecting necessary associated critical data. The paleontological resource monitor must be able to document the stratigraphic context of fossil discovery sites. Paleontological resource monitors must be properly equipped with tools and supplies to allow rapid removal of specimens. The monitor must be empowered to temporarily halt or redirect the excavation equipment away from fossils to be salvaged. Some lead agencies require that paleontological monitors be approved prior to performing any field work.

To reduce potential delays to excavation schedules, provision must be made in the mitigation program for additional assistants to monitor or help in removing large or abundant fossils. If many pieces of heavy equipment are in use simultaneously but at diverse locations, each location will need to be individually monitored.

Macrofossil Salvage

Many specimens recovered from excavations are readily visible to the eye and large enough to be easily recognized and removed. Upon discovery of such macrofossils, the monitor will flag the fossiliferous area for avoidance until the project paleontologist can evaluate the resource and develop plans for removal/salvage of these specimens. Some fossil specimens may be fragile and require consolidation

with archival quality media (e. g., Acryloid, Butvar, or Vinac) before moving. Others may require protection by encasing them within a plaster jacket before removal to a laboratory for later preparation and conservation. Occasionally specimens encompass all or much of a skeleton and will require moving either as a whole or in multiple blocks for later preparation. Such specimens require time to excavate and strengthen with a hardening solution before removal and the patience and understanding of the contractor to recover the specimens properly. It is thus important that contractors and developers are fully aware of the importance and fragility of fossils for their recovery to be undertaken with the optimum chances of successful extraction.

Avoidance and Site Protection

In exceptional instances the process of preconstruction assessment or construction monitoring itself may reveal a fossil occurrence of such importance that salvage or removal is unacceptable to all concerned parties. In such cases, the project design may need to be modified to avoid, protect and/or exhibit the fossil occurrence, e. g., in the floor or wall of a museum or as a basement exhibit in a mall. Under such circumstances, the site may be declared and dedicated as a protected resource of public value. Associated fossil fragments salvaged from such a site should be placed in an approved institutional repository. Federal land managers have the ability to set aside such exceptional areas providing documentation supports special management considerations.

Microfossil Salvage

Many significant vertebrate fossils (e. g., small mammal, bird, reptile, amphibian, or fish remains) are too small to be readily visible within the sedimentary matrix and are referred to as "microvertebrates". Small fossils also include non-vertebrate paleoenvironmental indicators (e. g., foraminifers, small gastropods, and plant seeds). Fine-grained sedimentary horizons (e. g., mudstones and paleosols) most often contain such fossils, which are typically recovered through a process of bulk matrix sampling followed by screen washing through 20 and/or 30 mesh screens. If indicators of potential microvertebrate fossils are found (e. g., plant debris, abundant mollusks, clay clasts, carbonate-rich paleosols, or mudstones) screening of a "test sample" (0.4 cubic yard/meter, ~600 lbs) may produce significant returns and indicate whether or not a larger sample needs to be screen washed. An adequate sample (standard sample) consists of approximately 4.0 cubic yards/meters (6,000 lbs or 2,500 kg) of matrix from each site, horizon, or paleosol. However, the uniqueness of the microvertebrate fossils recovered may justify screen washing even larger amounts. With this possibility in mind, two standard samples (~8.0 cubic yards/meters) or more as determined by the project paleontologist should be collected when the discovery is first made and set aside in case processing of a larger sample is later determined to be necessary. The developer must recognize that funding must be available to process these bulk matrix samples, thereby reducing volume to facilitate cost-effective storage of fossil specimens.

To avoid construction delays, samples of matrix may need to be removed from the project site and processed elsewhere. Chemicals (e. g., detergents, weak acids, orange oil, etc.) may be necessary to facilitate the breakdown of matrix. In some cases the concentrate will need to be further processed using heavy liquids (e. g., zinc bromide, polytungstate, or tetrabromide) to remove mineral grains and create a concentrate enriched with microvertebrate bones and teeth. The concentrate should be directly examined under a microscope to locate and remove individual microfossils.

Samples

To place fossils within a temporal context, dating of rock units may be necessary. If available, samples of volcanic ash and organic carbon should be collected for radiometric and/or thermoluminescence dating.

When appropriate, oriented samples should also be collected for paleomagnetic analysis. In addition, samples of fine-grained matrices should be collected from measured stratigraphic sections for microfossil (e. g., pollen, spores, dinoflagellates, ostracodes, diatoms, foraminifers, etc.) analyses. Other matrix samples may need to be collected and retained with the samples submitted to the repository institution for future analysis, for clast source analysis, or as witness to the source rock unit and possibly for procedures not yet envisioned. The project paleontologist should determine which of these samples should be immediately processed and which samples can be stored for later processing. Many museums will not accept such rock or sediment samples for curation and storage.

Preparation

Salvaged specimens must be prepared for identification and curation (not exhibition). This means removal of all or most of the enclosing sediment to reduce the specimen volume, increase surface area for the application of consolidants/preservatives, provide repairs and stabilization of fragile/damaged areas on a specimen, and allow identification of the fossils. Large specimens may require construction of reinforced plaster or fiberglass cradles. Removal of excess matrix from macrofossils during the preparation process will facilitate identification, reduce storage space, and reduce the cost of storage. Project paleontologists need to be aware that many museums will not accept specimens that are not fully prepared for permanent curation.

Identification and Cataloging

Specimens must be identified by competent qualified paleontological specialists to the lowest taxonomic level possible. Ideally, identification of individual specimens will be to genus and species and to skeletal element. Specimens must be cataloged and a complete list of specimens to be accessioned into the collections must be prepared for the curator of the repository institution. Batch identification and batch numbering (e. g., “mammals, 75 specimens”) is unacceptable.

Analysis

Although academic research questions should dictate the field methods and types of data recorded, the overall goal of a paleontological resource mitigation program is not to conduct research but rather to discover and salvage significant fossil remains, record relevant stratigraphic and taphonomic data, and curate and permanently house the salvaged fossil remains for future study. However, before salvaged specimens are curated, either the project paleontologist or a competent qualified paleontological specialist should determine the significance and importance of the salvaged specimens and this information should be included in the final report.

Storage

Adequate curation and storage of salvaged specimens in an approved repository institution is an essential goal of the paleontological mitigation program. Adequate storage must include curation of individual specimens into the collections of a recognized, not-for-profit repository with a permanent curator, such as a museum or a university (institution). A complete set of GPS data, field notes, photographs, locality forms, and stratigraphic sections must accompany the fossil collections. Specimens must be stored in a fashion that allows retrieval of specific, individual specimens by future researchers.

Specific requirements of the designated repository must be established prior to the start of the project, field salvage work, and laboratory analysis. Adequate advance notice of funds required by the repository for curation is needed for the benefit of project funding. Costs of the project should cover the necessary curatorial supplies such as, but not limited to, trays, vials, foam, and storage cabinets or shelves to provide for the appropriate curation of the specimens.

Reporting

1) Interim report
At the close of the excavation phase of a project, an interim report should be prepared. This interim report should summarize exceptional fossil discoveries, note areas where monitoring occurred and fossils were collected, and list tasks remaining for preparation, identification, and curation of the salvaged specimens. In the interim report, the preconstruction repository agreement should be appended and any additional repository considerations and costs should be described.

2) Final report
After preparation, identification, analysis of significance, and curatorial inventory of the salvaged specimens is complete, a final report must be prepared by the project paleontologist including a summary of the field and laboratory methods, site geology and stratigraphy, faunal/floral list(s), and a brief statement of the significance and relationship of the fossils discovered to similar fossils found elsewhere The final report should emphasize the discovery of any new or rare taxa, or paleoecological or taphonomic significance. A complete set of field notes, geologic maps, stratigraphic sections, and a list of identified specimens must be included in or accompany the final report. This report should be finalized only after all aspects of the mitigation program are completed, including preparation, identification, cataloging, and curatorial inventory.

The final report (with any accompanying documents) and repository curation of specimens and samples constitute the goals of a successful paleontological resource mitigation program. Full copies of the final report should be deposited with both the lead agency and the repository institution with the request that all locality data remain confidential and not made available to the general public.

Compliance
From the beginning of the project, the lead agency should assure compliance with measures to protect fossil resources by:

1. requesting during initial planning phases an assessment and program for impact mitigation that is consistent with these SVP Standard Procedures;

2. ensuring the adequacy of the proposed mitigation measures;

3. acknowledging arrangements for salvaged specimens to be permanently housed in an institutional paleontological repository;

4. ensuring that the paleontological resource mitigation program is supervised by a qualified professional paleontologist;

5. ensuring that all monitoring for paleontological resources is performed by qualified paleontological resource monitors;

6. inspecting the monitoring program in the field periodically during project construction;

7. ensuring that specimens are prepared, identified, cataloged, and properly curated;

8. requiring an interim and final report before issuing final occupancy permits or equivalent documents; and

9. ensuring that the final report is complete and adequately describes the methods and results of the mitigation program.

The project paleontologist should be responsible for:

1. assessing potential impacts to paleontological resources and developing a program for impact mitigation during initial planning phases;

2. obtaining a repository agreement, and ensuring repository acceptance of specimens;

3. ensuring implementation of the mitigation measures; and

4. preparing the interim and final reports.

Acceptance of the final report by the lead agency signifies completion of the program of mitigation for the project. Review and approval of the final report by a qualified professional paleontologist designated by the lead agency will determine the effectiveness of the program and adequacy of the report. Inadequate performances in either area comprise noncompliance, and may result in the lead agency removing the project paleontologist from its list of qualified professional paleontological consultants.

Definitions

A QUALIFIED PROFESSIONAL PALEONTOLOGIST (Principal Investigator, Project Paleontologist) is a practicing scientist who is recognized in the paleontological community as a professional and can demonstrate familiarity and proficiency with paleontology in a stratigraphic context. A paleontological Principal Investigator shall have the equivalent of the following qualifications:

1. A graduate degree in paleontology or geology, and/or a publication record in peer reviewed journals; and demonstrated competence in field techniques, preparation, identification, curation, and reporting in the state or geologic province in which the project occurs. An advanced degree is less important than demonstrated competence and regional experience.
2. At least two full years professional experience as assistant to a Project Paleontologist with administration and project management experience; supported by a list of projects and referral contacts.
3. Proficiency in recognizing fossils in the field and determining their significance.
4. Expertise in local geology, stratigraphy, and biostratigraphy.
5. Experience collecting vertebrate fossils in the field.

PALEONTOLOGICAL RESOURCE MONITORS shall have the equivalent of the following qualifications:

1. BS or BA degree in geology or paleontology and one year experience monitoring in the state or geologic province of the specific project. An associate degree and/or demonstrated experience showing ability to recognize fossils in a biostratigraphic context and recover vertebrate fossils in the field may be substituted for a degree. An undergraduate degree in geology or paleontology is preferable, but is less important than documented experience performing paleontological monitoring, or
2. AS or AA in geology, paleontology, or biology and demonstrated two years experience collecting and salvaging fossil materials in the state or geologic province of the specific project, or
3. Enrollment in upper division classes pursuing a degree in the fields of geology or paleontology and two years of monitoring experience in the state or geologic province of the specific project.

4. Monitors must demonstrate proficiency in recognizing various types of fossils, in collection methods, and in other paleontological field techniques.

ASSOCIATED CRITICAL DATA includes adequate field notes, sketches of stratigraphic sections, geologic maps, and site and specimen photos. Associated critical data may also include samples of organic carbon and volcanic ash for radiometric dating, oriented samples for paleomagnetic analysis, samples for microfossil analysis, and samples for determining the sediment source.

A **PALEONTOLOGICAL REPOSITORY** is a not-for-profit museum or university approved by the lead agency and employing a permanent curator responsible for paleontological records and specimens. Such an institution assigns accession, locality, and/or catalog numbers to individual specimens that are stored and conserved to ensure their preservation under adequate security against theft, loss, damage, fire, pests, and adverse climate conditions. Specimens will be stored in a stable environment away from flammable liquids, corrosive chemicals, organic materials subject to mildew, and sources of potential water damage. Specimens must have all modifications, preparation techniques, etc. documented and linked with the specimen. The repository will also archive lists of collected specimens, and any associated field notes, maps, photographs, diagrams, or other data. The repository must have procedures for tracking specimens removed from storage for study, preparation, exhibit, or loan. The repository must make its collections of cataloged specimens available for study by qualified researchers.

ARCHAEOLOGICAL RESOURCES are human remains and items or artifacts associated with human cultures. If paleontological resources are determined to be in close stratigraphic association with human remains or human manufactured items, or if fossils can be demonstrated to be intentionally modified by humans, they are also considered archaeological resources.

SIGNIFICANT PALEONTOLOGICAL RESOURCES are fossils and fossiliferous deposits, here defined as consisting of identifiable vertebrate fossils, large or small, uncommon invertebrate, plant, and trace fossils, and other data that provide taphonomic, taxonomic, phylogenetic, paleoecologic, stratigraphic, and/or biochronologic information. Paleontological resources are considered to be older than recorded human history and/or older than middle Holocene (i. e., older than about 5,000 radiocarbon years).

A **LEAD AGENCY** is the agency responsible for addressing impacts to resources that a specific project might cause, and for ensuring compliance with approved mitigation measures.

PALEONTOLOGICAL POTENTIAL is the potential for the presence of significant paleontological resources. All sedimentary rocks, some volcanic rocks, and some low-grade metamorphic rocks have potential to yield significant paleontological resources. Paleontological potential is determined only after a field survey of a rock unit in conjunction with a review of available literature and relevant paleontological locality records.

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APPENDIX B

Photographs

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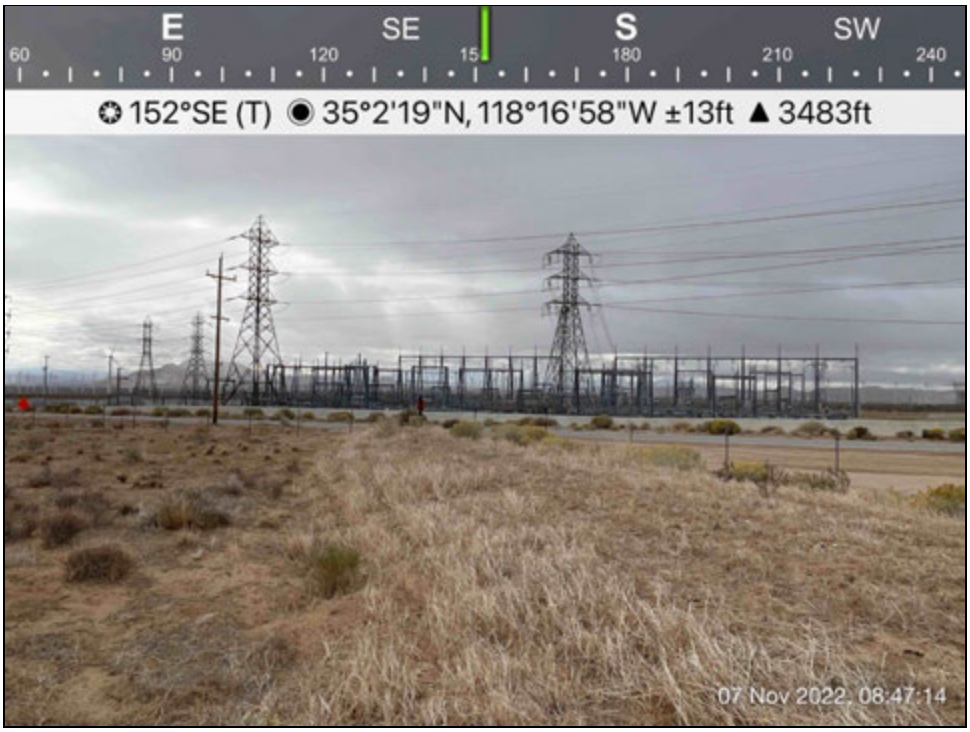

Photo 1. A view facing the substation to the south-southeast from the Study Area's gen-tie line.

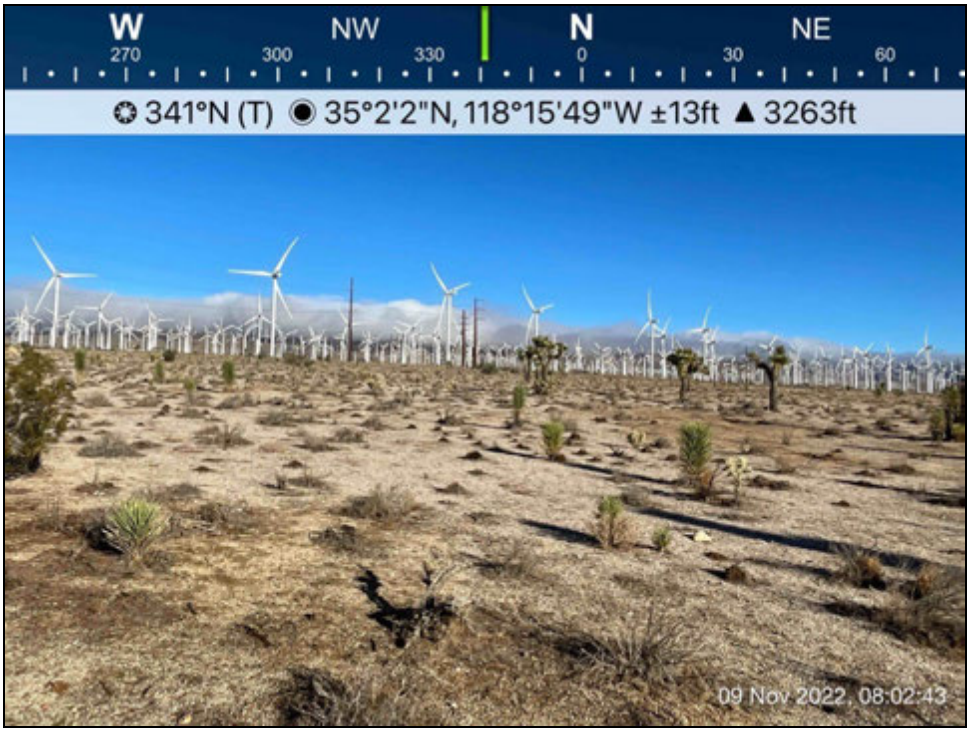

Photo 2. A view from the south towards the north-northwest along the gen-tie line near Oak Creek Road.



Photo 3. A view of a channel cut exposing over 5 feet of Holocene alluvium.



Photo 4. A view of a wash present near Tehachapi Willow Spring Road.



Photo 5. A view toward the west-northwest portion of the Study Area.

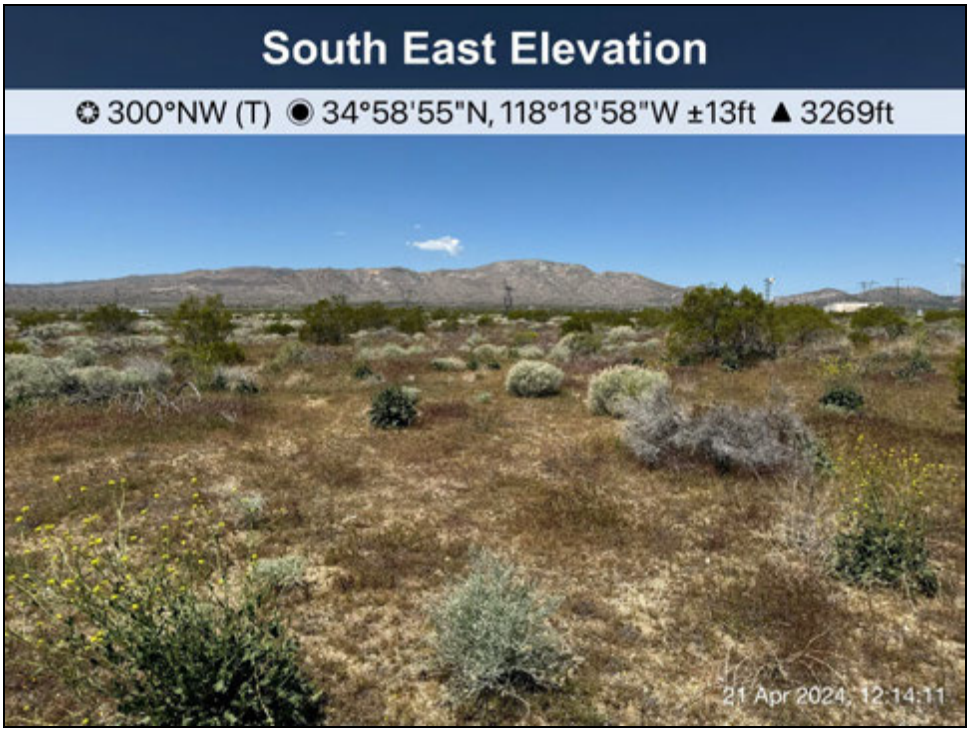

Photo 6. A view from the Study Area toward the southeast near Tehachapi Willow Springs Road.

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Appendix H
Phase I Environmental Site Assessment

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Engineering and Science, Inc.

More Than Just Assessments.
Solutions.



PHASE I ENVIRONMENTAL SITE ASSESSMENT REPORT

Discovery Project Area - Combined Phase I

Mojave and Rosamond, California 93501

Report Date

August 18, 2025

Site Inspection Date

August 1, 2025

Partner Project No.

25-507061.1

Prepared for:

Terra-Gen, LLC
11455 El Camino Real, Suite 160,
San Diego, California 92130

Building Science | Environmental Consulting | Construction & Development | Energy & Sustainability

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PARTNER

August 18, 2025

Mr. Jim Heinrich
Terra-Gen, LLC
11455 El Camino Real, Suite 160,
San Diego, California 92130

Subject: Phase I Environmental Site Assessment
Discovery Project Area - Combined Phase I ESA
Mojave and Rosamond, California 93501
Partner Project No. 25-507061.1

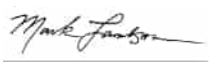
Dear Mr. Heinrich,

Partner Engineering and Science, Inc. (Partner) is pleased to provide this Phase I Environmental Site Assessment (Phase I ESA) report of the abovementioned address (the "subject property"). This assessment was performed in conformance with the scope and limitations as detailed in the ASTM Practice E1527-21 Standard Practice for Environmental Site Assessments: Phase I Environmental Site Assessment Process and the Client Agreement.

This assessment included a site reconnaissance as well as research and interviews with representatives of the public, property ownership, site manager, and regulatory agencies. An assessment was made, conclusions stated, and recommendations outlined.

We appreciate your trust in Partner and the opportunity to provide environmental services to you. If you have any questions concerning this report, or if we can assist you in any other matter, please contact me at (619) 925-9672 or at MLambson@partneresi.com.

Sincerely,



Mark Lambson
Principal

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EXECUTIVE SUMMARY

Partner Engineering and Science, Inc. (Partner) has performed a Phase I Environmental Site Assessment (ESA) in accordance with the scope of work and limitations of ASTM Practice E1527-21, the Environmental Protection Agency Standards and Practices for All Appropriate Inquiries (AAI) (40 CFR Part 312) and as set forth by Terra-Gen, LLC for the property located at 11354, 11741 115th Street, 9635 Laguna Avenue, 11100 90th Street in Mojave and Rosamond, Kern County, California (the "subject property"). The Phase I Environmental Site Assessment is designed to provide Terra-Gen, LLC with an assessment concerning environmental conditions (limited to those issues identified in the report) as they exist at the subject property.

Property Description

The subject property is located primarily north of Backus Road, south of Oak Creek Road, and northeast and southwest of Tehachapi Willow Springs Road within an undeveloped desert with sporadic residences and wind turbine area of Kern County, California. Please refer to the table below for a further description of the subject property:

SUBJECT PROPERTY DATA

Address(es):	11354, 11741 115th Street, 9635 Laguna Avenue, 11100 90th Street, Mojave and Rosamond, California
Additional Current Address(es):	None Identified
Historical Address(es):	None Identified
Property Use:	Single-family residential, ranch/zoo, and undeveloped native desert land
Land Acreage (Ac):	Approximately 7,700 acres
Number of Buildings:	One (mobile trailer homes and storage sheds not included)
Number of Floors:	Two
Gross Building Area (SF):	Approximately 4,000 sf (Residence)
Net Rentable Area (SF):	Approximately 4,000 sf (Residence)
Date of Construction:	Circa 1995
Parcel Number:	237-031-04; 38 237-053-02; 04; 05; 06; 08; 09; 10;13; 14; 16; 28 237-054-09; 10; 11; 12; 13; 25; 26; 27; 28; 30; 31; 32; 33; 36; 38; 39; 40; 41; 44 237-055-08; 09; 10; 12; 16; 17; 18 237-093-10; 11; 12; 13; 14; 15; 16; 18; 46; 47; 48; 49; 50; 51; 53; 55; 56 237-113-09; 13; 14; 15; 16 237-114-03; 04; 06; 07; 09; 10; 16 237-380-01; 02; 03; 04; 05; 06; 07; 08

237-332-11; 15; 16; 17; 18; 19

237-370-01; 02; 03; 04; 05; 06; 07; 08; 09; 11; 12; 13; 14; 15; 16; 17; 18

237-400-02; 03; 05; 06; 07; 08; 11; 13; 14; 15

237-410-01; 02; 03; 05; 06; 07; 08; 09; 10; 11; 12; 13; 14; 15; 18

345-011-03; 07; 08; 09; 10; 11; 12; 13; 14; 15; 16; 24; 25; 26; 31; 36; 37; 39; 40; 41; 42

345-062-01; 02; 03; 04; 05; 07; 08; 26; 27; 28; 29; 30; 31; 39; 40; 42; 56

345-063-29

345-100-01

346-011-02; 07; 09; 12; 13; 14; 15; 17; 18

346-012-04; 06; 07; 09; 10; 11; 12

346-021-01

346-041-05; 07; 08;18; 19; 21; 22; 23; 24; 25; 28; 29; 32

346-042-35; 37; 39; 40; 43; 44; 45; 46; 47; 48; 49; 50; 51; 52; 53; 54; 55; 56; 57; 58; 59; 60; 61; 62

346-050-03; 04; 05; 06; 07; 13; 14; 15; 17; 18; 19; 20; 21; 22; 23; 24; 25; 26; 27; 28; 29; 30; 31; 32; 33; 35; 36

346-061-01; 04; 05; 06; 08; 09; 11; 12; 13; 14; 15; 16; 17; 18; 19; 21; 22; 24; 25; 28; 29; 30; 31; 33; 35; 37; 39; 40; 45; 46; 47; 48; 49; 50; 51; 52; 53; 54; 55; 56; 58; 59; 60; 61; 62

346-062-03; 04; 06; 07; 11; 12; 14; 16; 17; 18; 19; 23; 24; 25; 26; 27; 29; 30; 31; 32; 34; 35; 36; 37; 38; 39; 40; 41; 42; 44; 46; 47; 48; 49; 50; 51; 52; 53

346-071-01; 02; 03; 04; 05; 06; 07; 08; 09; 10; 15; 16; 17; 18; 23; 24; 25; 26

346-081-01; 02; 03; 13; 14

346-090-01; 07; 09; 11; 12; 13; 14; 19; 21; 22; 23; 24; 28; 29; 30; 33; 35; 36; 41; 42

346-132-18; 19; 22; 23; 24; 25; 26; 27; 28

474-010-04; 29; 30; 31

474-021-04; 05; 06; 18; 19; 20; 21

474-040-09; 15; 16; 17; 19; 20

474-051-04; 05; 06; 07; 08; 09; 10; 12; 14; 15; 16; 17; 18; 19; 20; 21; 22; 23; 24; 25; 26; 27; 28; 29; 33

474-052-01; 02; 03; 29; 31; 32; 33

474-060-03; 05; 09; 11; 12; 13; 14; 15; 16; 17; 19; 20; 21; 22; 24; 25; 26; 27; 30; 31; 32; 33; 34; 35; 36; 38; 39; 40;

	41; 42; 43; 44; 45 474-071-01; 02; 03; 04; 05; 06; 07; 08; 09; 10; 11; 12; 18 474-072-03 474-083-06; 07 474-160-01; 02; 05; 06; 07; 08; 09 474-171-01 474-172-02; 03; 04; 05; 13; 14 474-180-02; 03; 04; 05; 06; 07; 08 474-220-15; 22
Type of Construction:	Wood-framed
Current Tenants:	Windswept Ranch Petting Zoo and single families within the dwelling and trailer structures
Site Assessment Performed By:	Ramiro Vejar of Partner
Site Assessment Conducted On:	August 1, 2025
Regulatory Radius Report Date:	July 15, 2025
Lien Search Date:	N/A
Report Date:	August 18, 2025
FOIAs Date:	July and August 2025
Groundwater Flow Direction (Inferred):	South-southeast
Estimated Depth to Groundwater (Feet bgs):	Approximately 225

The subject property is currently occupied by Windswept Ranch Petting Zoo and single families within the dwelling and trailer structures for residential use. Onsite operations consist of residential living and daily upkeep associated with the ranch petting zoo. In addition to the current structure, the subject property is also improved with concrete stormwater swales, overhead electrical power lines, and wind turbines.

According to available historical sources, the subject property was formerly undeveloped native desert land, bisected by roadways, creeks, and an aqueduct from as early as 1943, developed with the current dwelling on the western portion by circa 1995, and occupied by the current ranch from as early as 2005. Power line easements and wind turbines intersect portions of the subject property from as early as 2010. Tenants on the subject property have included single family residential occupants from as early as 1995 and a ranch/zoo property since circa 2005.

The adjoining properties are tabulated below:

ADJOINING PROPERTIES

Direction	Land Use/Occupant
North:	Vacant/undeveloped desert land, along with wind turbines and associated substations (11253 Tehachapi Willow Springs Road, 12490 90th Street W) followed by CalPortland (9350 Oak Creek Road), Windhub A Solar Park

	(13900 90th Street), and SCE Windhub Substation (8009, 8015 Oak Creek Road)
East:	Vacant/undeveloped desert land, along with wind turbines and a substation
South:	Vacant/undeveloped desert land, along with Holiday Rock (7037 Trotter Avenue), Eagle Water Truck Service Inc. (9421 Tehachapi Willow Springs Road), Central San Lorenzo-Tarija Power Station (General Petroleum Road), and Silver Queen Mine aka Cactus Queen Mine, Middle Buttes Mine, Gold Mine (8941 Backus Road), Power Station (11054 Backus Road)
West:	Undeveloped native desert land and Pac Wind (11585 Tehachapi Willow Springs Road)

Findings and Opinions

Recognized Environmental Condition

A recognized environmental condition (REC) refers to the presence of hazardous substances or petroleum products in, on, or at the subject property due to a release to the environment; the likely presence of hazardous substances or petroleum products in, on, or at the subject property due to a release or likely release to the environment; or the presence of hazardous substances or petroleum products in, on, or at the subject property under conditions that pose a material threat of a future release to the environment.

- Partner identified no RECs in connection with the Subject Property.

Controlled Recognized Environmental Condition

A controlled recognized environmental condition (CREC) refers to a REC affecting the subject property that has been addressed to the satisfaction of the applicable regulatory authority or authorities with hazardous substances or petroleum products allowed to remain in place subject to the implementation of required controls (for example, activity and use limitations or other property use limitations).

- Partner identified no CRECs in connection with the Subject Property.

Historical Recognized Environmental Condition

A historical recognized environmental condition (HREC) refers to a previous release of hazardous substances or petroleum products affecting the subject property that has been addressed to the satisfaction of the applicable regulatory authority or authorities and meeting unrestricted use criteria established by the applicable regulatory authority or authorities without subjecting the subject property to any controls (for example, activity and use limitations or other property use limitations).

- Partner identified no HRECs in connection with the Subject Property.

Business Environmental Risk

A Business Environmental Risk (BER) is a risk which can have a material environmental or environmentally driven impact on the business associated with the current or planned use of commercial real estate, not necessarily related to those environmental issues required to be investigated in this practice. The following BER was identified during the course of this assessment:

- According to the CalGem Well Finder online database, an oil and gas well identified as American Petroleum Institute (API) number 0402989961, owned by M.K. Energy, was historically drilled on the portion of the subject property designated as parcel 474-010-30, in 1992. Available CalGem

records state that the well was drilled to a depth of 2,517 feet in 1992 but that the well did not produce any oil, or even operate, at the subject property. A Report of Well Abandonment, dated August 13, 1999, states that the well was plugged on July 31, 1993, under the oversight of the Department of Conservation's Division of Oil, Gas & Geothermal Resources. Prior to redevelopment activities in the vicinity of the plugged oil and gas well, appropriate agencies should be contacted to ensure proper safety protocols are in place. Alternatively, if site development activities are offset 50 feet from the mapped location of the well, no further action would be warranted.

Significant Data Gaps

No significant data gaps affecting the ability of the Environmental Professional to identify a REC were encountered during this assessment.

Conclusions and Recommendations

Partner has performed a Phase I Environmental Site Assessment in conformance with the scope and limitations of ASTM Practice E1527-21 of 11354, 11741 115th Street, 9635 Laguna Avenue, 11100 90th Street in Mojave and Rosamond, Kern County, California (the "subject property"). Any exceptions to, or deletions from, this practice are described in Section 1.5 of this report.

This assessment has revealed no evidence of RECs, CRECs, or HRECs in connection with the subject property; however, a BER was identified. Based on the conclusions of this assessment, Partner recommends no further investigation regarding the environmental condition of the subject property.

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FIGURES

Figure 1: Site Location Map
Figure 2: Site Plan
Figure 3: Topographic Map

APPENDICES

Appendix A: Site Photographs
Appendix B: Historical/Regulatory Documentation
Appendix C: Regulatory Database Report
Appendix D: Qualifications

ACRONYM LIST

Ac	Acre
AAI	All Appropriate Inquiries
AMSD	Approximate Minimum Search Distance
AOC	Area of Concern
ACM	Asbestos Containing Material
APN	Assessor Parcel Number
AST	Aboveground Storage Tank
AUL	Activity and Use Limitation
AIRS	Aerometric Information Retrieval System
AFS	Air Facility System
ALT FUELS	Alternate Fueling Stations
ASTM	American Society for Testing and Materials
BGS	Below Ground Surface
BER	Business Environmental Risk
BRS	EPA Biennial Reporting System
COC	Chemical of Concern
CREC	Controlled Recognized Environmental Condition
CDL	Clandestine Drug Lab
CERCLIS	Comprehensive Environmental Response, Compensation and Liability Information System
CERCLA	Comprehensive Environmental Response, Compensation, and Liability Act
CESQG	Conditionally Exempt Small Quantity Generator
CORRACTS	RCRA Corrective Action Sites
ERIS	Environmental Risk Information Services
ERNS	Emergency Response Notification System
ECHO	Enforcement and Compliance History Online
FRP	Fiberglass Reinforced Plastic
FIM	Fire Insurance Map
FOIA	Freedom of Information Action
FINDS	Facility Index Database System
FRS	Facility Registry Service
FRP	Facility Response Plan
FIFRA	Federal Insecticide, Fungicide, and Rodenticide Act
FUDS	Formally Used Defense Site
FTTS	FIFRA/TSCA Tracking System
FTTS INSP	Inspection Case Listing
FUSRAP	Formerly Utilized Sites Remedial Action Program
FEMA	Federal Emergency Management Agency
HUD	U.S. Department of Housing and Urban Development
HSWA	Hazardous and Solid Waste Amendments
HVAC	Heating, Ventilation and Air Conditioning
HREC	Historical Recognized Environmental Condition
IODI	Open Dumps on Indian Lands
IHW	Industrial Hazardous Waste
IC/EC or INST/ENG	Institutional Control/Engineering Control
ICIS	Integrated Compliance Information System
LUCIS	Land Use Control Information System U.S. Department of the Navy
LQG	Large Quantity Generator
LPST	Leaking Petroleum Storage Tank
LST	Leaking Storage Tank
LUST	Leaking Underground Storage Tank

LBP	Lead-Based Paint
MSL	Mean Sea Level
MMMP	Mold, Moisture, and Mitigation Plan
MGP	Manufactured Gas Plant
MINES	Mines Master Index File
MLTS	Material Licensing Tracking System
HMIRS	Hazardous Materials Information Reporting System
MRDS	Mineral Resource Data System
NPL	National Priorities List
NCDL	National Clandestine Drug Labs
NPDES	National Pollutant Discharge Elimination System
NFRAP	No Further Remedial Action Planned
NonGen	Non Generator
NonGen/NLR	Non Generator/No Longer Regulated
ND	None Detected
NESHAP	National Emission Standards for Hazardous Air Pollutants
NWI	National Wetlands Inventory
NFA	No Further Action
N/A	Not Applicable
NOV	Notice of Violation
NTC	Notice To Comply
NRC	Nuclear Regulatory Commission
ODI	Inventory of Open Dumps
OWS	Oil-Water Separator
OSHA	Occupational Safety and Health Administration
O&M	Operations and Maintenance
PTO	Permit to Operate
Phase I ESA	Phase I Environmental Site Assessment
pCi/L	picoCuries per Liter
PHMSA	Pipeline and Hazardous Materials Safety Administration
PCB	Polychlorinated Biphenyl
PACM	Presumed Asbestos Containing Material
PFAS	Perfluoroalkyl and Polyfluoroalkyl Substances
PFOA	perfluorooctanoic acid
PFOS	Perfluorooctane sulfonic acid
REFN	Petroleum Refineries
PRP	Potentially Responsible Party
PST	Petroleum Storage Tank
ROD	Record of Decision
RGA	Recovered Government Archive
RCRA	Resource Conservation and Recovery Act
RCRIS	Resource Conservation Recovery Information System
REC	Recognized Environmental Condition
SF	Square Foot/Feet
SSA	Superfund Alternative Agreement
SSTS	Section Seven Tracking System
SQG	Small Quantity Generator
SMCRA	Office of Surface Mining Reclamation and Enforcement
SWF/LF	Solid Waste Facility/Landfill
SWRCY	Solid Waste Recycling Facility
SCRD	State Coalition for the Remediation of Drycleaners
SHWS	State Hazardous Waste Sites

SEMS	Superfund Enterprise Management Site
TANKS	Aboveground and Unregulated Tanks
TRIS	Toxic Chemicals Release Inventory System
TSCA	Toxic Substances Control Act
TSDF	Transfer, Storage and Disposal Facility
USDOE	United States Department of Energy
USDOT	United States Department of Transportation
USEPA	United States Environmental Protection Agency
USFWS	United States Fish and Wildlife Service
USGS	United States Geological Survey
UST	Underground Storage Tank
UIC	Underground Injection Control
VEC	Vapor Encroachment Condition
VSQG	Very Small Quantity Generator
VCP	Voluntary Cleanup Program

1.0 INTRODUCTION

Partner Engineering and Science, Inc. (Partner) has performed a Phase I Environmental Site Assessment (ESA) in conformance with the scope and limitations of ASTM Practice E1527-21 and the Environmental Protection Agency Standards and Practices for All Appropriate Inquiries (AAI) (40 CFR Part 312) for the property located at 11354, 11741 115th Street, 9635 Laguna Avenue, 11100 90th Street in Mojave and Rosamond, Kern County, California (the "subject property"). Any exceptions to, or deletions from, this scope of work are described in the report.

1.1 Purpose

The purpose of this ESA is to identify existing or potential Recognized Environmental Conditions (as defined by ASTM Standard E1527-21) affecting the subject property, including those that: 1) constitute or result in a material violation or a potential material violation of any applicable environmental law; 2) impose any material constraints on the operation of the subject property or require a material change in the use thereof; 3) require clean-up, remedial action or other response with respect to Hazardous Substances or Petroleum Products on or affecting the subject property under any applicable environmental law; 4) may affect the value of the subject property; and 5) may require specific actions to be performed with regard to such conditions and circumstances. The information contained in the ESA Report may be used by Client to: 1) evaluate its legal and financial liabilities for transactions related to foreclosure, purchase, sale, loan origination, loan workout or seller financing; 2) evaluate the subject property's overall development potential, the associated market value and the impact of applicable laws that restrict financial and other types of assistance for the future development of the subject property; and/or 3) determine whether specific actions are required to be performed prior to the foreclosure, purchase, sale, loan origination, loan workout or seller financing of the subject property.

This ESA was performed to permit the User to satisfy one of the requirements to qualify for the innocent landowner, contiguous property owner, or *bona fide* prospective purchaser limitations on scope of Comprehensive Environmental Response, Compensation and Liability Act (CERCLA) (42 U.S.C. §9601) liability (hereinafter, the "landowner liability protections," or "LLPs"). ASTM Standard E1527-21 constitutes "all appropriate inquiry into the previous ownership and uses of the property consistent with good commercial or customary practice" as defined at 42 U.S.C. §9601(35)(B).

1.2 Scope of Work

The scope of work for this ESA is in accordance with and to the extent necessary to achieve the goal of the requirements set forth in the ASTM Standard E1527-21. This assessment included 1) a property and adjoining site reconnaissance; 2) interviews with key personnel; 3) a review of historical sources; 4) a review of regulatory agency records; and 5) a review of a regulatory database report provided by a third-party vendor. Partner contacted local agencies, such as environmental health departments, fire departments and building departments to obtain readily ascertainable information to determine any current and/or former hazardous substances usage, storage and/or releases of hazardous substances on the subject property. Additionally, Partner researched readily available information on the presence of activity and use limitations (AULs) at these agencies. As defined by ASTM E1527-21, AULs include both legal (that is, institutional) and physical (that is, engineering) controls that may include legal or physical restrictions or limitations on the use of, or access to, a site or facility: 1) to reduce or eliminate potential exposure to hazardous substances or petroleum products in the soil, soil vapor, groundwater, or surface water on the subject property; or 2) to prevent activities that could interfere with the effectiveness of a response action, in order to ensure maintenance of a condition of no significant risk to public health or the environment. These legal or physical restrictions, which may include institutional and/or engineering controls (IC/ECs), are intended to prevent adverse impacts to individuals or populations that may be

exposed to hazardous substances and petroleum products in the soil, soil vapor, groundwater, and/or surface water on a property.

If requested by Client, this report may also include the identification, discussion of, and/or limited sampling of asbestos-containing materials (ACMs), lead-based paint (LBP), mold, and/or radon.

1.3 Limitations

Partner warrants that the findings and conclusions contained herein were accomplished in accordance with the methodologies set forth in the Scope of Work. These methodologies are described as representing good commercial and customary practice for conducting an ESA of a property for the purpose of identifying recognized environmental conditions. There is a possibility that even with the proper application of these methodologies there may exist on the subject property conditions that could not be identified within the scope of the assessment or which were not reasonably identifiable from the available information. Partner believes that the information obtained from the record review and the interviews concerning the subject property is reliable. However, Partner cannot and does not warrant or guarantee that the information provided by these other sources is accurate or complete. The conclusions and findings set forth in this report are strictly limited in time and scope to the date of the evaluations. The conclusions presented in the report are based solely on the services described therein, and not on scientific tasks or procedures beyond the scope of agreed-upon services or the time and budgeting restraints imposed by the Client. No other warranties are implied or expressed.

Some of the information provided in this report is based upon personal interviews, and research of available documents, records, and maps held by the appropriate government and private agencies. This report is subject to the limitations of historical documentation, availability, and accuracy of pertinent records, and the personal recollections of those persons contacted.

This practice does not address requirements of any state or local laws or of any federal laws other than the all appropriate inquiries provisions of the LLPs. Further, this report does not intend to address all of the compliance and safety concerns, if any, associated with the subject property.

Environmental concerns, which are beyond the scope of a Phase I ESA as defined by ASTM include the following: ACMs, LBP, radon, and lead in drinking water. These issues may affect environmental risk at the subject property and may warrant discussion and/or assessment; however, are considered non-scope issues. If specifically requested by the Client, these non-scope issues are discussed in Section 6.3.

1.4 User Reliance

Terra-Gen, LLC (herein referred to as Client) engaged Partner to perform this assessment in accordance with an agreement governing the nature, scope, and purpose of the work as well as other matters critical to the engagement. All reports, both verbal and written, are for the sole use and benefit of Client. Either verbally or in writing, third parties may come into possession of this report or all or part of the information generated as a result of this work. In the absence of a written agreement with Partner granting such rights, no third parties shall have rights of recourse or recovery whatsoever under any course of action against Partner, its officers, employees, vendors, successors or assigns. In the event of any conflict between the terms and conditions of this report and the terms and conditions of the underlying environmental consulting services agreement between the Client and Partner, the environmental consulting services agreement shall control.

1.5 Limiting Conditions

The findings and conclusions contain all the limitations inherent in these methodologies that are referred to in ASTM Practice E1527-21.

Specific limitations and exceptions to this ESA are more specifically set forth below:

- Interviews with past owners, operators and occupants were not reasonably ascertainable and thus constitute a data gap. Based on information obtained from other historical sources, this data gap is not expected to alter the findings of this assessment and is not significant.
- Partner requested information relative to deed restrictions and environmental liens, a title search, and completion of the AAI User Questionnaire from the Report User. This information was not provided at the time of the assessment. This data gap is not expected to alter the findings of this assessment and is not significant.
- Partner was unable to determine the property use at five-year intervals, which constitutes a data gap. Except for property tax files and recorded land title records, which were not considered to be sufficiently useful, Partner reviewed all standard historical sources and conducted appropriate interviews. This data gap is not expected to alter the findings of this assessment and is not significant.
- Access was not granted to the interior of the onsite residential properties and ranch structures. Based on the nature of operations of these facilities, this limitation is not expected to significantly alter the findings of this assessment and the lack of further information does not represent a significant data gap.
- Partner's view of portions of the ground during the site assessment was obstructed due to overgrown vegetation. Based on information obtained from other historical sources, this limitation is not expected to alter the overall findings of this assessment and the lack of this information does not represent a significant data gap.

2.0 SITE DESCRIPTION

2.1 Site Location and Legal Description

The subject property at 11354, 11741 115th Street, 9635 Laguna Avenue, 11100 90th Street in Mojave and Rosamond, California is located primarily north of Backus Road, south of Oak Creek Road, and northeast and southwest of Tehachapi Willow Springs Road. According to the Kern County Assessor, the subject property is legally described as by various assessor parcel numbers previously listed in the executive summary. Full assessor details are included in appendix B.

Please refer to Figure 1: Site Location Map, Figure 2: Site Plan, Figure 3: Topographic Map, and Appendix A: Site Photographs for the location and site characteristics of the subject property.

2.2 Current Property Use

The subject property is currently occupied by Windswept Ranch Petting Zoo and single families within the dwelling and trailer structures for residential use. Onsite operations consist of residential living and daily upkeep associated to the ranch petting zoo. The subject property consists of one wood-framed two-story single-family residence located on the west-center portion of the subject property. Furthermore, the parcel occupied by the Windswept Ranch Petting Zoo includes a trailer home, mobile trailers, associated outbuildings, and animal pens which are located on the west side of the property boundary. In addition to the current structure, the subject property is also improved with concrete stormwater swales, overhead electrical power lines, and wind turbines.

The subject property is designated A, PL, RS, and FP for exclusive agricultural, platted lands, residential suburban combining, and floodplain combining development by Kern County.

2.3 Current Use of Adjoining Properties

The subject property is located within an undeveloped desert with sporadic residences and wind turbine area of Kern County, California. During the vicinity reconnaissance, Partner observed the land uses on adjoining properties as defined in ASTM Practice E1527-21 as any real property or properties the border of which is contiguous or partially contiguous with that of the property, or that would be contiguous or partially contiguous with that of the property but for a street, road, or other public thoroughfare separating them. The adjoining properties are tabulated below:

ADJOINING PROPERTIES

Direction	Land Use/Occupant
North:	Vacant/undeveloped desert land, along with wind turbines and associated substations (11253 Tehachapi Willow Springs Road, 12490 90th Street W) followed by CalPortland (9350 Oak Creek Road), Windhub A Solar Park (13900 90th Street), and SCE Windhub Substation (8009, 8015 Oak Creek Road)
East:	Vacant/undeveloped desert land, along with wind turbines and a substation
South:	Vacant/undeveloped desert land, along with Holiday Rock (7037 Trotter Avenue), Eagle Water Truck Service Inc. (9421 Tehachapi Willow Springs Road), Central San Lorenzo-Tarija Power Station (General Petroleum Road), and Silver Queen Mine aka Cactus Queen Mine, Middle Buttes Mine, Gold Mine (8941 Backus Road), Power Station (11054 Backus Road)

ADJOINING PROPERTIES

West:	Undeveloped native desert land and Pac Wind (11585 Tehachapi Willow Springs Road)

2.4 Physical Setting Sources

2.4.1 Topography

TOPOGRAPHIC DATA SUMMARY

Quadrangle Year:	2021 and 2022
Quadrangle Name:	Mojave, Monolith, Soledad Mountain, Willow Springs, California
Source:	USGS 7.5 Minute Topographic Map
Elevation (Feet):	Approximately 3,200 to 3,750
Slope Direction:	South-southeast
Slope Degree:	Moderate

A copy of the most recent topographic map is included as Figure 3 of this report.

2.4.2 Hydrology

While under natural and undisturbed conditions shallow groundwater flow most frequently follows the topography of the land surface, natural or man-made features can affect flow direction, and the presumed flow may not match the actual flow directions at the subject property and vicinity.

HYDROLOGY DATA SUMMARY

Groundwater Flow Direction:	South-southeast
Groundwater Flow Source:	Topographic map interpretation
Estimated Depth to Groundwater (Feet bgs):	Approximately 225
Estimated Depth Source:	A previous subsurface investigation conducted on a nearby property (2001 Highway 58 and 2022 Closed Case #6B1500024T/590020)
Closest Body of Surface Water Name:	Oak Creek and Los Angeles Aqueduct
Closest Body of Surface Water Distance (Miles):	Bisecting the subject property
Water System Operator:	Mojave Public Utilities Department (MPUD)
Shallow Groundwater Use:	Not used for domestic purposes

HYDROLOGY DATA SUMMARY

Source of Drinking Water:	Groundwater from six deep wells located in the Chaffee Subunit and Cameron Flat areas and purchased water from Antelope Valley-East Kern Water Agency

2.4.3 Geology/Soils

GEOLOGY AND SOIL DATA SUMMARY

Physiographic Province:	The subject property is situated within the Antelope Valley of the Mojave Desert geomorphic province of the State of California.
Geologic Unit Description:	The uppermost geologic formation underlying the soils at the subject property is the Quaternary Age alluvium. The alluvium comprises the underlying stratigraphy and consists mostly of gravel, sand, silt and clay deposited in alluvial fan environments. The thickness of the alluvium is estimated to be over 2,000 feet. The alluvium is underlain by basement rocks that consist of quartzmonzonite and other igneous and metamorphic rocks.
Geologic Data Source:	The ERIS Physical Setting Report (PSR)
Soil Series Name:	Numerous soil types are mapped on the subject property, the predominant types include the Cajon loamy sand, Cajon gravelly loamy sand, Garlock loamy sand, Arizo gravelly loamy sand, Pajuela-Whitewolf association, Randsburg sandy loam, Rosamond clay loam, Torriorthents-Rock outcrop complex, Adelanto loamy sand, Greenfield sandy loam, Hanford coarse sandy loam, Ramona coarse sandy loam, Ramona sandy loam, and Sheridan sandy loam.
Soil Series Description:	These soil series consist of deep, excessively drained, somewhat excessively drained, and well drained loamy sand, stratified sand to loamy fine sand, loamy sand, gravelly loamy sand, loamy sand, sandy clay loam, sandy loam, gravelly loamy sand, very gravelly loamy sand, sandy loam, clay loam, stratified loam to silty clay loam. These soils are on alluvial fans and flood plains.

2.4.4 Flood Zone Information

FLOOD ZONE DATA SUMMARY

Source:	Federal Emergency Management Agency
Community Panel No.	06029C3275E, 0629C3650E, and 06029C3675E
FIRM Date:	September 26, 2008
Zone Designation:	Zone A; defined as areas subject to inundation by the 1-percent-annual-chance flood event. Because detailed hydraulic analyses have not been performed, no Base Flood Elevations (BFEs) or flood depths are shown.

A copy of the reviewed flood map is included in Appendix B of this report.

3.0 HISTORICAL INFORMATION

Partner obtained historical use information about the subject property from a variety of sources. A chronological listing of the historical data found is summarized in the table below:

HISTORICAL USE INFORMATION

Years	Resource	Description/Use
1943 to 1995	Aerial Photographs, Topographic Maps	Unimproved native land with intermittently tilled vegetation; bisected by roadways, creeks, and an aqueduct
1995	Aerial Photographs, Agency Records	Primarily undeveloped, and developed with the current dwelling on the western portion
2005	Aerial Photographs	Primarily undeveloped, and developed with a portion of the current ranch on the west by circa 2005
2010 to Present	Aerial Photographs, Onsite Observations, Assessor Records, Online Research, Topographic Maps	Primarily undeveloped, and developed with power line and wind turbine lines intersecting the subject property

Tenants on the subject property have included single family residential occupants from as early as 1995 and a ranch/zoo property since circa 2005.

No potential environmental concerns were identified in association with the current or former use of the subject property.

3.1 Aerial Photograph Review

Partner obtained available aerial photographs of the subject property and surrounding area from Environmental Risk Information Services (ERIS) on July 21, 2025. The inferred uses of the subject property and adjoining properties as interpreted from the aerial photographs in Appendix B are tabulated below:

Date:	**1952**	Scale:	**1"=500'**
Subject Property:	Appears to be undeveloped land; bisected by Tehachapi Willow Springs Road, Queen Creek Road, Oak Creek, and the Los Angeles River Aqueduct		
North:	Appears to be undeveloped land which was intermittently tilled		
East:	Appears to be undeveloped land which was intermittently tilled		
South:	Appears to be undeveloped land which was intermittently tilled; Silver Queen Mine is visible to the south-southeast; however, does not appear to be active		
West:	Appears to be undeveloped land which was intermittently tilled		

Date:	**1963, 1972, 1978**	Scale:	**1=500**
Subject	Appears to be undeveloped land which was intermittently tilled and bisected		

Property:	by Tehachapi Willow Springs Road, Queen Creek Road, Oak Creek, and the Los Angeles River Aqueduct
North:	No significant changes visible
East:	No significant changes visible
South:	Appears to be undeveloped land which was intermittently tilled and partially residential on subdivided land; Silver Queen Mine appears to be active and disturbed land is visible to the south-southeast
West:	No significant changes visible

Date: **1983**	Scale: **1=500**
Subject Property:	No significant changes visible
North:	Undeveloped land followed by the current concrete manufacturing plant
East:	No significant changes visible
South:	Appears to be undeveloped land which was intermittently tilled and partially agricultural with crops and livestock pens on subdivided land; Silver Queen Mine and the Holiday Rock Quarry appear to be active and disturbed land is visible to the south-southeast
West:	No significant changes visible

Date: **1995**	Scale: **1=500**
Subject Property:	Developed with the current dwelling on APN: 474-010-29, signs of a former trailer or dwelling on APN: 346-062-53, and signs of a disturbed historical oil well closure location on APN: 474-010-30 (Plugged with oversight in 1993)
North:	Undeveloped land followed by the current concrete manufacturing plant and wind turbines
East:	No significant changes visible
South:	Appears to be undeveloped land which was intermittently tilled; the Silver Queen Mine and the Holiday Rock Quarry appear to be active and disturbed land is visible to the south-southeast
West:	No significant changes visible

Date: **2005, 2009**	Scale: **1=500**
Subject Property:	Developed with the current dwelling on APN: 474-010-29, signs of a former trailer or dwelling on APN: 346-062-53, a portion of the current ranch on APN: 474-083-06 is visible, a former dwelling on APN: 474-071-18, and signs of a disturbed historical oil well closure location is visible on APN: 474-010-30 (Plugged with oversight in 1993)
North:	No significant changes visible

East:	No significant changes visible
South:	No significant changes visible
West:	No significant changes visible

Date:	**2010, 2012, 2014**	Scale:	**1=500**
Subject Property:	No significant changes visible other than the presence of power poles, power lines, and limited wind turbines		
North:	Developed with the current wind turbines followed by the current concrete manufacturing plant and electrical substations		
East:	No significant changes visible		
South:	No significant changes visible		
West:	No significant changes visible		

Date:	**2016, 2018, 2020, 2023**	Scale:	**1=500**
Subject Property:	No significant changes visible		
North:	Developed with the current wind turbines followed by the current concrete manufacturing plant, a solar farm, and electrical substations		
East:	No significant changes visible		
South:	Appears to be undeveloped land which was intermittently tilled and developed with a solar farm; the Silver Queen Mine and the Holiday Rock Quarry appear to be active and disturbed land is visible to the south-southeast		
West:	No significant changes visible		

Copies of reviewed aerial photographs are included in Appendix B of this report.

3.2 Fire Insurance Maps

Partner reviewed the collection of fire insurance maps (FIMs) from ERIS on July 15, 2025. FIM coverage was not available for the subject property.

A copy of the no coverage letter is included in Appendix B of this report.

3.3 City Directories

Partner reviewed historical city directories obtained from ERIS on July 22, 2025, for past names and businesses that were listed for the subject property and adjoining properties. City directories were not identified for the subject property or adjoining properties.

Copies of reviewed city directories are included in Appendix B of this report.

3.4 Historical Topographic Maps

Partner reviewed historical topographic maps obtained from ERIS on July 15, 2025. The following inferred uses of the subject property and adjoining properties interpreted from topographic maps in Appendix B and are tabulated below:

Date:	**1943, 1956, 1965**
Subject Property:	Depicted as unimproved; however, bisected by a roadway, creek, and aqueduct
North:	Depicted as unimproved; small creeks, vegetation, and roadways are depicted
East:	Depicted as unimproved; however, roadways are depicted
South:	Depicted as unimproved; however, roadways, the Cactus Mine and Gold Mine are depicted
West:	Depicted as unimproved

Date:	**1966, 1973, 1974, 1980**
Subject Property:	Depicted as unimproved; however, bisected by a roadway, creek, and aqueduct; A small structure is visible to the east
North:	Depicted as unimproved; small creeks, vegetation, roadways, an industrial facility, and a quarry beyond are depicted
East:	Depicted as unimproved; however, roadways are depicted
South:	Depicted as unimproved; however, roadways, the Cactus Queen Mine, and the Middle Butte Mine are visible
West:	Depicted as unimproved

Date:	**1995**
Subject Property:	The northeast portion of the subject property is depicted with wind turbines
North:	Depicted with wind turbines, small creeks, vegetation, roadways, a substation, an industrial facility, and a quarry beyond that
East:	Depicted as unimproved; however, roadways are depicted
South:	Depicted as unimproved; however, roadways, the Cactus Queen Mine, a Gold Mine, and the Middle Butte Mine are depicted
West:	Depicted as unimproved

Date:	**2015, 2018, 2021, 2022**
Subject Property:	Site-specific improvements are not depicted other than major roadways
North:	Site-specific improvements are not depicted other than major roadways
East:	Site-specific improvements are not depicted other than major roadways
South:	Site-specific improvements are not depicted other than major roadways
West:	Site-specific improvements are not depicted other than major roadways

Copies of reviewed topographic maps are included in Appendix B of this report.

4.0 REGULATORY RECORDS REVIEW

4.1 Regulatory Agencies

State Department

REGULATORY AGENCY DATA

Name of Agency:	California Environmental Protection Agency (CalEPA)
Point of Contact:	https://siteportal.calepa.ca.gov/nsite/map/results
Agency Address:	1001 I Street, Sacramento, California 95814
Agency Phone Number:	(916) 255-1136
Date of Contact:	July 18, 2025
Method of Communication:	Online Research

Summary of Communication:

SCE High-Windhub Project 5 Road Repair is mapped at the intersection of 100th Street W and Tehachapi Willow Springs Road is listed on the CalEPA database as registered under the California Integrated Water Quality System during wetlands fill and dredge material road repair. No violations were noted.

Reed Mine, CA is mapped on the CalEPA database as located on APN: 237-053-16 under a LNDISPOTH- Other Land Disposal Facility with a clean-up and abatement order dated October 23, 2017, a start date of August 2, 2019, and an end date of August 2, 2019. This listing is documented as a miscellaneous inspection to determine a facility's adherence to water quality regulation. According to the online Mineral Resources Online Spatial Data (MRDS) website, Reed Mine, CA was not historically located on the subject property and may have been incorrectly geo-coded. Reed Mine is listed on the MRDS online database as being located in Yolo County California. No violations were noted.

No additional records regarding hazardous substance use, storage or releases, or the presence of USTs and AULs on the subject property were on file with the CalEPA.

Health Department

REGULATORY AGENCY DATA

Name of Agency:	Kern County Public Health (KCPH)
Point of Contact:	https://kerncountyca.nextrequest.com/requests/25-1157
Agency Address:	1800 Mt. Vernon Avenue, Bakersfield, California 93305
Agency Phone Number:	(661) 321-3000
Date of Contact:	July 21, 2025 and August 6, 2025
Method of Communication:	Online Request Form

Summary of Communication:

No records regarding hazardous substance use, storage or releases, or the presence of USTs and AULs on the subject property were on file with the KCPH.

Fire Department

REGULATORY AGENCY DATA

Name of Agency:	Kern County Fire Department (KCFD)
Point of Contact:	https://kerncountyca.nextrequest.com/requests/25-1157
Agency Address:	5642 Victor Street, Bakersfield, California 93308
Agency Phone Number:	(661) 391-7000
Date of Contact:	July 21, 2025 and August 6, 2025
Method of Communication:	Online Request Form

Summary of Communication:

No records regarding hazardous substance use, storage or releases, or the presence of USTs and AULs on the subject property were on file with the KCFD.

Building Department

REGULATORY AGENCY DATA

Name of Agency:	Kern County Public Works, Building Inspection Division (KCPW-BID)
Point of Contact:	Priscilla Guerra
Agency Address:	2700 M Street, Suite 150, Bakersfield, California 93301
Agency Phone Number:	(661) 862-8650
Date of Contact:	July 21, 2025
Method of Communication:	Email and Online Request Form

Summary of Communication:

Records were available for review, as further discussed in the following table.

Building Records Reviewed for 11354, 11741 115th Street, 9635 Laguna Avenue, 11100 90th Street (Subject Property)

Year(s)	Owner/Occupant/Address	Description
1992	Scott Hanrion	Permit to install one new construction mobile home with a septic tank (9635 Laguna Ave., APN 346-062-53)
2006	N/A	Residential mobile home on a permanent foundation system (11354 115th Street, APN 474-083-06)

Planning Department

REGULATORY AGENCY DATA

Name of Agency:	Kern County Geographic Information Systems
Point of Contact:	https://maps.kerncounty.com/H5/index.html?viewer=KCPublic

Agency Address:	2700 M Street, Bakersfield, California 93301
Agency Phone Number:	(661) 862-5075
Date of Contact:	July 21, 2025
Method of Communication:	Online Research

Summary of Communication:

According to reviewed online documents, the subject property is zoned A, PL, RS, and FP for exclusive agricultural, platted lands, residential suburban combining, and floodplain combining by Kern County.

Oil & Gas Exploration

REGULATORY AGENCY DATA

Name of Agency:	California Geologic Energy Management Division (CalGEM) Southern District
Point of Contact:	https://maps.conservation.ca.gov/doggr/wellfinder/#close
Agency Address:	3780 Kilroy Airport Way, Suite 400, Long Beach, California 90806
Agency Phone Number:	(562) 637-4400
Date of Contact:	July 21, 2025
Method of Communication:	Online Research

Summary of Communication:

According to the CalGem Well Finder online database, an oil and gas well identified as American Petroleum Institute (API) number 0402989961 owned by M.K. Energy was historically drilled on the subject property parcel 474-010-30 in 1992. Available CalGem records state that the well was drilled to a depth of 2,517 feet in 1992; however, did not produce or operate since its completion. A Report of Well Abandonment dated August 13, 1999, states that the well was plugged on July 31, 1993 with Department of Conservation Division of Oil, Gas & Geothermal Resources oversight. Based on the plugged nature of the well and lack of evidence of oil production, the former onsite well is unlikely to represent an environmental concern.

Assessor's Office

REGULATORY AGENCY DATA

Name of Agency:	Kern County Assessor (KCA)
Point of Contact:	https://www.kerncounty.com/government/departments/assessor-recorder
Agency Address:	1655 Chester Street, Bakersfield, California 93301
Agency Phone Number:	(661) 868-6400
Date of Contact:	July 21, 2025

Method of Communication: Online Research

Summary of Communication:

According to records reviewed, the subject property is identified by the following Assessor Parcel Numbers (APNs):

237-031-04; 38

237-053-02; 04; 05; 06; 08; 09; 10;13; 14; 16; 28

237-054-09; 10; 11; 12; 13; 25; 26; 27; 28; 30; 31; 32; 33; 36; 38; 39; 40; 41; 44

237-055-08; 09; 10; 12; 16; 17; 18

237-093-10; 11; 12; 13; 14; 15; 16; 18; 46; 47; 48; 49; 50; 51; 53; 55; 56

237-113-09; 13; 14; 15; 16

237-114-03; 04; 06; 07; 09; 10; 16

237-380-01; 02; 03; 04; 05; 06; 07; 08

237-332-11; 15; 16; 17; 18; 19

237-370-01; 02; 03; 04; 05; 06; 07; 08; 09; 11; 12; 13; 14; 15; 16; 17; 18

237-400-02; 03; 05; 06; 07; 08; 11; 13; 14; 15

237-410-01; 02; 03; 05; 06; 07; 08; 09; 10; 11; 12; 13; 14; 15; 18

345-011-03; 07; 08; 09; 10; 11; 12; 13; 14; 15; 16; 24; 25; 26; 31; 36; 37; 39; 40; 41; 42

345-062-01; 02; 03; 04; 05; 07; 08; 26; 27; 28; 29; 30; 31; 39; 40; 42; 56

345-063-29

345-100-01

346-011-02; 07; 09; 12; 13; 14; 15; 17; 18

346-012-04; 06; 07; 09; 10; 11; 12

346-021-01

346-041-05; 07; 08;18; 19; 21; 22; 23; 24; 25; 28; 29; 32

346-042-35; 37; 39; 40; 43; 44; 45; 46; 47; 48; 49; 50; 51; 52; 53; 54; 55; 56; 57; 58; 59; 60; 61; 62

346-050-03; 04; 05; 06; 07; 13; 14; 15; 17; 18; 19; 20; 21; 22; 23; 24; 25; 26; 27; 28; 29; 30; 31; 32; 33; 35; 36

346-061-01; 04; 05; 06; 08; 09; 11; 12; 13; 14; 15; 16; 17; 18; 19; 21; 22; 24; 25; 28; 29; 30; 31; 33; 35; 37; 39; 40; 45; 46; 47; 48; 49; 50; 51; 52; 53; 54; 55; 56; 58; 59; 60; 61; 62

346-062-03; 04; 06; 07; 11; 12; 14; 16; 17; 18; 19; 23; 24; 25; 26; 27; 29; 30; 31; 32; 34; 35; 36; 37; 38; 39; 40; 41; 42; 44; 46; 47; 48; 49; 50; 51; 52; 53

346-071-01; 02; 03; 04; 05; 06; 07; 08; 09; 10; 15; 16; 17; 18; 23; 24; 25; 26

346-081-01; 02; 03; 13; 14

346-090-01; 07; 09; 11; 12; 13; 14; 19; 21; 22; 23; 24; 28; 29; 30; 33; 35; 36; 41; 42

346-132-18; 19; 22; 23; 24; 25; 26; 27; 28

474-010-04; 29; 30; 31

474-021-04; 05; 06; 18; 19; 20; 21

474-040-09; 15; 16; 17; 19; 20

474-051-04; 05; 06; 07; 08; 09; 10; 12; 14; 15; 16; 17; 18; 19; 20; 21; 22; 23; 24; 25; 26; 27; 28; 29;

33

474-052-01; 02; 03; 29; 31; 32; 33

474-060-03; 05; 09; 11; 12; 13; 14; 15; 16; 17; 19; 20; 21; 22; 24; 25; 26; 27; 30; 31; 32; 33; 34; 35; 36; 38; 39; 40; 41; 42; 43; 44; 45

474-071-01; 02; 03; 04; 05; 06; 07; 08; 09; 10; 11; 12; 18

474-072-03

474-083-06; 07

474-160-01; 02; 05; 06; 07; 08; 09

474-171-01

474-172-02; 03; 04; 05; 13; 14

474-180-02; 03; 04; 05; 06; 07; 08

474-220-15; 22

and totals approximately 7,700 acres.

Air Pollution Control Agency

REGULATORY AGENCY DATA

Name of Agency:	Eastern Kern Air Pollution Control District (EKAPCD)
Point of Contact:	http://www.kernair.org/Main_Pages/forms.html
Agency Address:	2700 M Street, Suite 302, Bakersfield, California 92301
Agency Phone Number:	(661) 862-5250
Date of Contact:	July 21, 2025
Method of Communication:	Email

Summary of Communication:

No Permits to Operate (PTO), Notices of Violation (NOV), or Notices to Comply (NTC) or the presence of AULs, dry cleaning machines, or USTs were on file for the subject property with the EKAPCD.

Regional Water Quality Agency

REGULATORY AGENCY DATA

Name of Agency:	State Water Resources Control Board (SWRCB) Lahontan Regional Water Quality Control Board (RWQCB)
Point of Contact:	https://geotracker.waterboards.ca.gov/Default.asp?
Agency Address:	15095 Amargosa Road, Building 2, Victorville, California 92394
Agency Phone Number:	(760) 241-6583
Date of Contact:	July 21, 2025
Method of Communication:	Online Research

Summary of Communication:

No records regarding hazardous substance use, storage or releases, or the presence of USTs and AULs on the subject property were on file with the RWQCB.

Department of Toxic Substances Control

REGULATORY AGENCY DATA

Name of Agency:	California Department of Toxic Substances Control (DTSC)
Point of Contact:	http://hwts.dtsc.ca.gov/report_search.cfm?id=5 http://www.envirostor.dtsc.ca.gov/public/
Agency Address:	5796 Corporate Avenue, Cypress, California 90630
Agency Phone Number:	(877) 786-9427
Date of Contact:	July 21, 2025
Method of Communication:	Online Research

Summary of Communication:

No records regarding hazardous substance use, storage or releases, or the presence of USTs and AULs on the subject property were on file with the DTSC.

Copies of pertinent documents are included in Appendix B of this report.

4.2 Mapped Database Records Search

The regulatory database report provided by ERIS documents the listing of sites identified on federal, state, county, city, and tribal (when applicable) standard source environmental databases within the approximate minimum search distance (AMSD) specified by ASTM Practice E1527-21. The data from these sources are updated as these data are released and integrated into one database. The information contained in this report was compiled from publicly available sources.

The environmental database information is used to identify environmental concerns in connection with the subject property. The listings also serve to identify the known indications of the storage, use, generation, disposal, or release of hazardous substance at the subject property and the potential for contaminants to migrate onto the subject property from off-site sources in groundwater or soil in the form of liquids or vapor.

Using the ASTM definition of migration, Partner considers the migration of hazardous substances or petroleum products in any form onto the subject property during the evaluation of each site listed on the radius report, which includes solid, liquid, and vapor.

4.2.1 Regulatory Database Summary

The following table lists the sites as categorized by the regulatory database within the prescribed AMSD. The locations of the sites are plotted utilizing a geographic information system, which geocodes the site addresses. The accuracy of the geocoded locations is approximately +/-300 feet.

DATABASE REPORT DATA

Database	AMSD Radius (mile)	Listings Identified		
		Subject Property	Adjoining Properties	Surrounding Area Sites of Concern

Federal NPL	1.00	N	N	N
Delisted NPL Site	0.50	N	N	N
Federal SEMS Site	0.50	N	N	N
Federal SEMS-ARCHIVE	0.50	N	N	N
Federal RCRA CORRACTS Facility	1.00	N	N	N
Federal RCRA TSDF Facility	0.50	N	N	N
Federal RCRA Generators Site (LQG, SQG, VSQG, CESQG)	Subject and Adjoining	N	**Y**	N
Federal IC/EC Registries	Subject Property	N	N	N
Federal ERNS Site	Subject Property	N	**Y**	N
Federal PFAS Facility	0.50	N	N	N
State/Tribal Equivalent NPL	1.00	N	N	N
State/Tribal Equivalent CERCLIS	1.00	N	**Y**	N
State/Tribal Landfill/Solid Waste Disposal Site	0.50	N	N	N
State/Tribal Leaking Storage Tank Site (LUST/LPST)	0.50	N	N	N
State/Tribal Registered Storage Tank Sites (UST/AST)	Subject and Adjoining	N	**Y**	N
State/Tribal IC/EC Registries	Subject and Adjoining	N	N	N
State/Tribal Voluntary Cleanup Sites (VCP)	0.50	N	N	N
State/Tribal Spills	0.25	N	N	N
Federal Brownfield Sites	0.50	N	N	N
State Brownfield Sites	0.50	N	N	N

State PFAS Facility	0.50	N	N	N
EnviroStor	1.00	N	**Y**	N
Certified Unified Program Agencies (CUPA) Kern	0.25	N	**Y**	N
Delisted Hazardous Waste Sites (Delisted HAZ), Delisted California Environmental Reporting System Tank (Delisted CTNK)	0.50	N	**Y**	N
California Environmental Reporting System Tank (CERS Tank), California Environmental Reporting System Hazardous Waste Sites (CERS HAZ), Hazardous Waste Manifests Data (HAZ GEN), Facility and Manifest Data (HAZNET)	0.25	N	**Y**	N
California Hazardous Material Incident Reporting System (CHMIRS)	Subject and Adjoining	N	**Y**	N
Toxic Pollutant Emissions Facilities (EMISSIONS)	0.25	N	**Y**	N
Facility Registry Service/Facility Index (FINDS/FRS)	Subject and Adjoining	**Y**	**Y**	N
MINE, Mineral Resource Data System (MRDS)	1.00	N	**Y**	N
Land Disposal Site (LDS)	0.50	N	N	N
Superfund Enterprise Management System (SEMS) Archive	0.50	N	**Y**	N

4.2.2 Subject Property Listings

The subject property was identified as a Facility Registry Service/Facility Index (FINDS/FRS) in the regulatory database, as discussed below:

SUBJECT PROPERTY DATABASE LISTING

Database:	FINDS/FRS
Site Name:	Reed Mine
Address:	N/A
Substance Involved:	N/A
Years of Operation:	2017 to 2019
Status:	Closed
Discussion:	Reed Mine is listed on the FINDS/FRS database as an EnviroView EPA registered facility. According to reviewed CalEPA records, Reed Mine, CA is mapped on the CalEPA database as located on APN: 237-053-16 under a LNDISPOTH - Other Land Disposal Facility with a clean-up and abatement order dated October 23, 2017, a start date of August 2, 2019, and an end date of August 2, 2019. This listing is documented as a miscellaneous inspection to determine a facility's adherence to water quality regulation. According to the online Mineral Resources Online Spatial Data (MRDS) website, Reed Mine, CA was not historically located on the subject property and may have been incorrectly geo-coded. Reed Mine is listed on the MRDS online database as being located in Yolo County California. No violations were noted. Based on the presumed offsite location of Reed Mine, this listing is not expected to represent an environmental concern.

4.2.3 Adjoining Property Listings

The adjoining properties were identified as ERNS, EnviroStor, CERCLIS, CERCLIS NFRAP, CUPA Kern, UST Kern, AST Kern, UST SWEEPS, Delisted HAZ, Delisted CTNK, RCRA-NonGen, CERS Tank, CERS HAZ, HAZ GEN, HAZNET, EMISSIONS, and FINDS/FRS, MINE, MRDS, LDS, SEMS Archive, and CHMIRS sites in the regulatory database report, as discussed below:

ADJOINING PROPERTY DATABASE LISTING

Property Name:	BLM Administered Lands, Cactus Queen, Shumake Project, Middle Buttes (Cactus) Deposit, Cactus Gold Mines Company, Quien Sabe, Bluett Prospect, Burton-Brite-Blank Mine, Winkler Deposit, Crescent Prospect, Silver Prince Deposit, Blue Eagle Lode Mine
Address:	8941 Backus Road
Direction:	South-Southeast
Hydrological Gradient:	Down-Gradient
Database Listing:	ERNS, MRDS, MINE, LDS, EnviroStor, EMISSIONS
Substance Involved:	silver, lead, gold, copper, marcasite, alunite, electrum, chalcopyrite, galena, kaolinite, adularia, pyrite, argentite, proustite, cerargyrite, quartz, arsenopyrite, uranium

Years of Operation:	1930s to 2022
Status:	Closed
Discussion:	According to the EnviroStor database and available online Department of Toxic Substance Control (DTSC) EnviroStor database records, gold was explored from this site from the early 1930s. The property has been historically identified as the BLM Administered Lands, Cactus Queen, Shumake Project, Middle Buttes (Cactus) Deposit, Cactus Gold Mines Company, Quien Sabe, Bluett Prospect, Burton-Brite-Blank Mine, Winkler Deposit, Crescent Prospect, Silver Prince Deposit, Blue Eagle Lode Mine which encompassed approximately 1,600 acres. Historical operations included utilizing open pit/cyanide leaching methods. Soils were sampled for cyanide with results returned as below residential preliminary remedial goals. Sampling of soil and air detected mercury in four of 25 samples in July 1991. Mercury was reportedly detected within the average levels of mercury in background soils and not migrating offsite. Depth to groundwater was reported at approximately 250 feet below ground surface. Cactus Gold Mines Co. is listed on the EnviroStor database with a no further assessment warranted status issued by the EPA on November 2, 2009. BLM Administered Lands is listed on the ERNS database as the former and inactive Cactus Gold Mine, located to the south-southeast (hydrologically down-gradient) of the subject property. BLM Administered Lands is identified on the ERNS with the intermittent release of arsenic into the creek which flowed downstream into residential areas over an 18-year period. The release was discovered on January 30, 2008. The release reportedly impacted Oak Creek and the land immediately adjacent to the heap leach mill tailing discharge sites. The property identified as Cactus Queen is listed on the MINE database on 30 acres primarily mining silica. Cactus Gold Mine is listed on the MRDS database as producing silver, copper, lead, and gold and historically operating as Cactus, Shumake Deposit, Shumake mine, Middle Buttes, and Cactus Mine. Cactus Queen Mine is listed on the MRDS database as producing gold and silver. Middle Buttes (Cactus) Deposit is listed on the MRDS database as producing silver, lead, gold, copper, marcasite, alunite, electrum, chalcopyrite, galena, kaolinite, adularia, pyrite, argentite, proustite, cerargyrite, quartz, and arsenopyrite, and historically operating as Blue Eagle, Middle Butte, Crescent, Shumake, Burton-Brite-Blank, Winkler, Middle Buttes (Cactus) Deposit, Cactus Queen, Silver Prince, Cactus, and Trent. Quien Sabe is listed on the MRDS database as producing gold and historically operating as Quen Sabe Prospect. Silver Prince Deposit is listed on the MRDS database as producing gold and silver. Winkler Deposit is listed on the MRDS database as producing gold. Bluett Prospect is listed on the MRDS database as producing uranium. Shumake Project is listed on the Land Disposal Site (LDS) and WMUD

databases as a land disposal site with waste discharge requirements as set by the California Regional Water Quality Control Board (RWQCB) Lahontan Region on April 14, 1988, and February 10, 1994, which were revised May 7, 1998. Waste discharge was associated to surface impoundments and waste piles from mining operations. The Shumake LDS is listed as closed with RWQCB oversight on June 9, 2004. Shumake Operation is listed on the MINE database as closed with no intent to resume in 2023.

Middle Buttes Project is listed on the LDS and WMUD databases as a land disposal site with waste discharge requirements as set by the California RWQCB Lahontan Region on May 15, 1987, February 10, 1994, and July 17, 1997. Waste discharge was associated to surface impoundments and waste piles from mining operations. The Middle Buttes Project LDS is listed as closed with RWQCB oversight on February 13, 2002.

The EMISSIONS database lists Cactus Gold Mines Company as a KCAPCD permitted in 1996.

Blue Eagle Lode Mine is listed on the MINE database as operating on 2.45 acres mining gold and silver. Blue Eagle Lode Mine is listed on the LDS database as a land disposal site with waste discharge requirements as set by the California RWQCB Lahontan Region on January 11, 2017. Blue Eagle Lode Mine submitted a temporary shutdown maintenance plan to the California RWQCB in January 2022; however, deep annual groundwater sampling has continued from six wells at depths between 2,632 and 2,797 feet below ground surface (bgs).

Based on the regulatory oversight and status, inferred depth to groundwater, and continued monitoring, the historical adjoining mining operations are unlikely to represent an environmental concern to the subject property.

ADJOINING PROPERTY DATABASE LISTING

Property Name:	Level 3 Communications – Tehachapi – MOJVCACX (Level 3), CenturyLink – Tehachapi – MOJVCACX, Williams Communication, Wiltel Communications LLC, Mojave, THCHCA1W (THCHCA1W)
Address:	11253 Tehachapi Willow Springs Road
Direction:	Central
Hydrological Gradient:	Up-Gradient
Database Listing:	CUPA Kern, EMISSIONS, HAZNET, and FINDS/FRS
Substance Involved:	Not Reported

Years of Operation:	2002 to Present
Status:	Active
Discussion:	MOJVCACX is listed on the CUPA Kern database as a California Environmental Reporting System (CERS) registered facility with an active billable hazardous material business plan. Williams Communication is listed on the HAZNET database as an EPA registered facility between 2002 and 2006. THCHCA1W is listed on the HAZNET database as an EPA registered facility in 2005. The EMISSIONS database lists Level 3 as an EKAPCD permitted site generating total organic hydrocarbon gases, reactive organic gases, carbon monoxide emissions, oxides of nitrogen, oxides of Sulphur, and particulate matter between 2017 and 2020. The FINDS/FRS identifies Level 3 and MOJVCACX as EPA registered facility identification number 110057064448 and 110070521267 associated to the EMISSIONS, CUPA Kern, and HAZNET database listings. No additional information for this site was provided within the regulatory database. Based on the regulatory oversight and status, lack of reported violations or evidence of a release, and inferred depth to groundwater, these listings are unlikely to represent an environmental concern to the subject property.

ADJOINING PROPERTY DATABASE LISTING

Property Name:	Windstar Energy, Windstar 1 Substation (Windstar)
Address:	12490 90th Street
Direction:	North
Hydrological Gradient:	Up-Gradient
Database Listing:	CUPA Kern, CERS HAZ, EMISSIONS, FINDS/FRS
Substance Involved:	Not Reported
Years of Operation:	2017 to Present
Status:	Active
Discussion:	Windstar is listed on the CUPA Kern database as a CERS registered facility with an active billable hazardous material business plan. Windstar is listed on the CERS HAZ as a chemical storage facility with permitted oversight provided by the Kern County Environmental Health Services Department. No open violations were noted on the CERS database. The EMISSIONS database lists Windstar as a EKAPCD permitted site generating total organic hydrocarbon gases, reactive organic gases, carbon monoxide emissions, oxides of nitrogen, oxides of Sulphur, and particulate matter between 2017 and 2020. The FINDS/FRS identifies Windstar as EPA registered facility identification number 110071763422, 110070521399, 110065940717, and 110070521399 associated to the CERS, CUPA Kern, and EMISSIONS database listings. No additional information for this site was provided in the regulatory database. Based on the regulatory oversight and status, lack of reported violations or evidence of a

	release, and inferred depth to groundwater, these listings are unlikely to represent an environmental concern to the subject property.

ADJOINING PROPERTY DATABASE LISTING

Property Name:	Windhub Solar B, LLC
Address:	N/A
Direction:	North
Hydrological Gradient:	Up-Gradient
Database Listing:	FINDS/FRS
Substance Involved:	Not Reported
Years of Operation:	2018 to 2022
Status:	Active
Discussion:	The FINDS/FRS identifies Windhub Solar B, LLC as EPA registered facility identification number 110070397105 and 110070700497 associated to permitted electric generator equipment. No additional information for this site was provided in the regulatory database. Based on the regulatory oversight and status, lack of reported violations or evidence of a release, and inferred depth to groundwater, this listing is unlikely to represent an environmental concern to the subject property.

ADJOINING PROPERTY DATABASE LISTING

Property Name:	Voyager Wind II/III/IV (Voyager), Blattner Energy Inc., Tehachapi Energy Storage System I, Mortenson Construction, Clark Bros, Mortenson Oasis Wind Farm, Brian Tramonte, Vestas, Clark Bros., Inc., Sagebrush B Energy Storage Project (Sagebrush)
Address:	8009, 8015 Oak Creek Road
Direction:	North
Hydrological Gradient:	Up-Gradient
Database Listing:	RCRA-NonGen, CERS Tank, CERS HAZ, HAZ GEN, EMISSIONS, FINDS/FRS
Substance Involved:	Other organic solids, unspecified aqueous solution, unspecified oil-containing waste, waste oil and mixed oil
Years of Operation:	2018 to Present
Status:	Active
Discussion:	Voyager is listed on the RCRA-NonGen database as a non-generator in 2018; Blattner Energy Inc. is listed on the RCRA-NonGen database as a non-generator in 2020; Mortenson Construction is listed on the RCRA-NonGen

database as a non-generator in 2021 and 2023; Clark Bros is listed on the RCRA-NonGen database as a non-generator in 2021; Brian Tramonte is listed on the RCRA-NonGen database as a non-generator in 2021; Vestas is listed on the RCRA-NonGen database as a non-generator in 2021; and Sagebrush is listed on the RCRA-NonGen database as a non-generator in 2023. No violations or waste streams were noted on the RCRA database. Mortenson Oasis Wind Farm is listed on the CERS Tank database with an aboveground petroleum storage tank permitted by Kern County Environmental Health Services Department (KCEHSD). Tehachapi Energy Storage System is listed on the CERS HAZ database as a chemical storage facility with permitted oversight provided by the KCEHSD. Furthermore, Sagebrush is listed on the CERS Tank and CERS HAZ databases as a chemical storage facility, hazardous waste generator, and aboveground petroleum storage facility with permitted oversight provided by the KCEHSD. No violations were noted on the CERS database. The HAZ GEN database identifies Voyager as generating other organic solids, unspecified aqueous solution, unspecified oil-containing waste between 2018 and 2020; Clark Bros as generating other organic solids in 2021; Sagebrush as generating waste oil and mixed oil and other organic solids in 2024; and Mortenson Construction as generating other organic solids and waste oil and mixed oil in 2021 and 2024. The EMISSIONS database lists Voyager as a EKAPCD permitted site generating total organic hydrocarbon gases, reactive organic gases, carbon monoxide emissions, oxides of nitrogen, oxides of Sulphur, and particulate matter in 2020. The FINDS/FRS identifies Voyager as EPA registered facility identification number 110070484930, 110071175287, and 110071763398 associated to the RCRA and EMISSIONS database listings; Blattner Energy Inc. as EPA registered facility identification number 110070803275 associated to the RCRA database listing; Vestas as EPA registered facility identification number 11007113500 associated to the RCRA database listing; Brian Tramonte as EPA registered facility identification number 110071116926 associated to the RCRA database listing; Clark Bros as EPA registered facility identification number 110071121198 associated to the RCRA database listing; Mortenson Construction as EPA registered facility identification number 110071136546 associated to the RCRA database listing; and Sagebrush as EPA registered facility identification number 110071535899 associated to the RCRA database listing. No additional information for this site was provided in the regulatory database. Based on the regulatory oversight and status, lack of reported violations or evidence of a release, and inferred depth to groundwater, these listings are unlikely to represent an environmental concern to the subject property.

ADJOINING PROPERTY DATABASE LISTING

Property Name:	Asphalt Construction Co., Inc., Holiday Rock - Mojave, Fisher Sand & Gravel Co., Mojave Quary
Address:	7037 Trotter Avenue
Direction:	South-Southeast

Hydrological Gradient:	Down-Gradient
Database Listing:	Mine, SEMS Archive, CERCLIS, CERCLIS NFRAP, CUPA Kern, UST Kern, UST SWEEPS, AST Kern, RCRA-NonGen, CERS Tank, CHMIRS, EMISSIONS, HAZNET, HAZ GEN, FINDS/FRS
Substance Involved:	Waste oil and mixed oil, diesel
Years of Operation:	1991 to Present
Status:	Active

Discussion: Asphalt Construction Co., Inc. is listed on the CERCLIS, CERCLIS NFRAP, and SEMS Archive databases as a potential hazardous waste site which was brought to the attention of the EPA on October 19, 1992; however, the site was archived with no further action planned by December 21, 1993. Holiday Rock – Mojave is listed on the RCRA-NonGen database as a non-generator in 2007. No violations or waste streams were noted on the RCRA database. Asphalt Construction Co. is listed on the UST SWEEPS database with one 9,000-gallon diesel product UST permitted by Kern County Environmental Health in 1991. Holliday Rock – Mojave is listed on the UST KERN databases with one inactive 9,000-gallon diesel UST which was closed on December 10, 1998 with agency oversight. Holliday Rock – Mojave is listed on the CUPA Kern database as a CERS registered facility with an active billable hazardous material business plan and as an active permitted hazardous waste generator. Holiday Rock – Mojave is listed on the CERS Tank and AST Kern databases as an aboveground petroleum storage facility with KCEHSD permitted oversight. No open violations were noted on the CERS database. A CHMIRS listing identifies Holliday Rock with a release of 350 gallons of hydraulic fluid and 250 gallons of petroleum on March 26, 2016, when seven concrete mixer trucks caught fire and caused the release. The release was reportedly contained and cleaned up with KCEHSD oversight. The HAZNET database lists Asphalt Construction Co. as an EPA registered facility between 1991 and 1992. The HAZ GEN database identifies Holiday Rock-Mojave as generating waste oil and mixed oil and unspecified oil-containing waste between 2007 and 2008; Fisher Sand & Gravel Co. as generating waste oil and mixed oil in 2008; and Asphalt Construction Co. as generating waste oil and mixed oil in 1998. The EMISSIONS database lists Aspahlt Construct and Holiday Rock – Mojave as KCAPCD permitted facilities generating total organic hydrocarbon gases, reactive organic gases, carbon monoxide emissions, oxides of nitrogen, oxides of Sulphur, and particulate matter between 1996 and 2019. Furthermore, this site was identified as the Mojave Quarry with an active sand and gravel open pit operated by Holiday Rock. No additional information for this site was provided in the regulatory database. Based on the regulatory oversight and status, lack of reported violations, inferred depth to groundwater and inferred direction of groundwater flow, these listings are unlikely to represent an environmental concern to the

subject property.

ADJOINING PROPERTY DATABASE LISTING

Property Name:	Leona Tungsten Mine
Address:	N/A
Direction:	Northwest
Hydrological Gradient:	Up-Gradient
Database Listing:	MRDS
Substance Involved:	Not Reported
Years of Operation:	1991
Status:	Closed
Discussion:	The Leona Tungsten Mine is listed on the MRDS database as being historically located northwest of the subject property. According to available online MRDS records, the mine was underground as reported in 1991 by the Western Field Operations Center. The mining activities were not visible in aerial photographs reviewed. No additional information for this site was provided in the regulatory database. Based on the regulatory oversight and status, lack of reported violations or evidence of a release, and inferred depth to groundwater, this listing is unlikely to represent an environmental concern to the subject property.

ADJOINING PROPERTY DATABASE LISTING

Property Name:	Pacific Wind / Mojave O&M (Pacific Wind), EDF Renewable Services dba Pacific Winds LLC (Pacific Wind), Big Beau Solar, LLC, Valentine Solar LLC, Catalina Solar I - 633
Address:	11585 Tehachapi Willow Springs Road
Direction:	West
Hydrological Gradient:	Up-Gradient
Database Listing:	CUPA Kern, RCRA-NonGen, CERS Tank, CERS HAZ, Delisted HAZ, AST Kern, Delisted CTNK
Substance Involved:	Not Reported
Years of Operation:	2012 to Present
Status:	Active
Discussion:	Pacific Wind is listed on the RCRA-NonGen database as a non-generator in 2012. No violations or waste streams were noted on the RCRA database. Pacific Wind is listed on the CUPA Kern database as a CERS registered facility with an active billable hazardous material business plan and as an active permitted small quantity hazardous waste generator. Pacific Wind is listed on the CERS Tank, AST Kern, and Delisted HAZ databases as an active

	aboveground petroleum storage facility with KCEHSD permitted oversight. The CERS HAZ database identifies Valentine Solar LLC and Catalina Solar I as permitted chemical storage facilities with KCEHSD oversight. No open violations were noted on the CERS database. Catalina Solar 1, Big Beau Solar, LLC, and Valentine Solar LLC are listed Delisted CTNK database. No additional information for this site was provided in the regulatory database. Based on the regulatory oversight and status, lack of reported violations or evidence of a release, and inferred depth to groundwater, these listings are unlikely to represent an environmental concern to the subject property.

ADJOINING PROPERTY DATABASE LISTING

Property Name:	Catalina Renewable Energy Project, Bechtel Power Corporation
Address:	11054 Backus Road
Direction:	South
Hydrological Gradient:	Down-Gradient
Database Listing:	RCAR-NonGen, CUPA Kern, AST Kern
Substance Involved:	Not Reported
Years of Operation:	2014 to 2015
Status:	Closed
Discussion:	Catalina Renewable Energy Project is listed on the RCRA-NonGen database as a non-generator in 2014. No violations were noted; however, a waste stream of ignitable waste, corrosive waste, and reactive waste were noted. Betchel Power Corporation is listed on the CUPA Kern and AST Kern databases database as a CERS registered facility with an inactive billable hazardous material business plan and as an inactive small quantity hazardous waste generator in 2015. No additional information for this site was provided in the regulatory database. Based on the regulatory oversight and status, lack of reported violations or evidence of a release, and inferred depth to groundwater, these listings are unlikely to represent an environmental concern to the subject property.

ADJOINING PROPERTY DATABASE LISTING

Property Name:	Eagle Water Truck Service Inc.
Address:	9421 Tehachapi Willow Springs Road
Direction:	South
Hydrological Gradient:	Down-Gradient
Database Listing:	RCRA-NonGen
Substance Involved:	Not Reported
Years of Operation:	2018

	Status:	Active
Discussion :	Eagle Water Truck Service Inc. is listed on the RCRA-NonGen database as a non-generator in 2018. No violations or waste streams were noted on the RCRA database. No additional information for this site was provided in the regulatory database. Based on the regulatory oversight and status, lack of reported violations or evidence of a release, and inferred depth to groundwater, this listing is not expected to represent a significant environmental concern.	

Based on the findings, vapor migration is unlikely to represent an environmental concern.

4.2.4 Surrounding Area Listings of Sites of Concern

No sites of concern are identified in the regulatory database report. Listed sites within the specified search radius of the subject property which appeared on local, State, or Federally published lists of sites that have had releases of hazardous substances, have been granted regulatory closure, were determined to be of sufficient distance, and/or are situated hydrologically cross- or down-gradient such that impact to the subject property is unlikely.

Based on the findings, vapor migration is unlikely to represent an environmental concern.

4.2.5 Unplottable Listings

No unplottable listings of concern are identified in the regulatory database report.

A copy of the regulatory database report is included in Appendix C of this report.

5.0 USER PROVIDED INFORMATION AND INTERVIEWS

In order to qualify for one of the *Landowner Liability Protections (LLPs)* offered by the Small Business Liability Relief and Brownfields Revitalization Act of 2001 (the *Brownfields Amendments*), the *User* must conduct the following inquiries required by 40 CFR 312.25, 312.28, 312.29, 312.30, and 312.31. The *User* should provide the following information to the *environmental professional*. Failure to provide this information could result in a determination that *all appropriate inquiries* is not complete. The *User* is asked to provide information or knowledge of the following:

- Review Title and Judicial Records for Environmental Liens and AULs
- Specialized Knowledge or Experience of the User
- Actual Knowledge of the User
- Reason for Significantly Lower Purchase Price
- Commonly Known or *Reasonably Ascertainable* information
- Degree of Obviousness
- Reason for Preparation of this Phase I ESA

Fulfillment of these user responsibilities is key to qualification for the identified defenses to CERCLA liability. Partner requested our Client to provide information to satisfy User Responsibilities as identified in Section 6 of the ASTM guidance.

Pursuant to ASTM Practice E1527-21, Partner requested the following site information from Terra-Gen, LLC (User of this report).

USER RESPONSIBILITIES

Item	Provided By User
AAI User Questionnaire	No
Title Records, Environmental Liens, and AULs	No
Specialized Knowledge	No
Actual Knowledge	No
Valuation Reduction for Environmental Issues	No
Identification of Key Site Manager	No
Reason for Performing Phase I ESA	Yes
Prior Environmental Reports	Yes

5.1 Interviews

5.1.1 Interview with Owner

The owners of the subject property were not available to be interviewed at the time of the assessment.

5.1.2 Interview with Report User

Please refer to Section 5.2 below for information requested from the Report User.

5.1.3 Interview with Key Site Manager

A key site manager was not provided to be interviewed at the time of this assessment.

5.1.4 Interviews with Past Owners, Operators and Occupants

Interviews with past owners, operators, and occupants were not conducted since information regarding the potential for contamination at the subject property was obtained from other sources.

5.2 User Provided Information

5.2.1 Title Records, Environmental Liens, and AULs

Partner was not provided with title records or environmental lien and AUL information for review as part of this assessment.

5.2.2 Specialized Knowledge

No specialized knowledge of environmental conditions associated with the subject property was provided by the User at the time of the assessment.

5.2.3 Actual Knowledge of the User

No actual knowledge of any environmental lien or AULs encumbering the subject property or in connection with the subject property was provided by the User at the time of the assessment.

5.2.4 Valuation Reduction for Environmental Issues

No knowledge of valuation reductions associated with the subject property was provided by the User at the time of the assessment.

5.2.5 Commonly Known or Reasonably Ascertainable Information

The User did not provide information that is commonly known or reasonably ascertainable within the local community about the subject property at the time of the assessment.

5.2.6 Previous Reports and Other Provided Documentation

Various previous Partner Phase I Environmental Site Assessments (ESAs) have been performed on associated subject property APNs. No RECs, CRECs, or HRECs were identified for the subject property APNs during previous assessments. Due to file size, these reports are not included in the appendices of this report.

6.0 SITE RECONNAISSANCE

The weather at the time of the site visit was sunny and clear. Refer to Section 1.5 for limitations encountered during the field reconnaissance and Sections 2.1 and 2.2 for subject property operations. The table below provides the site assessment details:

SITE ASSESSMENT DATA

Site Assessment Performed By:	Ramiro Vejar
Site Assessment Conducted On:	August 1, 2025

Partner was unaccompanied during the site reconnaissance.

No potential environmental concerns were identified during the onsite reconnaissance.

6.1 General Site Characteristics

6.1.1 Solid Waste Disposal

With exception to residential trash, no additional solid waste is not currently generated onsite. Partner observed abandoned residential trash including broken furniture, wind-blown residential trash and abandoned tires on the subject property.

6.1.2 Sewage Discharge and Disposal

No wastewater treatment facilities were observed or reported on the subject property. Sanitary discharges from the subject property residences are directed to onsite septic systems.

6.1.3 Stormwater and Surface Water Drainage

Stormwater is removed from the property primarily due to ground infiltration. No drywells were identified on the subject property.

6.1.4 Source of Heating and Cooling

No heating or cooling sources were observed onsite. No hot water sources were observed onsite.

6.1.5 Wells and Cisterns

No aboveground evidence of wells or cisterns was observed during the site reconnaissance.

6.1.6 Wastewater

Domestic wastewater generated at the subject property is disposed by means of a septic system. No industrial processes are currently performed at the subject property.

6.1.7 Septic Systems

Sanitary discharges from the subject property residences are directed to onsite septic systems. Based on the presumed use of the septic system solely for domestic waste, these features are not expected to represent a significant environmental concern at this time.

6.1.8 Additional Site Observations

No additional general site characteristics were observed during the site reconnaissance.

6.2 Potential Environmental Hazards

6.2.1 Hazardous Substances and Petroleum Products Used or Stored at the Site

No evidence of the use of reportable quantities of hazardous substances was observed on the subject property.

Small quantities of general maintenance supplies were observed at the Windswept Ranch Petting Zoo with no signs of leaks, stains, or spills. The storage and use of maintenance supplies appears unlikely to represent an environmental concern.

6.2.2 Aboveground & Underground Hazardous Substance or Petroleum Product Storage Tanks (ASTs/USTs)

Other than aboveground water storage tanks, no additional evidence of current or former ASTs or USTs was observed during the site reconnaissance.

6.2.3 Evidence of Releases

No spills, stains, or other indications that a surficial release has occurred at the subject property were observed.

6.2.4 Polychlorinated Biphenyls (PCBs)

No potential PCB-containing equipment (transformers, oil-filled switches, hoists, lifts, dock levelers, hydraulic elevators, etc.) was observed on the subject property during Partner's reconnaissance.

6.2.5 Strong, Pungent or Noxious Odors

No strong, pungent or noxious odors were evident during the site reconnaissance.

6.2.6 Pools of Liquid

No pools of liquid were observed on the subject property during the site reconnaissance.

6.2.7 Drains, Sumps and Clarifiers

No drains, sumps, or clarifiers were observed on the subject property during the site reconnaissance.

6.2.8 Pits, Ponds and Lagoons

No pits, ponds, or lagoons were observed on the subject property.

6.2.9 Stressed Vegetation

No stressed vegetation was observed on the subject property.

6.2.10 Additional Potential Environmental Hazards and Emerging Contaminants

Partner evaluated the current subject property use during the site reconnaissance for potential environmental hazards, including Per- and Polyfluoroalkyl Substances (PFAS) impacts to the subject property. Based on the site observations, no likely PFAS impacts to the subject property based on current use were identified. Based on this information, PFAS appear unlikely to represent an environmental concern to the subject property.

No additional environmental hazards, including landfill activities or radiological hazards, were observed.

6.3 Non-ASTM Services

6.3.1 Asbestos-Containing Materials (ACMs)

Asbestos is the name given to a number of naturally occurring, fibrous silicate minerals mined for their useful properties such as thermal insulation, chemical and thermal stability, and high tensile strength. The Occupational Safety and Health Administration (OSHA) regulation 29 CFR 1926.1101 requires certain construction materials to be presumed to contain asbestos, for purposes of this regulation. All thermal system insulation (TSI), surfacing material, and asphalt/vinyl flooring that are present in a building that have not been appropriately tested are “presumed asbestos-containing material” (PACM).

The exercise of due diligence (as noted in the OSHA asbestos standards) requires that, where a building owner knows or should have known that materials other than PACM are asbestos-containing, these materials must be treated as ACM until proven otherwise.

During this assessment, Partner not granted access to the interior of the onsite residences and ranch structures. As such, ACM was not considered within this assessment. However, it is recommended that prior to disturbance of the structures (if any), a comprehensive asbestos survey of the property be completed to determine the presence, condition, friability and likely future condition of suspect or confirmed ACM. All suspect materials must be handled as ACM according to local, state and federal regulations until the results of sampling and analysis indicate the material is a non-ACM. According to the US EPA, ACM that is intact and in good condition can, in general, be managed safely in-place under an Operations and Maintenance (O&M) Program until removal is dictated by renovation, demolition, or deteriorating material condition.

6.3.2 Lead-Based Paint (LBP)

Lead is a highly toxic metal that affects virtually every system of the body. LBP is defined as any paint, varnish, stain, or other applied coating that has 1 mg/cm2 (or 5,000 µg/g or 0.5% by weight) or more of lead. Congress passed the Residential Lead-Based Paint Hazard Reduction Act of 1992, also known as “Title X,” to protect families from exposure to lead from paint, dust, and soil. Under Section 1017 of Title X, intact LBP on most walls and ceilings is not considered a “hazard,” although the condition of the paint should be monitored and maintained to ensure that it does not become deteriorated. Further, Section 1018 of this law directed the Housing and Urban Development (HUD) and the US EPA to require the disclosure of known information on LBP and LBP hazards before the sale or lease of most housing built before 1978.

During this assessment, Partner not granted access to the interior of the onsite residences and ranch structures. As such, LBP was not considered within this assessment.

6.3.3 Radon

Radon is a colorless, odorless, naturally occurring, radioactive, inert, gaseous element formed by radioactive decay of radium (Ra) atoms. The US EPA has prepared a map to assist National, State, and local organizations to target their resources and to implement radon-resistant building codes. The map divides the country into three Radon Zones, according to the table below:

EPA RADON ZONES

EPA Zones	Average Predicted Radon Levels	Potential
Zone 1	Exceed 4.0 pCi/L	Highest
Zone 2	Between 2.0 and 4.0 pCi/L	Moderate
Zone 3	Less than 2.0 pCi/L	Low

It is important to note that the EPA has found homes with elevated levels of radon in all three zones, and the US EPA recommends site-specific testing in order to determine radon levels at a specific location. However, the map does give a valuable indication of the propensity of radon gas accumulation in structures.

Review of the US EPA Map of Radon Zones places the subject property in Zone 2. Based upon the radon zone classification, radon is not considered an environmental concern.

6.3.4 Lead in Drinking Water

LEAD IN DRINKING WATER SUMMARY

Water System Operator:	Mojave Public Utilities Department (MPUD)
Source of Drinking Water:	Groundwater from six deep wells located in the Chaffee Subunit and Cameron Flat areas and purchased water from Antelope Valley-East Kern Water Agency
Year of Annual Water Quality Report:	2023
Compliance Status:	Water supplied is in compliance with all State and Federal regulations pertaining to drinking water standards for lead.

Water sampling was not conducted to verify water quality.

6.3.5 Microbial Growth

Molds are microscopic organisms found virtually everywhere, indoors and outdoors. Mold will grow and multiply under the right conditions, needing only sufficient moisture (e.g.in the form of very high humidity, condensation, or water from a leaking pipe, etc.) and organic material (e.g., ceiling tile, drywall, paper, or natural fiber carpet padding).

Partner observed accessible, interior areas of the subject property buildings for significant evidence of microbial growth with the exceptions detailed in Section 1.5 of this report; however, this assessment should not be used as a microbial survey or inspection. Additionally, this limited assessment was not designed to assess all areas of potential microbial growth that may be affected by microbial growth on the subject property. Rather, it is intended to give the client an indication as to whether or not conspicuous (based on observed areas) microbial growth is present at the subject property. This evaluation did not include a review of pipe chases, mechanical systems, or areas behind enclosed walls and ceilings.

During this assessment, Partner not granted access to the interior of the onsite residences and ranch structures. As such, mold and moisture intrusion was not considered within this assessment.

6.3.6 Wetlands

The subject property does not appear to be a potential wetland area based on information obtained from the United States Fish and Wildlife Service's Online Wetlands Mapper; however, a comprehensive wetlands survey would be required in order to formally determine actual wetlands on the subject property. Natural streams and creeks were observed at the subject property during this assessment.

6.4 Adjoining Property Reconnaissance

The adjoining property reconnaissance consisted of observing the adjoining properties from the subject property premises.

6.4.1 Hazardous Substances and Petroleum Products Used or Stored at the Site

No hazardous substances or petroleum products were observed on adjoining properties during the limited adjoining property reconnaissance.

6.4.2 ASTs/USTs for Hazardous Substances or Petroleum Products

No ASTs or USTs for hazardous substances/petroleum products were observed on adjoining properties during the limited adjoining property reconnaissance.

6.4.3 Evidence of Releases

No evidence of a release was observed on adjoining properties during the limited adjoining property reconnaissance.

6.4.4 PCBs

No PCB-containing materials were observed on adjoining properties during the limited adjoining property reconnaissance.

6.4.5 Strong, Pungent, or Noxious Odors

No strong, pungent, or noxious odors were observed on adjoining properties during the limited adjoining property reconnaissance.

6.4.6 Pools of Liquid

No pools of liquid were observed on adjoining properties during the limited adjoining property reconnaissance.

6.4.7 Drains, Sumps, and Clarifiers

No drains, sumps, or clarifiers were observed on adjoining properties during the limited adjoining property reconnaissance.

6.4.8 Pits, Ponds, and Lagoons

No pits, ponds, or lagoons were observed on adjoining properties during the limited adjoining property reconnaissance. Refer to Section 4.2.3 for further discussion of adjoining mining and quarry operations.

6.4.9 Stressed Vegetation

No stressed vegetation was observed on adjoining properties during the limited adjoining property reconnaissance.

6.4.10 Additional Potential Environmental Hazards and Emerging Contaminants

Partner evaluated the current adjoining property uses during the site reconnaissance for potential environmental hazards, including PFAS impacts to the subject property. Based on observations made from the subject property borders likely emerging contaminants and PFAS impacts to the subject property from current adjoining property uses were not identified. Based on this information, PFAS are not considered an environmental concern.

No additional environmental hazards were observed on adjoining properties during the limited adjoining property reconnaissance.

7.0 VAPOR ENCROACHMENT CONDITIONS

Partner conducted a limited non-intrusive vapor screening on the subject property to identify, to the extent feasible, the potential for vapor encroachment conditions (VECs) in connection with the subject property. This included consideration of chemicals of concern (COC) that may migrate as vapors into the subsurface of the subject property as a result of contaminated soil and groundwater on or near the property.

This screening utilized readily available data sources previously discussed in this Phase I ESA that includes:

- the physical setting of the subject property (Section 2.4),
- standard historical sources for the subject property, adjoining, and surrounding area (Section 3.0),
- known or potentially contaminated sites as identified from information from regulatory agencies and sites on Federal, State, tribal and local databases (Section 4.0), and
- information from the site reconnaissance (Section 6.0) of the subject property and observations of the surrounding properties.

The results of our data collection, reconnaissance, and analysis are tabulated below:

POTENTIAL FOR VAPOR ENCROACHMENT TO IMPACT THE SUBJECT PROPERTY

Area of Concern	Likely or Known VEC to Subject Property
Subject Property Existing Operations or Conditions (Sections 2.0 and 6.0)	None identified that impact the subject property.
Historical Uses of the Subject Property (Section 3.0)	None identified that impact the subject property.
Adjoining Property Operations or Existing Conditions (Sections 2.3 and 6.4)	None identified that impact the subject property.
Historical Uses of Adjoining Properties or Nearby Properties (Section 3.0)	None identified that impact the subject property.
Regulatory Review of sites identified on Federal, State, tribal and Local Environmental Databases which were located in the AMSD (Section 4.0)	None identified that impact the subject property.

Based on the findings of the limited non-intrusive vapor screening, vapor intrusion is unlikely to be an issue of concern in connection with the existing structures on the subject property. As such, no further assessment is recommended.

8.0 FINDINGS AND CONCLUSIONS

Findings and Opinions

Recognized Environmental Condition

A recognized environmental condition (REC) refers to the presence of hazardous substances or petroleum products in, on, or at the subject property due to a release to the environment; the likely presence of hazardous substances or petroleum products in, on, or at the subject property due to a release or likely release to the environment; or the presence of hazardous substances or petroleum products in, on, or at the subject property under conditions that pose a material threat of a future release to the environment.

- Partner identified no RECs in connection with the Subject Property.

Controlled Recognized Environmental Condition

A controlled recognized environmental condition (CREC) refers to a REC affecting the subject property that has been addressed to the satisfaction of the applicable regulatory authority or authorities with hazardous substances or petroleum products allowed to remain in place subject to the implementation of required controls (for example, activity and use limitations or other property use limitations).

- Partner identified no CRECs in connection with the Subject Property.

Historical Recognized Environmental Condition

A historical recognized environmental condition (HREC) refers to a previous release of hazardous substances or petroleum products affecting the subject property that has been addressed to the satisfaction of the applicable regulatory authority or authorities and meeting unrestricted use criteria established by the applicable regulatory authority or authorities without subjecting the subject property to any controls (for example, activity and use limitations or other property use limitations).

- Partner identified no HRECs in connection with the Subject Property.

Business Environmental Risk

A Business Environmental Risk (BER) is a risk which can have a material environmental or environmentally driven impact on the business associated with the current or planned use of commercial real estate, not necessarily related to those environmental issues required to be investigated in this practice. The following BER was identified during the course of this assessment:

- According to the CalGem Well Finder online database, an oil and gas well identified as American Petroleum Institute (API) number 0402989961, owned by M.K. Energy, was historically drilled on the portion of the subject property designated as parcel 474-010-30, in 1992. Available CalGem records state that the well was drilled to a depth of 2,517 feet in 1992 but that the well did not produce any oil, or even operate, at the subject property. A Report of Well Abandonment, dated August 13, 1999, states that the well was plugged on July 31, 1993, under the oversight of the Department of Conservation's Division of Oil, Gas & Geothermal Resources. Prior to redevelopment activities in the vicinity of the plugged oil and gas well, appropriate agencies should be contacted to ensure proper safety protocols are in place. Alternatively, if site development activities are offset 50 feet from the mapped location of the well, no further action would be warranted.

Significant Data Gaps

No significant data gaps affecting the ability of the Environmental Professional to identify a REC were encountered during this assessment.

Conclusions and Recommendations

Partner has performed a Phase I Environmental Site Assessment in conformance with the scope and limitations of ASTM Practice E1527-21 of 11354, 11741 115th Street, 9635 Laguna Avenue, 11100 90th Street in Mojave and Rosamond, Kern County, California (the “subject property”). Any exceptions to, or deletions from, this practice are described in Section 1.5 of this report.

This assessment has revealed no evidence of RECs, CRECs, or HRECs in connection with the subject property; however, a BER was identified. Based on the conclusions of this assessment, Partner recommends no further investigation regarding the environmental condition of the subject property.

9.0 SIGNATURES OF ENVIRONMENTAL PROFESSIONALS

Partner has performed a Phase I Environmental Site Assessment of the property located at 11354, 11741 115th Street, 9635 Laguna Avenue, 11100 90th Street in Mojave and Rosamond, Kern County, California in conformance with the scope and limitations of the protocol and the limitations stated earlier in this report. Exceptions to or deletions from this protocol are discussed earlier in this report.

By signing below, Partner declares that, to the best of our professional knowledge and belief, we meet the definition of *Environmental Professional* as defined in §312.10 of 40 CFR §312. Partner has the specific qualifications based on education, training, and experience to assess a *property* of the nature, history, and setting of the subject *property*. Partner has developed and performed the all appropriate inquiries in conformance with the standards and practices set forth in 40 CFR Part 312.

Reviewed By:



Laura Mohlenkamp
Environmental Professional

10.0 REFERENCES

American Society for Testing and Materials, Standard Practice for Environmental Site Assessments: Phase I Environmental Site Assessment Process, ASTM Designation: E1527-21

Environmental Risk Information Services (ERIS), City Directory, Fire Insurance Maps, Historic Aerials, Physical Setting Report, Radius Report, Topographic Maps, July and August 2025

Federal Emergency Management Agency, Federal Insurance Administration, National Flood Insurance Program, Flood Insurance Map, accessed via the internet, July and August 2025

United States Department of Agriculture, Natural Resources Conservation Service, Web Soil Survey, accessed via the internet, July and August 2025

United States Environmental Protection Agency, EPA Map of Radon Zones (Document EPA-402-R-93-071), accessed via the internet, July and August 2025

United States Fish and Wildlife Service, National Wetlands Inventory, accessed via the internet, July and August 2025

United States Geological Survey, accessed via the internet, July and August 2025

United States Geological Survey Topographic Map 2021 and 2022, 7.5-minute series, accessed via the internet, July and August 2025

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FIGURES

1: Site Location Map

2: Site Plan

3: Topographic Map

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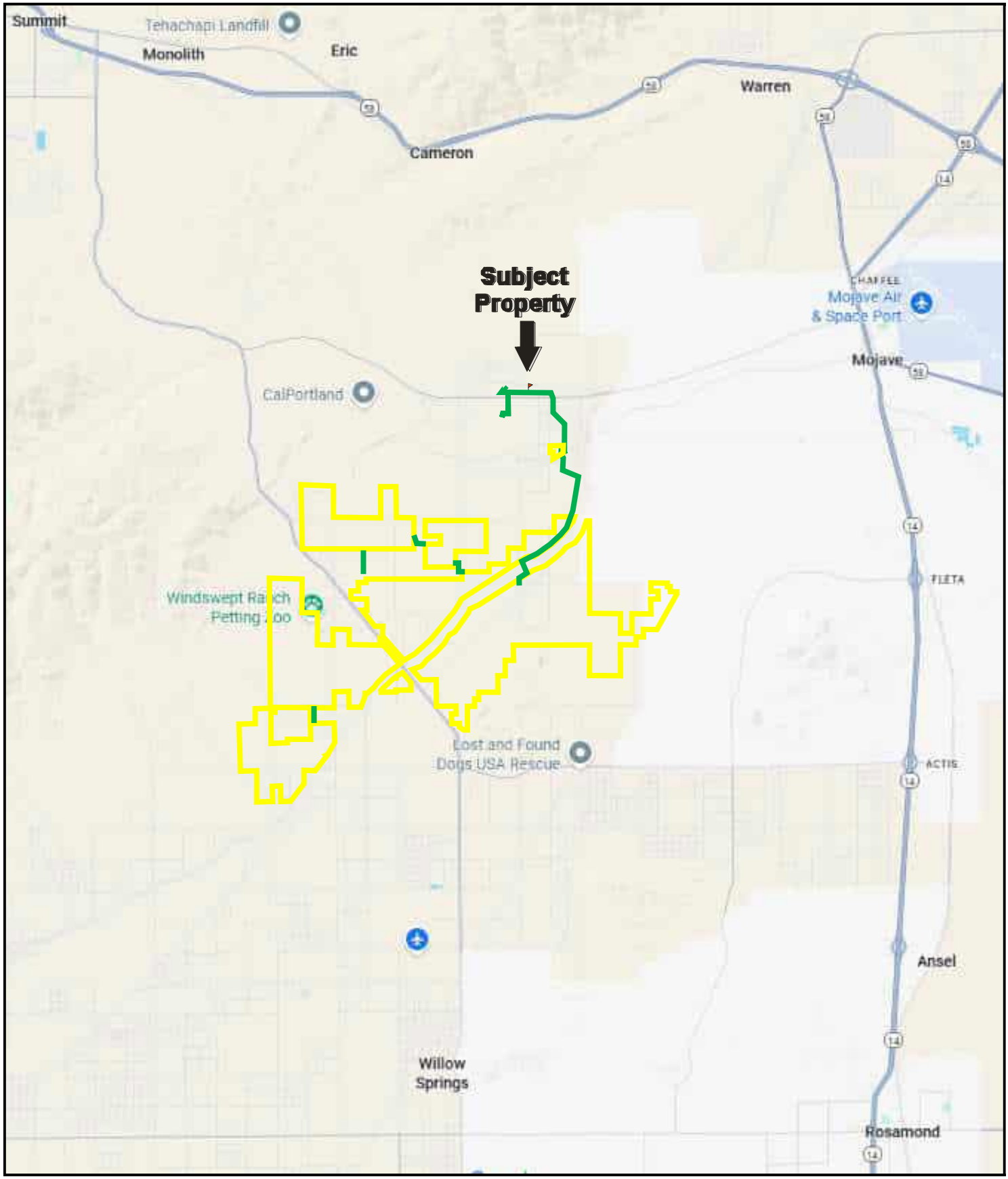


Drawing Not To Scale

KEY:
Subject Property

FIGURE 1: SITE LOCATION MAP
Project No. 25-507061.1

PARTNER

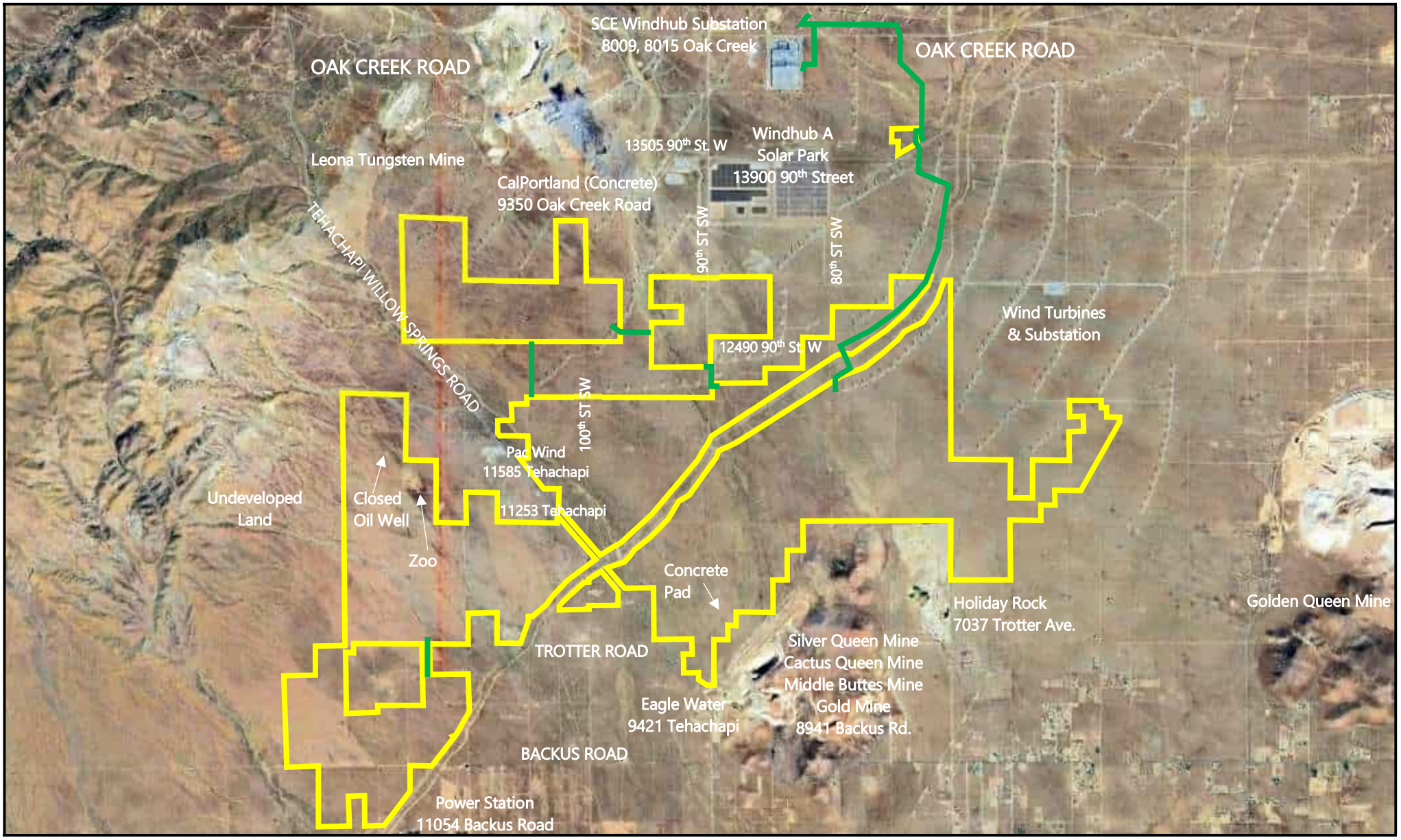
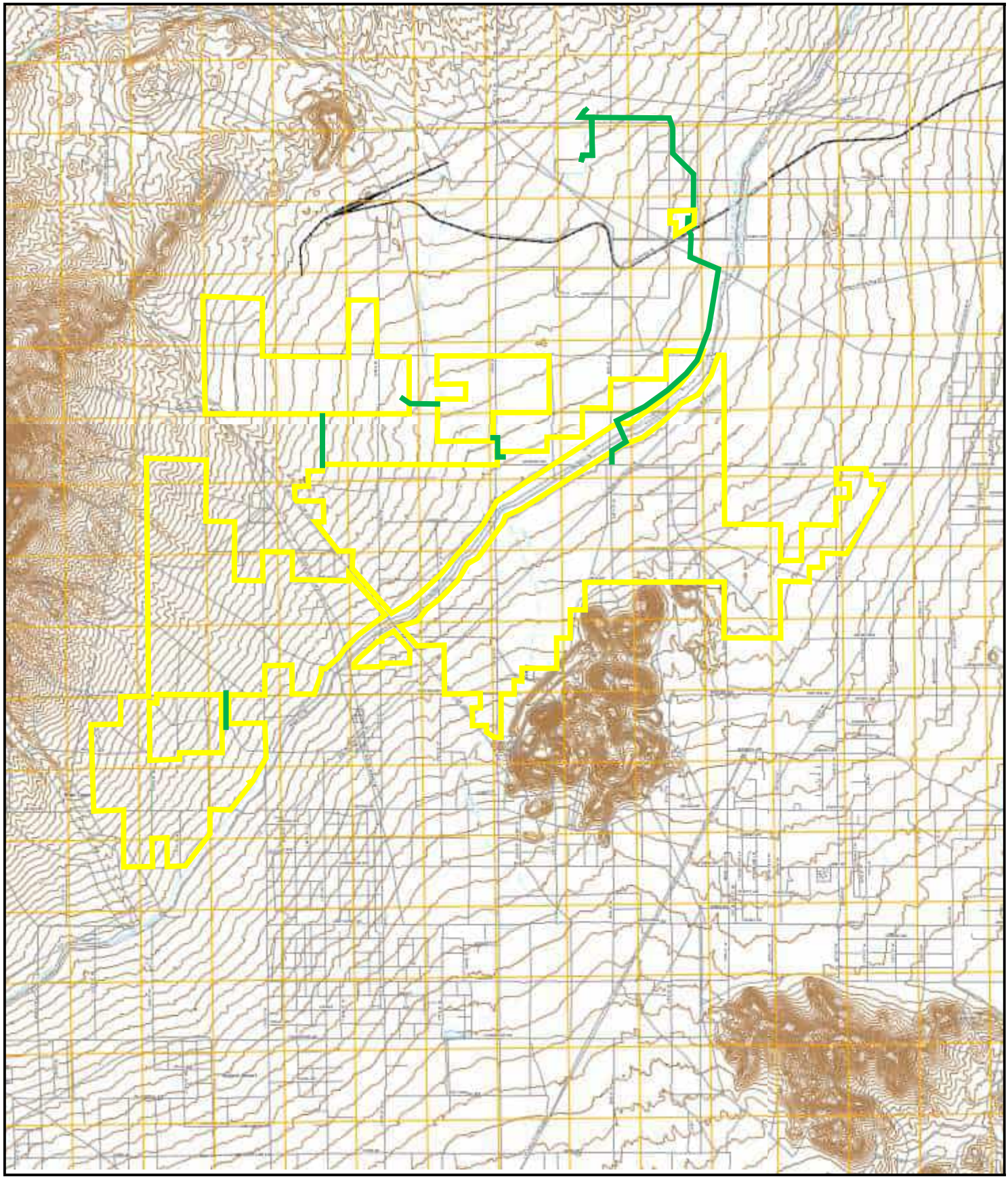


FIGURE 2: SITE PLAN
Project No. 25-507061.1

PARTNER



N

USGS 7.5-Minute Mojave, Monolith, Soledad Mountain, Willow Springs, California - Created: 2021 and 2022

KEY:
Subject Property

FIGURE 3: TOPOGRAPHIC MAP
Project No. 25-507061.1

PARTNER

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APPENDIX A: SITE PHOTOGRAPHS

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1. The single family residence on APN: 474-010-29



2. Entrance to the ranch property at APN: 474-083-06.



3. The trailer building at the ranch property (APN: 474-083-06).



4. The ranch pens and animal enclosures on APN: 474-083-06.



5. Stored paint and maintenance supplies on the exterior of the ranch (APN: 474-083-06).



6. The wind turbines on the northeast corner of the subject property (APN: 237-054-36).



7. The typical unpaved access road along the subject property perimeters (APN: 346-132-26)



8. The location of former trailer structures on the subject property (APN: 346-071-09).



9. The subject property near Laguna Avenue (APN: 346-061-05).



10. The subject property from APN: 474-171-01.



11. Typical concrete swales associated to the creek bisecting the subject property (near APN: 346-062-11).



12. The north adjoining property and gen-tie location .



13. The north adjoining property and gen-tie location .



14. Typical survey markers across the subject property (near APN: 237-055-16).



15. The presumed location of the closed oil/gas well on APN: 474-010-30.



16. Abandoned trash near a former trailer location 9635 Laguna Ave. (APN: 346-062-53).



17. Ranch manure stored on the subject property parcel APN: 474-010-30.



18. Water storage tanks located on the ranch (APN: 474-083-06).



19. Typical abandoned trash/furniture on the subject property (APN: 346-061-61)



20. Abandoned residential trash on the northeast corner of APN: 346-061-28.



21. Typical overhead powerlines across the subject property (APN: 474-072-10).



22. The adjoining property to the southwest.



23. An access bridge and bullet holed street sign on the south adjoining property.



24. The adjoining substation to the south.



25. The adjoining electrical power and power lines to the south.



26. The adjoining undeveloped desert land to the south, across Tehachapi Willow Springs Road.



27. The adjoining mine property to the south-southeast.



28. The adjoining mine property to the south-southeast.



29. The adjoining water pumping company on the south-southeast.



30. Typical adjoining wind turbines to the northeast.



31. The adjoining SCE Windhub Substation to the north.



32. The adjoining EDP Renewables solar park to the north.



33. The adjoining power lines, wind turbines, and desert land to the north.



34. The adjoining wind turbines followed by CalPortland Concrete to the north-northwest.



35. A typical adjoining electrical substation.



36. The Los Angeles River Aqueduct within a concrete enclosure.



37. Typical concrete manholes for the adjoining Los Angeles River Aqueduct.



38. An adjoining property with abandoned boats under powerlines at APN: 474-071-22.



39. A typical adjoining residential property (APN: 474-082-09).

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APPENDIX B: HISTORICAL/REGULATORY DOCUMENTATION

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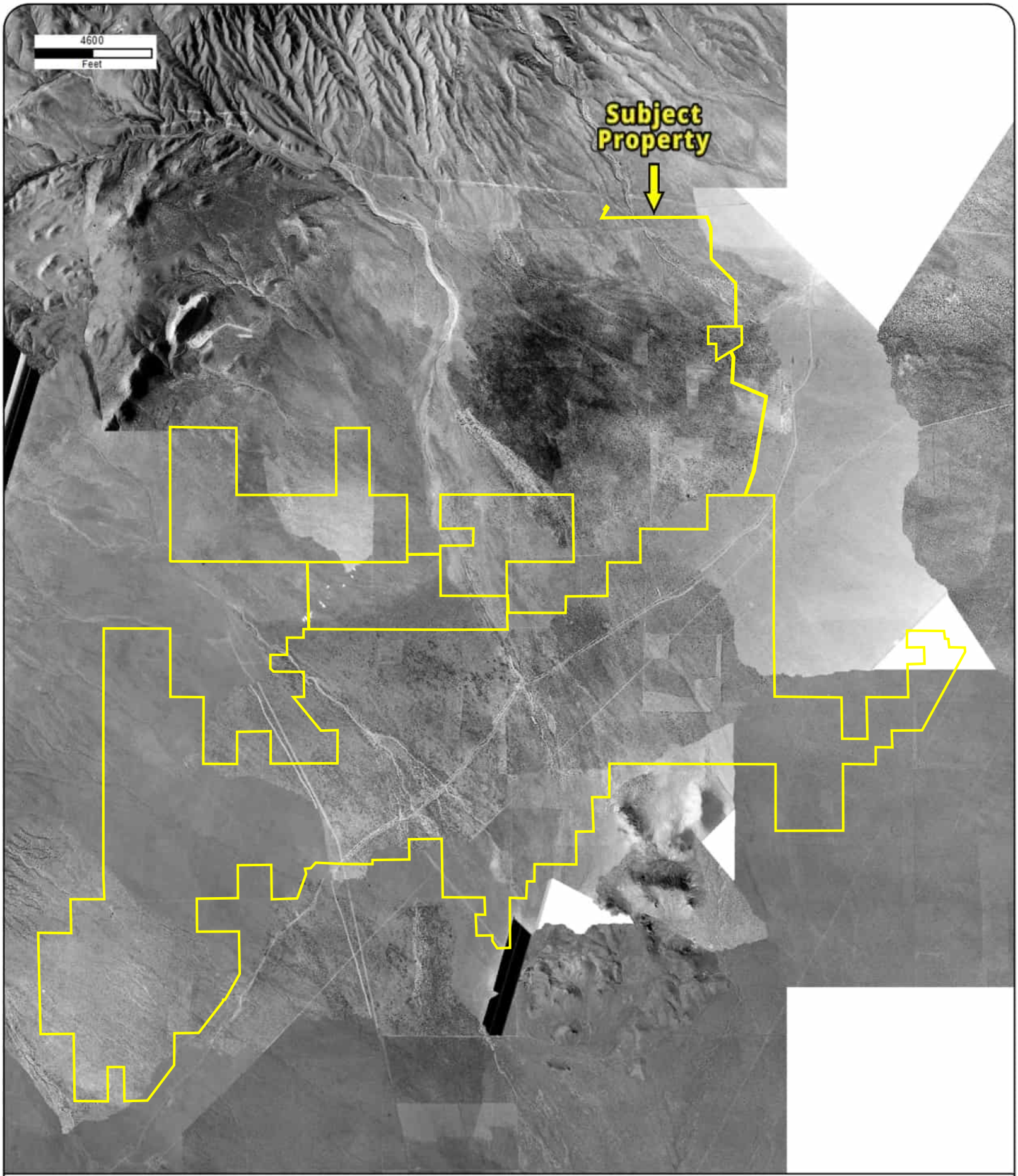

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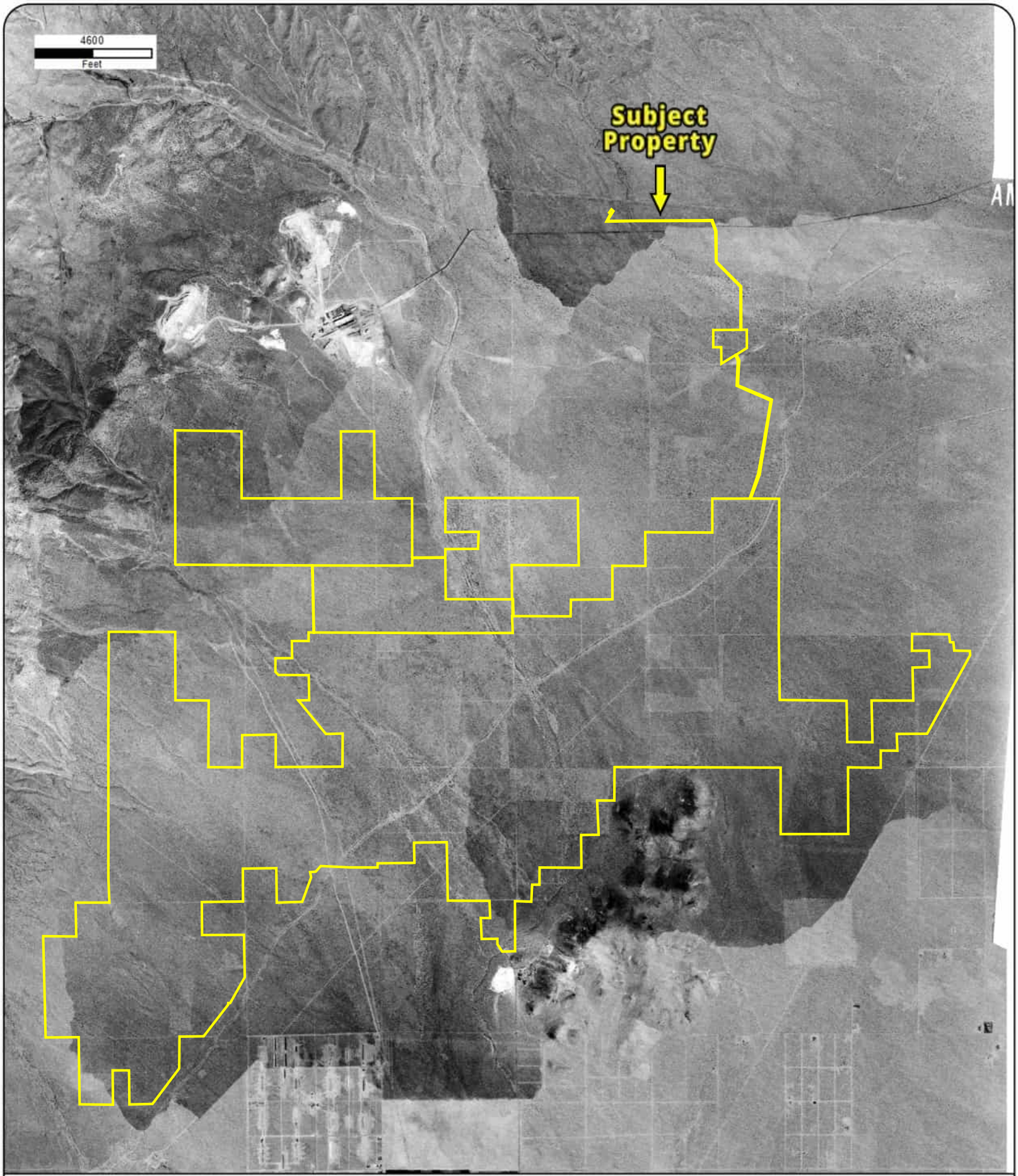

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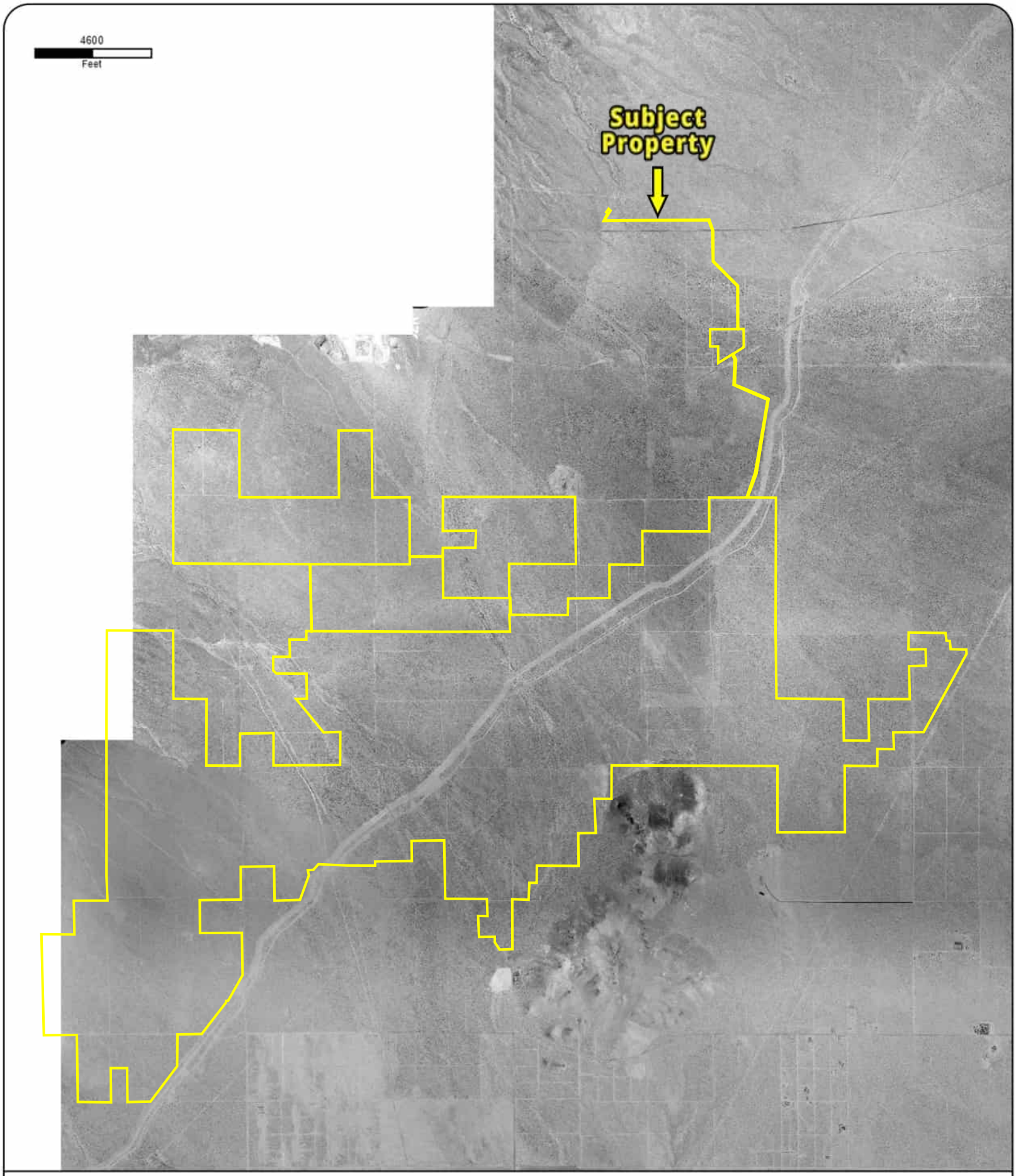

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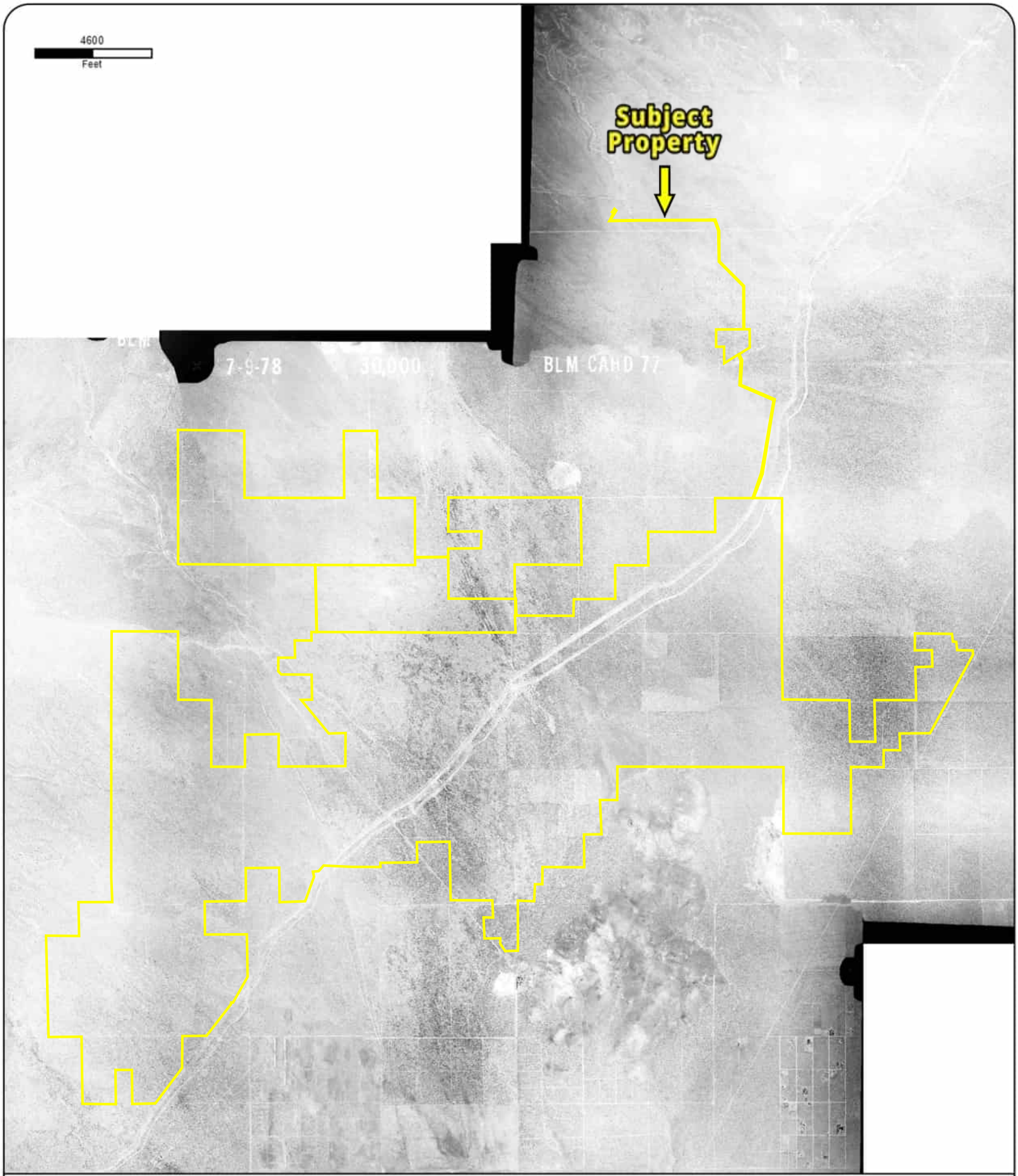

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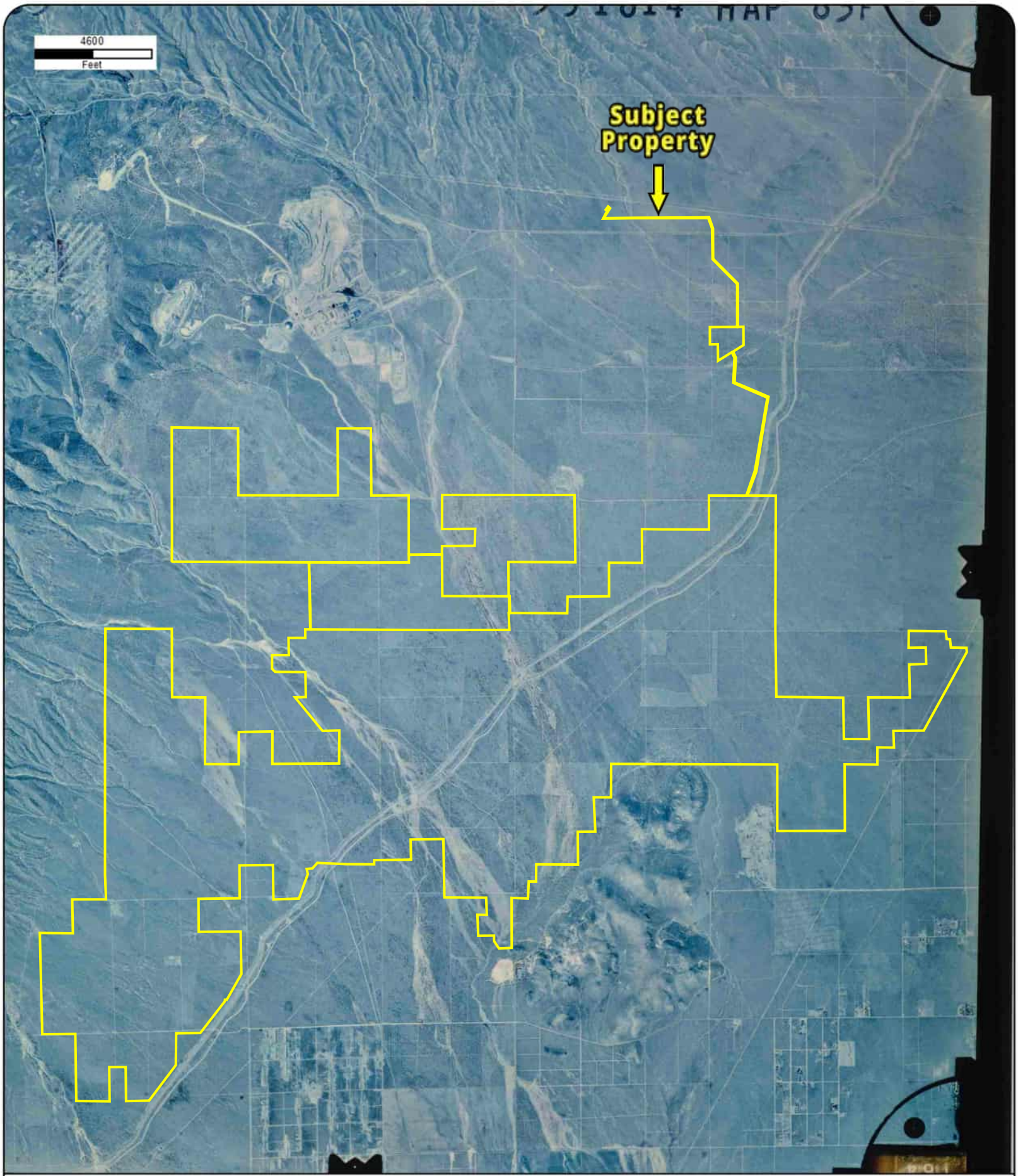

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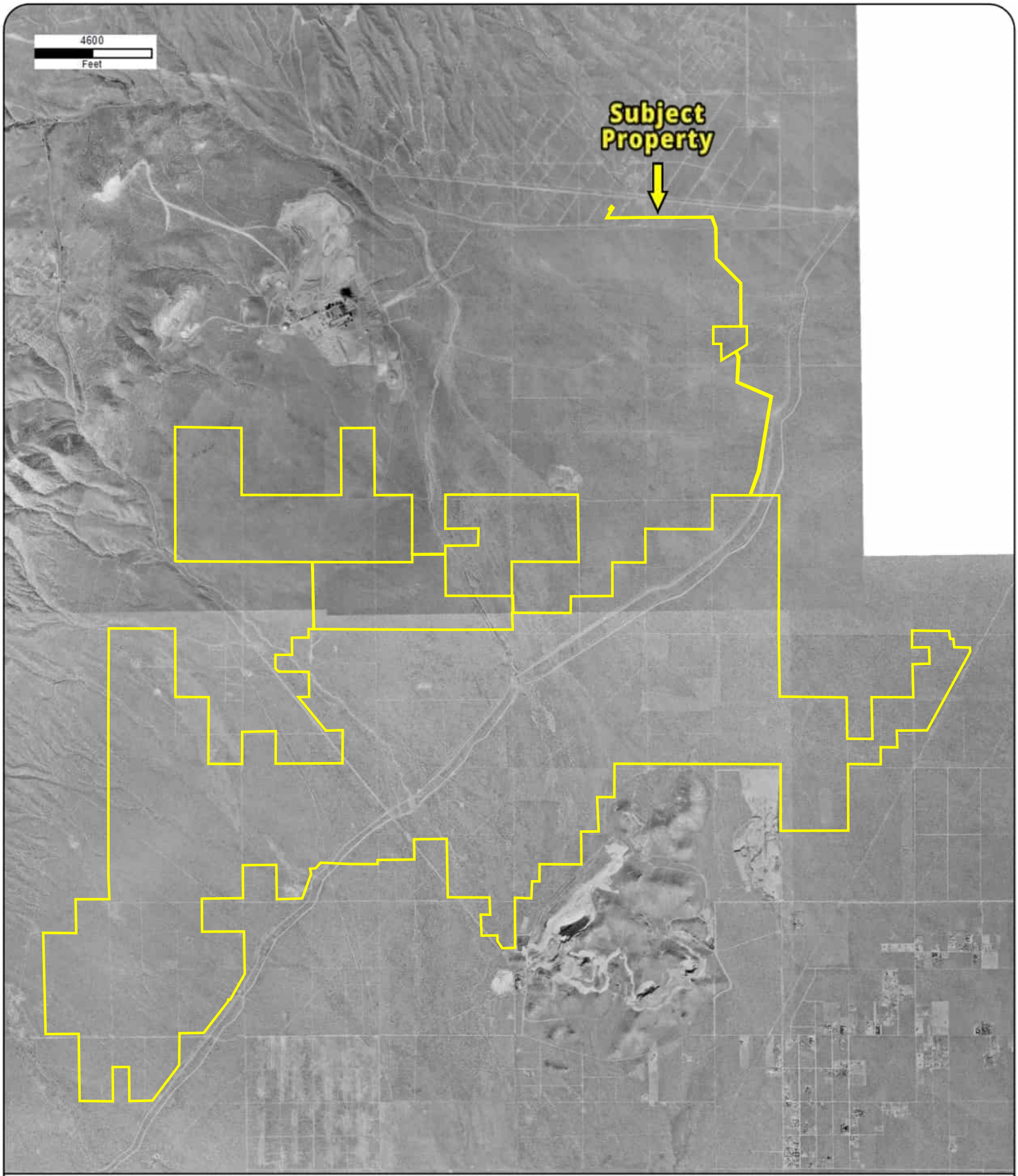

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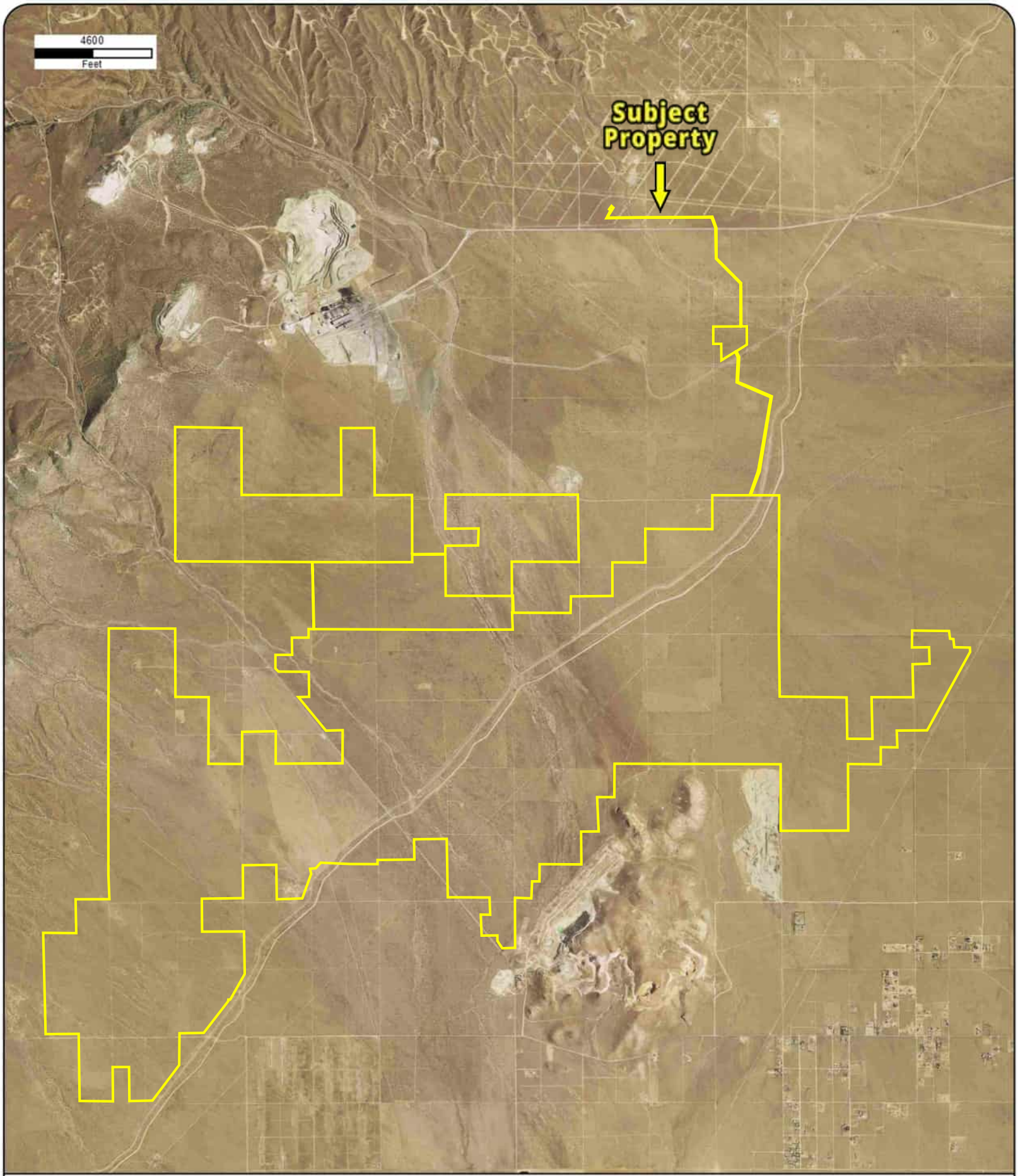

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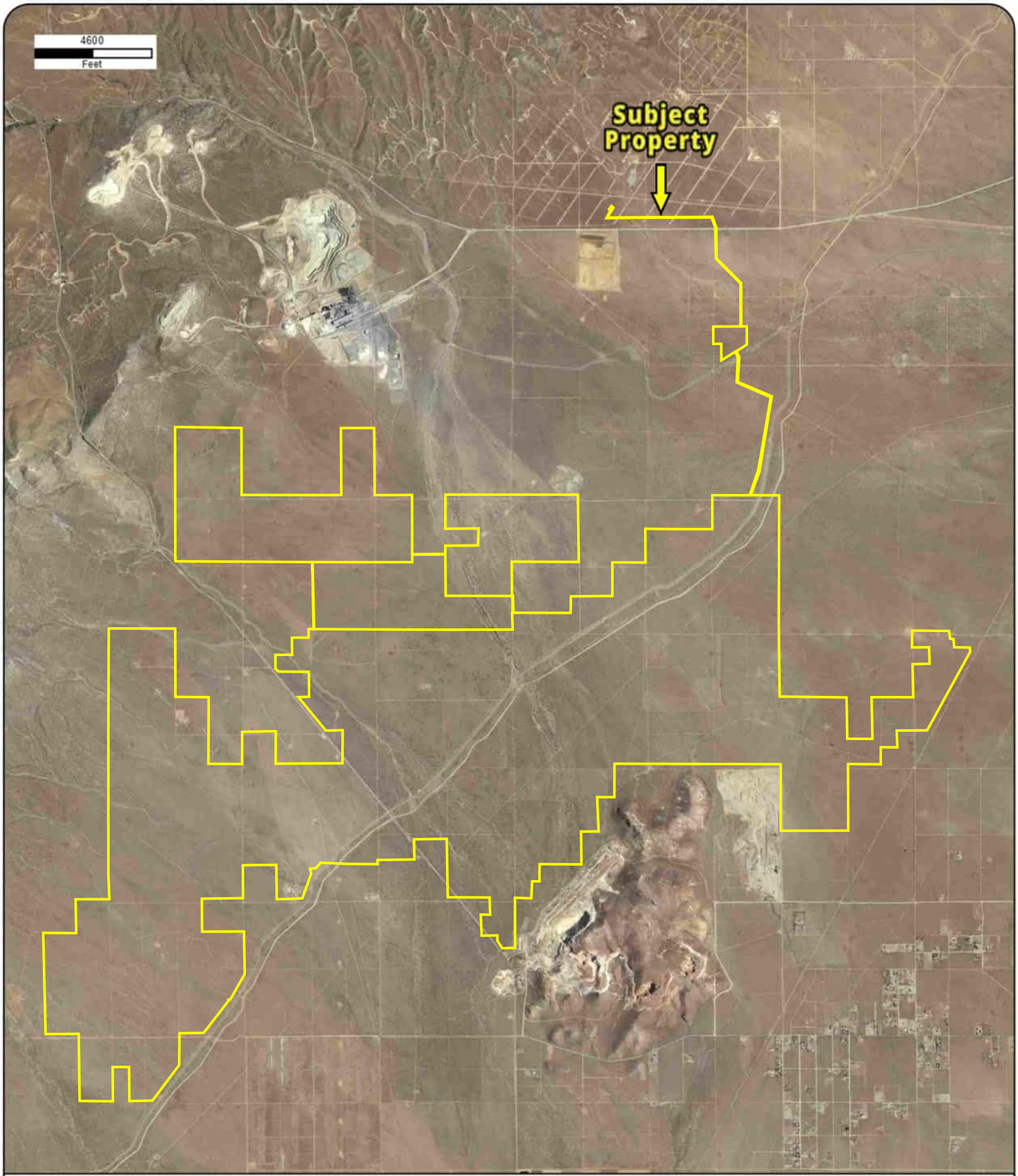

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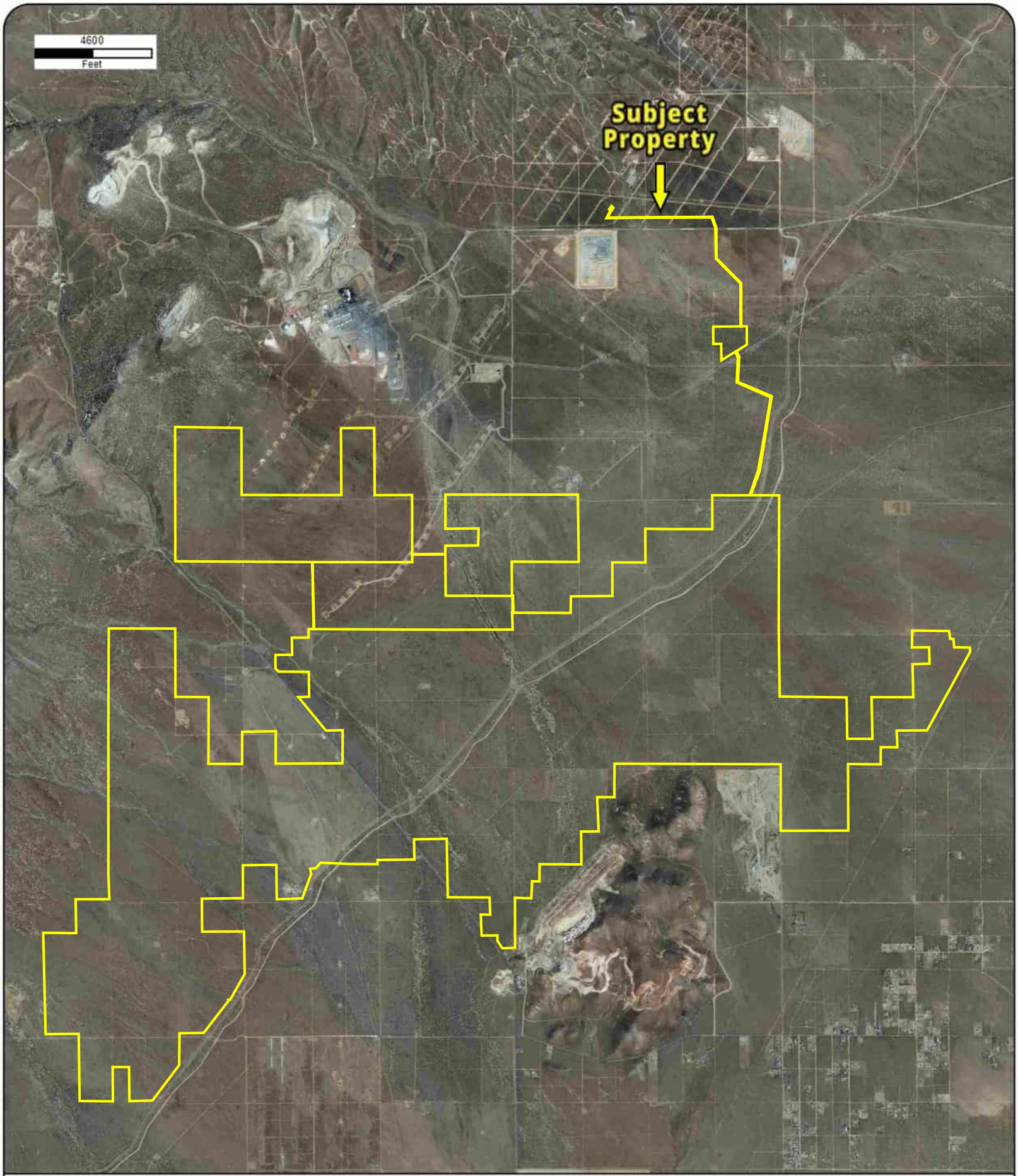

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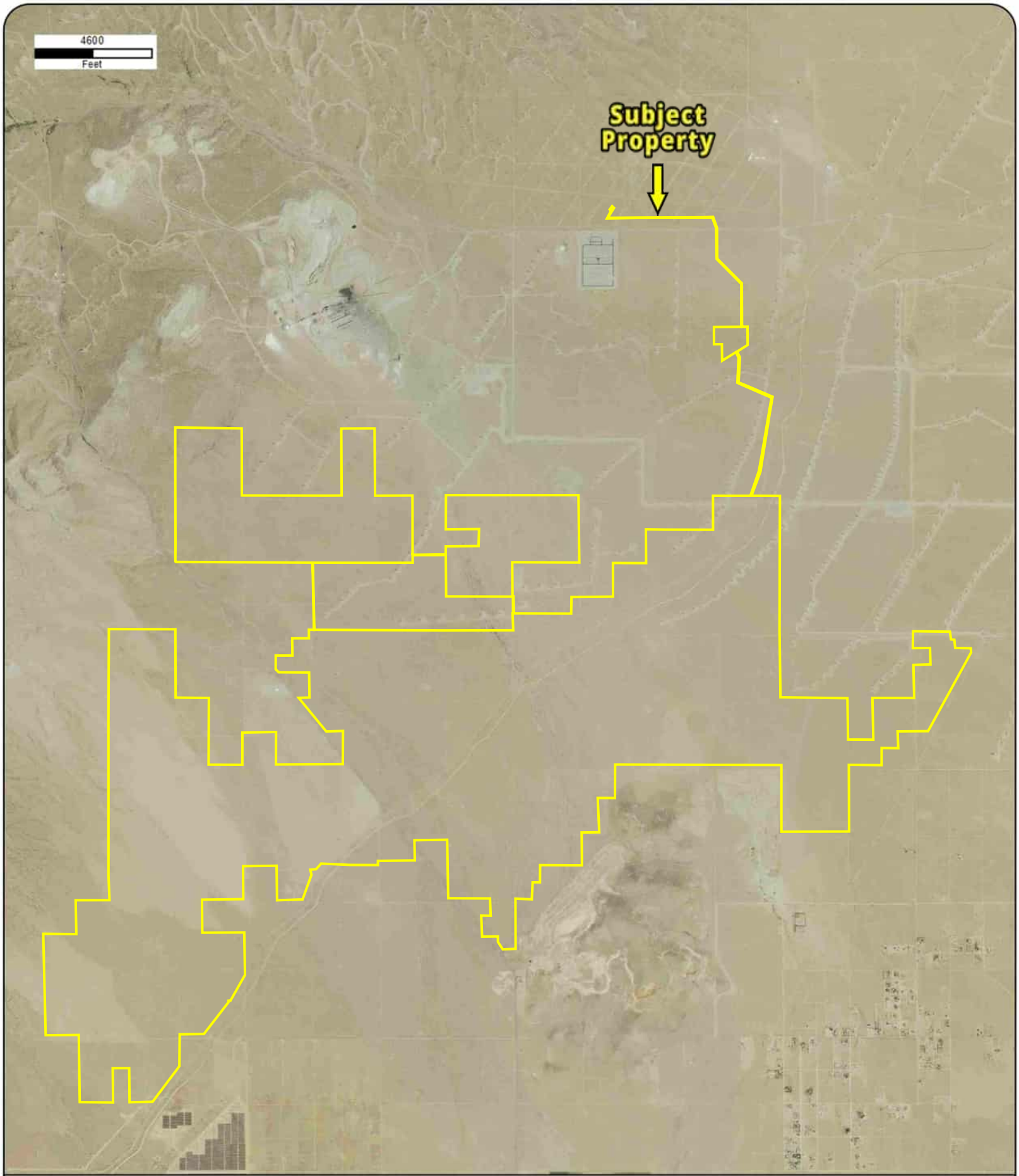

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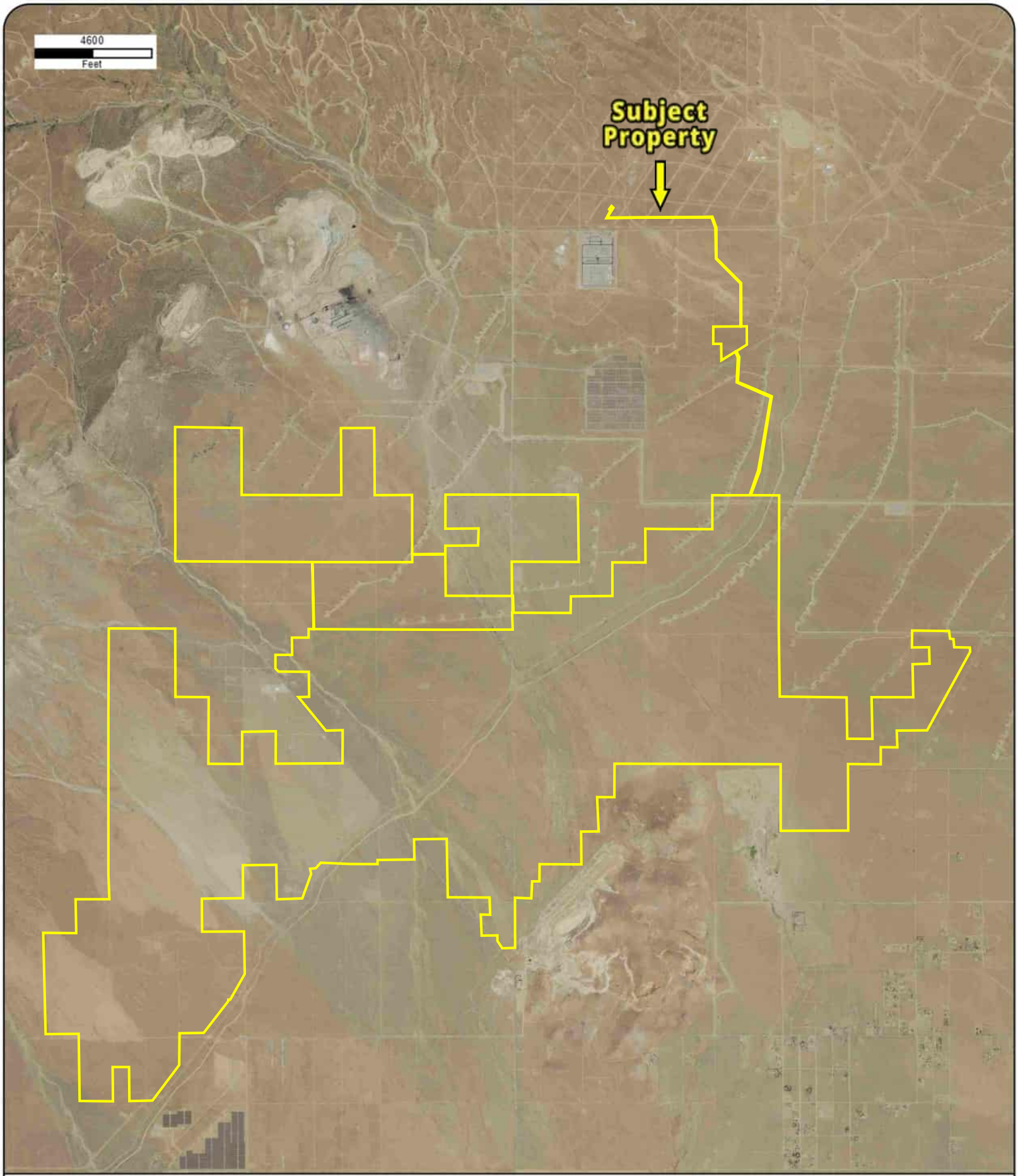

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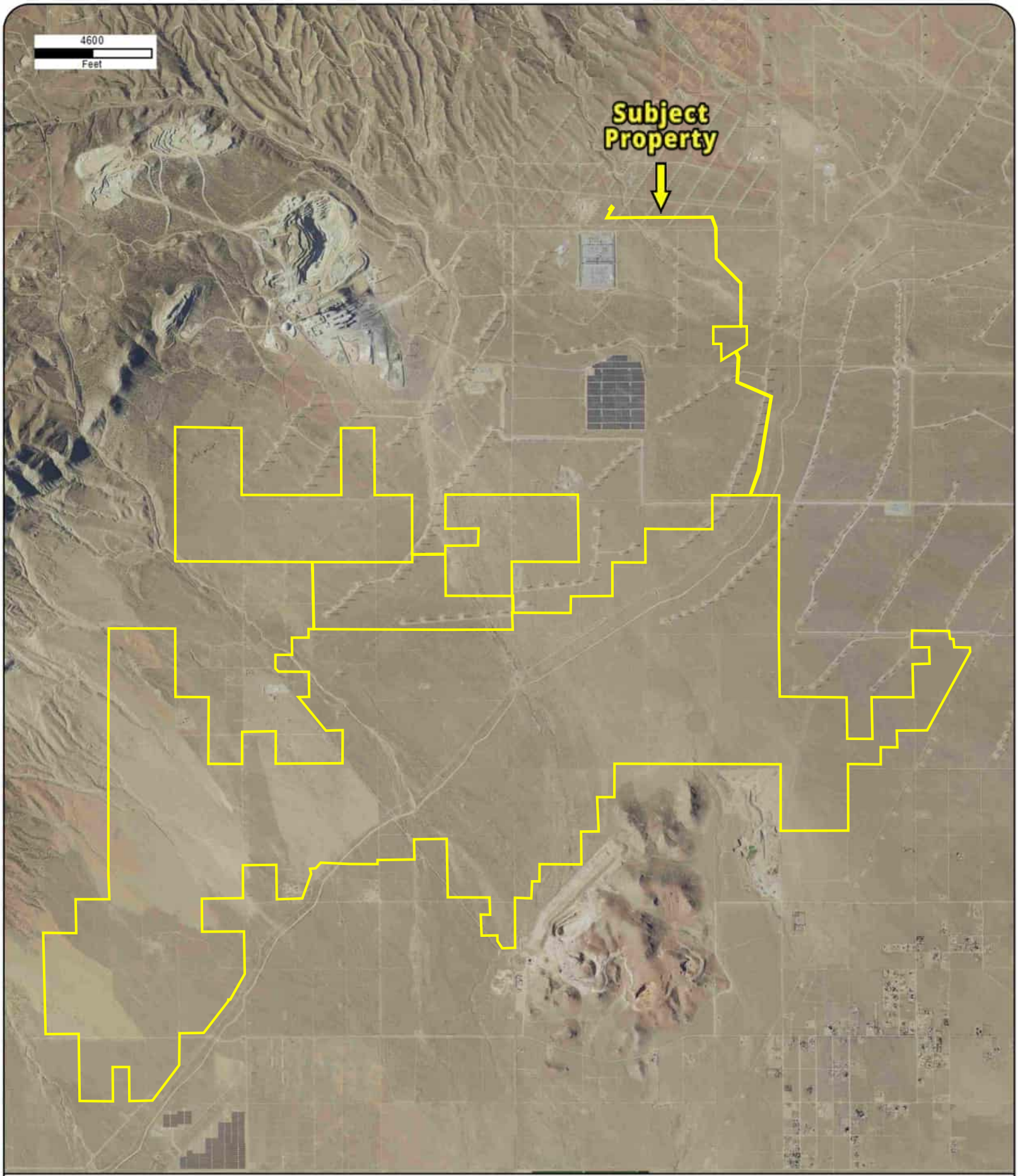

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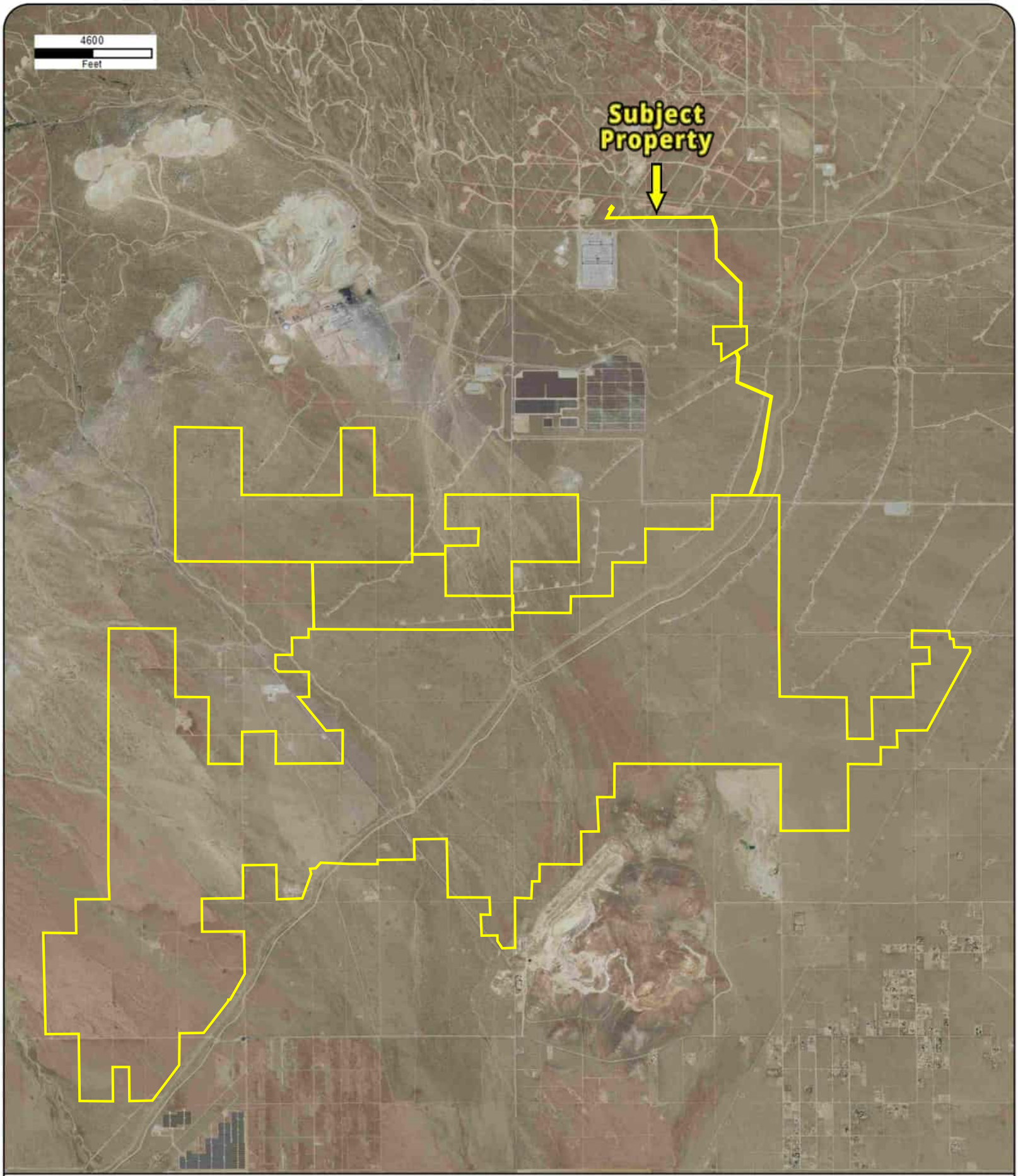

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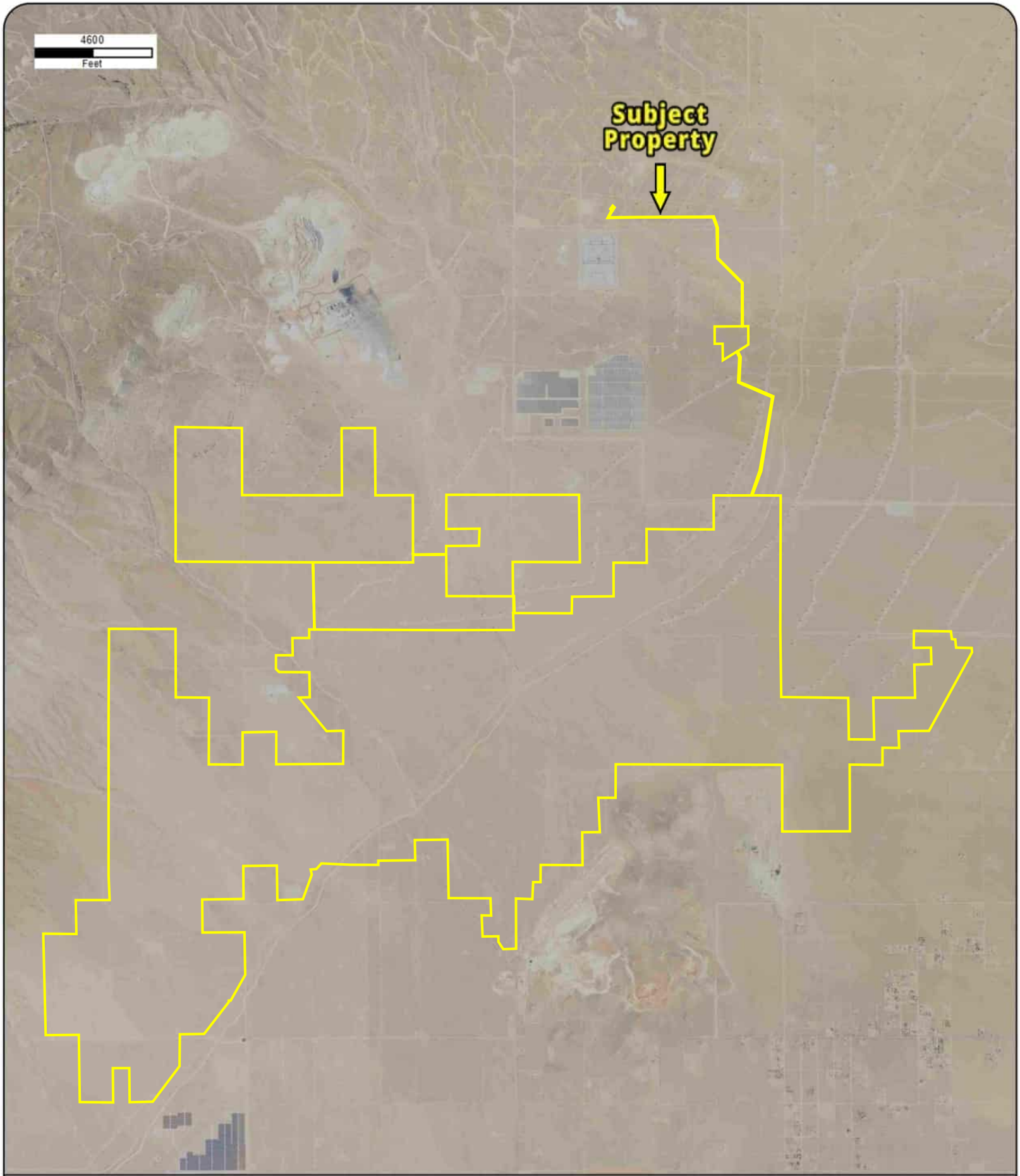

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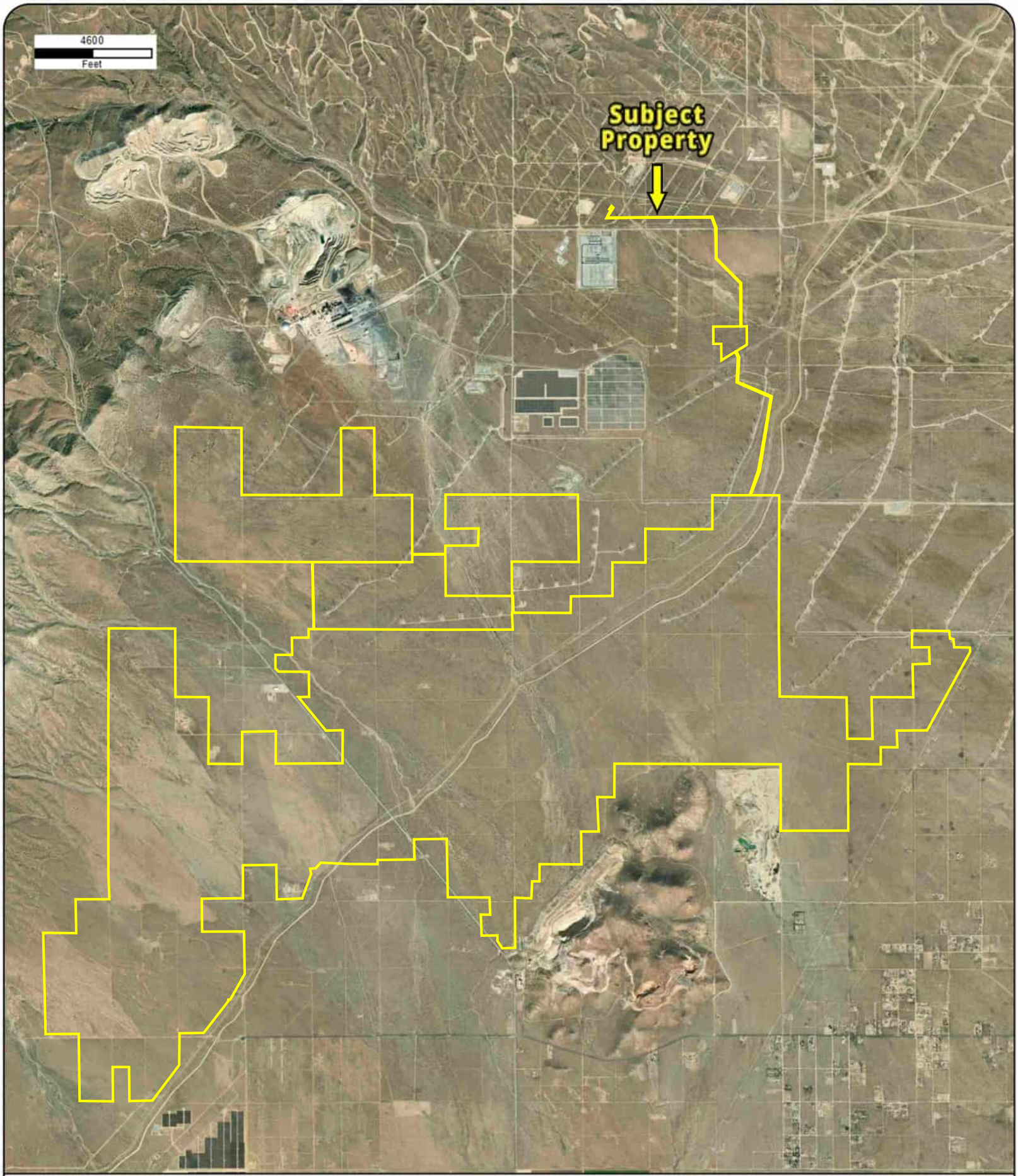

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Order No: 25071400346

PARTNER

ERIS

CITY DIRECTORY

Project Property:	*Discovery Project Area - Combined Phase I* *n/a* *MOJAVE,CA*
Project No:	*25-507061.1*
Requested By:	*Partner Engineering and Science, Inc.*
Order No:	*25071400346*
Date Completed:	*July 22, 2025*

Environmental Risk Information Services
A division of Glacier Media Inc.
1.866.517.5204 | info@erisinfo.com | erisinfo.com

July 22, 2025
RE: CITY DIRECTORY RESEARCH
n/a
MOJAVE,CA

Thank you for contacting ERIS for an City Directory Search for the site described above. Our staff has conducted a reverse listing City Directory search to determine prior occupants of the subject site and adjacent properties. We have provided the nearest addresses(s) when adjacent addresses are not listed. If we have searched a range of addresses, all addresses in that range found in the Directory are included.

Note: Reverse Listing Directories generally are focused on more highly developed areas. Newly developed areas may be covered in the more recent years, but the older directories will tend to cover only the "central" parts of the city. To complete the search, we have either utilized the ACPL, Library of Congress, State Archives, and/or a regional library or history center as well as multiple digitized directories. These do not claim to be a complete collection of all reverse listing city directories produced.

ERIS has made every effort to provide accurate and complete information but shall not be held liable for missing, incomplete or inaccurate information. To complete this search we used the general range(s) below to search for relevant findings. If you believe there are additional addresses or streets that require searching please contact us at 866-517-5204.

Search Criteria:
ALL of 115th St
ALL of 90th St
ALL of Laguna Ave
ALL of Oak Creek Rd
ALL of Tehachapi Willow Springs Rd
ALL of Trotter Ave

Search Notes:
Tehachapi Willow Springs Rd is also known as ALL Willow Springs Rd in MOJAVE.

Search Results Summary

Date	Source	Comment
2024	DIGITAL BUSINESS DIRECTORY	
2020	DIGITAL BUSINESS DIRECTORY	
2016	DIGITAL BUSINESS DIRECTORY	
2011	DIGITAL BUSINESS DIRECTORY	
2007	DIGITAL BUSINESS DIRECTORY	
2002	DIGITAL BUSINESS DIRECTORY	
2000	HAINES	
1995	HAINES	
1990	HAINES	
1985	HAINES	
1980	HAINES	
1975	HAINES	
1972	HAINES	

2024 115TH ST

SOURCE: DIGITAL BUSINESS DIRECTORY

NO LISTING FOUND

2024 90TH ST

SOURCE: DIGITAL BUSINESS DIRECTORY

NO LISTING FOUND

2024 LAGUNA AVE

SOURCE: DIGITAL BUSINESS DIRECTORY

NO LISTING FOUND

2024 OAK CREEK RD

SOURCE: DIGITAL BUSINESS DIRECTORY

2481	**RAMOS STRONG INC**...*OILS - LUBRICATING - WHOLESALE*
2810	**JAWONNA WEST**...*RESIDENTIAL*
2810	**TINA LUX**...*RESIDENTIAL*
2830	**ARTHUR JACKSON**...*RESIDENTIAL*
2830	**RAMICA ROBERTS**...*RESIDENTIAL*
2860	**DALLAS WRIGHT**...*RESIDENTIAL*
2870	**DESERT OAK APARTMENTS**...*APARTMENTS*
2870	**DESERT OAK APT BY TETRA**...*APARTMENTS*
2870	**TIA BENJAMIN**...*RESIDENTIAL*
3400	**MIRANDA SANCHEZ**...*RESIDENTIAL*
3466	**ERIKA RICO**...*RESIDENTIAL*
3466	**EUFROSINA BENITEZ**...*RESIDENTIAL*
6703	**BROOKFIELD POWER**...*CONSTRUCTION MANAGEMENT*
6737	**ESI OPERATING SVC**...*ENERGY PRODUCTS*
7021	**EDF RENEWABLES INC**...*ELECTRIC UTILITY*
7021	**ENXCO SERVICE CORP**...*WHOLESALE WIND ENERGY SYSTEMS*
7021	**FPL ENERGY OPERATING SERVICES INC**...*PLUMBING, HEATING, AIR-CONDITIONING*
7021	**MOJAVE 16 17 18 WIND ENERGY**...*UNINTERRUPTIBLE POWER SYSTEMS*
9350	**CAL PORTLAND CO**...*PORTLAND CEMENT*
9350	**CAL PORTLAND CO**...*READY-MIX CONCRETE*
9350	**CALIFORNIA PORTLAND CEMENT**...*PORTLAND CEMENT*
9350	**MOJAVE PLANT EMPLOYEES FCU**...*FEDERALLY CHARTERED CREDIT UNIONS*

2024 TEHACHAPI WILLOW SPRINGS RD

SOURCE: DIGITAL BUSINESS DIRECTORY

14633 **OAK CREEK ENERGY**...*ELECTRIC SERVICES*

2024 TROTTER AVE

SOURCE: DIGITAL BUSINESS DIRECTORY

67 **PHYLLIS DUSTIN**...*RESIDENTIAL*
77 **MICHAEL MATHIS**...*RESIDENTIAL*
145 **GENA PIERCE**...*RESIDENTIAL*
173 **VERDOS MULLINS**...*RESIDENTIAL*
301 **SAMUEL RODELA**...*RESIDENTIAL*
329 **RITA EAGLE**...*RESIDENTIAL*
1579 **BARBARA AYALA**...*RESIDENTIAL*
1579 **YOLANDA AYALA**...*RESIDENTIAL*
1671 **EVELYN GARCIA**...*RESIDENTIAL*
1975 **WILLIAM DYKEHOUSE**...*RESIDENTIAL*
3375 **DANIEL DEGES**...*RESIDENTIAL*
7037 **HOLLIDAY ROCK CO INC**...*PAVING CONTRACTORS*

2020 115TH ST

SOURCE: DIGITAL BUSINESS DIRECTORY

NO LISTING FOUND

2020 90TH ST

SOURCE: DIGITAL BUSINESS DIRECTORY

14047 **TERRA-GEN POWER LLC**...*ELECTRIC POWER DISTRIBUTION*

2020 LAGUNA AVE

SOURCE: DIGITAL BUSINESS DIRECTORY

NO LISTING FOUND

2020 OAK CREEK RD

SOURCE: DIGITAL BUSINESS DIRECTORY

2481 **RAMOS STRONG INC**...*OILS-LUBRICATING-WHOLESALE*
2481 **RAMOS STRONG INC**...*ECOMMERCE*
2800 **JAWONNA WEST**...*RESIDENTIAL*
2810 **TINA LUX**...*RESIDENTIAL*
2830 **JAMIE PARTEN**...*RESIDENTIAL*
2860 **DALLAS WRIGHT**...*RESIDENTIAL*
2870 **DESERT OAK APARTMENTS**...*APARTMENTS*
2870 **TIA BENJAMIN**...*RESIDENTIAL*
3400 **MIRANDA SANCHEZ**...*RESIDENTIAL*
3430 **CHRISTINA HAYDEN**...*RESIDENTIAL*
3466 **EUFROSINA BENITEZ**...*RESIDENTIAL*
7021 **ENXCO SERVICE CORP**...*FEDERAL GOVERNMENT CONTRACTORS*
7021 **ENXCO SERVICE CORP**...*WIND ENERGY SYSTEMS (WHLS)*
7021 **OASIS WIND**...*ELECTRIC POWER DISTRIBUTION*
8650 **ALTA WIND VI**...*NONCLASSIFIED ESTABLISHMENTS*
9350 **CAL PORTLAND CO**...*CEMENT-MANUFACTURERS*
9350 **CAL PORTLAND CO**...*OTHER BUILDING MATERIAL DEALERS*
9350 **CALIFORNIA PORTLAND CEMENT**...*READYMIXED CONCRETEMANUFACTURERS*
9350 **CALIFORNIA PORTLAND CEMENT**...*CEMENT-RETAIL*
9350 **MOJAVE PLANT EMPLOYEES FCU**...*FEDERALLY CHARTERED CREDIT UNIONS*
17937 **JANICE SHAW ALFORD**...*RESIDENTIAL*
18818 **R T B CONSTRUCTION**...*BOILERSSUPPLIES & PARTS (WHLS)*
18818 **R T B CONSTRUCTION**...*NEW SINGLE-FAMILY HSNG CONSTR (EXC FOR-SALE BLDRS)*

2020 TEHACHAPI WILLOW SPRINGS RD

SOURCE: DIGITAL BUSINESS DIRECTORY

NO LISTING FOUND

2020 TROTTER AVE

SOURCE: DIGITAL BUSINESS DIRECTORY

67	**BRIAN TEVEBAUGH**...*RESIDENTIAL*
67	**CHERYL DUSTIN**...*RESIDENTIAL*
77	**SUE SAYLOR**...*RESIDENTIAL*
145	**GENA PIERCE**...*RESIDENTIAL*
173	**DESIREE MULLINS**...*RESIDENTIAL*
201	**DEBRA BROMILEY**...*RESIDENTIAL*
201	**WAYNE BROMILEY**...*RESIDENTIAL*
301	**SAMUEL RODELA**...*RESIDENTIAL*
303	**CALVARY LOGISTICS INC**...*TRANSPORTATION CONSULTANTS*
329	**GEOFFREY HOUSEMAN**...*RESIDENTIAL*
329	**SAMI HOUSEMAN**...*RESIDENTIAL*
1579	**TINA AYALA**...*RESIDENTIAL*
1671	**EVELYN GARCIA**...*RESIDENTIAL*
1975	**CAROL EDWARDS**...*RESIDENTIAL*
1975	**CONNIE DYKEHOUSE**...*RESIDENTIAL*
3281	**DAVID CHRISMAN**...*RESIDENTIAL*
3375	**DANIEL DEGES**...*RESIDENTIAL*
7037	**HOLLIDAY ROCK CO INC**...*TOPSOIL*
7037	**HOLLIDAY ROCK CO INC**...*CONCRETE-READY MIXED*
7037	**HOLLIDAY ROCK CO INC**...*PAVING CONTRACTORS*

2016 115TH ST

SOURCE: DIGITAL BUSINESS DIRECTORY

NO LISTING FOUND

2016 90TH ST

SOURCE: DIGITAL BUSINESS DIRECTORY

12490 **WINDSTAR ENERGY LLC**...*ENERGY CONSERVATION PRODS-SVCS-SYSTEMS*
12490 **WINDSTAR ENERGY LLC**...*ENERGY MANAGEMENT SYSTEMS & PRODUCTS*

2016 LAGUNA AVE

SOURCE: DIGITAL BUSINESS DIRECTORY

NO LISTING FOUND

2016 OAK CREEK RD

SOURCE: DIGITAL BUSINESS DIRECTORY

2481 **RAMOS STRONG INC**...*OILS-LUBRICATING-WHOLESALE*
2800 **JAWONNA WEST**...*RESIDENTIAL*
2810 **LOU THORNBURG**...*RESIDENTIAL*
2860 **DALLAS WRIGHT**...*RESIDENTIAL*
2870 **DESERT OAK APARTMENTS**...*APARTMENTS*
3400 **MIRANDA SANCHEZ**...*RESIDENTIAL*
3466 **EUFROSINA BENITEZ**...*RESIDENTIAL*
6703 **BROOKFIELD POWER**...*CONSTRUCTION MANAGEMENT*
6703 **MORTENSON CONSTRUCTION**...*CONSTRUCTION MANAGEMENT*
6737 **ESI OPERATING SVC**...*ENERGY CONSERVATION PRODS-SVCS-SYSTEMS*
7021 **ENXCO SERVICE CORP**...*WIND ENERGY SYSTEMS (WHLS)*
7021 **MOJAVE 16 17 18 WIND ENERGY**...*UNINTERRUPTIBLE POWER SYSTEMS*
7021 **NEXT ERA ENERGY**...*ENERGY CONSERVATION & MGMT CONSULTANTS*
8650 **ALTA WIND VI**...*NONCLASSIFIED ESTABLISHMENTS*
9350 **CAL PORTLAND CO**...*CEMENT-RETAIL*
9350 **CAL PORTLAND CO**...*OTHER BUILDING MATERIAL DEALERS*
9350 **CALIFORNIA PORTLAND CEMENT**...*CEMENT-RETAIL*
9350 **MOJAVE PLANT EMPLOYEES FCU**...*FEDERALLY CHARTERED CREDIT UNIONS*
17937 **JANICE SHAW ALFORD**...*RESIDENTIAL*
17937 **LAURENCE ALFORD**...*RESIDENTIAL*
18818 **R T B CONSTRUCTION**...*NEW SINGLE-FAMILY HSNG CONSTR (EXC FOR-SALE BLDRS)*
19000 **DEBRA SLEMP**...*RESIDENTIAL*

2016 TEHACHAPI WILLOW SPRINGS RD

SOURCE: DIGITAL BUSINESS DIRECTORY

NO LISTING FOUND

2016 TROTTER AVE

SOURCE: DIGITAL BUSINESS DIRECTORY

67	**CHERYL DUSTIN**...*RESIDENTIAL*
67	**PHYLLIS DUSTIN**...*RESIDENTIAL*
77	**SUE SAYLOR**...*RESIDENTIAL*
145	**GENA PIERCE**...*RESIDENTIAL*
173	**DESIREE MULLINS**...*RESIDENTIAL*
173	**VERDOS MULLINS**...*RESIDENTIAL*
201	**DEBRA BROMILEY**...*RESIDENTIAL*
201	**SARAH BROMILEY**...*RESIDENTIAL*
201	**WAYNE BROMILEY**...*RESIDENTIAL*
301	**SAMUEL RODELA**...*RESIDENTIAL*
303	**CALVARY LOGISTICS INC**...*TRANSPORTATION CONSULTANTS*
329	**GEOFFREY HOUSEMAN**...*RESIDENTIAL*
329	**SAMI HOUSEMAN**...*RESIDENTIAL*
1579	**TINA AYALA**...*RESIDENTIAL*
1975	**CAROL EDWARDS**...*RESIDENTIAL*
1975	**CONNIE DYKEHOUSE**...*RESIDENTIAL*
1975	**WILLIAM DYKEHOUSE**...*RESIDENTIAL*
3281	**DAVID CHRISMAN**...*RESIDENTIAL*
3375	**DANIEL DEGES**...*RESIDENTIAL*
7037	**HOLLIDAY ROCK CO INC**...*PAVING CONTRACTORS*

2011 115TH ST

SOURCE: DIGITAL BUSINESS DIRECTORY

NO LISTING FOUND

2011 90TH ST

SOURCE: DIGITAL BUSINESS DIRECTORY

NO LISTING FOUND

2011 LAGUNA AVE

SOURCE: DIGITAL BUSINESS DIRECTORY

NO LISTING FOUND

2011 OAK CREEK RD

SOURCE: DIGITAL BUSINESS DIRECTORY

2800 **ARTHUR JACKSON**...*RESIDENTIAL*
2800 **DIANNE COULTER**...*RESIDENTIAL*
2800 **JANE CRAMER**...*RESIDENTIAL*
2800 **JAWONNA WEST**...*RESIDENTIAL*
2800 **KARISSA FERRELL**...*RESIDENTIAL*
2800 **MIESHA SHEPHERD**...*RESIDENTIAL*
2800 **SHARON TAYLOR**...*RESIDENTIAL*
2810 **PATRICIA BOUTHIT**...*RESIDENTIAL*
2810 **PATRICIA WATSON**...*RESIDENTIAL*
2810 **T REESE**...*RESIDENTIAL*
2820 **CHRISTOPHER LUX**...*RESIDENTIAL*
2820 **M CURRY**...*RESIDENTIAL*
2820 **QUINIKA MADDOX**...*RESIDENTIAL*
2820 **TIFFANY SMITH**...*RESIDENTIAL*
2830 **BRANDY WISE**...*RESIDENTIAL*
2830 **JASON DAVIS**...*RESIDENTIAL*
2830 **LARONDA COOPER**...*RESIDENTIAL*
2830 **TAMINA BROWN**...*RESIDENTIAL*
2860 **DALLAS WRIGHT**...*RESIDENTIAL*
2860 **DEONNIE SMITH**...*RESIDENTIAL*
2860 **FELICIA GREENE**...*RESIDENTIAL*
2860 **KIANA SHEPHERD**...*RESIDENTIAL*
2860 **MELISSA IVORY**...*RESIDENTIAL*
2860 **MILLISON THOMAS**...*RESIDENTIAL*
2860 **RESHONDA GREGORY**...*RESIDENTIAL*
2870 **ALICIA DUNBAR**...*RESIDENTIAL*
2870 **TIAYERA BENJAMIN**...*RESIDENTIAL*
3430 **ANNEZETTA BROCKMAN**...*RESIDENTIAL*
3430 **JANNIE DARIE**...*RESIDENTIAL*
3430 **SHARON HILL**...*RESIDENTIAL*
3430 **YOLANDA IVORY**...*RESIDENTIAL*
3442 **LASHONDA RASCOE**...*RESIDENTIAL*
3454 **DIMIKA GANT**...*RESIDENTIAL*
3454 **MONIQUE LEWIS**...*RESIDENTIAL*
3454 **WILLIAM BARKLEY**...*RESIDENTIAL*
3466 **RAFAEL RAMIREZ**...*RESIDENTIAL*
3466 **RAUL RODRIGUEZ**...*RESIDENTIAL*
3480 **L HARDMAN**...*RESIDENTIAL*
3480 **MARIA MONTOYA**...*RESIDENTIAL*
3480 **REBECCA MITCHELL**...*RESIDENTIAL*
3480 **TAMEIKA MITCHELL**...*RESIDENTIAL*

2011 TEHACHAPI WILLOW SPRINGS RD

SOURCE: DIGITAL BUSINESS DIRECTORY

NO LISTING FOUND

2011 TROTTER AVE

SOURCE: DIGITAL BUSINESS DIRECTORY

67	**CHERYL DUSTIN**...*RESIDENTIAL*
67	**PHYLLIS DUSTIN**...*RESIDENTIAL*
77	**AMANDA DOUGLAS**...*RESIDENTIAL*
151	**JUAN PENA**...*RESIDENTIAL*
173	**DESIREE MULLINS**...*RESIDENTIAL*
173	**V MULLINS**...*RESIDENTIAL*
173	**VERDOS MULLINS**...*RESIDENTIAL*
201	**DEBORAH BROMILEY**...*RESIDENTIAL*
201	**MATTHEW BROMILEY**...*RESIDENTIAL*
201	**WAYNE BROMILEY**...*RESIDENTIAL*
303	**KIMBERLY MILLER**...*RESIDENTIAL*
329	**GEOFFREY HOUSEMAN**...*RESIDENTIAL*
329	**SAMI HOUSEMAN**...*RESIDENTIAL*
1671	**ANA GARCIA**...*RESIDENTIAL*
1671	**EVELYN GARCIA**...*RESIDENTIAL*
1671	**GABRIEL GARCIA**...*RESIDENTIAL*
1671	**HECTOR GARCIA**...*RESIDENTIAL*
1671	**INGRID GARCIA**...*RESIDENTIAL*
1700	**INGRID GARCIA**...*RESIDENTIAL*
1975	**BRYAN DYKEHOUSE**...*RESIDENTIAL*
1975	**CONNIE DYKEHOUSE**...*RESIDENTIAL*
1975	**WILLIAM DYKEHOUSE**...*RESIDENTIAL*
3281	**HAROLD CHRISMAN**...*RESIDENTIAL*
3281	**JR CHRISMAN**...*RESIDENTIAL*
3281	**PENNI RICKSECKER**...*RESIDENTIAL*

2007 115TH ST

SOURCE: DIGITAL BUSINESS DIRECTORY

NO LISTING FOUND

2007 90TH ST

SOURCE: DIGITAL BUSINESS DIRECTORY

NO LISTING FOUND

2007 LAGUNA AVE

SOURCE: DIGITAL BUSINESS DIRECTORY

NO LISTING FOUND

2007 OAK CREEK RD

SOURCE: DIGITAL BUSINESS DIRECTORY

2456	**MOJAVE TOWING & TRANSPORTATION**...*WRECKER SERVICE*
2481	**CHEVRON-JOBBER**...*RESIDENTIAL*
2800	**BONNIE RODRIGUEZ**...*RESIDENTIAL*
2800	**CIRILA MEZA**...*RESIDENTIAL*
2800	**MICHELLE S ANDERSON**...*RESIDENTIAL*
2800	**ROSA ORDONEZ**...*RESIDENTIAL*
2810	**MICHELLE AYALA**...*RESIDENTIAL*
2810	**RUBEN RUIZ**...*RESIDENTIAL*
2820	**ALFREDO J SARCO**...*RESIDENTIAL*
2820	**WANDA L WESTON**...*RESIDENTIAL*
2820	**WANDA WESTON**...*RESIDENTIAL*
2830	**CLARENCE WILSON**...*RESIDENTIAL*
2830	**REBECCA SMITH**...*RESIDENTIAL*
2830	**SHAWN MITCHELL**...*RESIDENTIAL*
2830	**WILLIAM LEUDENBURG**...*RESIDENTIAL*
2860	**FLORENCE RAMIREZ**...*RESIDENTIAL*
2860	**LAURIE FAITH**...*RESIDENTIAL*
2860	**MIYA CARLTON**...*RESIDENTIAL*
2860	**TANDREA HUGHES**...*RESIDENTIAL*
2870	**BENJAMIN AVILA**...*RESIDENTIAL*
2870	**CARRIE MORRIS**...*RESIDENTIAL*
2870	**CHERYL KLEIN**...*RESIDENTIAL*
2870	**DESERT OAK APARTMENTS**...*APARTMENTS*
2870	**JENNIFER M MCFARLANE**...*RESIDENTIAL*
2870	**VERONICA PORTILLO**...*RESIDENTIAL*
3420	**LULU M ALBERTSON**...*RESIDENTIAL*
3430	**DEBRA S BARTH**...*RESIDENTIAL*
3430	**LINDA A WHEELER**...*RESIDENTIAL*
3430	**RICHARD L ALLEN**...*RESIDENTIAL*
3430	**RICHARD POOLE**...*RESIDENTIAL*
3442	**A WILLIAMS**...*RESIDENTIAL*
3442	**CANDACE R CROWELL**...*RESIDENTIAL*
3466	**BINH T PHAN**...*RESIDENTIAL*
3480	**DAPHEY LEWIS**...*RESIDENTIAL*
3480	**ROY L AMIE**...*RESIDENTIAL*
6703	**MORTENSON CONSTRUCTION**...*CONSTRUCTION COMPANIES*
6737	**ESI OPERATING SVC**...*ENERGY CONSERVATION PRODS-SVCS-SYSTEMS*
7021	**ENXCO SERVICE CORP**...*WIND ENERGY SYSTEMS (WHLS)*
7021	**MOJAVE 16 17 18**...*NONCLASSIFIED ESTABLISHMENTS*
7021	**NEXT ERA ENERGY**...*ENERGY CONSERVATION & MGMT CONSULTANTS*
8560	**RIDGETOP ENERGY LLC**...*WIND ENERGY SYSTEMS (WHLS)*
9350	**CAL PORTLAND CO**...*CEMENT-RETAIL*
9350	**CALIFORNIA PORTLAND CEMENT**...*CEMENT-RETAIL*
9350	**MOJAVE PLANT EMPLOYEES FCU**...*FEDERALLY CHARTERED CREDIT UNIONS*

2007 TEHACHAPI WILLOW SPRINGS RD

SOURCE: DIGITAL BUSINESS DIRECTORY

NO LISTING FOUND

2007 TROTTER AVE

SOURCE: DIGITAL BUSINESS DIRECTORY

173	**VERDOS MULLINS**...*RESIDENTIAL*
187	**RHONDA C BANNER**...*RESIDENTIAL*
187	**RONDA C BANNER**...*RESIDENTIAL*
201	**WAYNE BROMILEY**...*RESIDENTIAL*
329	**SAMI & GEOFFREY HOUSEMAN**...*RESIDENTIAL*
467	**ROBERT & MARY G FETTERS**...*RESIDENTIAL*
607	**MARY DEACON**...*RESIDENTIAL*
1637	**RICHARD MORRISON**...*RESIDENTIAL*
1975	**CONNIE E DYKEHOUSE**...*RESIDENTIAL*
3281	**HAROLD B CHRISMAN**...*RESIDENTIAL*

2002 115TH ST

SOURCE: DIGITAL BUSINESS DIRECTORY

NO LISTING FOUND

2002 90TH ST

SOURCE: DIGITAL BUSINESS DIRECTORY

NO LISTING FOUND

2002 LAGUNA AVE

SOURCE: DIGITAL BUSINESS DIRECTORY

NO LISTING FOUND

2002 OAK CREEK RD

SOURCE: DIGITAL BUSINESS DIRECTORY

2481	**RAMOS-STRONG INC**
2481	**RSI PETROLEUM PRODUCTS INC**
2800	**ROY HARRIS**...*RESIDENTIAL*
2800	**VETA NEBKER**...*RESIDENTIAL*
2820	**G SANDOVAL**...*RESIDENTIAL*
2820	**JEFFREY A BAILEY**...*RESIDENTIAL*
2820	**RUBEN PEREZ**...*RESIDENTIAL*
2820	**SEYED ZOGHI**...*RESIDENTIAL*
2830	**EFRAIN BANALES**...*RESIDENTIAL*
2830	**JAMES A PAPPAS**...*RESIDENTIAL*
2860	**DEBBIE A LIVESAY**...*RESIDENTIAL*
2860	**L R ALLEN**...*RESIDENTIAL*
2860	**LESLIE REX**...*RESIDENTIAL*
2870	**DESERT OAK APARTMENTS**
3400	**L LICHTENWALDT**...*RESIDENTIAL*
3480	**AUGUST ASAY**...*RESIDENTIAL*
3480	**DAVID GILSTEAD**...*RESIDENTIAL*
3480	**GREGORY HADSELL**...*RESIDENTIAL*
3480	**S HADSELL**...*RESIDENTIAL*
6737	**SEA WEST TEHACHAPI INC**
7021	**ENXCO**
9350	**A B ENERGY INC**
9350	**CALIFORNIA PORTLAND CEMENT**
9350	**MOJAVE PLANT EMPLOYEES FCU**
10315	**CANNON ENERGY CORP**
10315	**ESI OPERATING SVC**
10315	**FPL ENERGY**
10315	**NEG MICON USA INC**

2002 TEHACHAPI WILLOW SPRINGS RD

SOURCE: DIGITAL BUSINESS DIRECTORY

14633 **NEG MICON**...*PLANTING, HAYING, HARVESTING, AND PROCESSING MACHINERY*
14633 **OAK CREEK ENERGY**...*PLANTING, HAYING, HARVESTING, AND PROCESSING MACHINERY*

2002 TROTTER AVE

SOURCE: DIGITAL BUSINESS DIRECTORY

0 **DOROTHY GALLOWAY**...*RESIDENTIAL*
0 **GEORGE C ALBER**...*RESIDENTIAL*
173 **VERDOS MULLINS**...*RESIDENTIAL*
1700 **RON DINGER**...*RESIDENTIAL*
1889 **DONALD J FETTERS**...*RESIDENTIAL*
7037 **ASPHALT CONSTRUCTION CO INC**...*HIGHWAY SIGNS AND GUARDRAILS*

2000 115TH ST

SOURCE: HAINES

STREET NOT LISTED

2000 LAGUNA AVE

SOURCE: HAINES

STREET NOT LISTED

2000 OAK CREEK RD

SOURCE: HAINES

2456	XXXX
2481	ASIPETROLEUMSEE RAMOS STRNG
2481	RAMOS STRONG INC
2800	APARTMENTS
2800	MULTI TENANT RESIDENTIAL
2810	AYALA MICHELLE
2820	CORRALES CARLOS
2820	HERRERA JESUS
2820	MEICHTRY ANDREW P
2830	MITCHELL SHAWN
2830	WILSON CLARENCE
2860	RIGGIN LYNN
2860	RUIZ MARIA
2860	SOLIS MARIA E
2870	MENDOCA LORETTA
3400	HUTCHINSON T
3420	ALBERTSON LULU MARIE
3420	MCTIERNAN JOHN
3430	WHEELER LINDA A
3442	MERKLE FRED
3442	WILLIAMS A
3454	XXXX
3466	FLORES JESSICA
3466	MARTINEZ BASILIO
3480	BARKLEY ODESSA
3480	COBIAN REGINAL
3480	OCKERMAN ROY
3480	SANDOVAL PIERRE
6301	SEAWEST TEHACHAPI INC
6737	SEAWEST TEHACHAPI INC
7021	DIFKO SERVICE CORP
7021	FORAS SERVICE CORP
9350	A B ENERGY INC
9350	CA PORTLAND CEMENT
10221	XXXX
10315	ESI OPERATING SERVICES INC
10315	KERN WIND ENERGY ASSN
10315	N E G MICON USA INC
10315	RIDGETOP ENERGY LLC

2000 TEHACHAPI WILLOW SPRINGS RD

SOURCE: HAINES

14633	OAK CREEK ENERGY SYSTEMS INC

2000 TROTTER AVE

SOURCE: HAINES

0	ASPHALT CONSTRUCTION CO INC
0	GALLOWAY DOROTHY
145	MULLINS VERDOS
173	MULLINS VERDOS
187	BANNER RONDA C
201	XXXX
267	XXXX
275	SHAFFNER MICHAEL
319	BISHOP WAYNE
329	HOUSEMAN GEOFFREY
329	HOUSEMAN SAMI
467	FETTERS MARY
467	FETTERS ROBERT G
941	DAVIS JEFF
1525	BAKER SUSAN
1637	MEEKER JUDY
1637	MORRISON RICHARD
1637	MORRISON RICHARD D
1671	MILES LOREN
1700	XXXX
1889	KIEFER DAVID
1975	XXXX
3281	CHRISMAN HAROLD B
3375	XXXX

1995 115TH ST

SOURCE: HAINES

STREET NOT LISTED

1995 90TH ST

SOURCE: HAINES

STREET NOT LISTED

1995 LAGUNA AVE

SOURCE: HAINES

STREET NOT LISTED

1995 OAK CREEK RD

SOURCE: HAINES

0	**A B ENERGY INC**
0	**CA PORTLAND CEMENT**
0	**DIFKO ADMIN**
0	**DIFKO SERVICE CORP**
0	**SEAWEST TEHACHAPI**
2456	**XXXX**
2481	**R S I PETROLEUMSEE**
2481	**RAMOS STRONG INC**
2800	**XXXX**
2810	**XXXX**
2820	**ORTIZ LEE**
2830	**XXXX**
2870	**DESERT OAK APTS**
3400	**XXXX**
3430	**XXXX**
3442	**XXXX**
3466	**GUERRERO M**
3480	**XXXX**

1995 TEHACHAPI WILLOW SPRINGS RD

SOURCE: HAINES

0	**FARLEY ELLIS M**
14633	**OAK CRK ENRGY SYSTM**
14633	**SEAWEST TEHCHPI INC**

1995 TROTTER AVE

SOURCE: HAINES

0	ALBER GEORGE C
0	ALBER THELMA G
0	EAST KERN AGGREGATS
0	GALLOWAY DOROTHY
173	MULLINS VERDOS
267	XXXX
467	FETTERS MARY
467	FETTERS ROBERT G
1637	MEEKER JUDY
1637	MORRISON RICHARD
1671	GUTIERREZ ELISCO
1700	XXXX
1889	FETTERS DONALD J
3281	CHRISMAN HAROLD B
3375	XXXX

1990 115TH ST

SOURCE: HAINES

STREET NOT LISTED

1990 90TH ST

SOURCE: HAINES

STREET NOT LISTED

1990 LAGUNA AVE

SOURCE: HAINES

STREET NOT LISTED

1990 OAK CREEK RD

SOURCE: HAINES

0	CALMAT CO CEMENT DIV
0	SEA WEST INDUSTRIES
0	TURBINE MNTNC CORP
2456	XXXX
2481	RAMOS STRONG INC
2800	HARRIS ROY JR
2800	NEBKER VATS
2810	PEREZ RUBEN
2820	MULTI TENANT RESIDENTIAL
2830	BANALES EFRAIN
2830	NIXON KAREN
2860	ALLEN L RAYMOND
2860	LIVESAY DEBBLE A
2870	DESERT OAK APTS
3400	JONES KYLE R
3420	BARFIELD DORIS
3420	BARFIELD HULON
3430	XXXX
3454	TERAN JOSE
3466	DODGE LAURA
3480	MULTI TENANT RESIDENTIAL
5737	CA SPLICING&TESTING
5737	SEA WEST IND

1990 TEHACHAPI WILLOW SPRINGS RD

SOURCE: HAINES

0	FARLEY CONNIE

1990 TROTTER AVE

SOURCE: HAINES

0	ALBER GEORGE C
0	ALBER THELMA G
0	GALLOWAY DOROTHY
0	MULLINS VERDOS
1	XXXX
67	XXXX
187	FOX D L
187	FOX P A
267	FETTERS MARY
267	FETTERS ROBERT G
1700	DINGER RON
1889	FETTERS DONALD J

1985 115TH ST

SOURCE: HAINES

STREET NOT LISTED

1985 90TH ST

SOURCE: HAINES

STREET NOT LISTED

1985 LAGUNA AVE

SOURCE: HAINES

STREET NOT LISTED

1985 OAK CREEK RD

SOURCE: HAINES

0	CA PORTLAND CEMENT
2456	XXXX
2481	ROLLINS H PETROLEUM
3400	XXXX
3420	BRISTOL BRIAN P
3420	NEWQUIST JOHN DAVID
3420	TURNER WELDON
3430	COOK BILLE RAY JR
3442	CHRISTENSEN EDWARD
3442	KOPPE GERALD

1985 TEHACHAPI WILLOW SPRINGS RD

SOURCE: HAINES

0	FARLEY CONNIE
0	SING MALL

1985 TROTTER AVE *SOURCE: HAINES*	1980 115TH ST *SOURCE: HAINES*
267 **FETTERS ROBERT G**	**NO LISTING FOUND**

1980 90TH ST

SOURCE: HAINES

STREET NOT LISTED

1980 LAGUNA AVE

SOURCE: HAINES

STREET NOT LISTED

1980 OAK CREEK RD

SOURCE: HAINES

0	**CALIF PORTLAND CMNT**
0	**CALIF PRTLND CEMENT**
0	**KAISER ENG INC**
0	**KIRST CONSTR CO**
2456	**ACTIS T M TRACTOR**
2456	**MOJAVE TRACTOR**

1980 TEHACHAPI WILLOW SPRINGS RD

SOURCE: HAINES

0	**RAU DONALD**

1980 TROTTER AVE

SOURCE: HAINES

STREET NOT LISTED

1975 115TH ST

SOURCE: HAINES

0	**OLOUGHLIN CHAS**
0	**WINTERS JANET**

1975 90TH ST

SOURCE: HAINES

STREET NOT LISTED

1975 LAGUNA AVE

SOURCE: HAINES

STREET NOT LISTED

1975 OAK CREEK RD

SOURCE: HAINES

0	**CALIF PORTLAND CMNT**
2456	**ACTIS T M TRACTOR**
2456	**MOJAVE TRACTOR**

1975 TEHACHAPI WILLOW SPRINGS RD

SOURCE: HAINES

0	**RAU DONALD**
0	**TISON FRED**

1975 TROTTER AVE

SOURCE: HAINES

STREET NOT LISTED

1972 115TH ST

SOURCE: HAINES

STREET NOT LISTED

1972 90TH ST

SOURCE: HAINES

STREET NOT LISTED

1972 LAGUNA AVE

SOURCE: HAINES

STREET NOT LISTED

1972 OAK CREEK RD

SOURCE: HAINES

0 **CALIF PORTLAND CMNT**
2456 **DESERT LUMBER CO**

1972 TEHACHAPI WILLOW SPRINGS RD

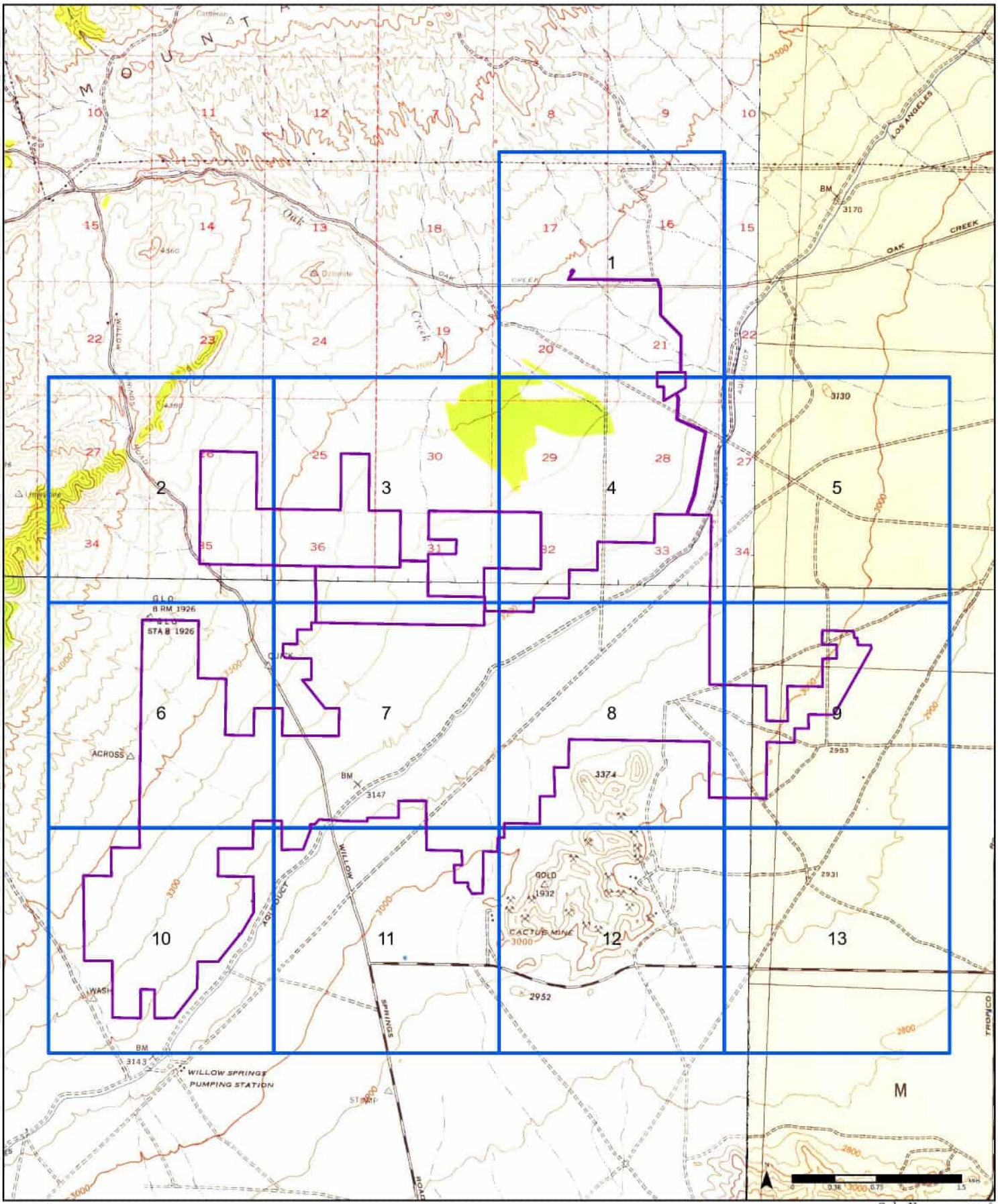
SOURCE: HAINES

0 **HOWARD ORVILLE**

1972 TROTTER AVE

SOURCE: HAINES

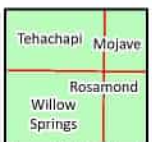
STREET NOT LISTED



1943 *(3-1943)*

Aerial Photo Year: 1943

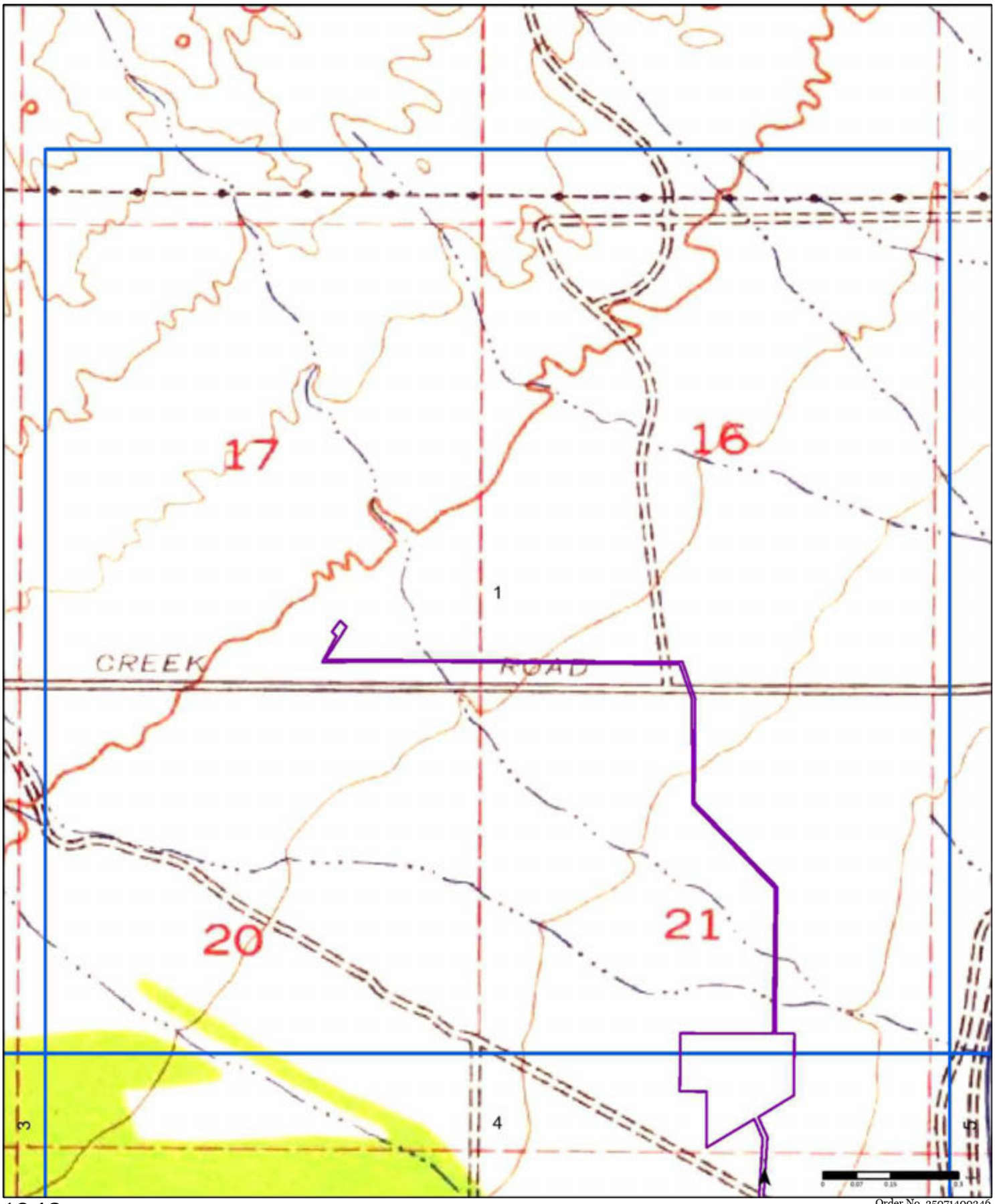
Order No. 25071400346



Available Quadrangle(s): Willow Springs, CA(1-1943)
Tehachapi, CA(2-1943)
Rosamond, CA
Mojave, CA(3-1943)

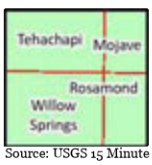
Source: USGS 15 Minute Topographic Map

PARTNER



1943 (3-1943)
Aerial Photo Year: 1943

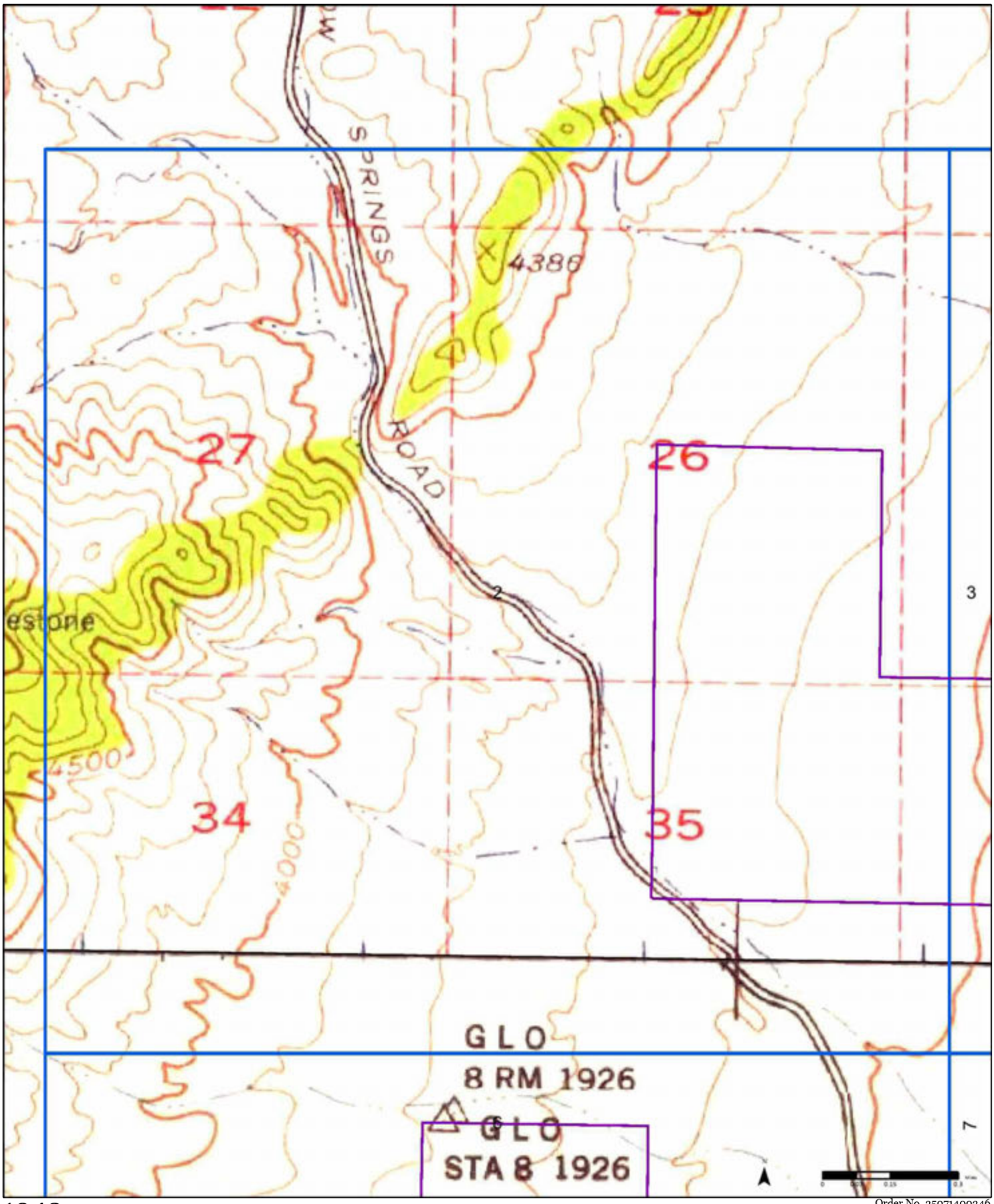
Order No. 25071400346



Available Quadrangle(s): Willow Springs, CA(1-1943)
Tehachapi, CA(2-1943)
Rosamond, CA
Mojave, CA(3-1943)

Source: USGS 15 Minute Topographic Map

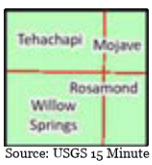
PARTNER



1943 *(3-1943)*

Aerial Photo Year: 1943

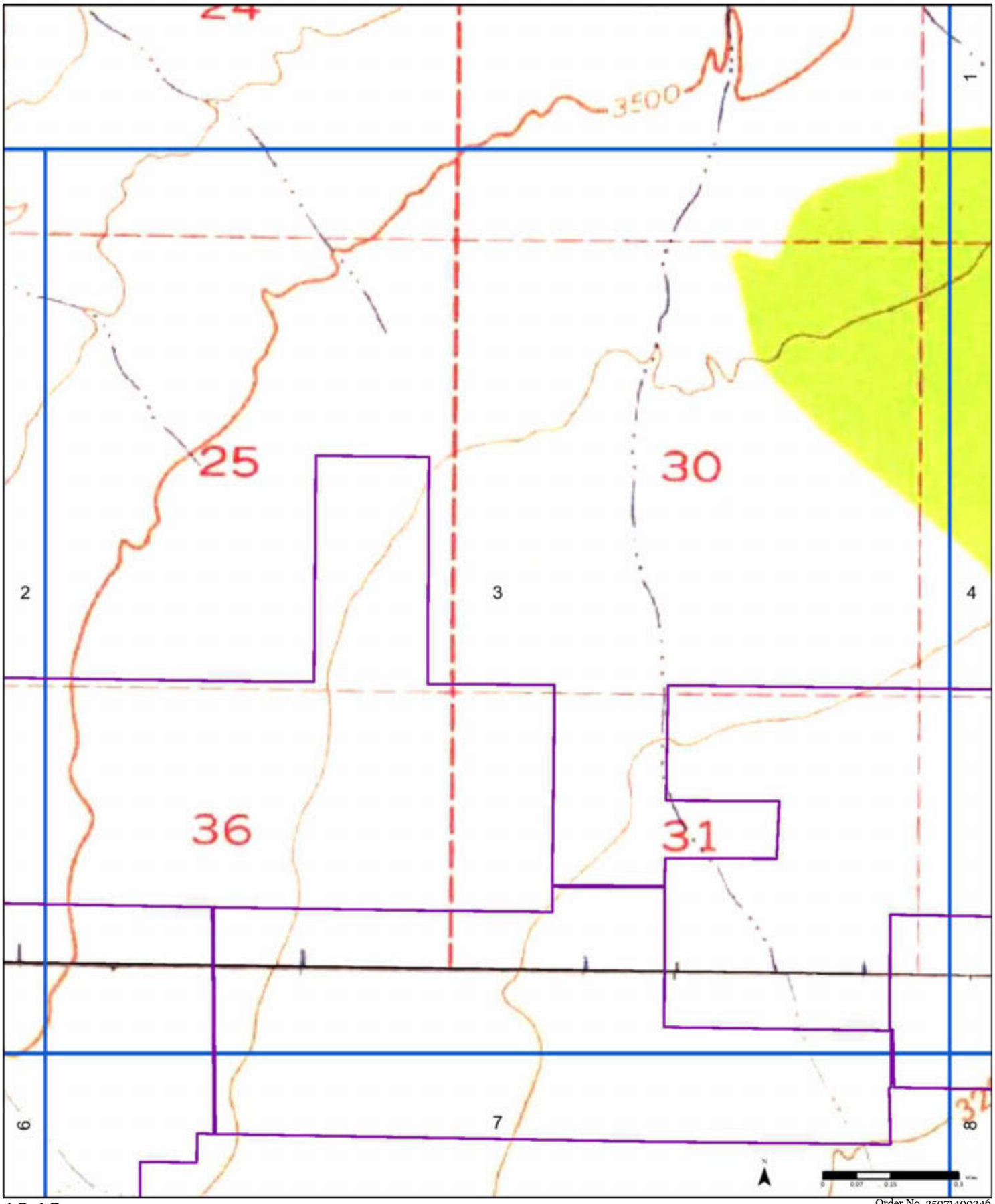
Order No. 25071400346



Available Quadrangle(s): Willow Springs, CA(1-1943)
Tehachapi, CA(2-1943)
Rosamond, CA
Mojave, CA(3-1943)

Source: USGS 15 Minute Topographic Map

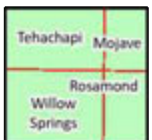
PARTNER



1943 (3-1943)

Aerial Photo Year: 1943

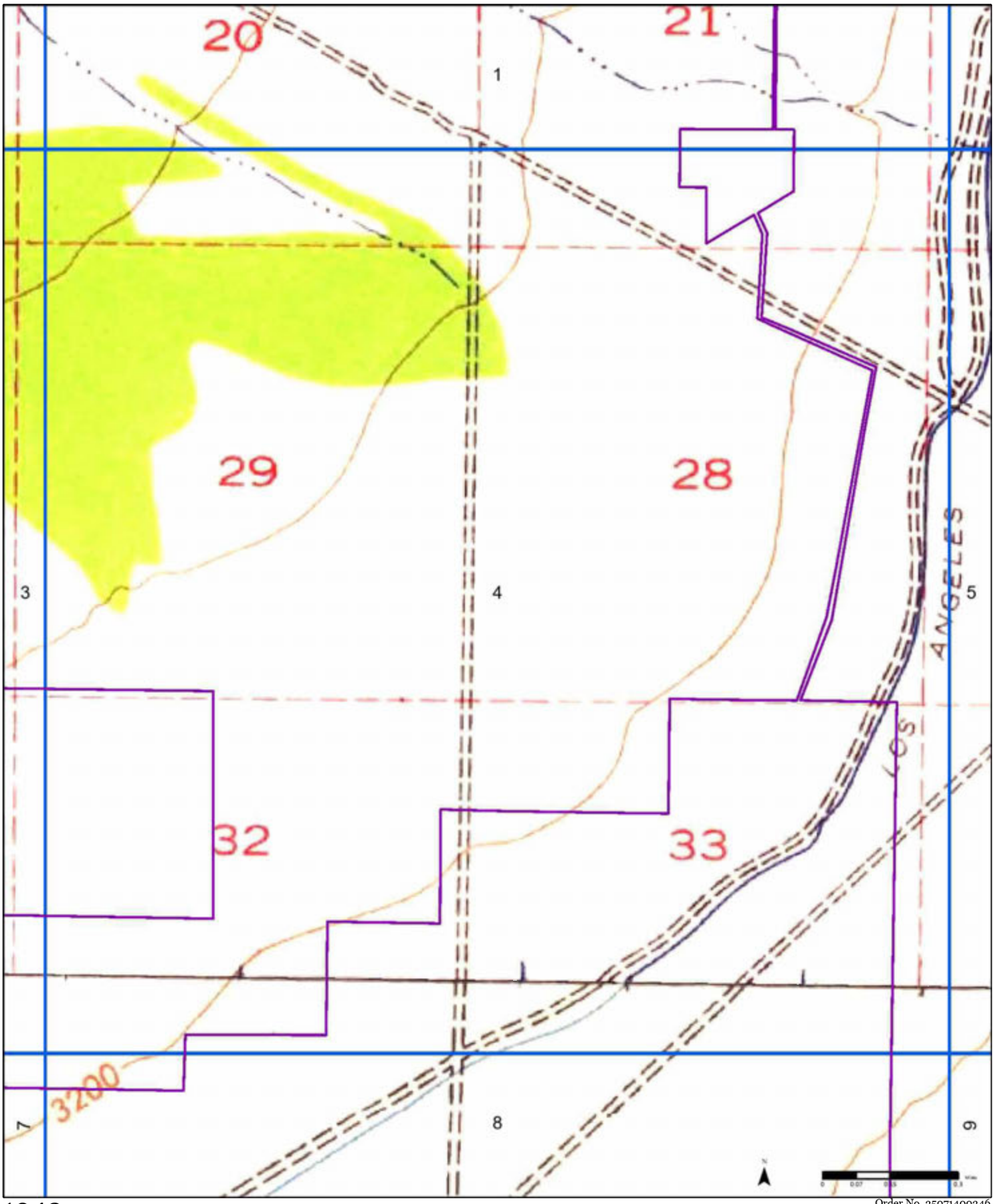
Order No. 25071400346



Available Quadrangle(s): Willow Springs, CA(1-1943)
Tehachapi, CA(2-1943)
Rosamond, CA
Mojave, CA(3-1943)

Source: USGS 15 Minute Topographic Map

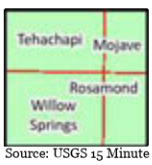
PARTNER



1943 (3-1943)

Aerial Photo Year: 1943

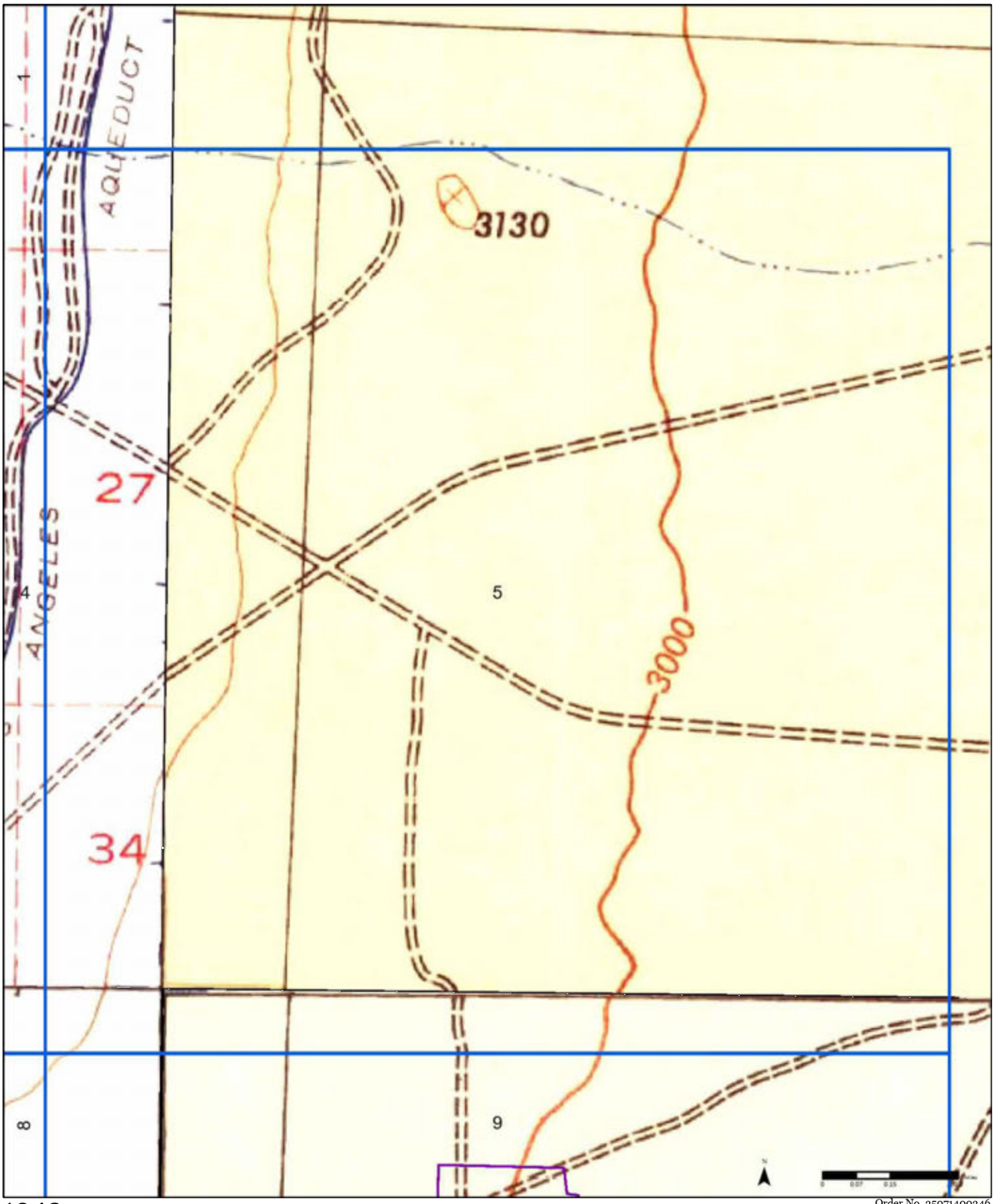
Order No. 25071400346



Available Quadrangle(s): Willow Springs, CA(1-1943)
Tehachapi, CA(2-1943)
Rosamond, CA
Mojave, CA(3-1943)

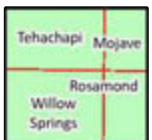
Source: USGS 15 Minute Topographic Map

PARTNER



1943 (3-1943)
Aerial Photo Year: 1943

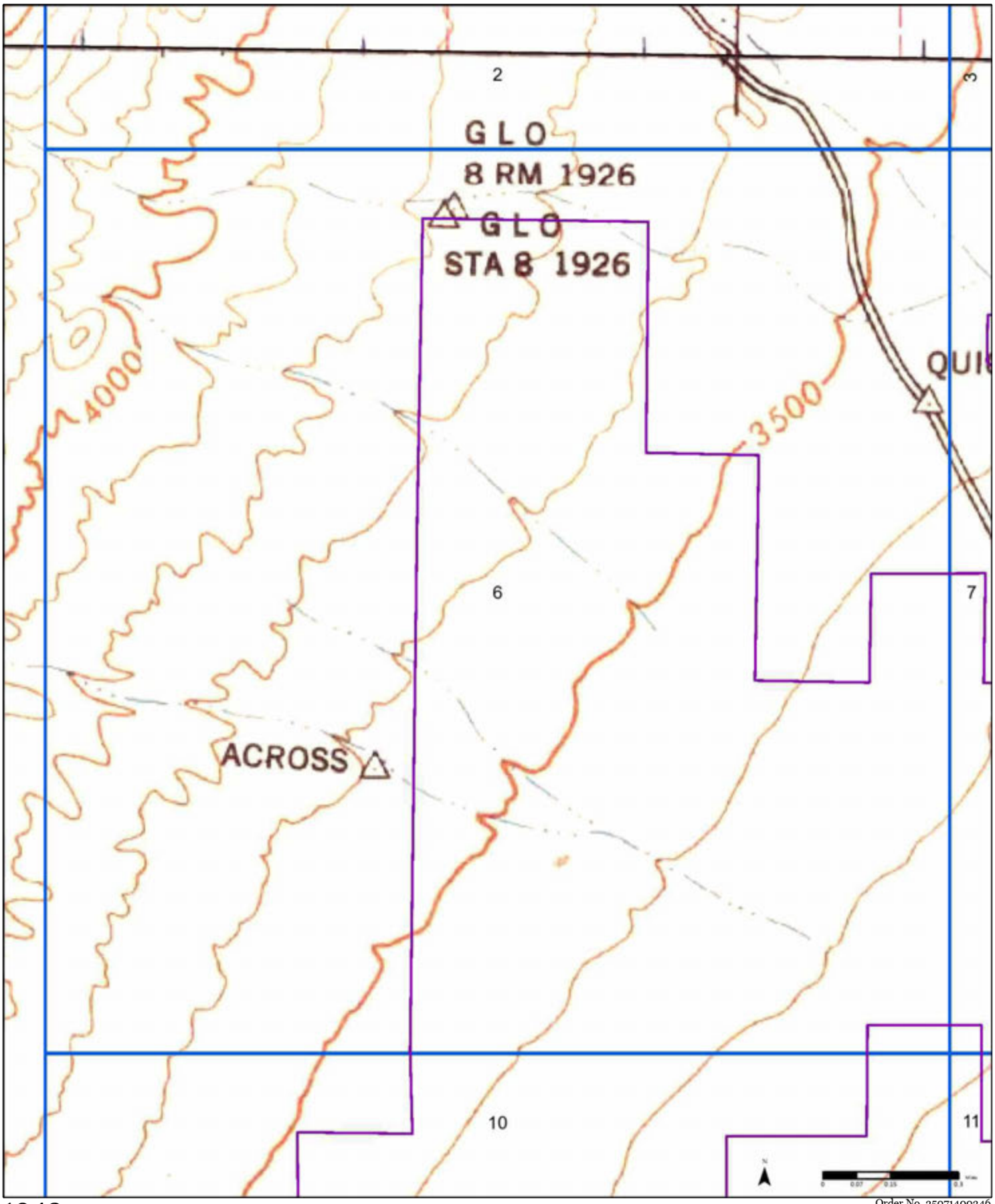
Order No. 25071400346



Available Quadrangle(s): Willow Springs, CA(1-1943)
Tehachapi, CA(2-1943)
Rosamond, CA
Mojave, CA(3-1943)

Source: USGS 15 Minute Topographic Map

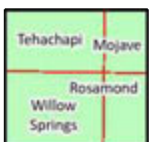
PARTNER



1943 *(3-1943)*

Aerial Photo Year: 1943

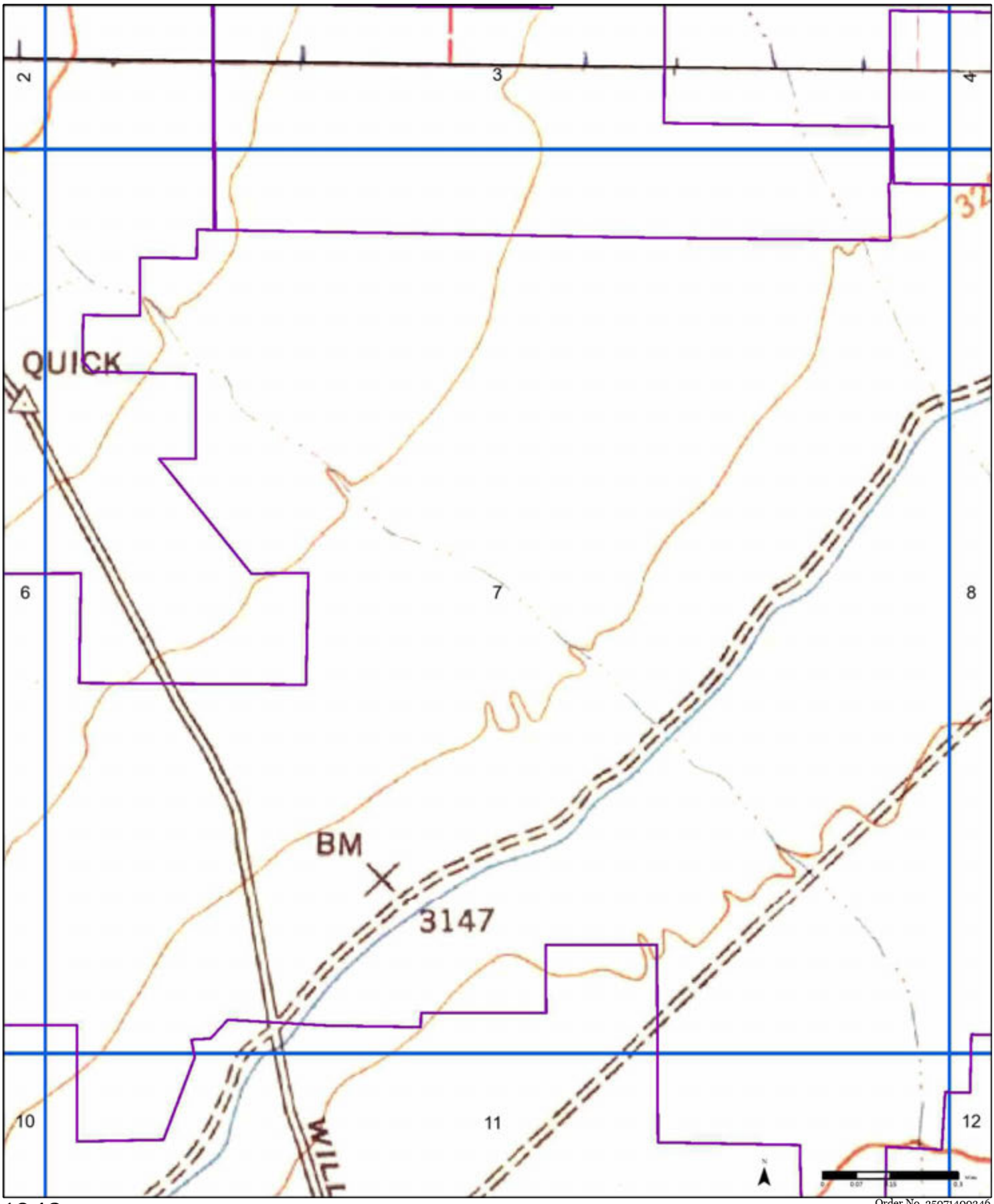
Order No. 25071400346



Available Quadrangle(s): Willow Springs, CA(1-1943)
Tehachapi, CA(2-1943)
Rosamond, CA
Mojave, CA(3-1943)

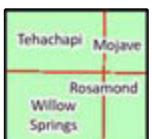
Source: USGS 15 Minute Topographic Map

PARTNER



1943 (3-1943)
Aerial Photo Year: 1943

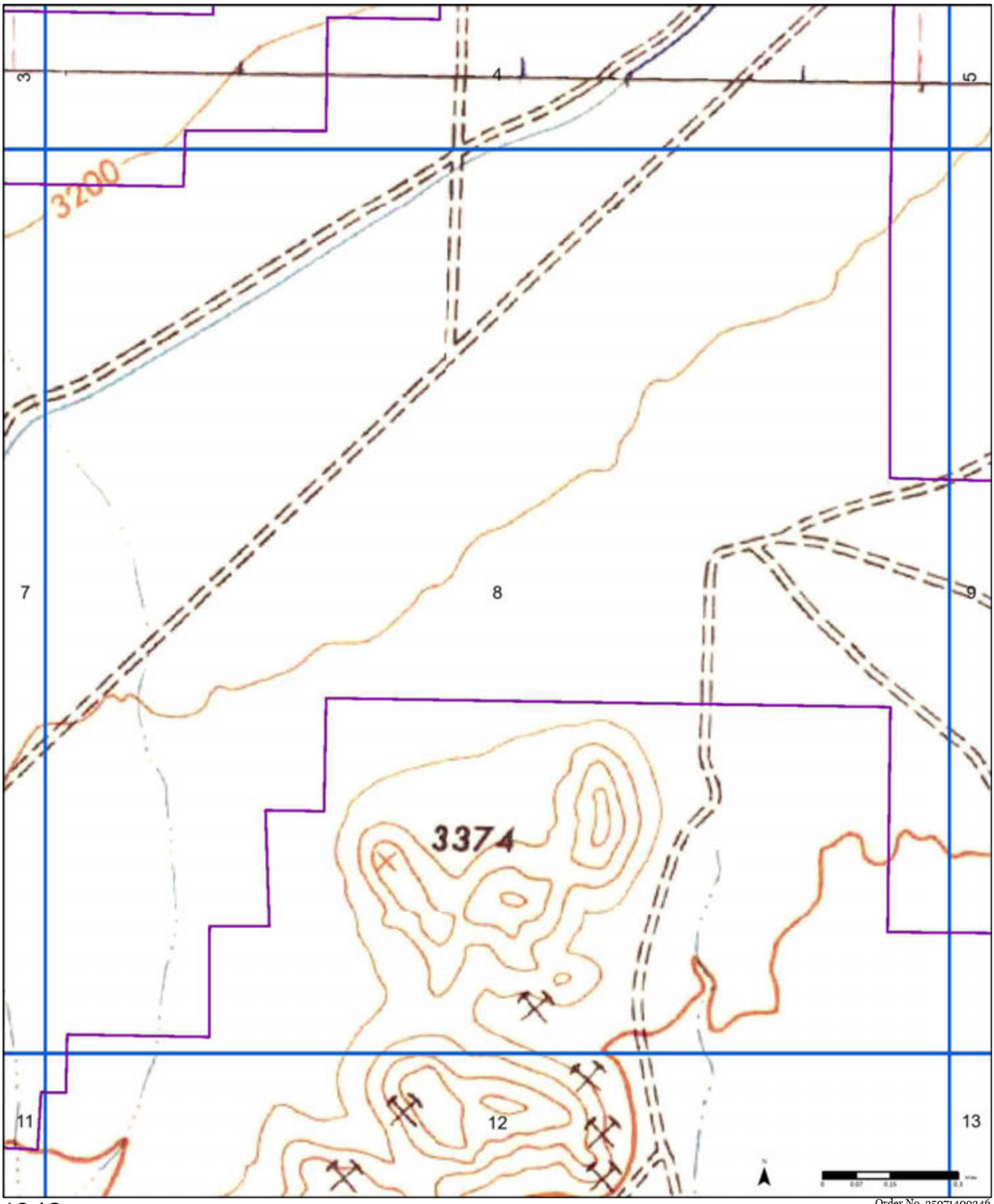
Order No. 25071400346



Available Quadrangle(s): Willow Springs, CA(1-1943)
Tehachapi, CA(2-1943)
Rosamond, CA
Mojave, CA(3-1943)

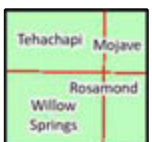
Source: USGS 15 Minute Topographic Map

PARTNER



1943 (3-1943)
Aerial Photo Year: 1943

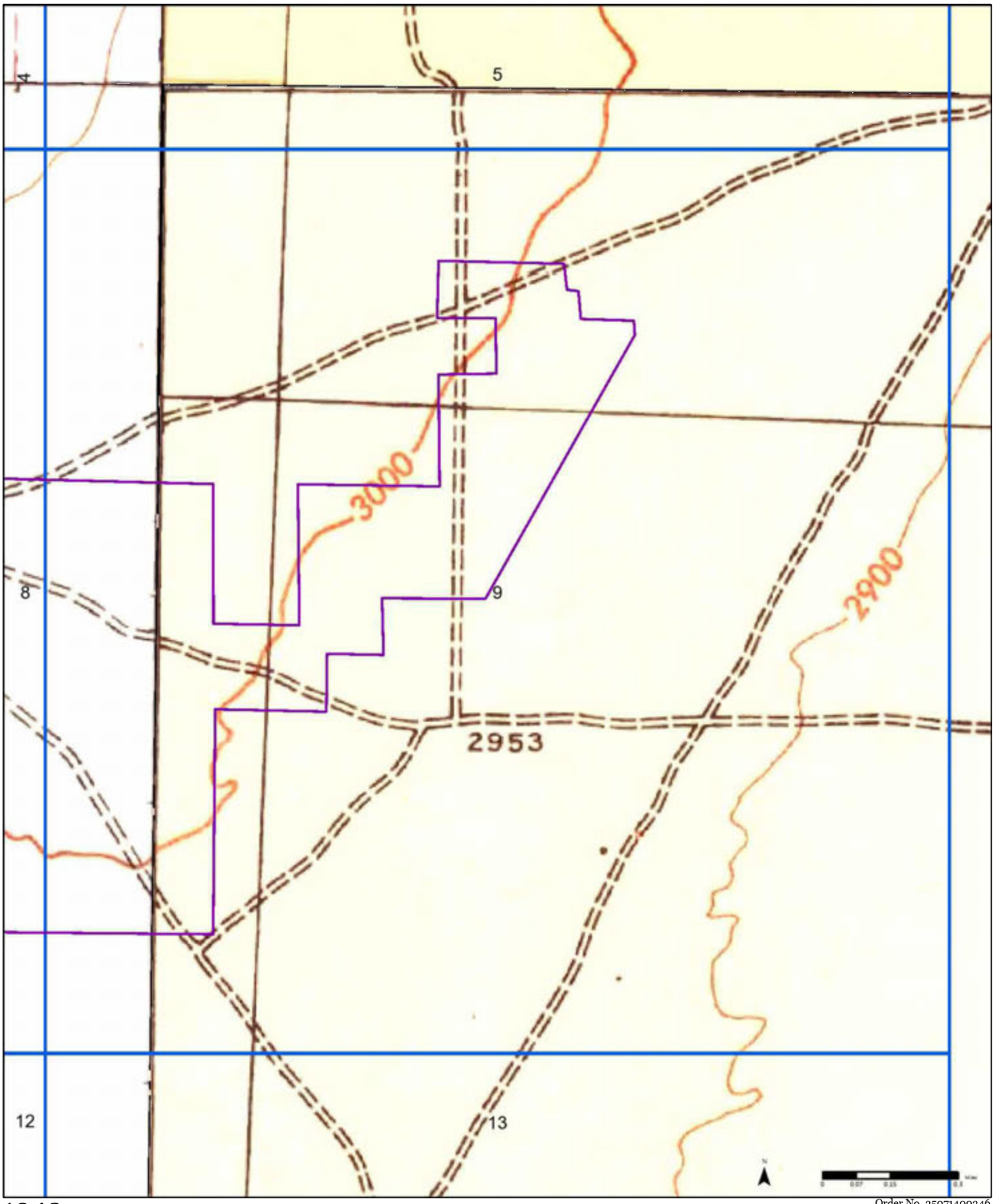
Order No. 25071400346



Available Quadrangle(s): Willow Springs, CA(1-1943)
Tehachapi, CA(2-1943)
Rosamond, CA
Mojave, CA(3-1943)

Source: USGS 15 Minute Topographic Map

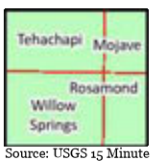
PARTNER



1943 (3-1943)

Aerial Photo Year: 1943

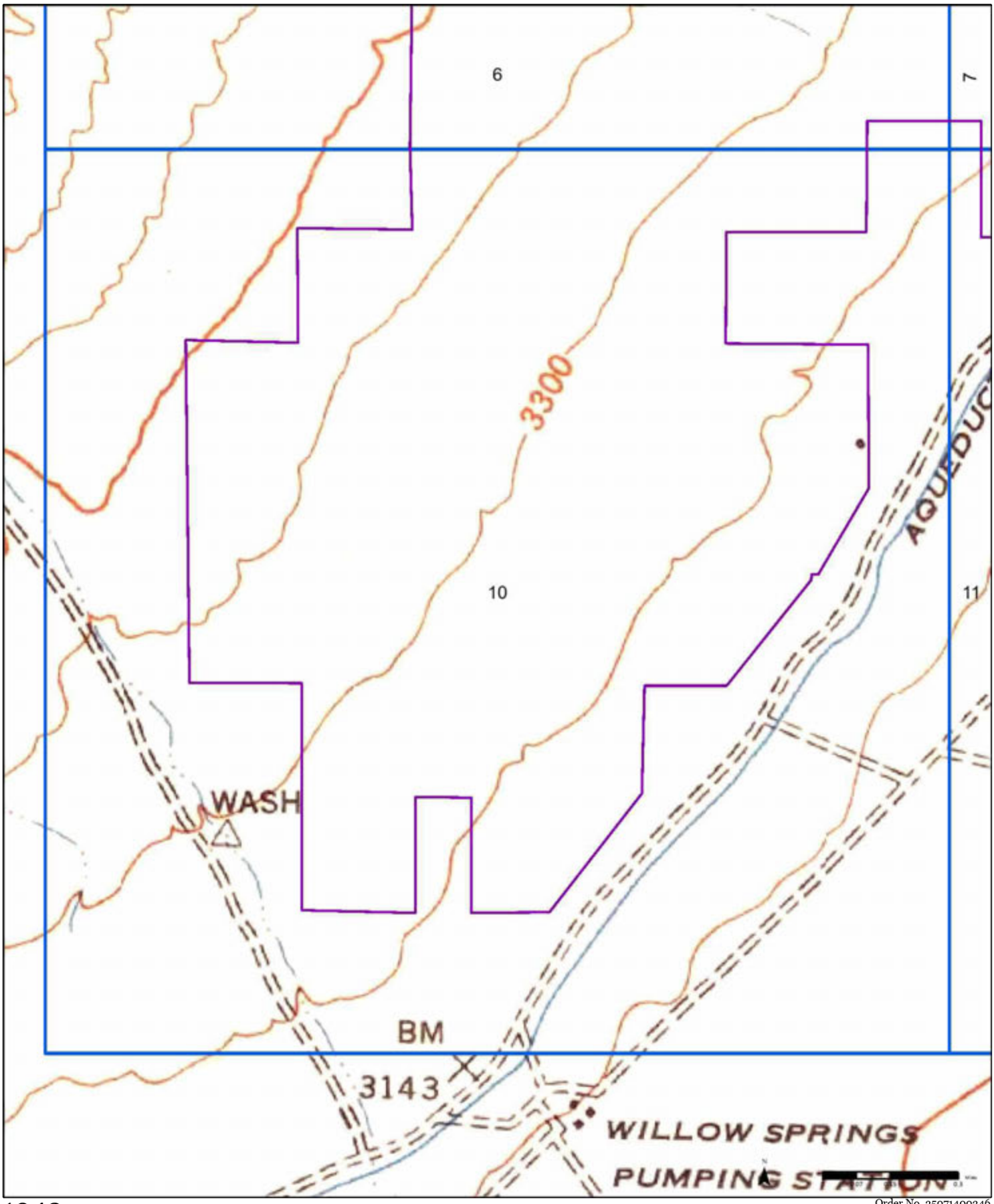
Order No. 25071400346



Available Quadrangle(s): Willow Springs, CA(1-1943)
Tehachapi, CA(2-1943)
Rosamond, CA
Mojave, CA(3-1943)

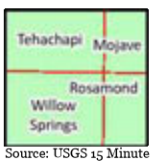
PARTNER

Source: USGS 15 Minute Topographic Map



1943 (3-1943)
Aerial Photo Year: 1943

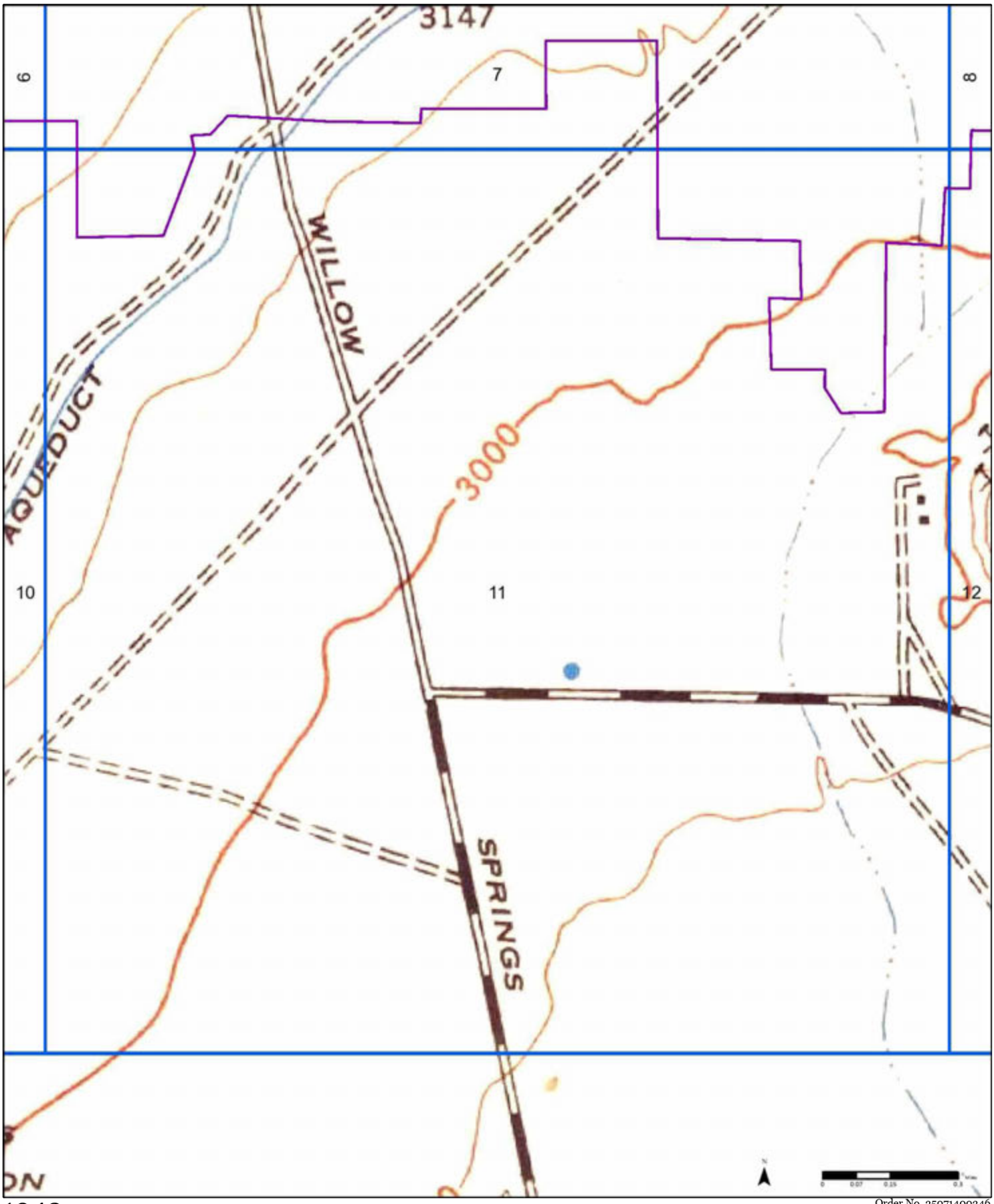
Order No. 25071400346



Available Quadrangle(s): Willow Springs, CA(1-1943)
Tehachapi, CA(2-1943)
Rosamond, CA
Mojave, CA(3-1943)

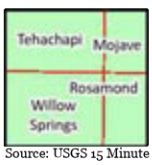
Source: USGS 15 Minute Topographic Map

PARTNER



1943 (3-1943)
Aerial Photo Year: 1943

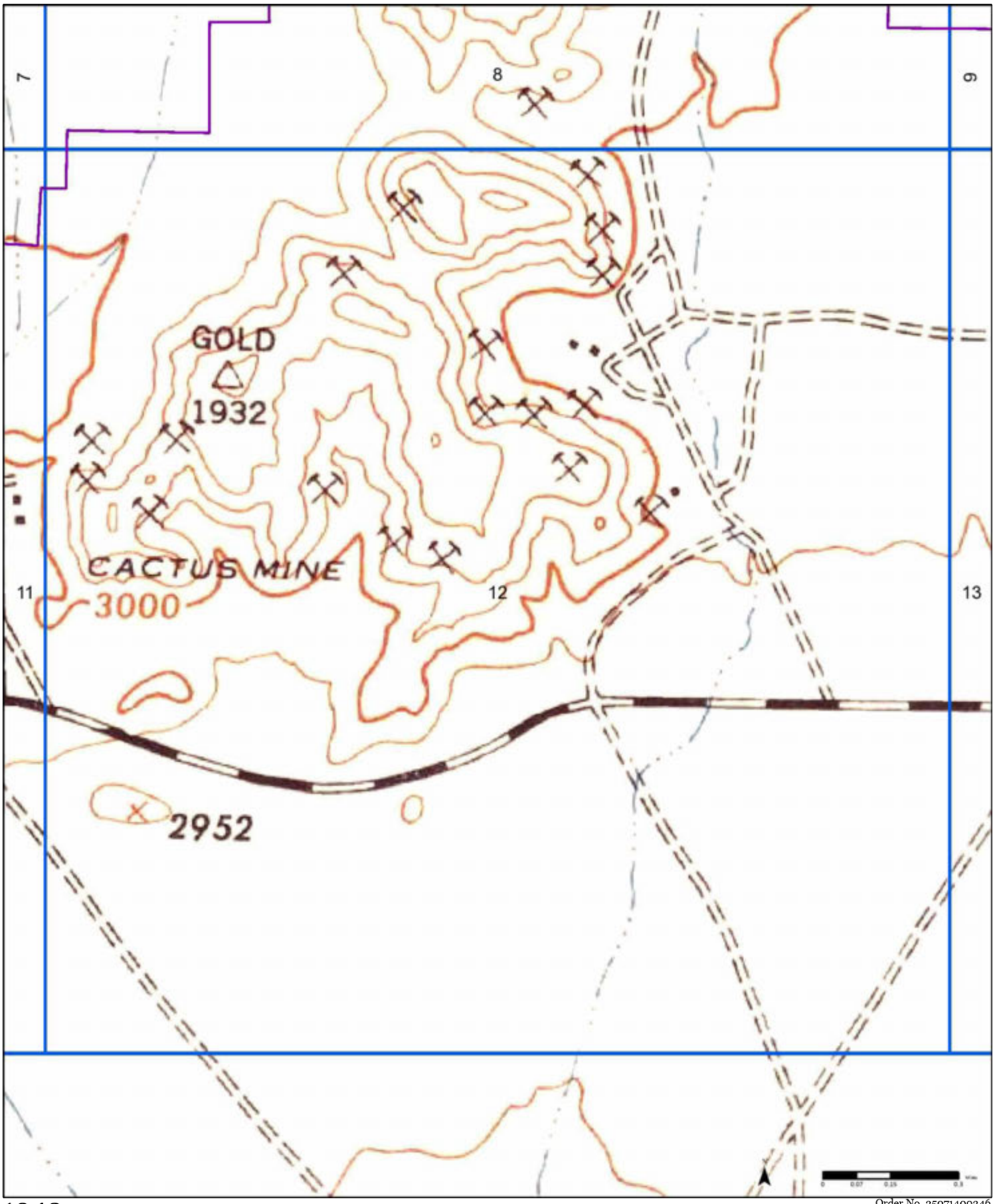
Order No. 25071400346



Available Quadrangle(s): Willow Springs, CA(1-1943)
Tehachapi, CA(2-1943)
Rosamond, CA
Mojave, CA(3-1943)

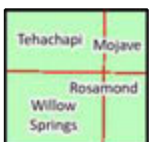
Source: USGS 15 Minute Topographic Map

PARTNER



1943 (3-1943)
Aerial Photo Year: 1943

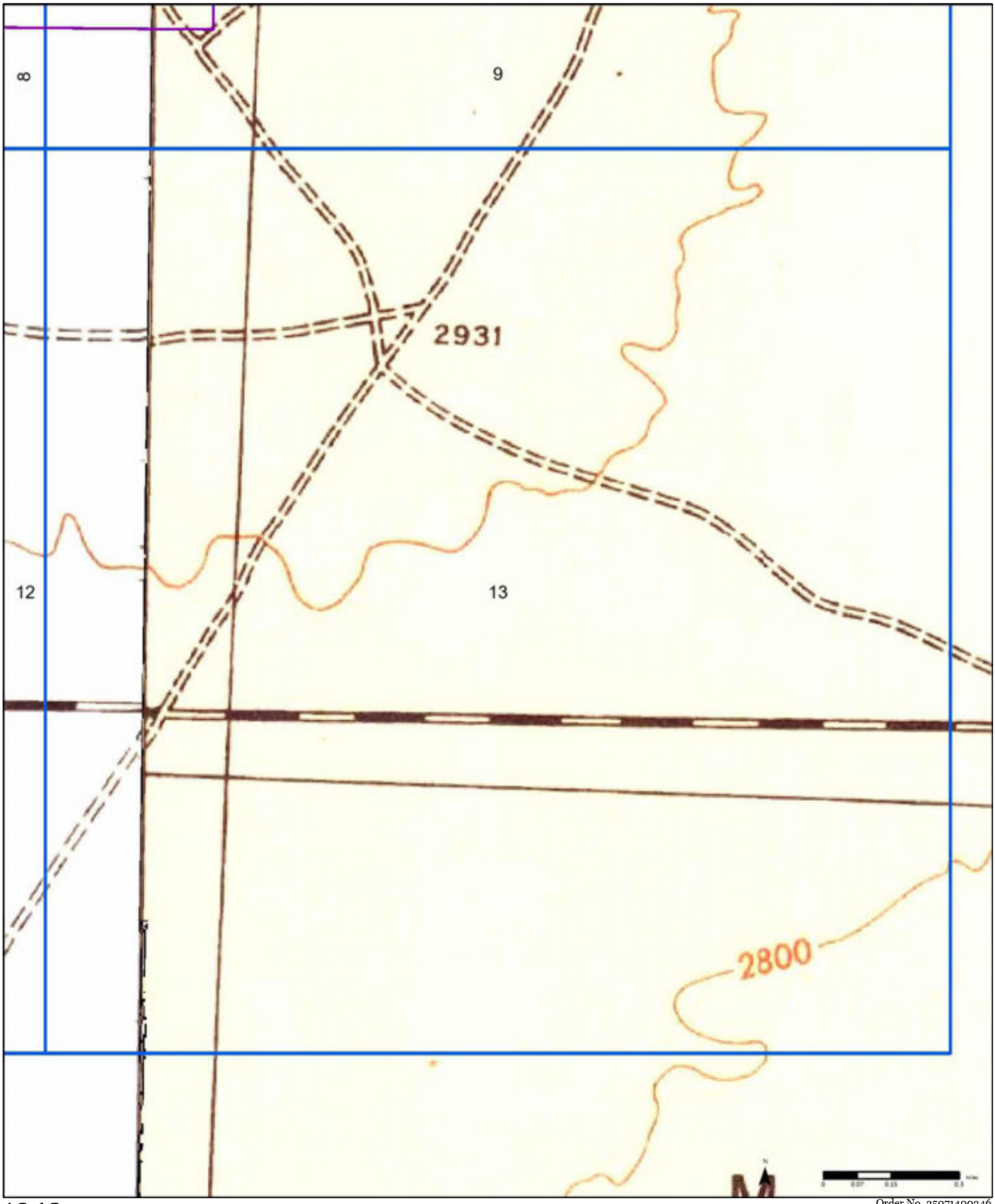
Order No. 25071400346



Available Quadrangle(s): Willow Springs, CA(1-1943)
Tehachapi, CA(2-1943)
Rosamond, CA
Mojave, CA(3-1943)

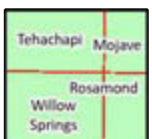
Source: USGS 15 Minute Topographic Map

PARTNER



1943 (3-1943)
Aerial Photo Year: 1943

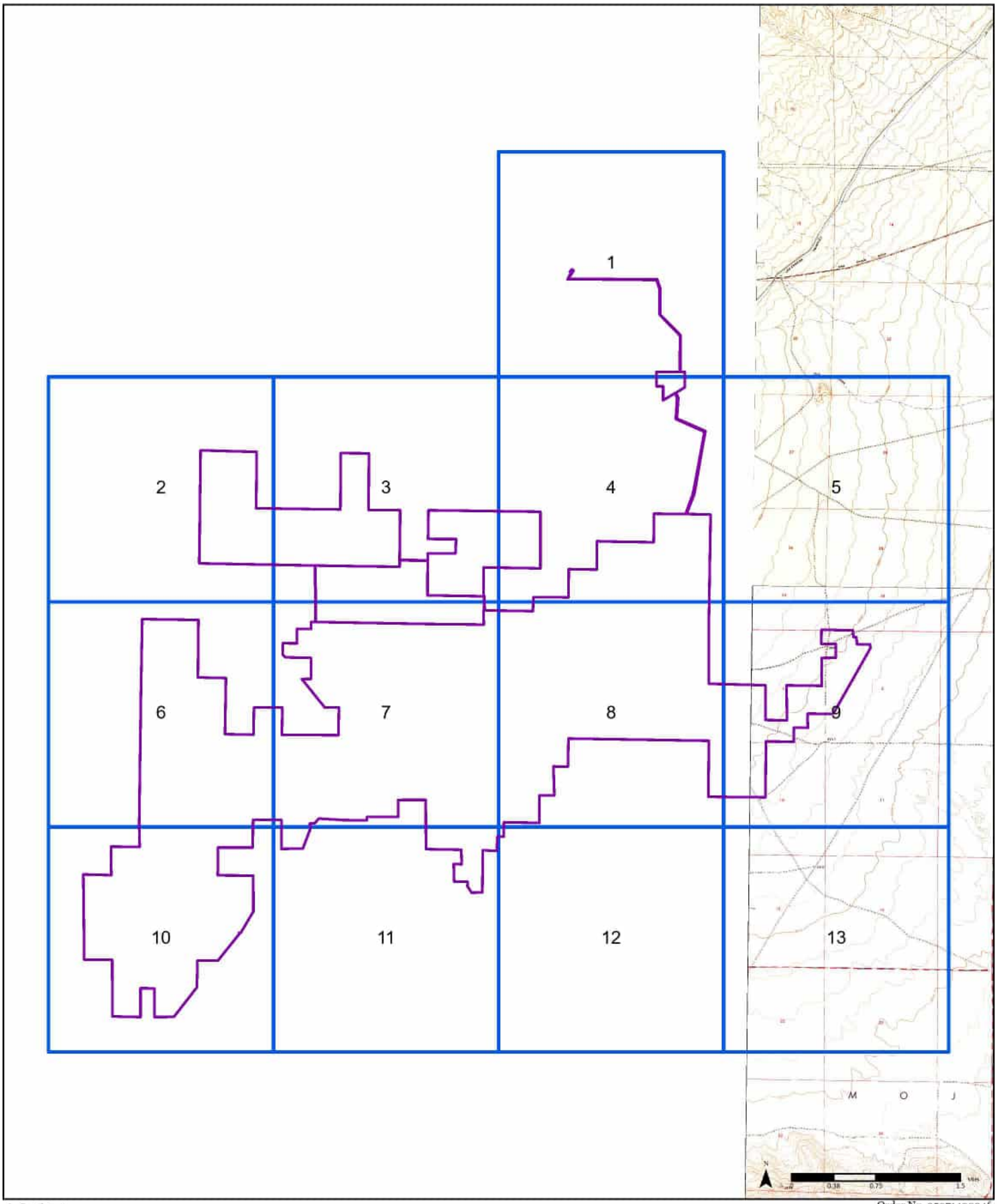
Order No. 25071400346



Available Quadrangle(s): Willow Springs, CA(1-1943)
Tehachapi, CA(2-1943)
Rosamond, CA
Mojave, CA(3-1943)

Source: USGS 15 Minute Topographic Map

PARTNER



1947 (1-1947)

Aerial Photo Year: 1946

Order No. 25071400346

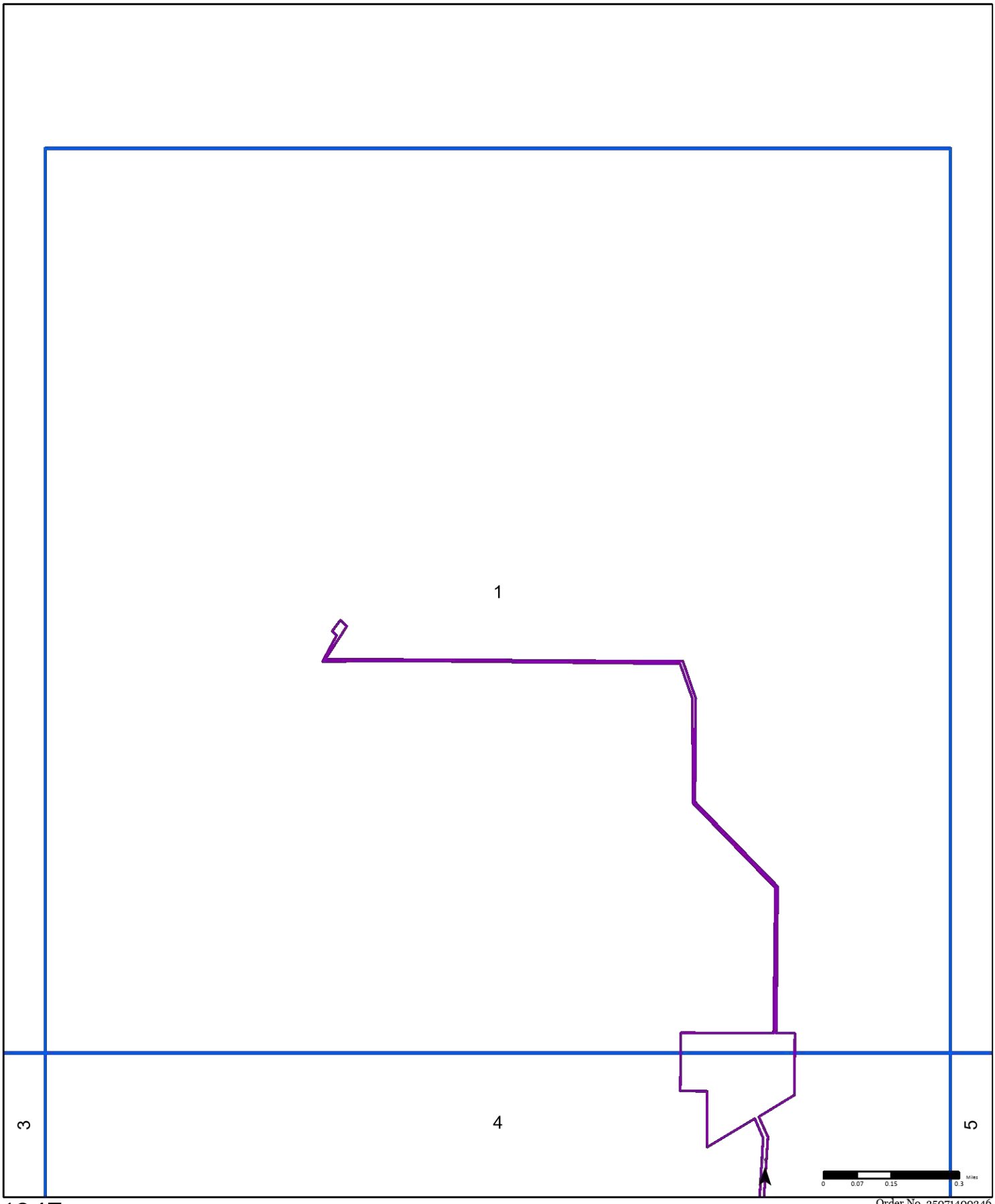


Available Quadrangle(s): Soledad Mountain, CA

Mojave, CA(1-1947)

Source: USGS 7.5 Minute Topographic Map

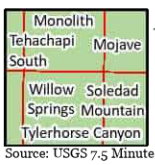
PARTNER



1947 *(1-1947)*

Aerial Photo Year: 1946

Order No. 25071400346

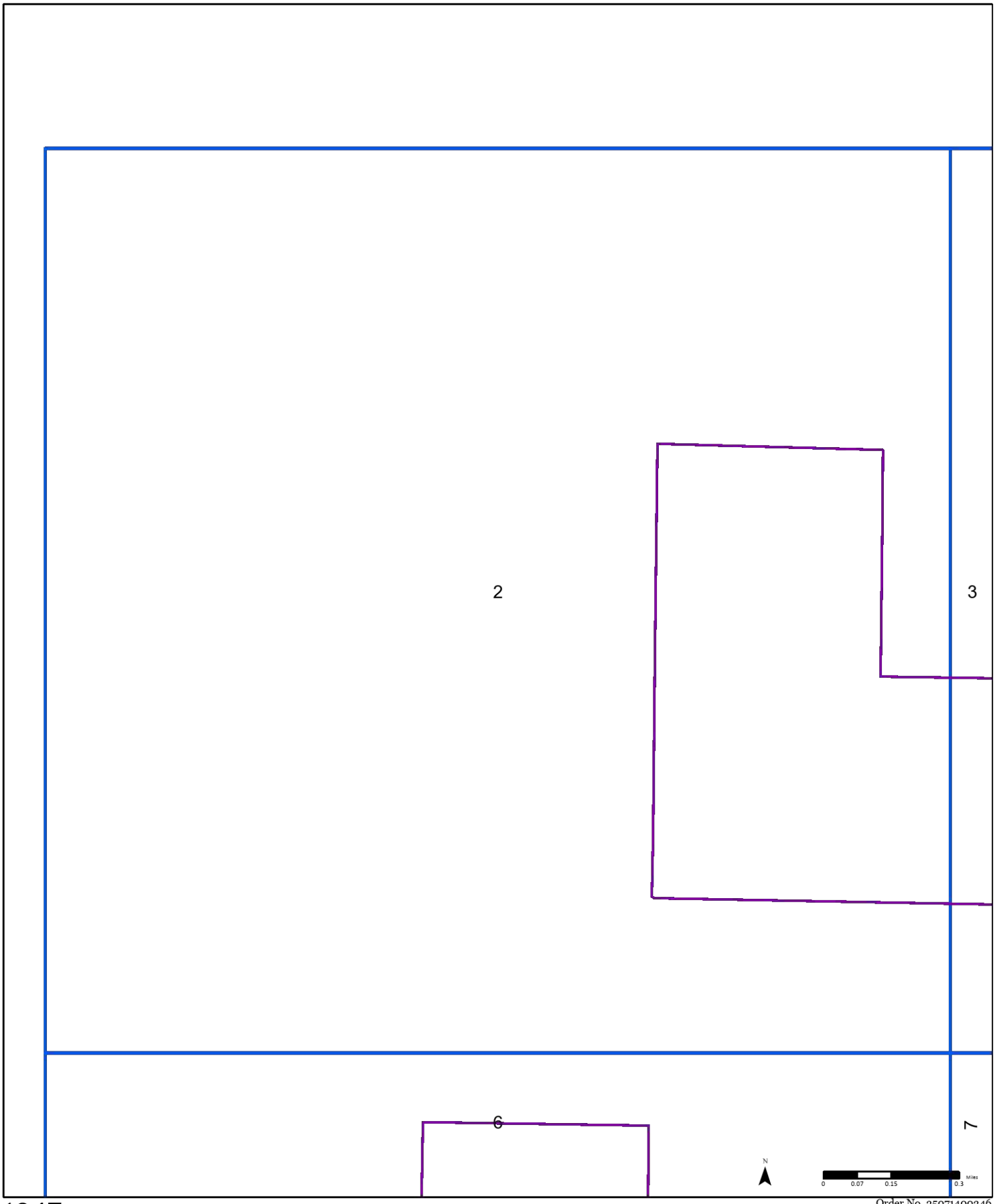


Available Quadrangle(s): Soledad Mountain, CA

Mojave, CA(1-1947)

Source: USGS 7.5 Minute Topographic Map

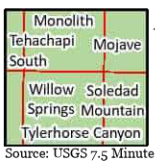
PARTNER



1947 *(1-1947)*

Aerial Photo Year: 1946

Order No. 25071400346

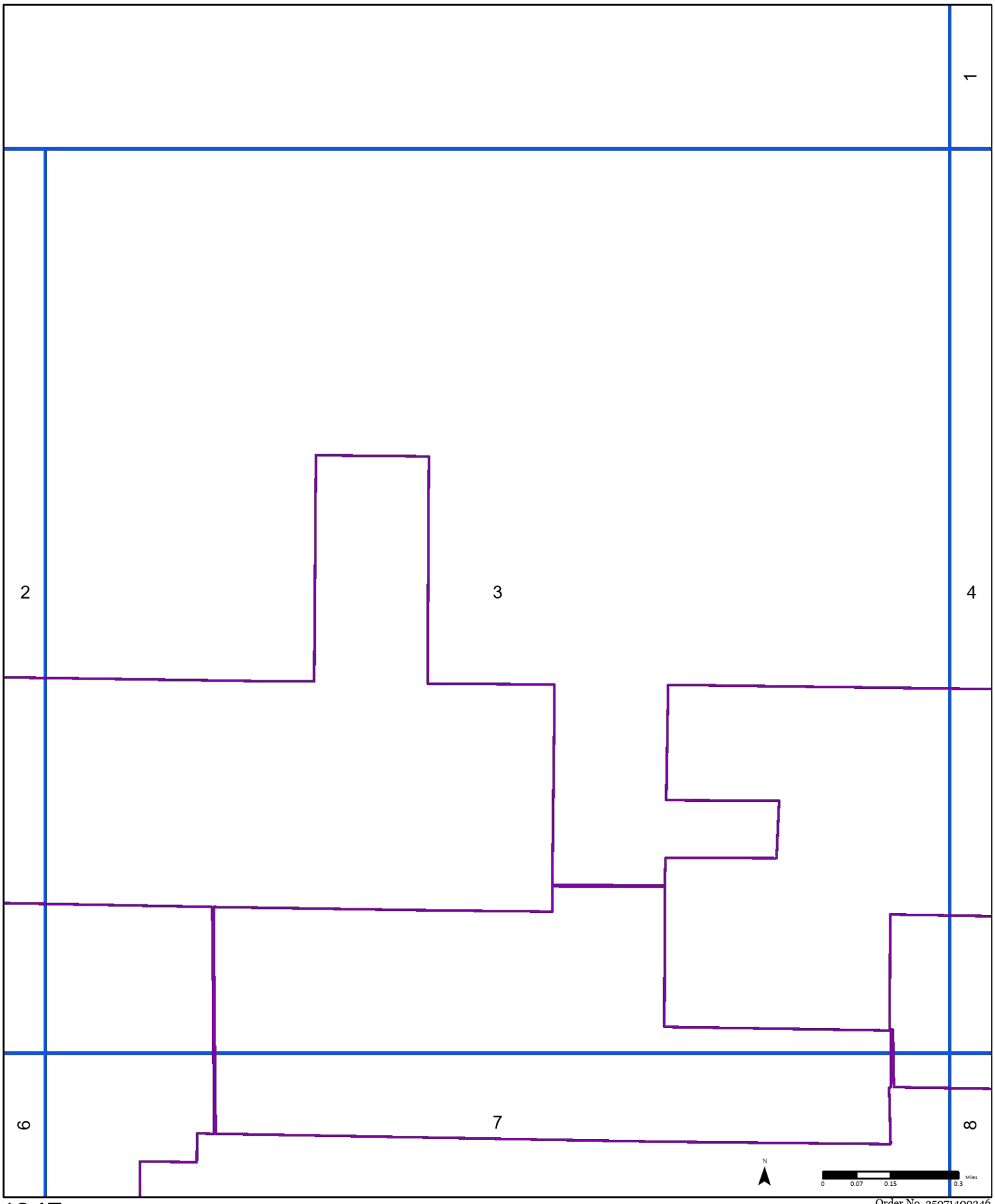


Available Quadrangle(s): Soledad Mountain, CA

Mojave, CA(1-1947)

Source: USGS 7.5 Minute Topographic Map

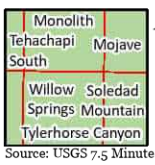
PARTNER



1947 (1-1947)

Aerial Photo Year: 1946

Order No. 25071400346

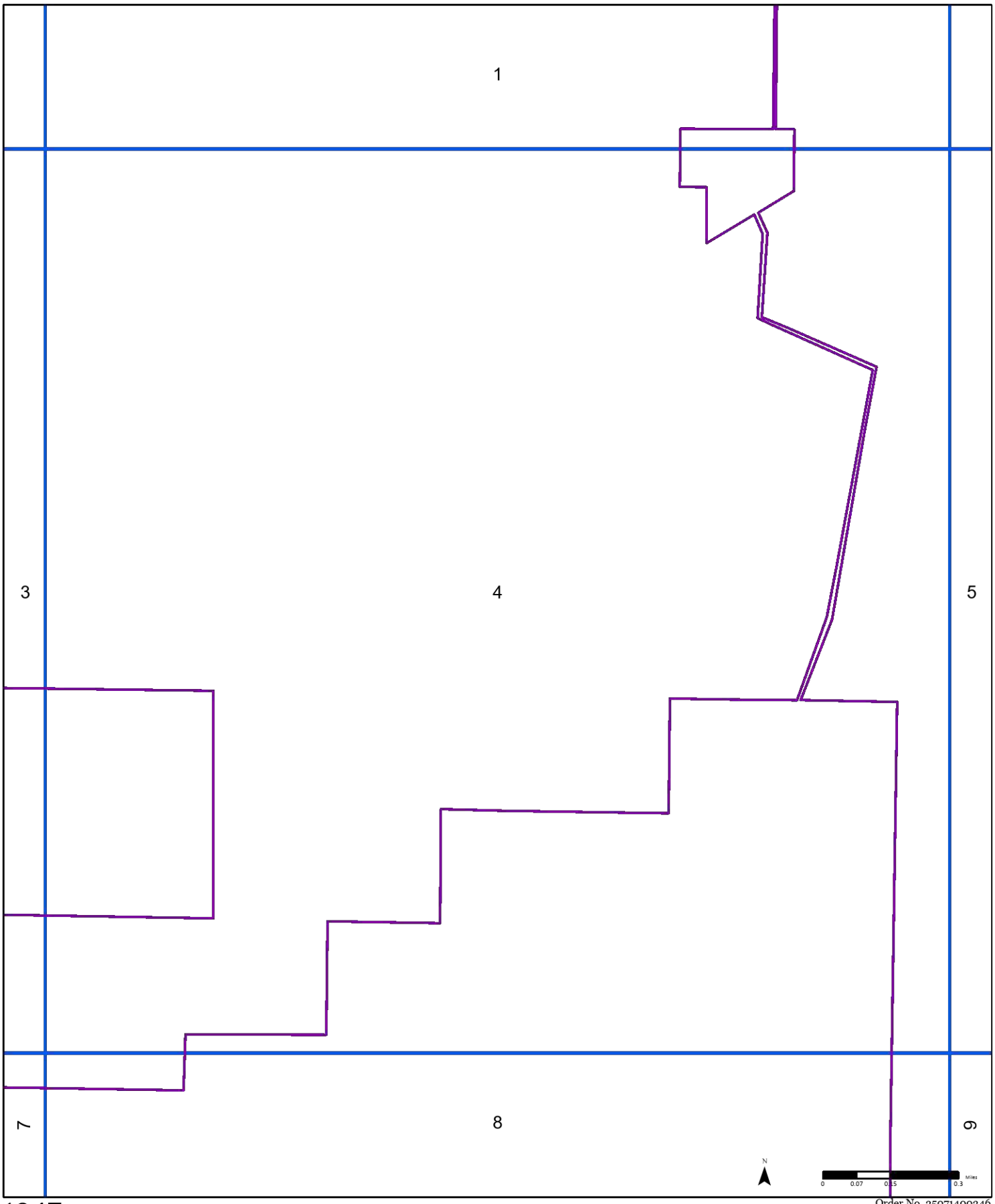


Available Quadrangle(s): Soledad Mountain, CA

Mojave, CA(1-1947)

Source: USGS 7.5 Minute Topographic Map

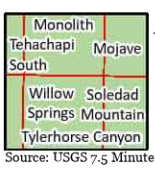
PARTNER



1947 (1-1947)

Aerial Photo Year: 1946

Order No. 25071400346

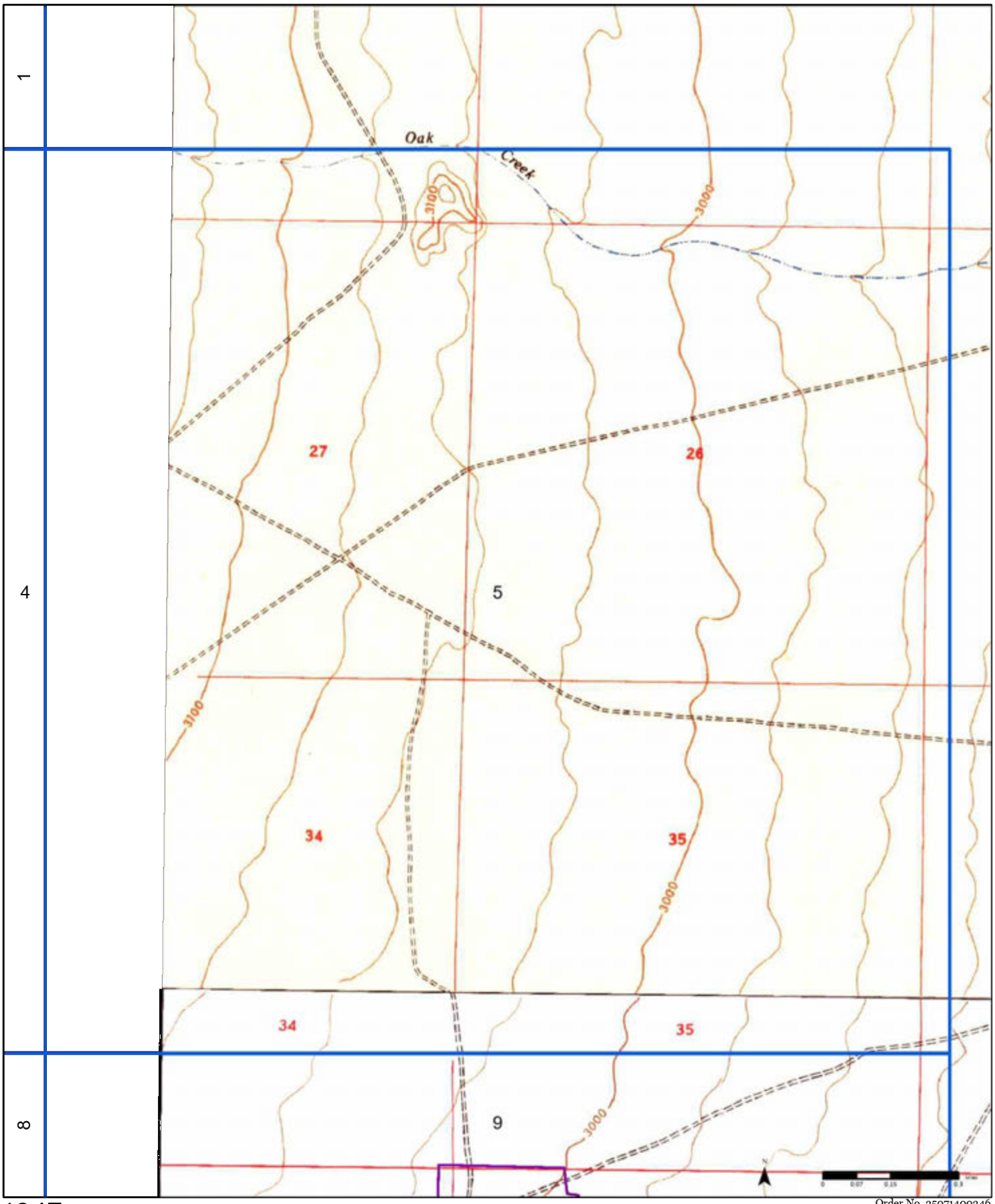


Available Quadrangle(s): Soledad Mountain, CA

Mojave, CA(1-1947)

Source: USGS 7.5 Minute Topographic Map

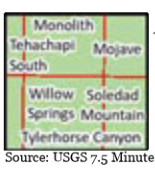
PARTNER



1947 (1-1947)

Aerial Photo Year: 1946

Order No. 25071400346

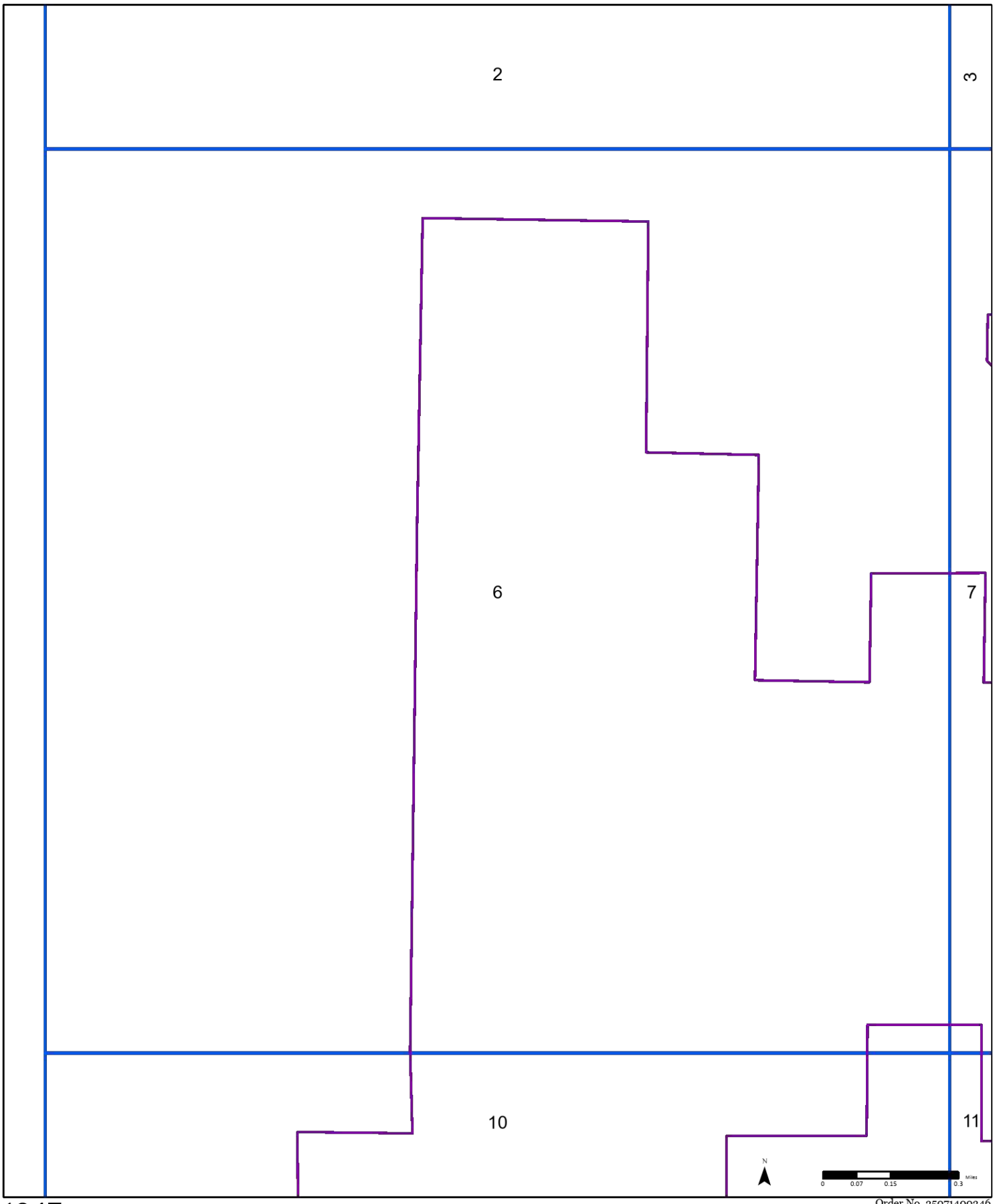


Available Quadrangle(s): Soledad Mountain, CA

Mojave, CA(1-1947)

Source: USGS 7.5 Minute Topographic Map

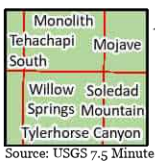
PARTNER



1947 *(1-1947)*

Aerial Photo Year: 1946

Order No. 25071400346

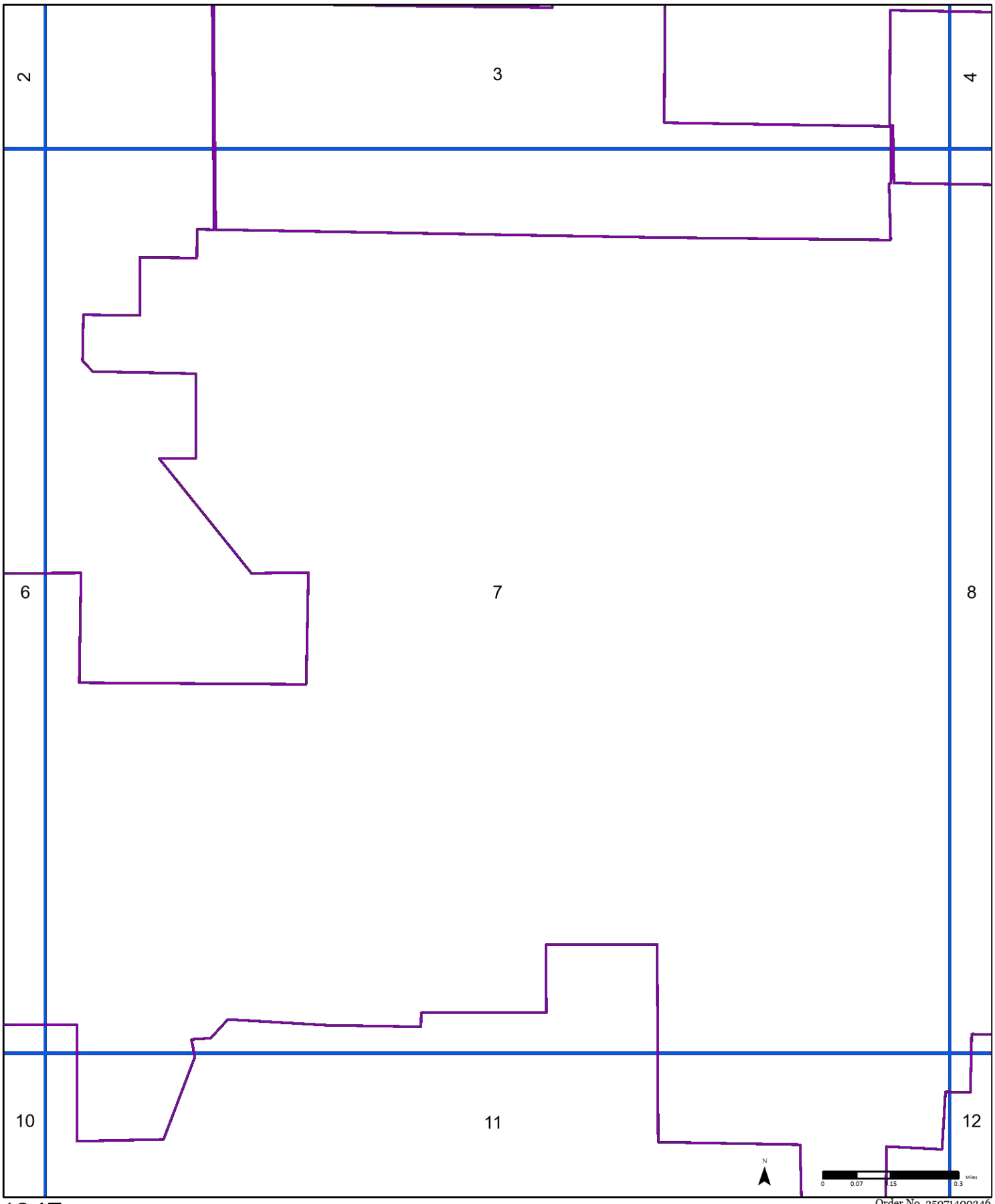


Available Quadrangle(s): Soledad Mountain, CA

Mojave, CA(1-1947)

Source: USGS 7.5 Minute Topographic Map

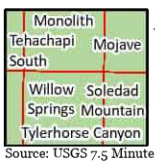
PARTNER



1947 *(1-1947)*

Aerial Photo Year: 1946

Order No. 25071400346

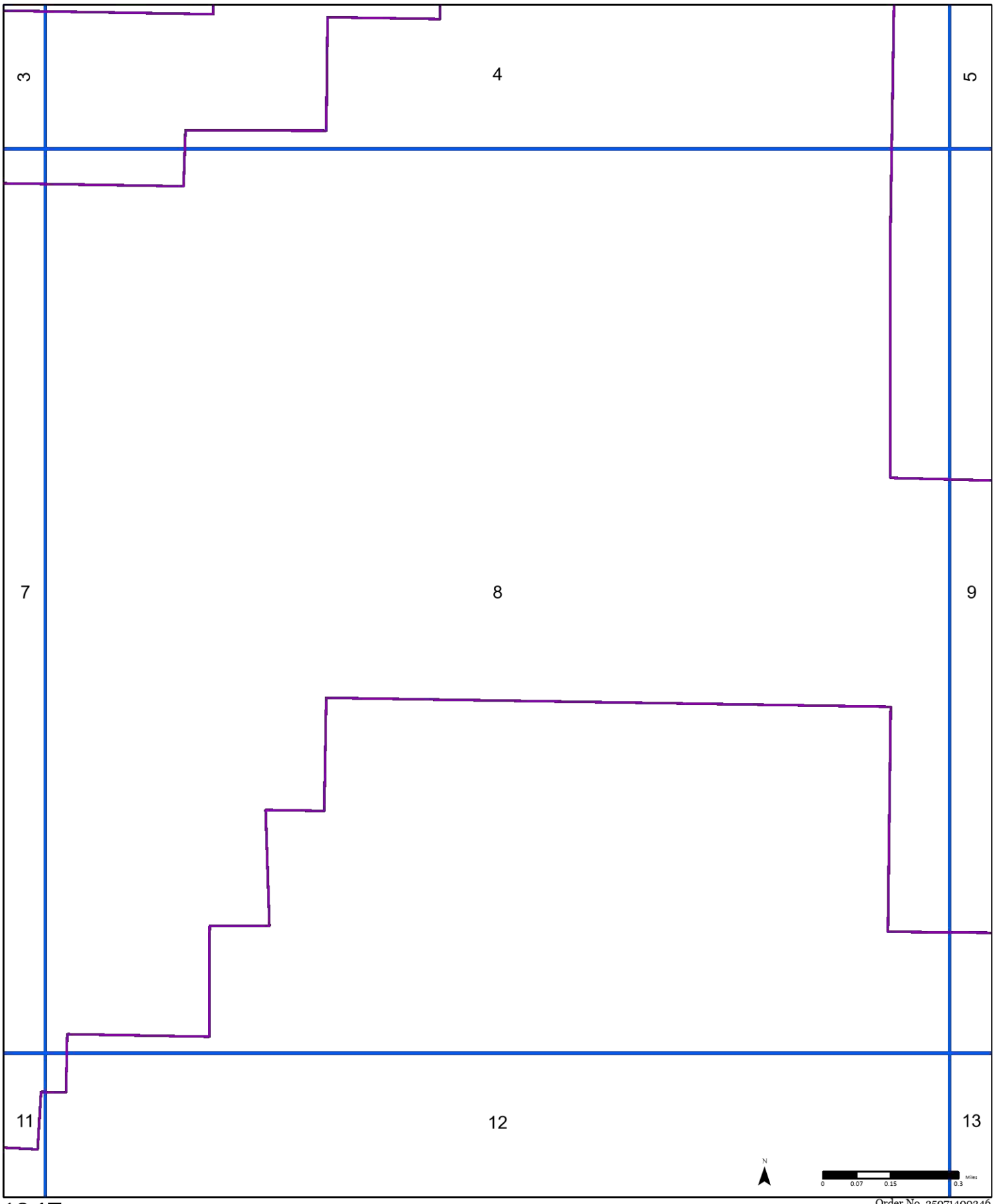


Available Quadrangle(s): Soledad Mountain, CA

Mojave, CA(1-1947)

Source: USGS 7.5 Minute Topographic Map

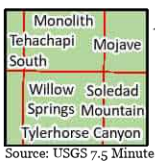
PARTNER



1947 *(1-1947)*

Aerial Photo Year: 1946

Order No. 25071400346

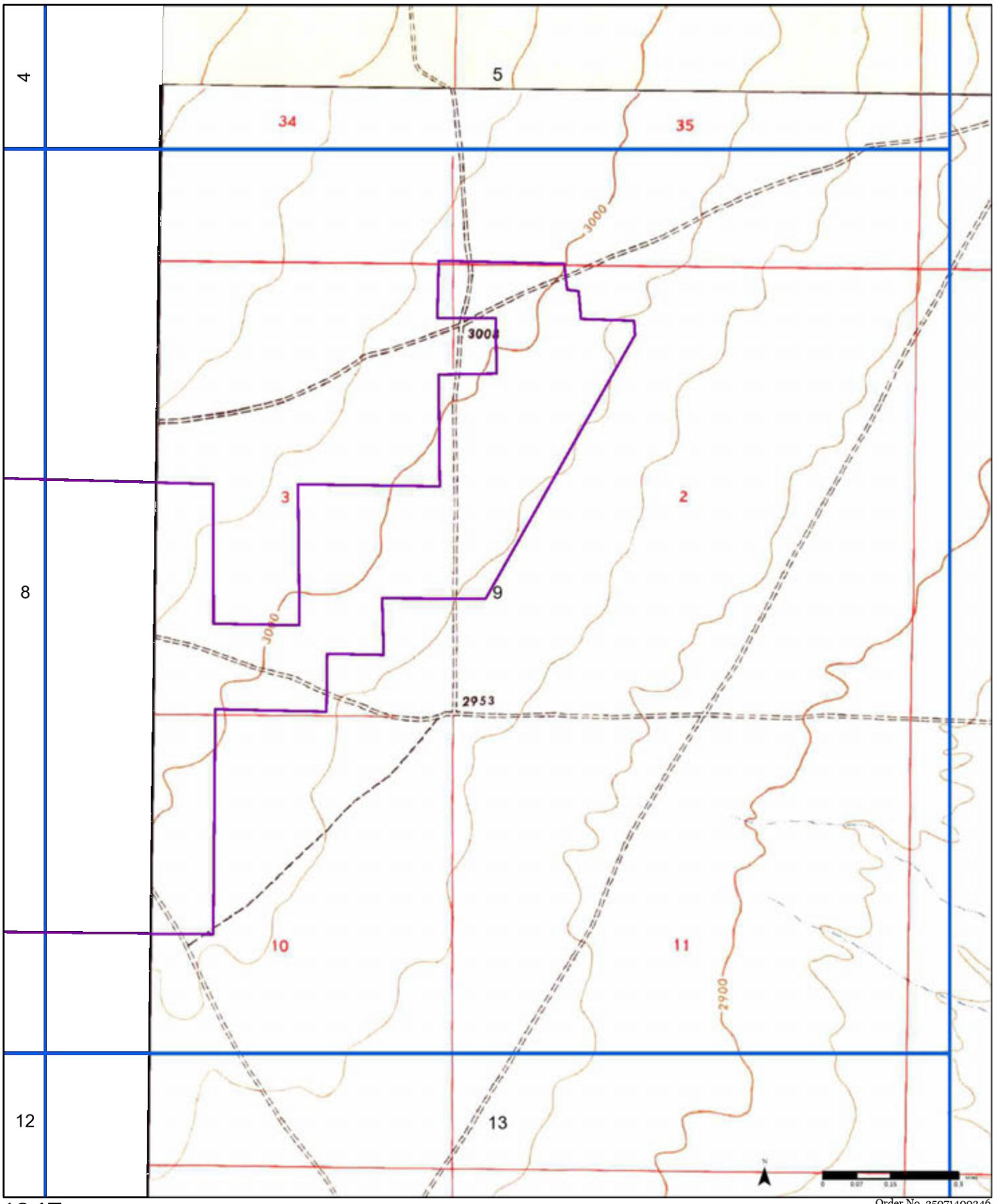


Available Quadrangle(s): Soledad Mountain, CA

Mojave, CA(1-1947)

Source: USGS 7.5 Minute Topographic Map

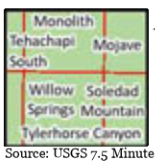
PARTNER



1947 (1-1947)

Aerial Photo Year: 1946

Order No. 25071400346

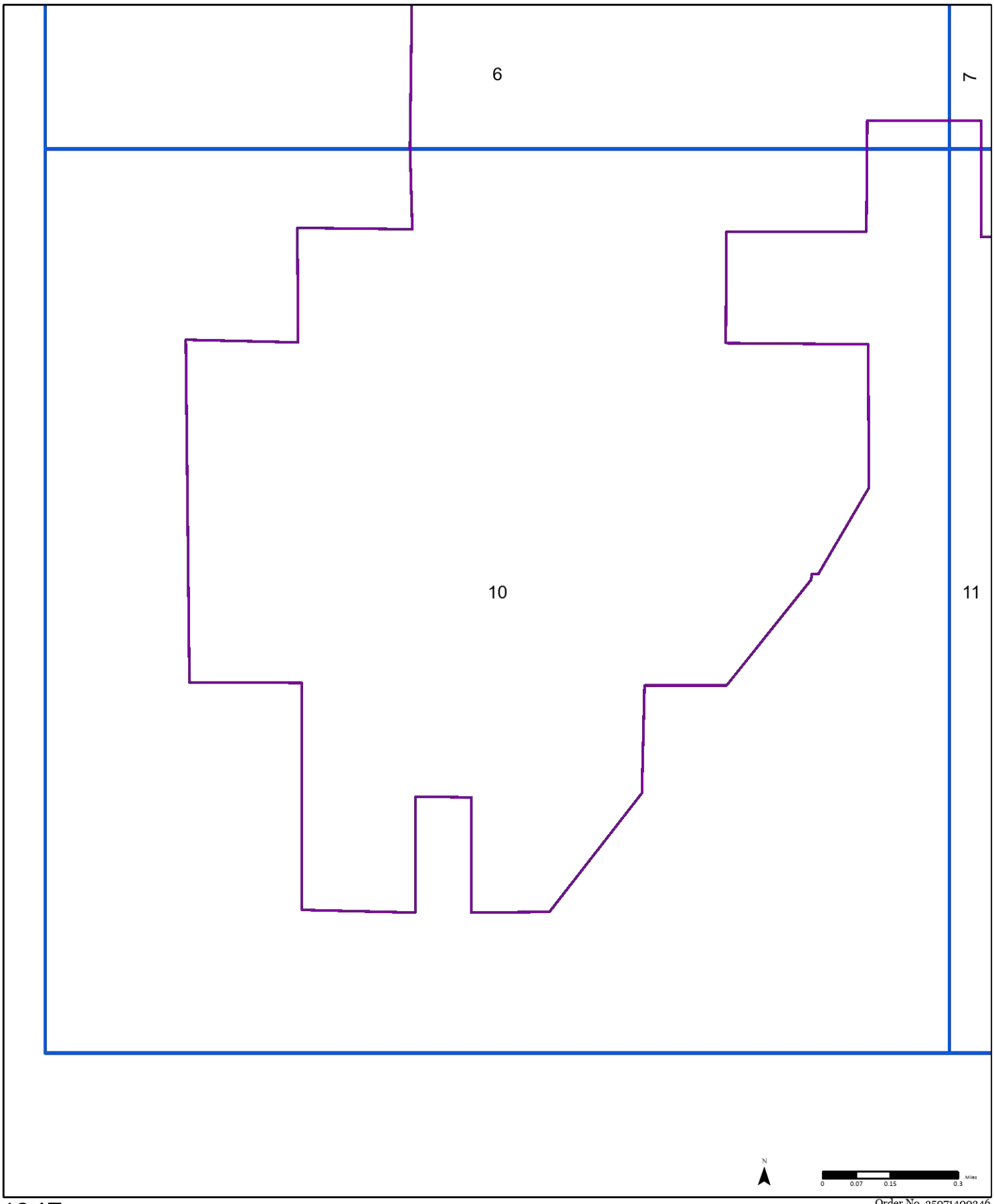


Available Quadrangle(s): Soledad Mountain, CA

Mojave, CA(1-1947)

Source: USGS 7.5 Minute Topographic Map

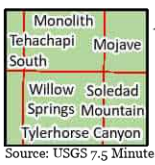
PARTNER



1947 *(1-1947)*

Aerial Photo Year: 1946

Order No. 25071400346

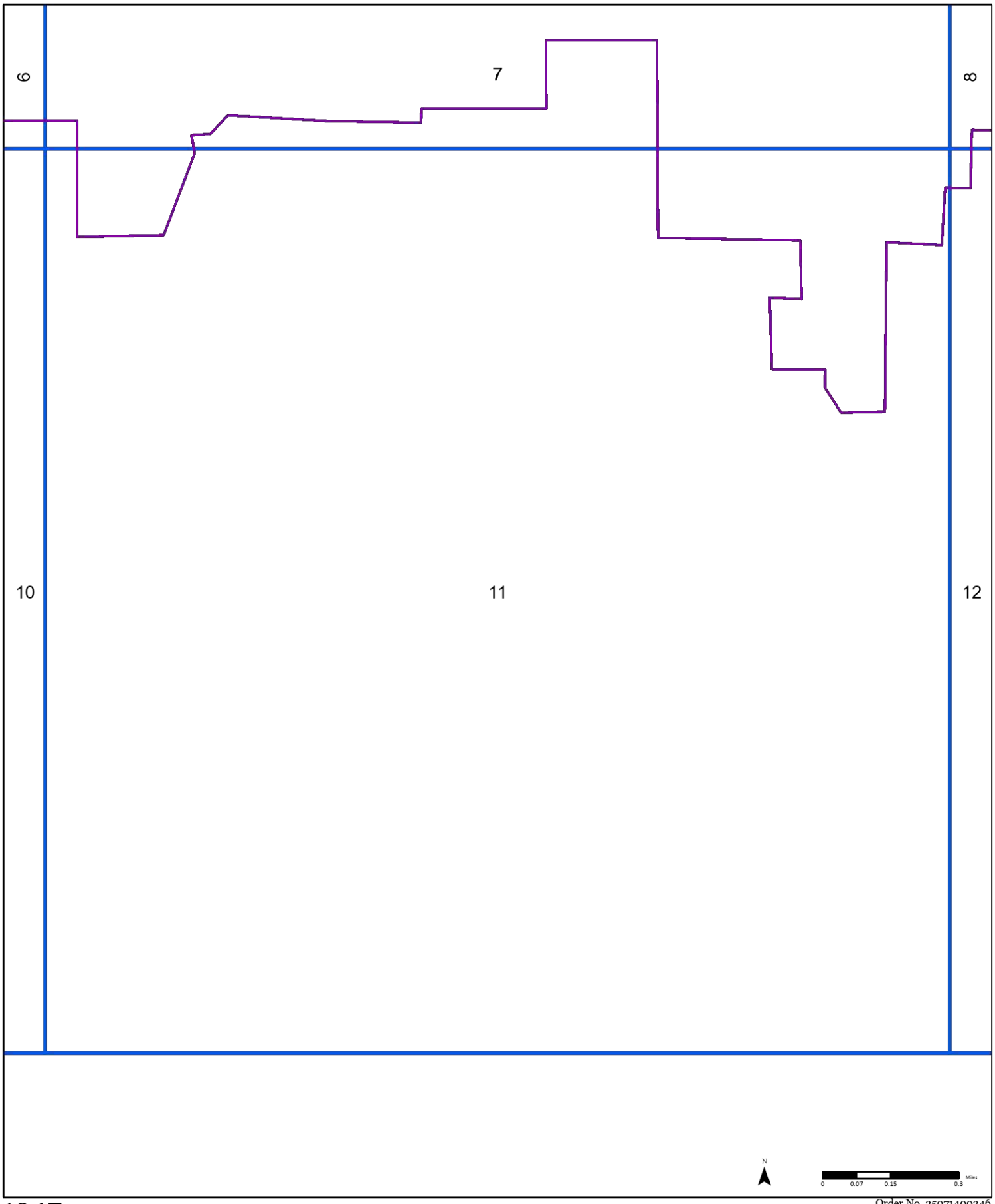


Available Quadrangle(s): Soledad Mountain, CA

Mojave, CA(1-1947)

Source: USGS 7.5 Minute Topographic Map

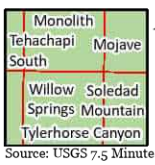
PARTNER



1947 *(1-1947)*

Aerial Photo Year: 1946

Order No. 25071400346

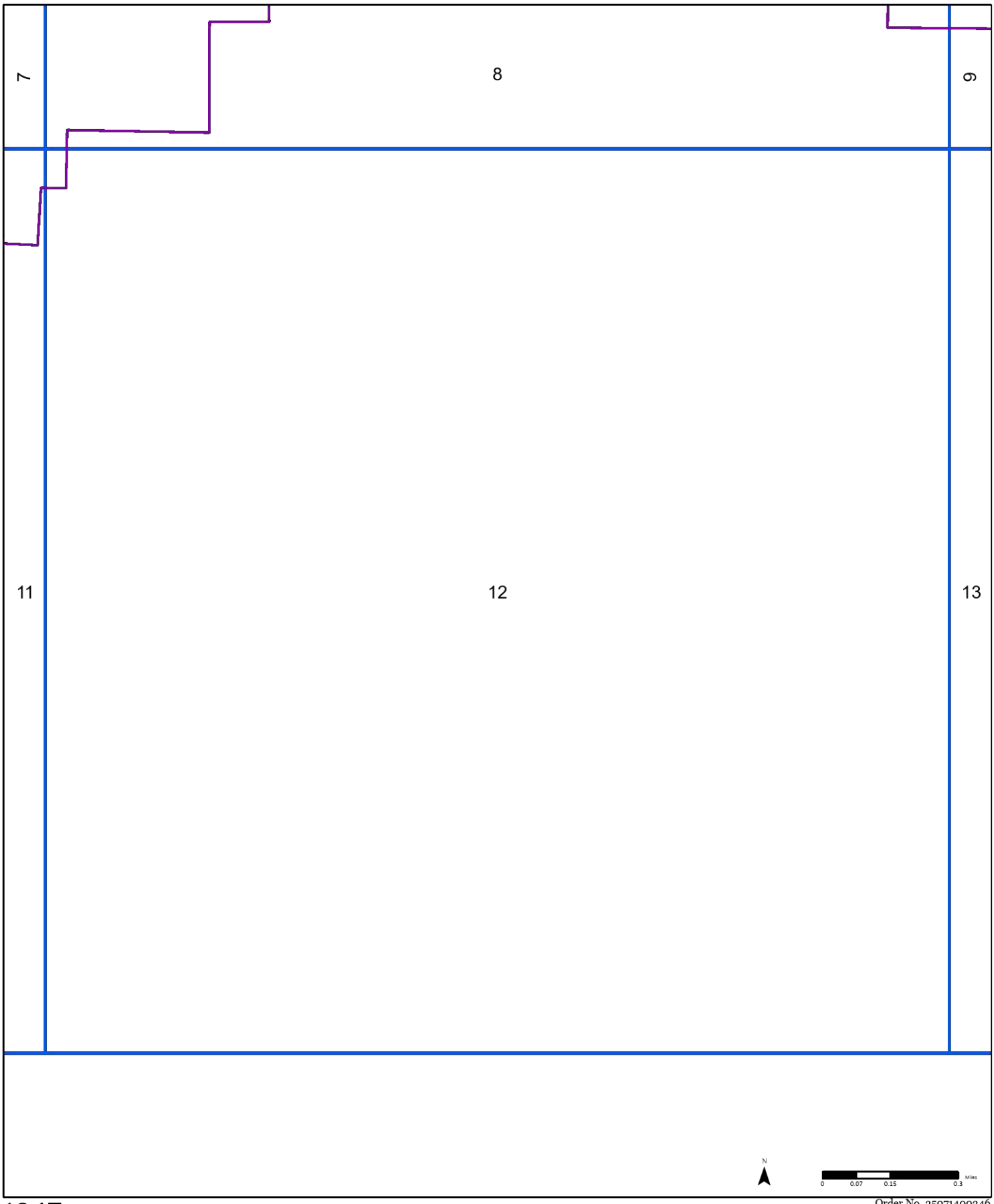


Available Quadrangle(s): Soledad Mountain, CA

Mojave, CA(1-1947)

Source: USGS 7.5 Minute Topographic Map

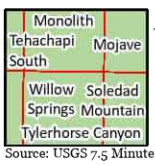
PARTNER



1947 *(1-1947)*

Aerial Photo Year: 1946

Order No. 25071400346

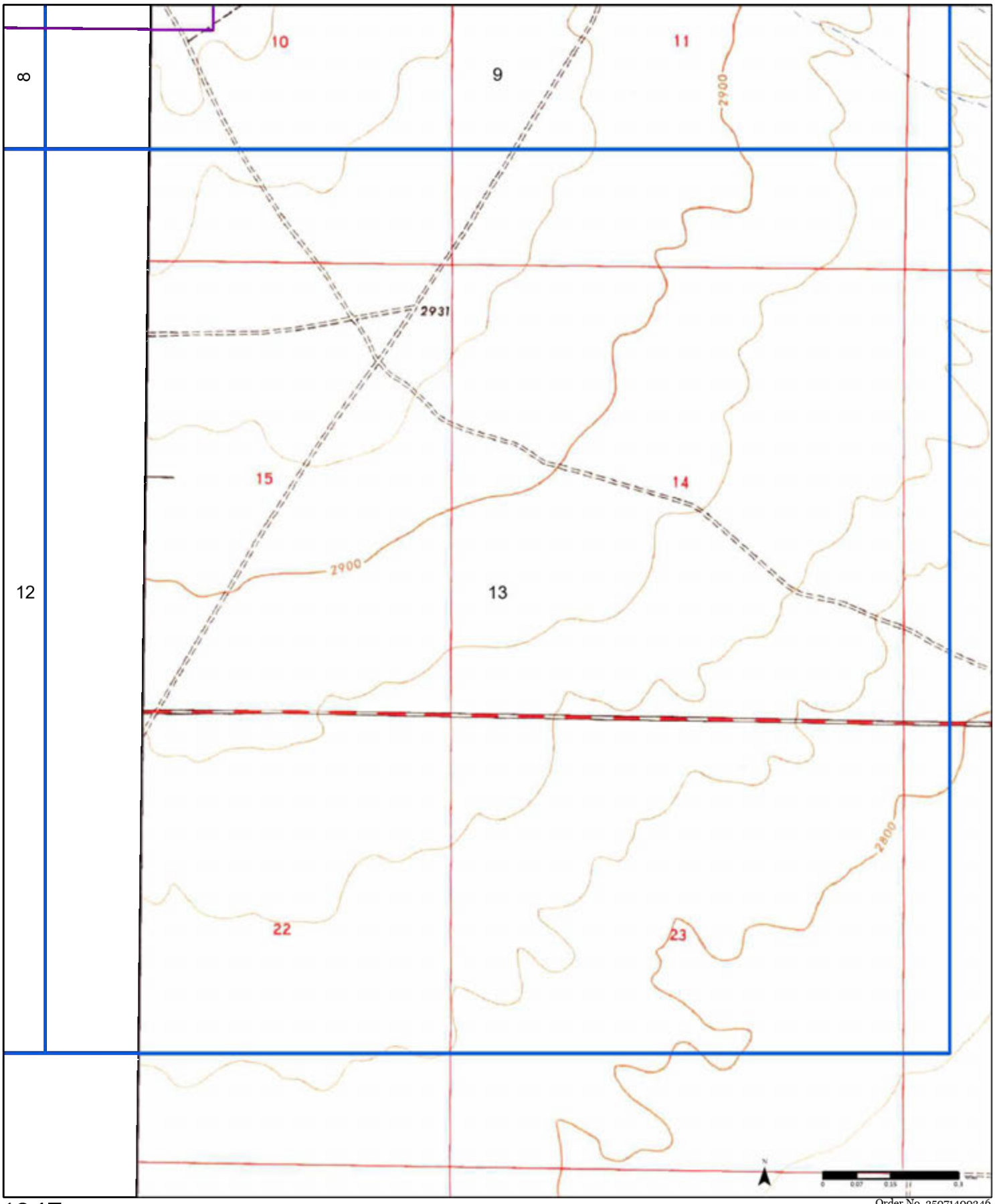


Available Quadrangle(s): Soledad Mountain, CA

Mojave, CA(1-1947)

Source: USGS 7.5 Minute Topographic Map

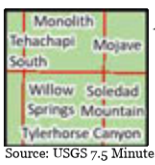
PARTNER



1947 *(1-1947)*

Aerial Photo Year: 1946

Order No. 25071400346

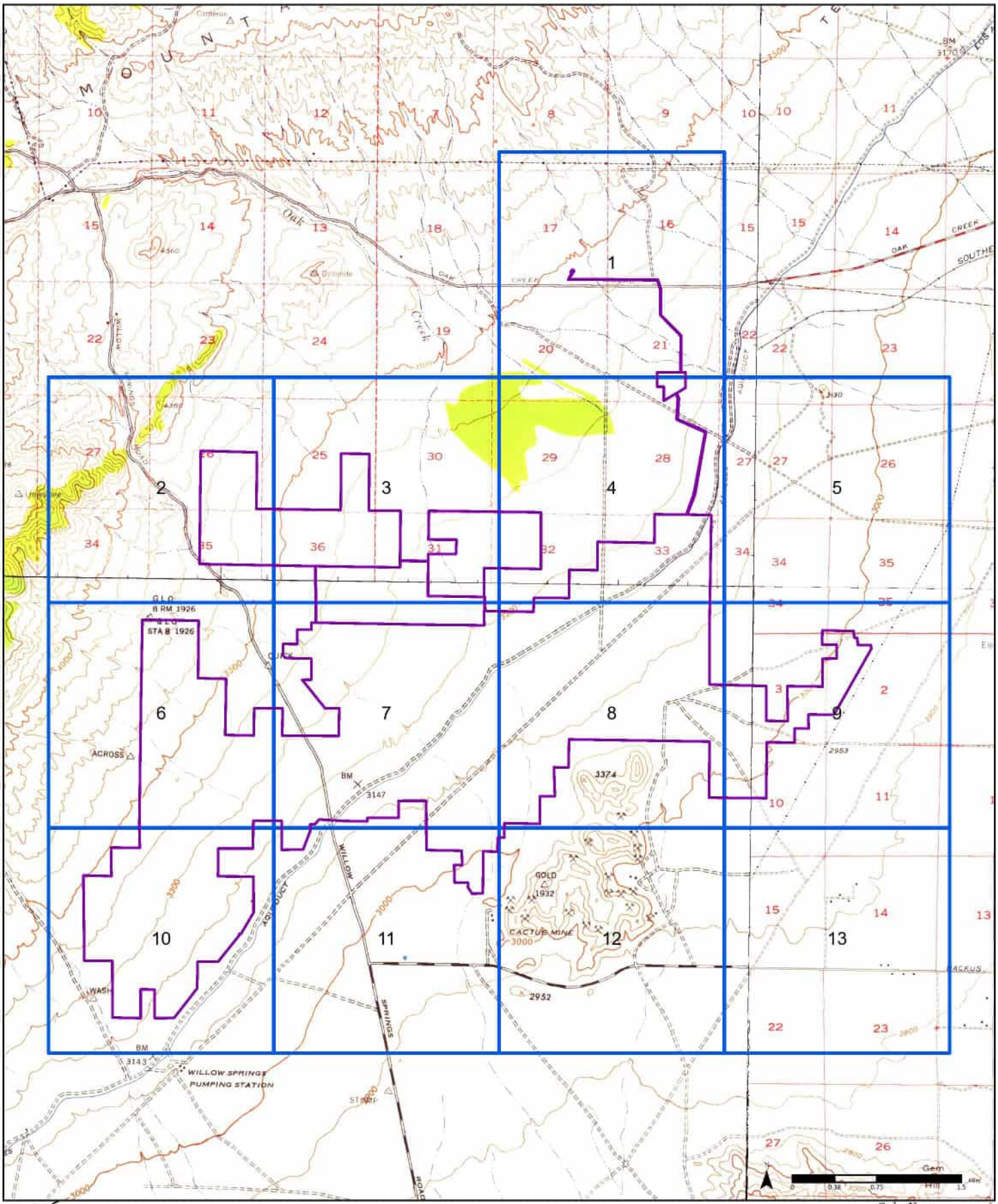


Available Quadrangle(s): Soledad Mountain, CA

Mojave, CA(1-1947)

Source: USGS 7.5 Minute Topographic Map

PARTNER



1956

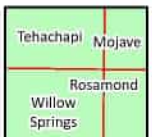
(1-1943) *Aerial Photo Year: 1943*

(2-1943) *Aerial Photo Year: 1943*

(3-1956) *Aerial Photo Year: 1952*

(4-1956) *Aerial Photo Year: 1943*

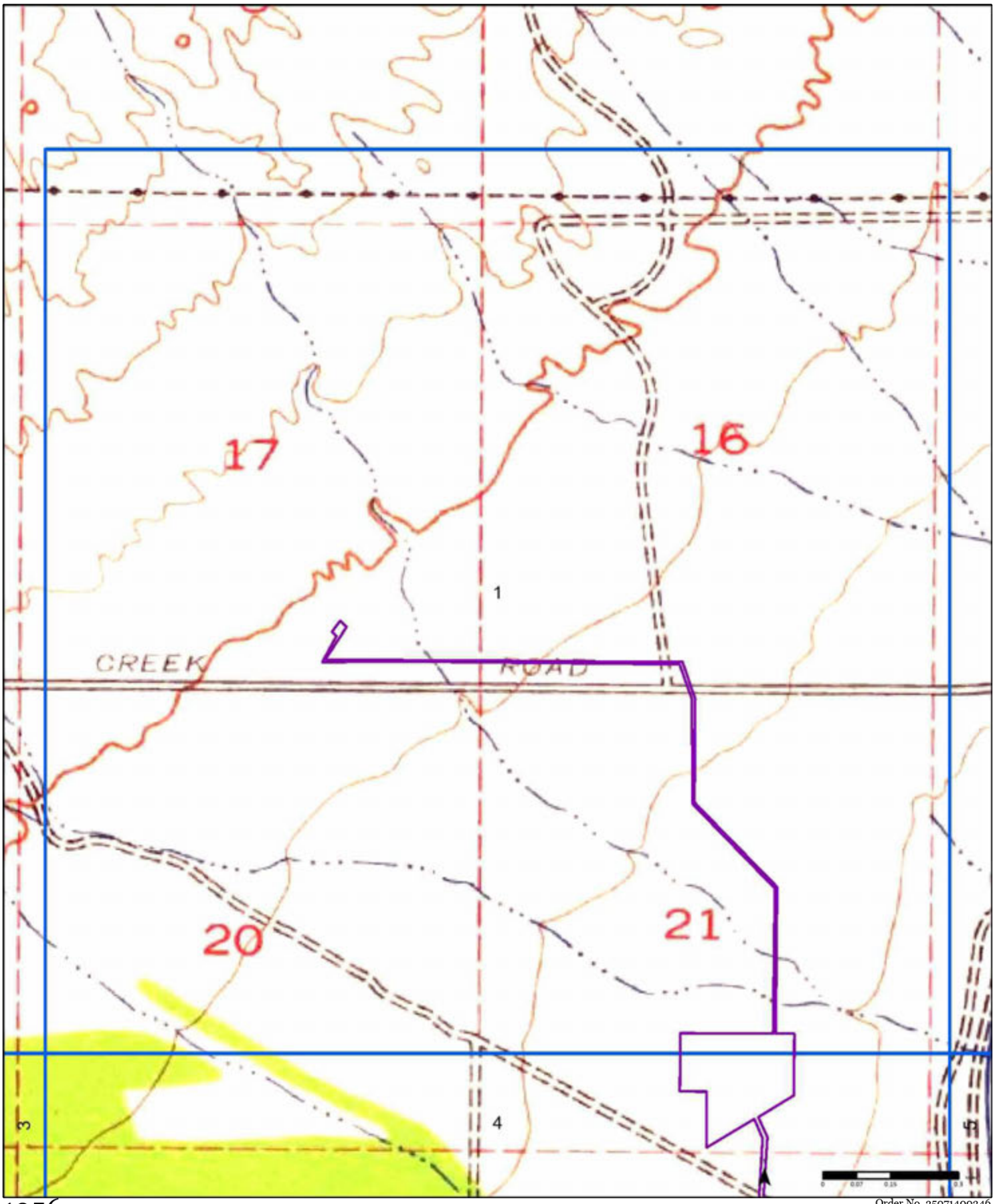
Order No. 25071400346



Available Quadrangle(s): Willow Springs, CA(1-1943)
Tehachapi, CA(2-1943)
Rosamond, CA(3-1956)
Mojave, CA(4-1956)

Source: USGS 15 Minute Topographic Map

PARTNER



1956

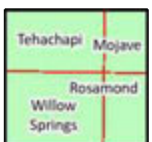
(1-1943) *Aerial Photo Year: 1943*

(2-1943) *Aerial Photo Year: 1943*

(3-1956) *Aerial Photo Year: 1952*

(4-1956) *Aerial Photo Year: 1943*

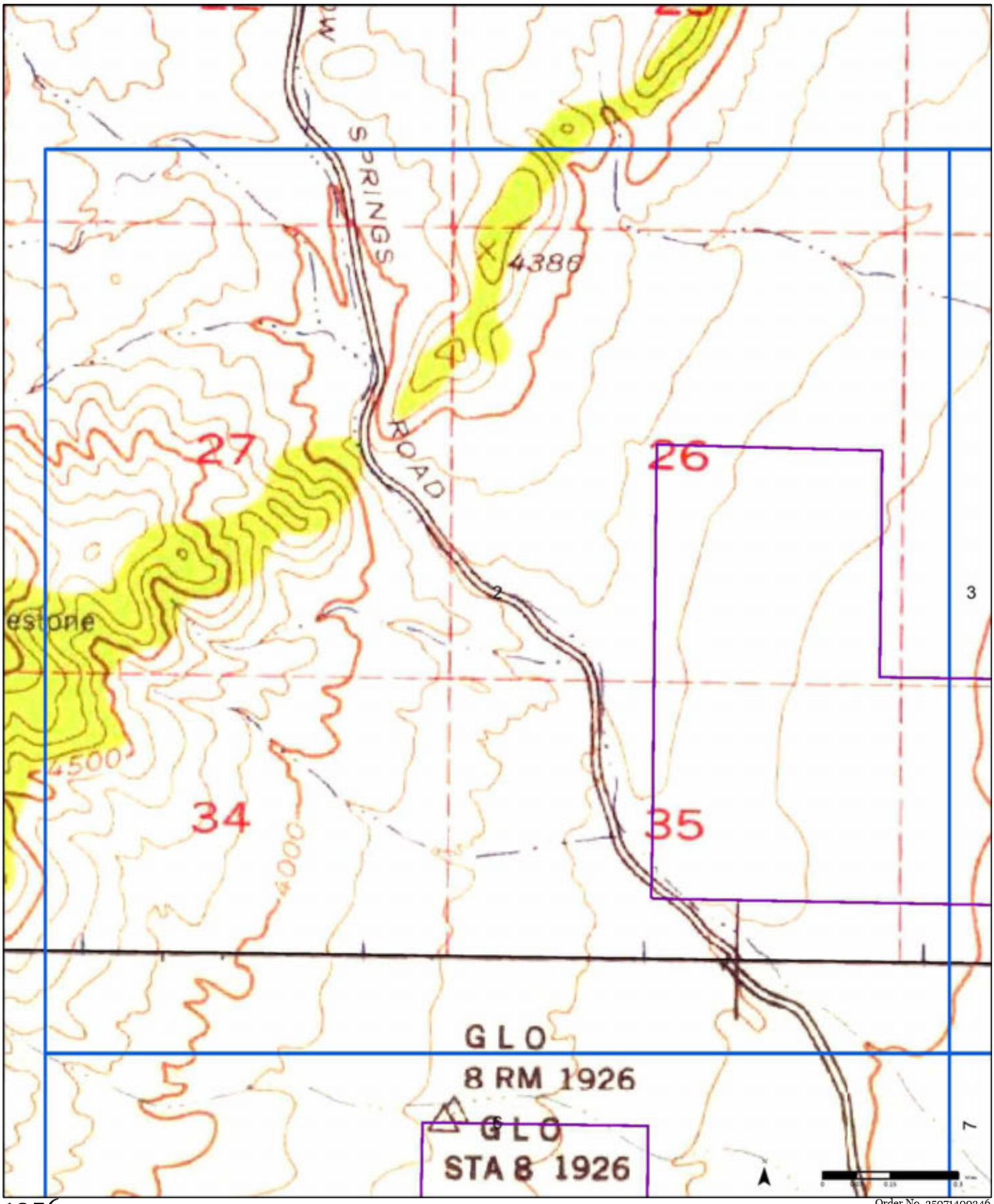
Order No. 25071400346



Available Quadrangle(s): Willow Springs, CA(1-1943)
Tehachapi, CA(2-1943)
Rosamond, CA(3-1956)
Mojave, CA(4-1956)

Source: USGS 15 Minute Topographic Map

PARTNER



1956

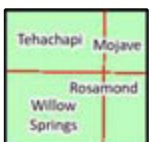
(1-1943) *Aerial Photo Year: 1943*

(2-1943) *Aerial Photo Year: 1943*

(3-1956) *Aerial Photo Year: 1952*

(4-1956) *Aerial Photo Year: 1943*

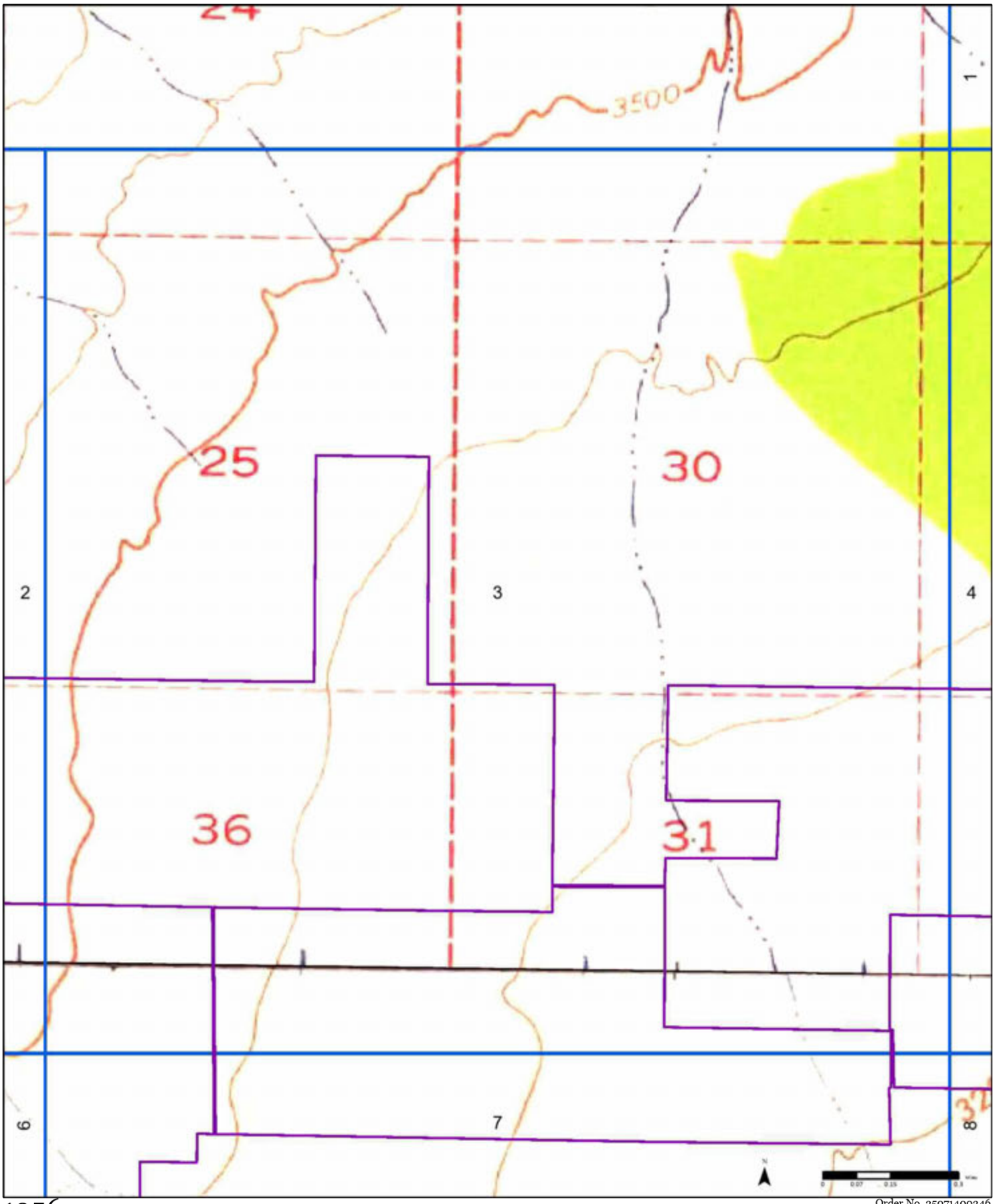
Order No. 25071400346



Available Quadrangle(s): Willow Springs, CA(1-1943)
Tehachapi, CA(2-1943)
Rosamond, CA(3-1956)
Mojave, CA(4-1956)

Source: USGS 15 Minute Topographic Map

PARTNER



1956

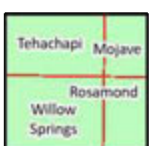
(1-1943) *Aerial Photo Year: 1943*

(2-1943) *Aerial Photo Year: 1943*

(3-1956) *Aerial Photo Year: 1952*

(4-1956) *Aerial Photo Year: 1943*

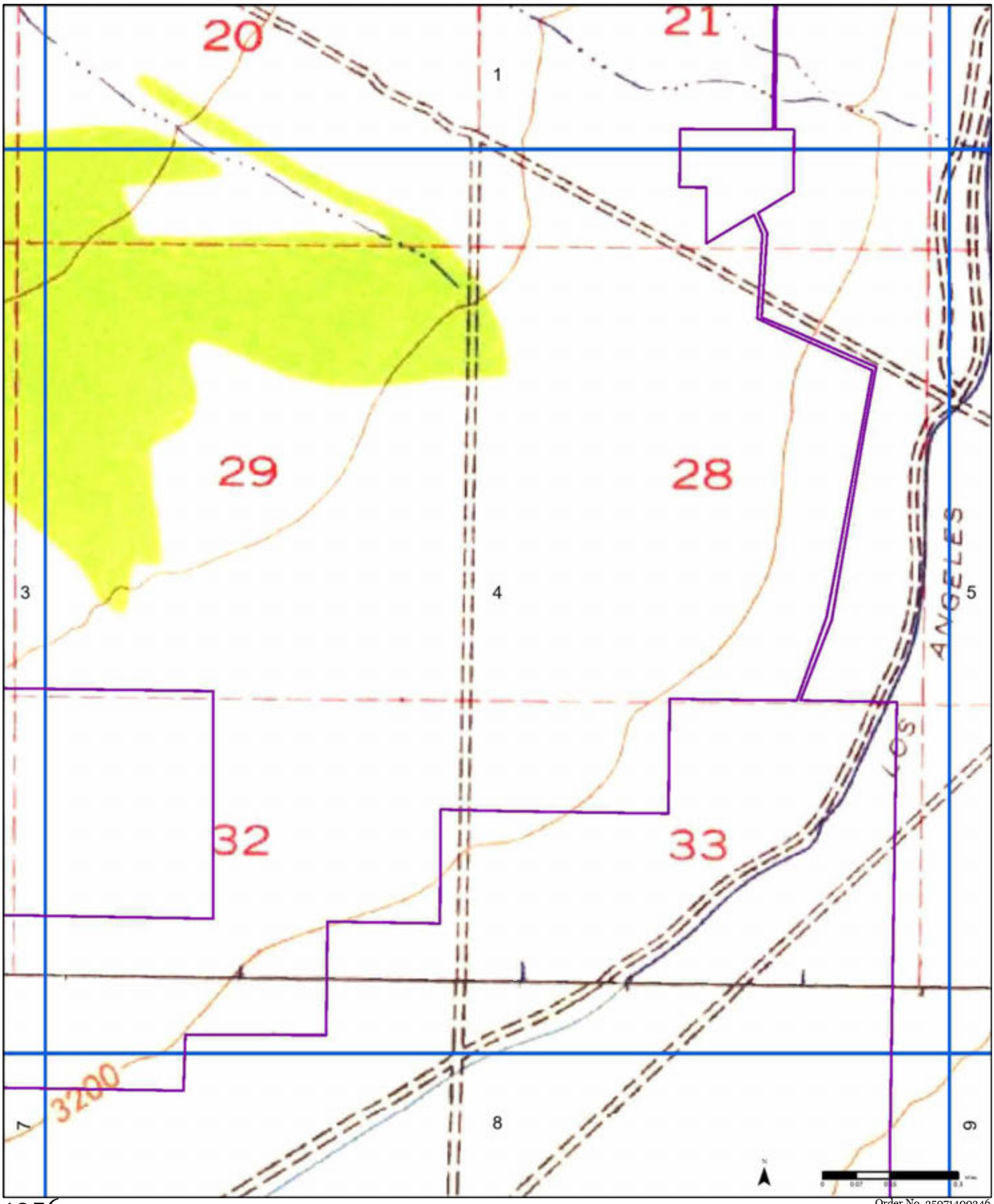
Order No. 25071400346



Available Quadrangle(s): Willow Springs, CA(1-1943)
Tehachapi, CA(2-1943)
Rosamond, CA(3-1956)
Mojave, CA(4-1956)

Source: USGS 15 Minute Topographic Map

PARTNER



1956

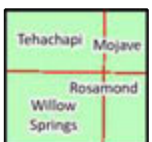
(1-1943) *Aerial Photo Year: 1943*

(2-1943) *Aerial Photo Year: 1943*

(3-1956) *Aerial Photo Year: 1952*

(4-1956) *Aerial Photo Year: 1943*

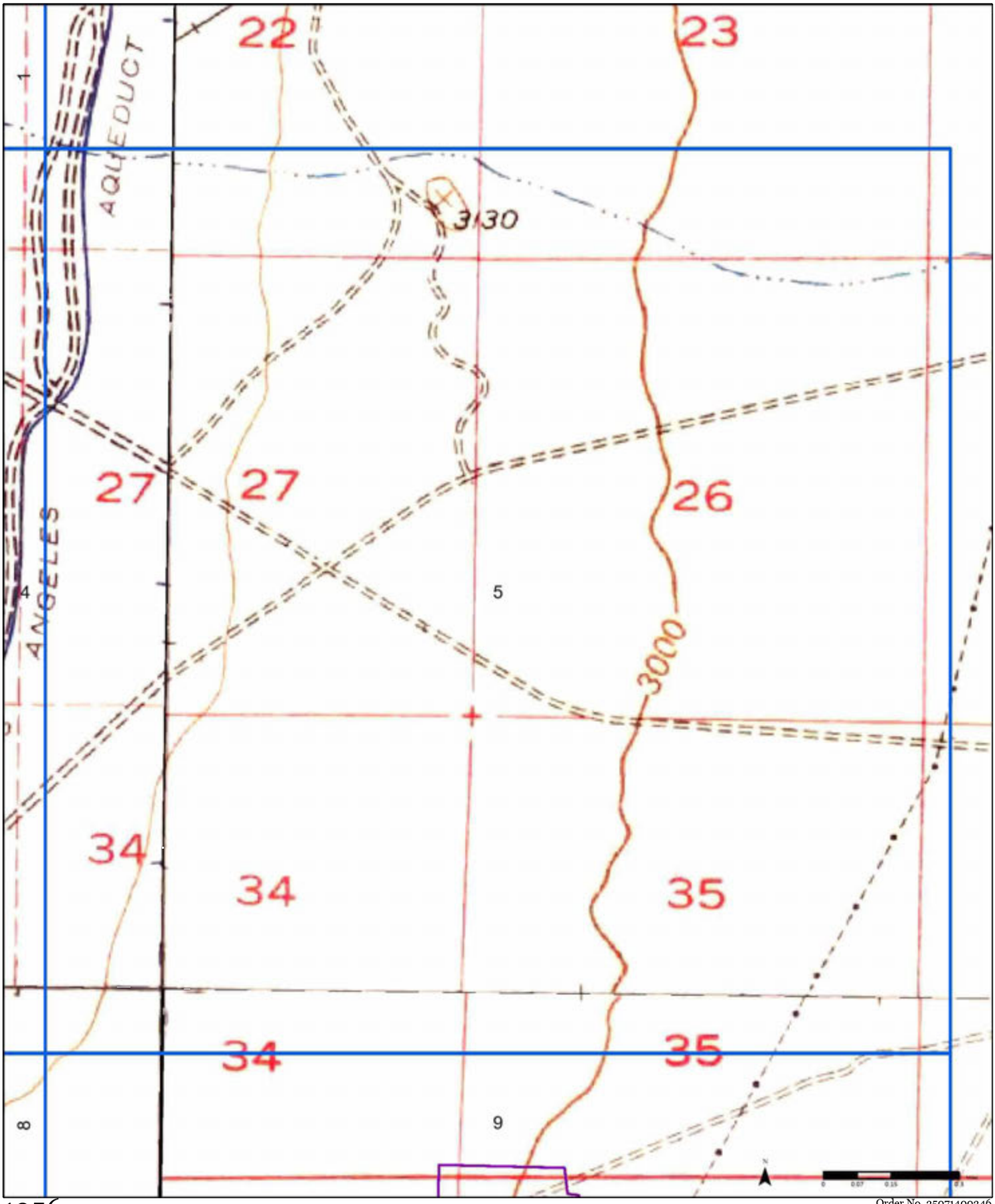
Order No. 25071400346



Available Quadrangle(s): Willow Springs, CA(1-1943)
Tehachapi, CA(2-1943)
Rosamond, CA(3-1956)
Mojave, CA(4-1956)

PARTNER

Source: USGS 15 Minute Topographic Map



1956

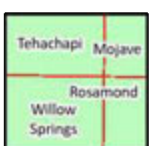
(1-1943) *Aerial Photo Year: 1943*

(2-1943) *Aerial Photo Year: 1943*

(3-1956) *Aerial Photo Year: 1952*

(4-1956) *Aerial Photo Year: 1943*

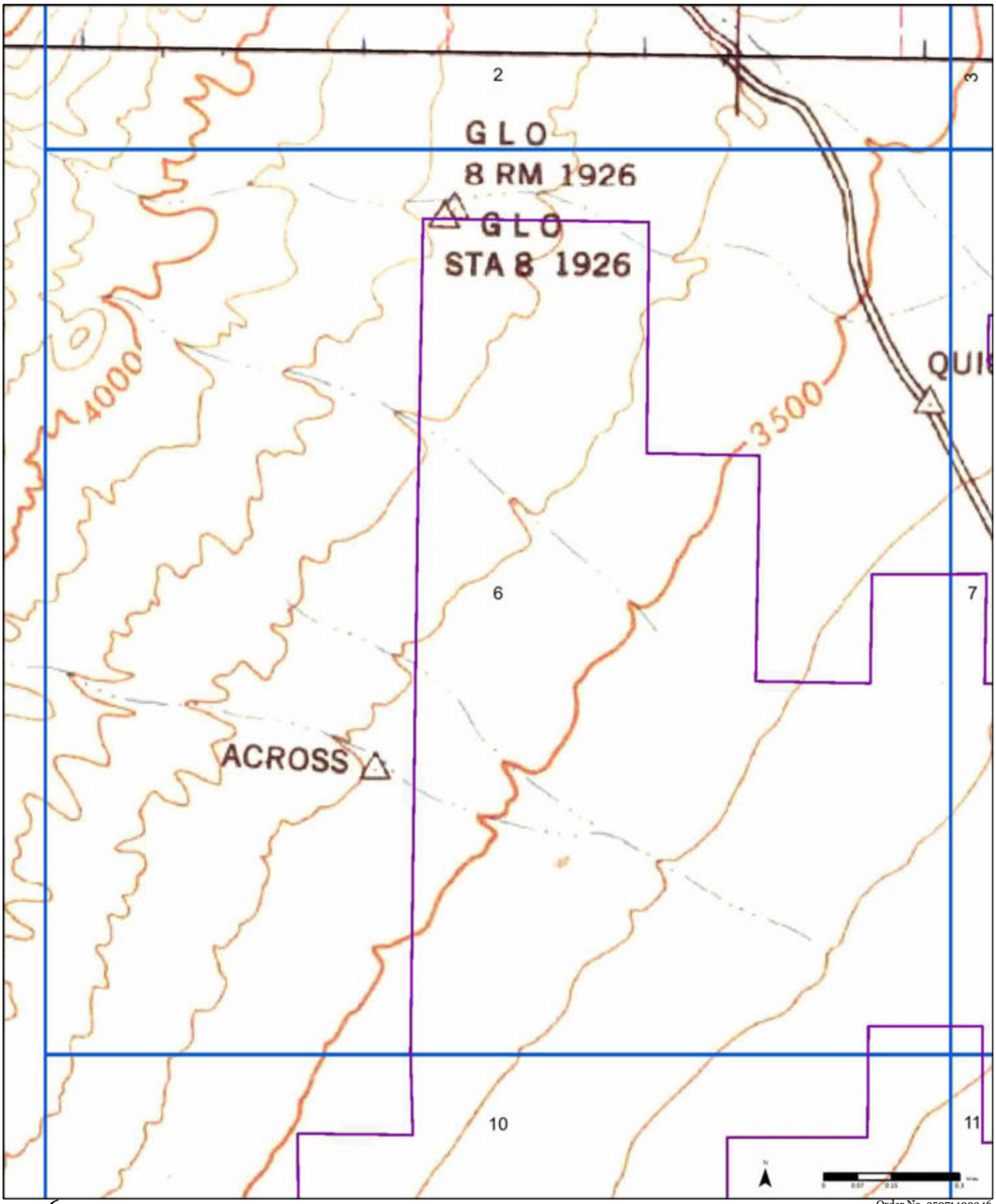
Order No. 25071400346



Available Quadrangle(s): Willow Springs, CA(1-1943)
Tehachapi, CA(2-1943)
Rosamond, CA(3-1956)
Mojave, CA(4-1956)

Source: USGS 15 Minute Topographic Map

PARTNER



1956

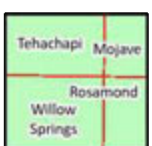
(1-1943) *Aerial Photo Year: 1943*

(2-1943) *Aerial Photo Year: 1943*

(3-1956) *Aerial Photo Year: 1952*

(4-1956) *Aerial Photo Year: 1943*

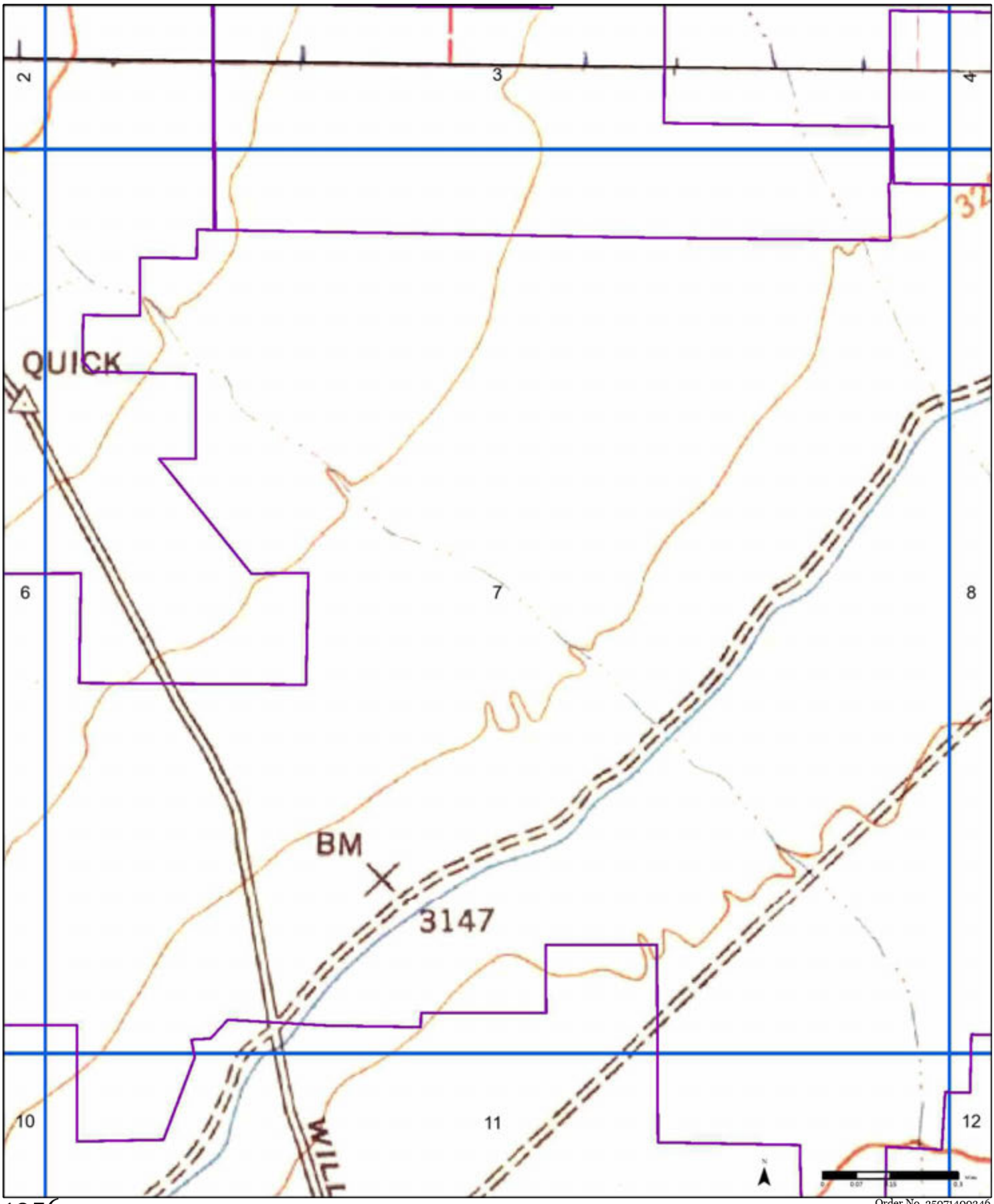
Order No. 25071400346



Available Quadrangle(s): Willow Springs, CA(1-1943)
Tehachapi, CA(2-1943)
Rosamond, CA(3-1956)
Mojave, CA(4-1956)

Source: USGS 15 Minute Topographic Map

PARTNER



1956

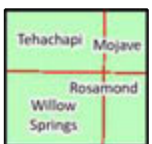
(1-1943) *Aerial Photo Year: 1943*

(2-1943) *Aerial Photo Year: 1943*

(3-1956) *Aerial Photo Year: 1952*

(4-1956) *Aerial Photo Year: 1943*

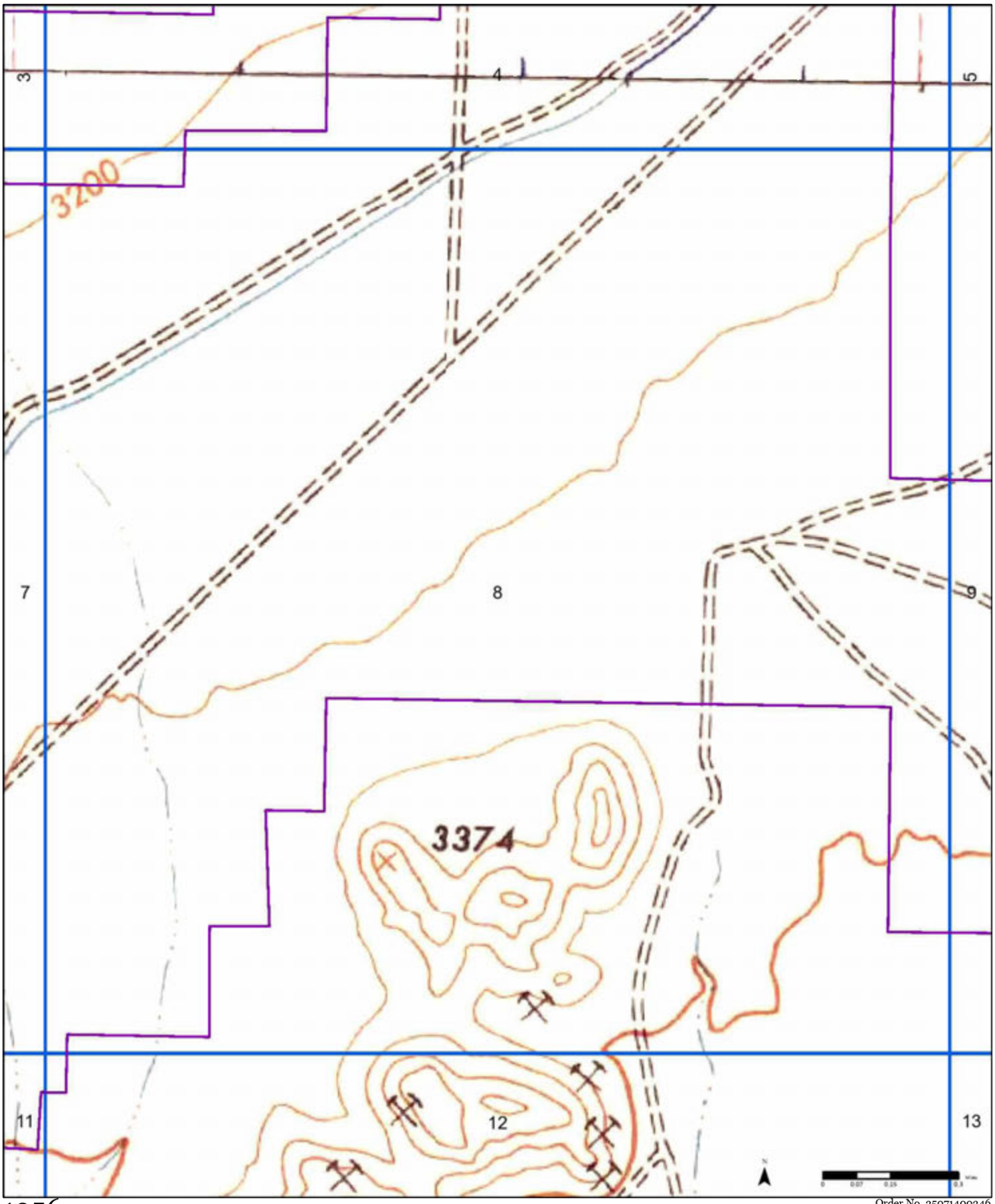
Order No. 25071400346



Available Quadrangle(s): Willow Springs, CA(1-1943)
Tehachapi, CA(2-1943)
Rosamond, CA(3-1956)
Mojave, CA(4-1956)

Source: USGS 15 Minute Topographic Map

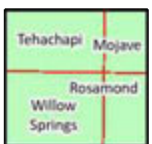
PARTNER



1956

(1-1943) *Aerial Photo Year: 1943*
(2-1943) *Aerial Photo Year: 1943*
(3-1956) *Aerial Photo Year: 1952*
(4-1956) *Aerial Photo Year: 1943*

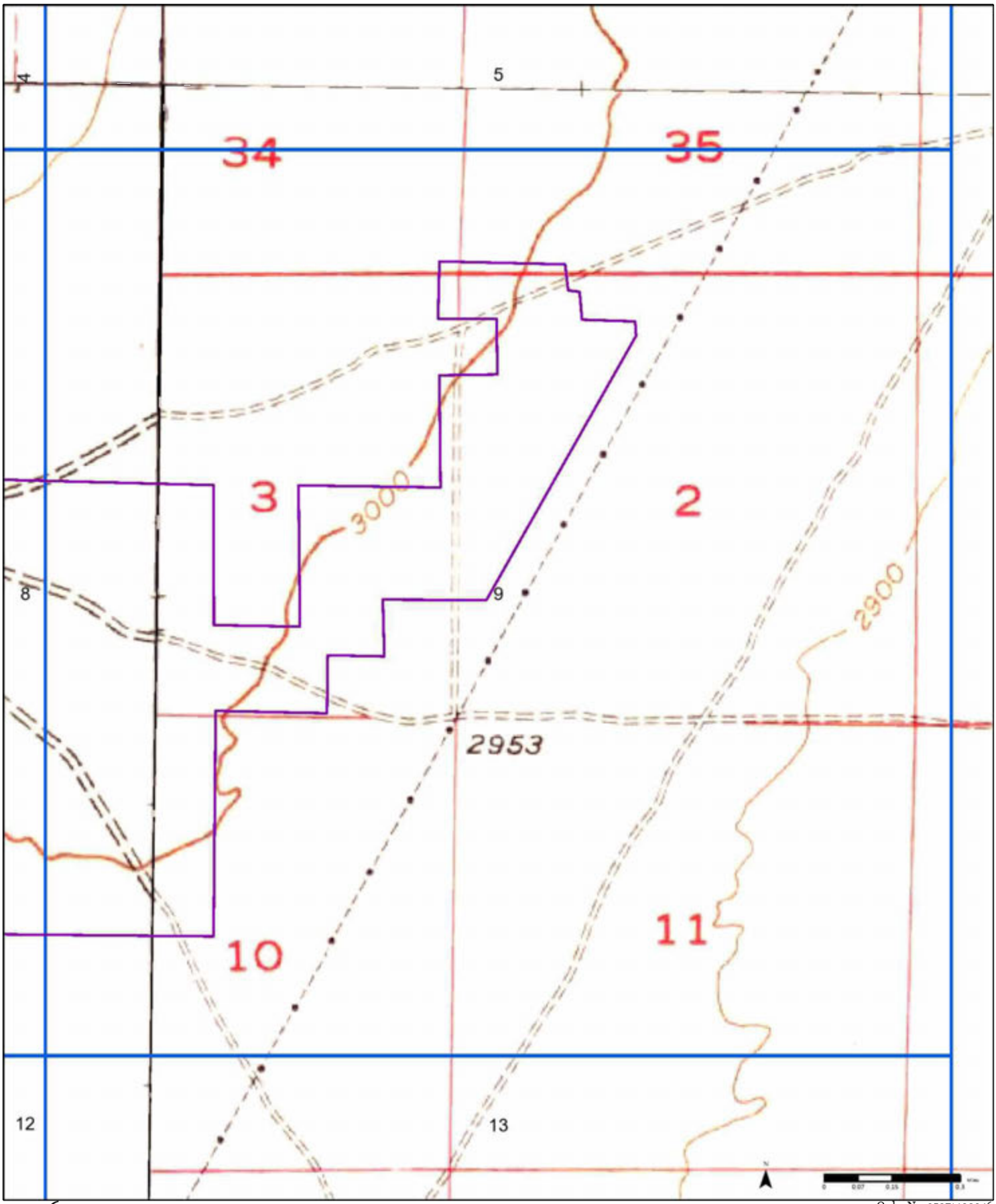
Order No. 25071400346



Available Quadrangle(s): Willow Springs, CA(1-1943)
Tehachapi, CA(2-1943)
Rosamond, CA(3-1956)
Mojave, CA(4-1956)

Source: USGS 15 Minute Topographic Map

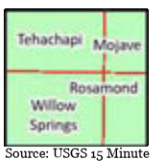
PARTNER



1956

(1-1943) *Aerial Photo Year: 1943*
(2-1943) *Aerial Photo Year: 1943*
(3-1956) *Aerial Photo Year: 1952*
(4-1956) *Aerial Photo Year: 1943*

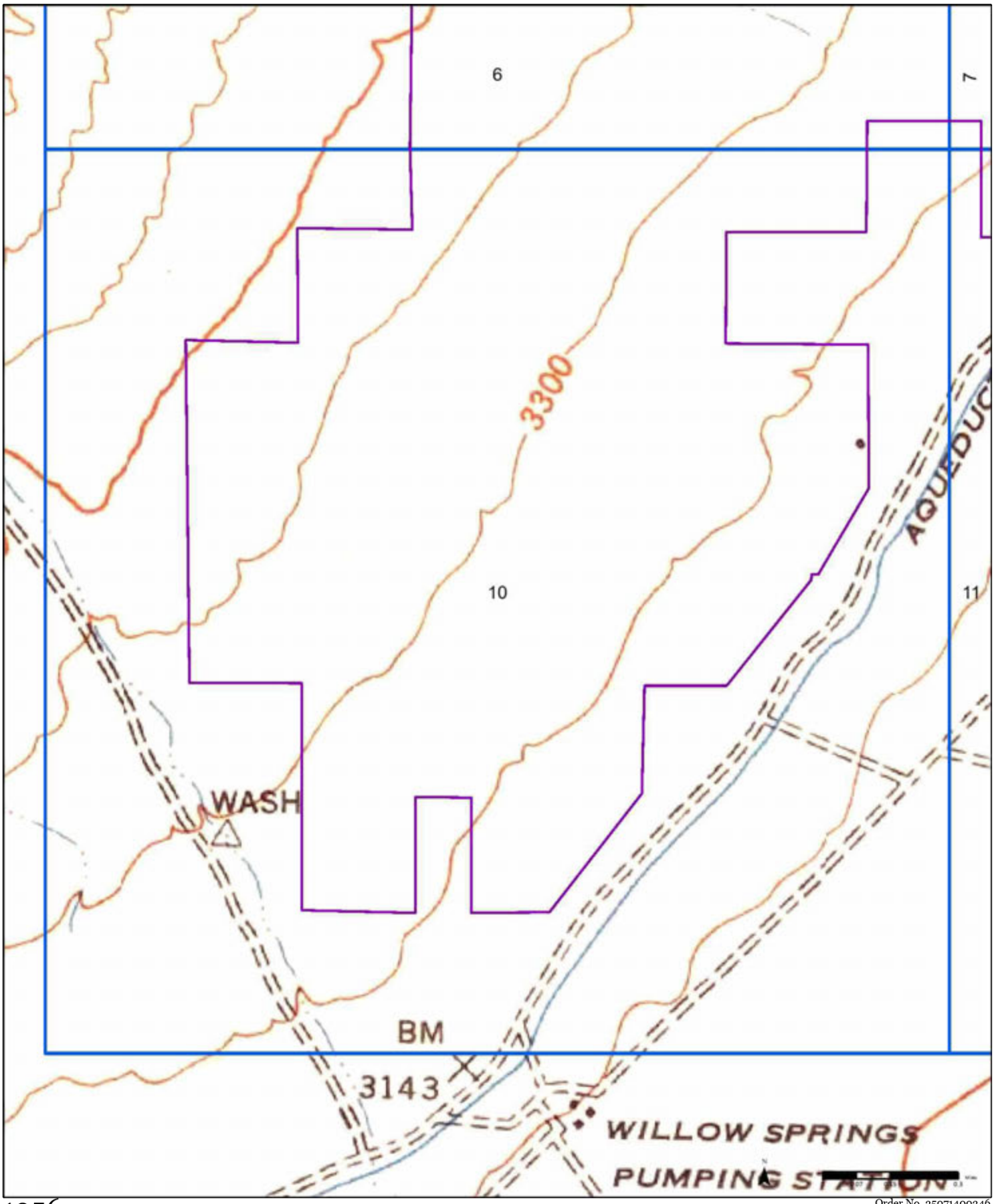
Order No. 25071400346



Available Quadrangle(s): Willow Springs, CA(1-1943)
Tehachapi, CA(2-1943)
Rosamond, CA(3-1956)
Mojave, CA(4-1956)

Source: USGS 15 Minute Topographic Map

PARTNER



1956

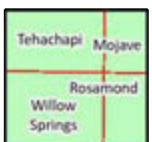
(1-1943) *Aerial Photo Year: 1943*

(2-1943) *Aerial Photo Year: 1943*

(3-1956) *Aerial Photo Year: 1952*

(4-1956) *Aerial Photo Year: 1943*

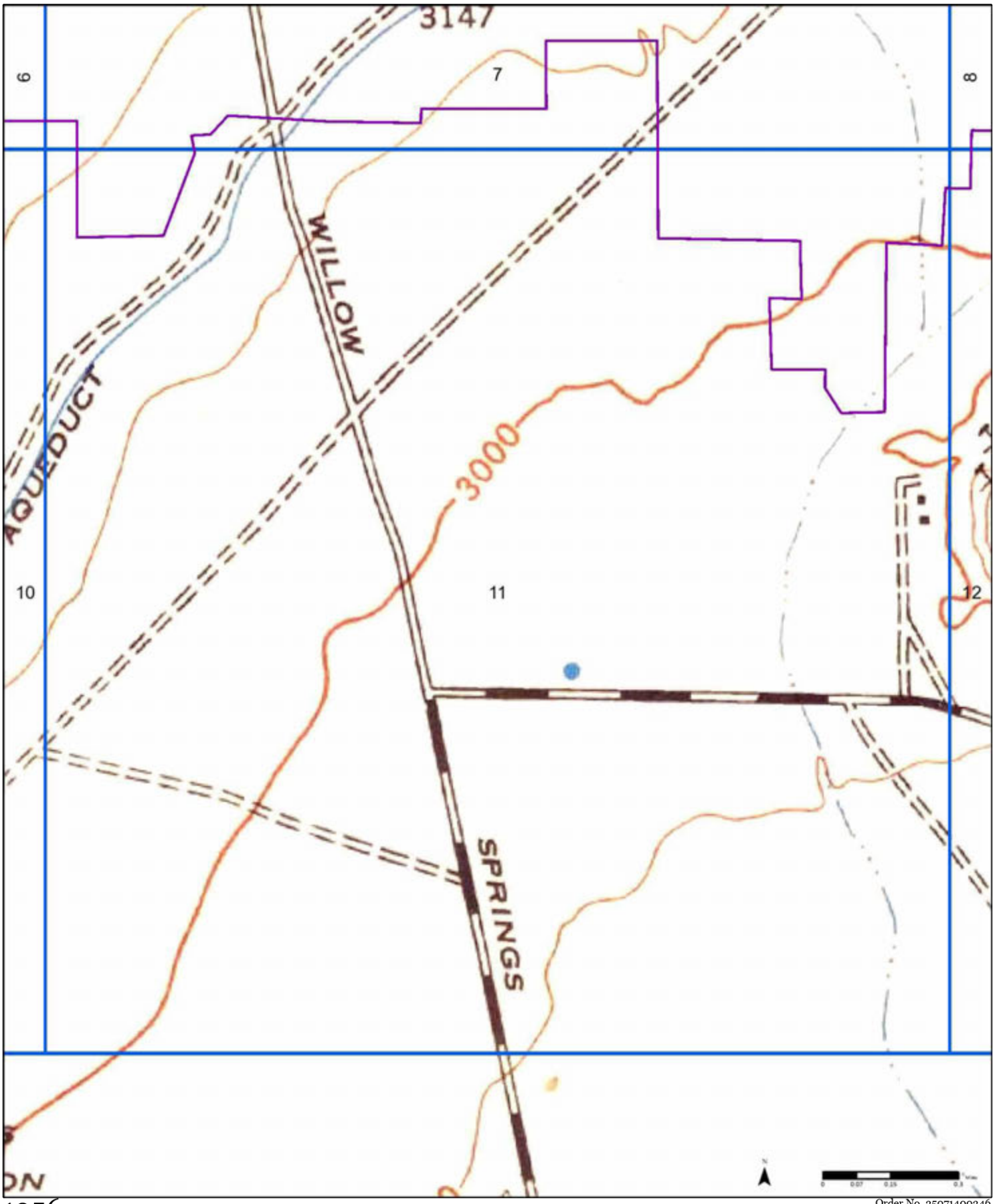
Order No. 25071400346



Available Quadrangle(s): Willow Springs, CA(1-1943)
Tehachapi, CA(2-1943)
Rosamond, CA(3-1956)
Mojave, CA(4-1956)

Source: USGS 15 Minute Topographic Map

PARTNER



1956

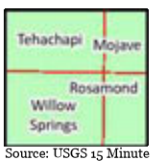
(1-1943) *Aerial Photo Year: 1943*

(2-1943) *Aerial Photo Year: 1943*

(3-1956) *Aerial Photo Year: 1952*

(4-1956) *Aerial Photo Year: 1943*

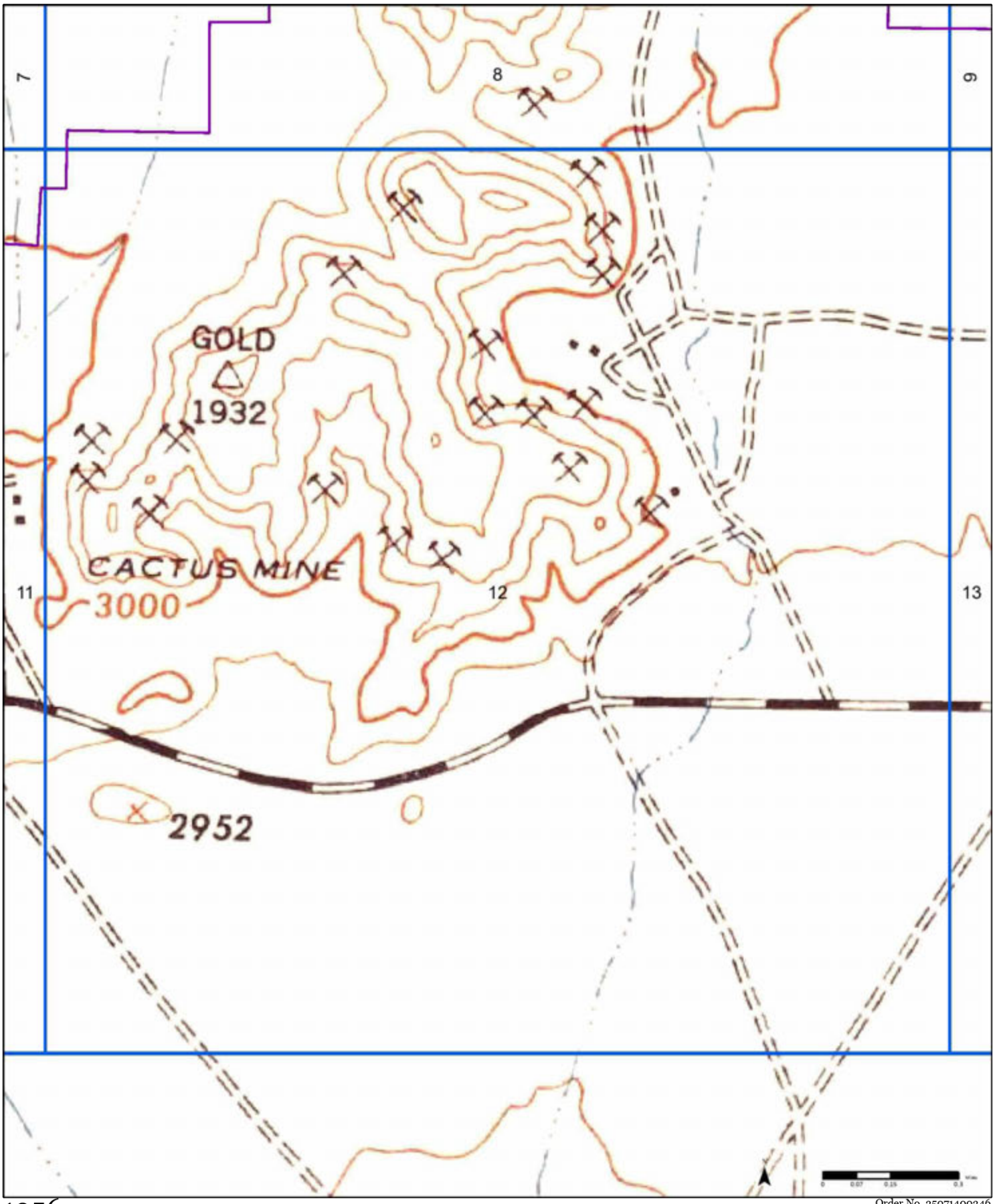
Order No. 25071400346



Available Quadrangle(s): Willow Springs, CA(1-1943)
Tehachapi, CA(2-1943)
Rosamond, CA(3-1956)
Mojave, CA(4-1956)

Source: USGS 15 Minute Topographic Map

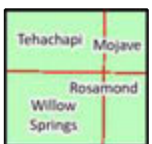
PARTNER



1956

(1-1943) *Aerial Photo Year: 1943*
(2-1943) *Aerial Photo Year: 1943*
(3-1956) *Aerial Photo Year: 1952*
(4-1956) *Aerial Photo Year: 1943*

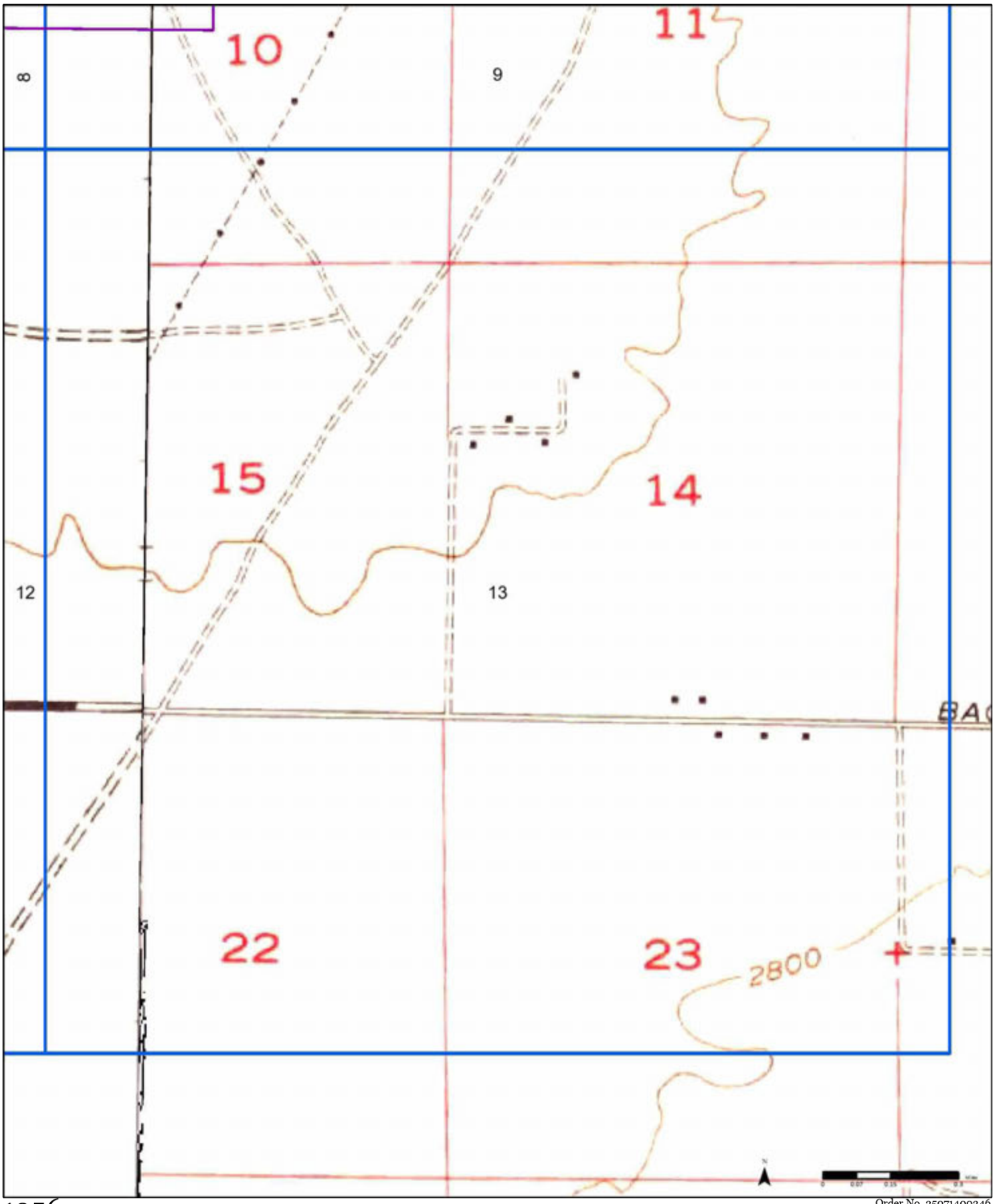
Order No. 25071400346



Available Quadrangle(s): Willow Springs, CA(1-1943)
Tehachapi, CA(2-1943)
Rosamond, CA(3-1956)
Mojave, CA(4-1956)

Source: USGS 15 Minute Topographic Map

PARTNER



1956

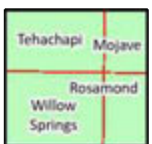
(1-1943) *Aerial Photo Year: 1943*

(2-1943) *Aerial Photo Year: 1943*

(3-1956) *Aerial Photo Year: 1952*

(4-1956) *Aerial Photo Year: 1943*

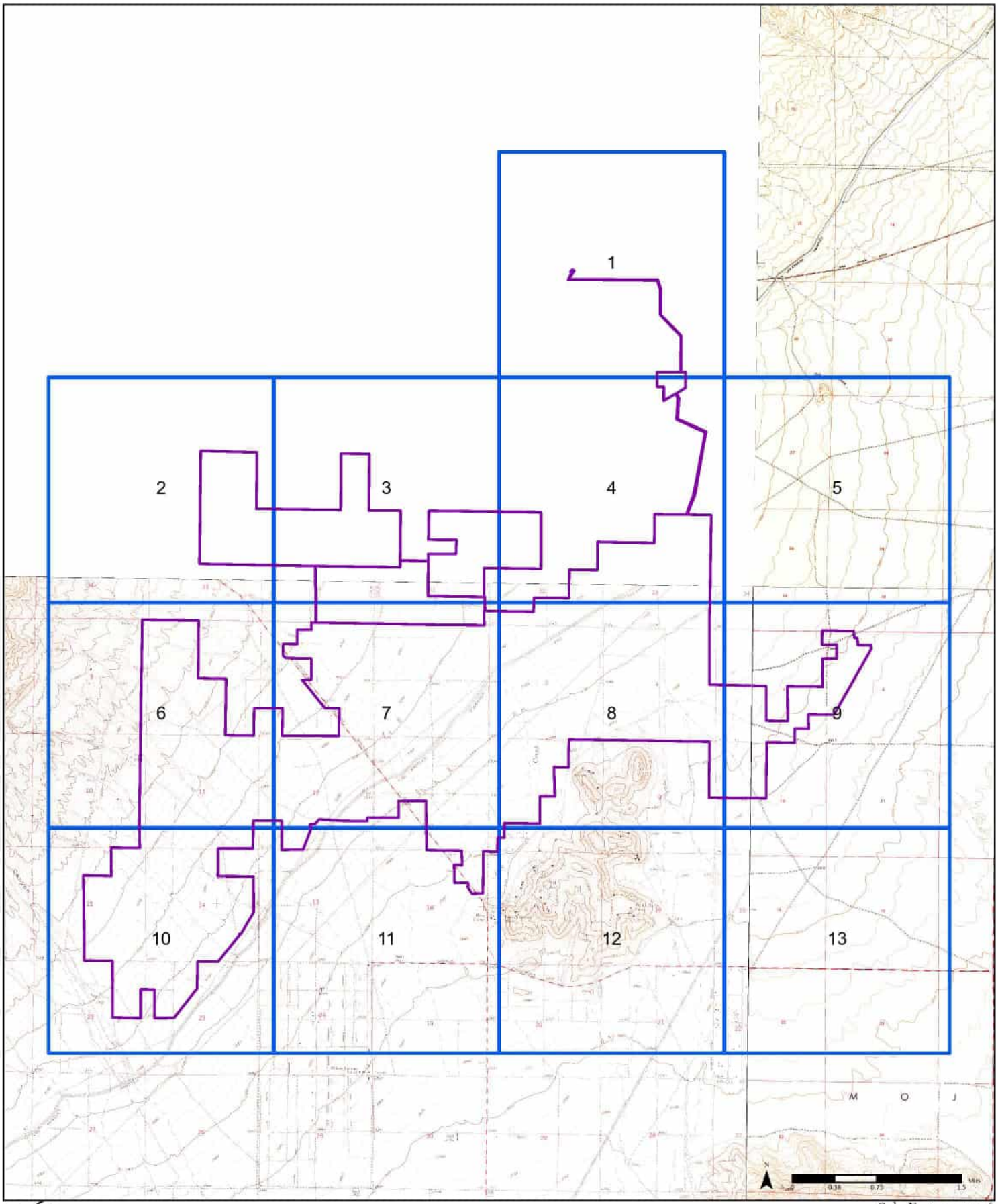
Order No. 25071400346



Available Quadrangle(s): Willow Springs, CA(1-1943)
Tehachapi, CA(2-1943)
Rosamond, CA(3-1956)
Mojave, CA(4-1956)

Source: USGS 15 Minute Topographic Map

PARTNER

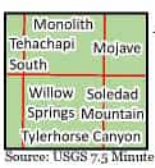


1965

(2-1965) *Aerial Photo Year: 1963*

(3-1965) *Aerial Photo Year: 1963*

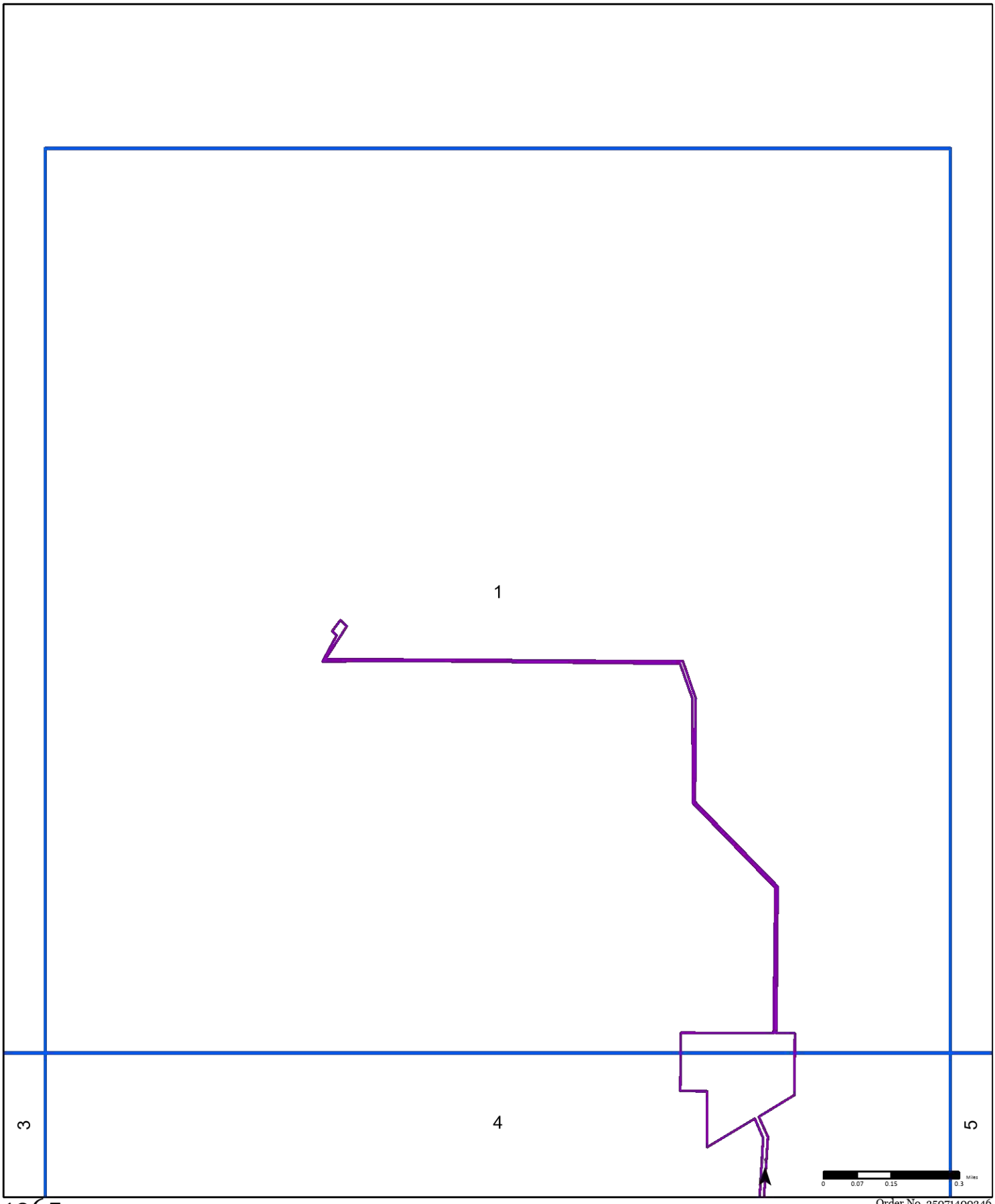
Order No. 25071400346



Available Quadrangle(s): Soledad Mountain, CA
Willow Springs, CA(3-1965)
Mojave, CA(1-1947)
Tylerhorse Canyon, CA(2-1965)

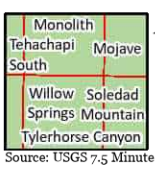
Source: USGS 7.5 Minute Topographic Map

PARTNER



1965 (2-1965) *Aerial Photo Year: 1963* (3-1965) *Aerial Photo Year: 1963*

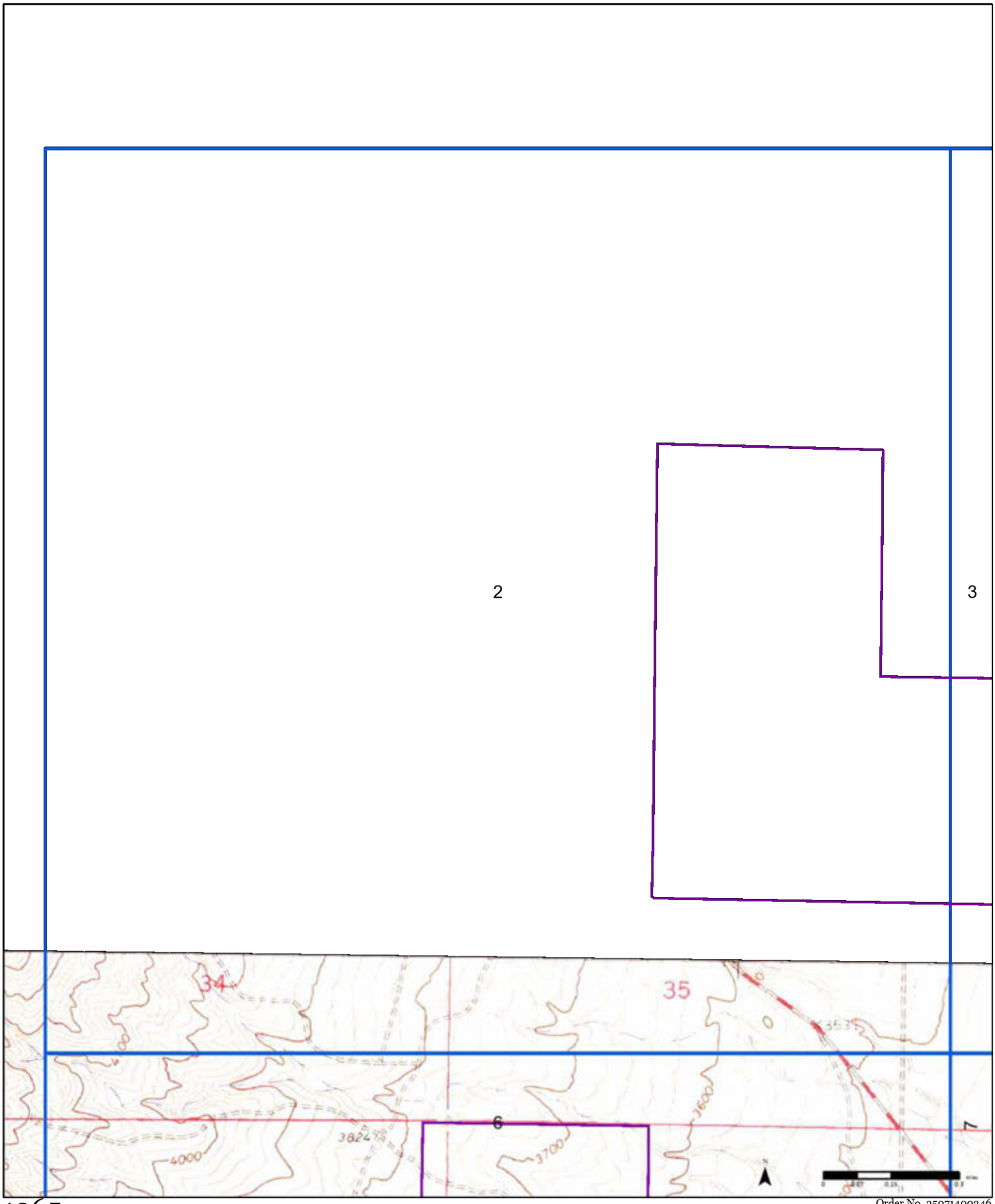
Order No. 25071400346



Available Quadrangle(s): Soledad Mountain, CA
Willow Springs, CA(3-1965)
Mojave, CA(1-1947)
Tylerhorse Canyon, CA(2-1965)

Source: USGS 7.5 Minute Topographic Map

PARTNER

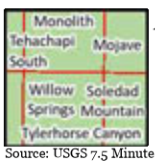


1965

(2-1965) *Aerial Photo Year: 1963*

(3-1965) *Aerial Photo Year: 1963*

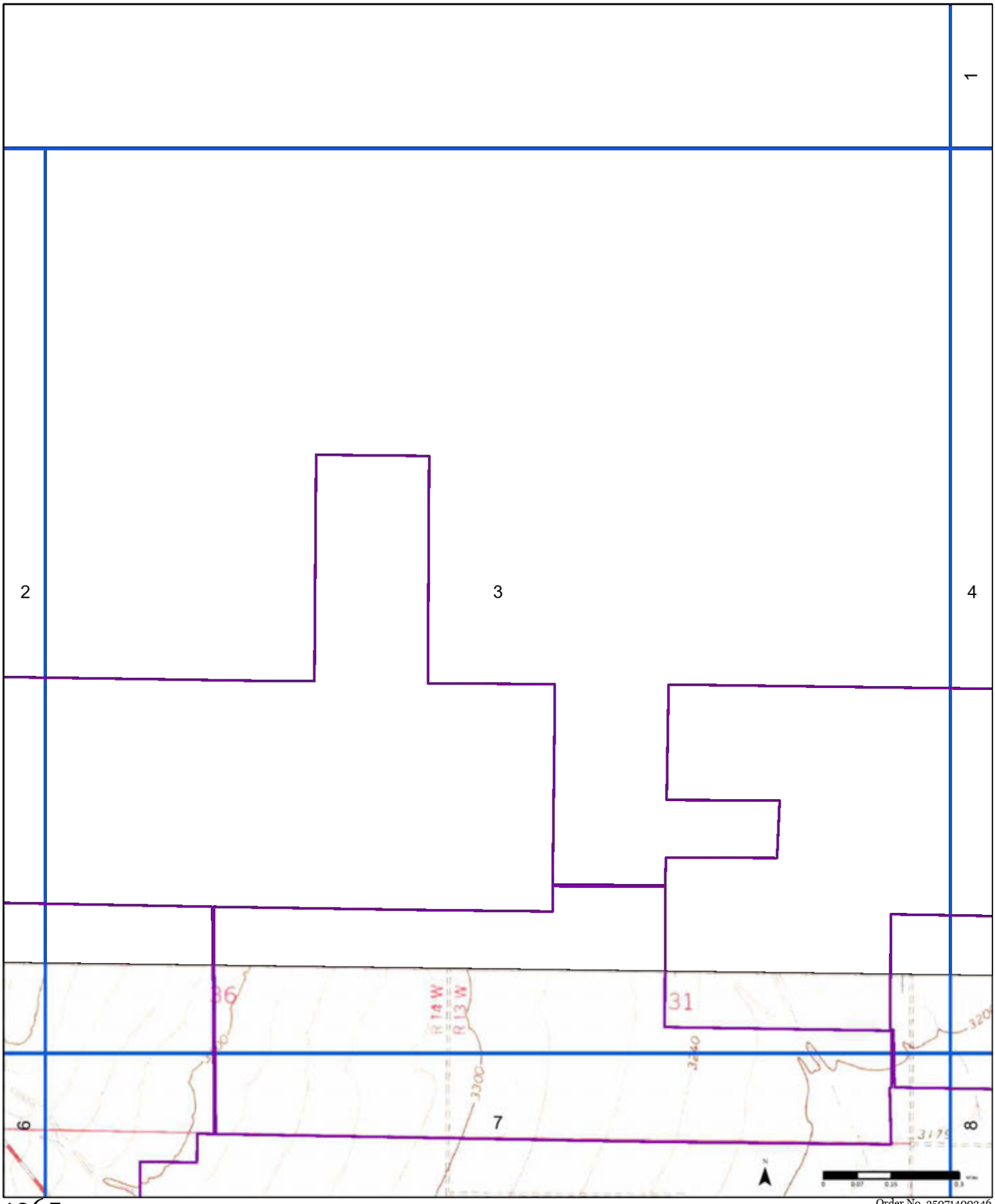
Order No. 25071400346



Available Quadrangle(s): Soledad Mountain, CA
Willow Springs, CA(3-1965)
Mojave, CA(1-1947)
Tylerhorse Canyon, CA(2-1965)

Source: USGS 7.5 Minute Topographic Map

PARTNER

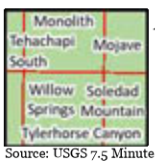


1965

(2-1965) *Aerial Photo Year: 1963*

(3-1965) *Aerial Photo Year: 1963*

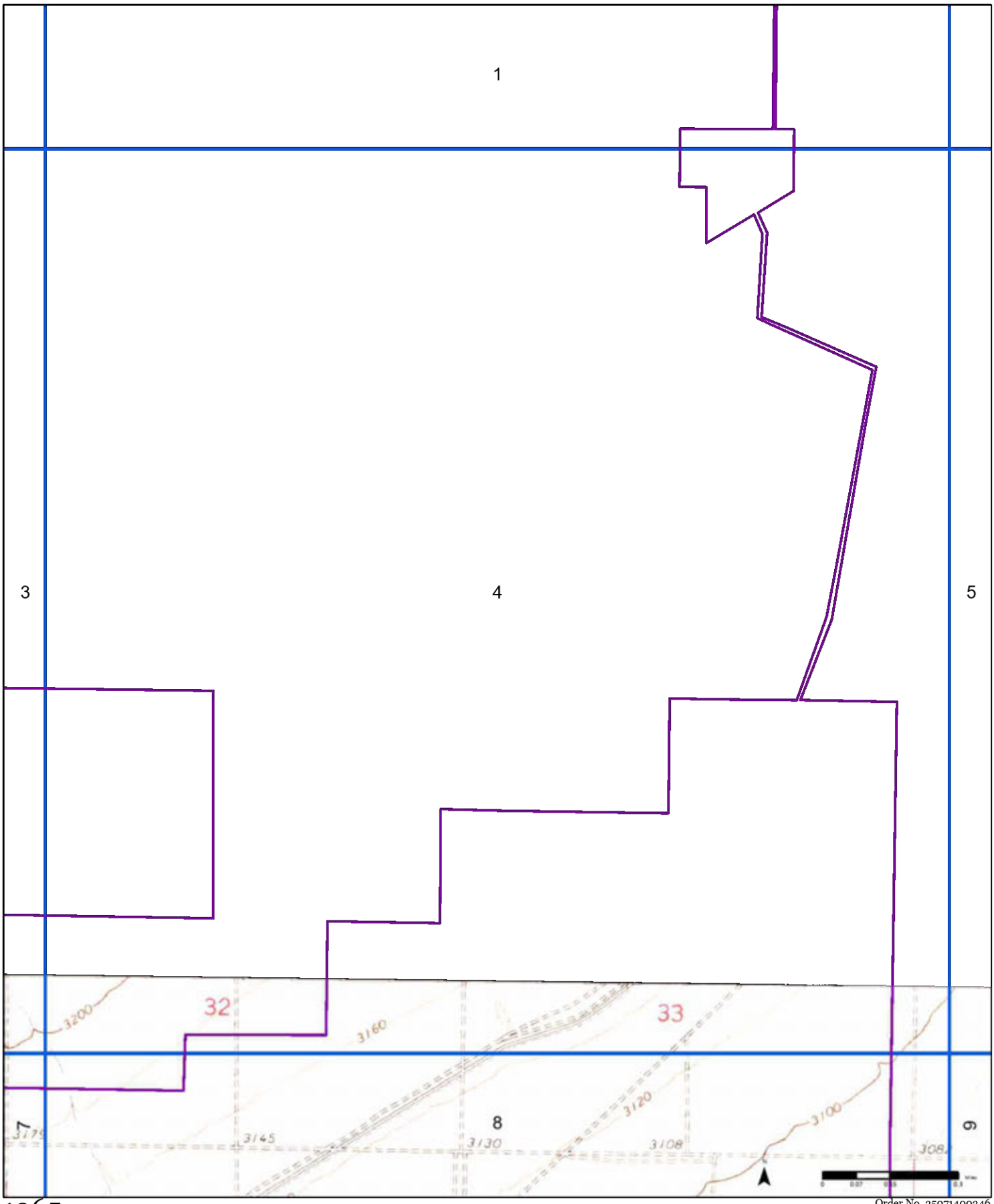
Order No. 25071400346



Available Quadrangle(s): Soledad Mountain, CA
Willow Springs, CA(3-1965)
Mojave, CA(1-1947)
Tylerhorse Canyon, CA(2-1965)

Source: USGS 7.5 Minute Topographic Map

PARTNER

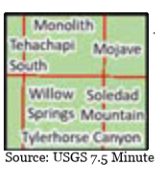


1965

(2-1965) *Aerial Photo Year: 1963*

(3-1965) *Aerial Photo Year: 1963*

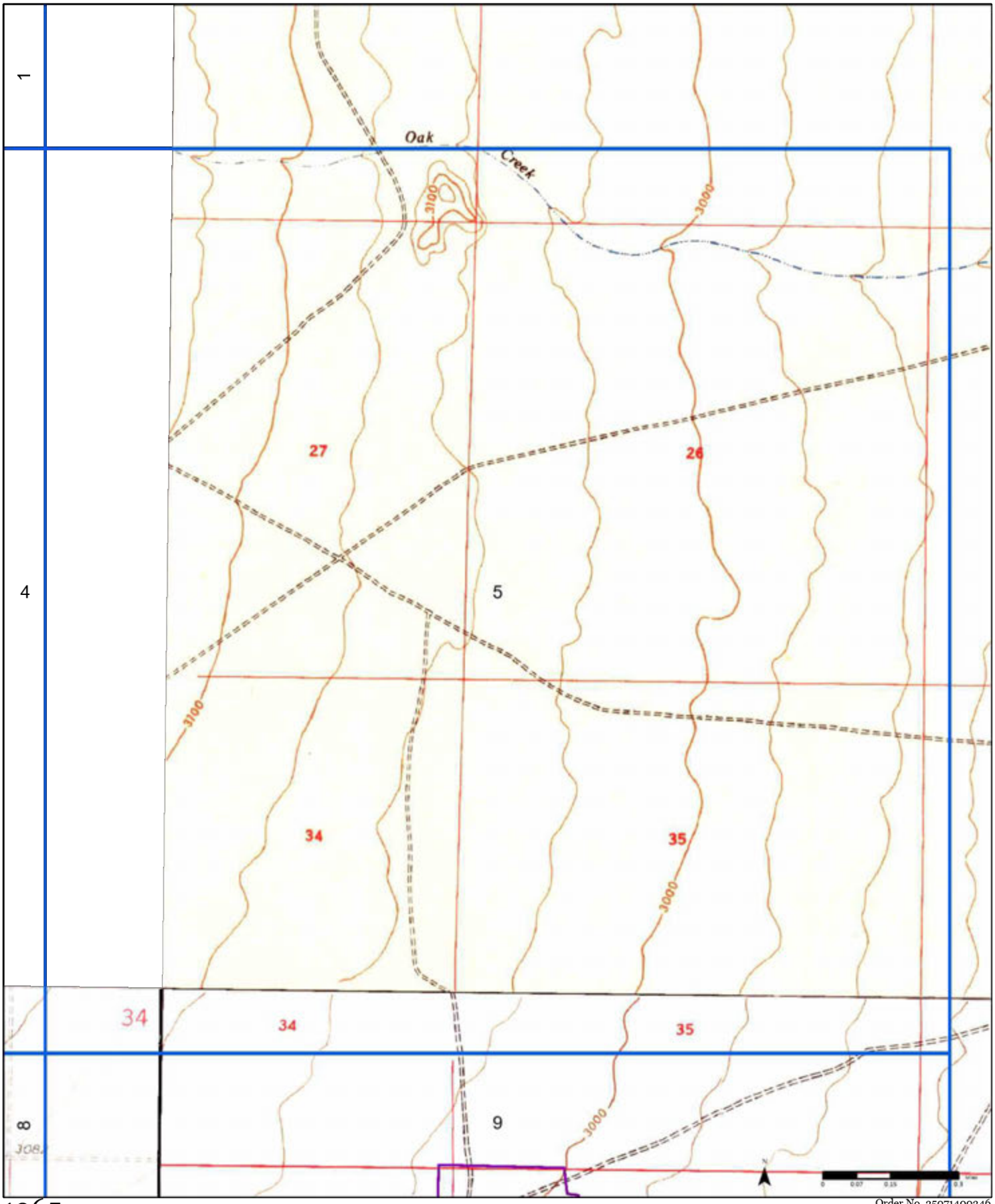
Order No. 25071400346



Available Quadrangle(s): Soledad Mountain, CA
Willow Springs, CA(3-1965)
Mojave, CA(1-1947)
Tylerhorse Canyon, CA(2-1965)

Source: USGS 7.5 Minute Topographic Map

PARTNER

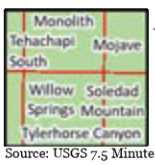


1965

(2-1965) *Aerial Photo Year: 1963*

(3-1965) *Aerial Photo Year: 1963*

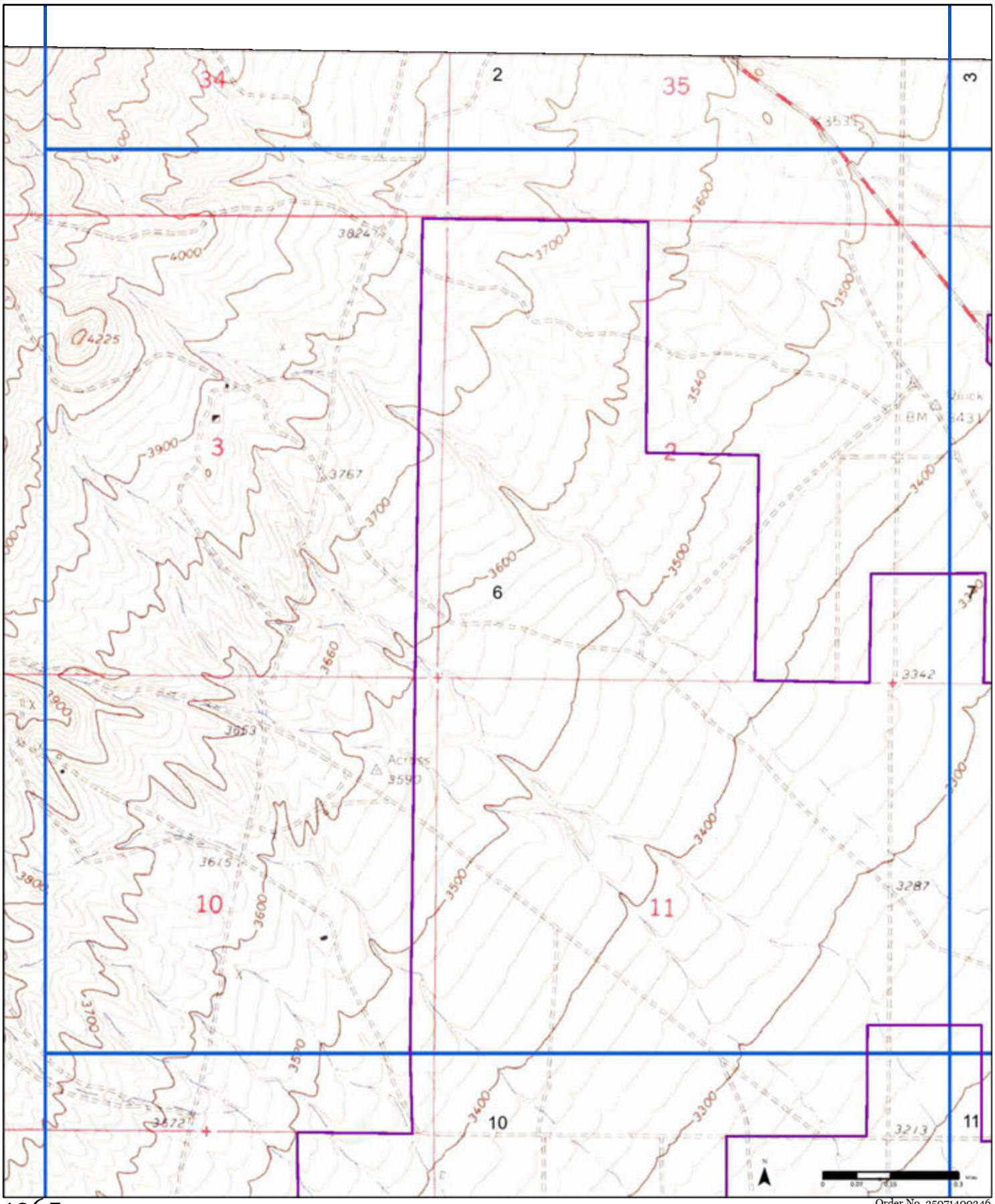
Order No. 25071400346



Available Quadrangle(s): Soledad Mountain, CA
Willow Springs, CA(3-1965)
Mojave, CA(1-1947)
Tylerhorse Canyon, CA(2-1965)

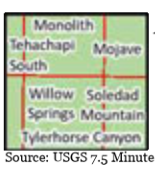
Source: USGS 7.5 Minute Topographic Map

PARTNER



1965 *(2-1965) Aerial Photo Year: 1963* *(3-1965) Aerial Photo Year: 1963*

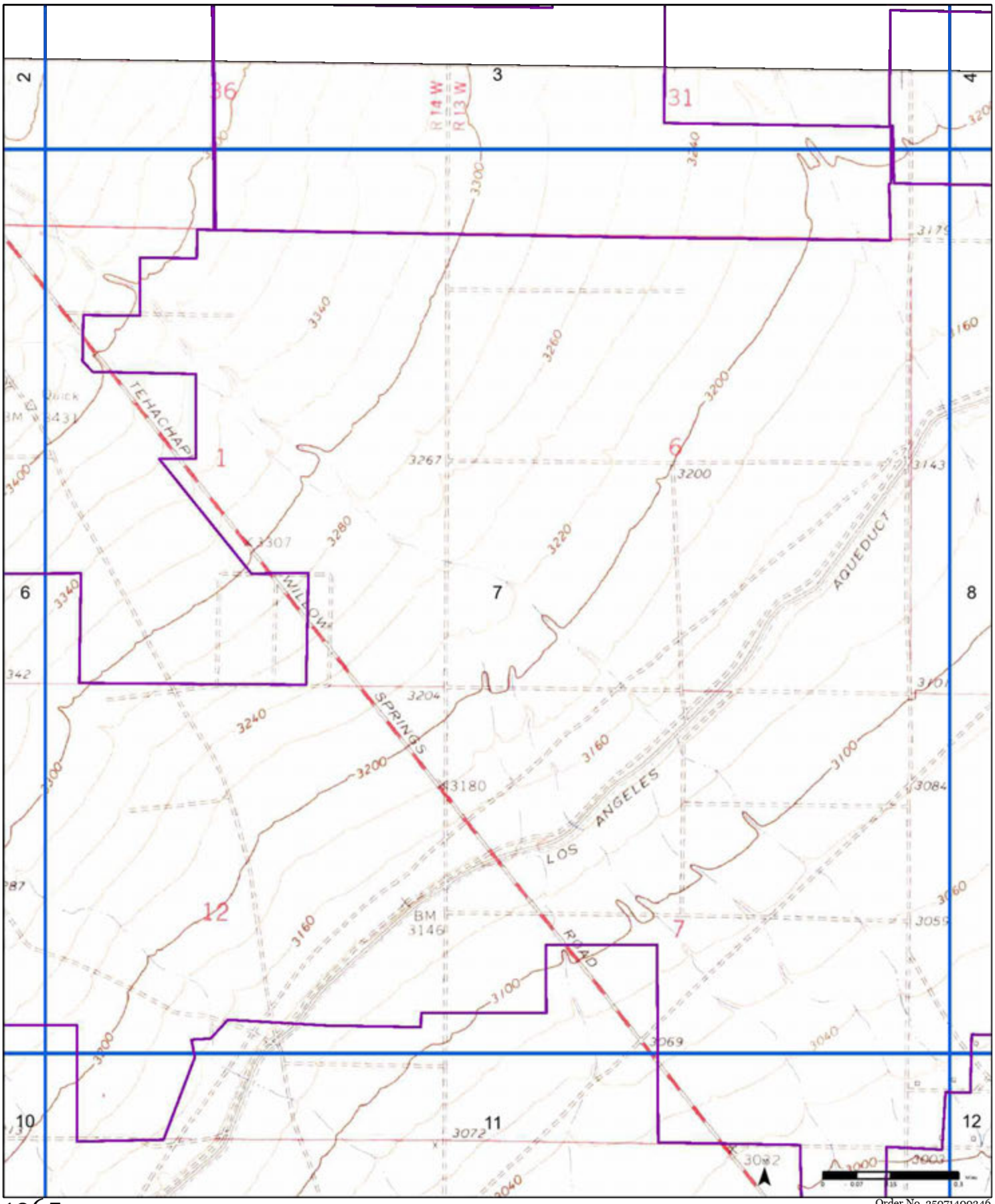
Order No. 25071400346



Available Quadrangle(s): Soledad Mountain, CA
Willow Springs, CA(3-1965)
Mojave, CA(1-1947)
Tylerhorse Canyon, CA(2-1965)

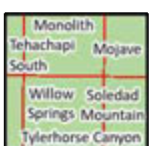
Source: USGS 7.5 Minute Topographic Map

PARTNER



1965 (2-1965) *Aerial Photo Year: 1963* (3-1965) *Aerial Photo Year: 1963*

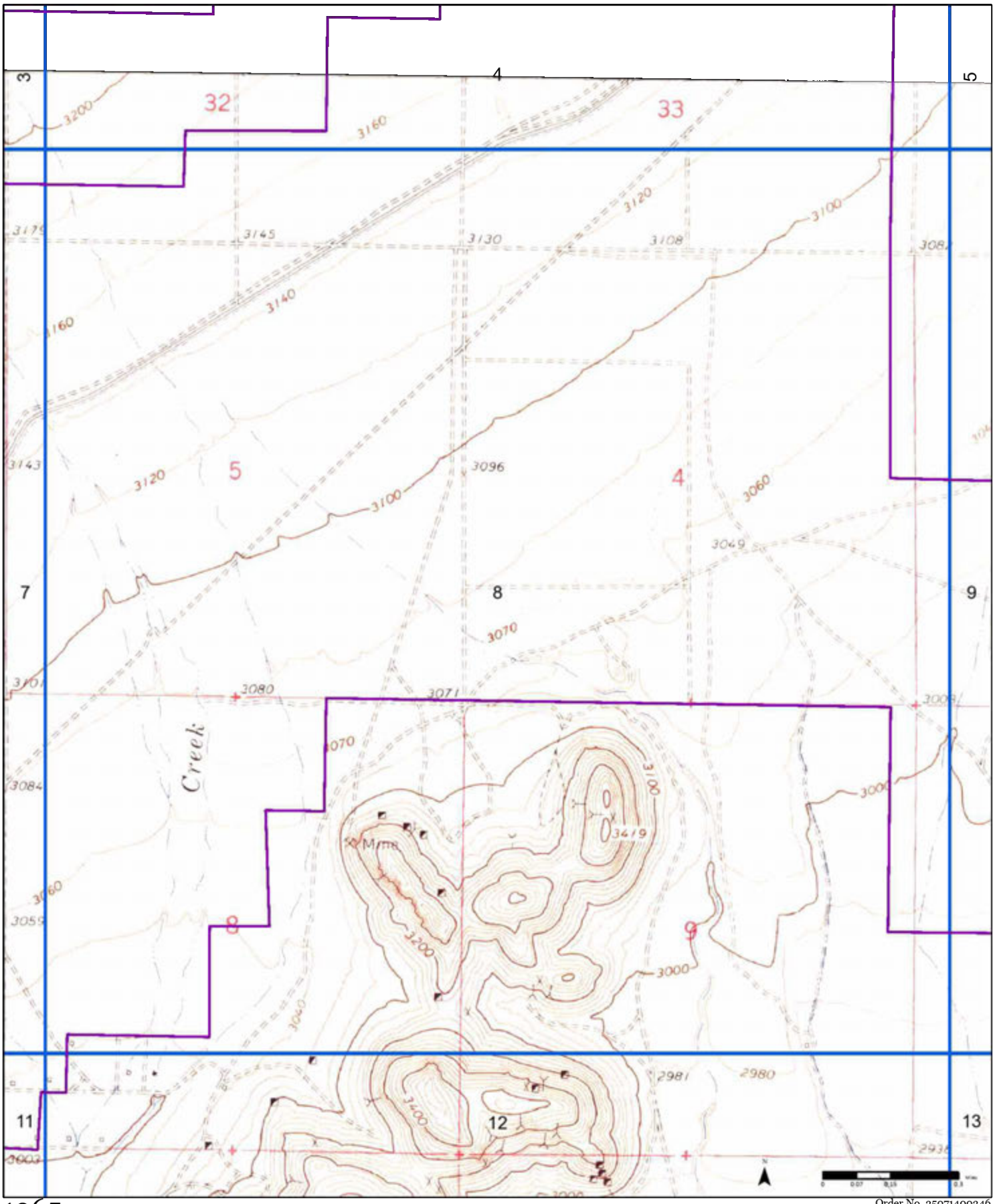
Order No. 25071400346



Available Quadrangle(s): Soledad Mountain, CA
Willow Springs, CA(3-1965)
Mojave, CA(1-1947)
Tylerhorse Canyon, CA(2-1965)

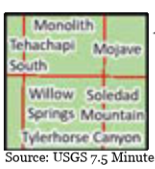
Source: USGS 7.5 Minute Topographic Map

PARTNER



1965 *(2-1965) Aerial Photo Year: 1963* *(3-1965) Aerial Photo Year: 1963*

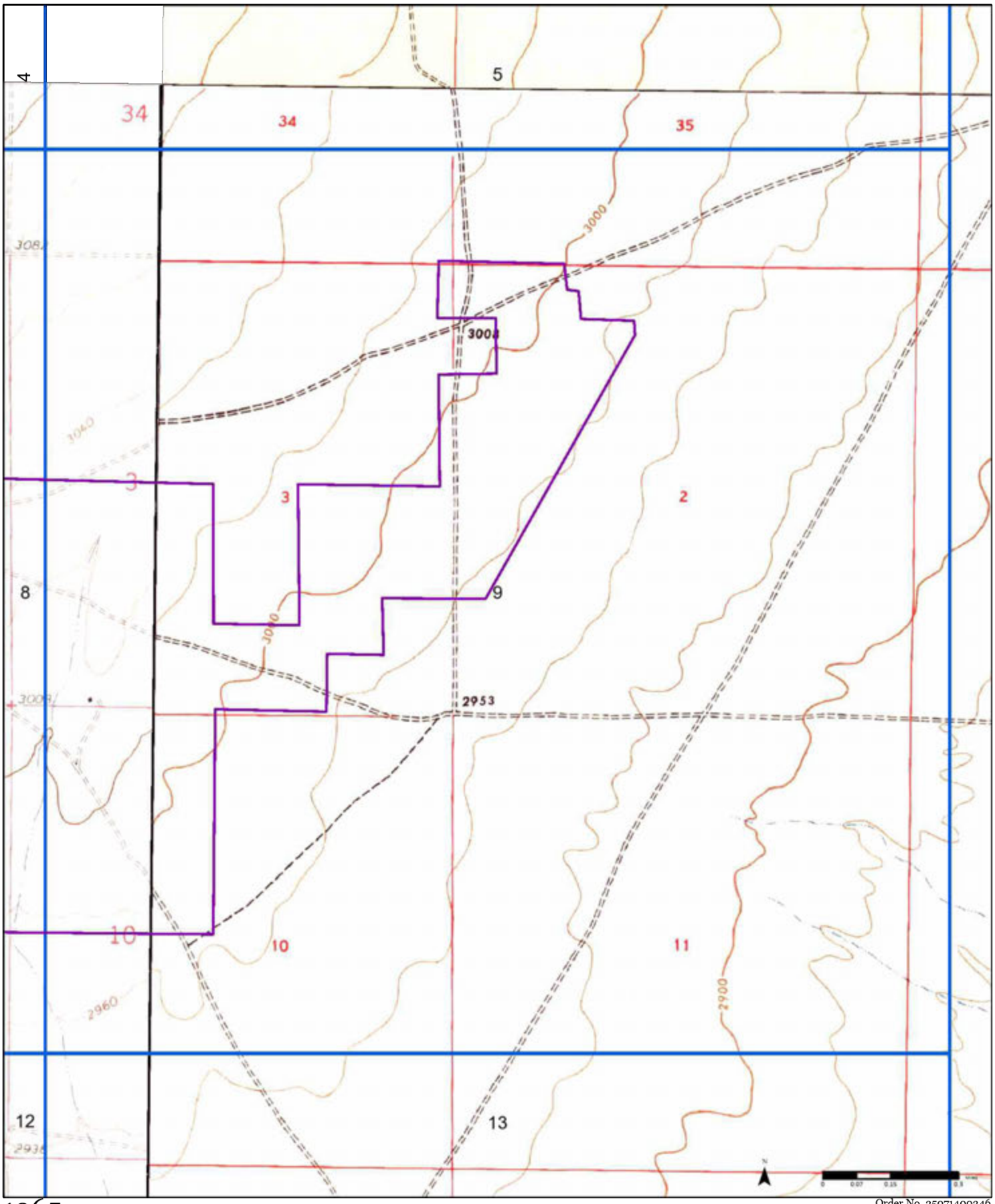
Order No. 25071400346



Available Quadrangle(s): Soledad Mountain, CA
Willow Springs, CA(3-1965)
Mojave, CA(1-1947)
Tylerhorse Canyon, CA(2-1965)

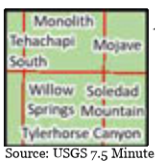
Source: USGS 7.5 Minute Topographic Map

PARTNER



1965 *(2-1965) Aerial Photo Year: 1963* *(3-1965) Aerial Photo Year: 1963*

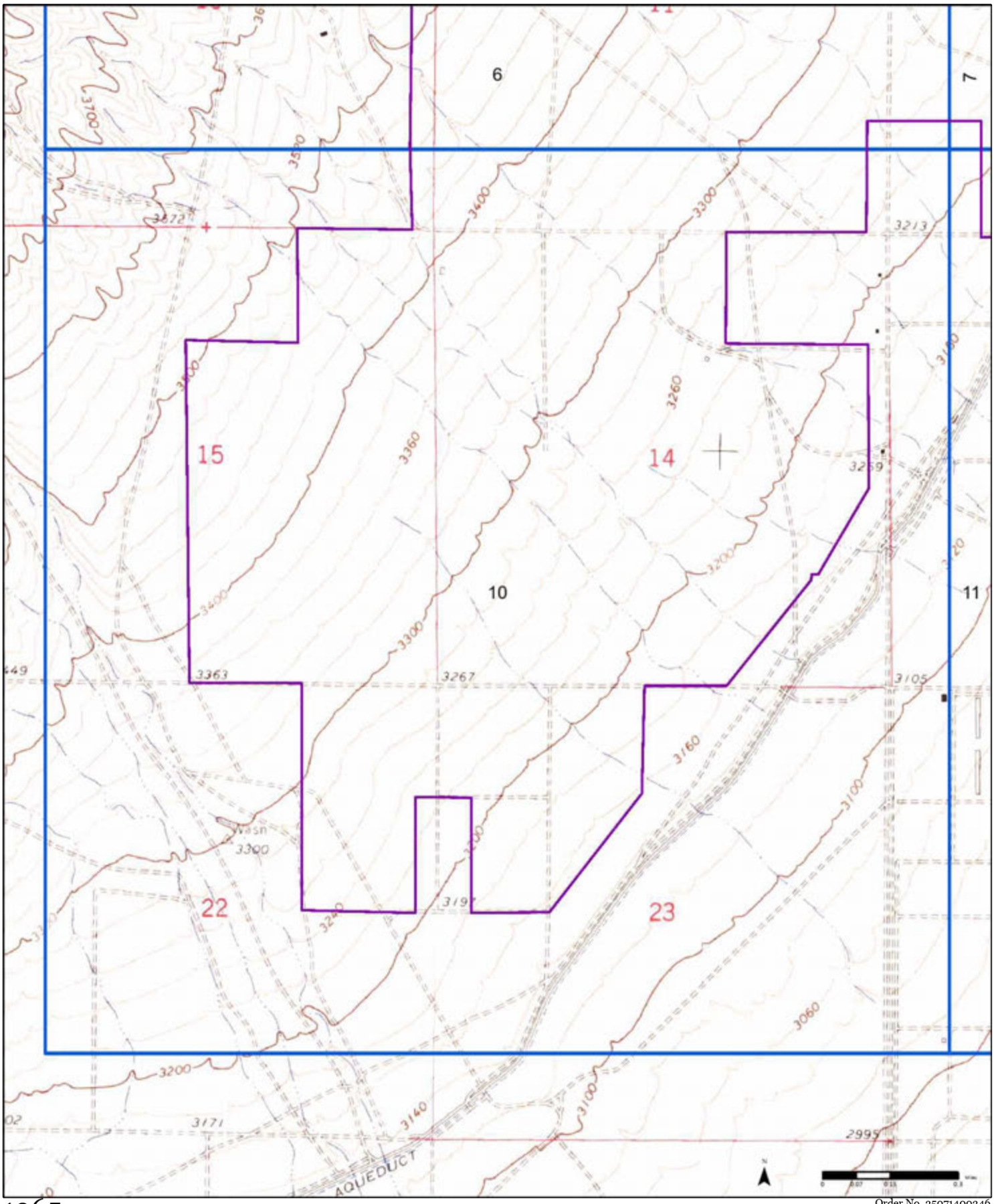
Order No. 25071400346



Available Quadrangle(s): Soledad Mountain, CA
Willow Springs, CA(3-1965)
Mojave, CA(1-1947)
Tylerhorse Canyon, CA(2-1965)

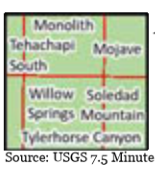
Source: USGS 7.5 Minute Topographic Map

PARTNER



1965 (2-1965) *Aerial Photo Year: 1963* (3-1965) *Aerial Photo Year: 1963*

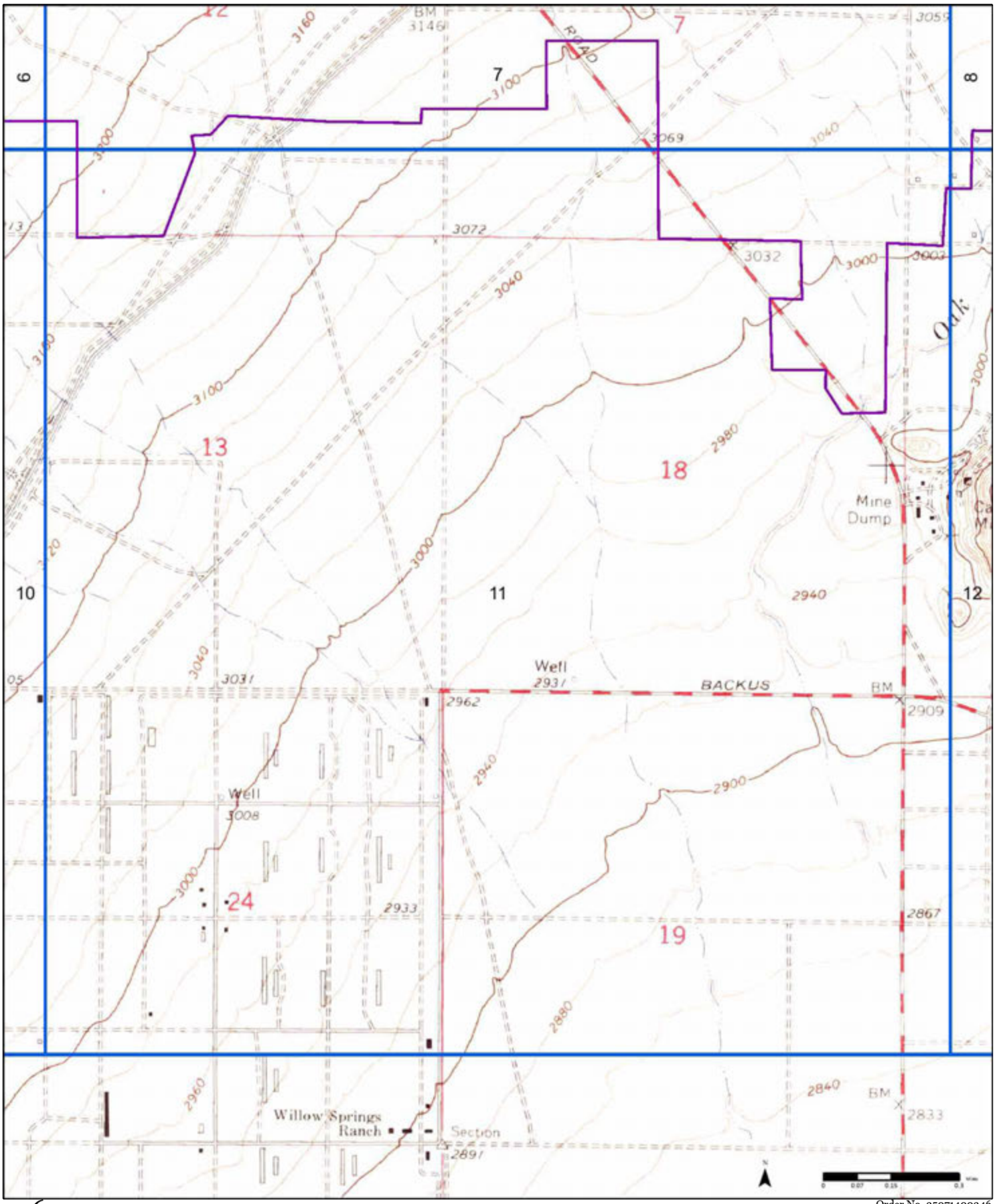
Order No. 25071400346



Available Quadrangle(s): Soledad Mountain, CA
Willow Springs, CA(3-1965)
Mojave, CA(1-1947)
Tylerhorse Canyon, CA(2-1965)

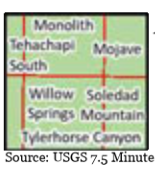
Source: USGS 7.5 Minute Topographic Map

PARTNER



1965 *(2-1965) Aerial Photo Year: 1963* *(3-1965) Aerial Photo Year: 1963*

Order No. 25071400346



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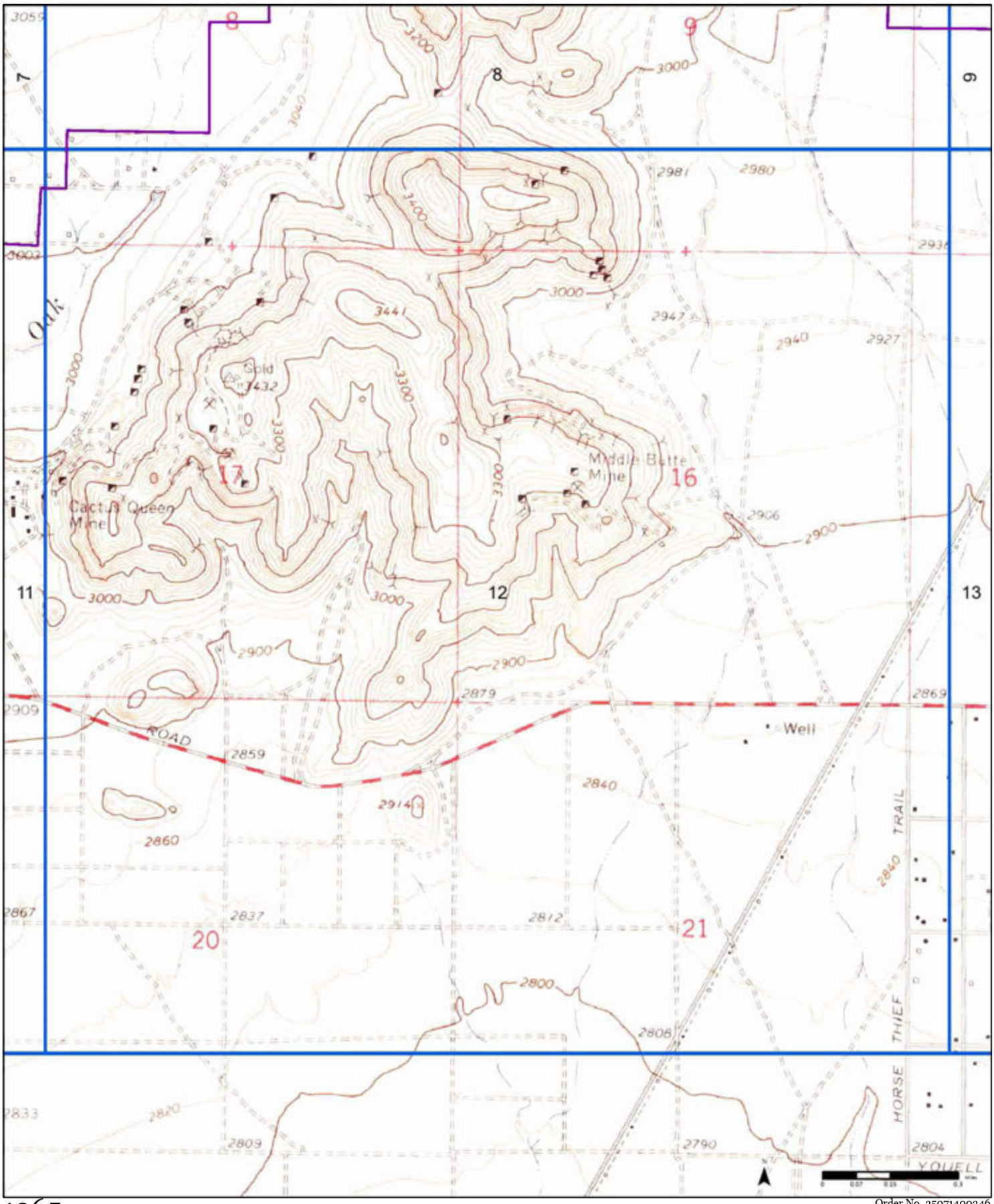
Willow Springs, CA(3-1965)
Mojave, CA(1-1947)
Tylerhorse Canyon, CA(2-1965)

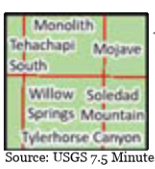
Source: USGS 7.5 Minute Topographic Map

PARTNER



1965 (2-1965) *Aerial Photo Year: 1963* (3-1965) *Aerial Photo Year: 1963*

Order No. 25071400346



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Mojave, CA(1-1947)
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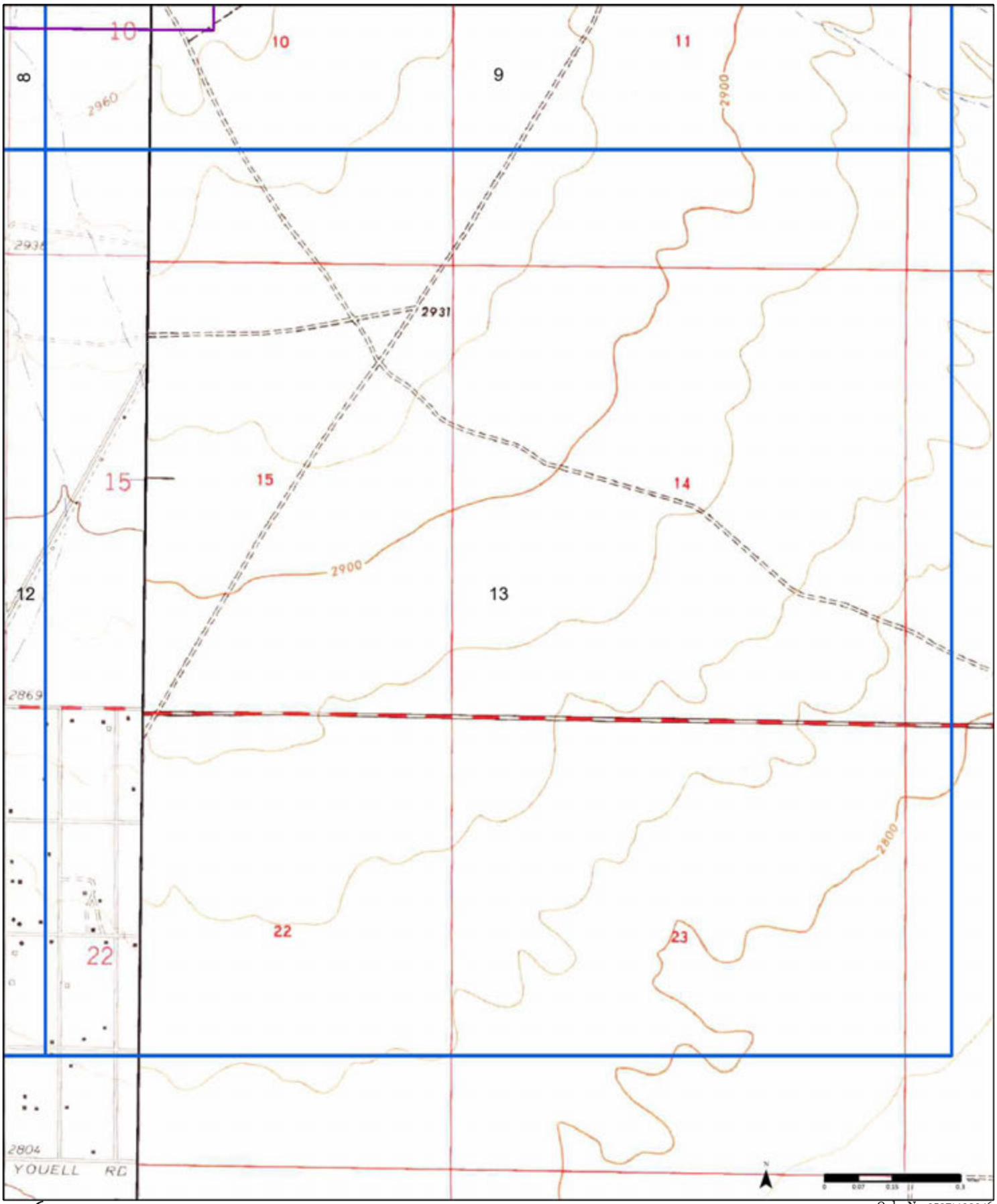
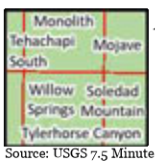
Source: USGS 7.5 Minute Topographic Map

PARTNER



1965 *(2-1965) Aerial Photo Year: 1963* *(3-1965) Aerial Photo Year: 1963*

Order No. 25071400346



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Mojave, CA(1-1947)
Tylerhorse Canyon, CA(2-1965)

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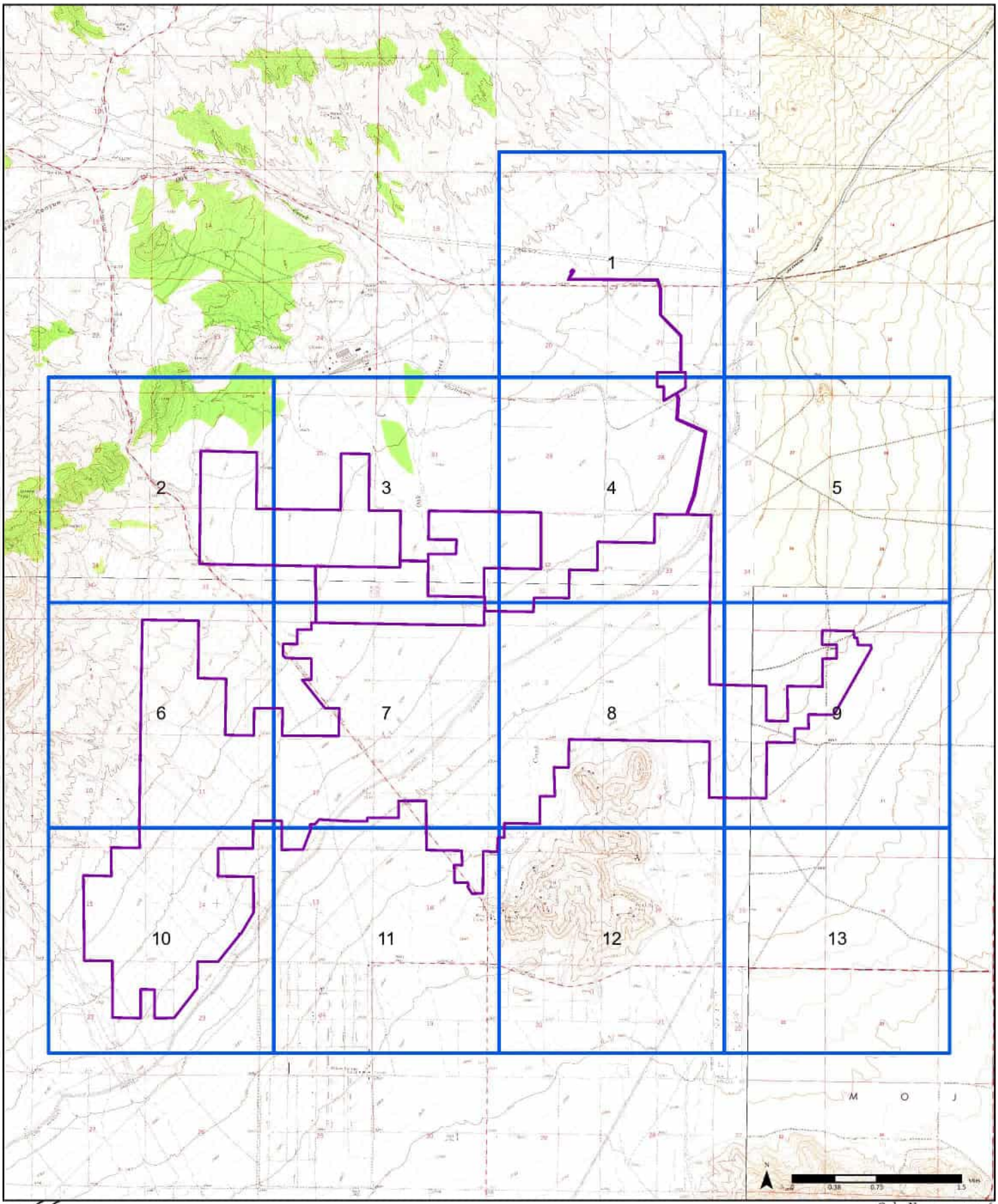


1966

(2-1965) Aerial Photo Year: 1963

(3-1965) Aerial Photo Year: 1963

(4-1966) Aerial Photo Year: 1963

(5-1966) Aerial Photo Year: 1963

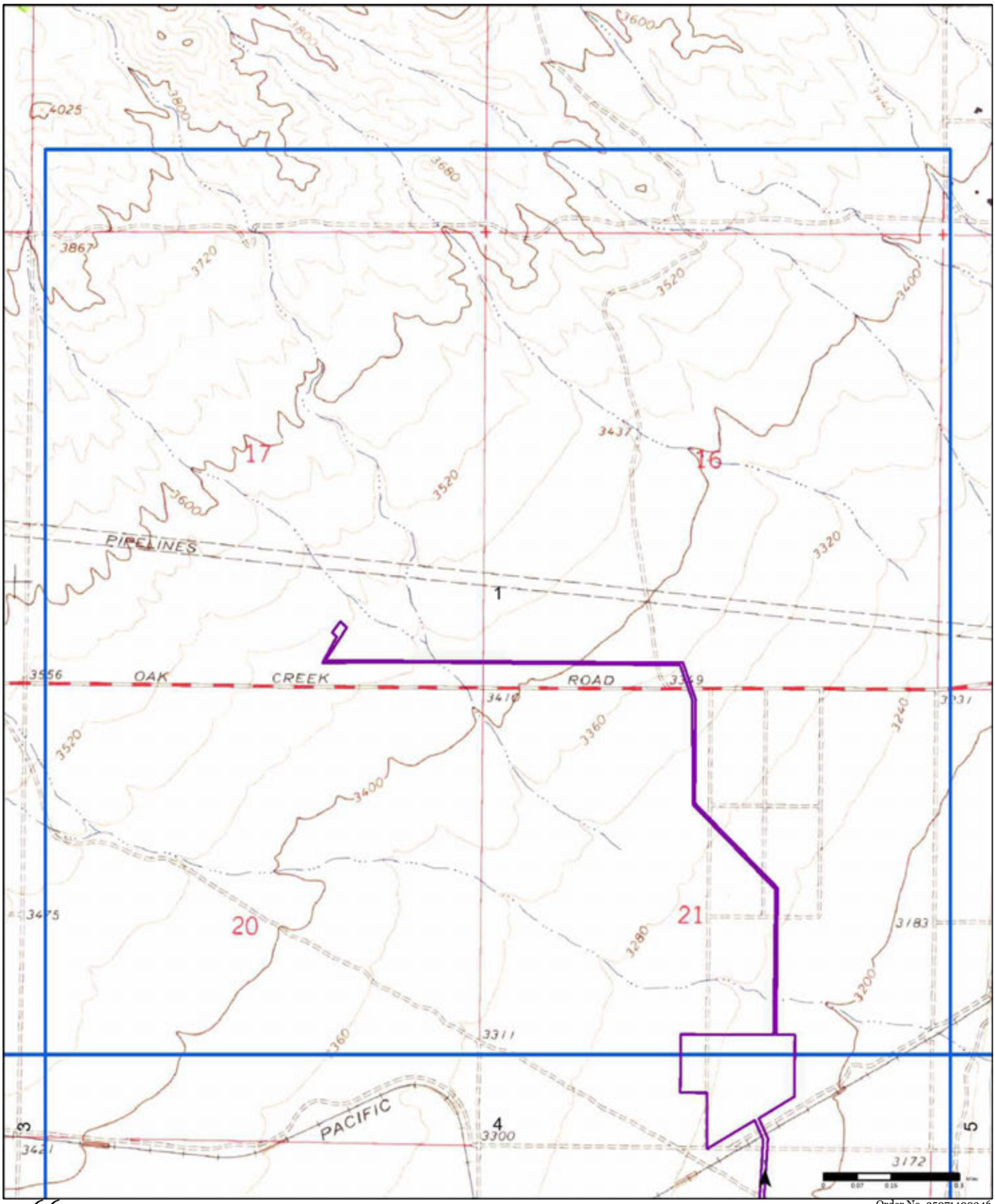
Order No. 25071400346



Available Quadrangle(s): Soledad Mountain, CA
Willow Springs, CA(3-1965)
Monolith, CA(5-1966)
Mojave, CA(1-1947)
Tylerhorse Canyon, CA(2-1965)
Tehachapi South, CA(4-1966)

Source: USGS 7.5 Minute Topographic Map

PARTNER



1966

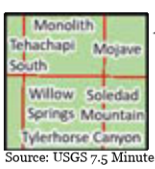
(2-1965) *Aerial Photo Year: 1963*

(3-1965) *Aerial Photo Year: 1963*

(4-1966) *Aerial Photo Year: 1963*

(5-1966) *Aerial Photo Year: 1963*

Order No. 25071400346



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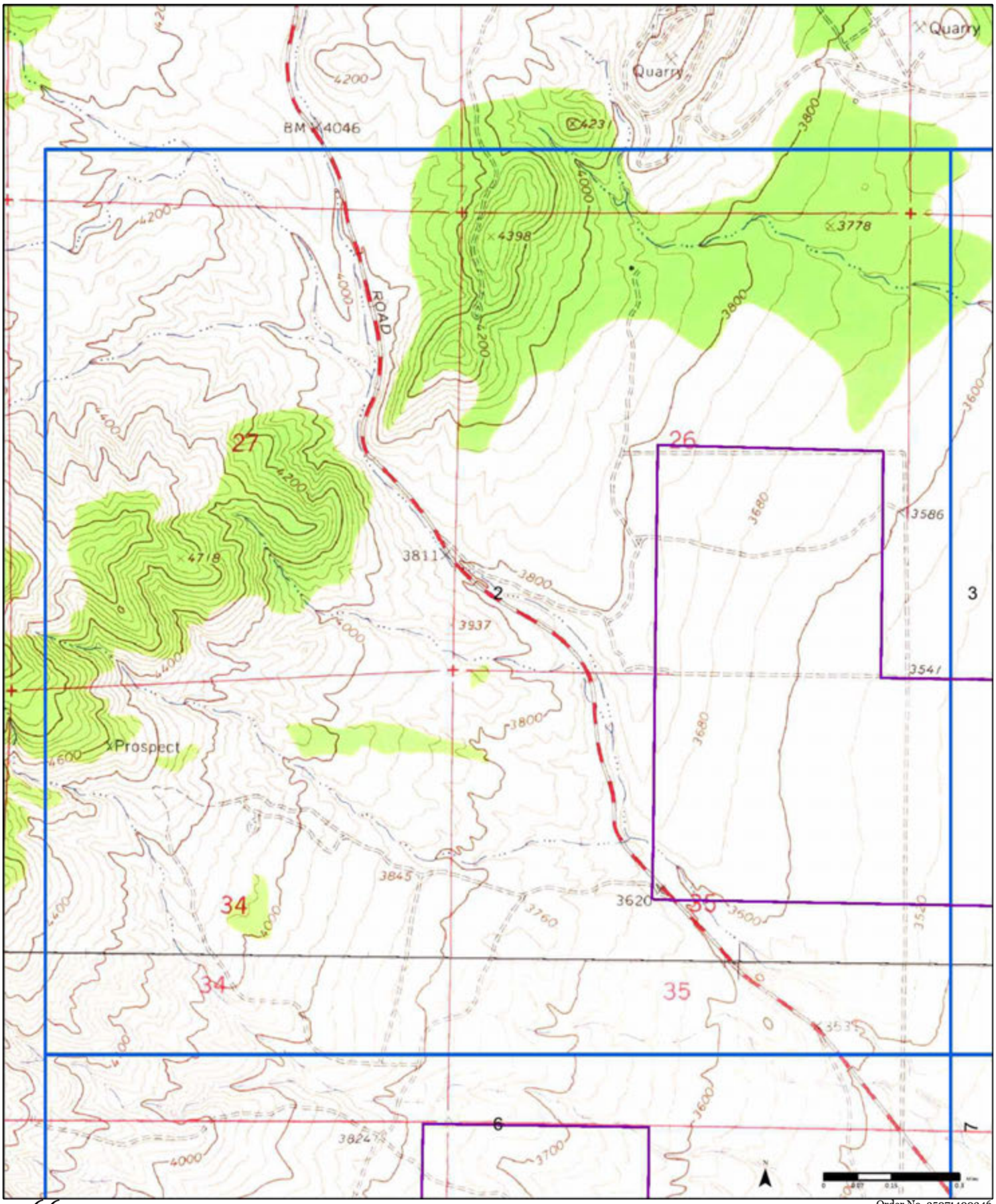
Tehachapi South, CA(4-1966)

Source: USGS 7.5 Minute Topographic Map

PARTNER



1966

(2-1965) Aerial Photo Year: 1963 *(3-1965) Aerial Photo Year: 1963* *(4-1966) Aerial Photo Year: 1963* *(5-1966) Aerial Photo Year: 1963*

Order No. 25071400346



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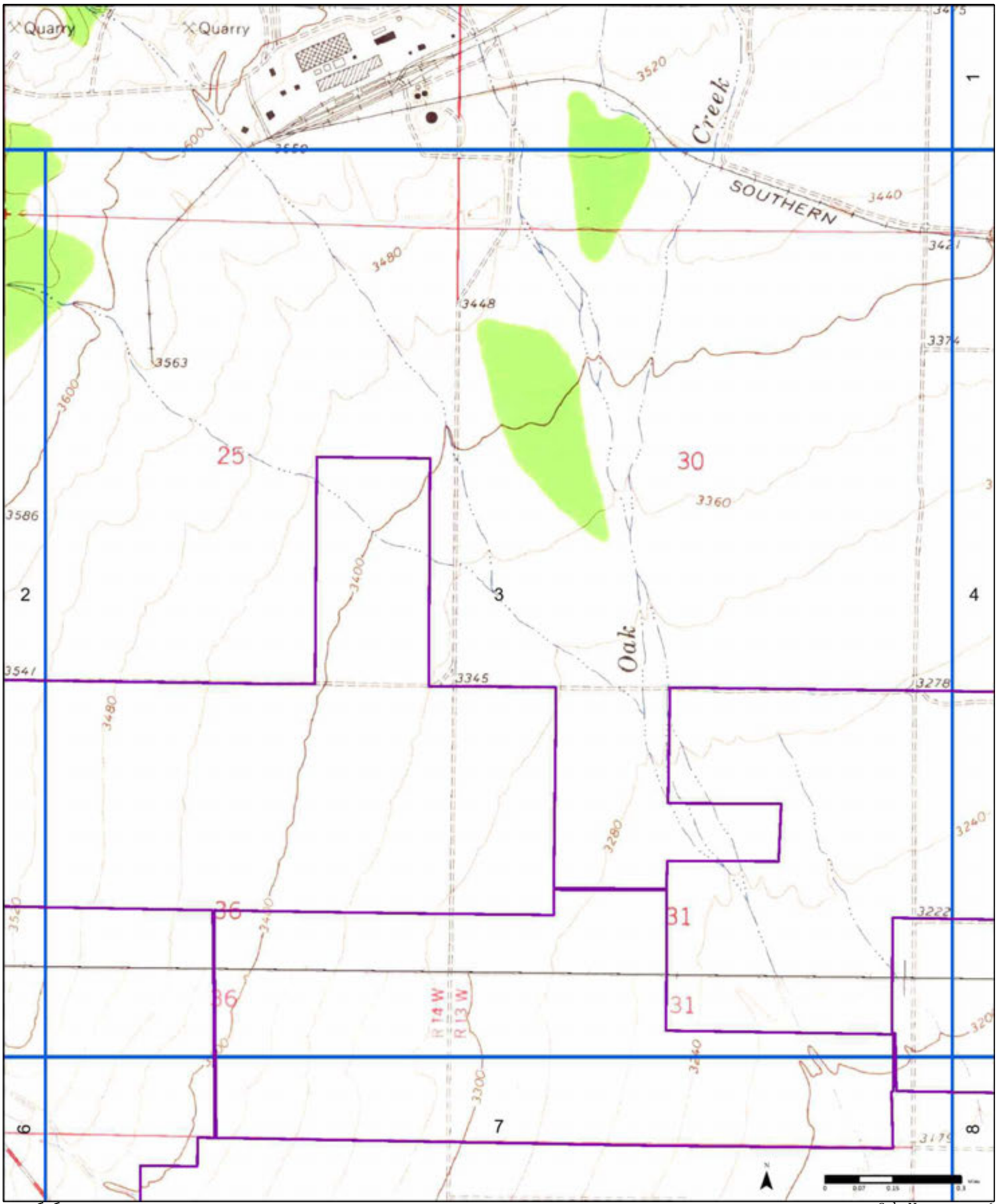
Tehachapi South, CA(4-1966)

Source: USGS 7.5 Minute Topographic Map

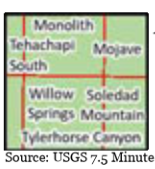
PARTNER



1966

(2-1965) Aerial Photo Year: 1963 *(3-1965) Aerial Photo Year: 1963* *(4-1966) Aerial Photo Year: 1963* *(5-1966) Aerial Photo Year: 1963*

Order No. 25071400346



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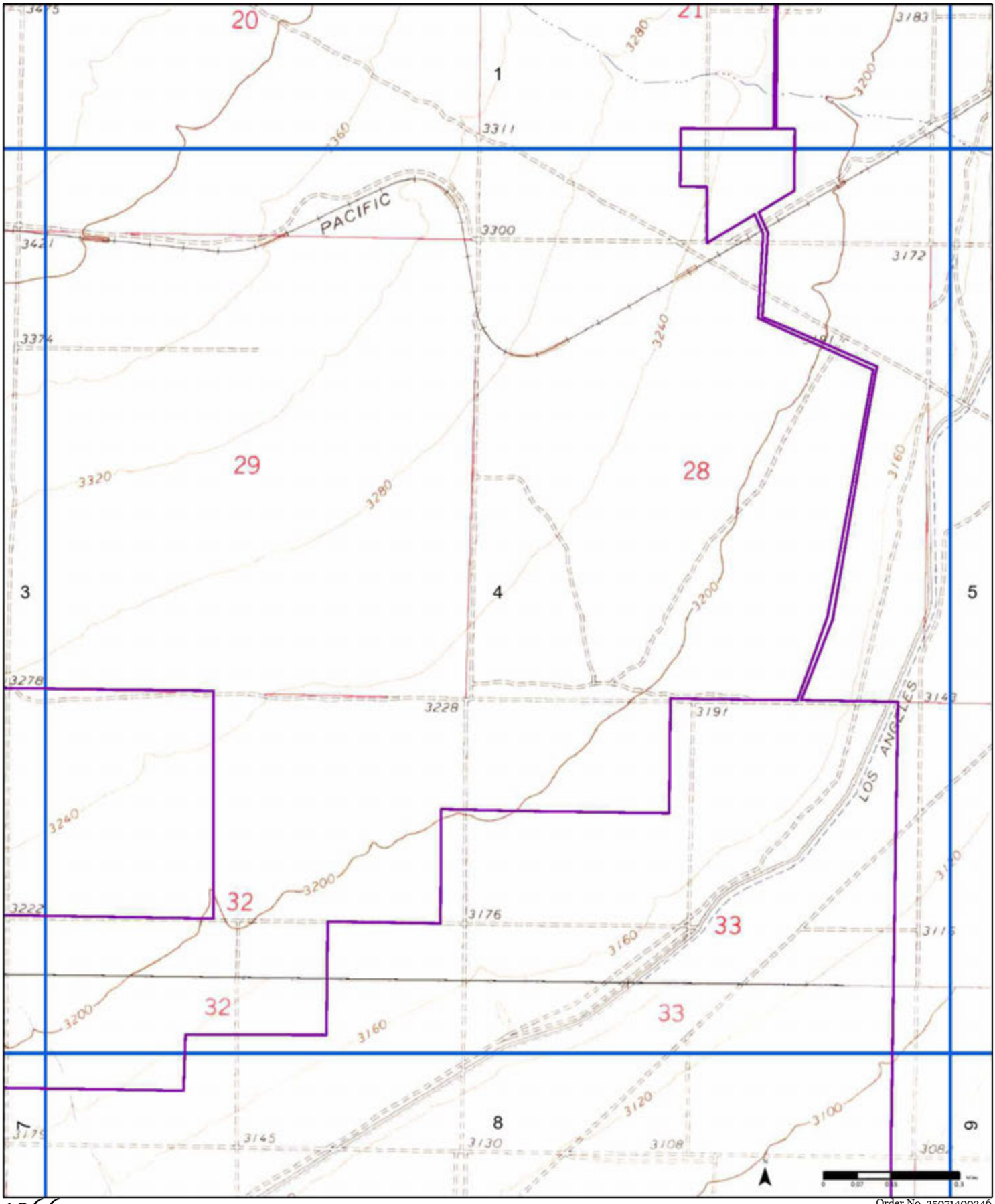

1966

(2-1965) *Aerial Photo Year: 1963*
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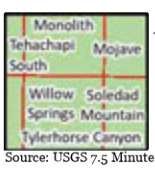
(4-1966) *Aerial Photo Year: 1963*
(5-1966) *Aerial Photo Year: 1963*

Order No. 25071400346



Available Quadrangle(s): Soledad Mountain, CA
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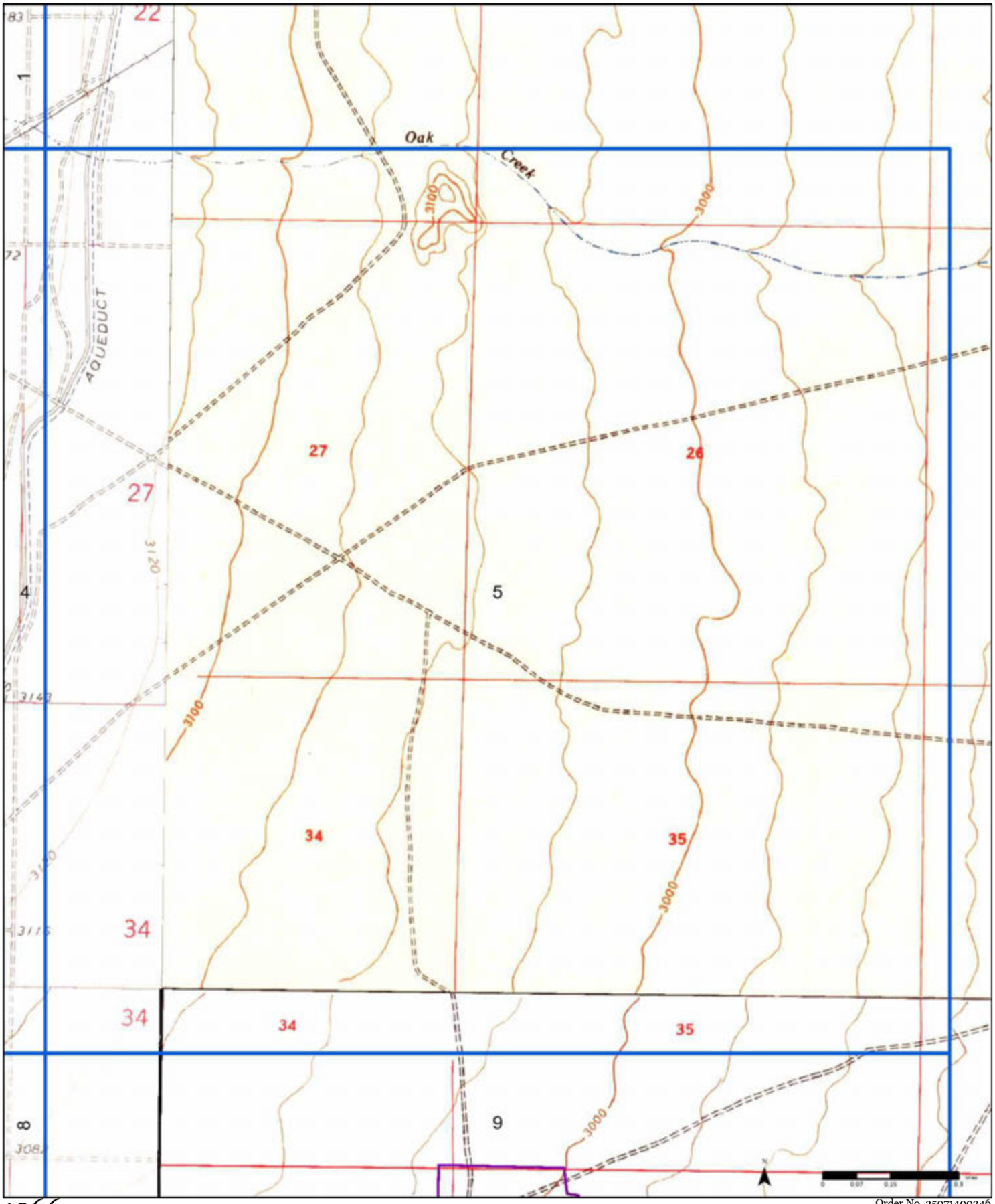
Source: USGS 7.5 Minute Topographic Map

PARTNER



1966

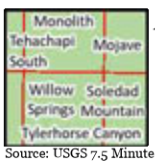
(2-1965) *Aerial Photo Year: 1963*

(3-1965) *Aerial Photo Year: 1963*

(4-1966) *Aerial Photo Year: 1963*

(5-1966) *Aerial Photo Year: 1963*

Order No. 25071400346



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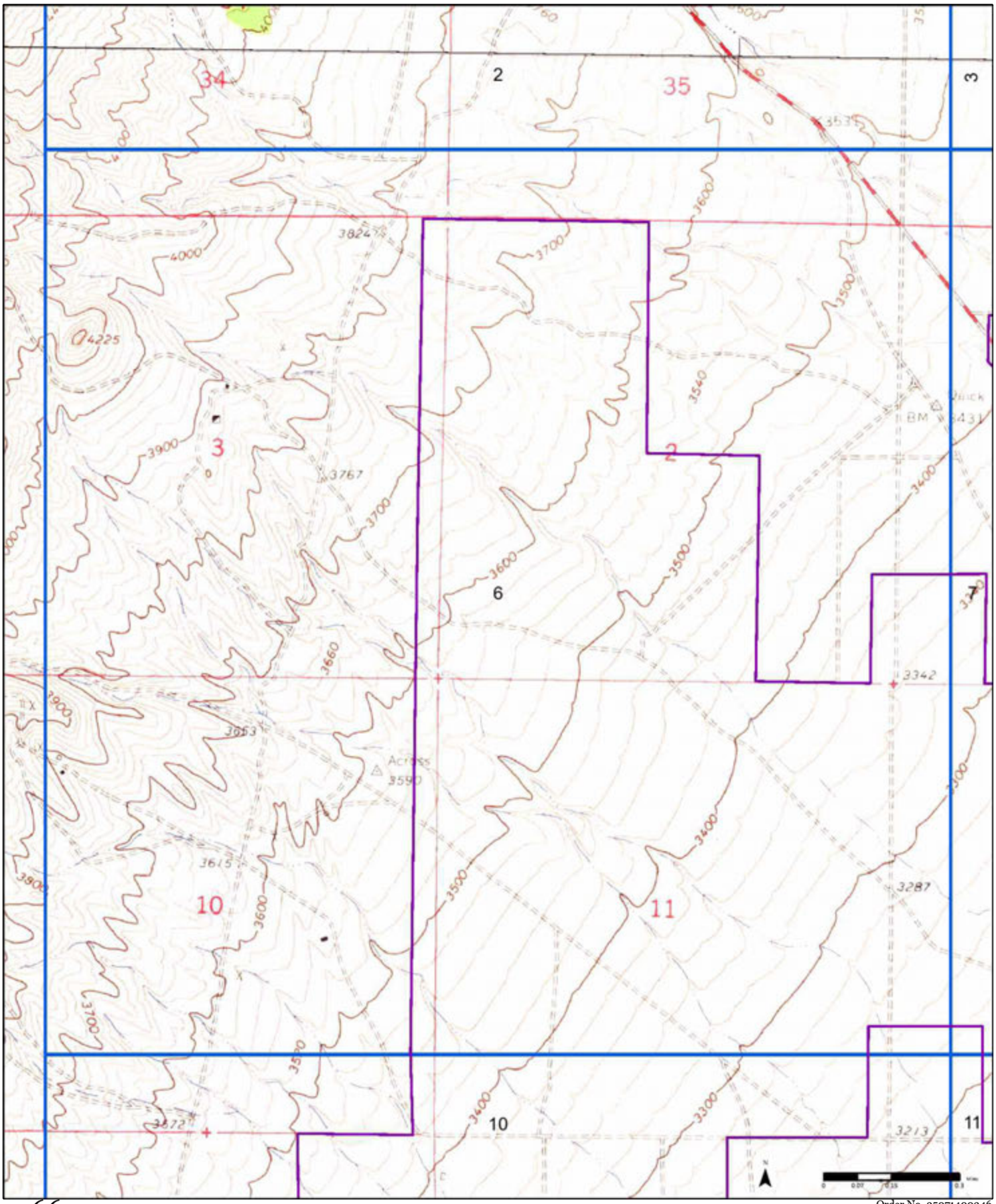
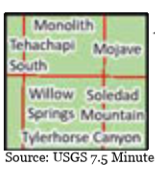
PARTNER



1966

(2-1965) Aerial Photo Year: 1963 *(3-1965) Aerial Photo Year: 1963* *(4-1966) Aerial Photo Year: 1963* *(5-1966) Aerial Photo Year: 1963*

Order No. 25071400346



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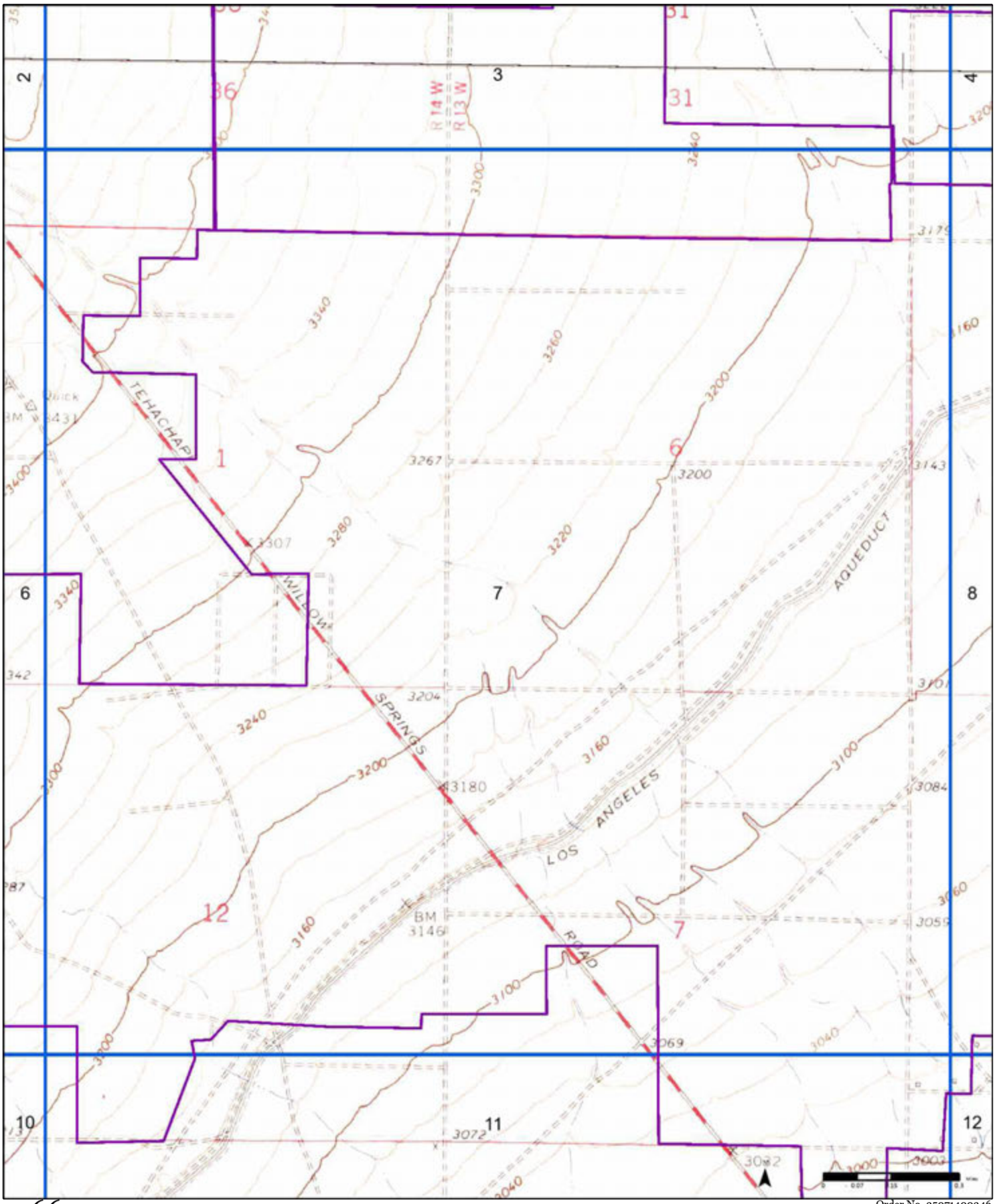
PARTNER



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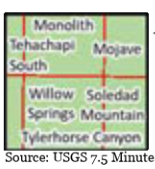
(3-1965) *Aerial Photo Year: 1963*

(4-1966) *Aerial Photo Year: 1963*

(5-1966) *Aerial Photo Year: 1963*

Order No. 25071400346



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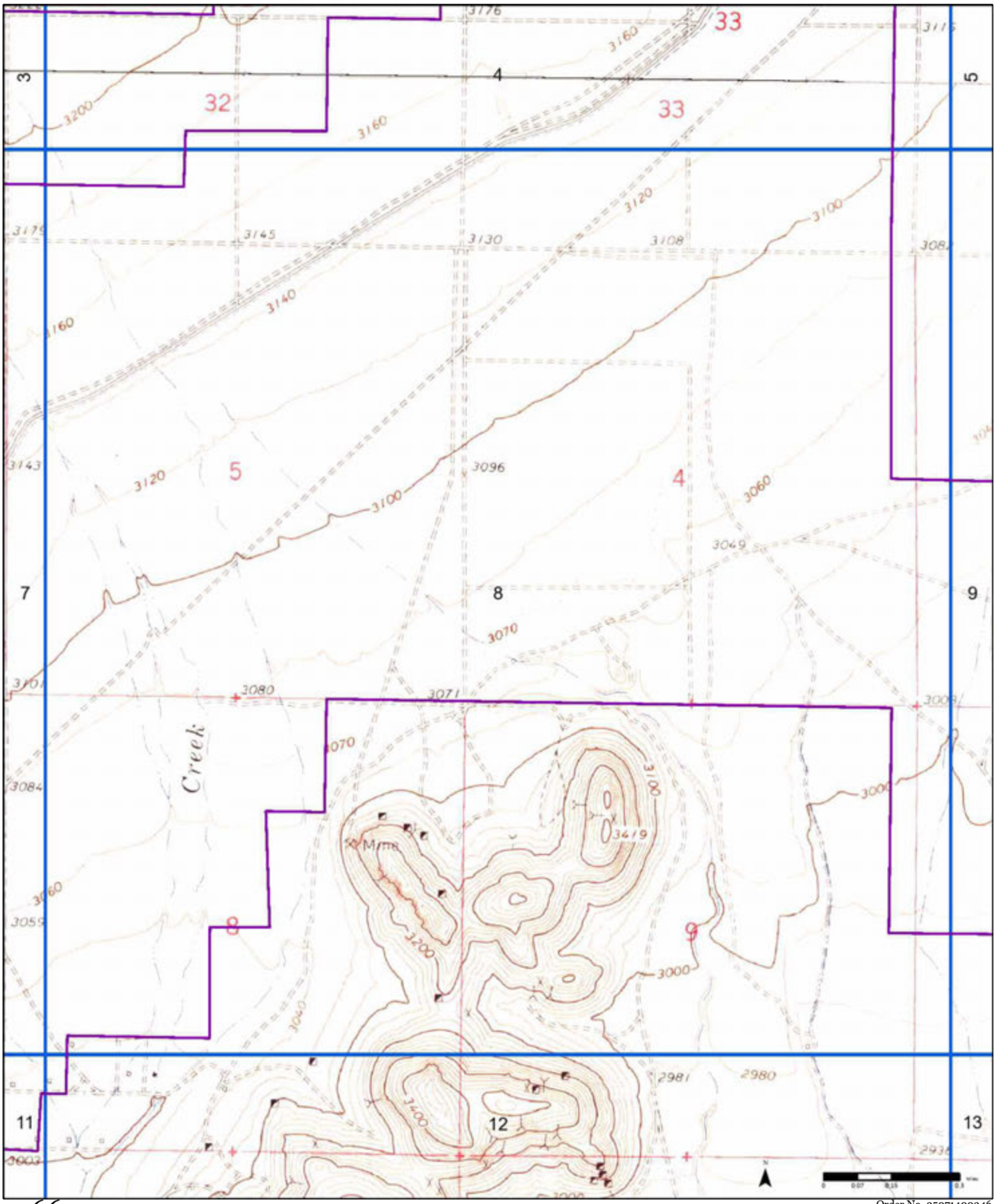

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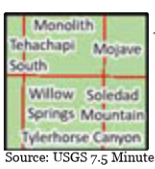

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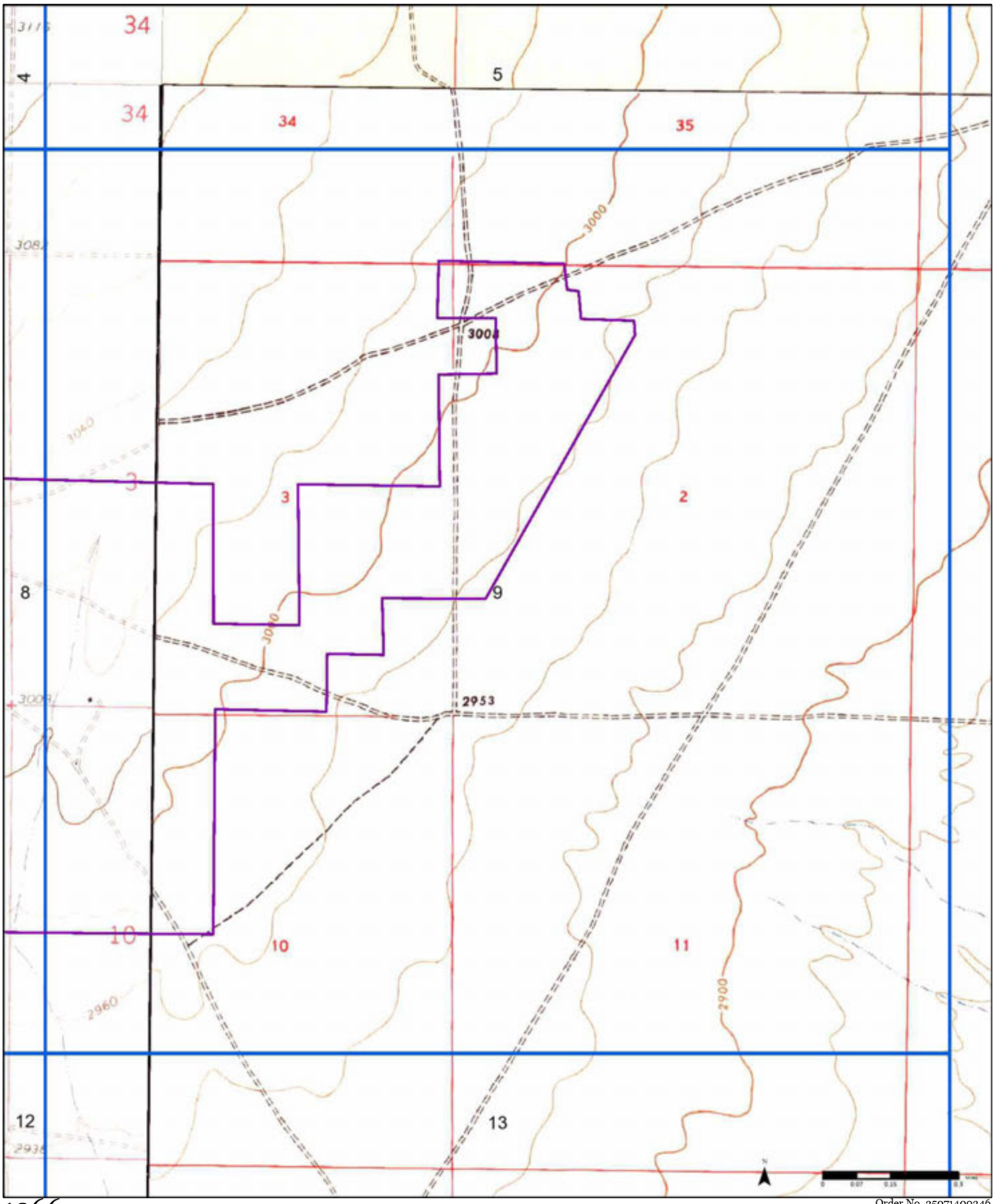

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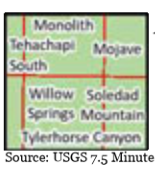

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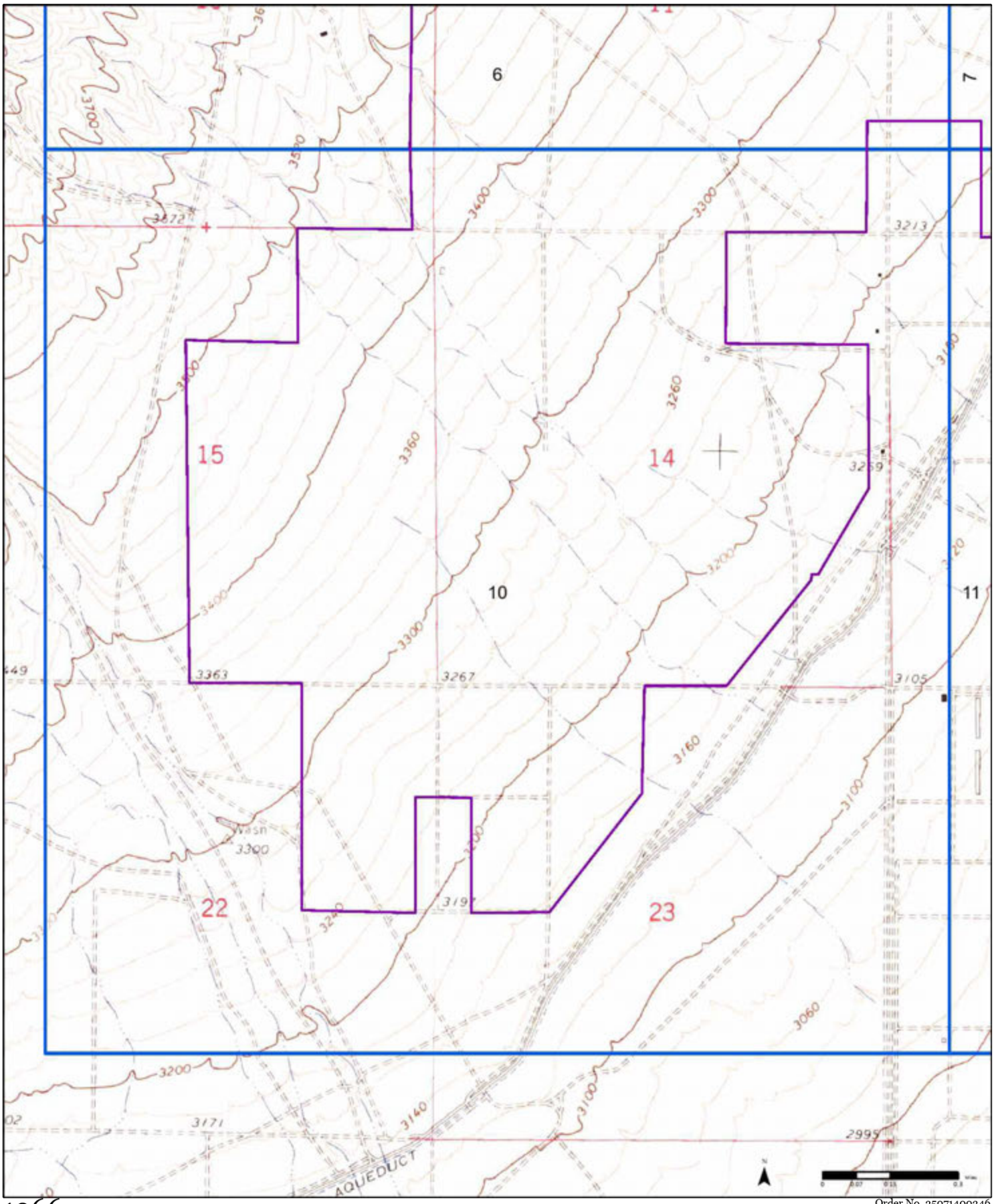

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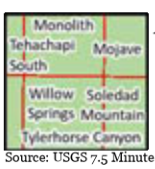

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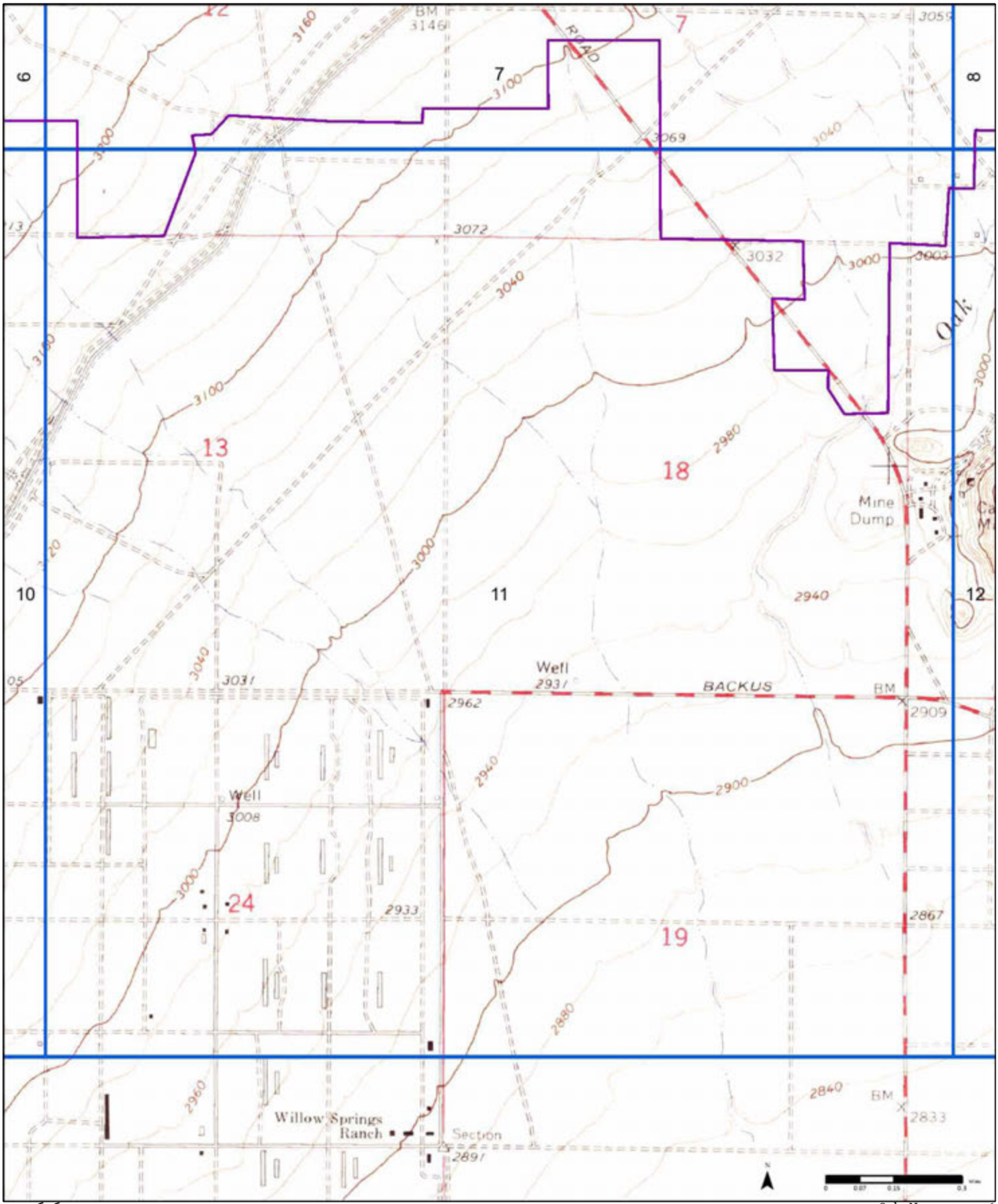

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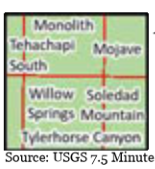
(5-1966) *Aerial Photo Year: 1963*

Order No. 25071400346



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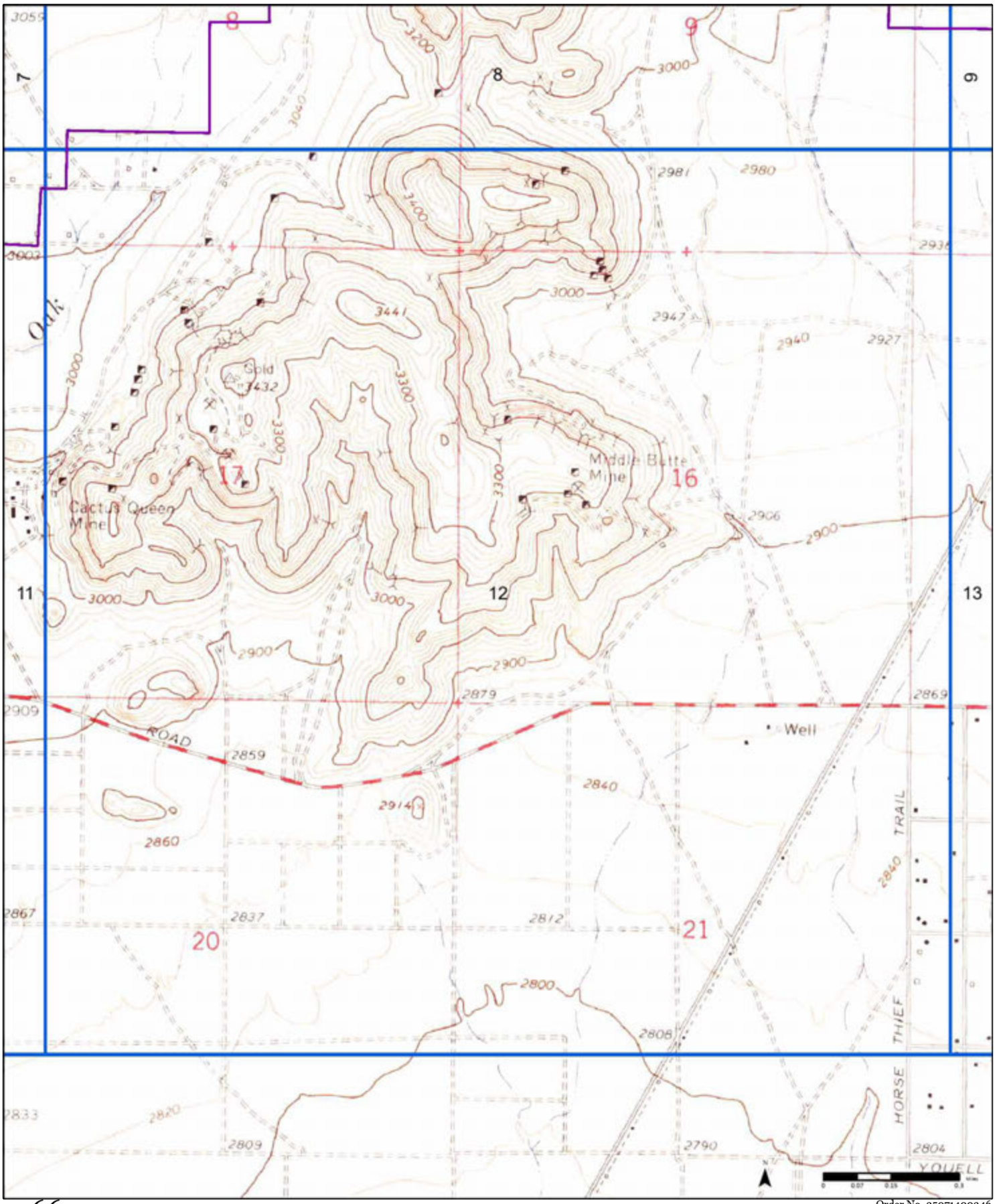

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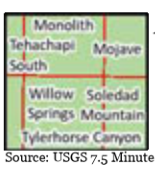

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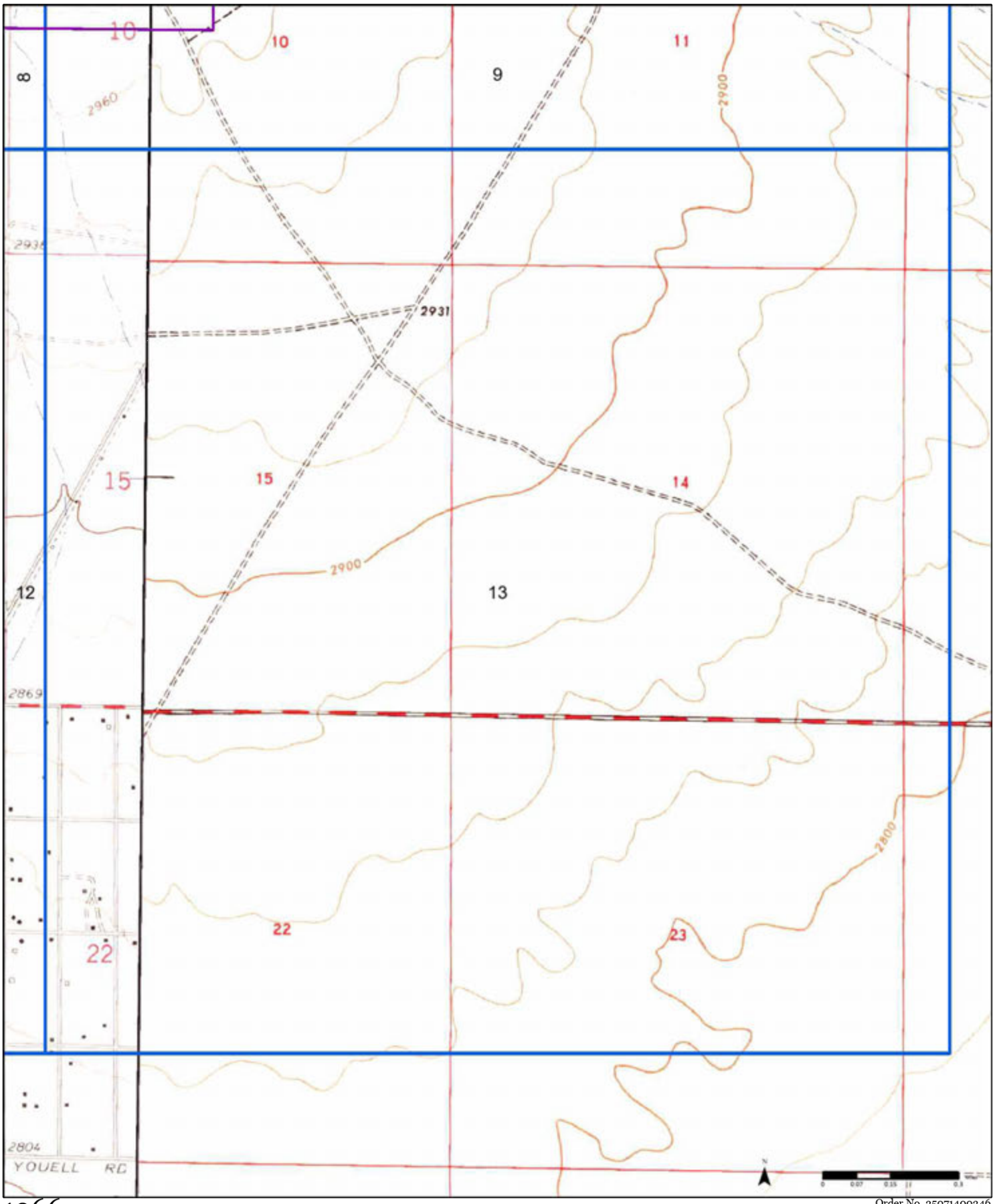
Monolith, CA(5-1966)
Mojave, CA(1-1947)
Tylerhorse Canyon, CA(2-1965)
Tehachapi South, CA(4-1966)

Source: USGS 7.5 Minute Topographic Map

PARTNER



1966

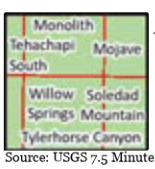
(2-1965) *Aerial Photo Year: 1963*

(3-1965) *Aerial Photo Year: 1963*

(4-1966) *Aerial Photo Year: 1963*

(5-1966) *Aerial Photo Year: 1963*

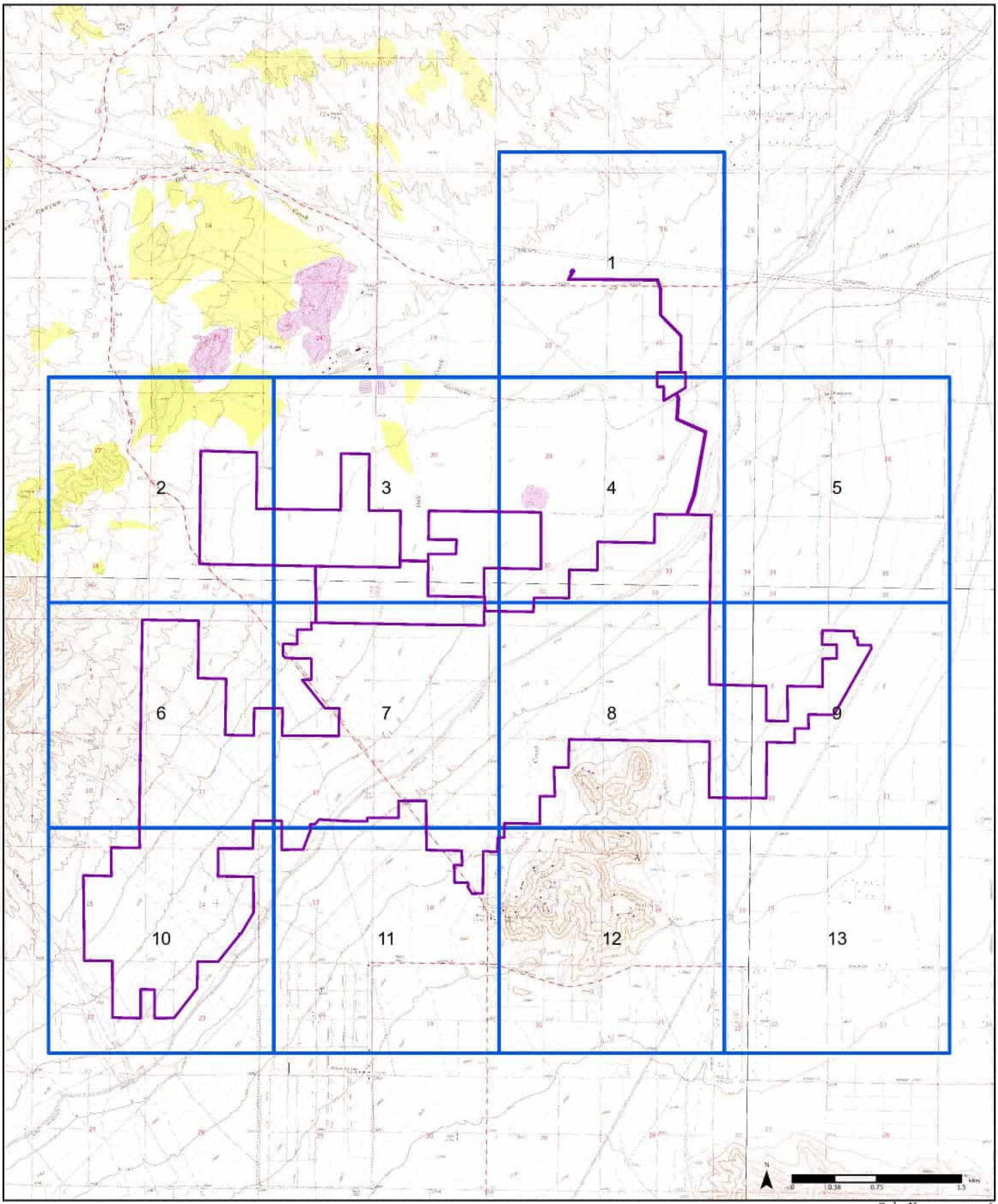
Order No. 25071400346



Available Quadrangle(s): Soledad Mountain, CA
Willow Springs, CA(3-1965)
Monolith, CA(5-1966)
Mojave, CA(1-1947)
Tylerhorse Canyon, CA(2-1965)
Tehachapi South, CA(4-1966)

Source: USGS 7.5 Minute Topographic Map

PARTNER



1973

(1-1965) Aerial Photo Year: 1963

(2-1965) Aerial Photo Year: 1963

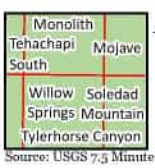
(3-1973) Aerial Photo Year: 1973
Photo Revision Year: 1973

(4-1973) Aerial Photo Year: 1972

(5-1973) Aerial Photo Year: 1973
Photo Revision Year: 1973

(6-1973) Aerial Photo Year: 1972

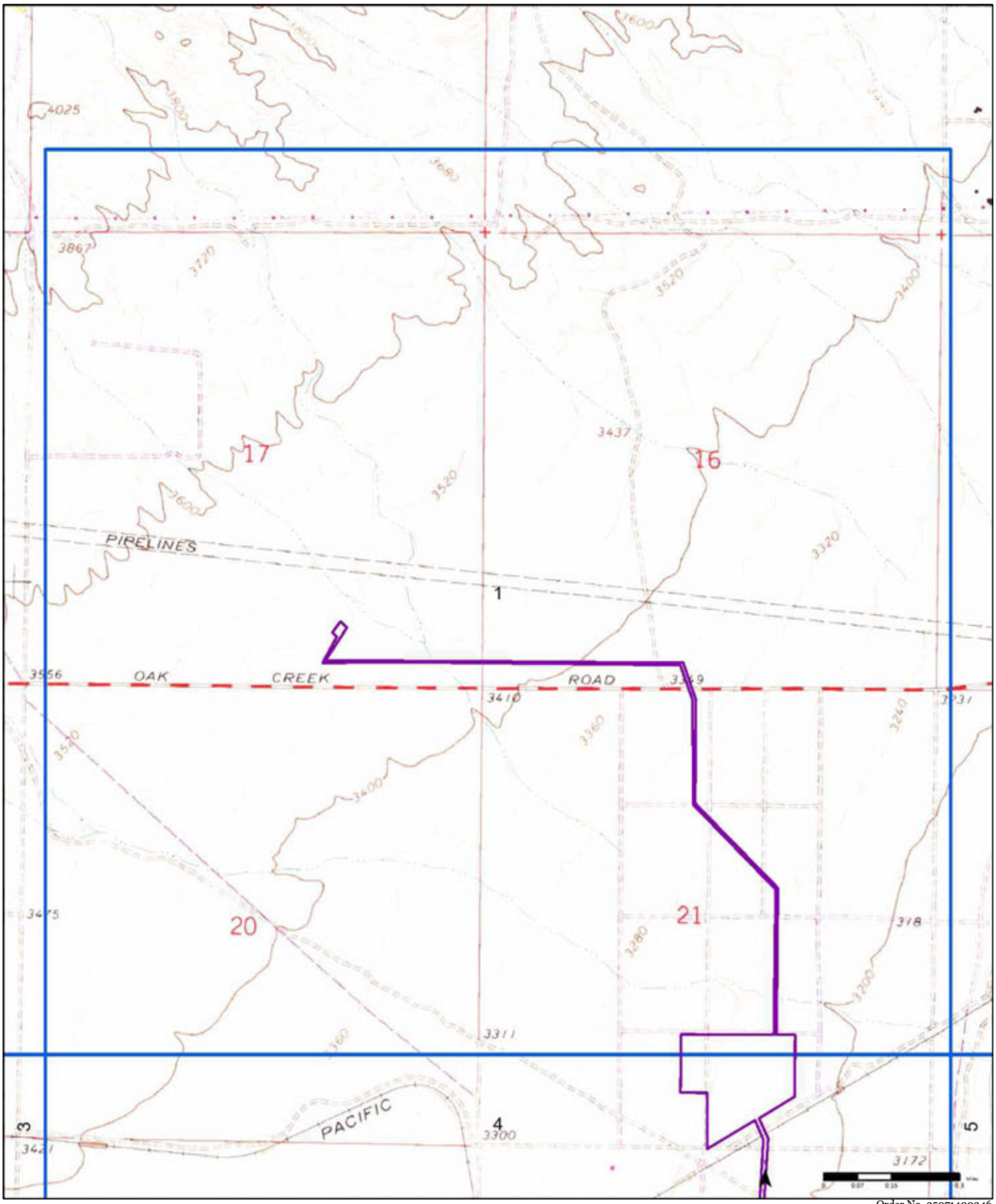
Order No. 25071400346



Available Quadrangle(s): Willow Springs, CA(2-1965)
Soledad Mtn, CA(4-1973)
Monolith, CA(5-1973)
Tylerhorse Canyon, CA(1-1965)
Tehachapi South, CA(3-1973)
Mojave, CA(6-1973)

Source: USGS 7.5 Minute Topographic Map

PARTNER



1973

(1-1965) *Aerial Photo Year: 1963*

(2-1965) *Aerial Photo Year: 1963*

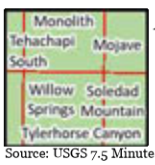
(3-1973) *Aerial Photo Year: 1973*
Photo Revision Year: 1973

(4-1973) *Aerial Photo Year: 1972*

(5-1973) *Aerial Photo Year: 1973*
Photo Revision Year: 1973

(6-1973) *Aerial Photo Year: 1972*

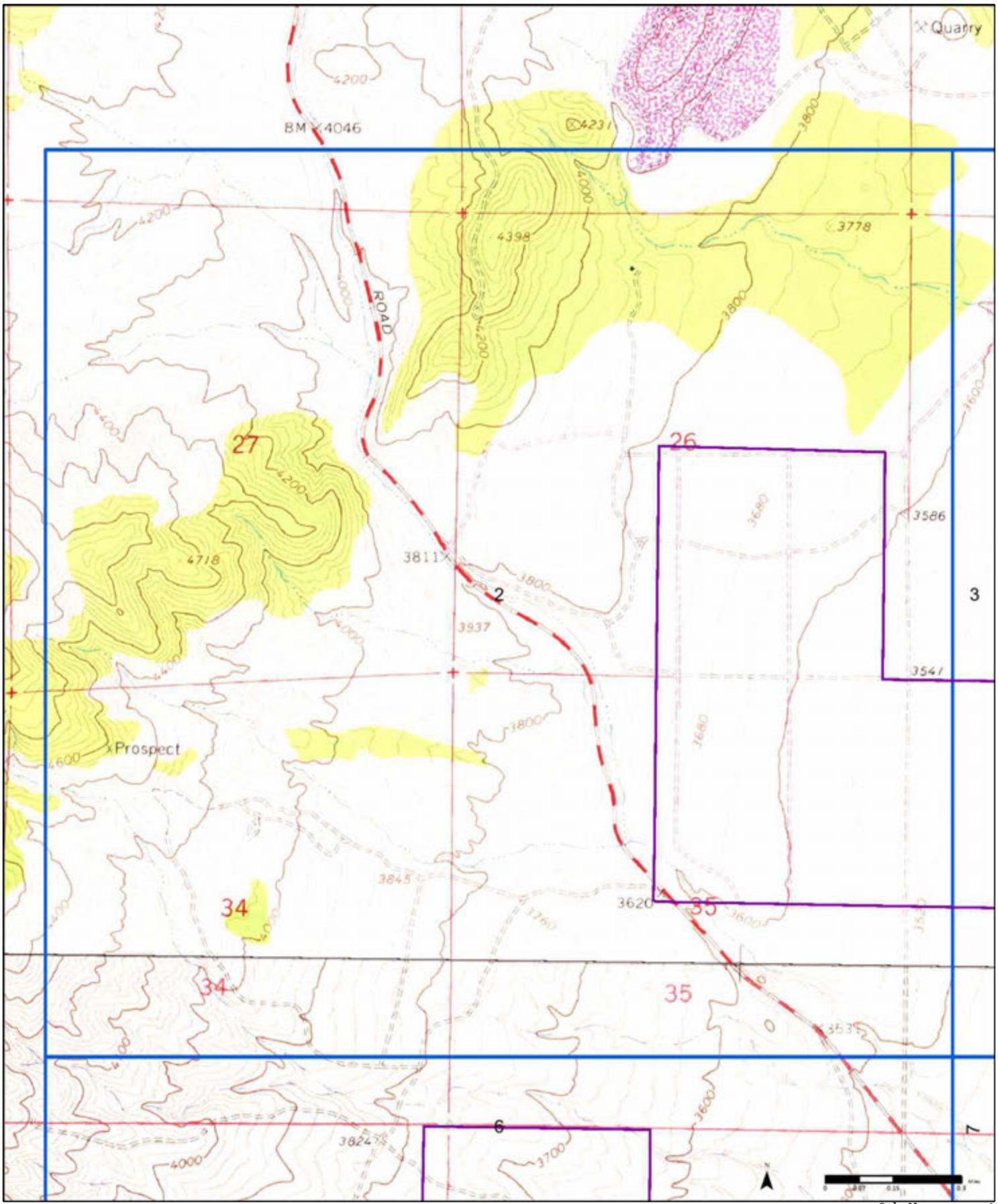
Order No. 25071400346



Available Quadrangle(s): Willow Springs, CA(2-1965)
Soledad Mtn, CA(4-1973)
Monolith, CA(5-1973)
Tylerhorse Canyon, CA(1-1965)
Tehachapi South, CA(3-1973)
Mojave, CA(6-1973)

Source: USGS 7.5 Minute Topographic Map

PARTNER



1973

(1-1965) *Aerial Photo Year: 1963*

(2-1965) *Aerial Photo Year: 1963*

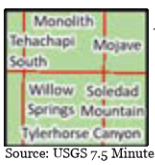
(3-1973) *Aerial Photo Year: 1973*
Photo Revision Year: 1973

(4-1973) *Aerial Photo Year: 1972*

(5-1973) *Aerial Photo Year: 1973*
Photo Revision Year: 1973

(6-1973) *Aerial Photo Year: 1972*

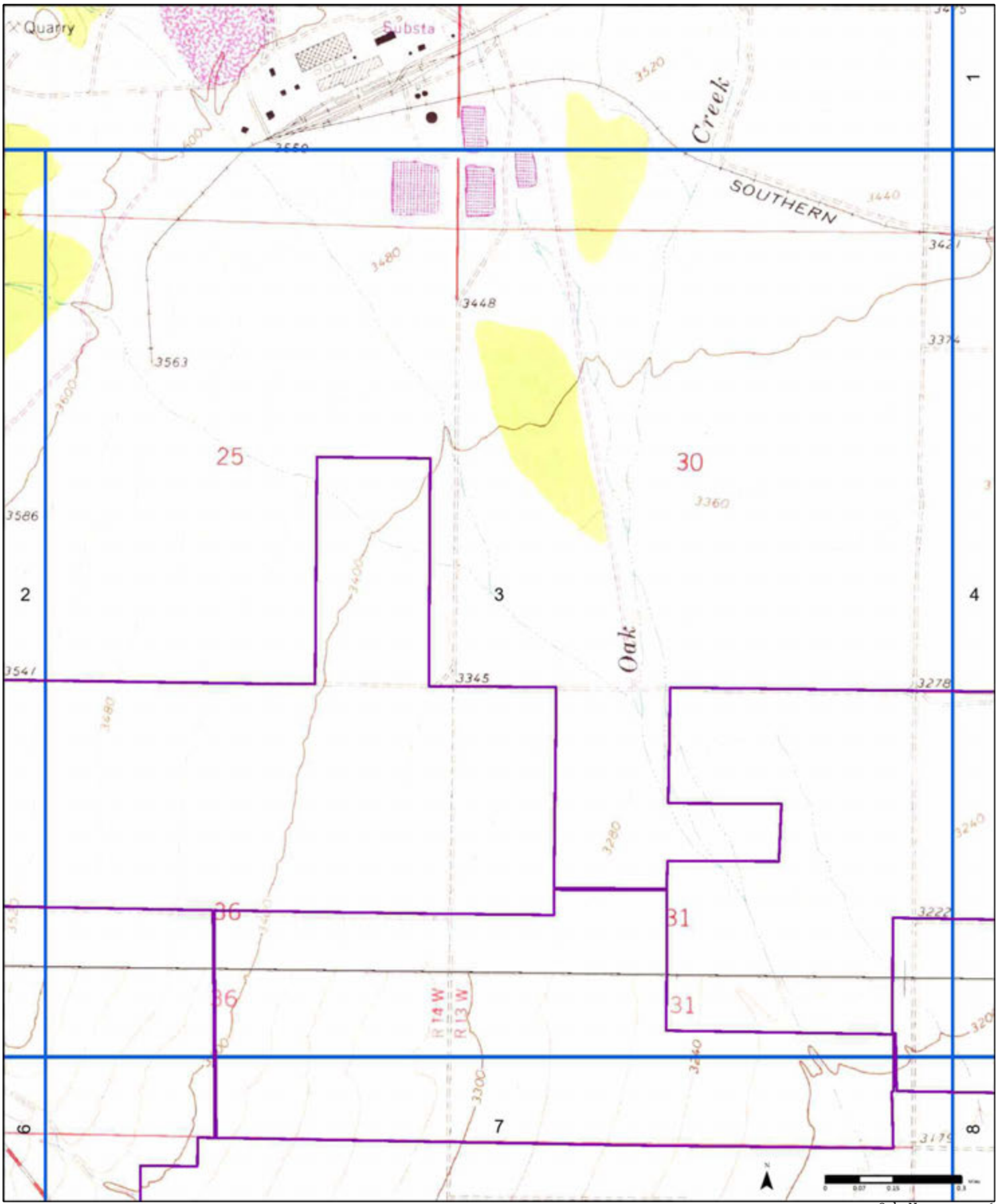
Order No. 25071400346



Available Quadrangle(s): Willow Springs, CA(2-1965)
Soledad Mtn, CA(4-1973)
Monolith, CA(5-1973)
Tylerhorse Canyon, CA(1-1965)
Tehachapi South, CA(3-1973)
Mojave, CA(6-1973)

Source: USGS 7.5 Minute Topographic Map

PARTNER



1973

(1-1965) *Aerial Photo Year: 1963*

(2-1965) *Aerial Photo Year: 1963*

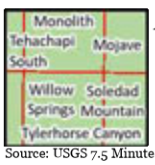
(3-1973) *Aerial Photo Year: 1973*
Photo Revision Year: 1973

(4-1973) *Aerial Photo Year: 1972*

(5-1973) *Aerial Photo Year: 1973*
Photo Revision Year: 1973

(6-1973) *Aerial Photo Year: 1972*

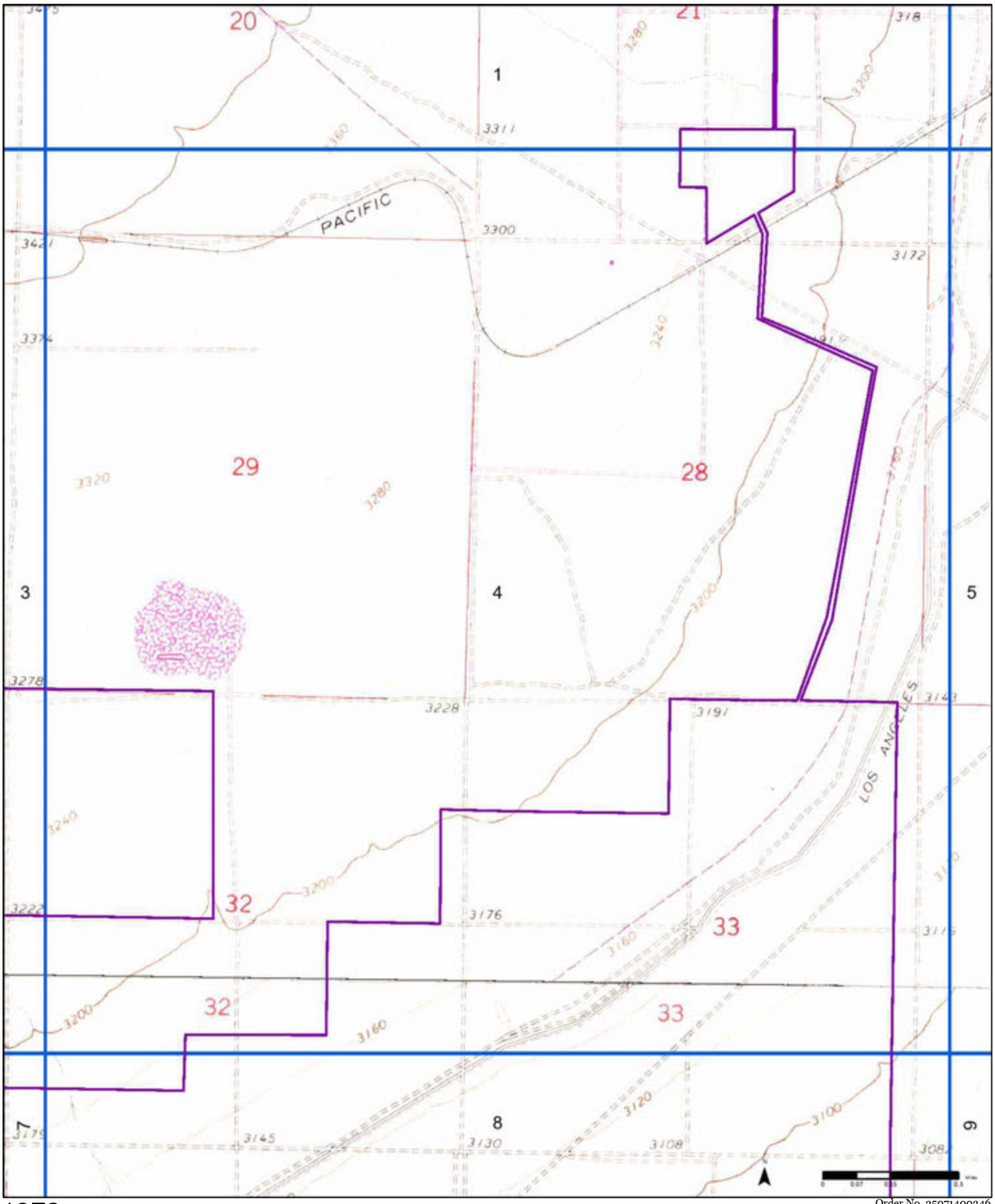
Order No. 25071400346



Available Quadrangle(s): Willow Springs, CA(2-1965)
Soledad Mtn, CA(4-1973)
Monolith, CA(5-1973)
Tylerhorse Canyon, CA(1-1965)
Tehachapi South, CA(3-1973)
Mojave, CA(6-1973)

Source: USGS 7.5 Minute Topographic Map

PARTNER



1973

(1-1965) *Aerial Photo Year: 1963*

(2-1965) *Aerial Photo Year: 1963*

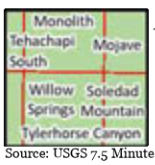
(3-1973) *Aerial Photo Year: 1973*
Photo Revision Year: 1973

(4-1973) *Aerial Photo Year: 1972*

(5-1973) *Aerial Photo Year: 1973*
Photo Revision Year: 1973

(6-1973) *Aerial Photo Year: 1972*

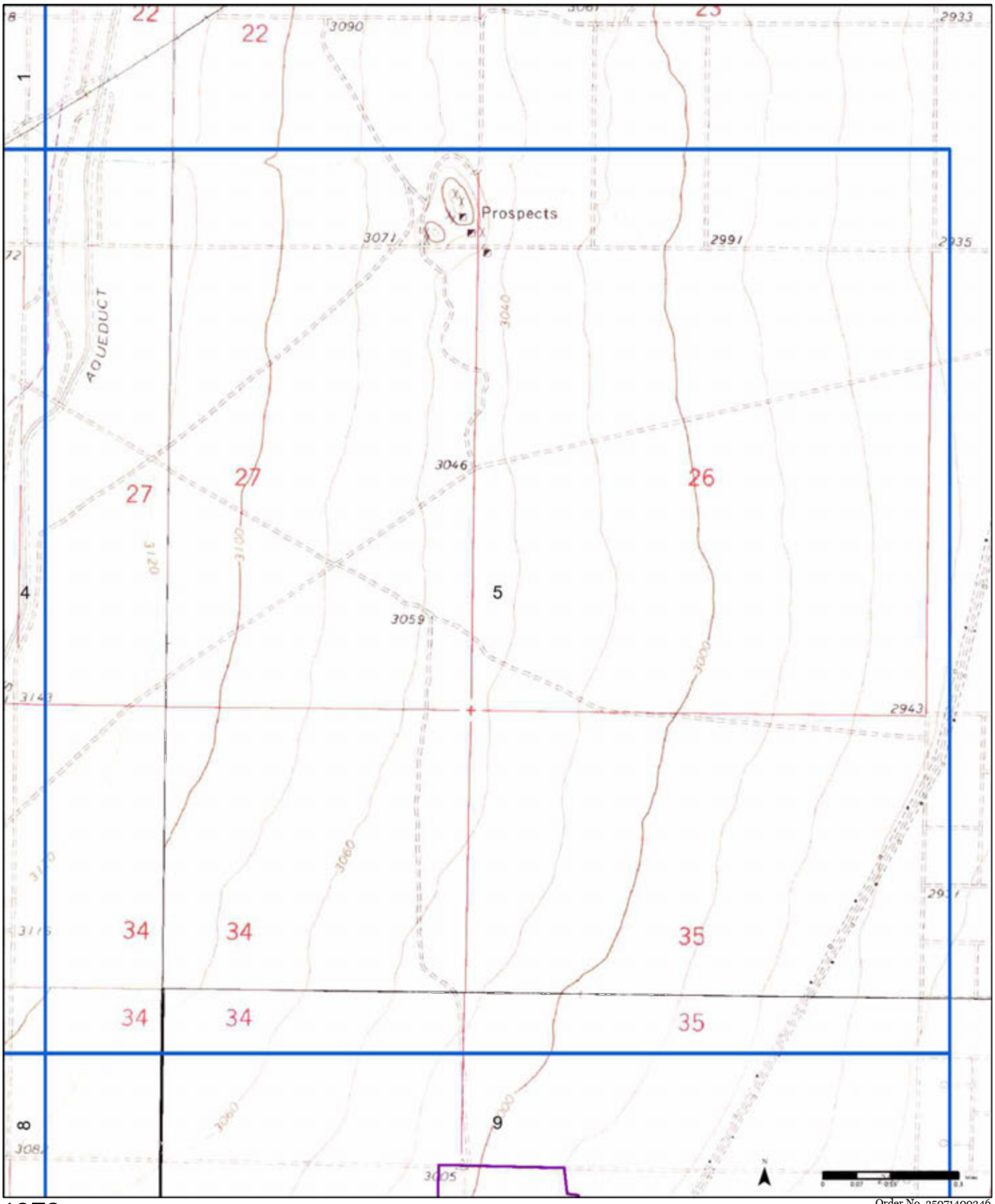
Order No. 25071400346



Available Quadrangle(s): Willow Springs, CA(2-1965)
Soledad Mtn, CA(4-1973)
Monolith, CA(5-1973)
Tylerhorse Canyon, CA(1-1965)
Tehachapi South, CA(3-1973)
Mojave, CA(6-1973)

Source: USGS 7.5 Minute Topographic Map

PARTNER



1973

(1-1965) *Aerial Photo Year: 1963*

(2-1965) *Aerial Photo Year: 1963*

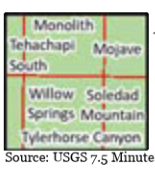
(3-1973) *Aerial Photo Year: 1973*
Photo Revision Year: 1973

(4-1973) *Aerial Photo Year: 1972*

(5-1973) *Aerial Photo Year: 1973*
Photo Revision Year: 1973

(6-1973) *Aerial Photo Year: 1972*

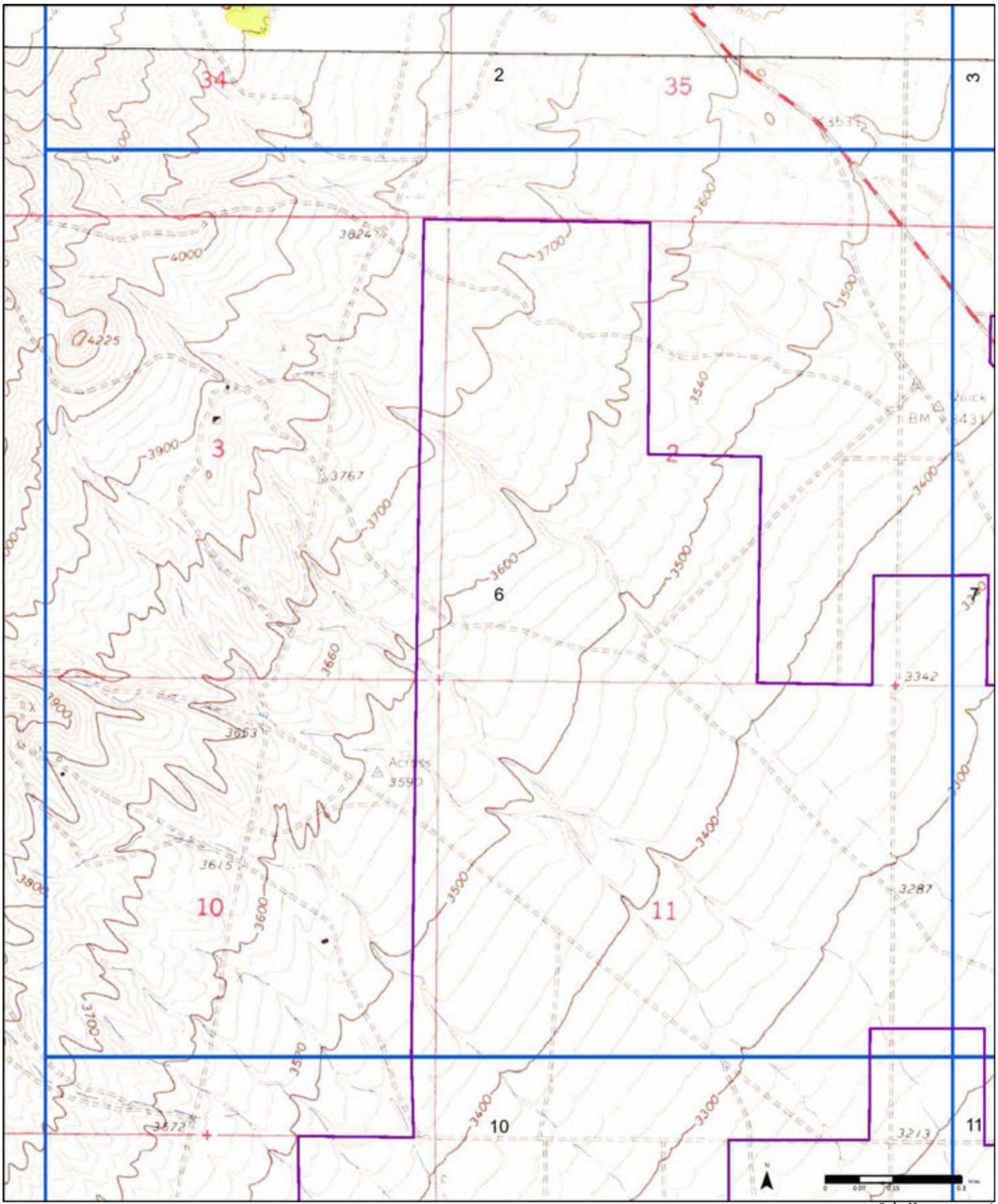
Order No. 25071400346



Available Quadrangle(s): Willow Springs, CA(2-1965)
Soledad Mtn, CA(4-1973)
Monolith, CA(5-1973)
Tylerhorse Canyon, CA(1-1965)
Tehachapi South, CA(3-1973)
Mojave, CA(6-1973)

Source: USGS 7.5 Minute Topographic Map

PARTNER



1973

(1-1965) *Aerial Photo Year: 1963*

(2-1965) *Aerial Photo Year: 1963*

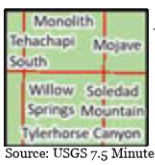
(3-1973) *Aerial Photo Year: 1973*
Photo Revision Year: 1973

(4-1973) *Aerial Photo Year: 1972*

(5-1973) *Aerial Photo Year: 1973*
Photo Revision Year: 1973

(6-1973) *Aerial Photo Year: 1972*

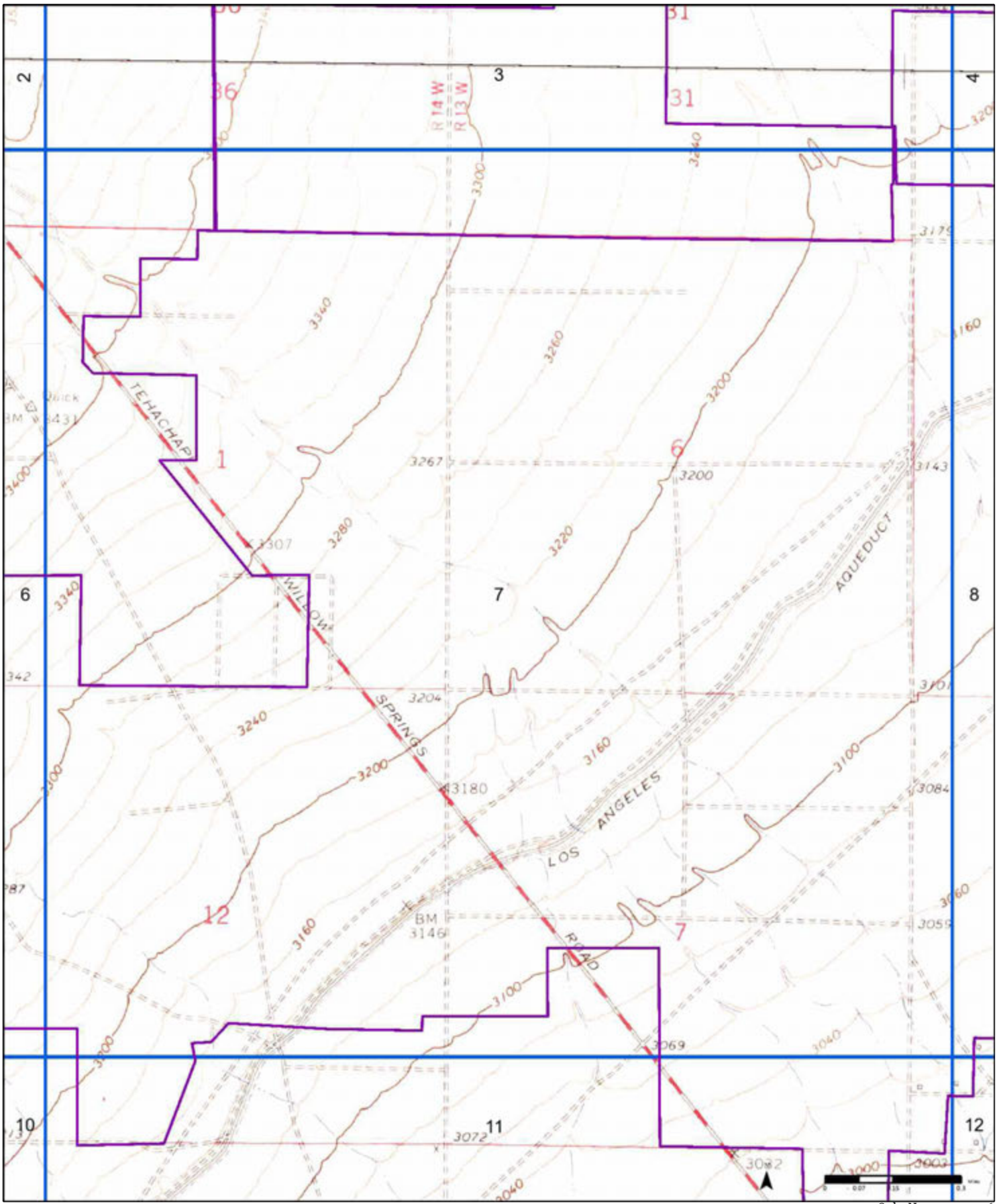
Order No. 25071400346



Available Quadrangle(s): Willow Springs, CA(2-1965)
Soledad Mtn, CA(4-1973)
Monolith, CA(5-1973)
Tylerhorse Canyon, CA(1-1965)
Tehachapi South, CA(3-1973)
Mojave, CA(6-1973)

Source: USGS 7.5 Minute Topographic Map

PARTNER



1973

(1-1965) *Aerial Photo Year: 1963*

(2-1965) *Aerial Photo Year: 1963*

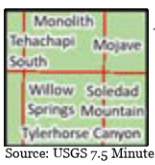
(3-1973) *Aerial Photo Year: 1973*
Photo Revision Year: 1973

(4-1973) *Aerial Photo Year: 1972*

(5-1973) *Aerial Photo Year: 1973*
Photo Revision Year: 1973

(6-1973) *Aerial Photo Year: 1972*

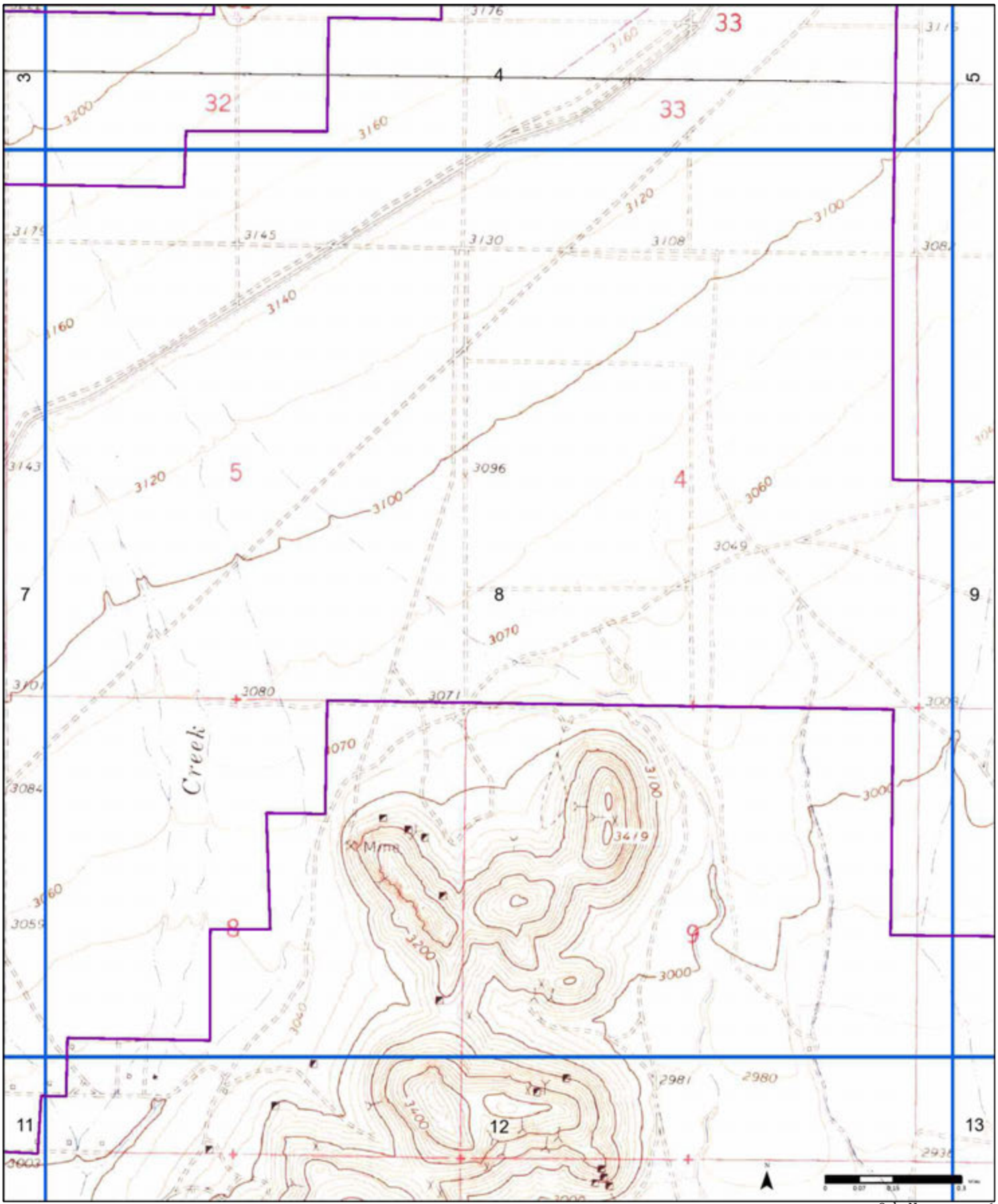
Order No. 25071400346



Available Quadrangle(s): Willow Springs, CA(2-1965)
Soledad Mtn, CA(4-1973)
Monolith, CA(5-1973)
Tylerhorse Canyon, CA(1-1965)
Tehachapi South, CA(3-1973)
Mojave, CA(6-1973)

Source: USGS 7.5 Minute Topographic Map

PARTNER



1973

(1-1965) *Aerial Photo Year: 1963*

(2-1965) *Aerial Photo Year: 1963*

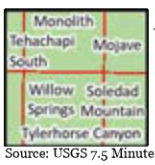
(3-1973) *Aerial Photo Year: 1973*
Photo Revision Year: 1973

(4-1973) *Aerial Photo Year: 1972*

(5-1973) *Aerial Photo Year: 1973*
Photo Revision Year: 1973

(6-1973) *Aerial Photo Year: 1972*

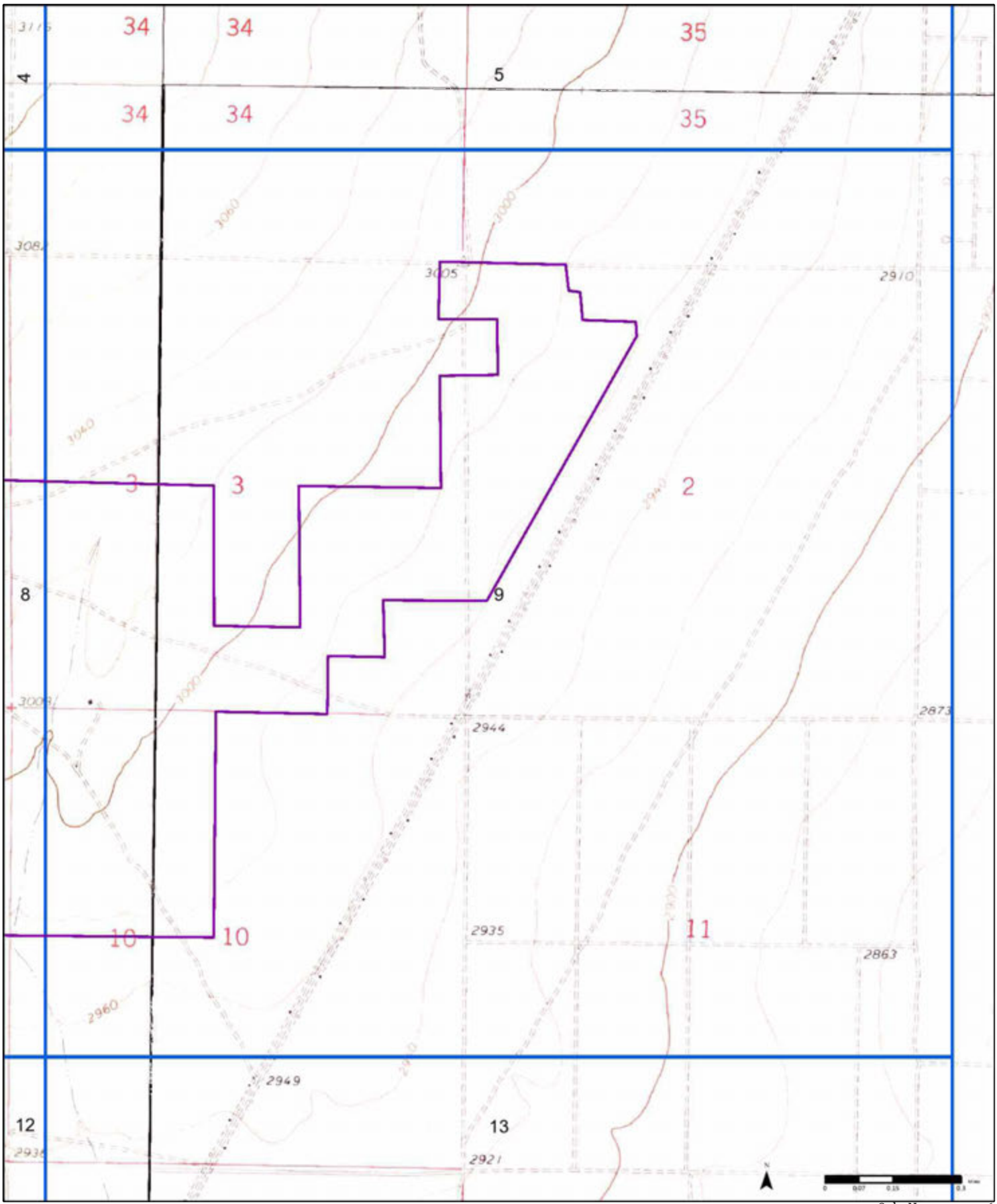
Order No. 25071400346



Available Quadrangle(s): Willow Springs, CA(2-1965)
Soledad Mtn, CA(4-1973)
Monolith, CA(5-1973)
Tylerhorse Canyon, CA(1-1965)
Tehachapi South, CA(3-1973)
Mojave, CA(6-1973)

Source: USGS 7.5 Minute Topographic Map

PARTNER



1973

(1-1965) *Aerial Photo Year: 1963*

(2-1965) *Aerial Photo Year: 1963*

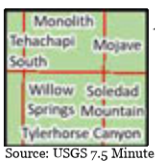
(3-1973) *Aerial Photo Year: 1973*
Photo Revision Year: 1973

(4-1973) *Aerial Photo Year: 1972*

(5-1973) *Aerial Photo Year: 1973*
Photo Revision Year: 1973

(6-1973) *Aerial Photo Year: 1972*

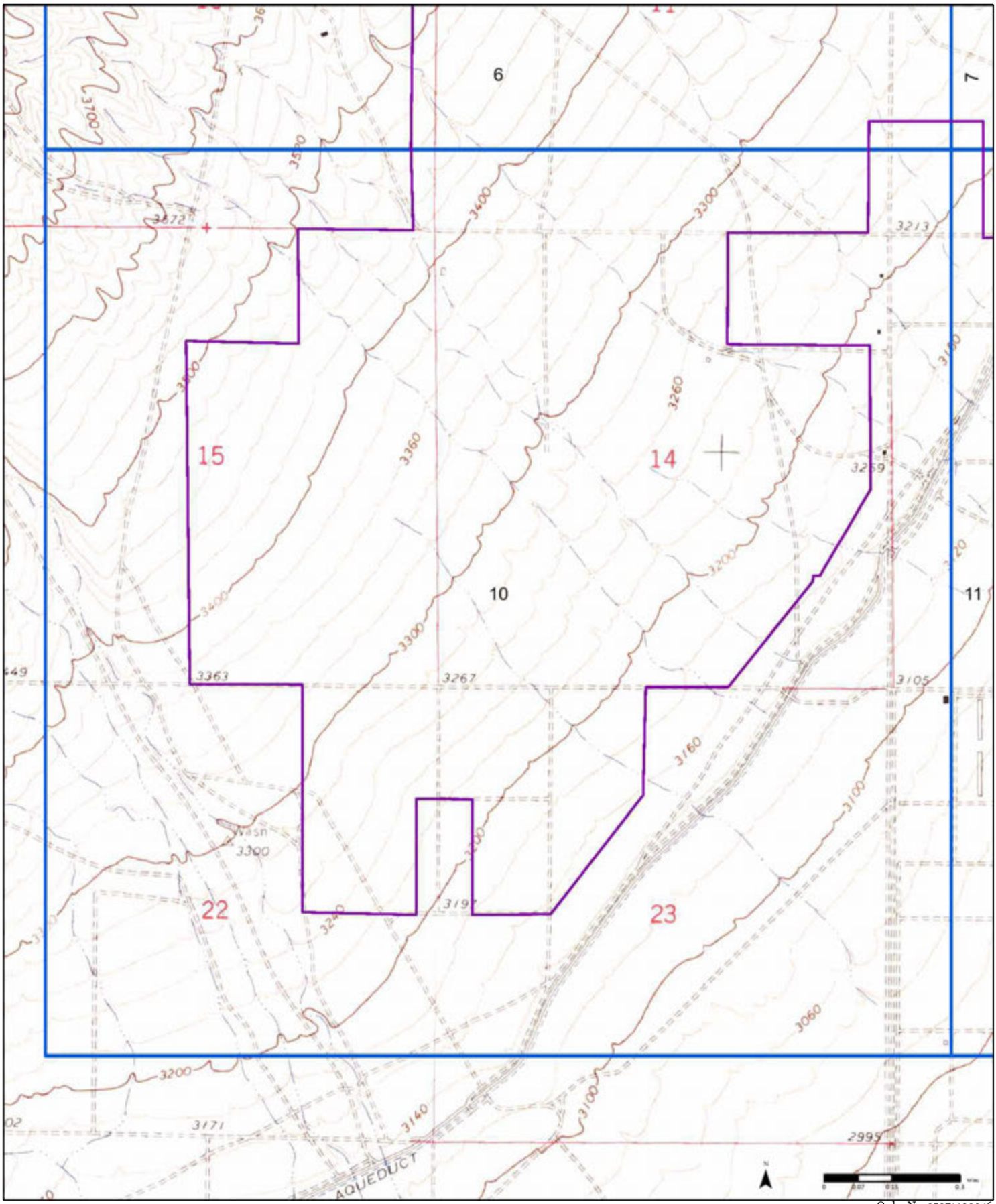
Order No. 25071400346



Available Quadrangle(s): Willow Springs, CA(2-1965)
Soledad Mtn, CA(4-1973)
Monolith, CA(5-1973)
Tylerhorse Canyon, CA(1-1965)
Tehachapi South, CA(3-1973)
Mojave, CA(6-1973)

Source: USGS 7.5 Minute Topographic Map

PARTNER



1973

(1-1965) *Aerial Photo Year: 1963*

(2-1965) *Aerial Photo Year: 1963*

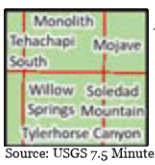
(3-1973) *Aerial Photo Year: 1973*
Photo Revision Year: 1973

(4-1973) *Aerial Photo Year: 1972*

(5-1973) *Aerial Photo Year: 1973*
Photo Revision Year: 1973

(6-1973) *Aerial Photo Year: 1972*

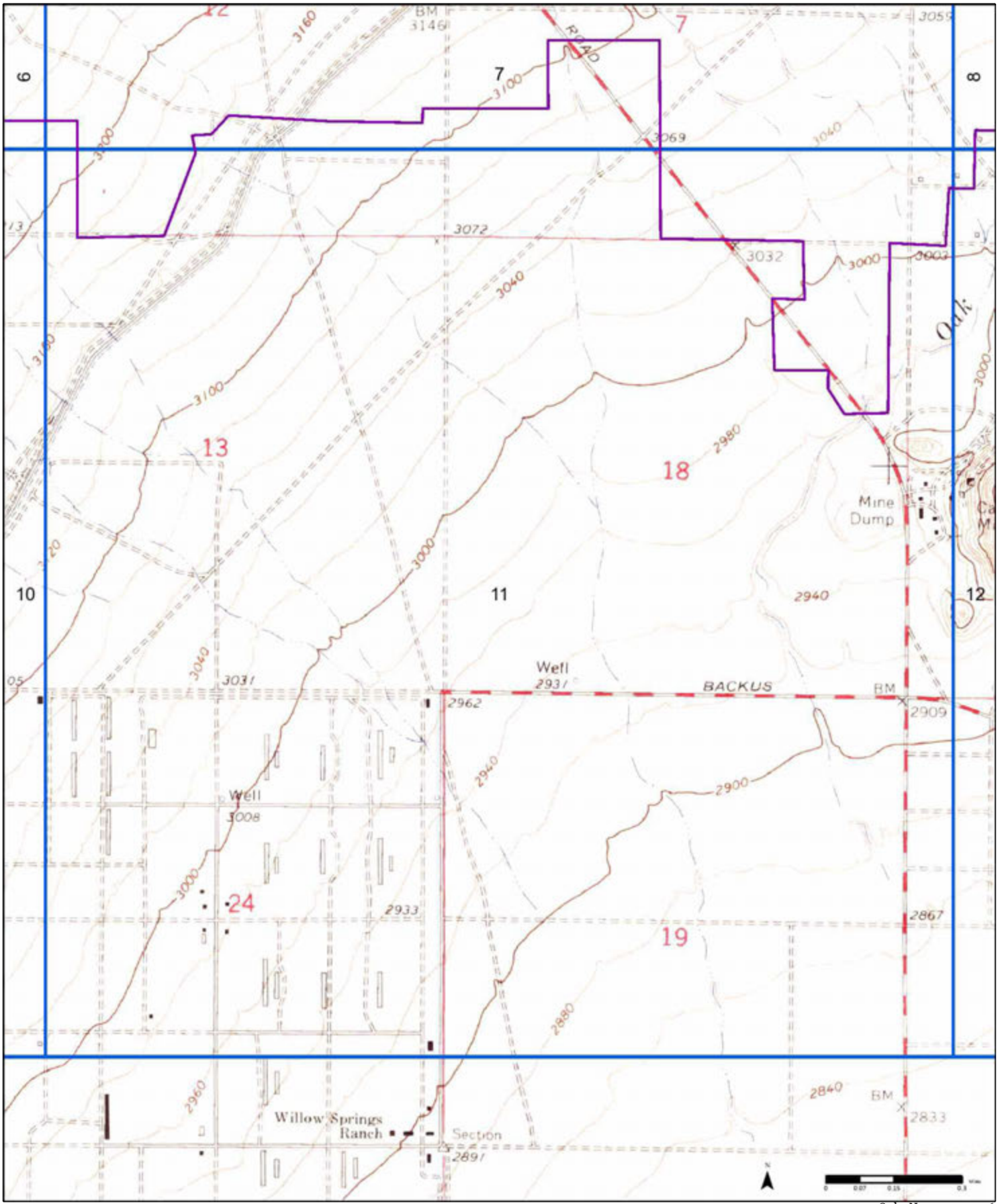
Order No. 25071400346



Available Quadrangle(s): Willow Springs, CA(2-1965)
Soledad Mtn, CA(4-1973)
Monolith, CA(5-1973)
Tylerhorse Canyon, CA(1-1965)
Tehachapi South, CA(3-1973)
Mojave, CA(6-1973)

Source: USGS 7.5 Minute Topographic Map

PARTNER



1973

(1-1965) *Aerial Photo Year: 1963*

(2-1965) *Aerial Photo Year: 1963*

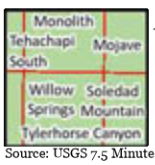
(3-1973) *Aerial Photo Year: 1973*
Photo Revision Year: 1973

(4-1973) *Aerial Photo Year: 1972*

(5-1973) *Aerial Photo Year: 1973*
Photo Revision Year: 1973

(6-1973) *Aerial Photo Year: 1972*

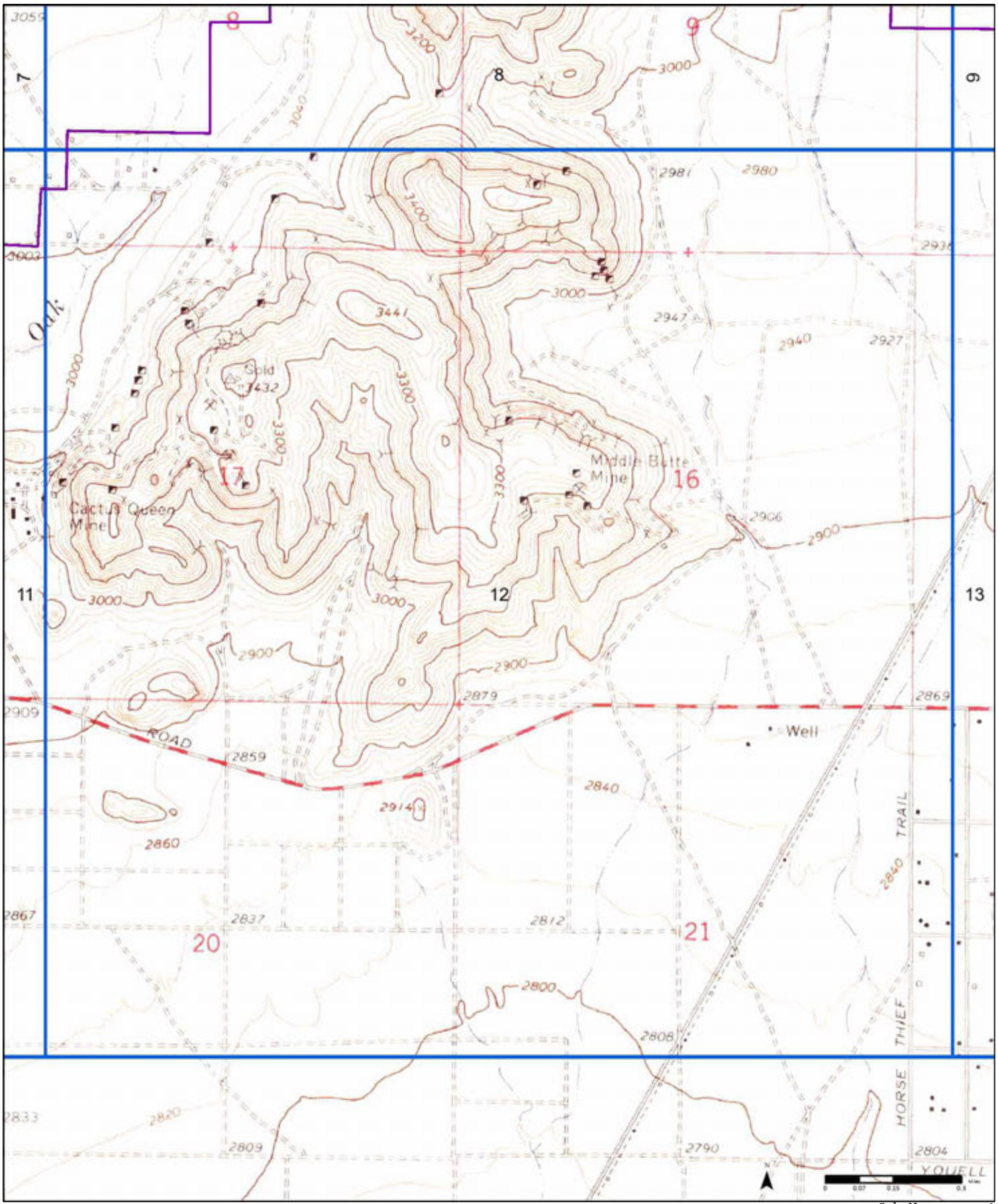
Order No. 25071400346



Available Quadrangle(s): Willow Springs, CA(2-1965)
Soledad Mtn, CA(4-1973)
Monolith, CA(5-1973)
Tylerhorse Canyon, CA(1-1965)
Tehachapi South, CA(3-1973)
Mojave, CA(6-1973)

Source: USGS 7.5 Minute Topographic Map

PARTNER



1973

(1-1965) *Aerial Photo Year: 1963*

(2-1965) *Aerial Photo Year: 1963*

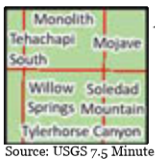
(3-1973) *Aerial Photo Year: 1973*
Photo Revision Year: 1973

(4-1973) *Aerial Photo Year: 1972*

(5-1973) *Aerial Photo Year: 1973*
Photo Revision Year: 1973

(6-1973) *Aerial Photo Year: 1972*

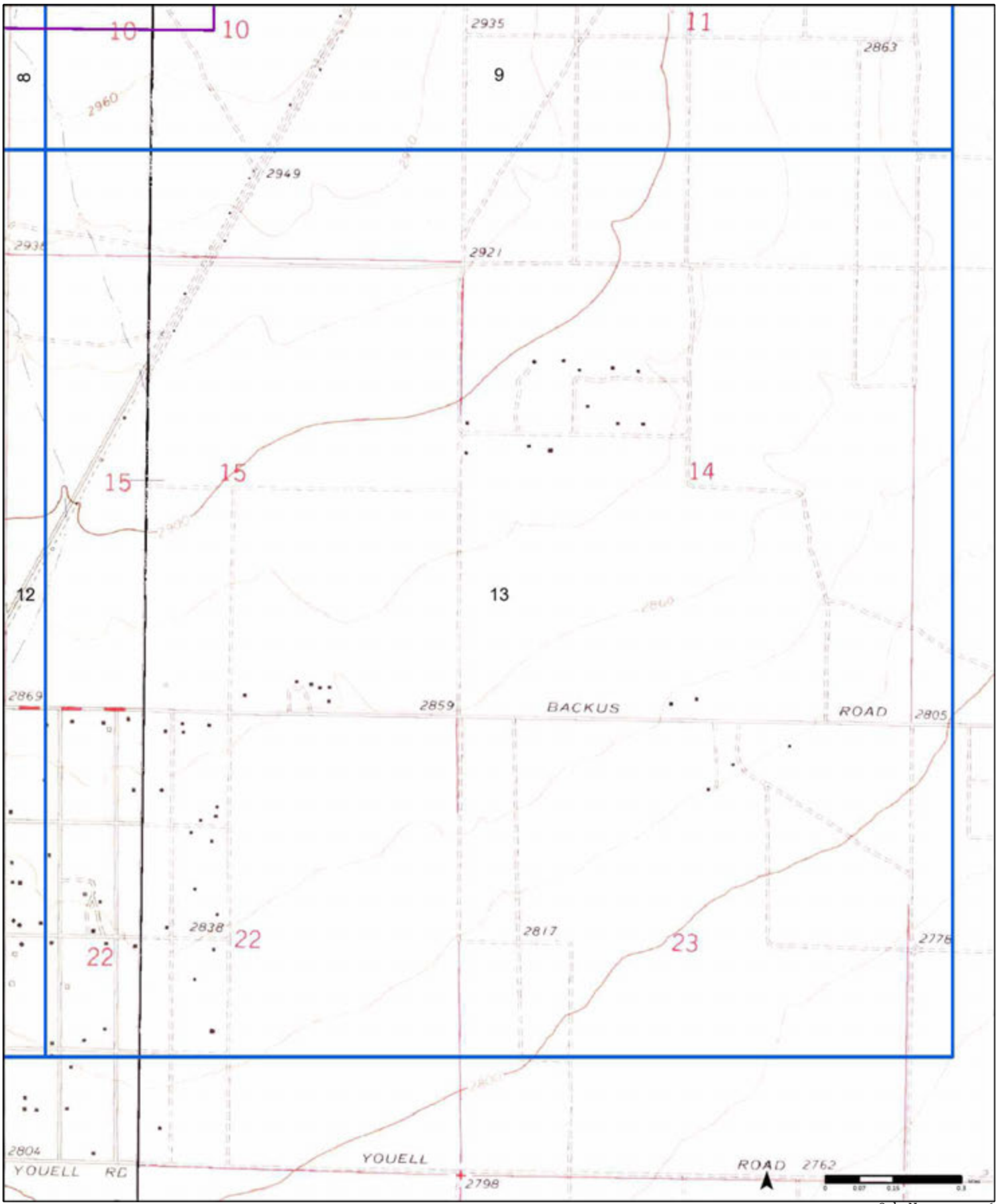
Order No. 25071400346



Available Quadrangle(s): Willow Springs, CA(2-1965)
Soledad Mtn, CA(4-1973)
Monolith, CA(5-1973)
Tylerhorse Canyon, CA(1-1965)
Tehachapi South, CA(3-1973)
Mojave, CA(6-1973)

Source: USGS 7.5 Minute Topographic Map

PARTNER



1973

(1-1965) *Aerial Photo Year: 1963*

(2-1965) *Aerial Photo Year: 1963*

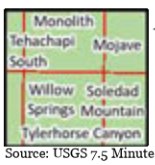
(3-1973) *Aerial Photo Year: 1973*
Photo Revision Year: 1973

(4-1973) *Aerial Photo Year: 1972*

(5-1973) *Aerial Photo Year: 1973*
Photo Revision Year: 1973

(6-1973) *Aerial Photo Year: 1972*

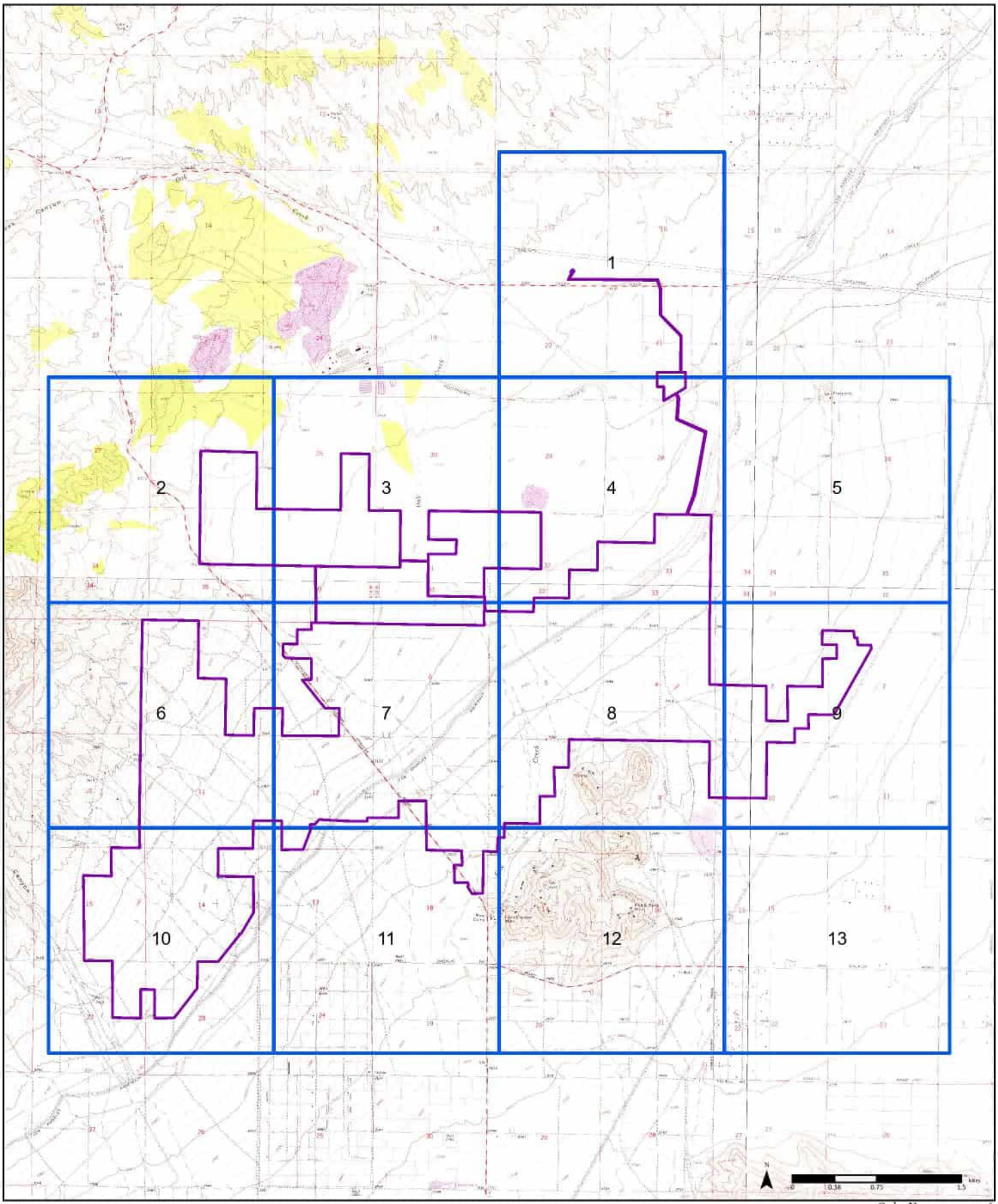
Order No. 25071400346



Available Quadrangle(s): Willow Springs, CA(2-1965)
Soledad Mtn, CA(4-1973)
Monolith, CA(5-1973)
Tylerhorse Canyon, CA(1-1965)
Tehachapi South, CA(3-1973)
Mojave, CA(6-1973)

Source: USGS 7.5 Minute Topographic Map

PARTNER



1974

(1-1965) Aerial Photo Year: 1963

(2-1973) Aerial Photo Year: 1972

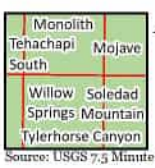
(3-1973) Aerial Photo Year: 1973
Photo Revision Year: 1973

(4-1973) Aerial Photo Year: 1972

(5-1973) Aerial Photo Year: 1973
Photo Revision Year: 1973

(6-1974) Aerial Photo Year: 1963
Photo Revision Year: 1974

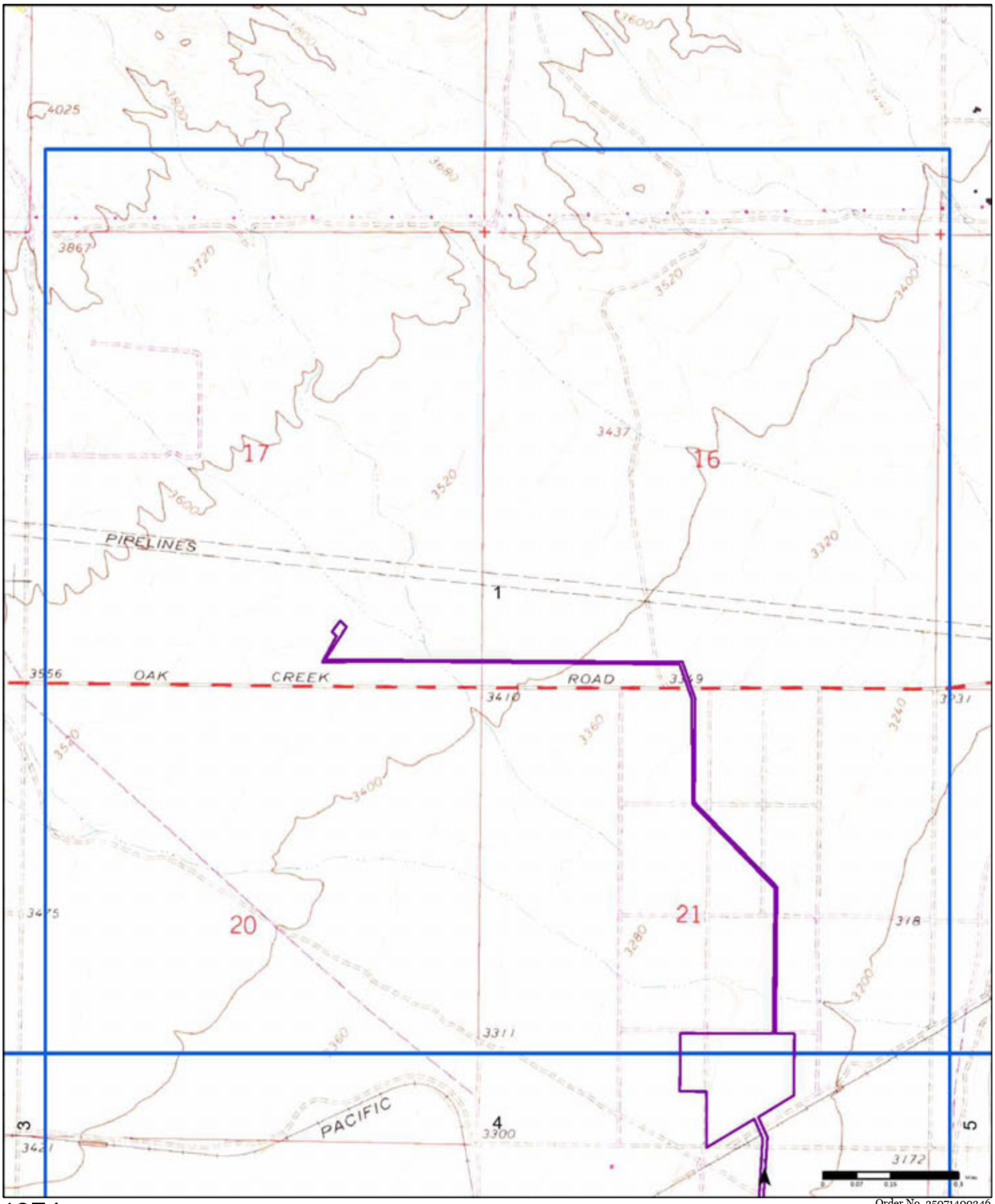
Order No. 25071400346



Available Quadrangle(s): Soledad Mtn, CA(4-1973)
Monolith, CA(5-1973)
Willow Springs, CA(6-1974)
Tylerhorse Canyon, CA(1-1965)
Mojave, CA(2-1973)
Tehachapi South, CA(3-1973)

Source: USGS 7.5 Minute Topographic Map

PARTNER



1974

(1-1965) *Aerial Photo Year: 1963*

(2-1973) *Aerial Photo Year: 1972*

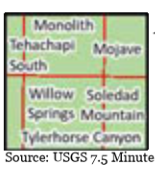
(3-1973) *Aerial Photo Year: 1973*
Photo Revision Year: 1973

(4-1973) *Aerial Photo Year: 1972*

(5-1973) *Aerial Photo Year: 1973*
Photo Revision Year: 1973

(6-1974) *Aerial Photo Year: 1963*
Photo Revision Year: 1974

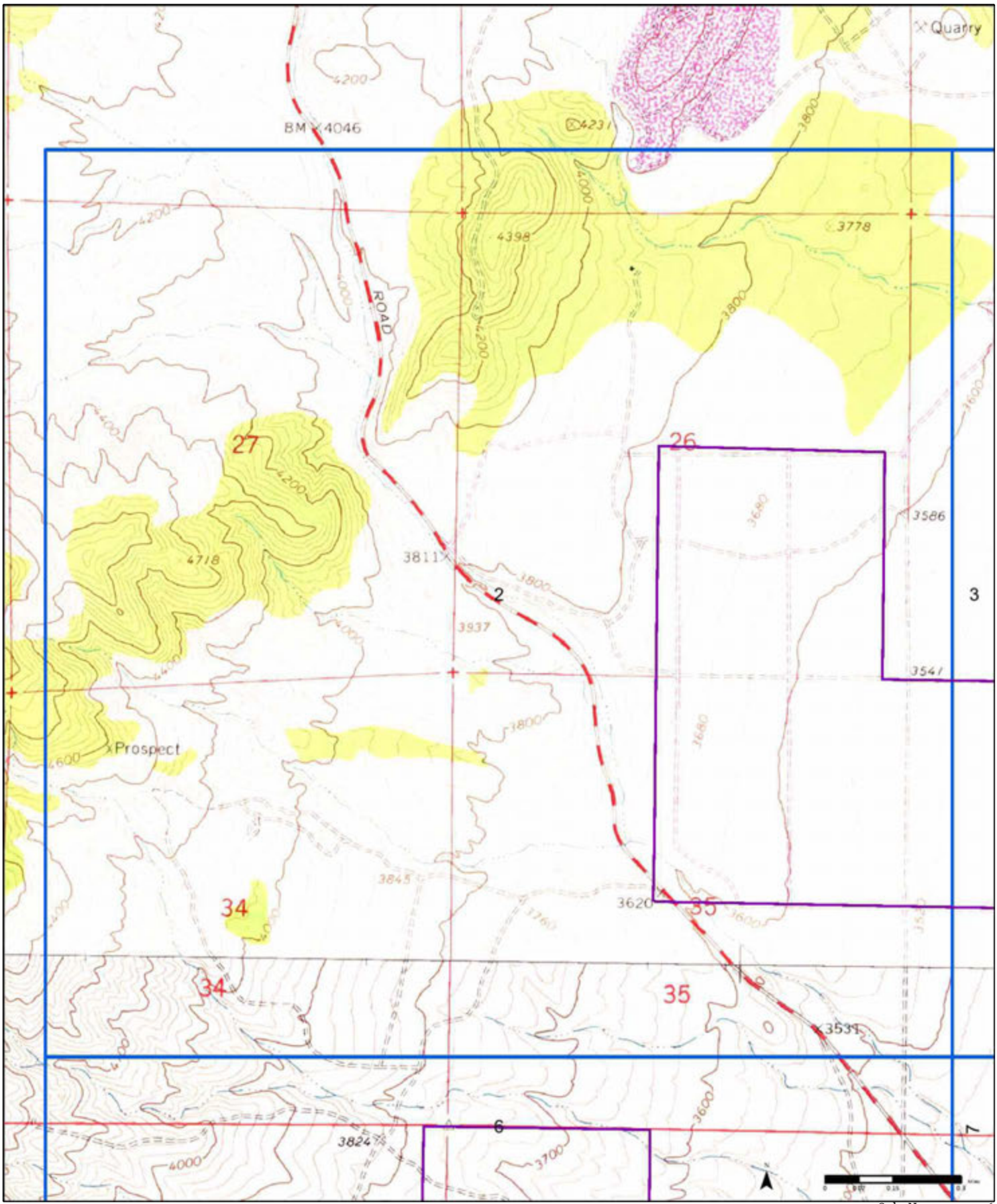
Order No. 25071400346



Available Quadrangle(s): Soledad Mtn, CA(4-1973)
Monolith, CA(5-1973)
Willow Springs, CA(6-1974)
Tylerhorse Canyon, CA(1-1965)
Mojave, CA(2-1973)
Tehachapi South, CA(3-1973)

Source: USGS 7.5 Minute Topographic Map

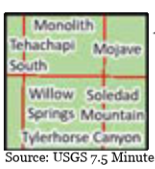
PARTNER



1974

(1-1965) Aerial Photo Year: 1963
(2-1973) Aerial Photo Year: 1972
(3-1973) Aerial Photo Year: 1973 Photo Revision Year: 1973
(4-1973) Aerial Photo Year: 1972
(5-1973) Aerial Photo Year: 1973 Photo Revision Year: 1973
(6-1974) Aerial Photo Year: 1963 Photo Revision Year: 1974

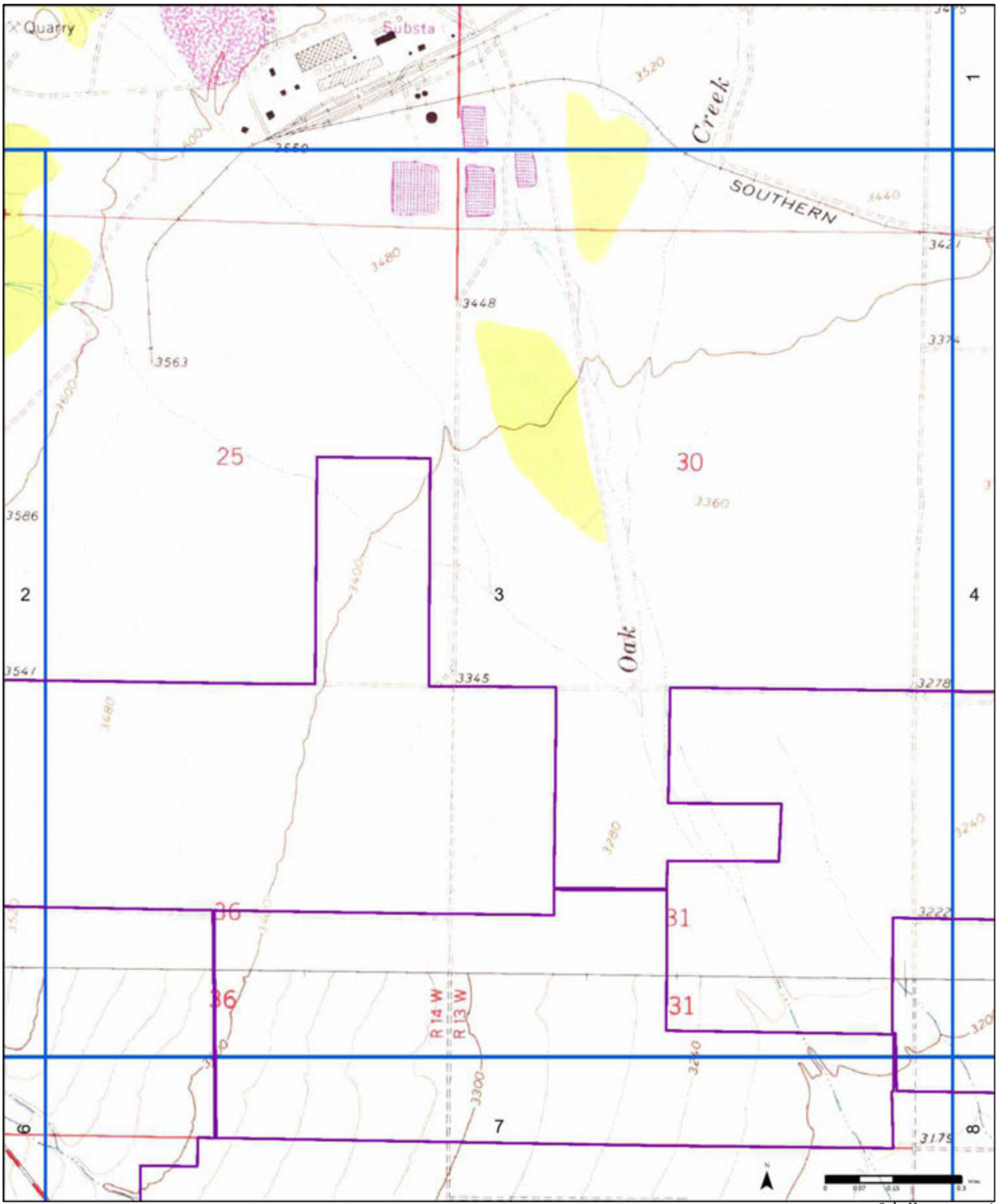
Order No. 25071400346



Available Quadrangle(s): Soledad Mtn, CA(4-1973)
Monolith, CA(5-1973)
Willow Springs, CA(6-1974)
Tylerhorse Canyon, CA(1-1965)
Mojave, CA(2-1973)
Tehachapi South, CA(3-1973)

Source: USGS 7.5 Minute Topographic Map

PARTNER



1974

(1-1965) *Aerial Photo Year: 1963*

(2-1973) *Aerial Photo Year: 1972*

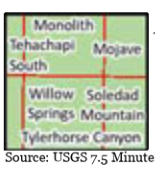
(3-1973) *Aerial Photo Year: 1973*
Photo Revision Year: 1973

(4-1973) *Aerial Photo Year: 1972*

(5-1973) *Aerial Photo Year: 1973*
Photo Revision Year: 1973

(6-1974) *Aerial Photo Year: 1963*
Photo Revision Year: 1974

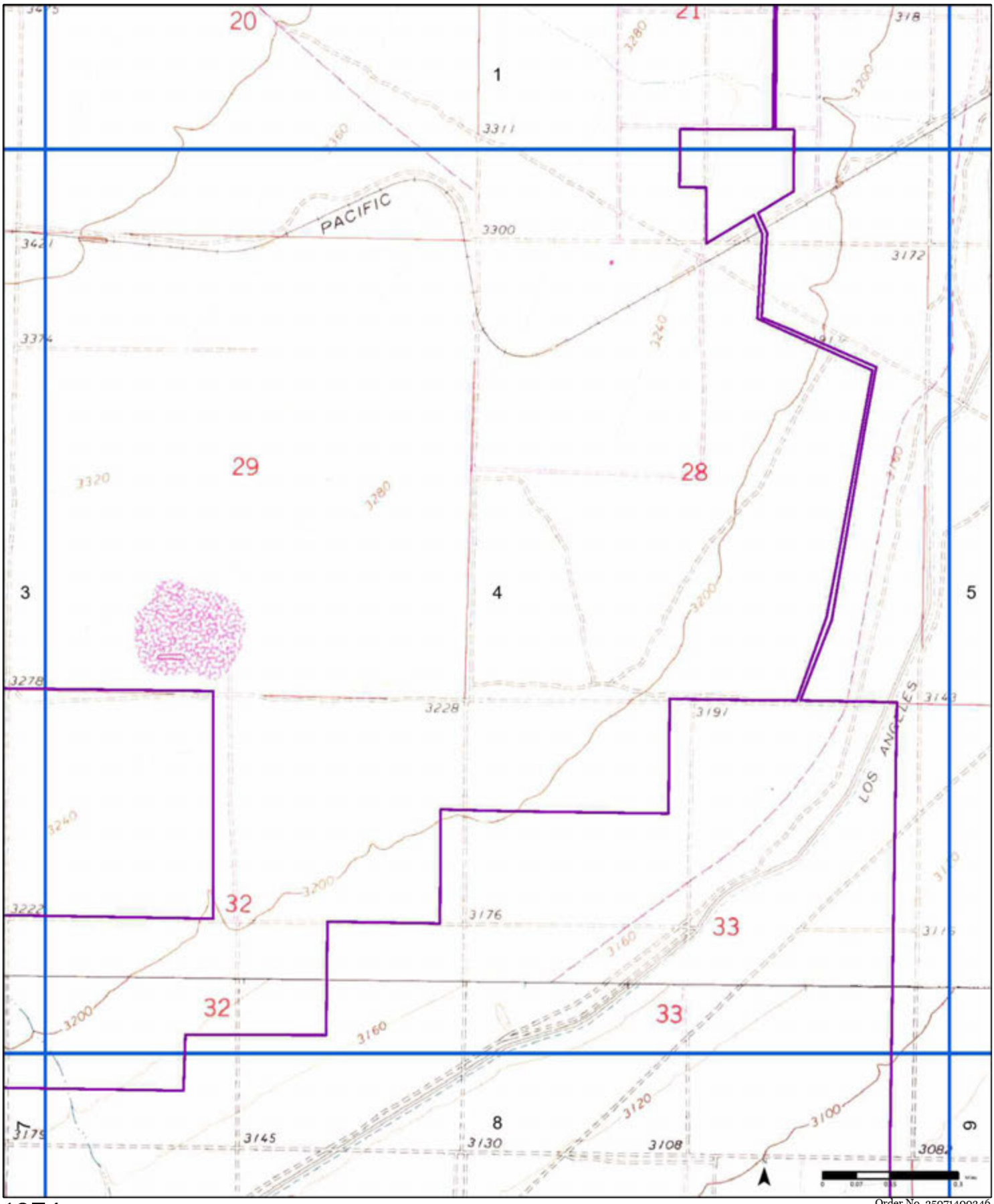
Order No. 25071400346



Available Quadrangle(s): Soledad Mtn, CA(4-1973)
Monolith, CA(5-1973)
Willow Springs, CA(6-1974)
Tylerhorse Canyon, CA(1-1965)
Mojave, CA(2-1973)
Tehachapi South, CA(3-1973)

Source: USGS 7.5 Minute Topographic Map

PARTNER



1974

(1-1965) *Aerial Photo Year: 1963*

(2-1973) *Aerial Photo Year: 1972*

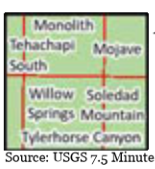
(3-1973) *Aerial Photo Year: 1973*
Photo Revision Year: 1973

(4-1973) *Aerial Photo Year: 1972*

(5-1973) *Aerial Photo Year: 1973*
Photo Revision Year: 1973

(6-1974) *Aerial Photo Year: 1963*
Photo Revision Year: 1974

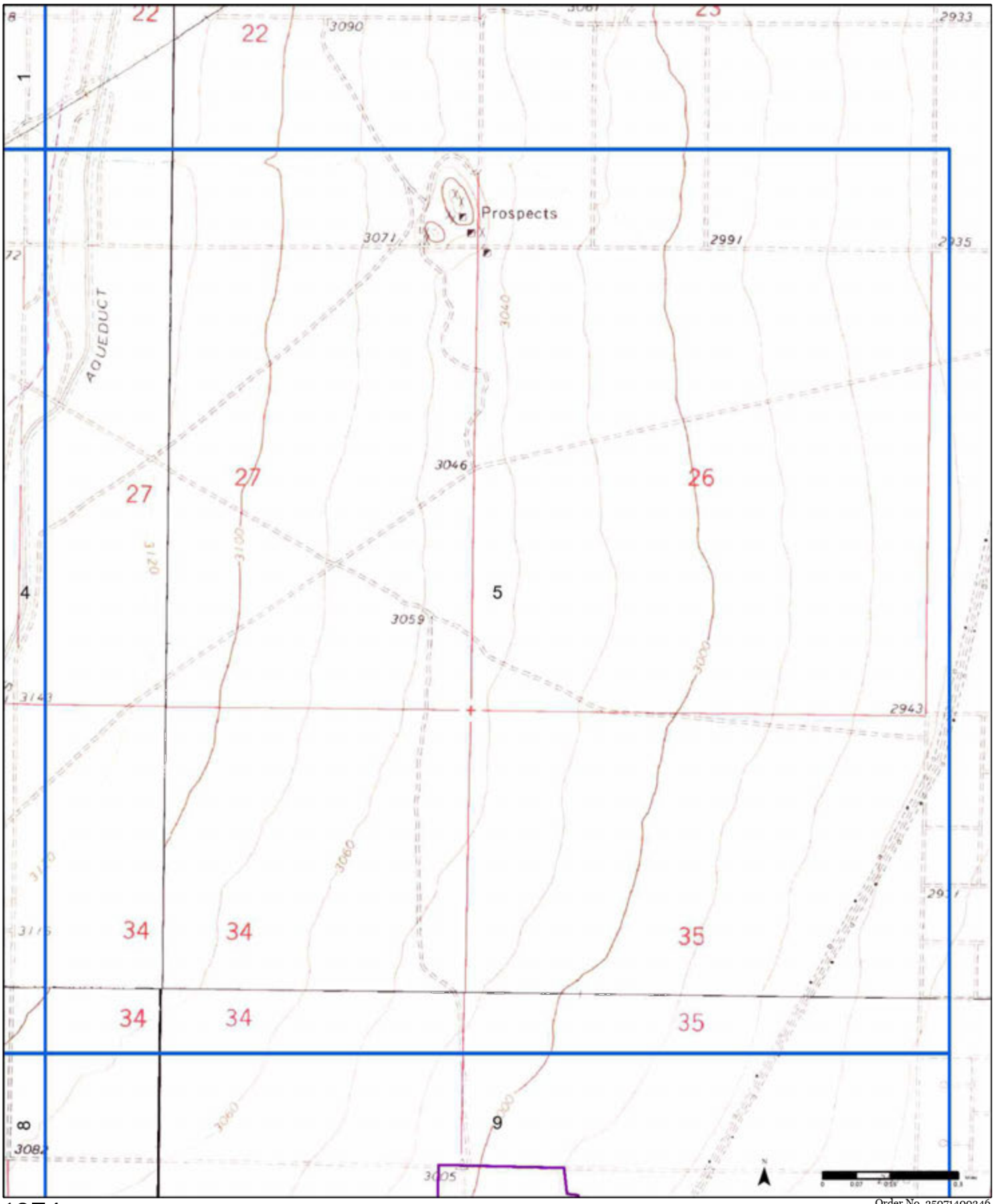
Order No. 25071400346



Available Quadrangle(s): Soledad Mtn, CA(4-1973)
Monolith, CA(5-1973)
Willow Springs, CA(6-1974)
Tylerhorse Canyon, CA(1-1965)
Mojave, CA(2-1973)
Tehachapi South, CA(3-1973)

Source: USGS 7.5 Minute Topographic Map

PARTNER



1974

(1-1965) *Aerial Photo Year: 1963*

(2-1973) *Aerial Photo Year: 1972*

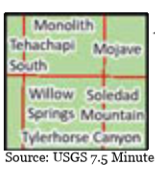
(3-1973) *Aerial Photo Year: 1973*
Photo Revision Year: 1973

(4-1973) *Aerial Photo Year: 1972*

(5-1973) *Aerial Photo Year: 1973*
Photo Revision Year: 1973

(6-1974) *Aerial Photo Year: 1963*
Photo Revision Year: 1974

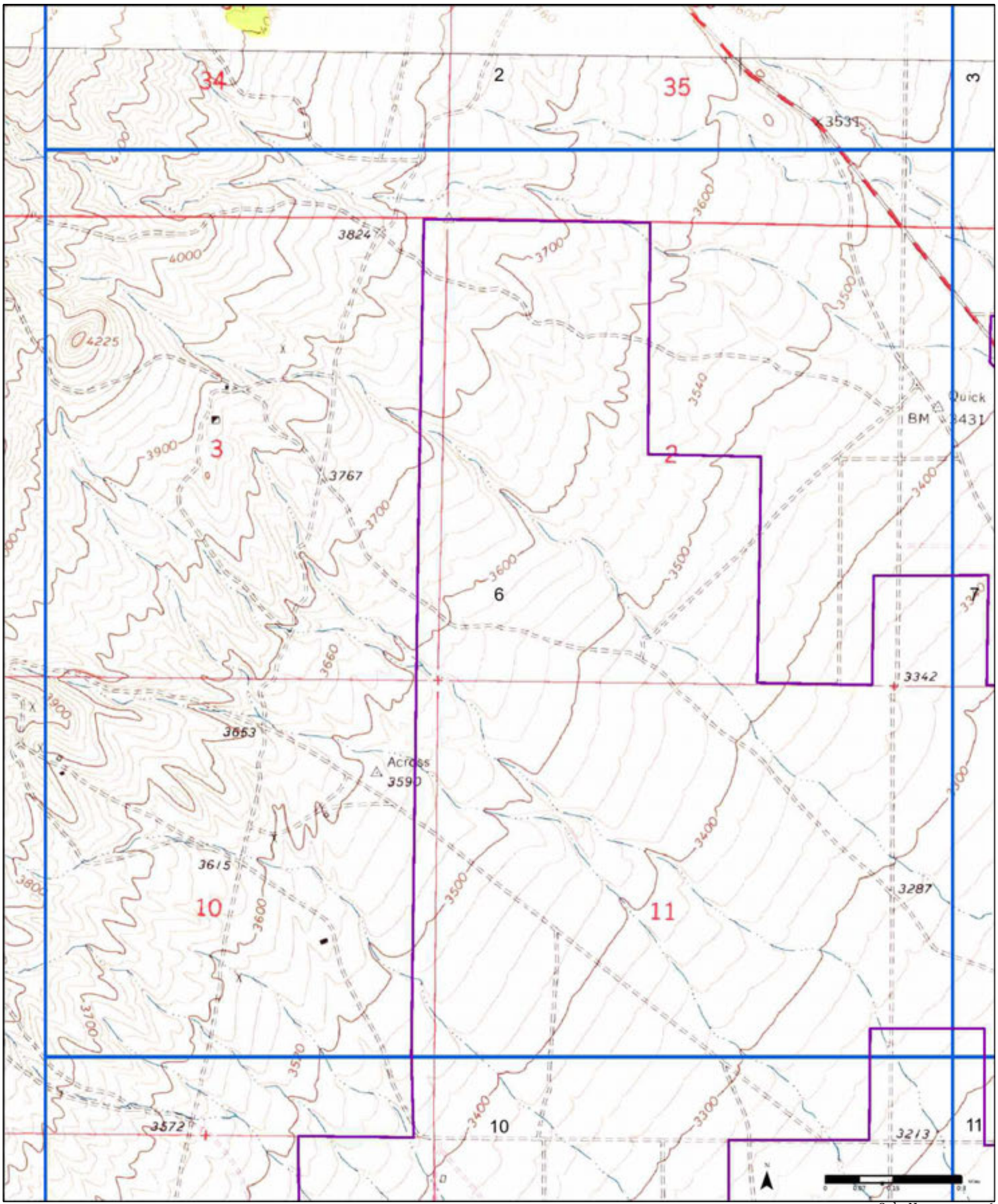
Order No. 25071400346



Available Quadrangle(s): Soledad Mtn, CA(4-1973)
Monolith, CA(5-1973)
Willow Springs, CA(6-1974)
Tylerhorse Canyon, CA(1-1965)
Mojave, CA(2-1973)
Tehachapi South, CA(3-1973)

Source: USGS 7.5 Minute Topographic Map

PARTNER



1974

(1-1965) *Aerial Photo Year: 1963*

(2-1973) *Aerial Photo Year: 1972*

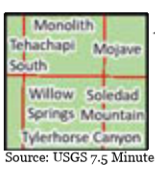
(3-1973) *Aerial Photo Year: 1973*
Photo Revision Year: 1973

(4-1973) *Aerial Photo Year: 1972*

(5-1973) *Aerial Photo Year: 1973*
Photo Revision Year: 1973

(6-1974) *Aerial Photo Year: 1963*
Photo Revision Year: 1974

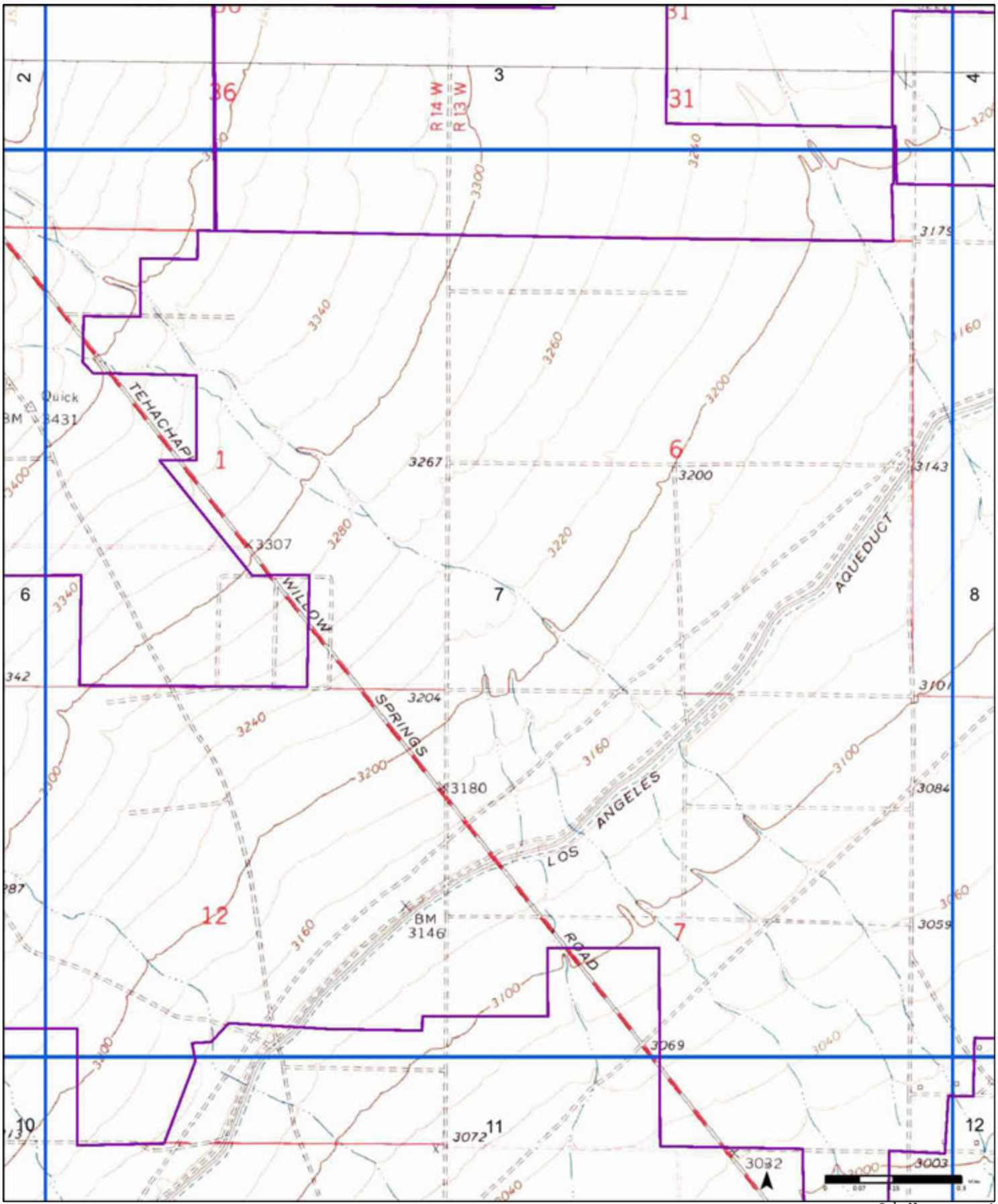
Order No. 25071400346



Available Quadrangle(s): Soledad Mtn, CA(4-1973)
Monolith, CA(5-1973)
Willow Springs, CA(6-1974)
Tylerhorse Canyon, CA(1-1965)
Mojave, CA(2-1973)
Tehachapi South, CA(3-1973)

Source: USGS 7.5 Minute Topographic Map

PARTNER



1974

(1-1965) *Aerial Photo Year: 1963*

(2-1973) *Aerial Photo Year: 1972*

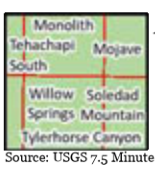
(3-1973) *Aerial Photo Year: 1973*
Photo Revision Year: 1973

(4-1973) *Aerial Photo Year: 1972*

(5-1973) *Aerial Photo Year: 1973*
Photo Revision Year: 1973

(6-1974) *Aerial Photo Year: 1963*
Photo Revision Year: 1974

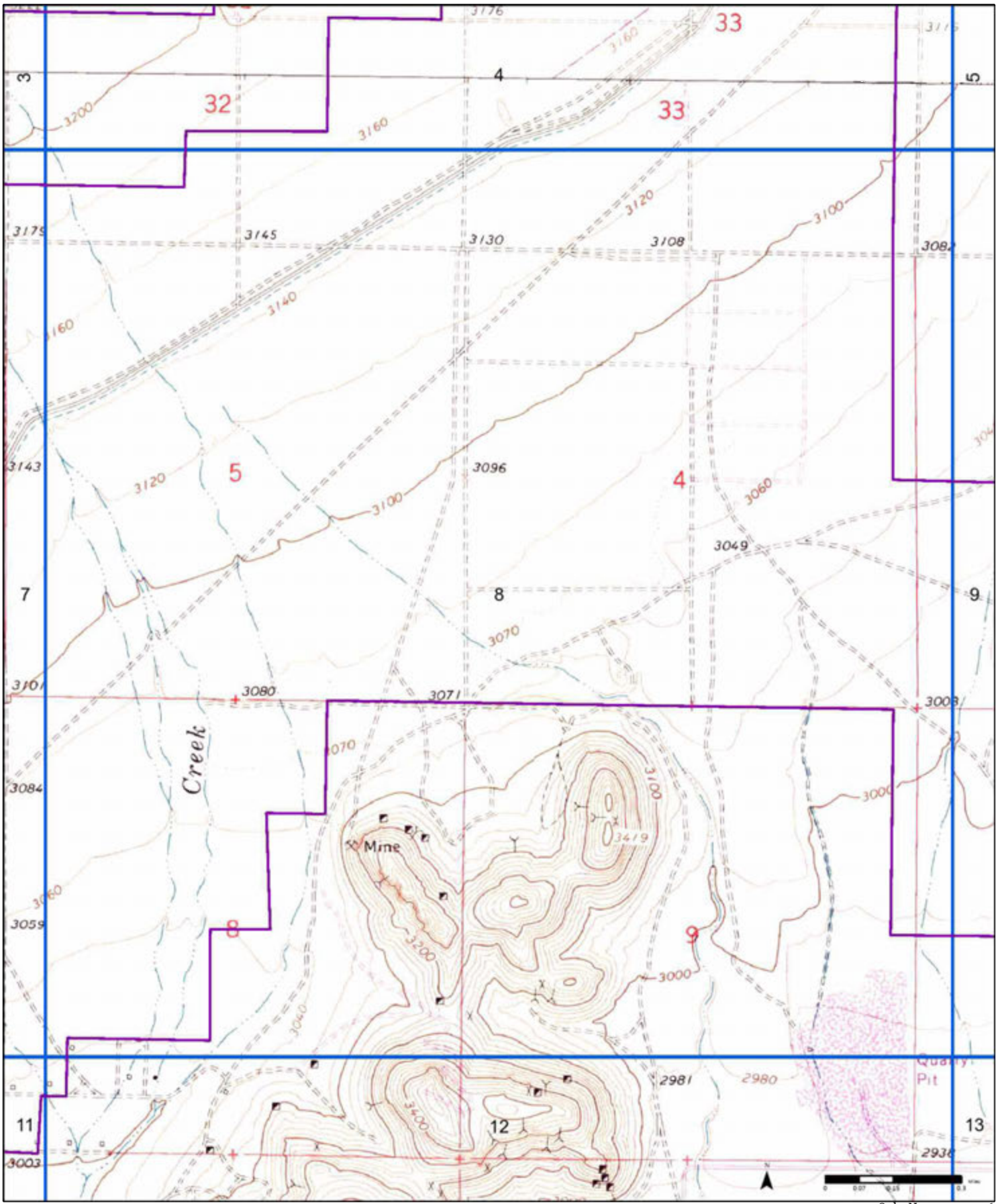
Order No. 25071400346



Available Quadrangle(s): Soledad Mtn, CA(4-1973)
Monolith, CA(5-1973)
Willow Springs, CA(6-1974)
Tylerhorse Canyon, CA(1-1965)
Mojave, CA(2-1973)
Tehachapi South, CA(3-1973)

Source: USGS 7.5 Minute Topographic Map

PARTNER



1974

(1-1965) *Aerial Photo Year: 1963*

(2-1973) *Aerial Photo Year: 1972*

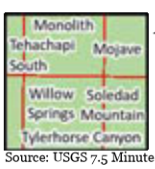
(3-1973) *Aerial Photo Year: 1973*
Photo Revision Year: 1973

(4-1973) *Aerial Photo Year: 1972*

(5-1973) *Aerial Photo Year: 1973*
Photo Revision Year: 1973

(6-1974) *Aerial Photo Year: 1963*
Photo Revision Year: 1974

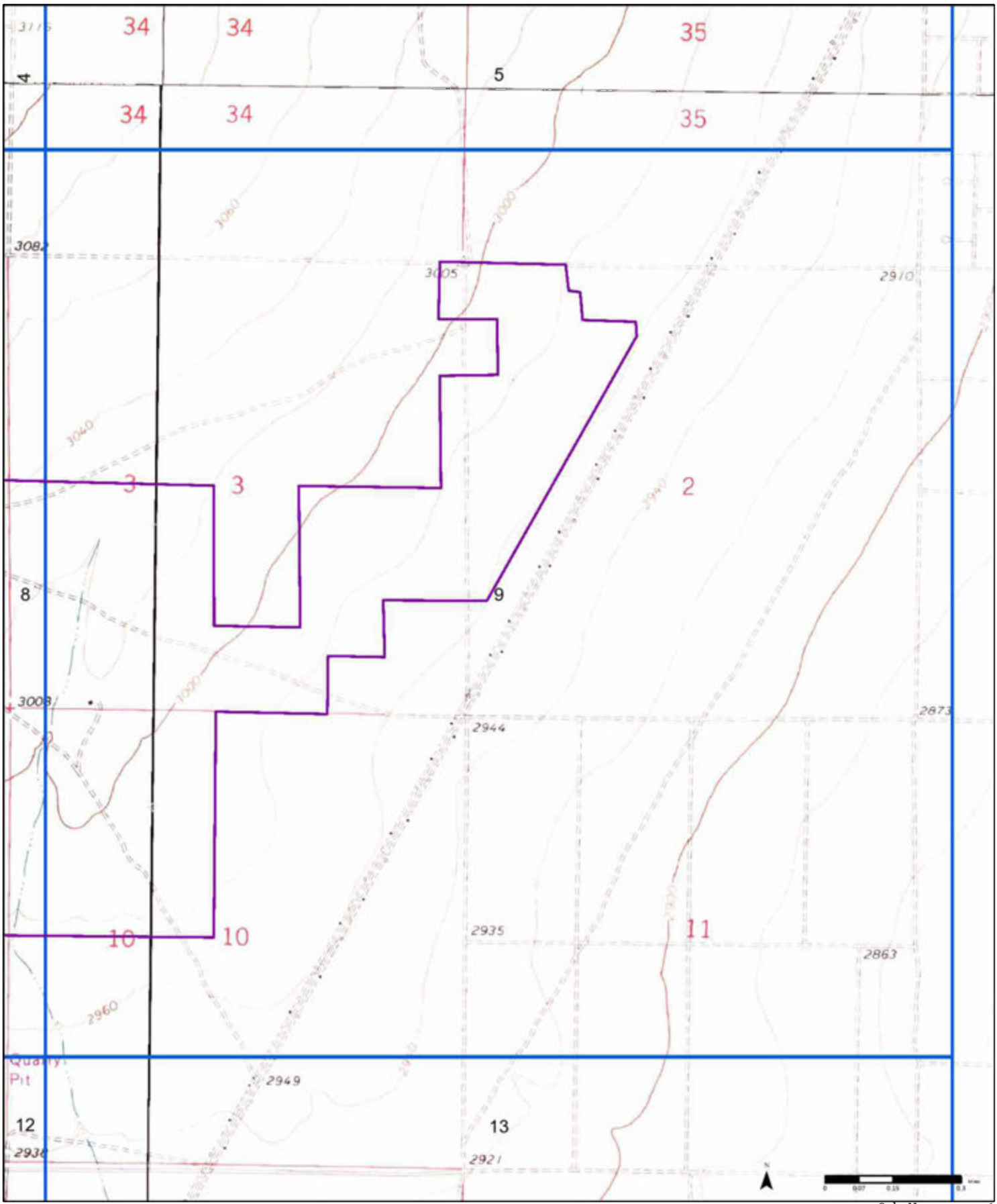
Order No. 25071400346



Available Quadrangle(s): Soledad Mtn, CA(4-1973)
Monolith, CA(5-1973)
Willow Springs, CA(6-1974)
Tylerhorse Canyon, CA(1-1965)
Mojave, CA(2-1973)
Tehachapi South, CA(3-1973)

Source: USGS 7.5 Minute Topographic Map

PARTNER



1974

(1-1965) *Aerial Photo Year: 1963*

(2-1973) *Aerial Photo Year: 1972*

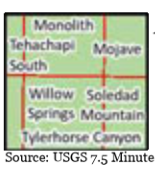
(3-1973) *Aerial Photo Year: 1973*
Photo Revision Year: 1973

(4-1973) *Aerial Photo Year: 1972*

(5-1973) *Aerial Photo Year: 1973*
Photo Revision Year: 1973

(6-1974) *Aerial Photo Year: 1963*
Photo Revision Year: 1974

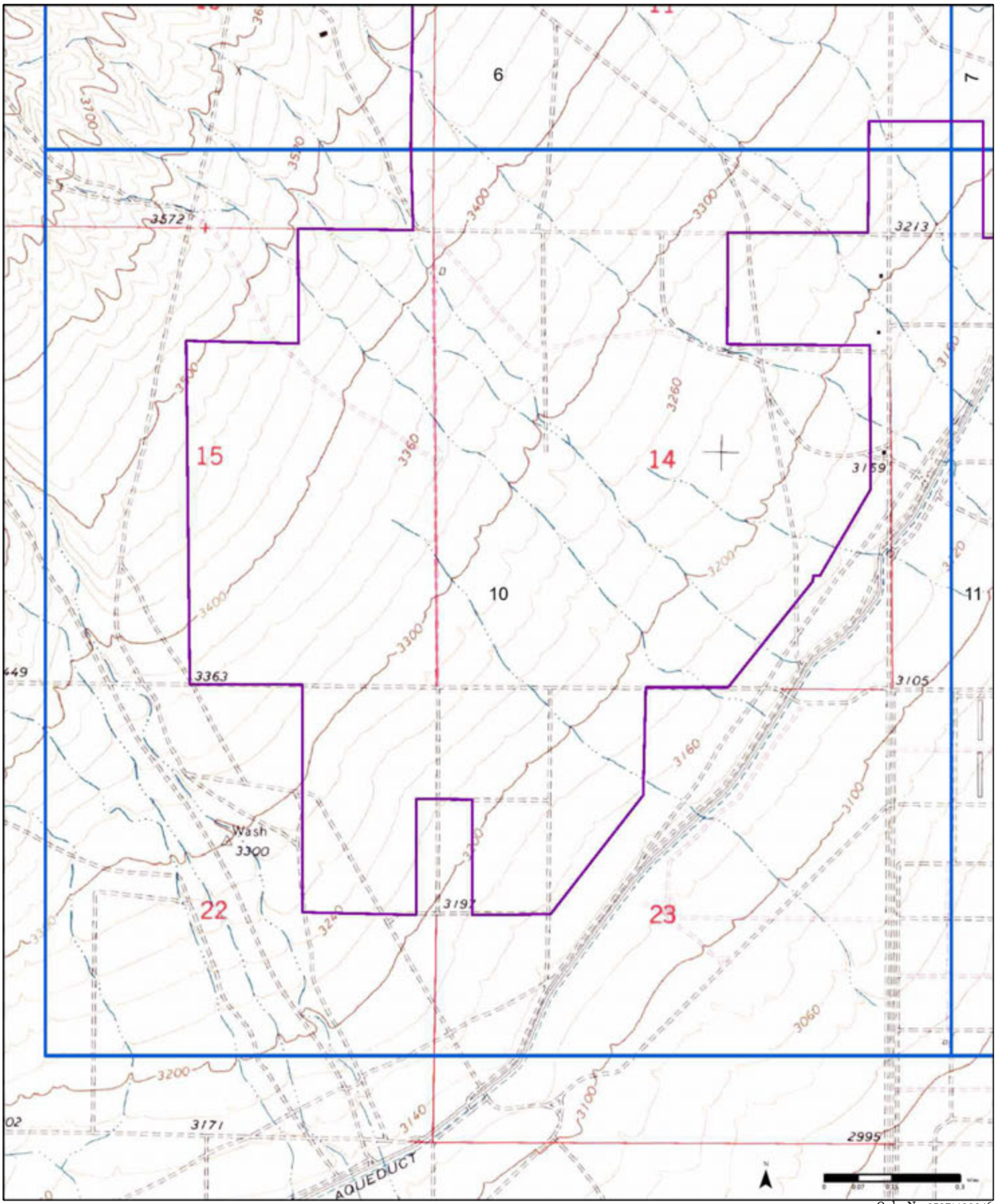
Order No. 25071400346



Available Quadrangle(s): Soledad Mtn, CA(4-1973)
Monolith, CA(5-1973)
Willow Springs, CA(6-1974)
Tylerhorse Canyon, CA(1-1965)
Mojave, CA(2-1973)
Tehachapi South, CA(3-1973)

Source: USGS 7.5 Minute Topographic Map

PARTNER



1974

(1-1965) *Aerial Photo Year: 1963*
(2-1973) *Aerial Photo Year: 1972*
(3-1973) *Aerial Photo Year: 1973*
Photo Revision Year: 1973
(4-1973) *Aerial Photo Year: 1972*
(5-1973) *Aerial Photo Year: 1973*
Photo Revision Year: 1973
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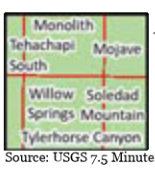
Photo Revision Year: 1974

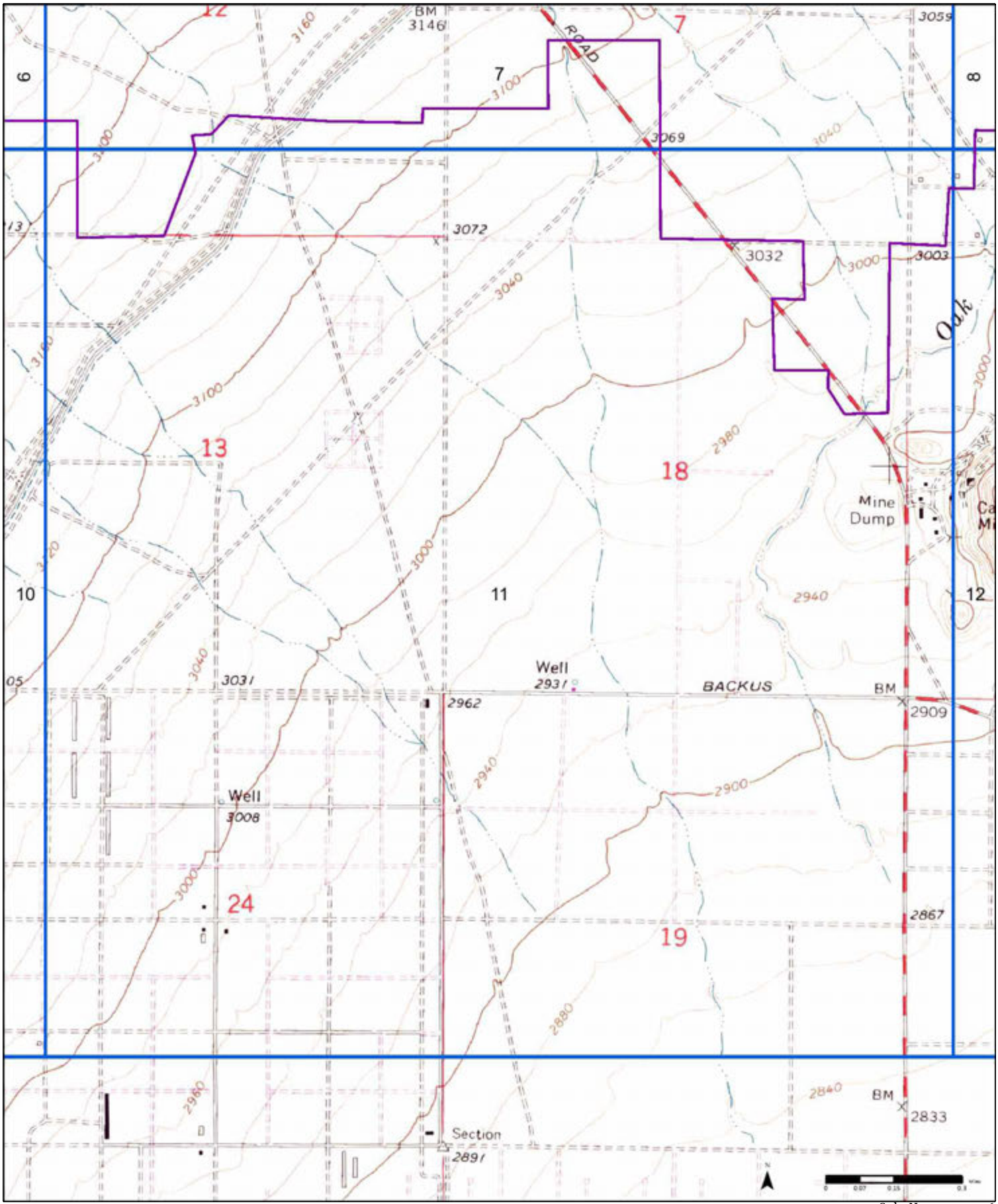
Order No. 25071400346



Available Quadrangle(s): Soledad Mtn, CA(4-1973)
Monolith, CA(5-1973)
Willow Springs, CA(6-1974)
Tylerhorse Canyon, CA(1-1965)
Mojave, CA(2-1973)
Tehachapi South, CA(3-1973)

Source: USGS 7.5 Minute Topographic Map

PARTNER



1974

(1-1965) *Aerial Photo Year: 1963*

(2-1973) *Aerial Photo Year: 1972*

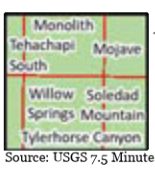
(3-1973) *Aerial Photo Year: 1973*
Photo Revision Year: 1973

(4-1973) *Aerial Photo Year: 1972*

(5-1973) *Aerial Photo Year: 1973*
Photo Revision Year: 1973

(6-1974) *Aerial Photo Year: 1963*
Photo Revision Year: 1974

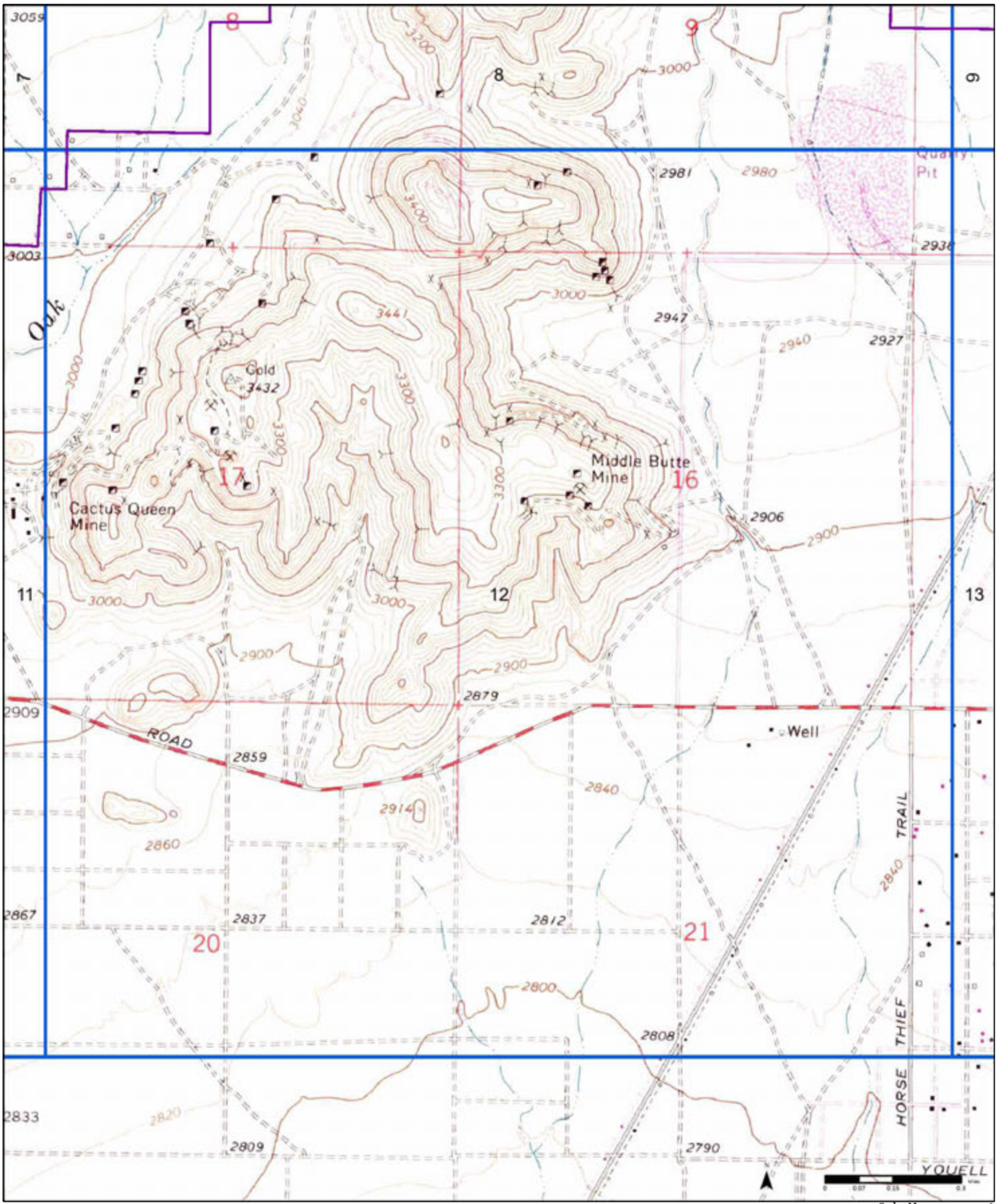
Order No. 25071400346



Available Quadrangle(s): Soledad Mtn, CA(4-1973)
Monolith, CA(5-1973)
Willow Springs, CA(6-1974)
Tylerhorse Canyon, CA(1-1965)
Mojave, CA(2-1973)
Tehachapi South, CA(3-1973)

Source: USGS 7.5 Minute Topographic Map

PARTNER



1974

(1-1965) Aerial Photo Year: 1963

(2-1973) Aerial Photo Year: 1972

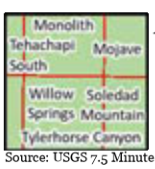
(3-1973) Aerial Photo Year: 1973
Photo Revision Year: 1973

(4-1973) Aerial Photo Year: 1972

(5-1973) Aerial Photo Year: 1973
Photo Revision Year: 1973

(6-1974) Aerial Photo Year: 1963
Photo Revision Year: 1974

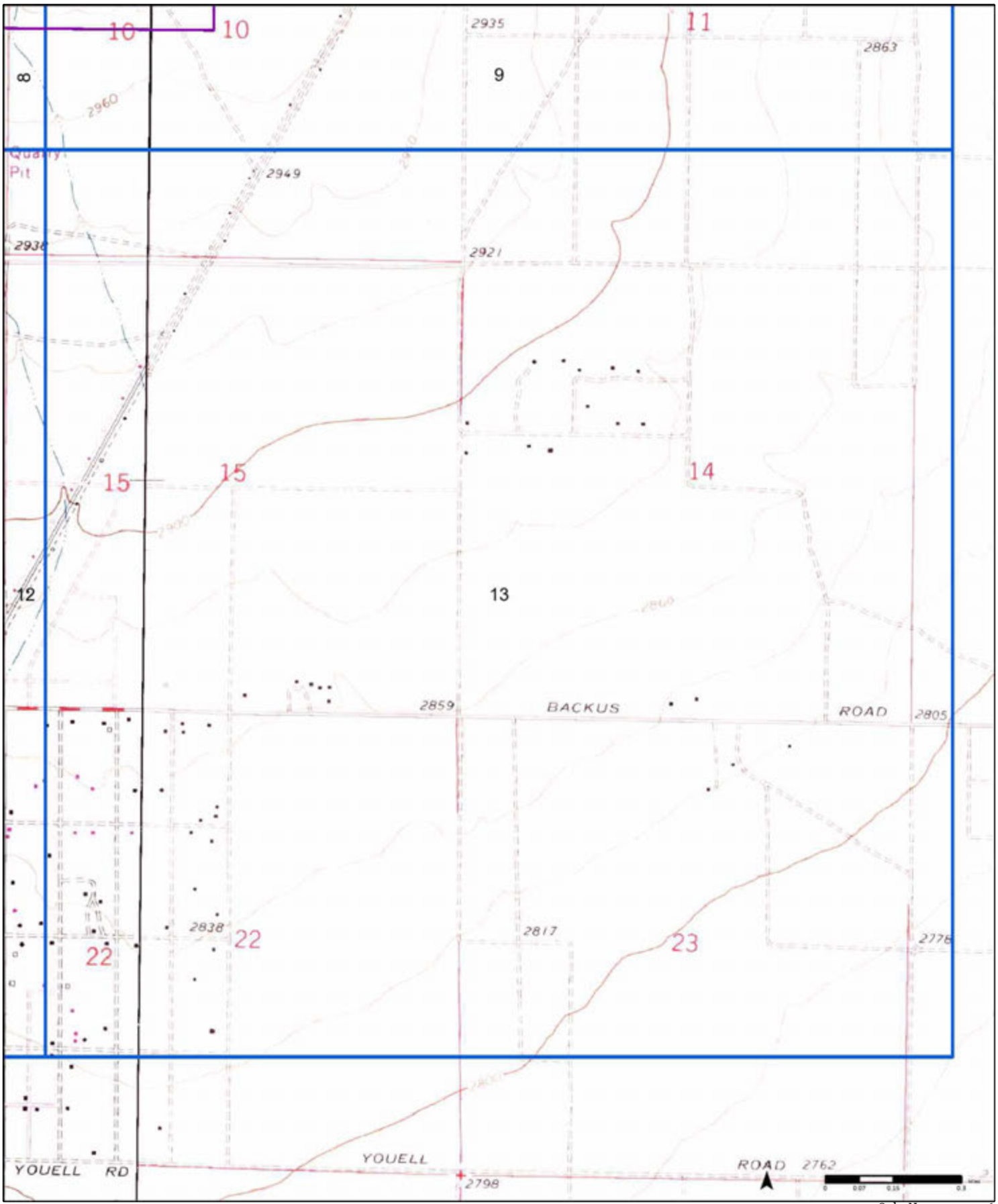
Order No. 25071400346



Available Quadrangle(s): Soledad Mtn, CA(4-1973)
Monolith, CA(5-1973)
Willow Springs, CA(6-1974)
Tylerhorse Canyon, CA(1-1965)
Mojave, CA(2-1973)
Tehachapi South, CA(3-1973)

Source: USGS 7.5 Minute Topographic Map

PARTNER



1974

(1-1965) *Aerial Photo Year: 1963*

(2-1973) *Aerial Photo Year: 1972*

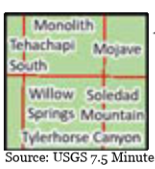
(3-1973) *Aerial Photo Year: 1973*
Photo Revision Year: 1973

(4-1973) *Aerial Photo Year: 1972*

(5-1973) *Aerial Photo Year: 1973*
Photo Revision Year: 1973

(6-1974) *Aerial Photo Year: 1963*
Photo Revision Year: 1974

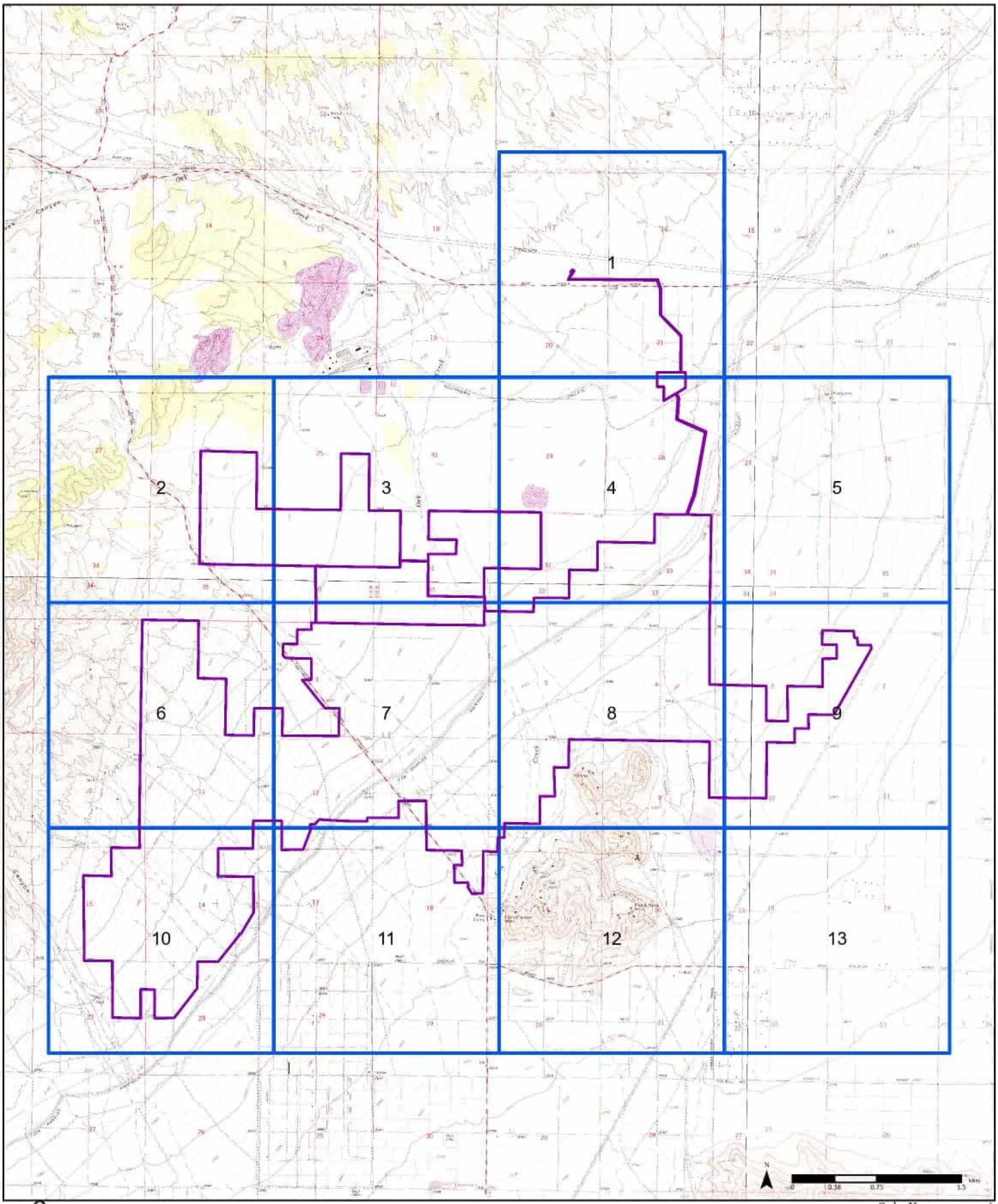
Order No. 25071400346



Available Quadrangle(s): Soledad Mtn, CA(4-1973)
Monolith, CA(5-1973)
Willow Springs, CA(6-1974)
Tylerhorse Canyon, CA(1-1965)
Mojave, CA(2-1973)
Tehachapi South, CA(3-1973)

Source: USGS 7.5 Minute Topographic Map

PARTNER



1980

(1-1965) *Aerial Photo Year: 1963*

(2-1973) *Aerial Photo Year: 1972*

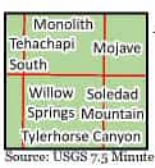
(3-1973) *Aerial Photo Year: 1973*
Photo Revision Year: 1973

(4-1973) *Aerial Photo Year: 1972*

(5-1974) *Aerial Photo Year: 1963*
Photo Revision Year: 1974

(6-1980) *Aerial Photo Year: 1973*
Photo Revision Year: 1973

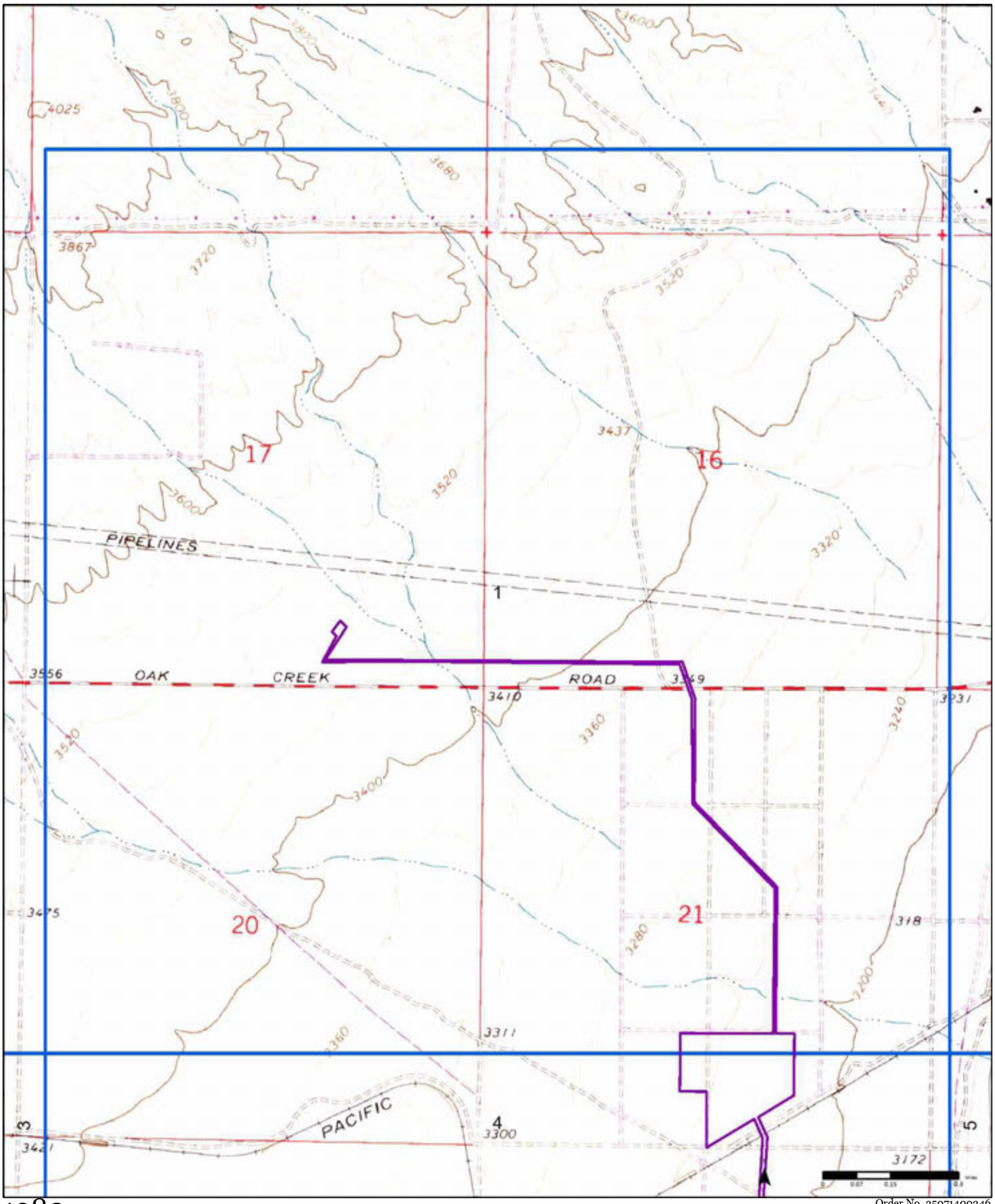
Order No. 25071400346



Available Quadrangle(s): Soledad Mtn, CA(4-1973)
Willow Springs, CA(5-1974)
Monolith, CA(6-1980)
Tylerhorse Canyon, CA(1-1965)
Mojave, CA(2-1973)
Tehachapi South, CA(3-1973)

Source: USGS 7.5 Minute Topographic Map

PARTNER



1980

(1-1965) *Aerial Photo Year: 1963*

(2-1973) *Aerial Photo Year: 1972*

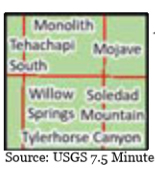
(3-1973) *Aerial Photo Year: 1973*
Photo Revision Year: 1973

(4-1973) *Aerial Photo Year: 1972*

(5-1974) *Aerial Photo Year: 1963*
Photo Revision Year: 1974

(6-1980) *Aerial Photo Year: 1973*
Photo Revision Year: 1973

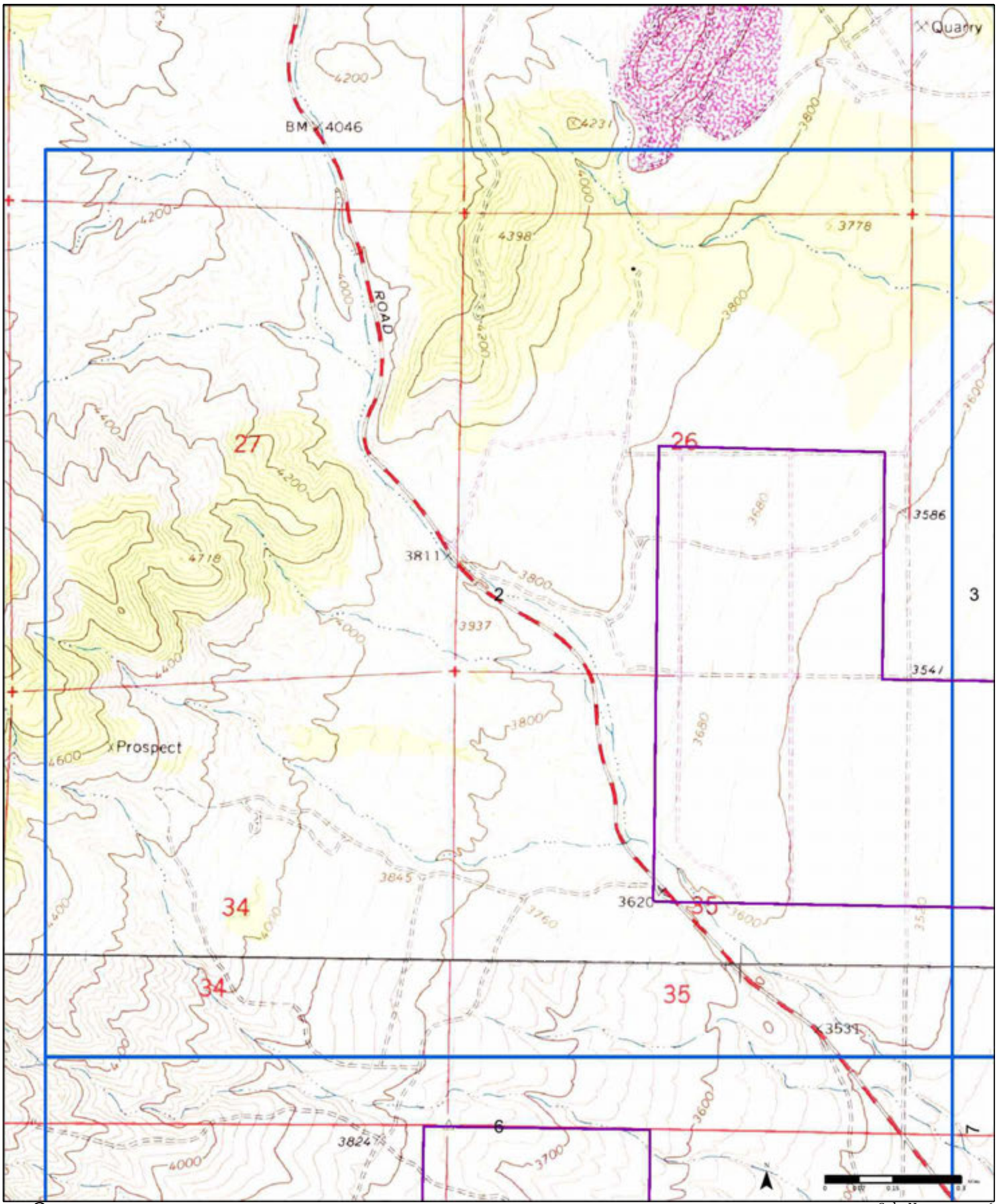
Order No. 25071400346



Available Quadrangle(s): Soledad Mtn, CA(4-1973)
Willow Springs, CA(5-1974)
Monolith, CA(6-1980)
Tylerhorse Canyon, CA(1-1965)
Mojave, CA(2-1973)
Tehachapi South, CA(3-1973)

Source: USGS 7.5 Minute Topographic Map

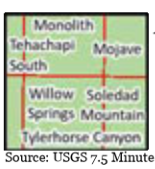
PARTNER



1980

Order No. 25071400346

(1-1965)	(2-1973)	(3-1973)	(4-1973)	(5-1974)	(6-1980)
Aerial Photo Year: 1963	*Aerial Photo Year: 1972*	*Aerial Photo Year: 1973* *Photo Revision Year: 1973*	*Aerial Photo Year: 1972*	*Aerial Photo Year: 1963* *Photo Revision Year: 1974*	*Aerial Photo Year: 1973* *Photo Revision Year: 1973*



Available Quadrangle(s): Soledad Mtn, CA(4-1973)
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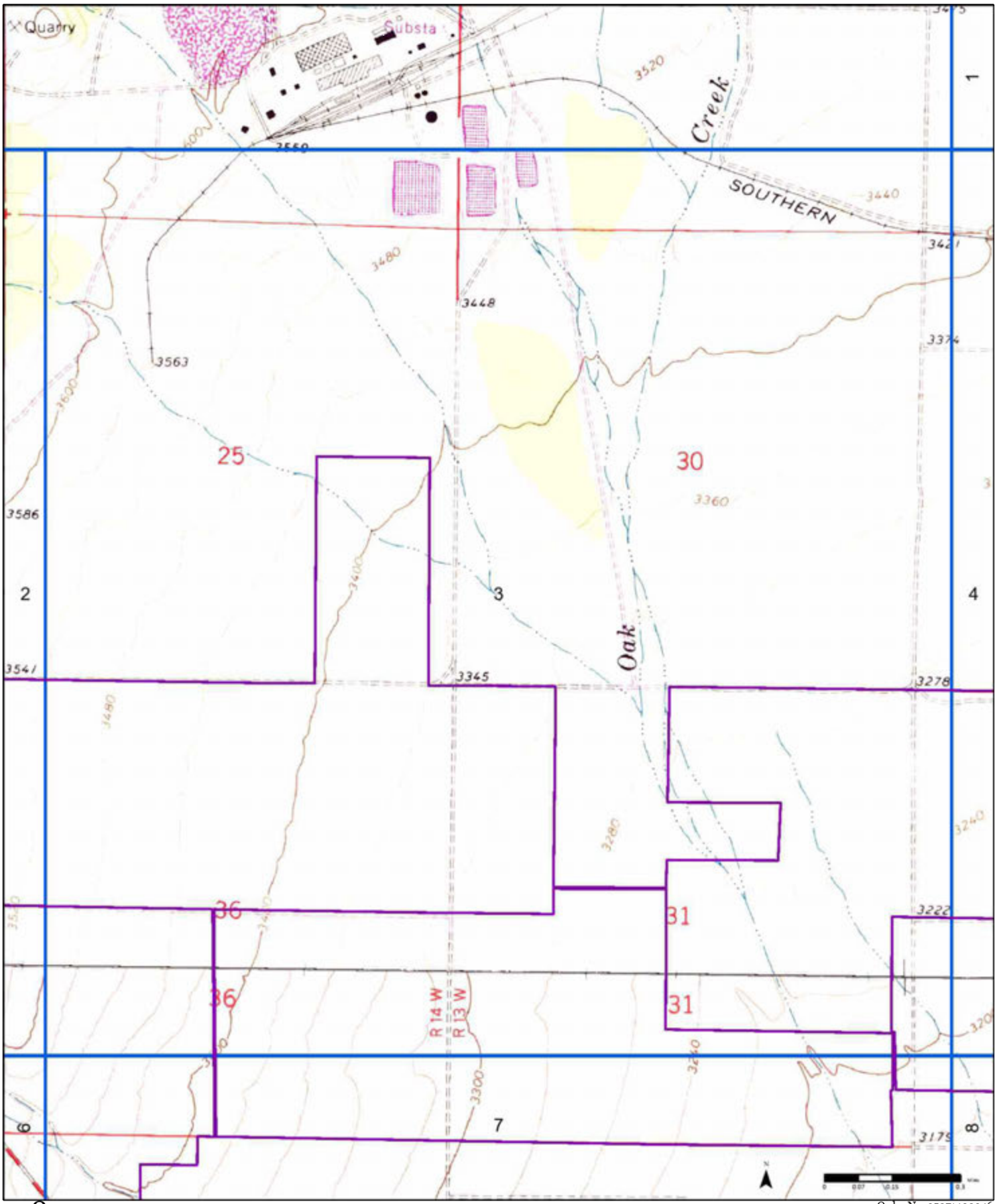
Monolith, CA(6-1980)
Tylerhorse Canyon, CA(1-1965)
Mojave, CA(2-1973)
Tehachapi South, CA(3-1973)

Source: USGS 7.5 Minute Topographic Map

PARTNER



1980

(1-1965) *Aerial Photo Year: 1963*

(2-1973) *Aerial Photo Year: 1972*

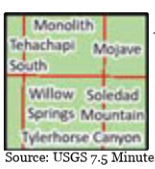
(3-1973) *Aerial Photo Year: 1973*
Photo Revision Year: 1973

(4-1973) *Aerial Photo Year: 1972*

(5-1974) *Aerial Photo Year: 1963*
Photo Revision Year: 1974

(6-1980) *Aerial Photo Year: 1973*
Photo Revision Year: 1973

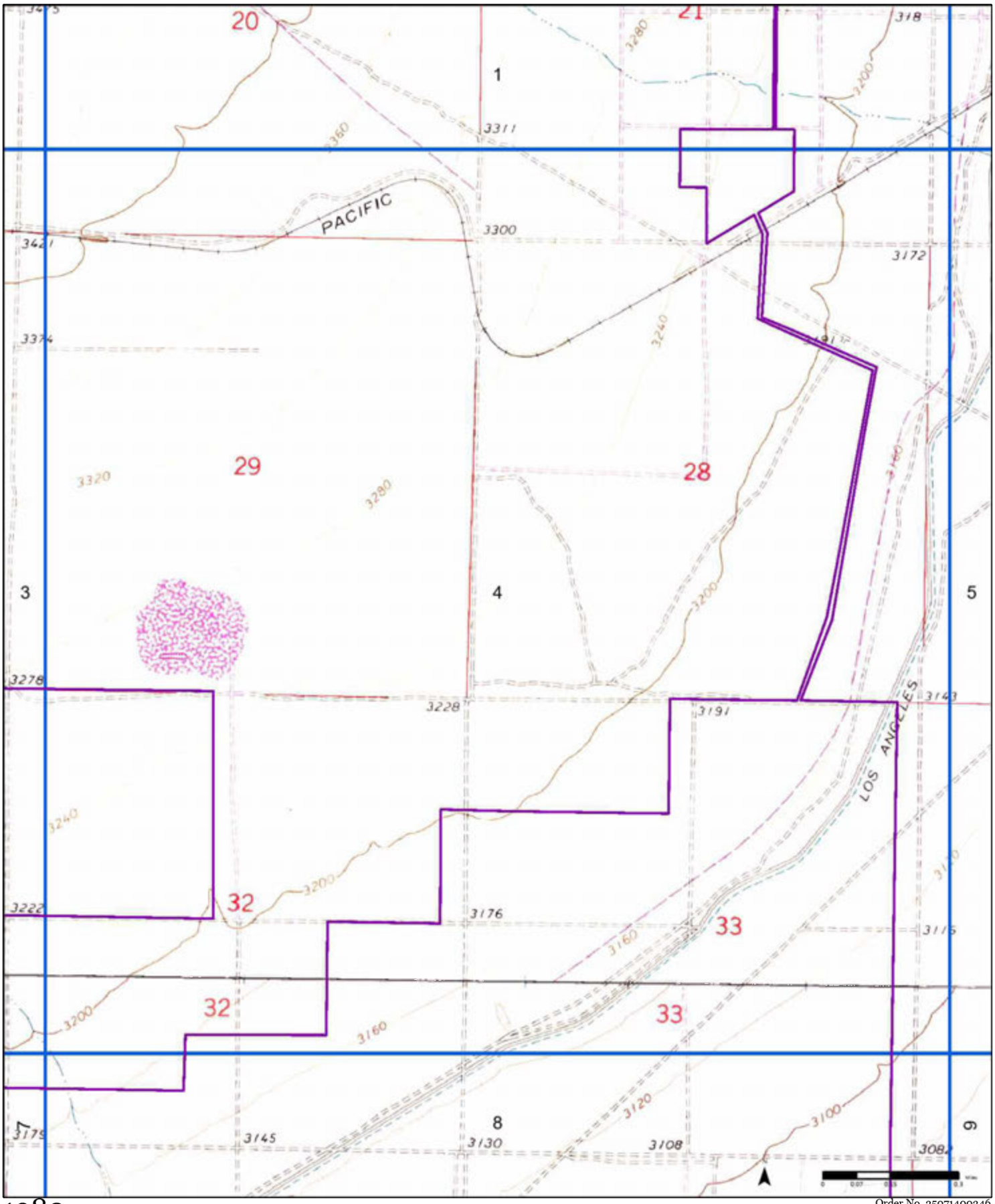
Order No. 25071400346



Available Quadrangle(s): Soledad Mtn, CA(4-1973)
Willow Springs, CA(5-1974)
Monolith, CA(6-1980)
Tylerhorse Canyon, CA(1-1965)
Mojave, CA(2-1973)
Tehachapi South, CA(3-1973)

Source: USGS 7.5 Minute Topographic Map

PARTNER



1980

(1-1965) *Aerial Photo Year: 1963*

(2-1973) *Aerial Photo Year: 1972*

(3-1973) *Aerial Photo Year: 1973*
Photo Revision Year: 1973

(4-1973) *Aerial Photo Year: 1972*

(5-1974) *Aerial Photo Year: 1963*
Photo Revision Year: 1974

(6-1980) *Aerial Photo Year: 1973*
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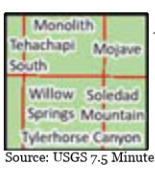

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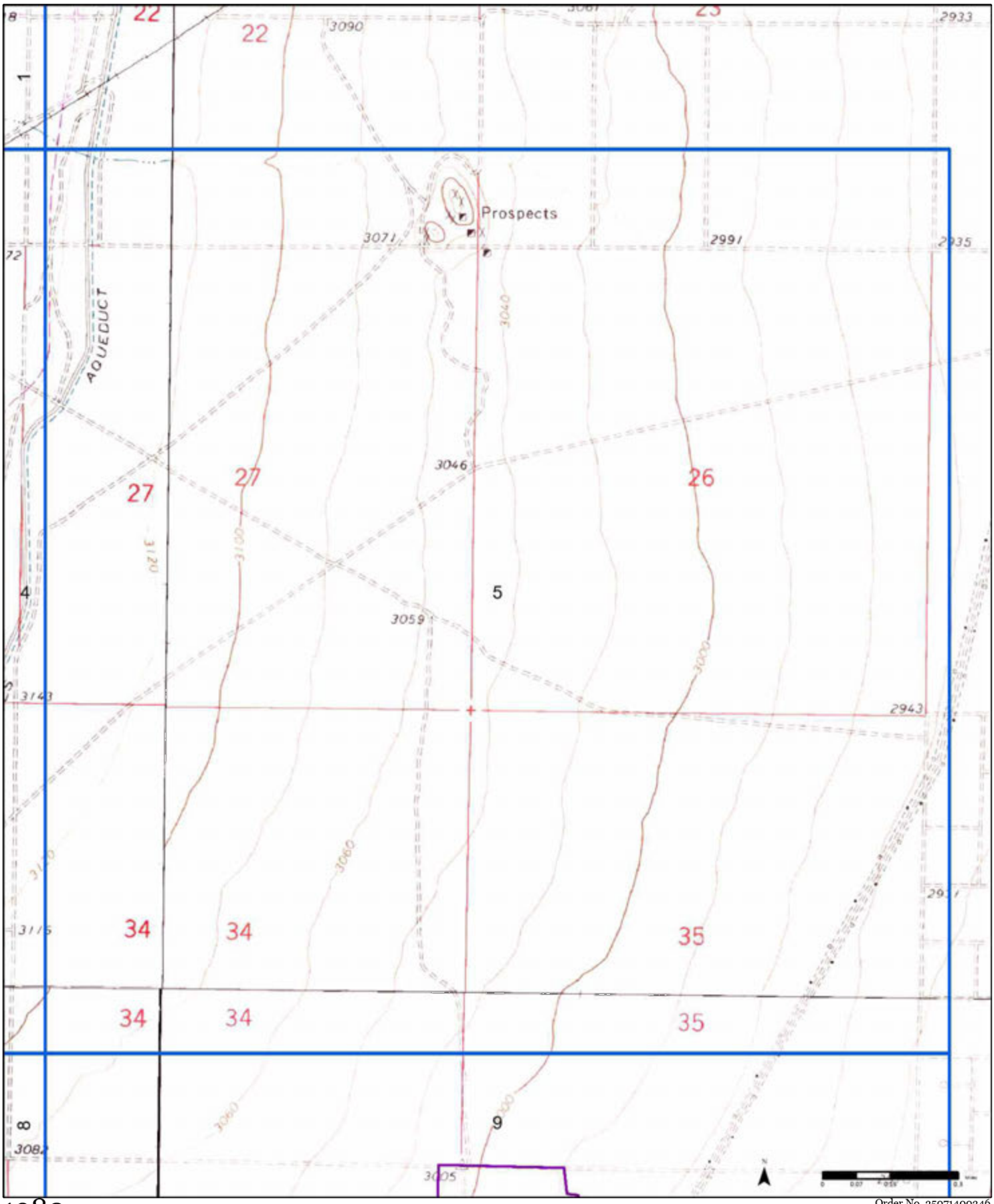
Monolith, CA(6-1980)
Tylerhorse Canyon, CA(1-1965)
Mojave, CA(2-1973)
Tehachapi South, CA(3-1973)

Source: USGS 7.5 Minute Topographic Map

PARTNER



1980

(1-1965) *Aerial Photo Year: 1963*

(2-1973) *Aerial Photo Year: 1972*

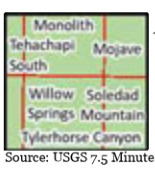
(3-1973) *Aerial Photo Year: 1973*
Photo Revision Year: 1973

(4-1973) *Aerial Photo Year: 1972*

(5-1974) *Aerial Photo Year: 1963*
Photo Revision Year: 1974

(6-1980) *Aerial Photo Year: 1973*
Photo Revision Year: 1973

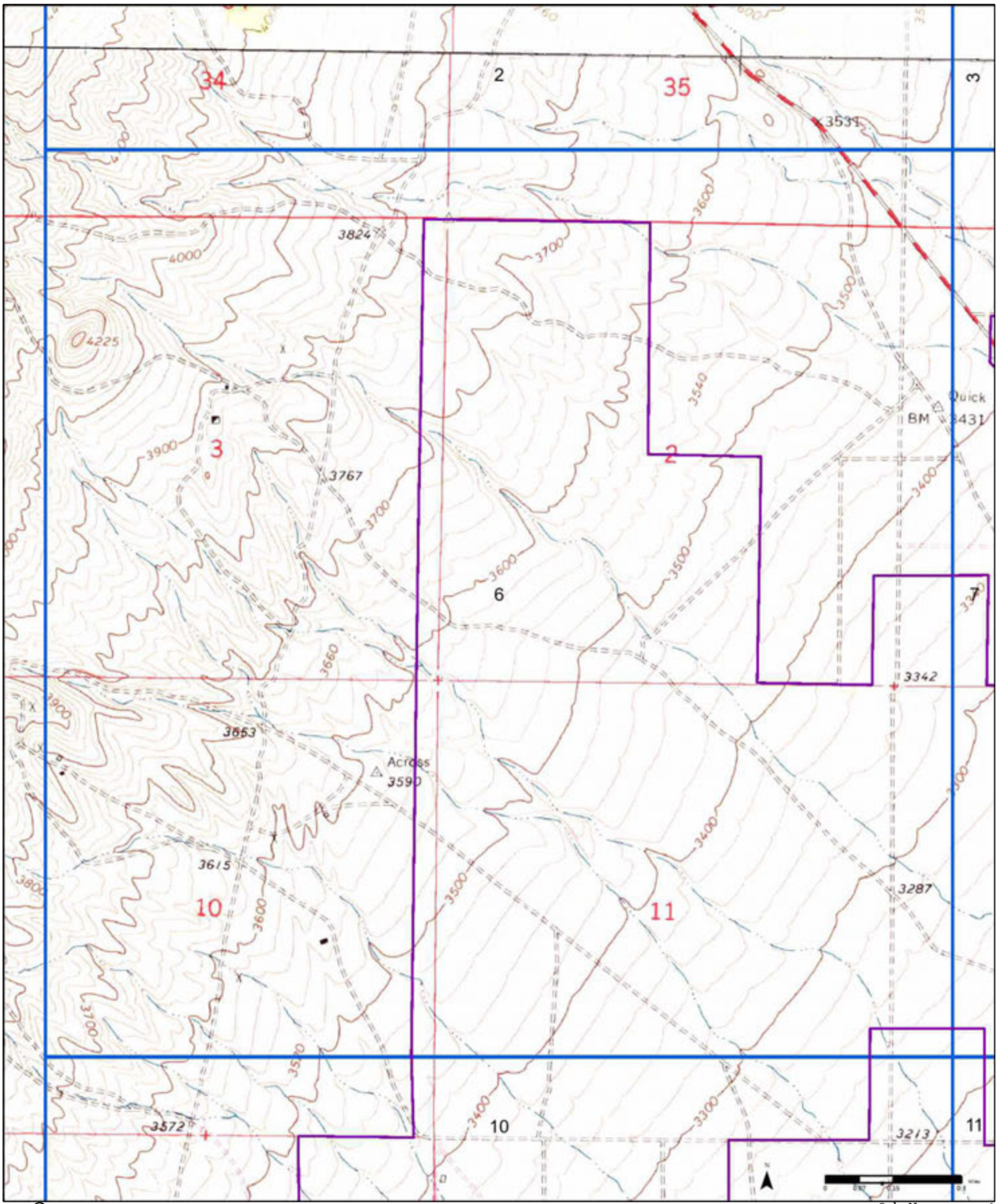
Order No. 25071400346



Available Quadrangle(s): Soledad Mtn, CA(4-1973)
Willow Springs, CA(5-1974)
Monolith, CA(6-1980)
Tylerhorse Canyon, CA(1-1965)
Mojave, CA(2-1973)
Tehachapi South, CA(3-1973)

Source: USGS 7.5 Minute Topographic Map

PARTNER



1980

(1-1965) *Aerial Photo Year: 1963*

(2-1973) *Aerial Photo Year: 1972*

(3-1973) *Aerial Photo Year: 1973*
Photo Revision Year: 1973

(4-1973) *Aerial Photo Year: 1972*

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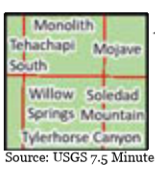
Photo Revision Year: 1974

(6-1980) *Aerial Photo Year: 1973*
Photo Revision Year: 1973

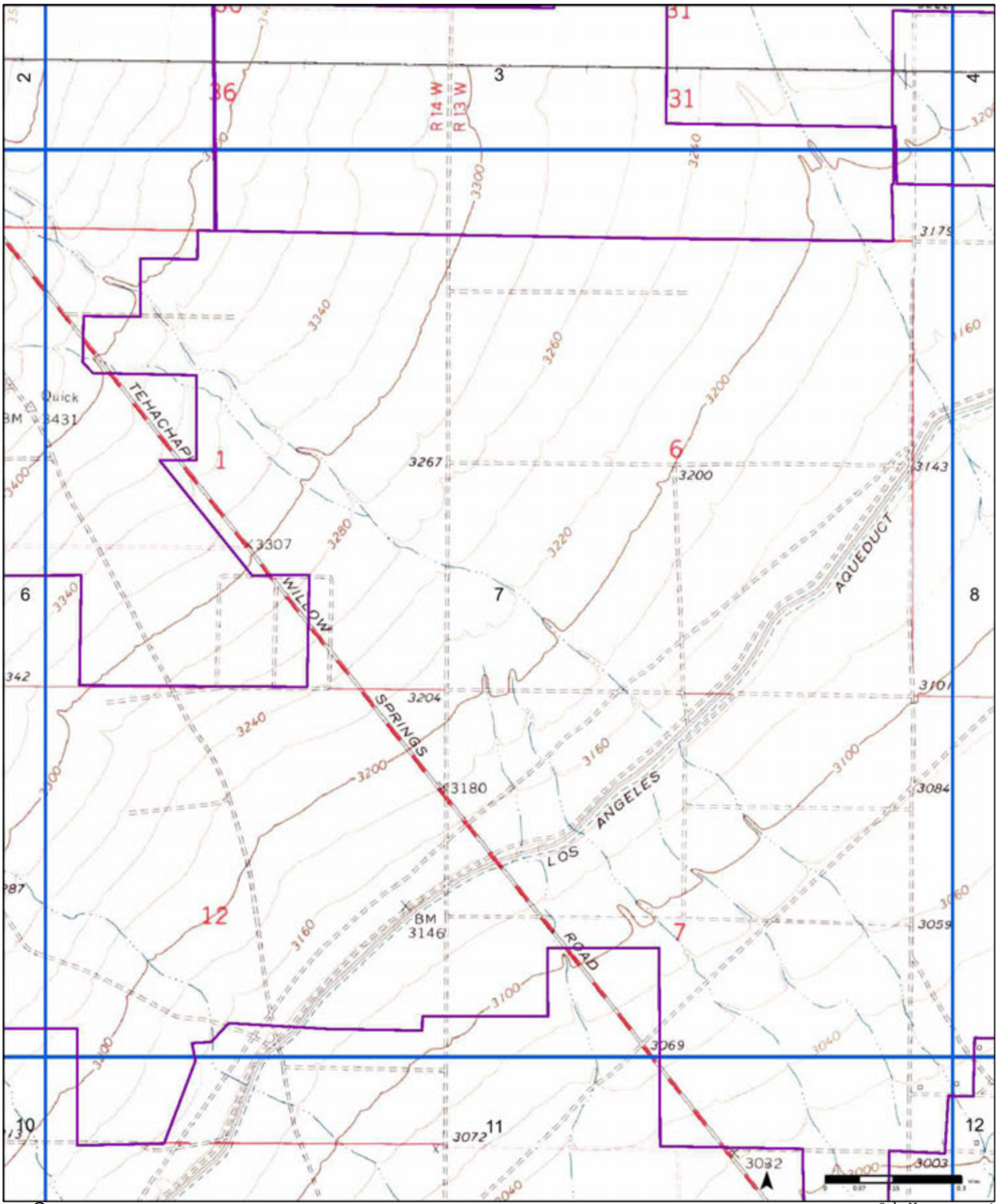
Order No. 25071400346



Available Quadrangle(s): Soledad Mtn, CA(4-1973)
Willow Springs, CA(5-1974)
Monolith, CA(6-1980)
Tylerhorse Canyon, CA(1-1965)
Mojave, CA(2-1973)
Tehachapi South, CA(3-1973)

Source: USGS 7.5 Minute Topographic Map

PARTNER



1980

(1-1965) Aerial Photo Year: 1963

(2-1973) Aerial Photo Year: 1972

(3-1973) Aerial Photo Year: 1973
Photo Revision Year: 1973

(4-1973) Aerial Photo Year: 1972

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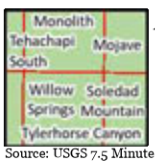
Photo Revision Year: 1974

(6-1980) Aerial Photo Year: 1973
Photo Revision Year: 1973

Order No. 25071400346



Available Quadrangle(s): Soledad Mtn, CA(4-1973)
Willow Springs, CA(5-1974)
Monolith, CA(6-1980)
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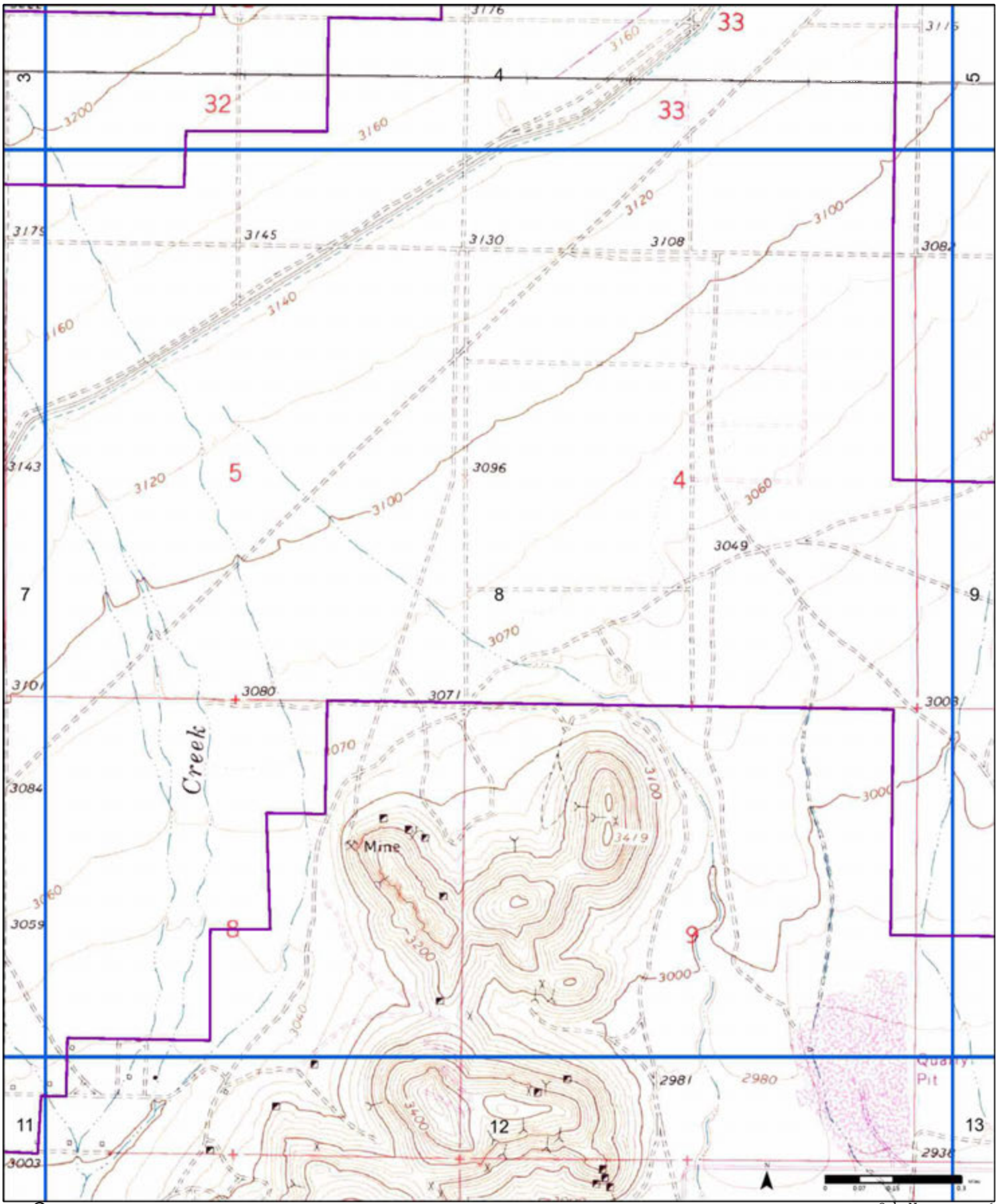
Mojave, CA(2-1973)
Tehachapi South, CA(3-1973)

Source: USGS 7.5 Minute Topographic Map

PARTNER



1980

(1-1965) Aerial Photo Year: 1963

(2-1973) Aerial Photo Year: 1972

(3-1973) Aerial Photo Year: 1973
Photo Revision Year: 1973

(4-1973) Aerial Photo Year: 1972

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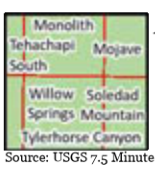
Photo Revision Year: 1974

(6-1980) Aerial Photo Year: 1973
Photo Revision Year: 1973

Order No. 25071400346



Available Quadrangle(s): Soledad Mtn, CA(4-1973)
Willow Springs, CA(5-1974)
Monolith, CA(6-1980)
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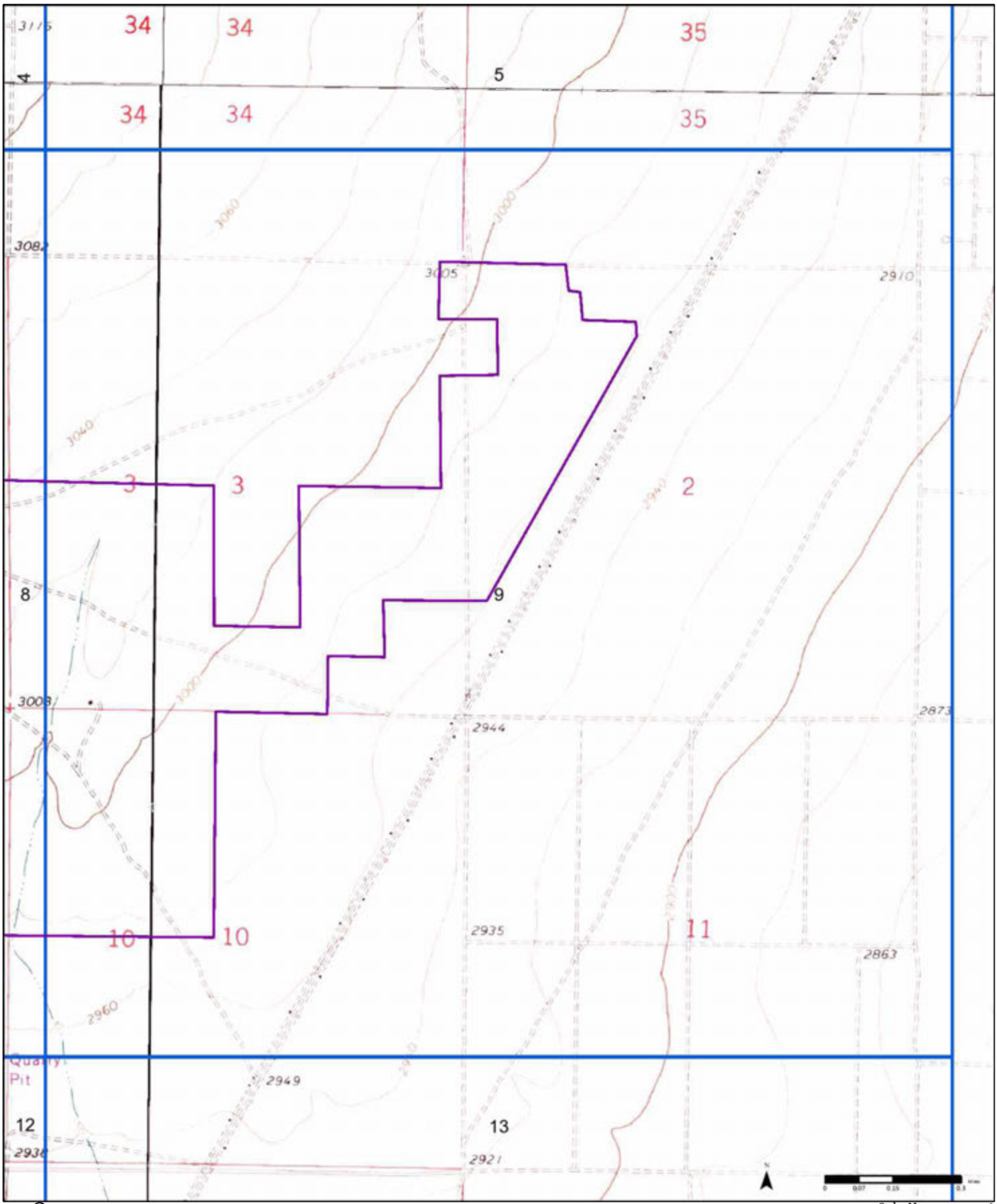
Mojave, CA(2-1973)
Tehachapi South, CA(3-1973)

Source: USGS 7.5 Minute Topographic Map

PARTNER



1980

(1-1965) *Aerial Photo Year: 1963*
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(3-1973) *Aerial Photo Year: 1973*
Photo Revision Year: 1973
(4-1973) *Aerial Photo Year: 1972*
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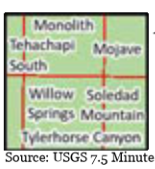
Photo Revision Year: 1974
(6-1980) *Aerial Photo Year: 1973*
Photo Revision Year: 1973

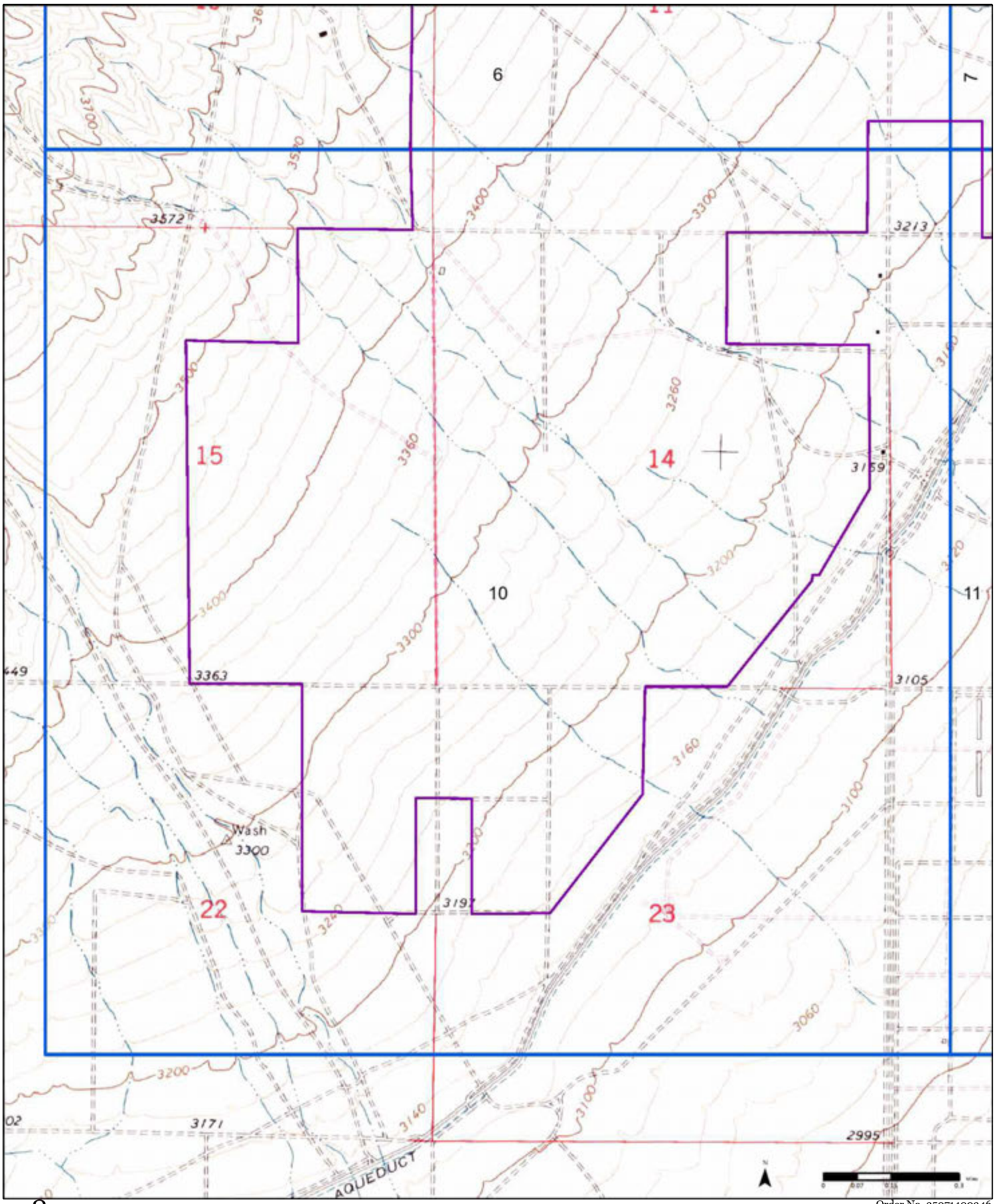
Order No. 25071400346



Available Quadrangle(s): Soledad Mtn, CA(4-1973)
Willow Springs, CA(5-1974)
Monolith, CA(6-1980)
Tylerhorse Canyon, CA(1-1965)
Mojave, CA(2-1973)
Tehachapi South, CA(3-1973)

Source: USGS 7.5 Minute Topographic Map

PARTNER



1980

(1-1965) *Aerial Photo Year: 1963*

(2-1973) *Aerial Photo Year: 1972*

(3-1973) *Aerial Photo Year: 1973*
Photo Revision Year: 1973

(4-1973) *Aerial Photo Year: 1972*

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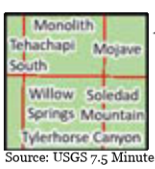
Photo Revision Year: 1974

(6-1980) *Aerial Photo Year: 1973*
Photo Revision Year: 1973

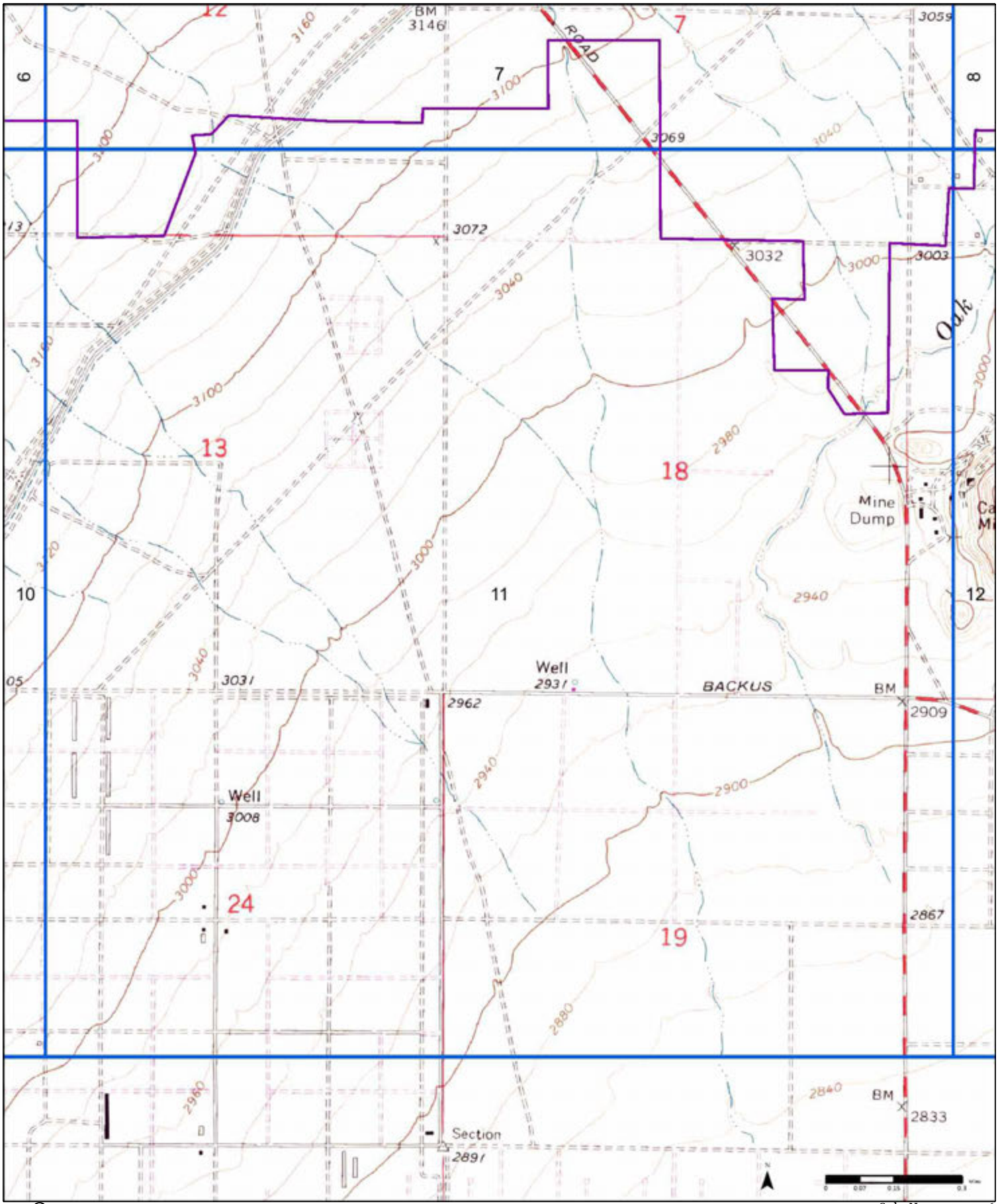
Order No. 25071400346



Available Quadrangle(s): Soledad Mtn, CA(4-1973)
Willow Springs, CA(5-1974)
Monolith, CA(6-1980)
Tylerhorse Canyon, CA(1-1965)
Mojave, CA(2-1973)
Tehachapi South, CA(3-1973)

Source: USGS 7.5 Minute Topographic Map

PARTNER



1980

(1-1965) *Aerial Photo Year: 1963*

(2-1973) *Aerial Photo Year: 1972*

(3-1973) *Aerial Photo Year: 1973*
Photo Revision Year: 1973

(4-1973) *Aerial Photo Year: 1972*

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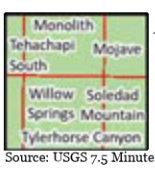
Photo Revision Year: 1974

(6-1980) *Aerial Photo Year: 1973*
Photo Revision Year: 1973

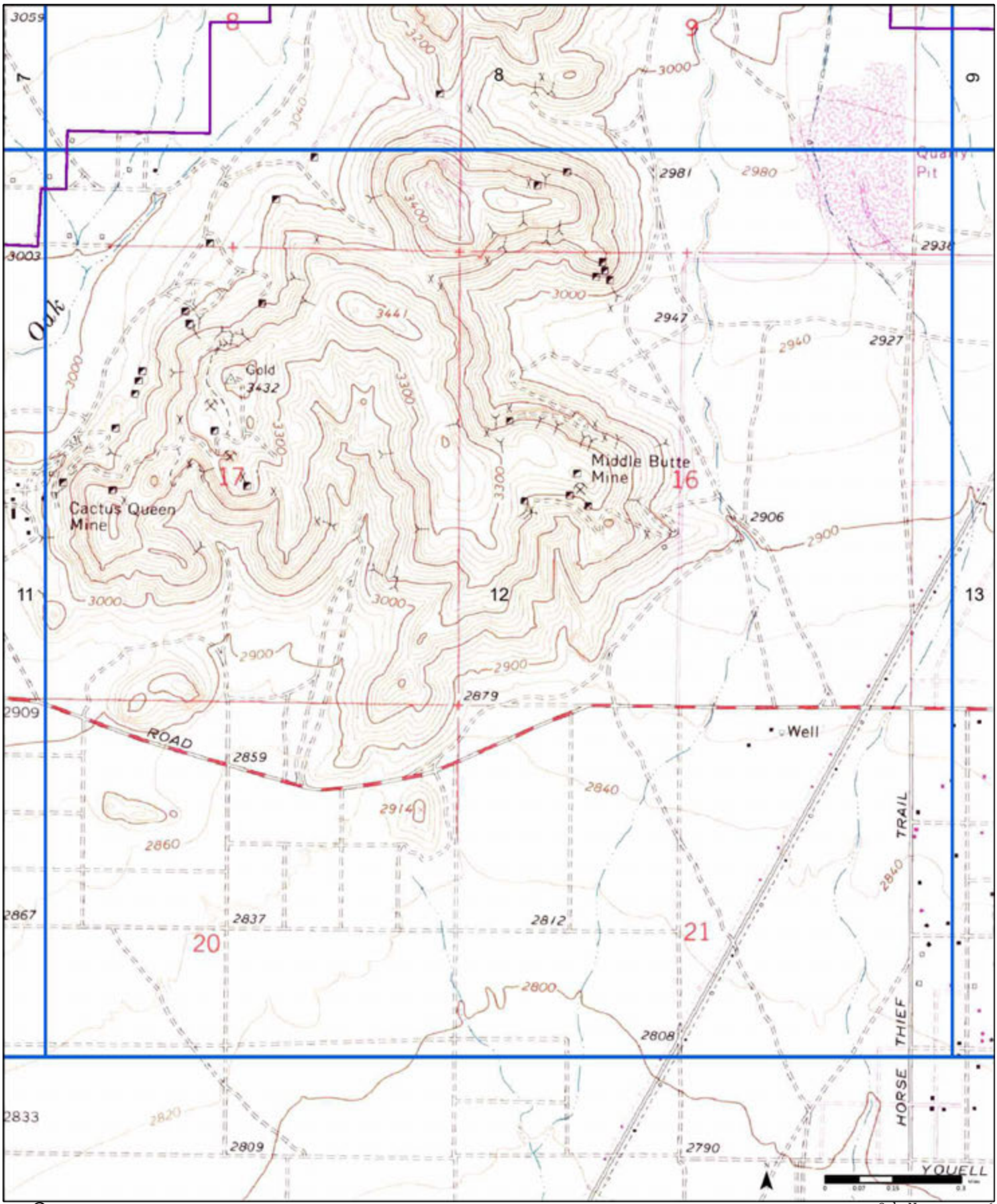
Order No. 25071400346



Available Quadrangle(s): Soledad Mtn, CA(4-1973)
Willow Springs, CA(5-1974)
Monolith, CA(6-1980)
Tylerhorse Canyon, CA(1-1965)
Mojave, CA(2-1973)
Tehachapi South, CA(3-1973)

Source: USGS 7.5 Minute Topographic Map

PARTNER



1980

(1-1965) *Aerial Photo Year: 1963*

(2-1973) *Aerial Photo Year: 1972*

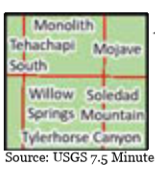
(3-1973) *Aerial Photo Year: 1973*
Photo Revision Year: 1973

(4-1973) *Aerial Photo Year: 1972*

(5-1974) *Aerial Photo Year: 1963*
Photo Revision Year: 1974

(6-1980) *Aerial Photo Year: 1973*
Photo Revision Year: 1973

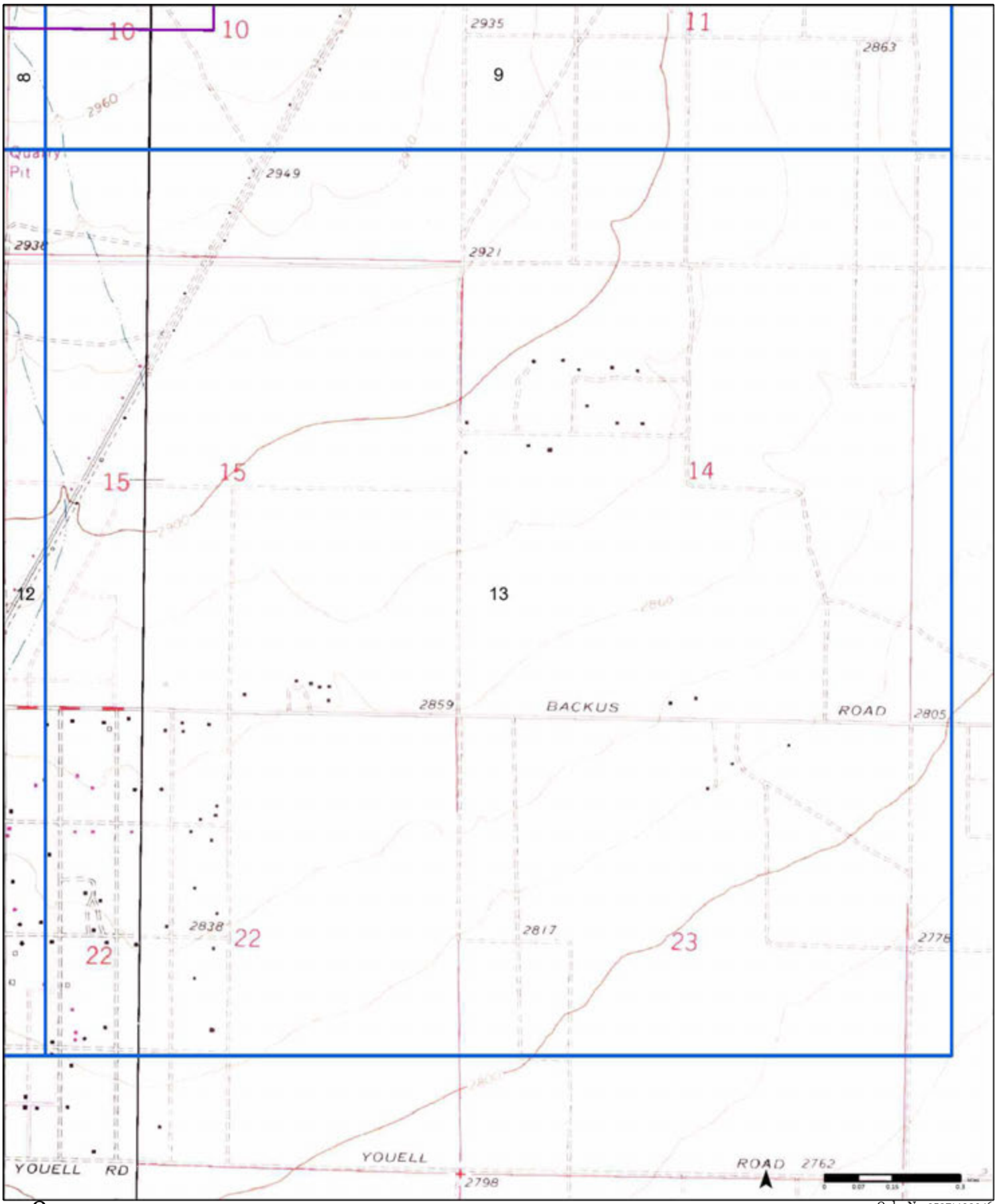
Order No. 25071400346



Available Quadrangle(s): Soledad Mtn, CA(4-1973)
Willow Springs, CA(5-1974)
Monolith, CA(6-1980)
Tylerhorse Canyon, CA(1-1965)
Mojave, CA(2-1973)
Tehachapi South, CA(3-1973)

Source: USGS 7.5 Minute Topographic Map

PARTNER



1980

(1-1965) *Aerial Photo Year: 1963*

(2-1973) *Aerial Photo Year: 1972*

(3-1973) *Aerial Photo Year: 1973*
Photo Revision Year: 1973

(4-1973) *Aerial Photo Year: 1972*

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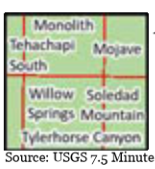
Photo Revision Year: 1974

(6-1980) *Aerial Photo Year: 1973*
Photo Revision Year: 1973

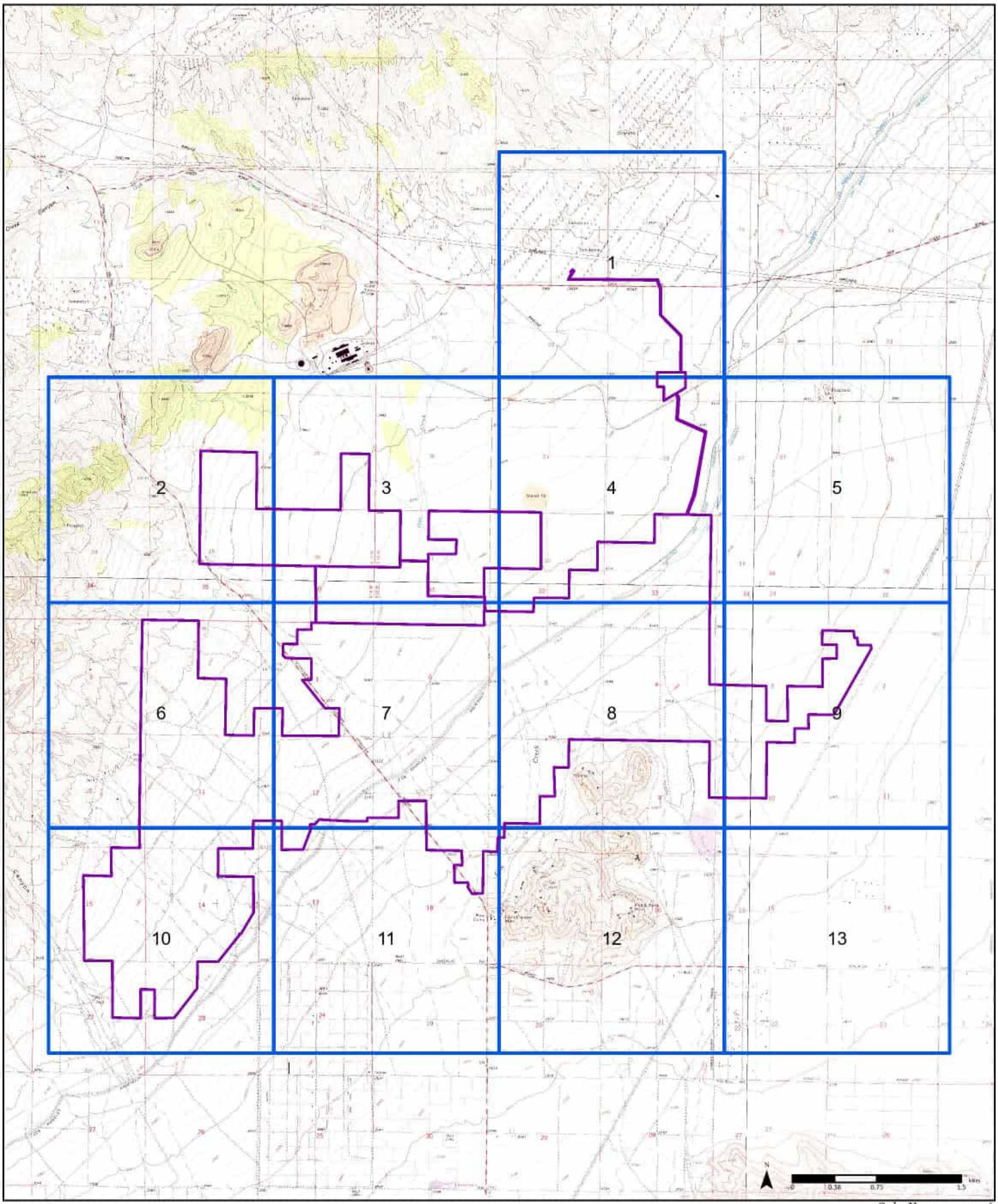
Order No. 25071400346



Available Quadrangle(s): Soledad Mtn, CA(4-1973)
Willow Springs, CA(5-1974)
Monolith, CA(6-1980)
Tylerhorse Canyon, CA(1-1965)
Mojave, CA(2-1973)
Tehachapi South, CA(3-1973)

Source: USGS 7.5 Minute Topographic Map

PARTNER



1995

(1-1973) Aerial Photo Year: 1972

(2-1974) Aerial Photo Year: 1963
Photo Revision Year: 1974

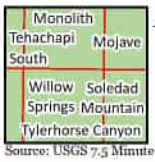
(3-1995) Aerial Photo Year: 1989

(4-1995) Aerial Photo Year: 1992

(5-1995) Aerial Photo Year: 1992

(6-1995) Aerial Photo Year: 1992

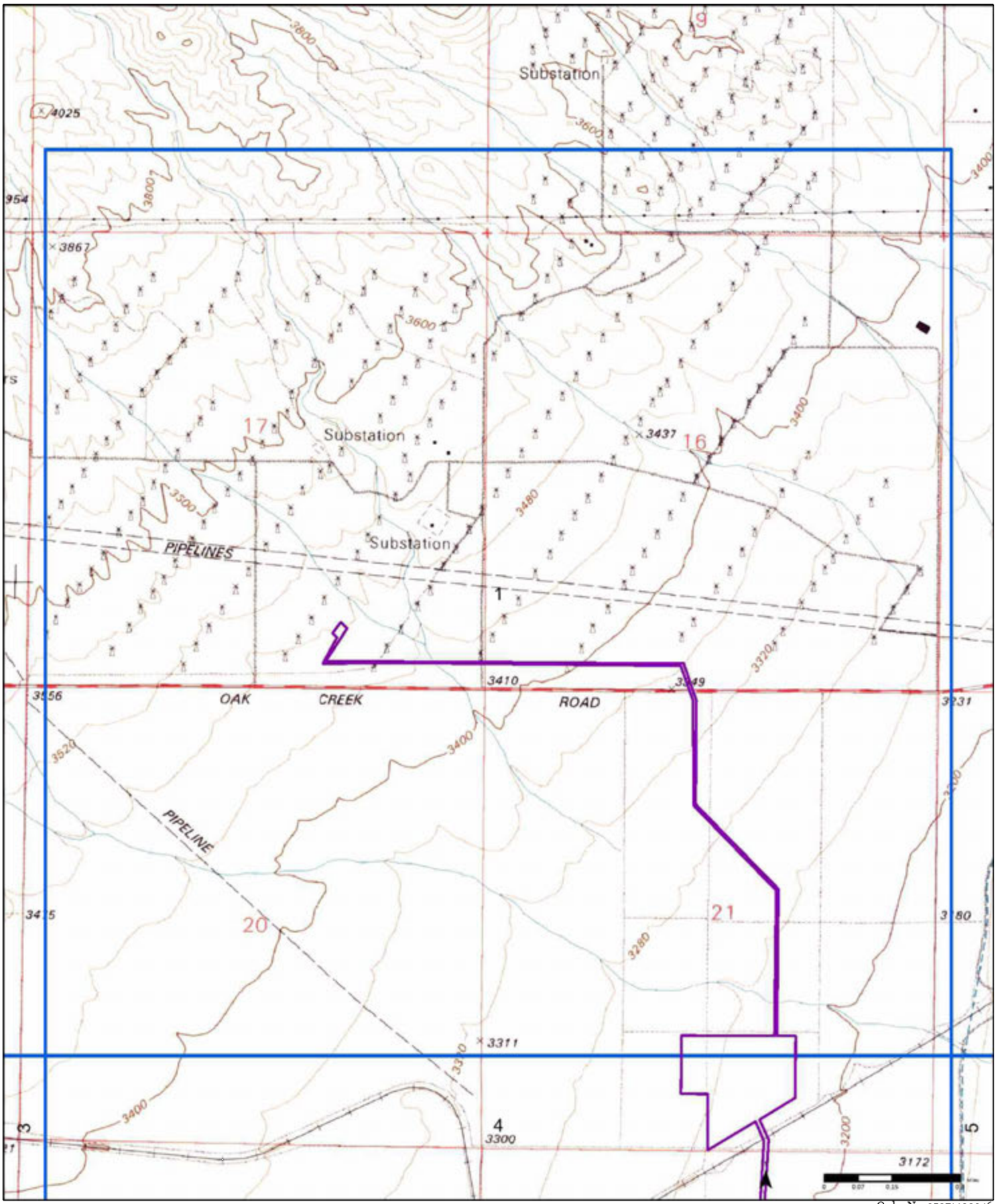
Order No. 25071400346



Available Quadrangle(s): Soledad Mtn, CA(1-1973)
Willow Springs, CA(2-1974)
Monolith, CA(5-1995)
Tylerhorse Canyon, CA(3-1995)
Tehachapi South, CA(4-1995)
Mojave, CA(6-1995)

Source: USGS 7.5 Minute Topographic Map

PARTNER



1995

(1-1973) *Aerial Photo Year: 1972*

(2-1974) *Aerial Photo Year: 1963*
Photo Revision Year: 1974

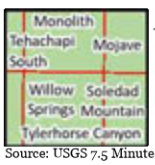
(3-1995) *Aerial Photo Year: 1989*

(4-1995) *Aerial Photo Year: 1992*

(5-1995) *Aerial Photo Year: 1992*

(6-1995) *Aerial Photo Year: 1992*

Order No. 25071400346



Available Quadrangle(s): Soledad Mtn, CA(1-1973)
Willow Springs, CA(2-1974)
Monolith, CA(5-1995)
Tylerhorse Canyon, CA(3-1995)
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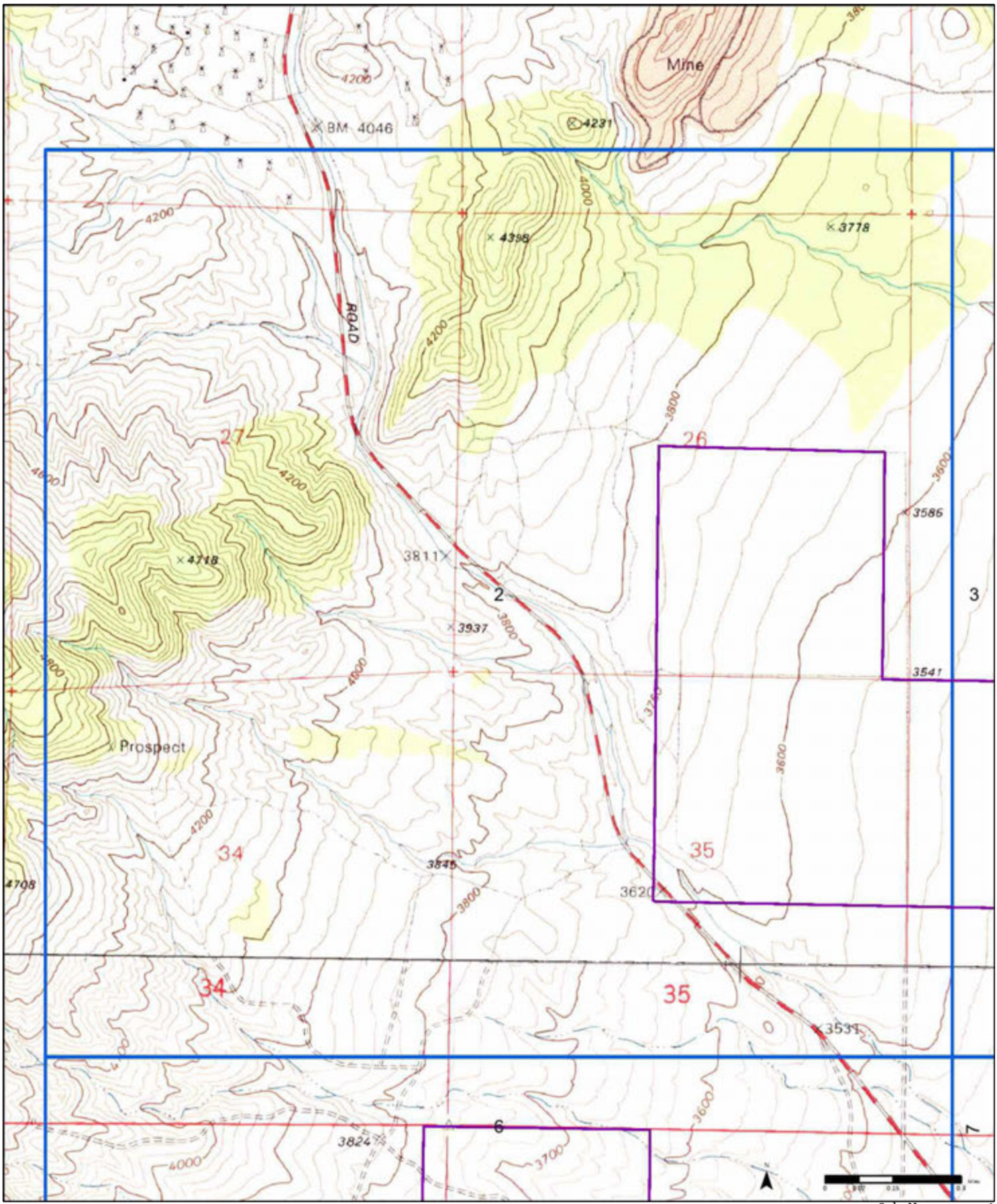
Mojave, CA(6-1995)

Source: USGS 7.5 Minute Topographic Map

PARTNER



1995

(1-1973) *Aerial Photo Year: 1972*

(2-1974) *Aerial Photo Year: 1963*
Photo Revision Year: 1974

(3-1995) *Aerial Photo Year: 1989*

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(6-1995) *Aerial Photo Year: 1992*

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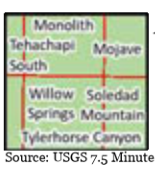

Available Quadrangle(s): Soledad Mtn, CA(1-1973)
Willow Springs, CA(2-1974)
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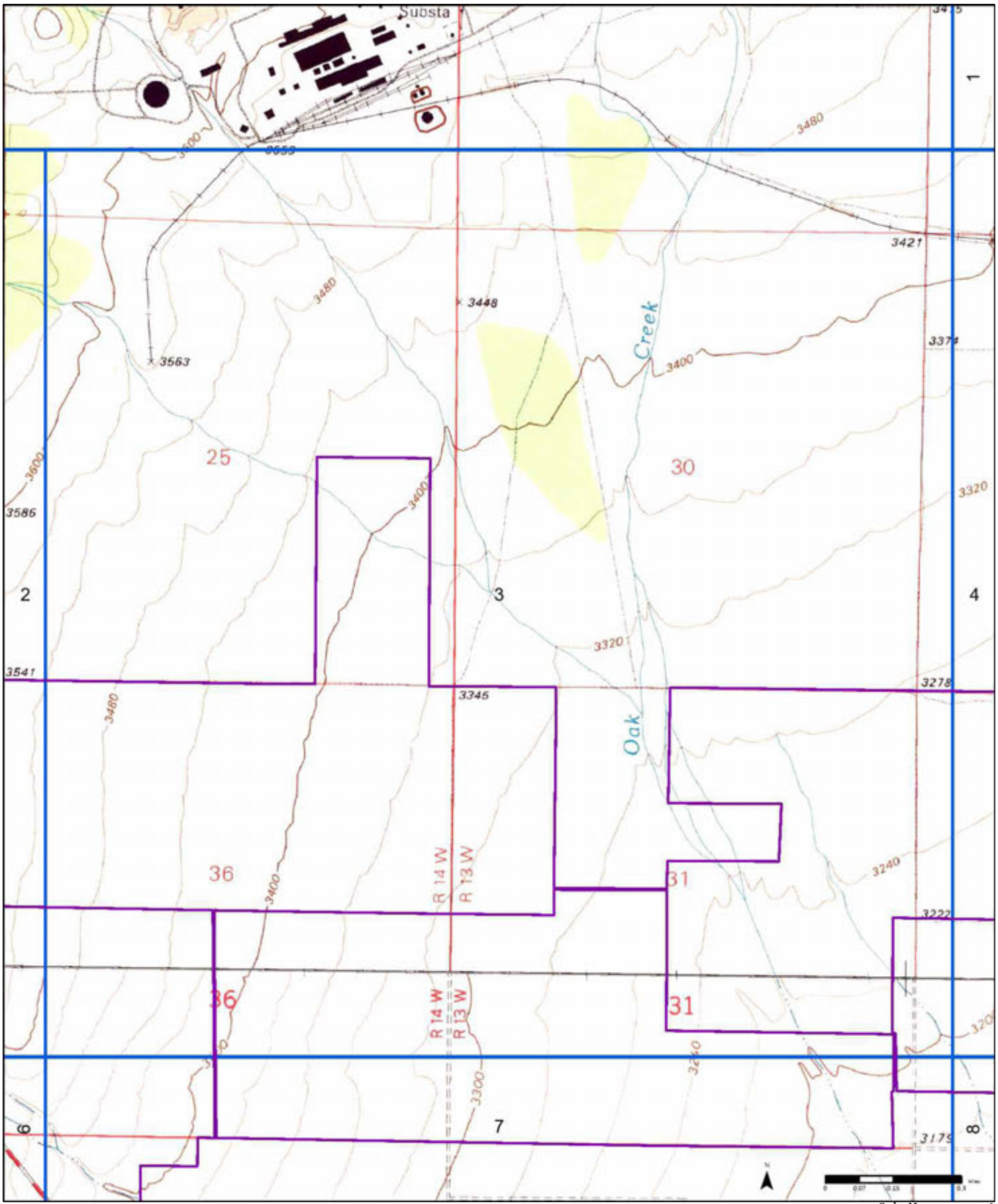
Mojave, CA(6-1995)

Source: USGS 7.5 Minute Topographic Map

PARTNER



1995

(1-1973) *Aerial Photo Year: 1972*

(2-1974) *Aerial Photo Year: 1963*
Photo Revision Year: 1974

(3-1995) *Aerial Photo Year: 1989*

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(5-1995) *Aerial Photo Year: 1992*

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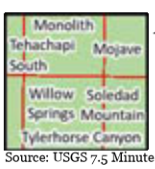
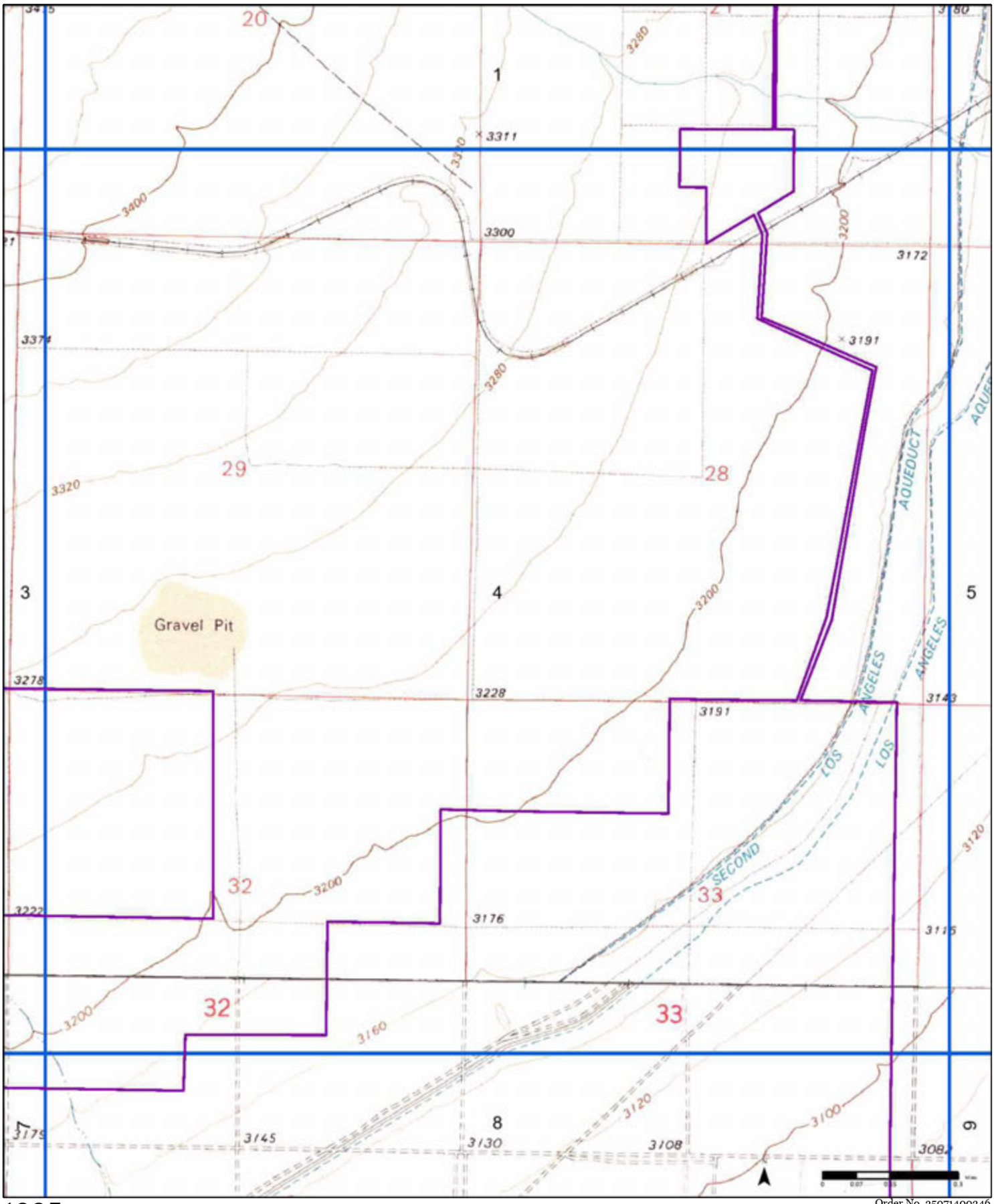
Order No. 25071400346



Available Quadrangle(s): Soledad Mtn, CA(1-1973)
Willow Springs, CA(2-1974)
Monolith, CA(5-1995)
Tylerhorse Canyon, CA(3-1995)
Tehachapi South, CA(4-1995)
Mojave, CA(6-1995)

Source: USGS 7.5 Minute Topographic Map

PARTNER



1995

(1-1973) *Aerial Photo Year: 1972*

(2-1974) *Aerial Photo Year: 1963*
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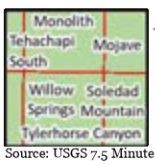

Available Quadrangle(s): Soledad Mtn, CA(1-1973)
Willow Springs, CA(2-1974)
Monolith, CA(5-1995)
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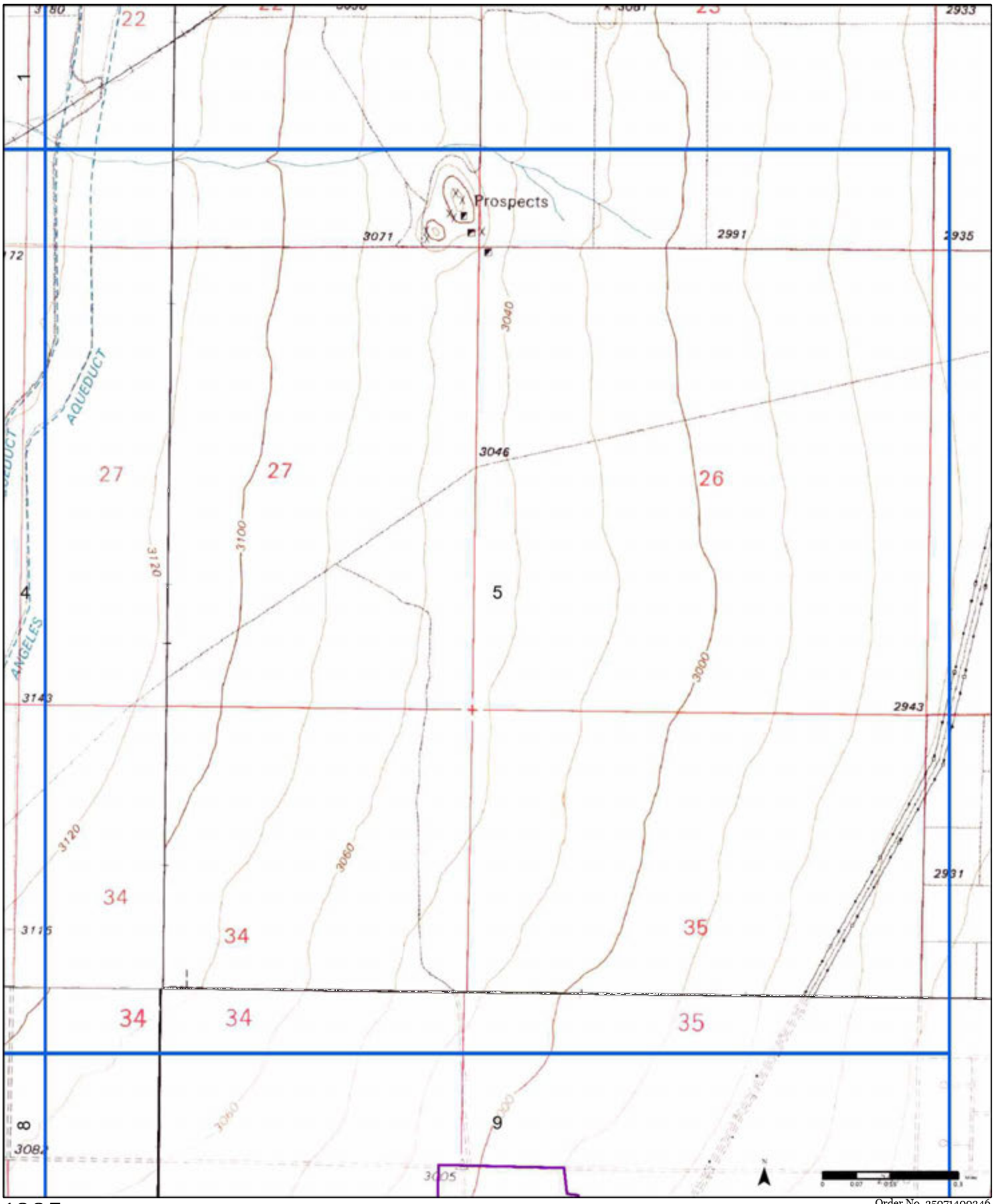
Mojave, CA(6-1995)

Source: USGS 7.5 Minute Topographic Map

PARTNER



1995

(1-1973) *Aerial Photo Year: 1972*

(2-1974) *Aerial Photo Year: 1963*
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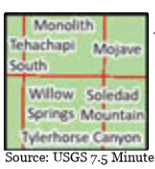

Available Quadrangle(s): Soledad Mtn, CA(1-1973)
Willow Springs, CA(2-1974)
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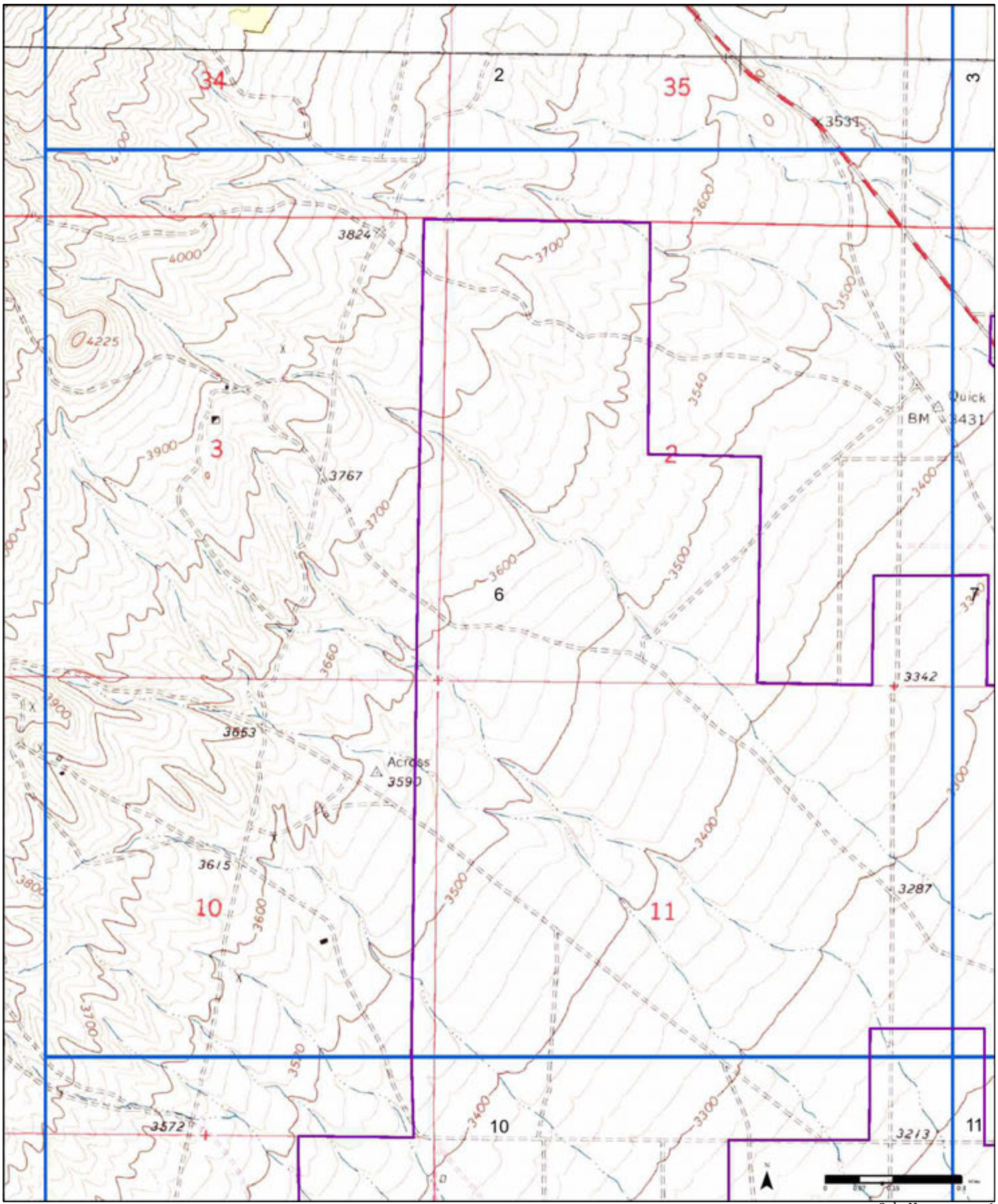

1995

(1-1973) *Aerial Photo Year: 1972*

(2-1974) *Aerial Photo Year: 1963*
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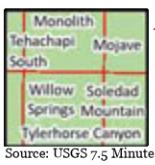
(6-1995) *Aerial Photo Year: 1992*

Order No. 25071400346



Available Quadrangle(s): Soledad Mtn, CA(1-1973)
Willow Springs, CA(2-1974)
Monolith, CA(5-1995)
Tylerhorse Canyon, CA(3-1995)
Tehachapi South, CA(4-1995)
Mojave, CA(6-1995)

Source: USGS 7.5 Minute Topographic Map

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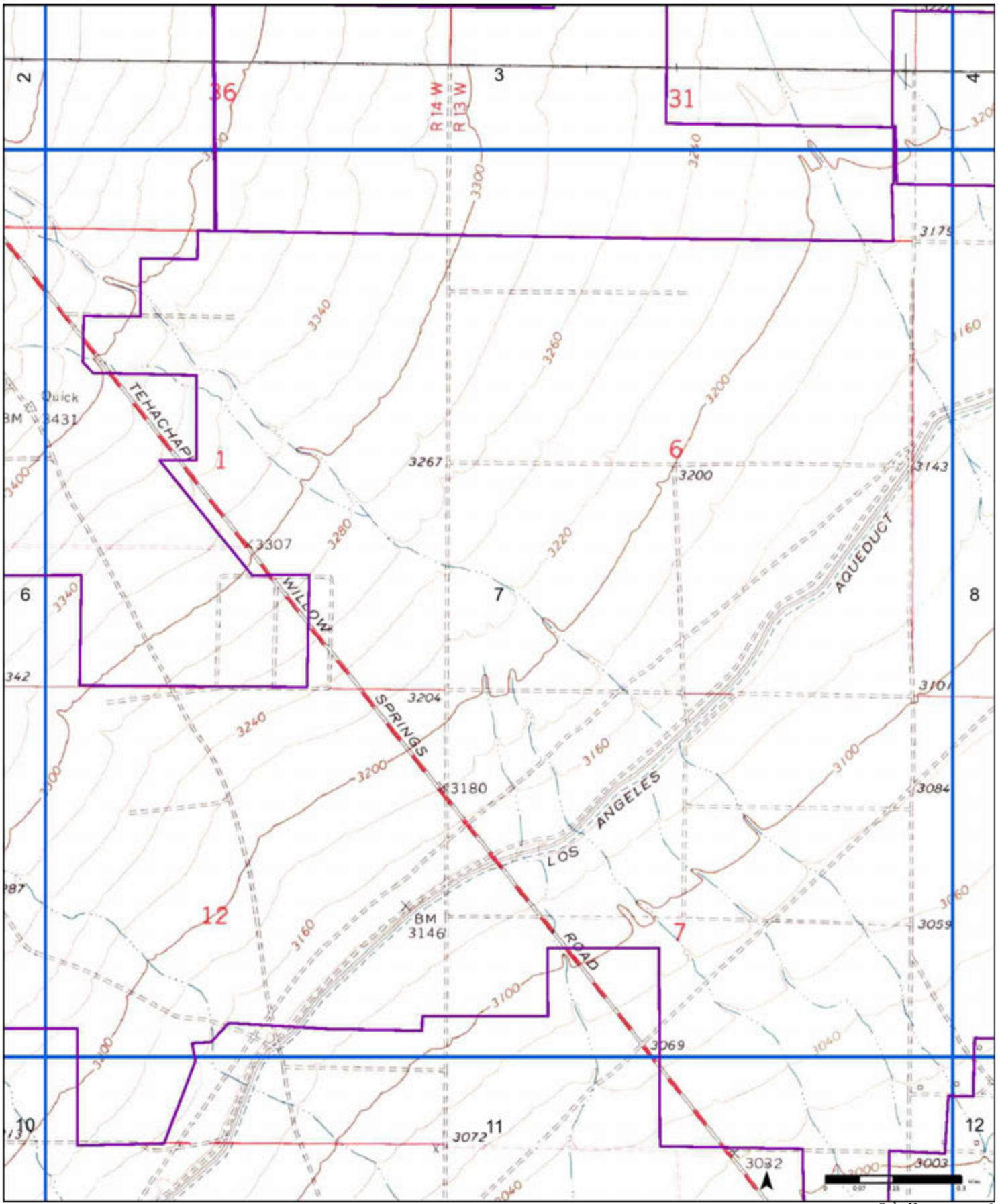

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(1-1973) *Aerial Photo Year: 1972*

(2-1974) *Aerial Photo Year: 1963*
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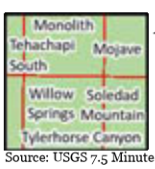

Available Quadrangle(s): Soledad Mtn, CA(1-1973)
Willow Springs, CA(2-1974)
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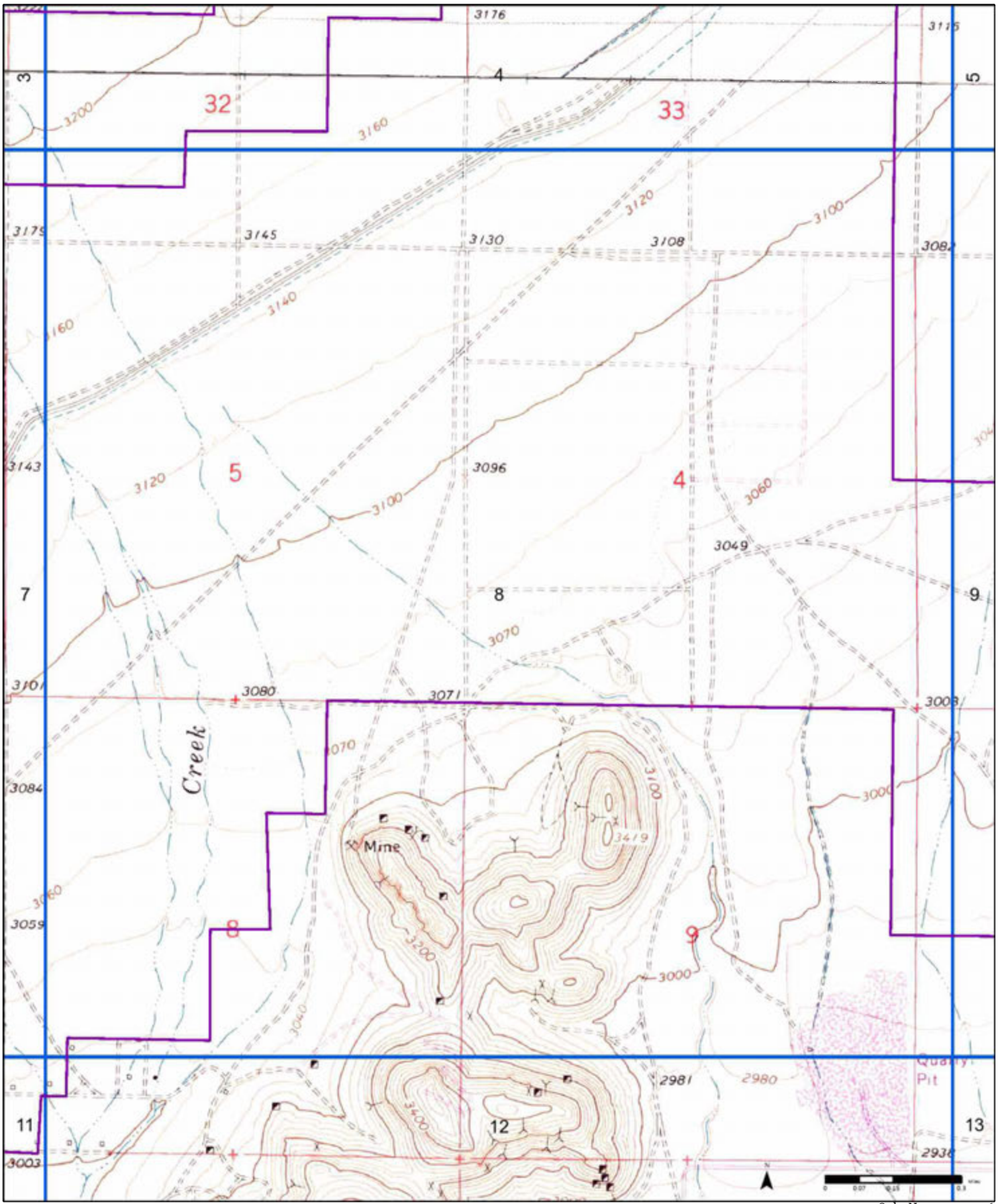
Source: USGS 7.5 Minute Topographic Map

PARTNER



1995

(1-1973) *Aerial Photo Year: 1972*

(2-1974) *Aerial Photo Year: 1963*
Photo Revision Year: 1974

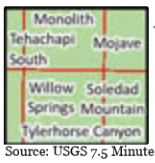
(3-1995) *Aerial Photo Year: 1989*

(4-1995) *Aerial Photo Year: 1992*

(5-1995) *Aerial Photo Year: 1992*

(6-1995) *Aerial Photo Year: 1992*

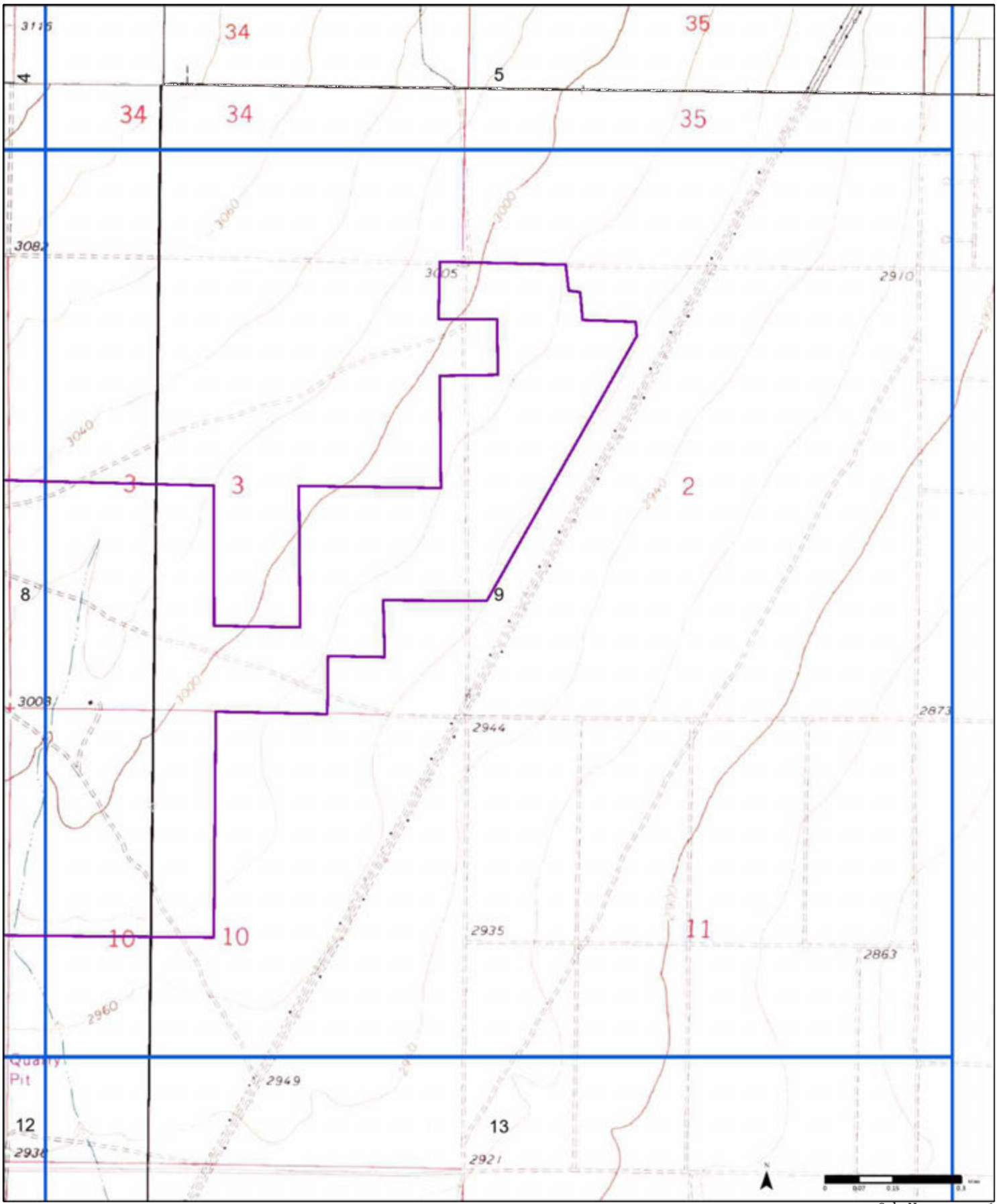
Order No. 25071400346



Available Quadrangle(s): Soledad Mtn, CA(1-1973)
Willow Springs, CA(2-1974)
Monolith, CA(5-1995)
Tylerhorse Canyon, CA(3-1995)
Tehachapi South, CA(4-1995)
Mojave, CA(6-1995)

Source: USGS 7.5 Minute Topographic Map

PARTNER



1995

(1-1973) *Aerial Photo Year: 1972*

(2-1974) *Aerial Photo Year: 1963*
Photo Revision Year: 1974

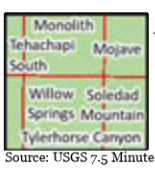
(3-1995) *Aerial Photo Year: 1989*

(4-1995) *Aerial Photo Year: 1992*

(5-1995) *Aerial Photo Year: 1992*

(6-1995) *Aerial Photo Year: 1992*

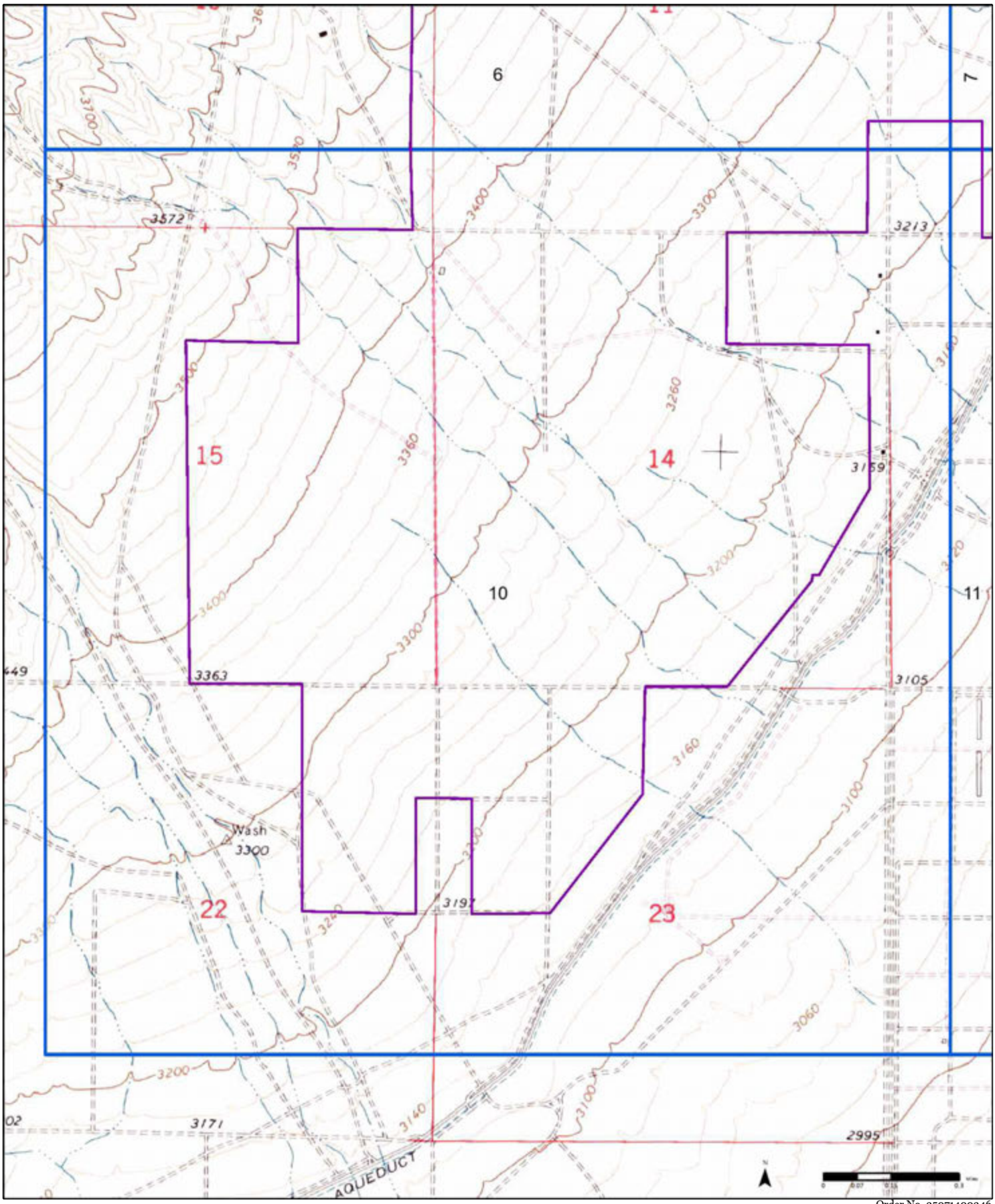
Order No. 25071400346



Available Quadrangle(s): Soledad Mtn, CA(1-1973)
Willow Springs, CA(2-1974)
Monolith, CA(5-1995)
Tylerhorse Canyon, CA(3-1995)
Tehachapi South, CA(4-1995)
Mojave, CA(6-1995)

Source: USGS 7.5 Minute Topographic Map

PARTNER



1995

(1-1973) *Aerial Photo Year: 1972*

(2-1974) *Aerial Photo Year: 1963*
Photo Revision Year: 1974

(3-1995) *Aerial Photo Year: 1989*

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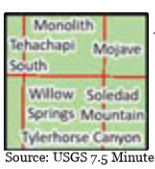
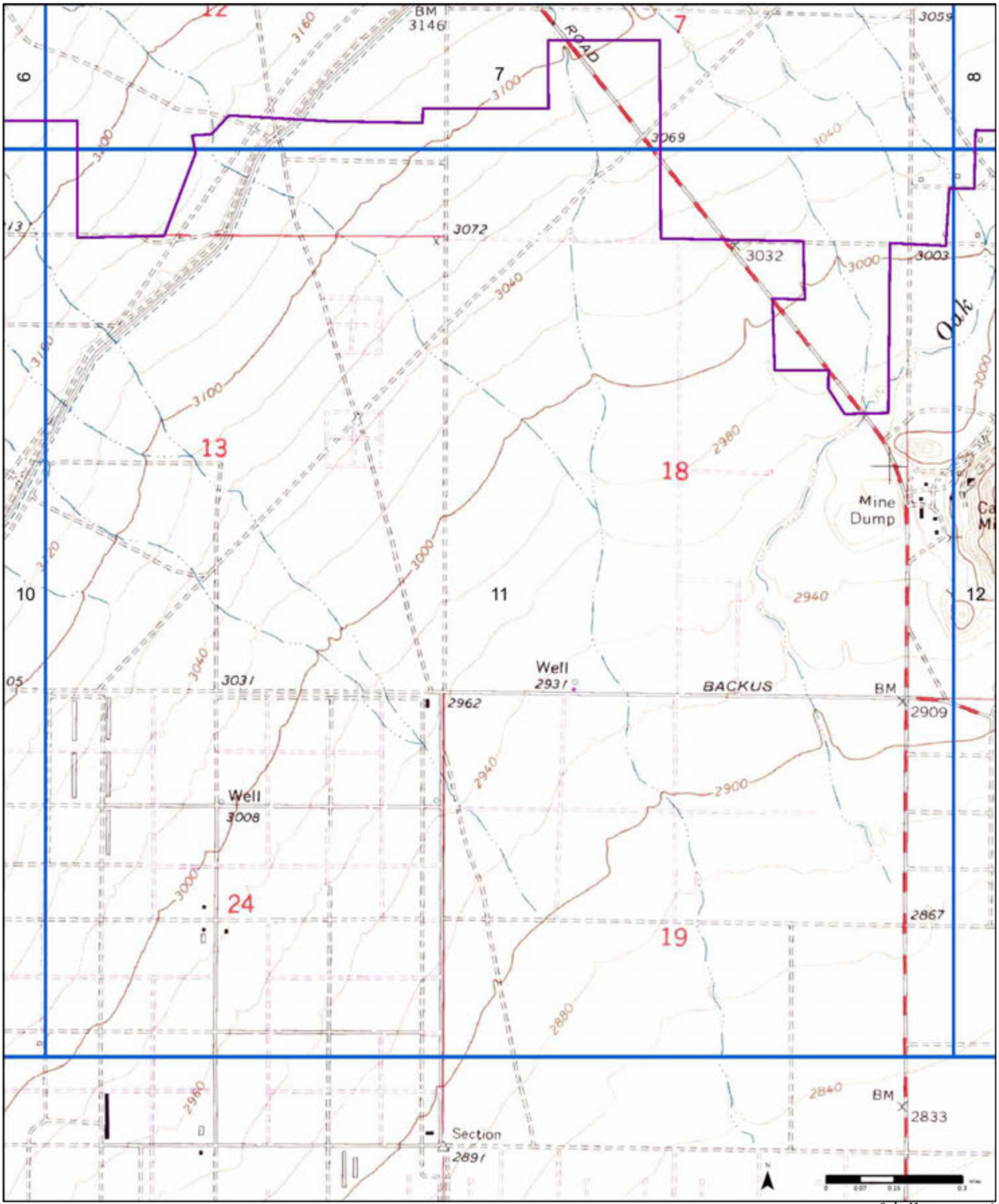
Order No. 25071400346



Available Quadrangle(s): Soledad Mtn, CA(1-1973)
Willow Springs, CA(2-1974)
Monolith, CA(5-1995)
Tylerhorse Canyon, CA(3-1995)
Tehachapi South, CA(4-1995)
Mojave, CA(6-1995)

Source: USGS 7.5 Minute Topographic Map

PARTNER



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(1-1973) *Aerial Photo Year: 1972*

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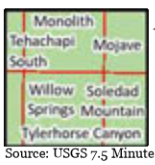
(6-1995) *Aerial Photo Year: 1992*

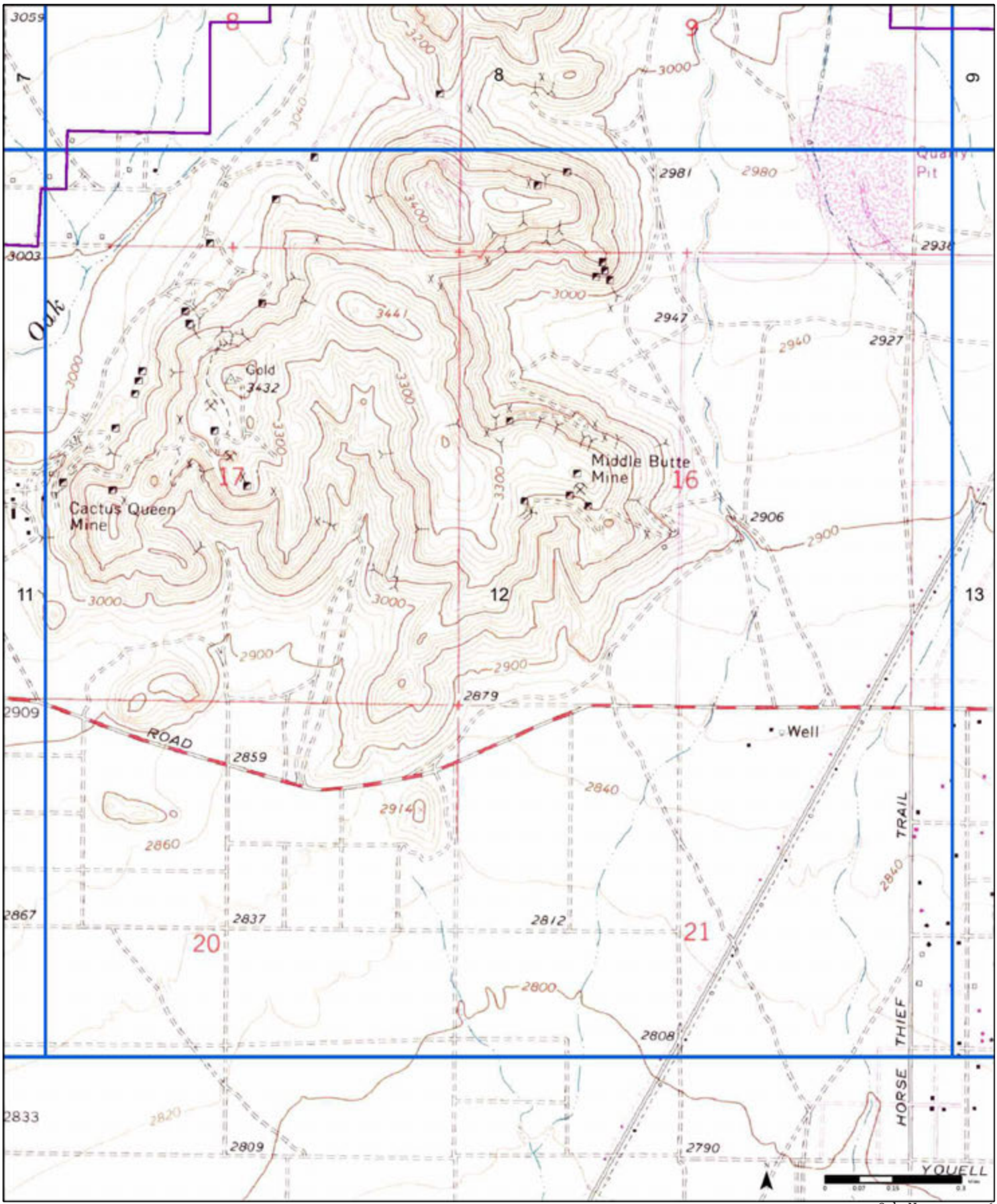
Order No. 25071400346



Available Quadrangle(s): Soledad Mtn, CA(1-1973)
Willow Springs, CA(2-1974)
Monolith, CA(5-1995)
Tylerhorse Canyon, CA(3-1995)
Tehachapi South, CA(4-1995)
Mojave, CA(6-1995)

Source: USGS 7.5 Minute Topographic Map

PARTNER



1995

(1-1973) Aerial Photo Year: 1972

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Photo Revision Year: 1974

(3-1995) Aerial Photo Year: 1989

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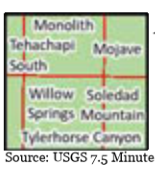

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Source: USGS 7.5 Minute Topographic Map

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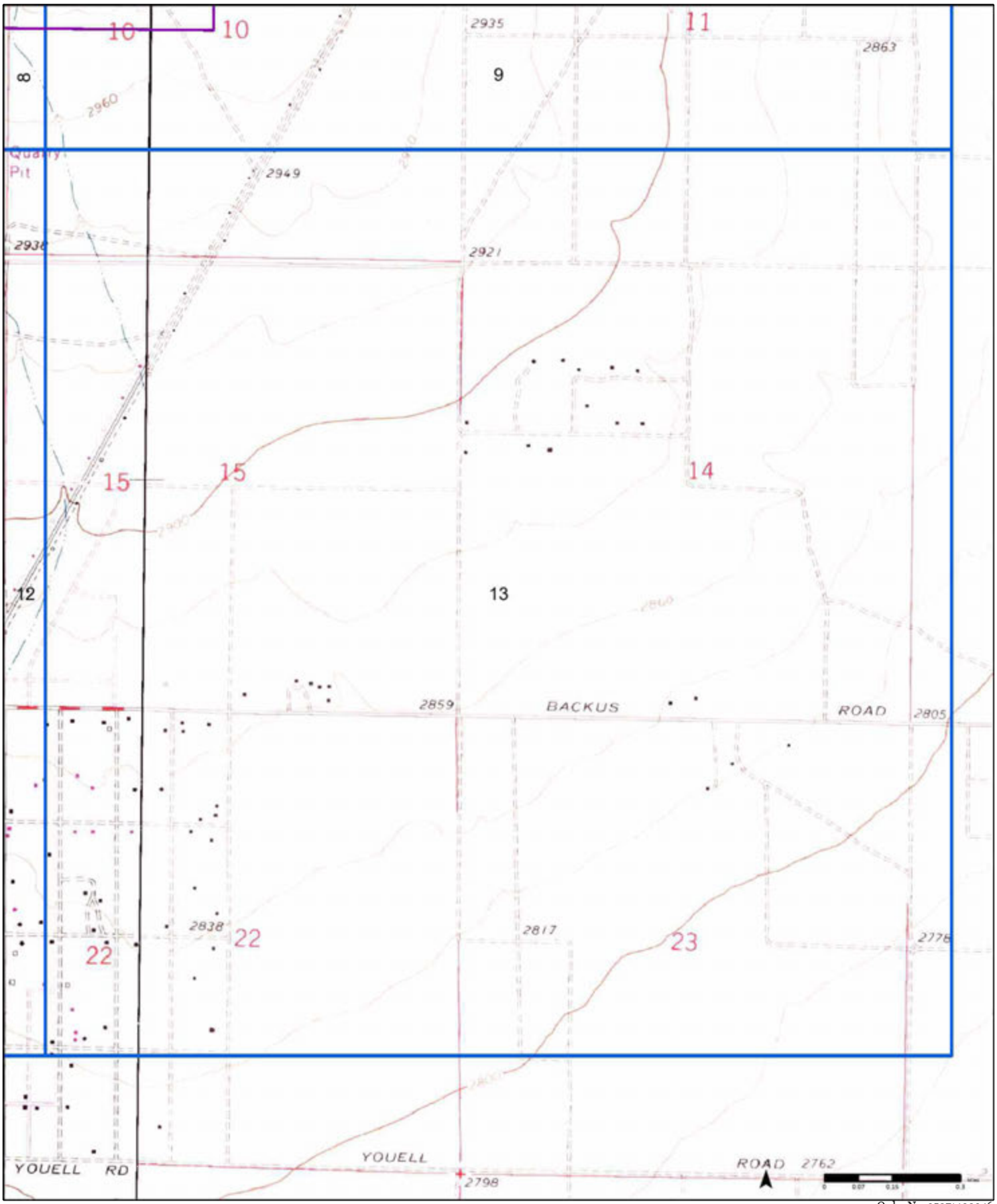

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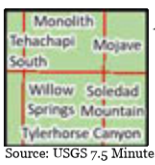
(6-1995) *Aerial Photo Year: 1992*

Order No. 25071400346



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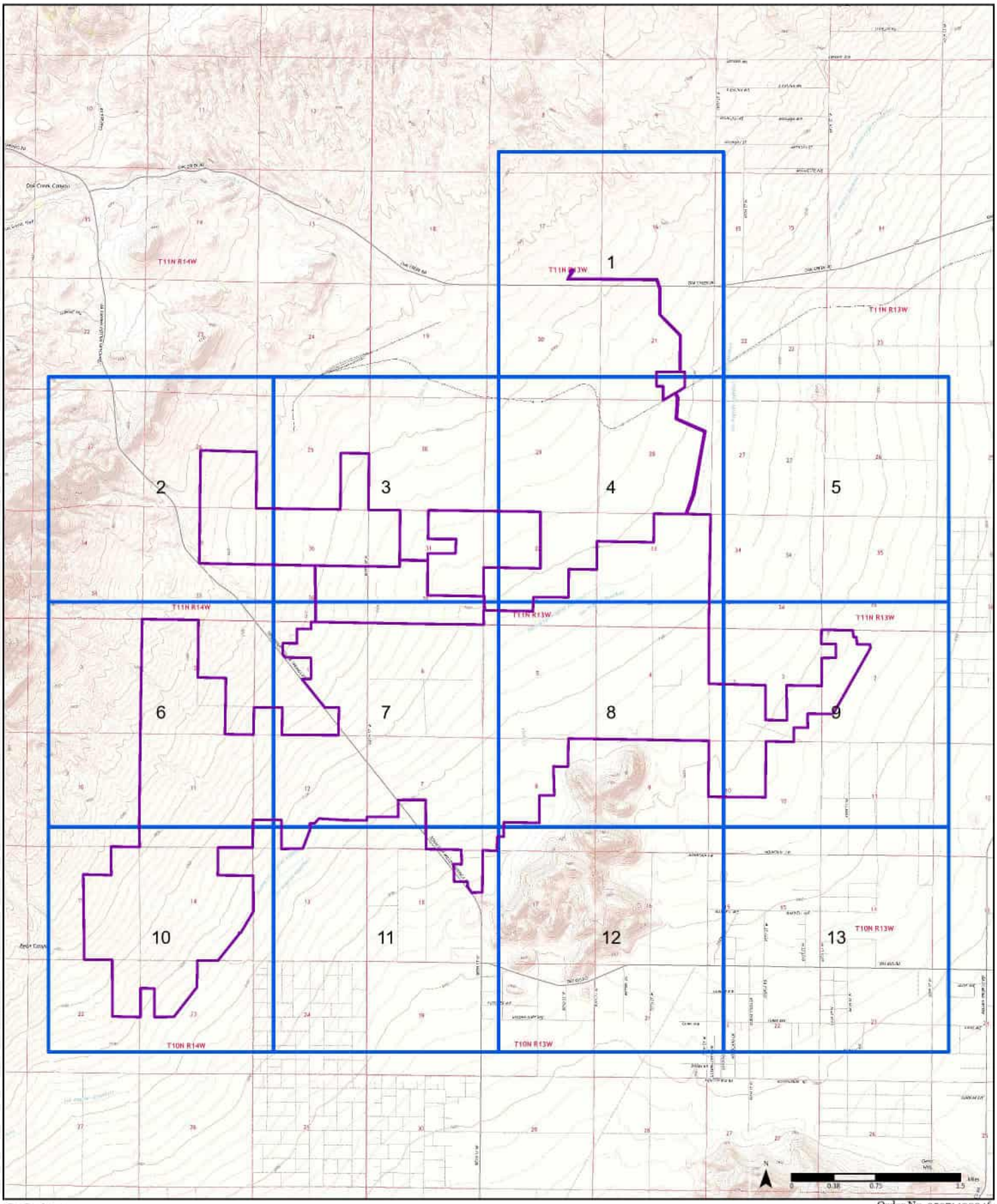
Tehachapi South, CA(4-1995)
Mojave, CA(6-1995)

Source: USGS 7.5 Minute Topographic Map

PARTNER



2015

Order No. 25071400346



Available Quadrangle(s): Willow Springs, CA
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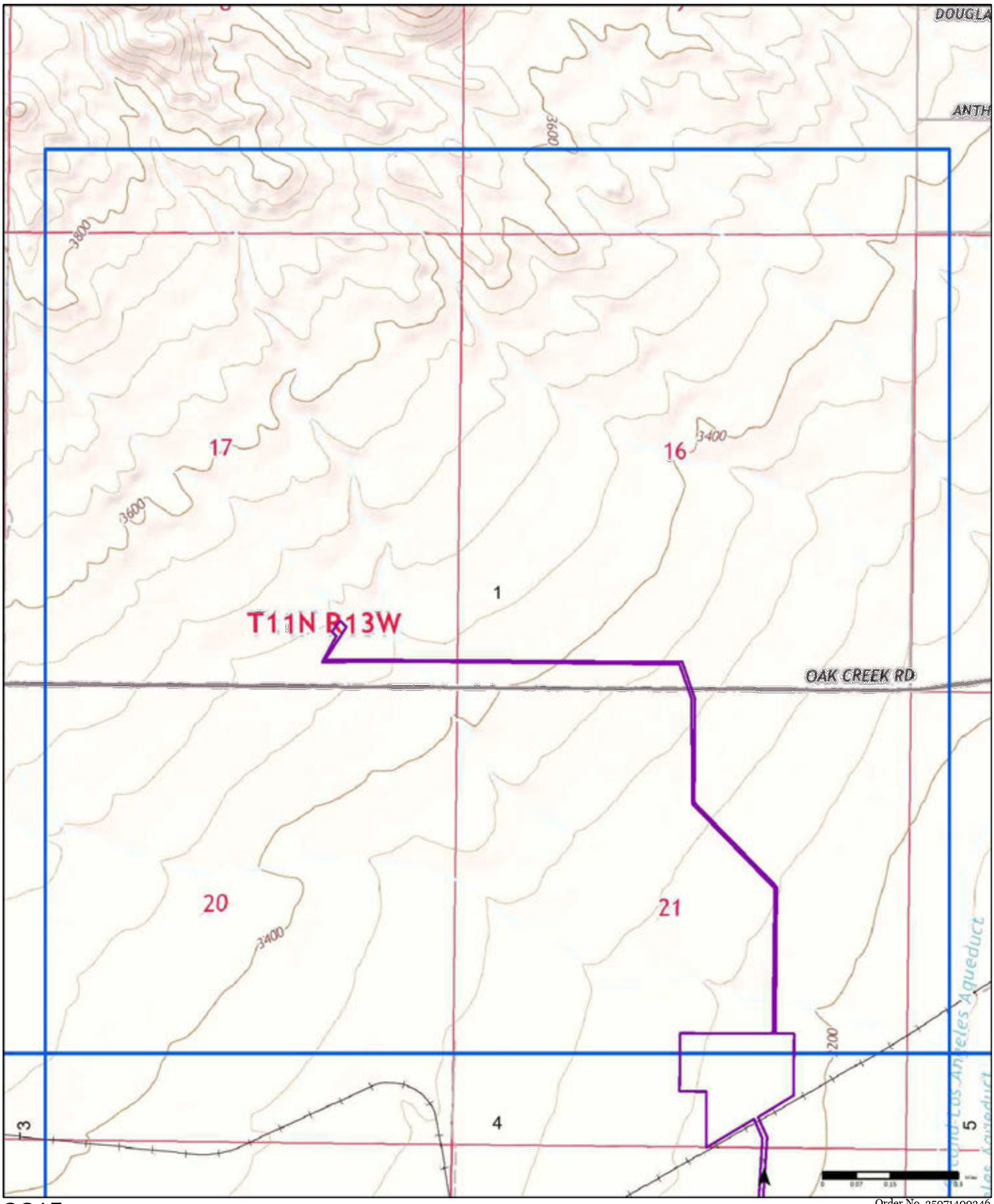
Monolith, CA
Tylerhorse Canyon, CA
Tehachapi South, CA

Mojave, CA

Source: USGS 7.5 Minute Topographic Map

PARTNER



2015

Order No. 25071400346



Available Quadrangle(s): Willow Springs, CA
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Monolith, CA
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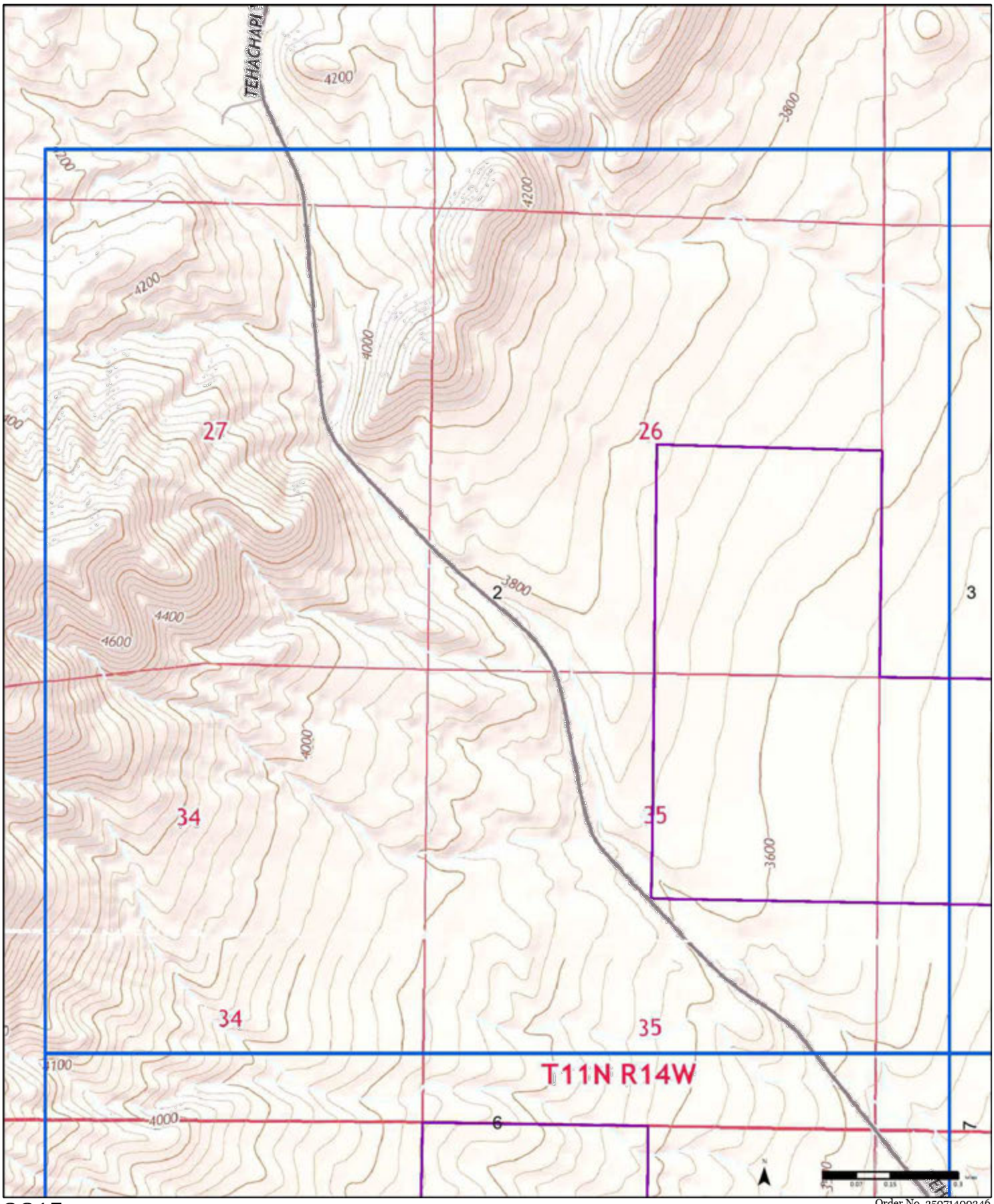
Tehachapi South, CA

Mojave, CA

PARTNER

Source: USGS 7.5 Minute Topographic Map



2015

Order No. 25071400346



Available Quadrangle(s): Willow Springs, CA
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Tehachapi South, CA
Mojave, CA

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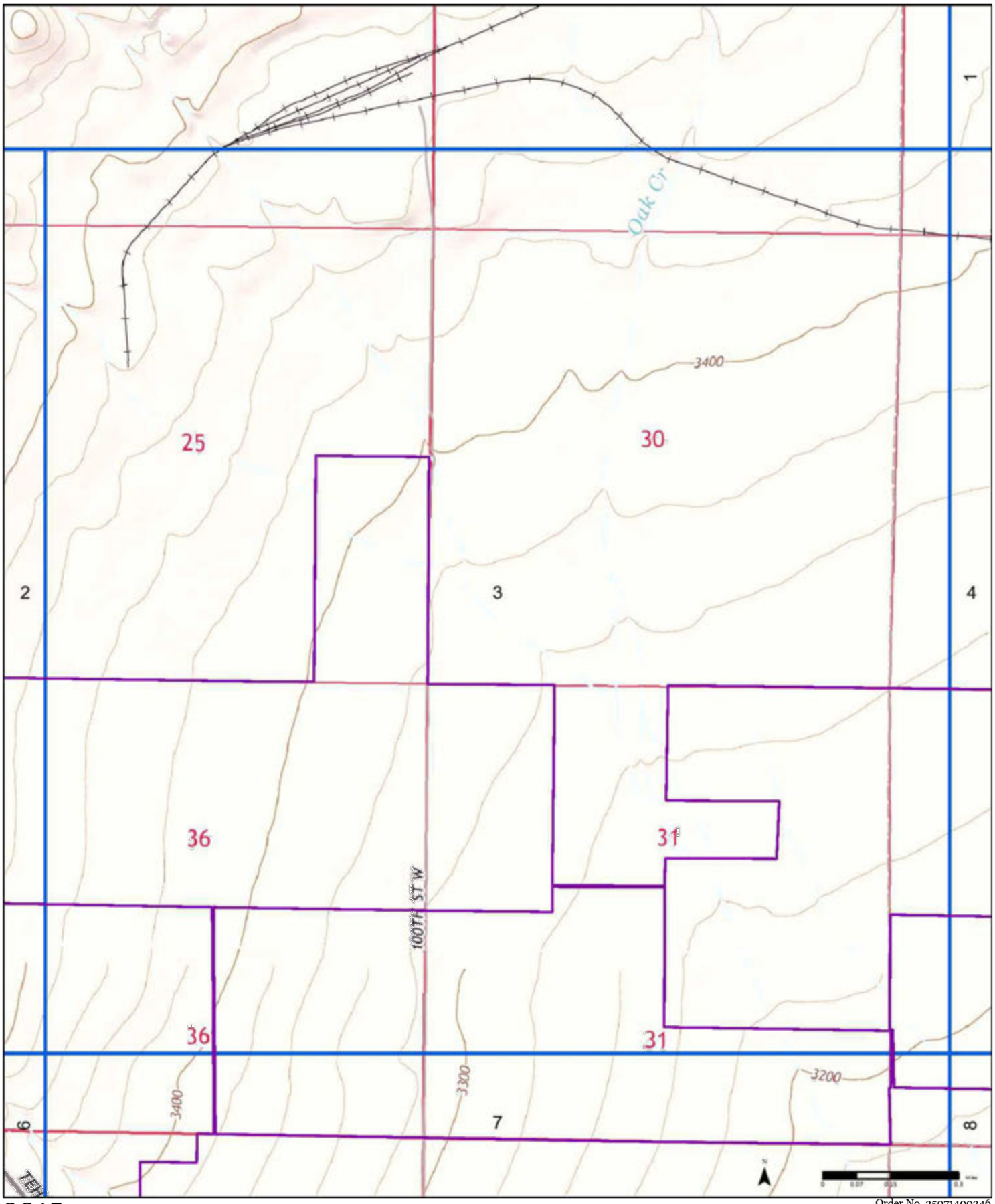
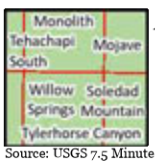


2015

Order No. 25071400346



Available Quadrangle(s): Willow Springs, CA
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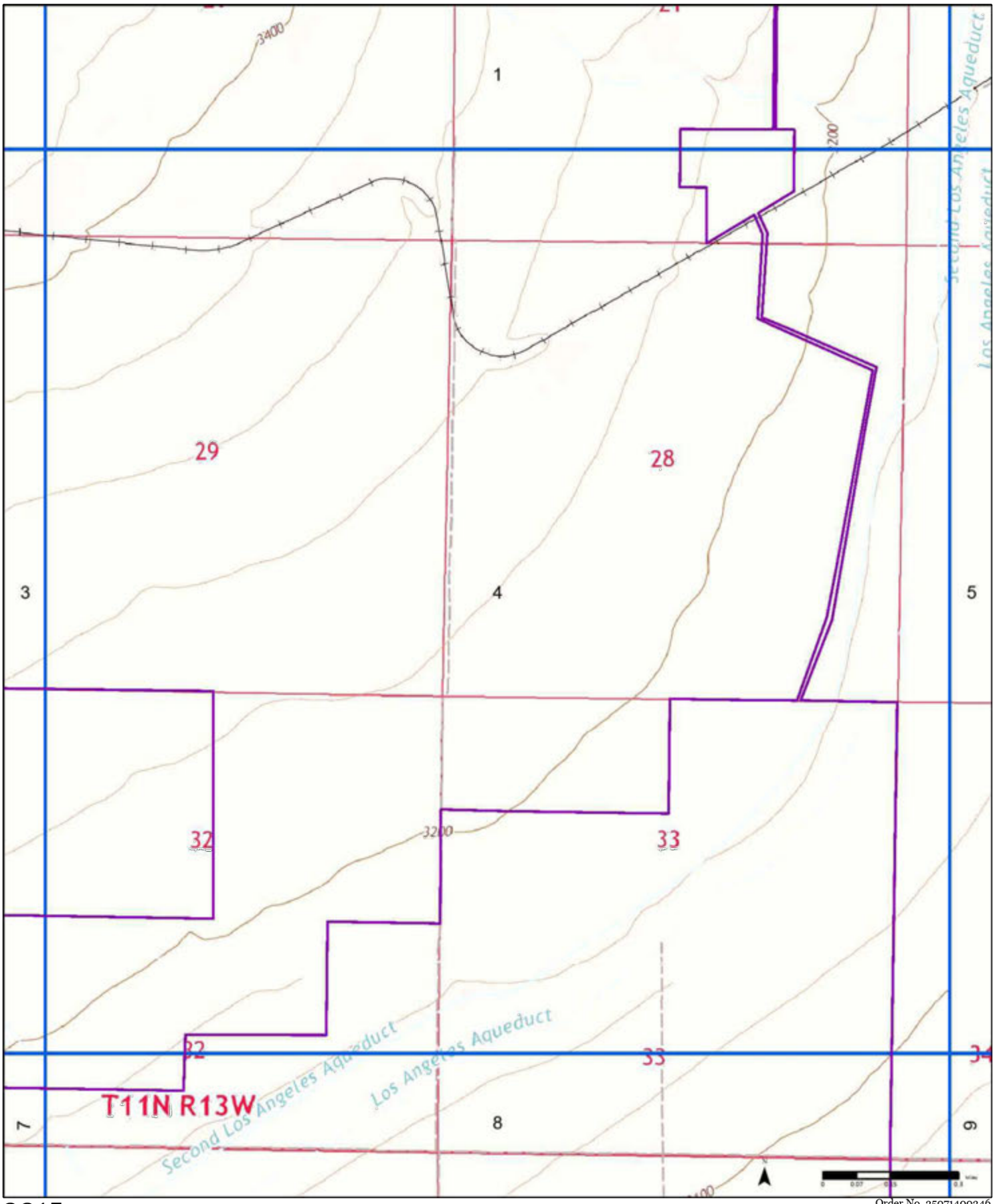

2015

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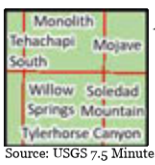

Available Quadrangle(s): Willow Springs, CA
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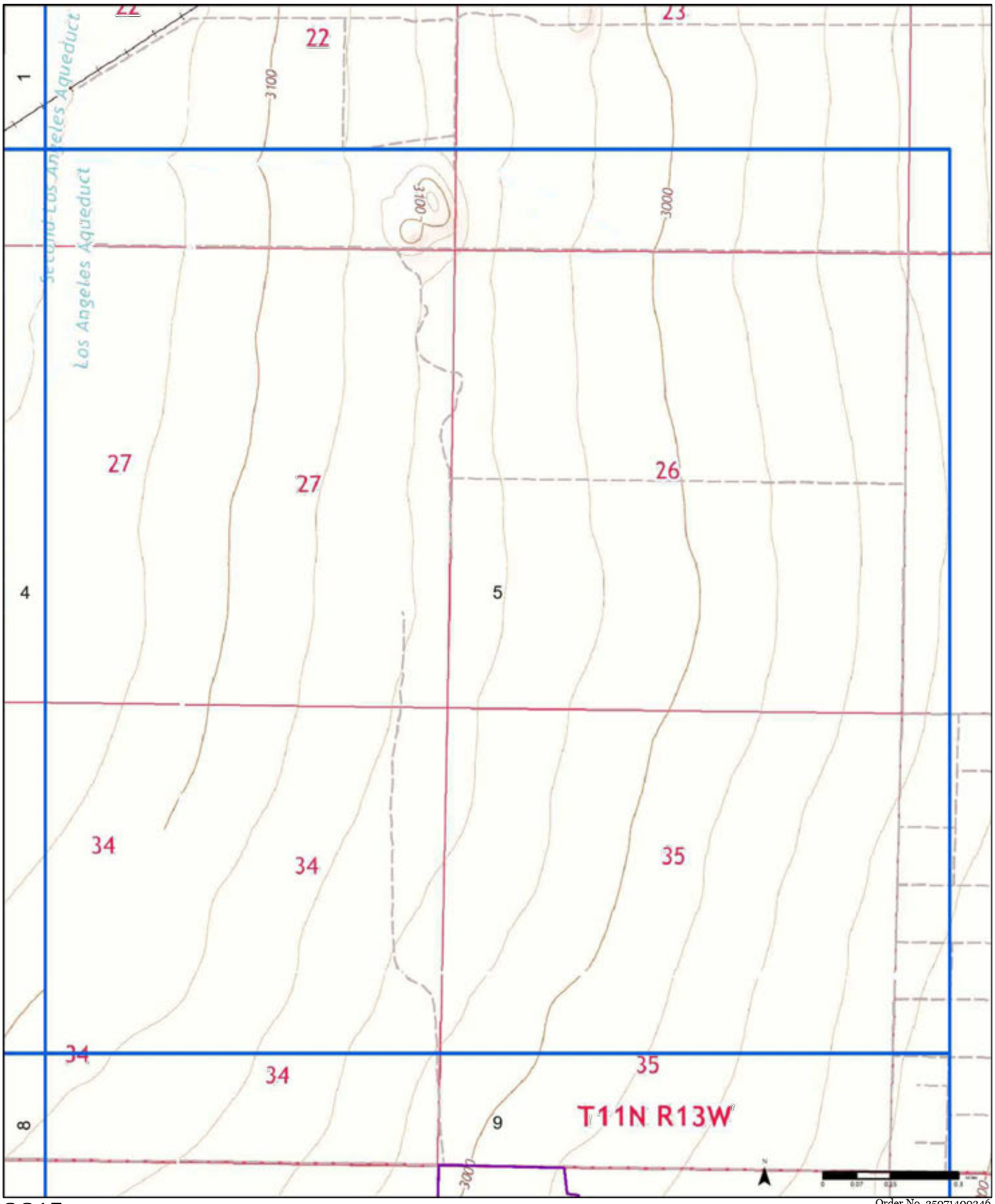

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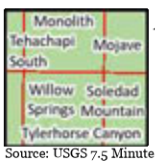

Available Quadrangle(s): Willow Springs, CA
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Mojave, CA

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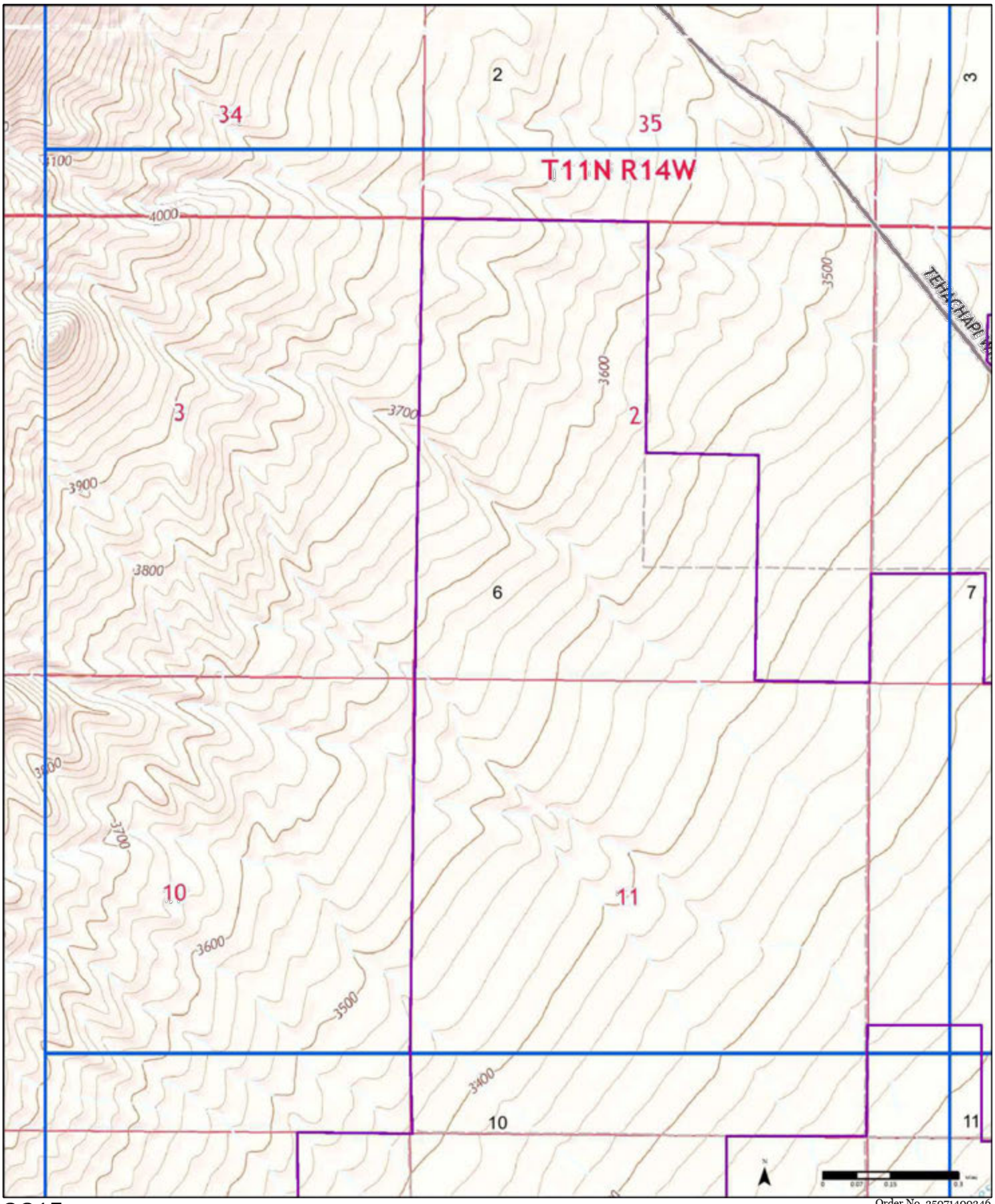

2015

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Available Quadrangle(s): Willow Springs, CA
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Mojave, CA

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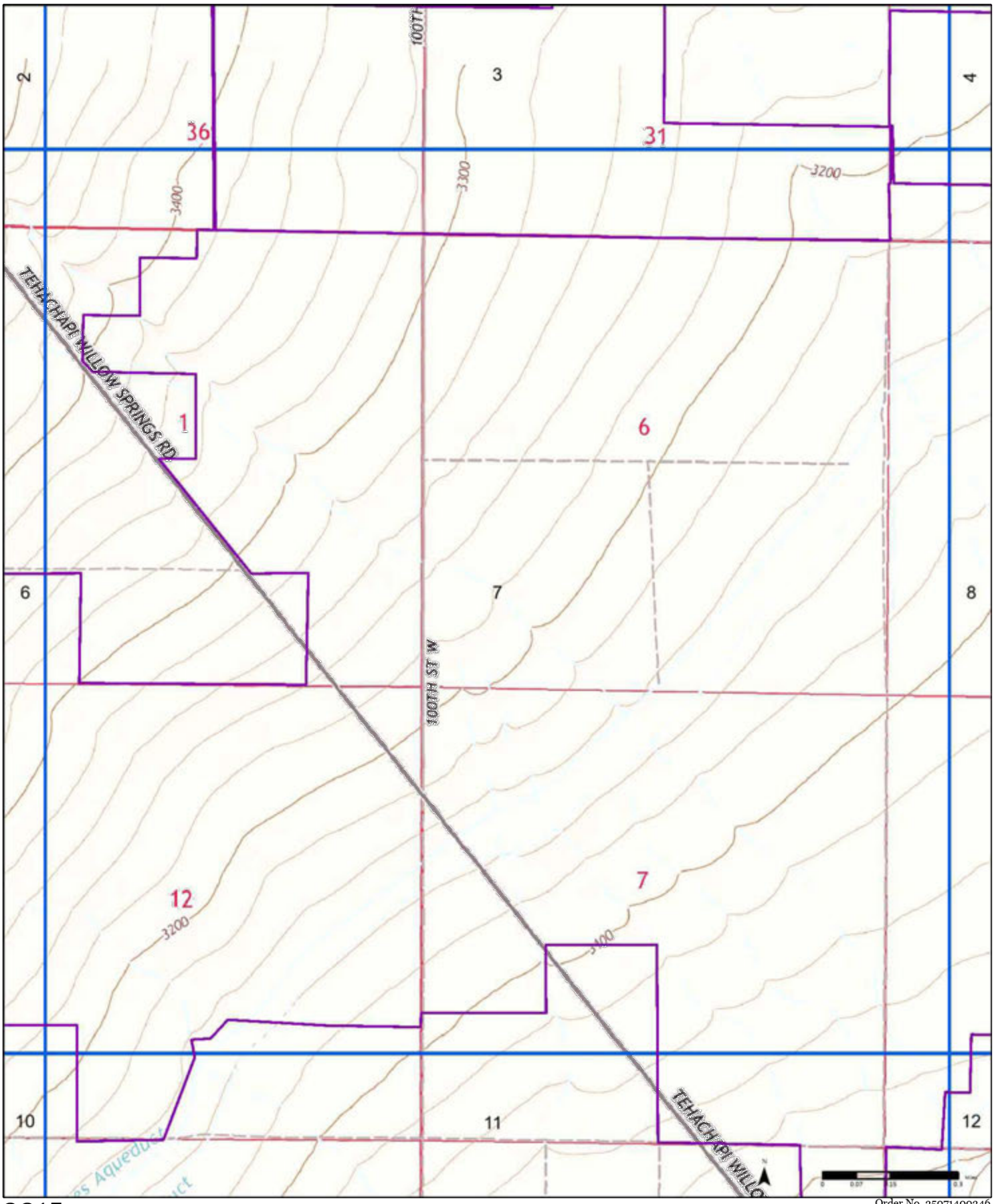

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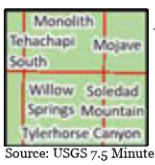

Available Quadrangle(s): Willow Springs, CA
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Mojave, CA

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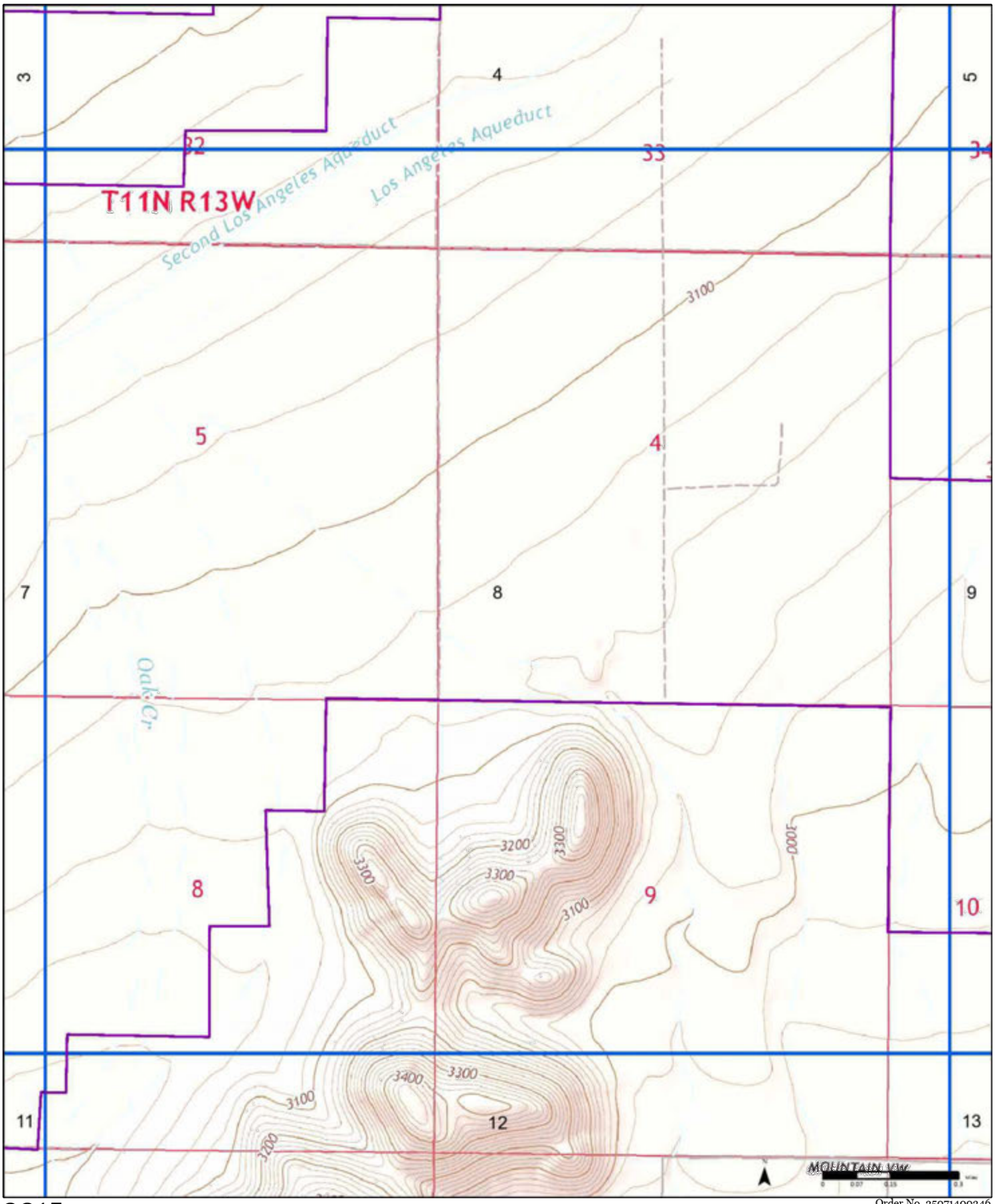

2015

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Soledad Mountain, CA
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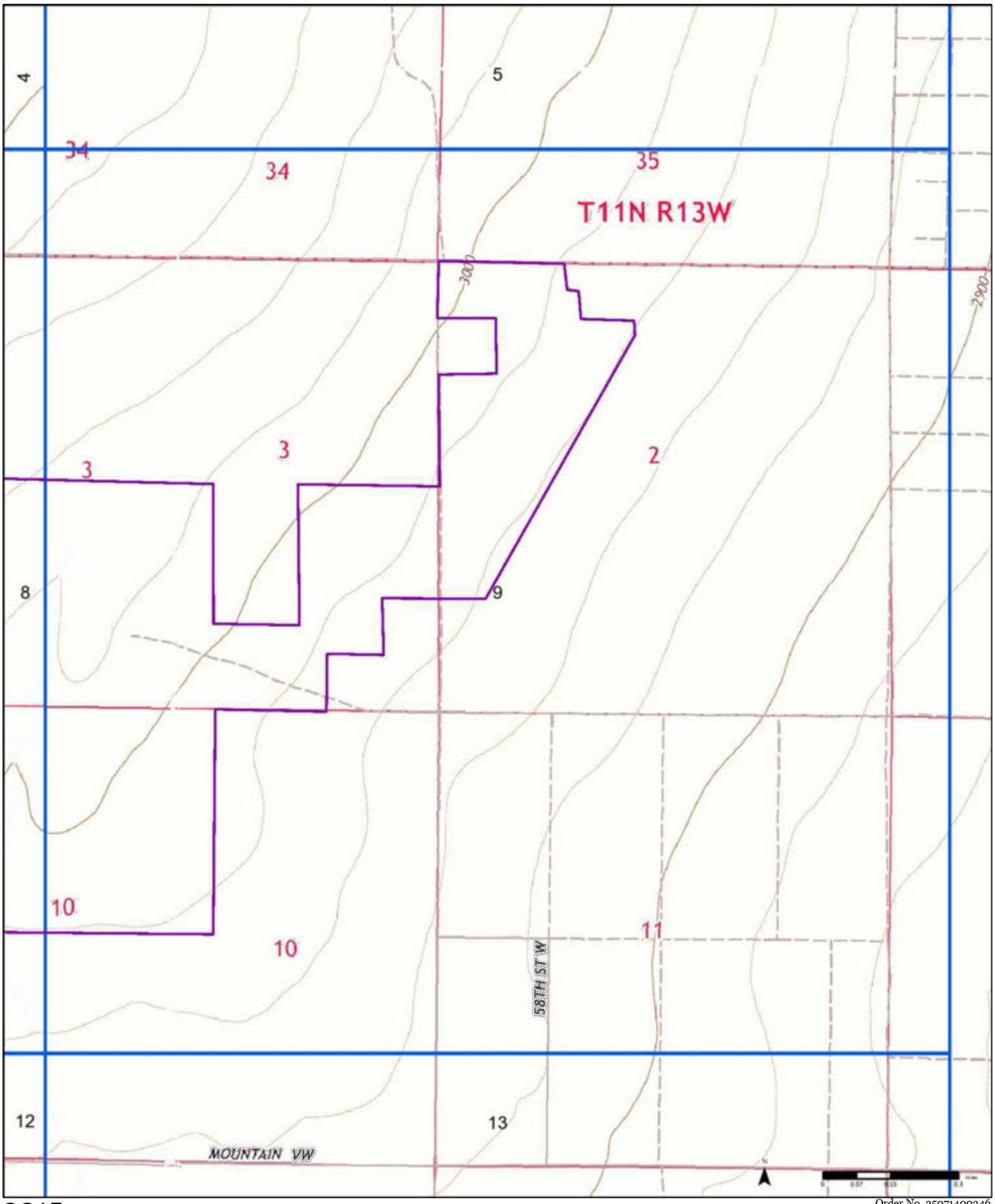

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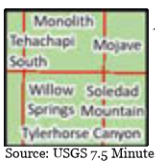

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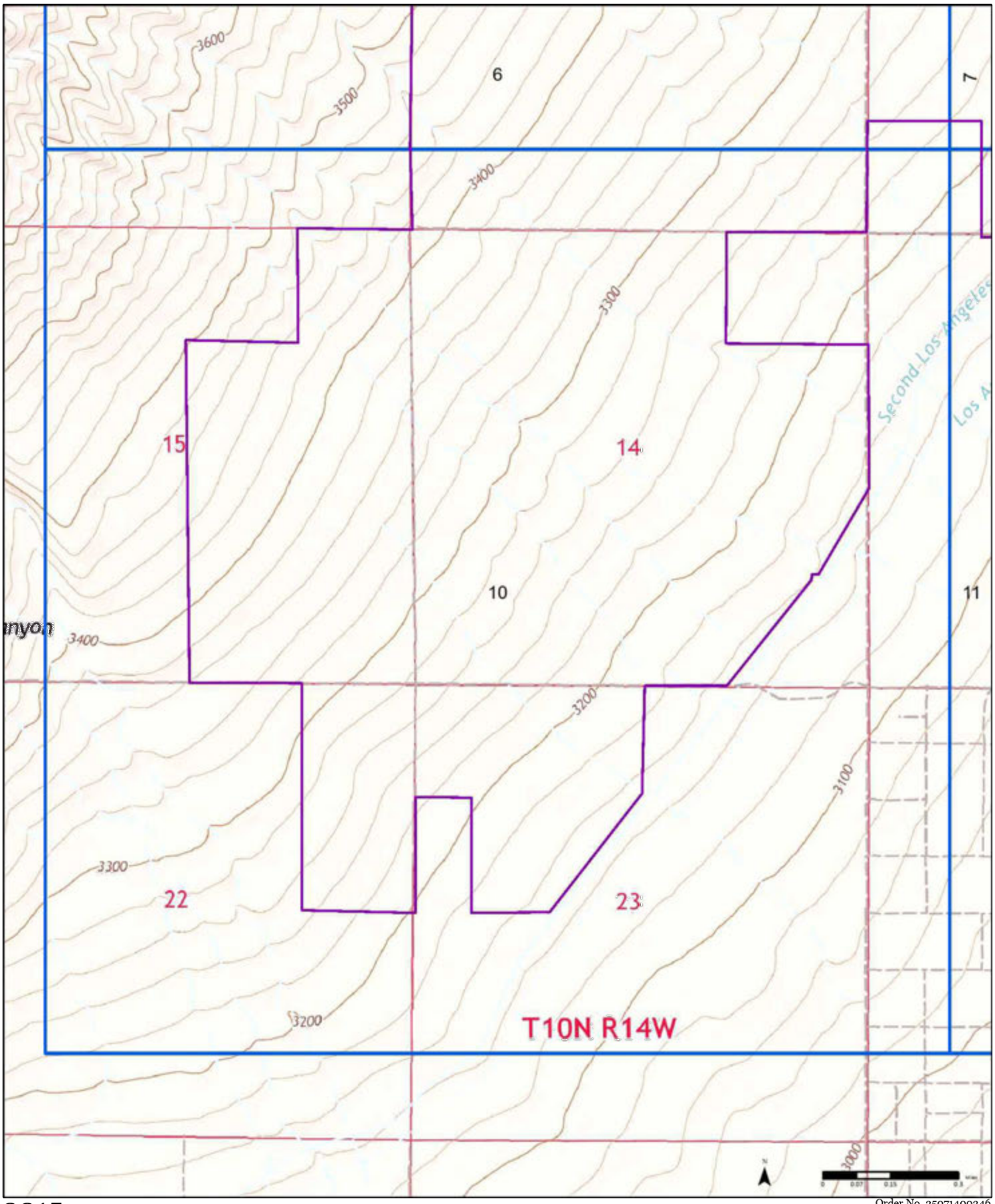

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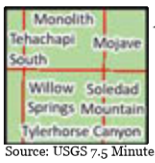

Available Quadrangle(s): Willow Springs, CA
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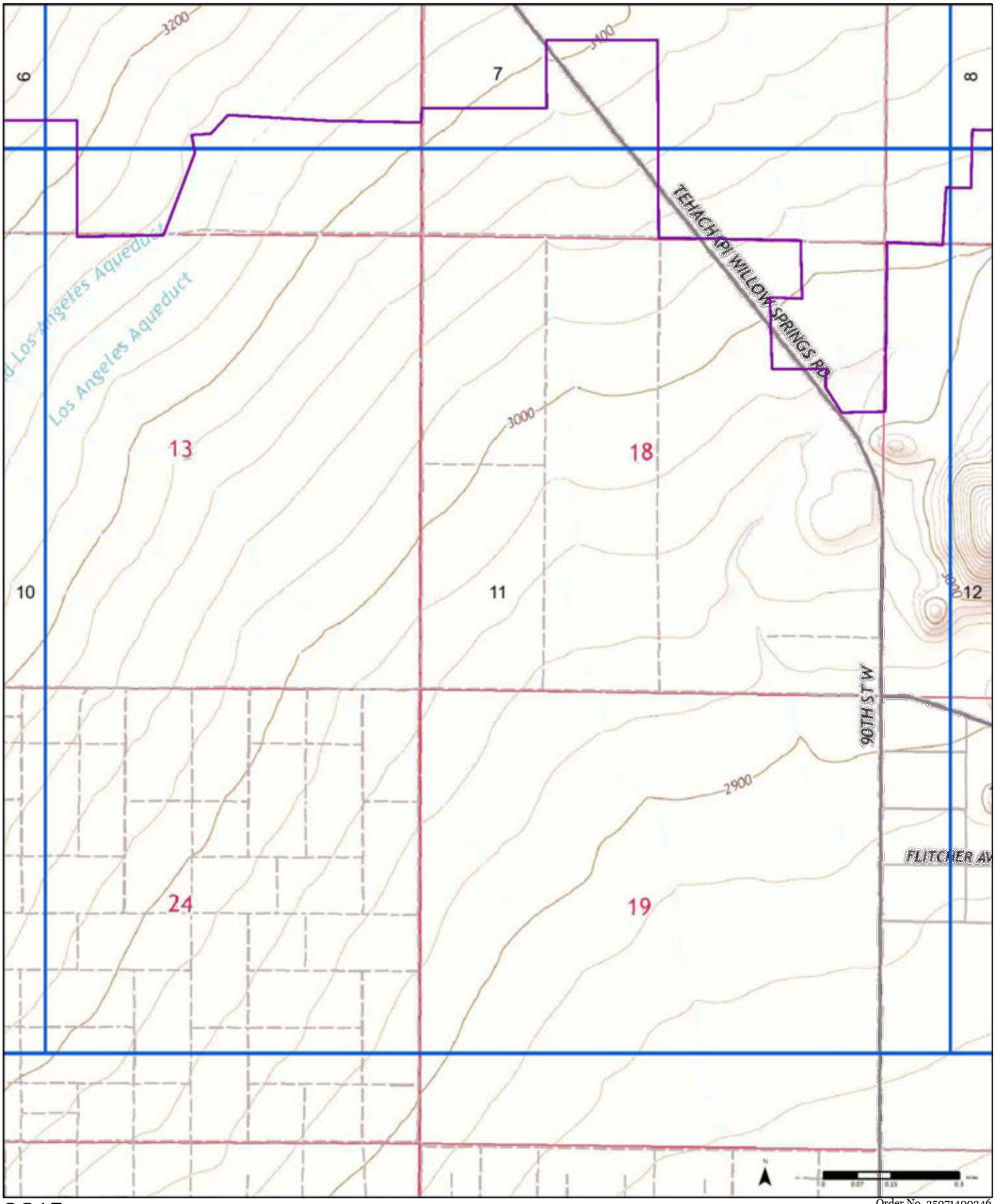

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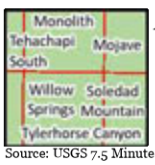

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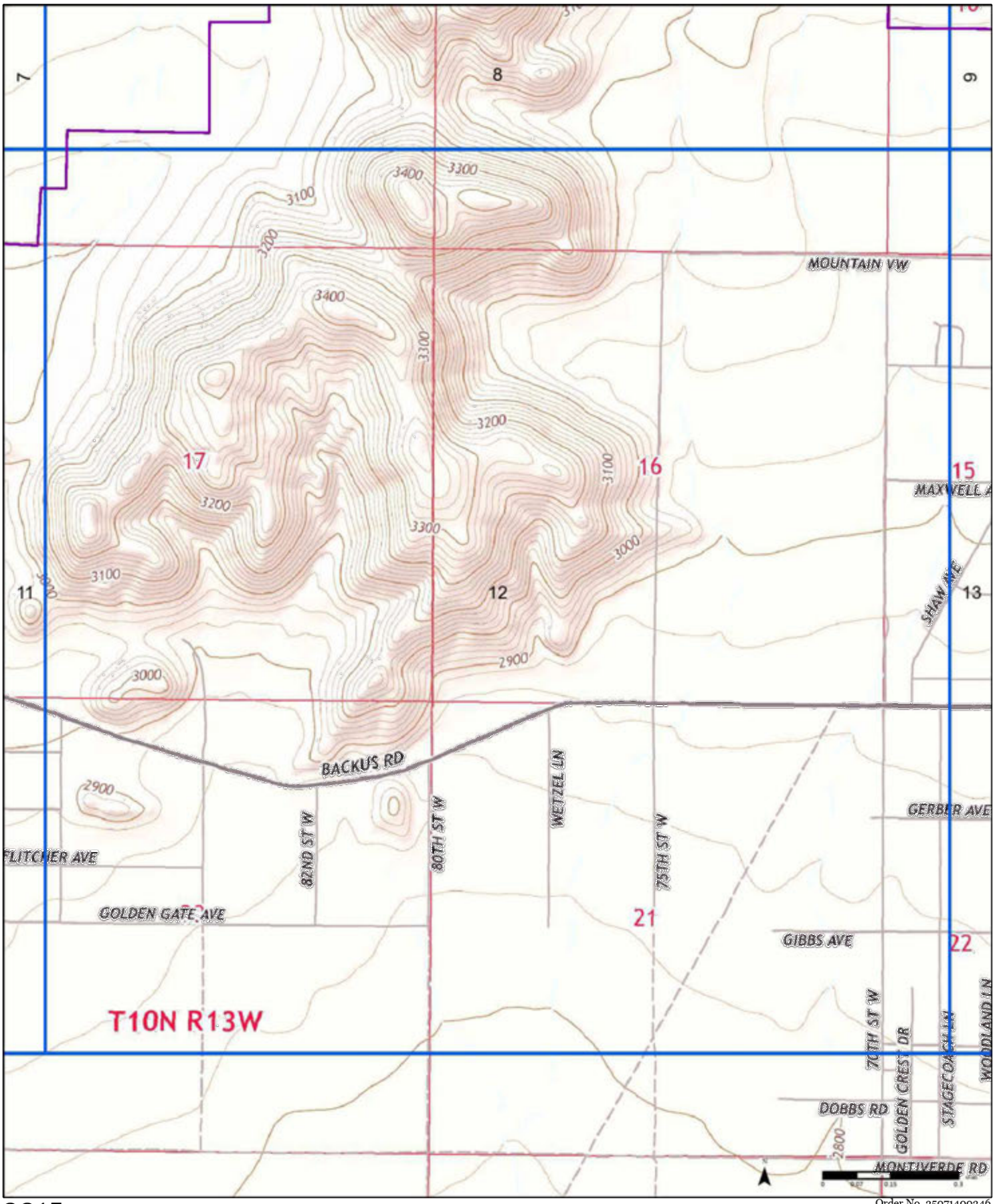

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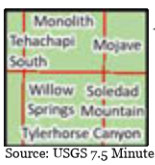

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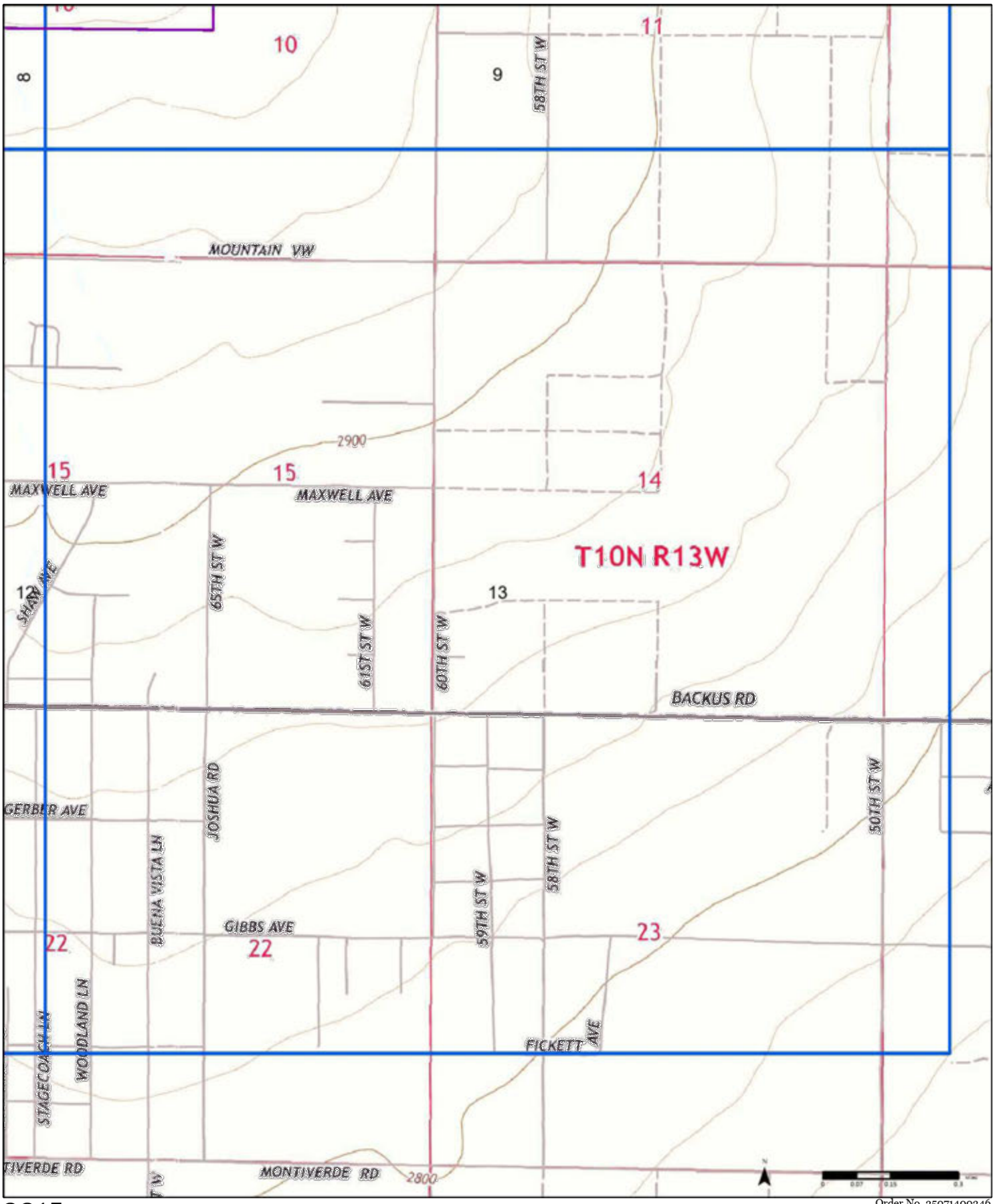

2015

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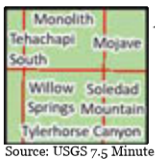

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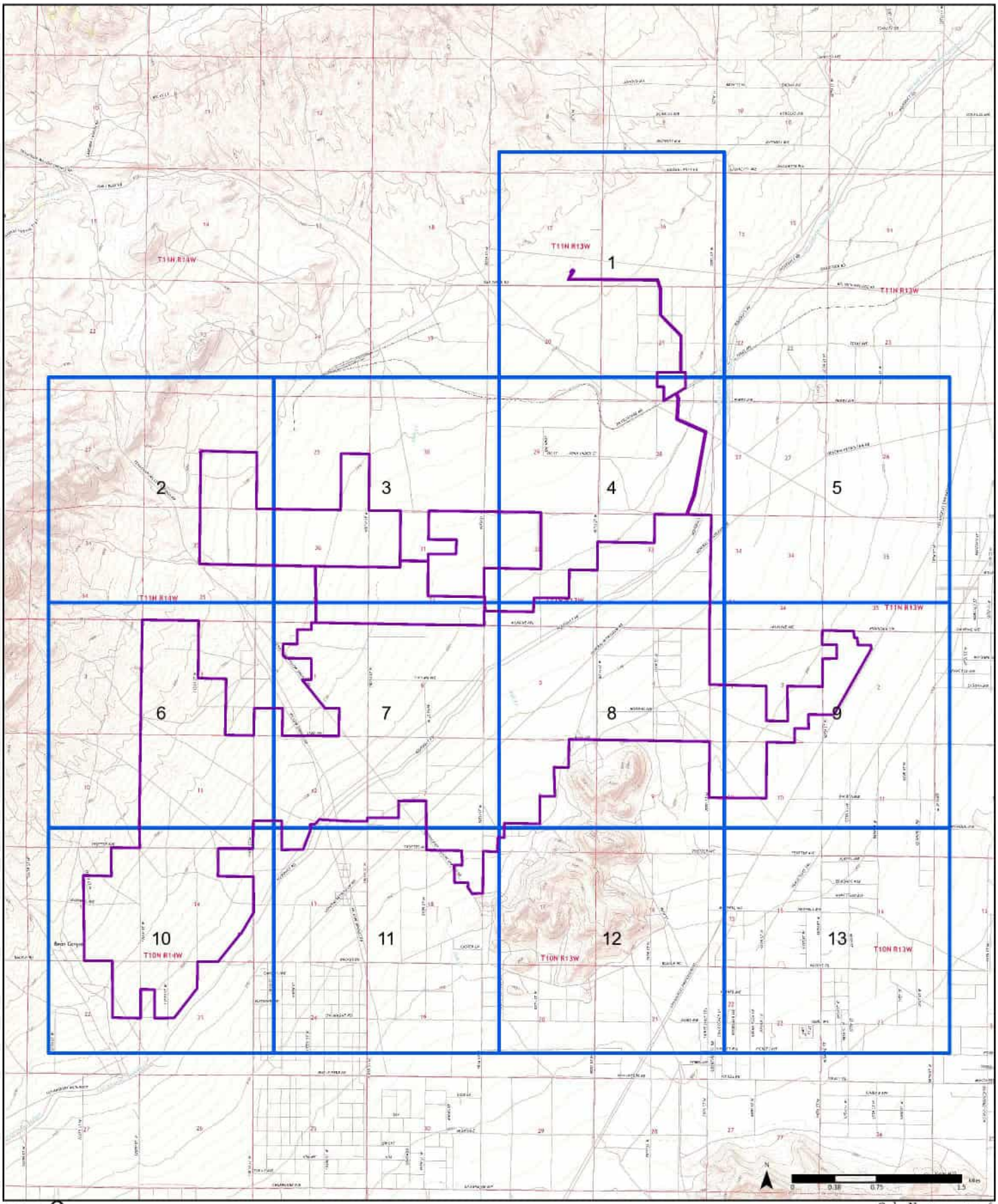
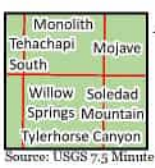


2018

Order No. 25071400346



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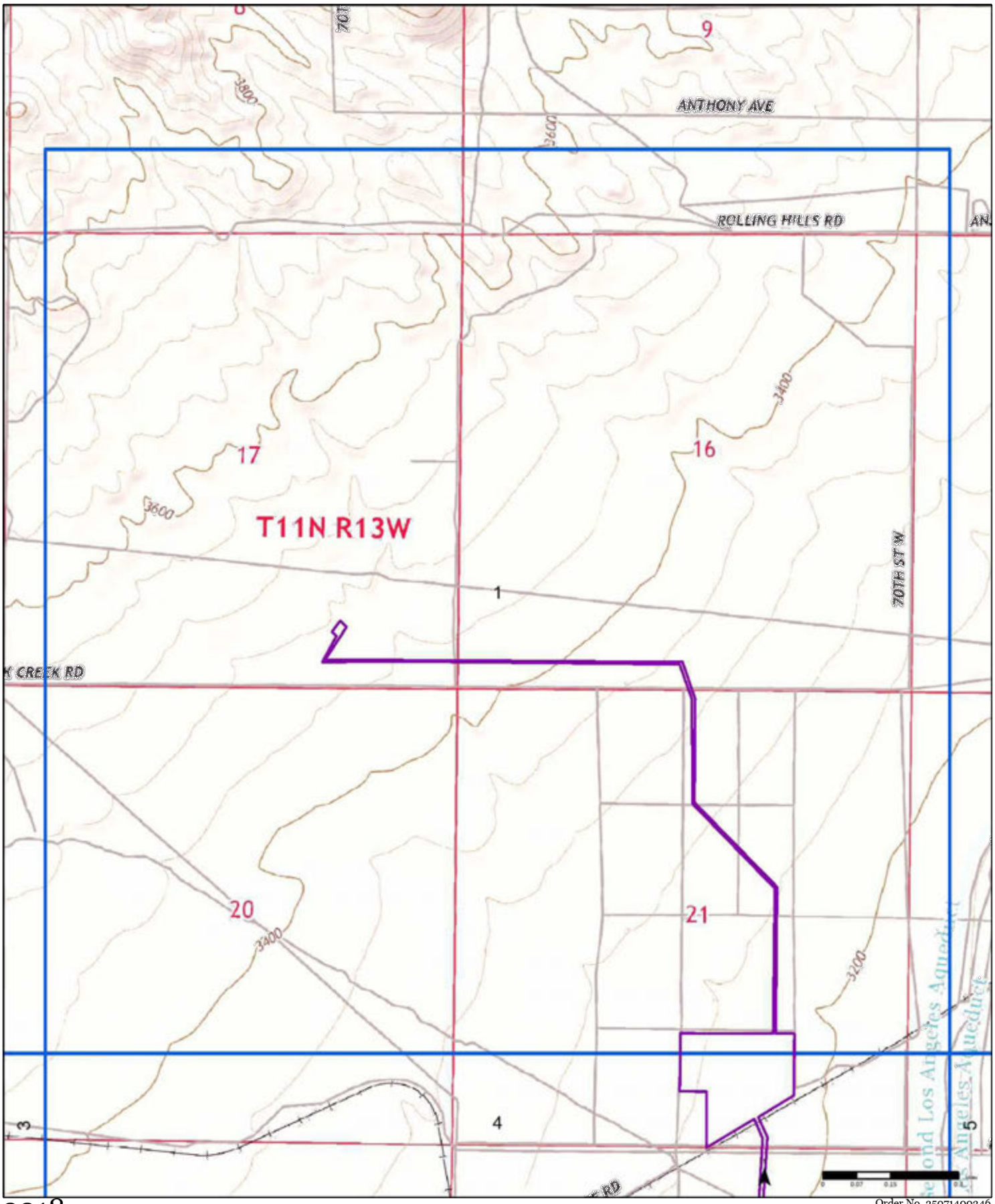
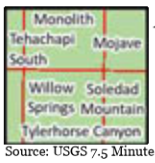
PARTNER



2018

Order No. 25071400346



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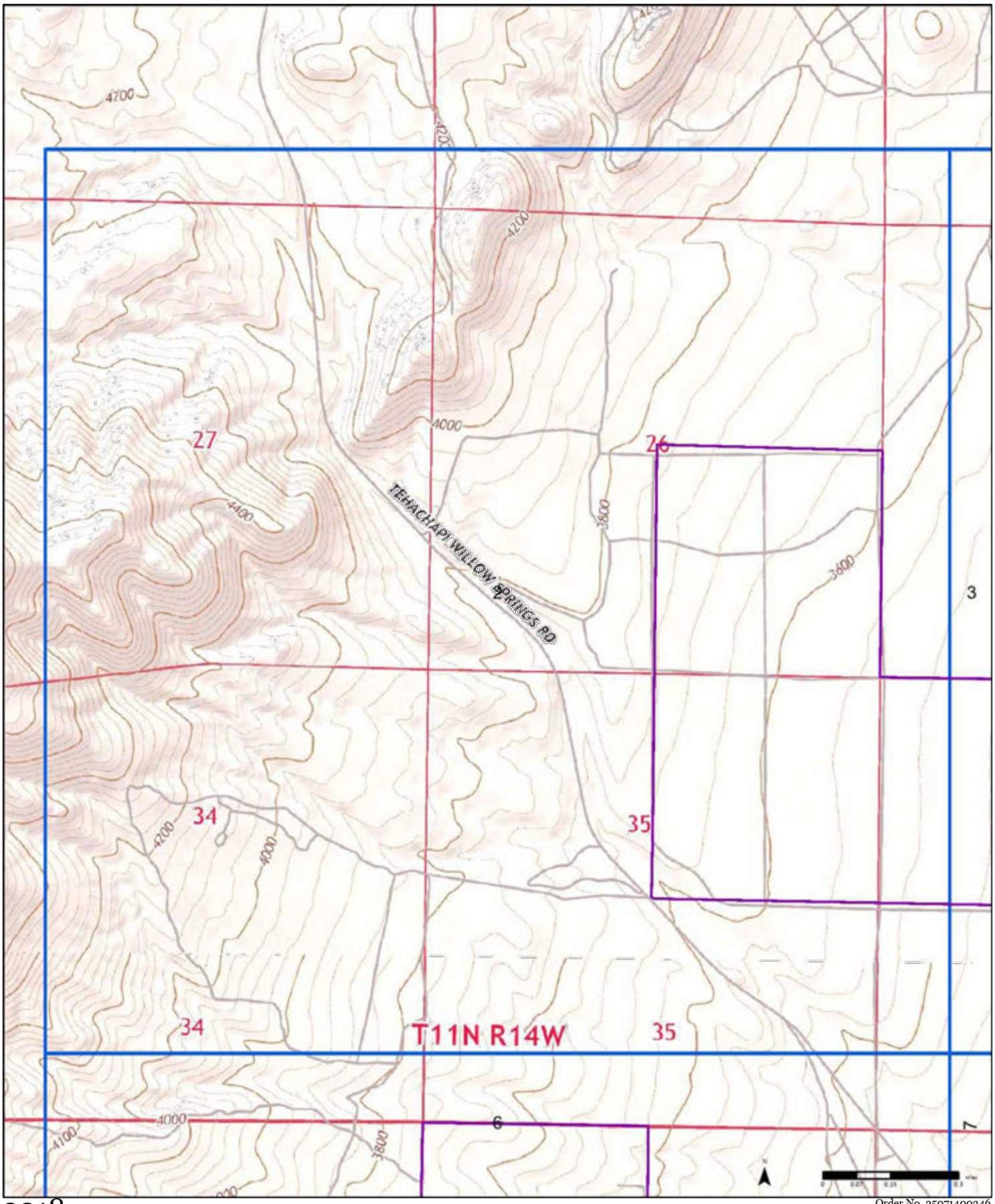
Mojave, CA

Source: USGS 7.5 Minute Topographic Map

PARTNER



2018

Order No. 25071400346



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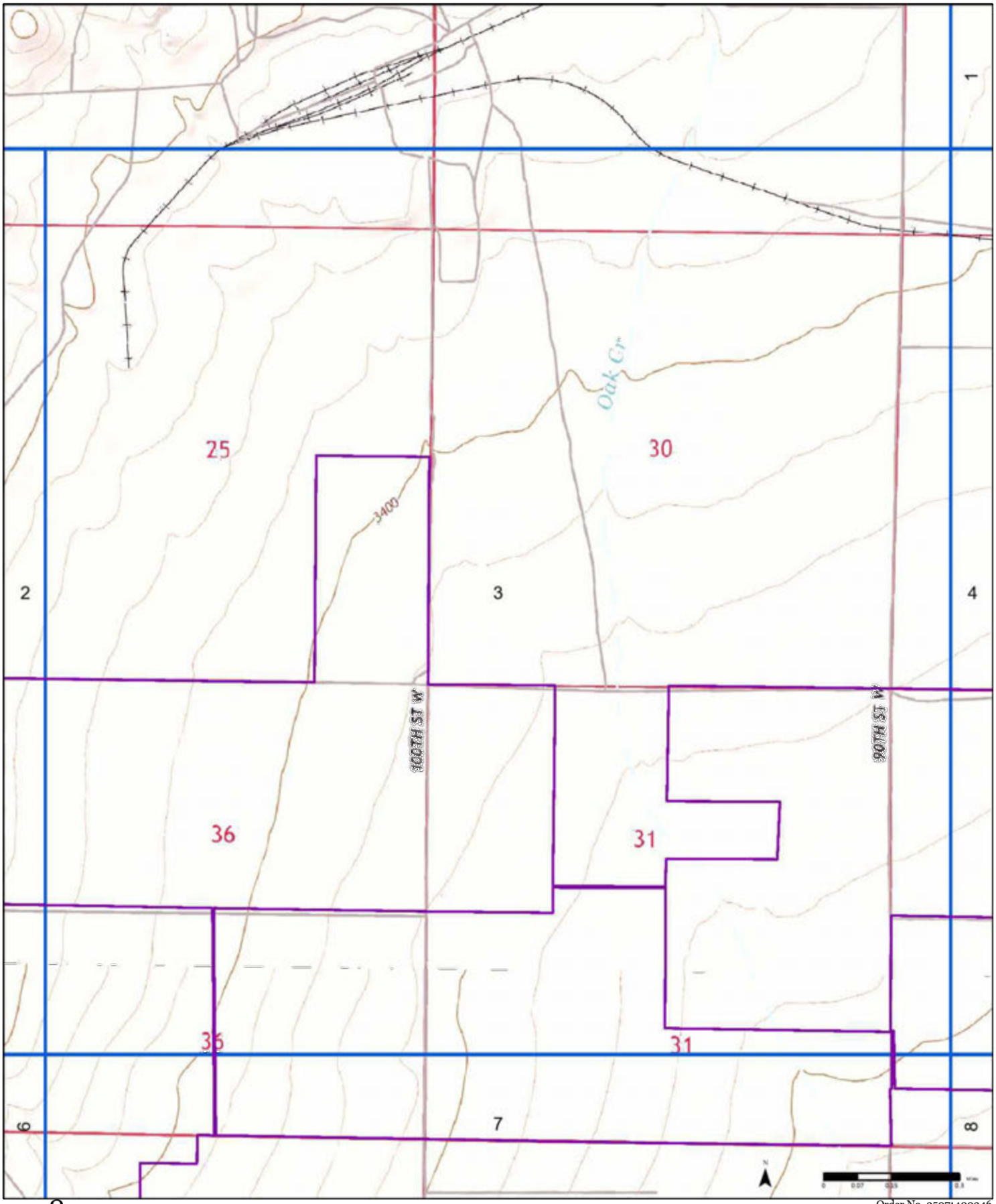

2018

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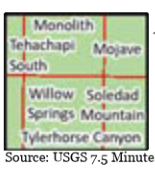

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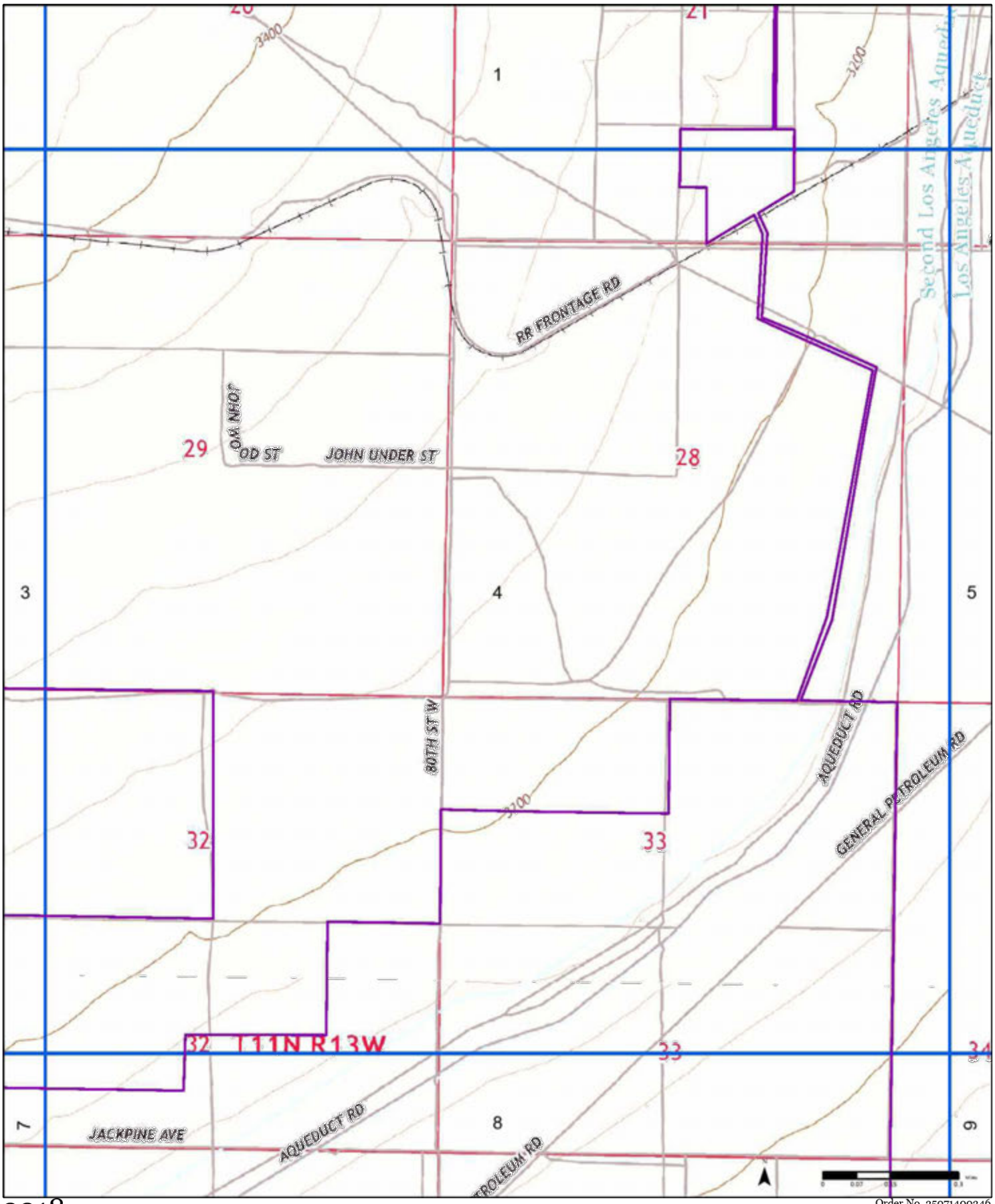
Source: USGS 7.5 Minute Topographic Map

PARTNER



2018

Order No. 25071400346

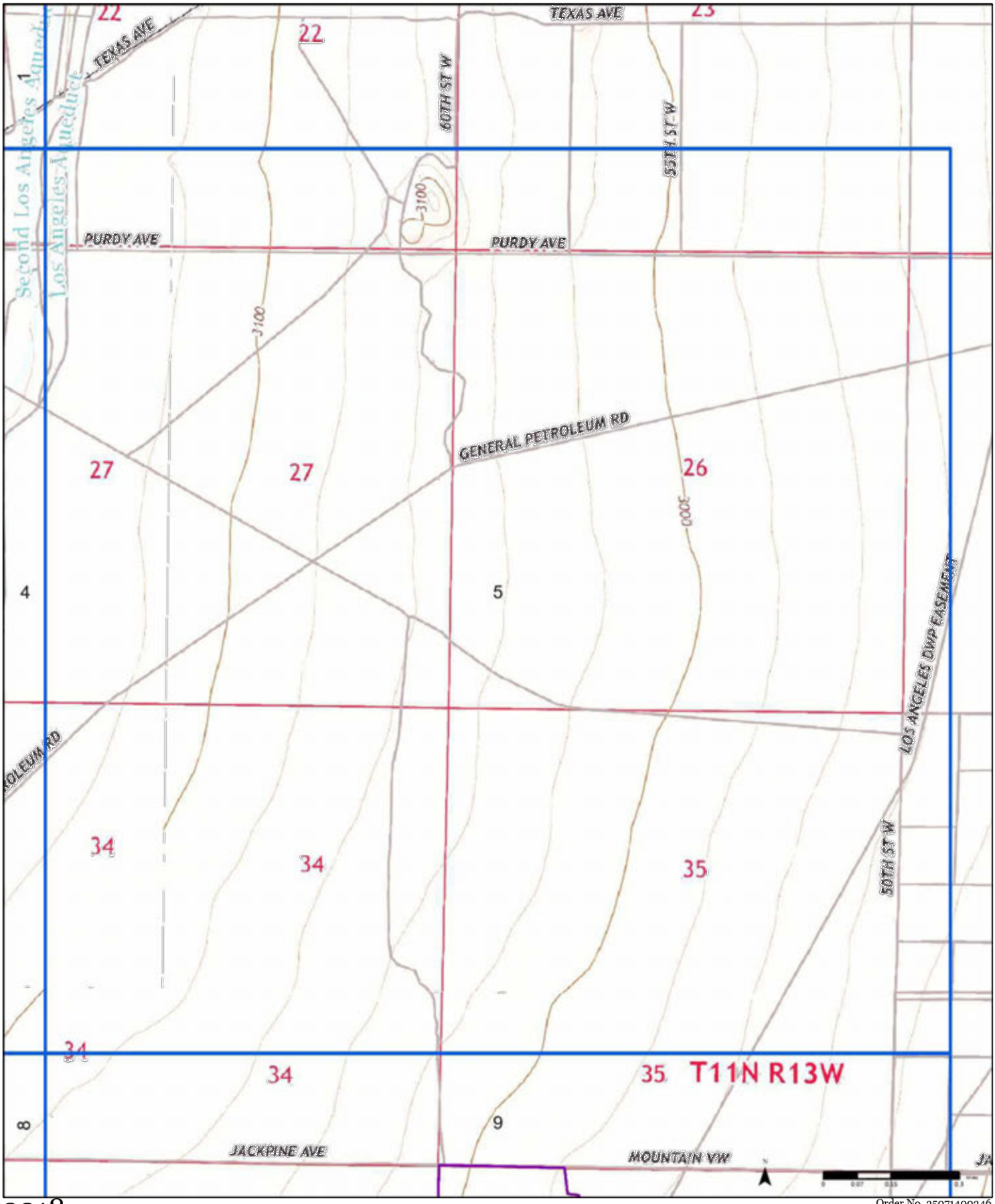


Available Quadrangle(s): Willow Springs, CA
Soledad Mountain, CA
Monolith, CA
Tylerhorse Canyon, CA
Tehachapi South, CA

Mojave, CA

Source: USGS 7.5 Minute Topographic Map

PARTNER



2018

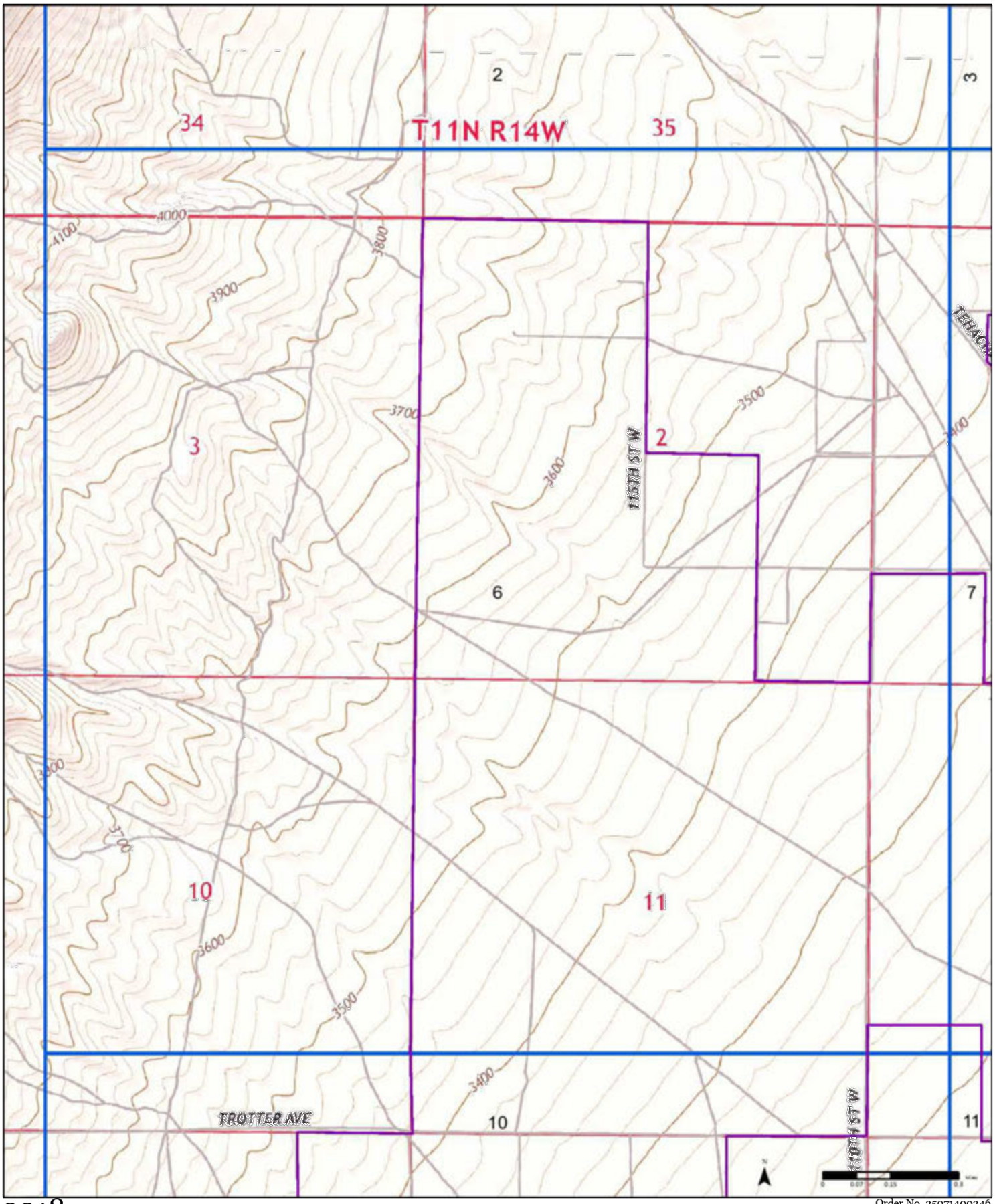
Order No. 25071400346



Available Quadrangle(s): Willow Springs, CA
Soledad Mountain, CA
Monolith, CA
Tylerhorse Canyon, CA
Tehachapi South, CA
Mojave, CA

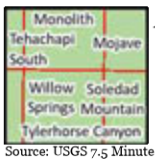
Source: USGS 7.5 Minute Topographic Map

PARTNER



2018

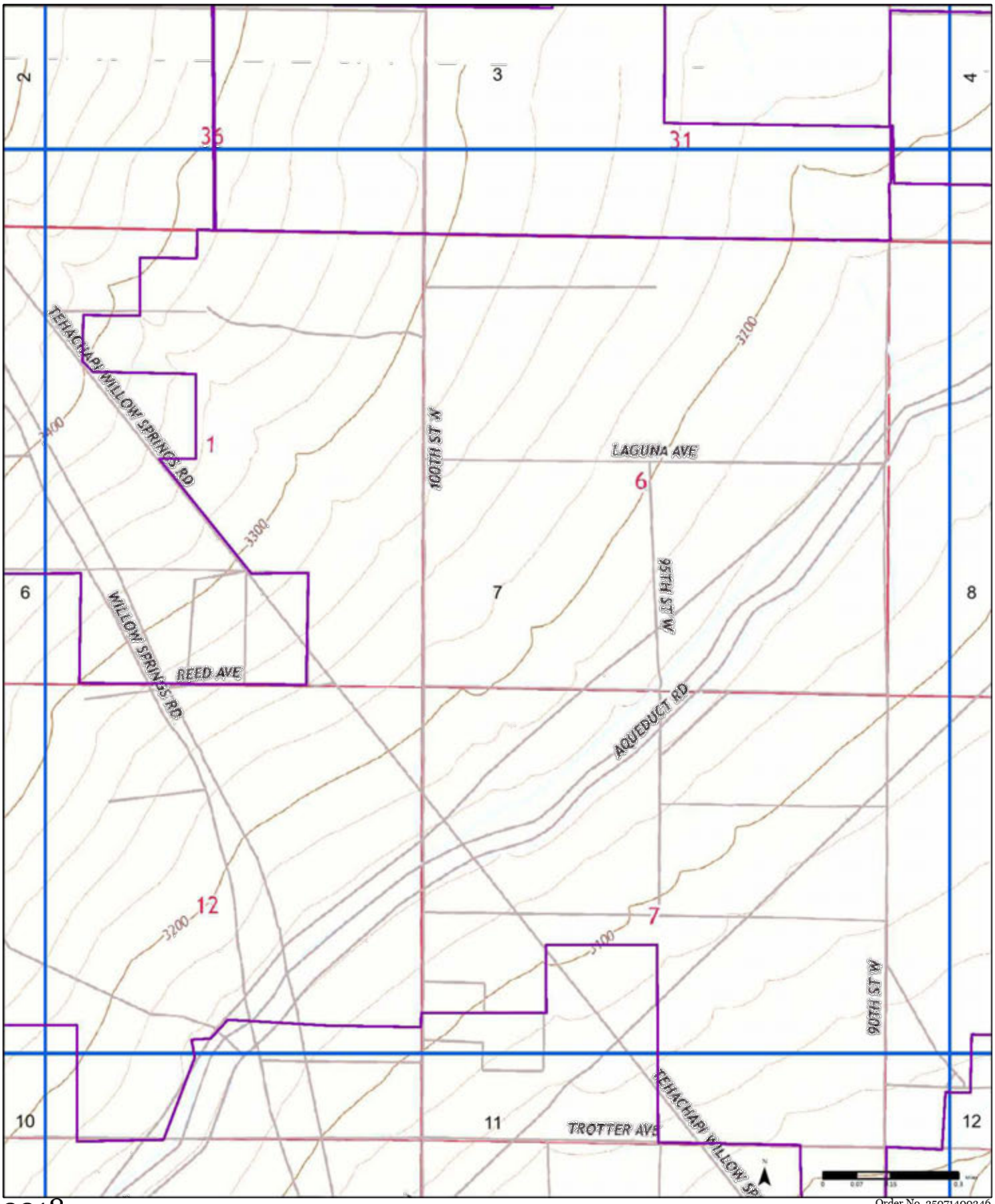
Order No. 25071400346



Available Quadrangle(s): Willow Springs, CA
Soledad Mountain, CA
Monolith, CA
Tylerhorse Canyon, CA
Tehachapi South, CA
Mojave, CA

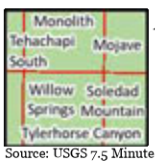
Source: USGS 7.5 Minute Topographic Map

PARTNER



2018

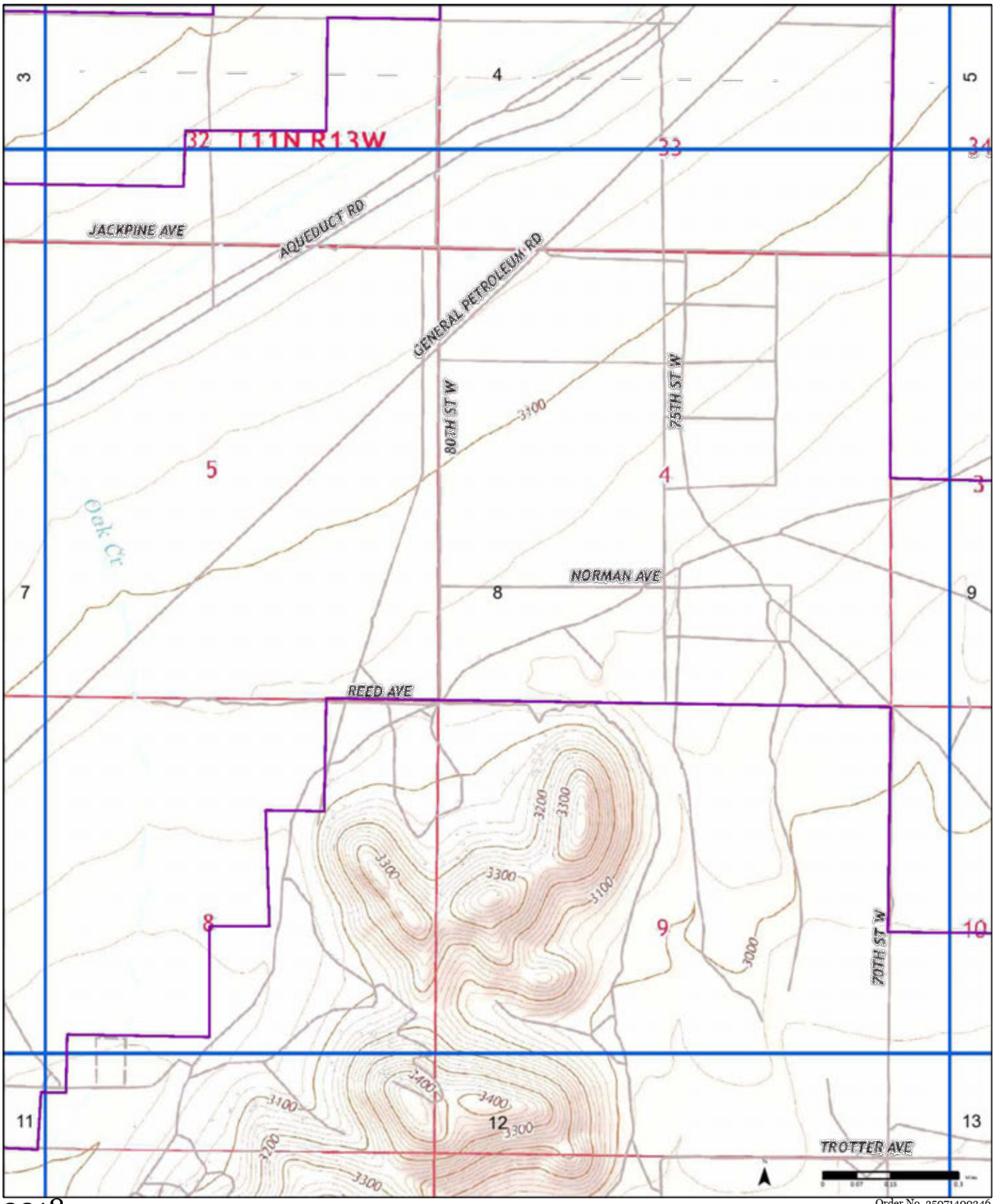
Order No. 25071400346



Available Quadrangle(s): Willow Springs, CA
Soledad Mountain, CA
Monolith, CA
Tylerhorse Canyon, CA
Tehachapi South, CA
Mojave, CA

Source: USGS 7.5 Minute Topographic Map

PARTNER



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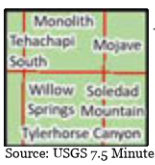
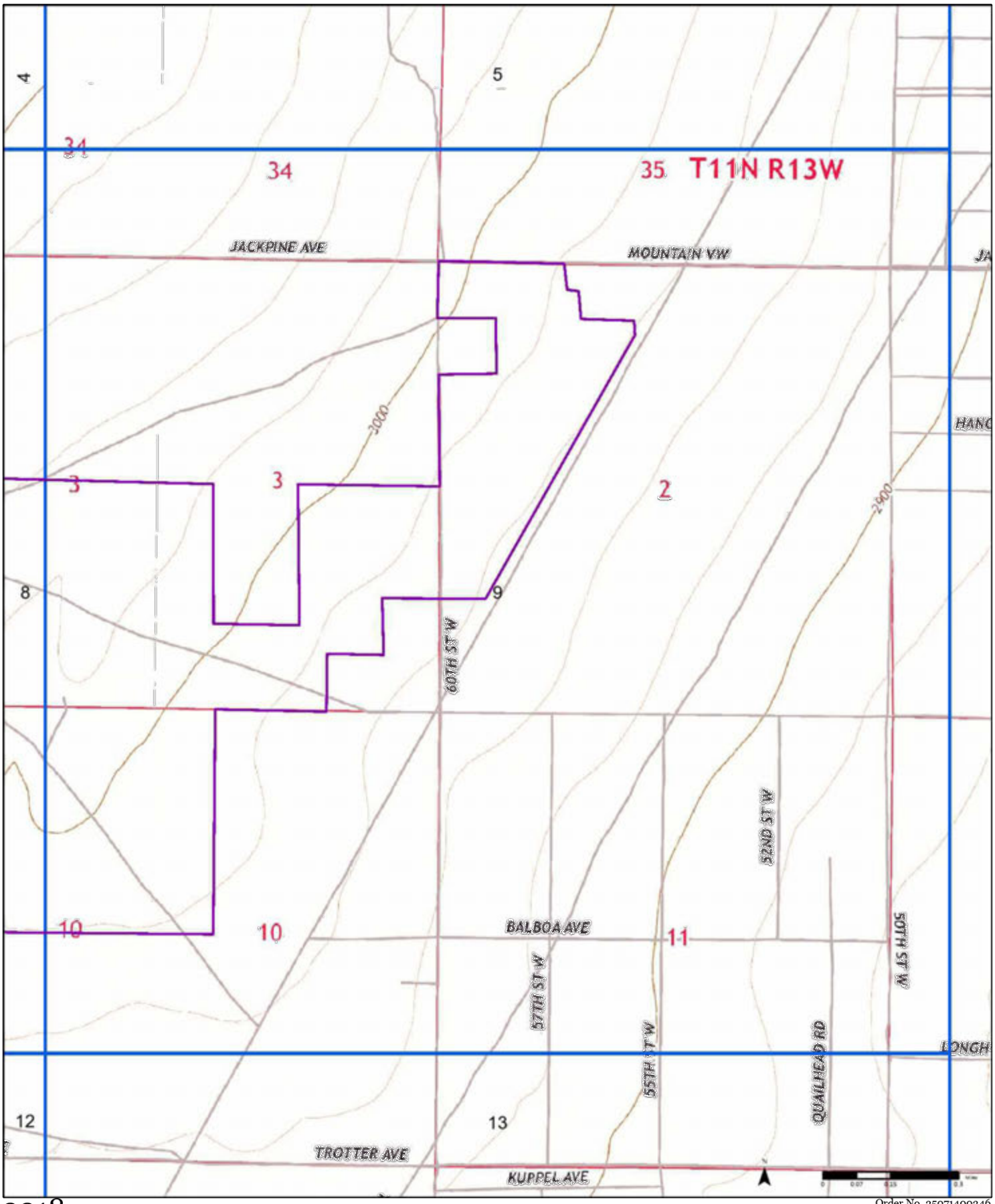
Order No. 25071400346



Available Quadrangle(s): Willow Springs, CA
Soledad Mountain, CA
Monolith, CA
Tylerhorse Canyon, CA
Tehachapi South, CA
Mojave, CA

Source: USGS 7.5 Minute Topographic Map

PARTNER



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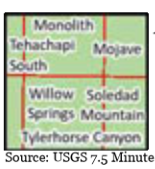
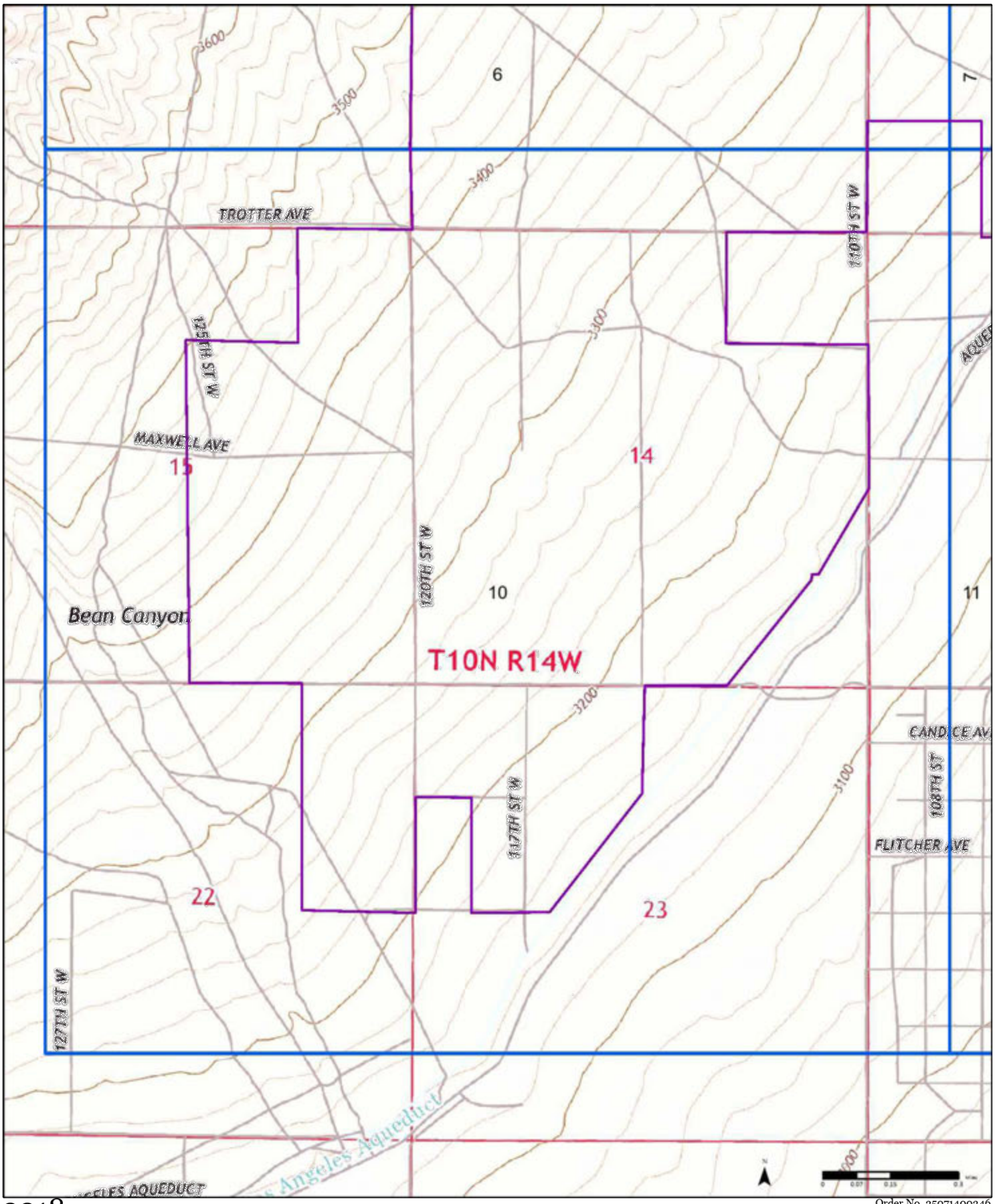
Order No. 25071400346



Available Quadrangle(s): Willow Springs, CA
Soledad Mountain, CA
Monolith, CA
Tylerhorse Canyon, CA
Tehachapi South, CA
Mojave, CA

Source: USGS 7.5 Minute Topographic Map

PARTNER



2018

Order No. 25071400346



Available Quadrangle(s): Willow Springs, CA
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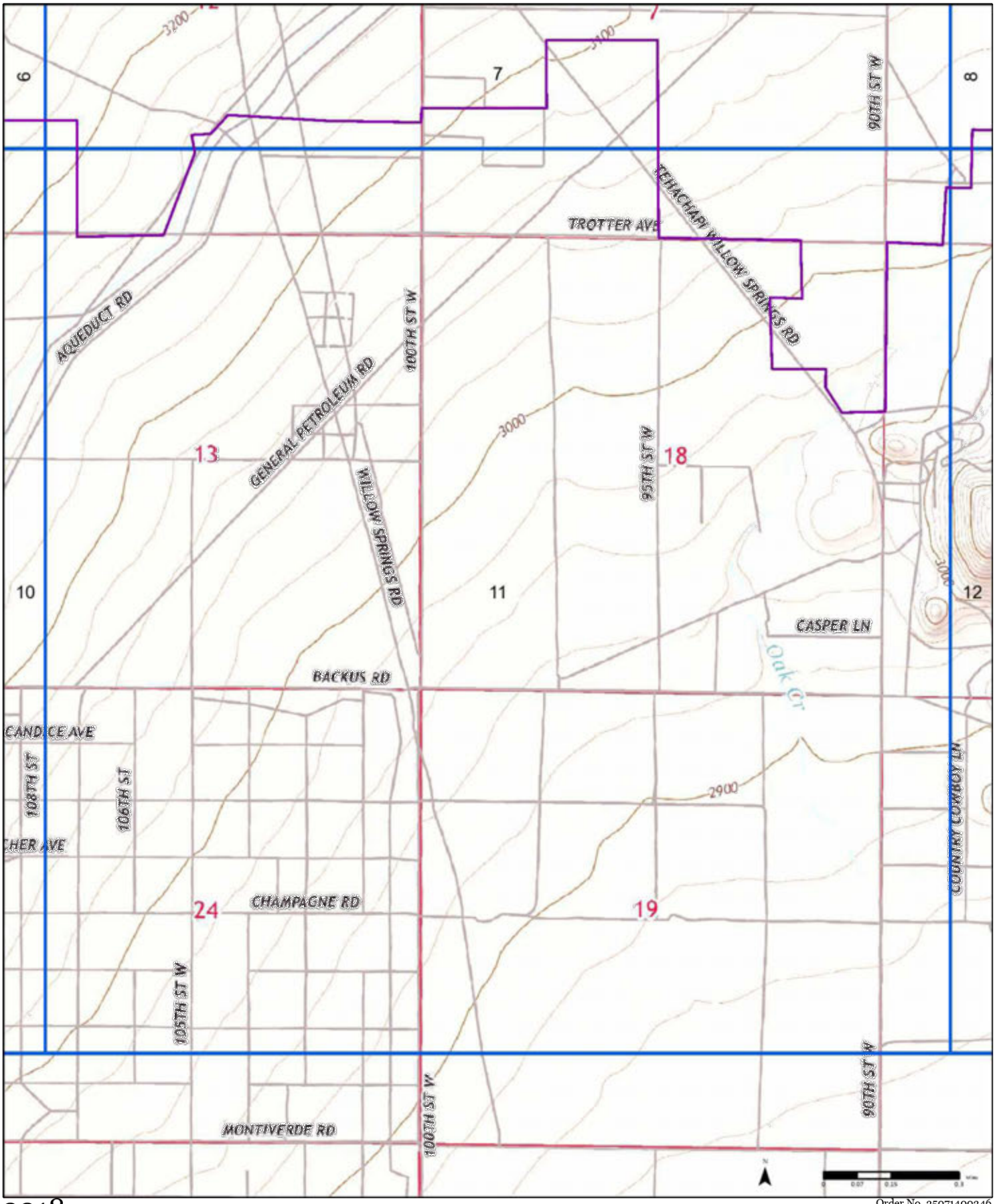
Mojave, CA

Source: USGS 7.5 Minute Topographic Map

PARTNER



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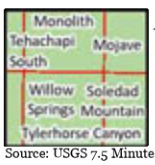
Order No. 25071400346



Available Quadrangle(s): Willow Springs, CA
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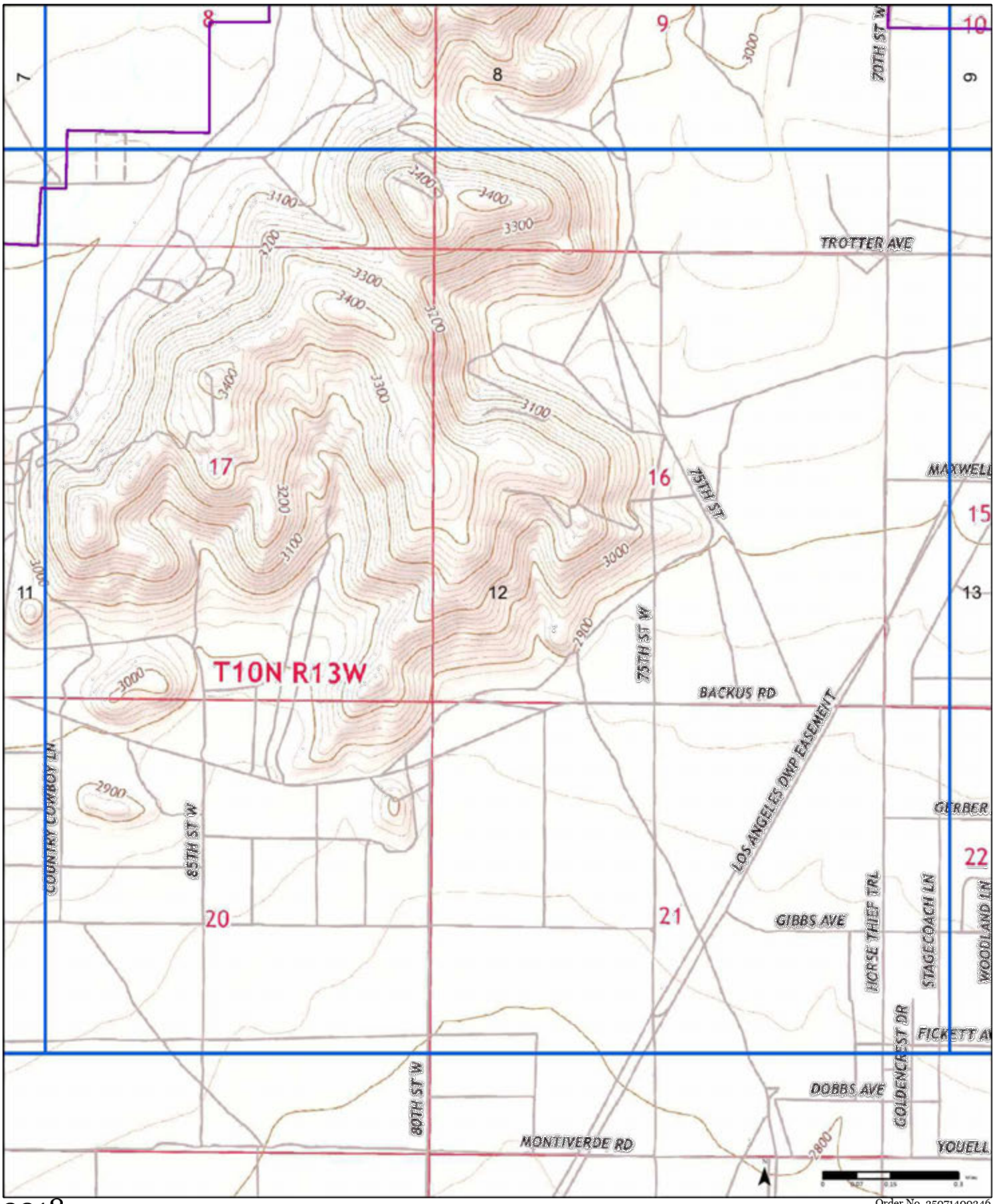
Tehachapi South, CA
Mojave, CA

Source: USGS 7.5 Minute Topographic Map

PARTNER



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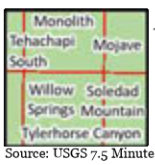

Available Quadrangle(s): Willow Springs, CA
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Mojave, CA

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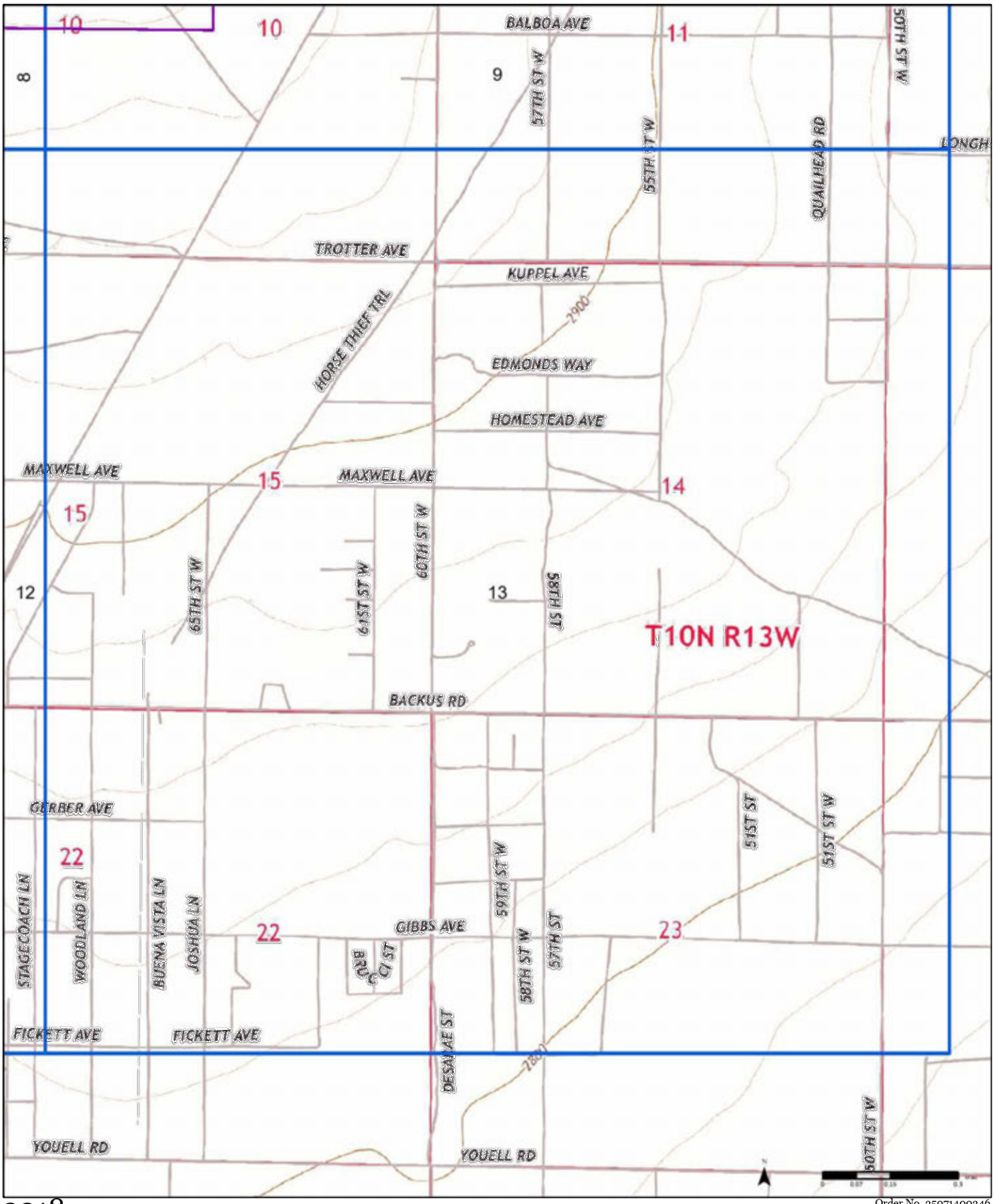
PARTNER



2018

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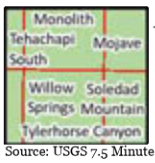

Available Quadrangle(s): Willow Springs, CA
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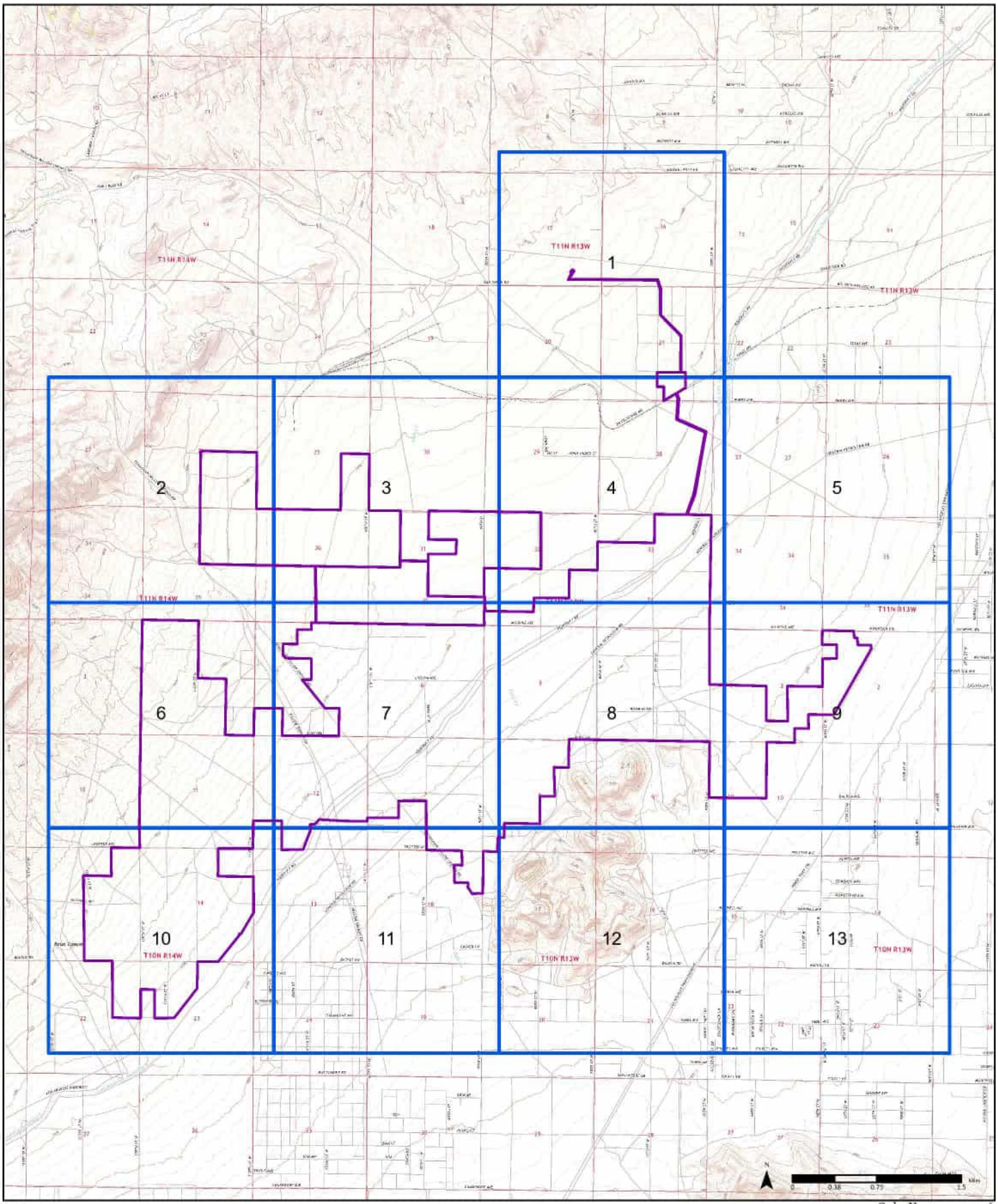
Monolith, CA
Tylerhorse Canyon, CA
Tehachapi South, CA

Mojave, CA

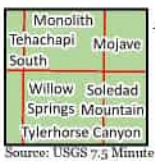
Source: USGS 7.5 Minute Topographic Map

PARTNER



2021

Order No. 25071400346



Available Quadrangle(s): Monolith, CA
Willow Springs, CA
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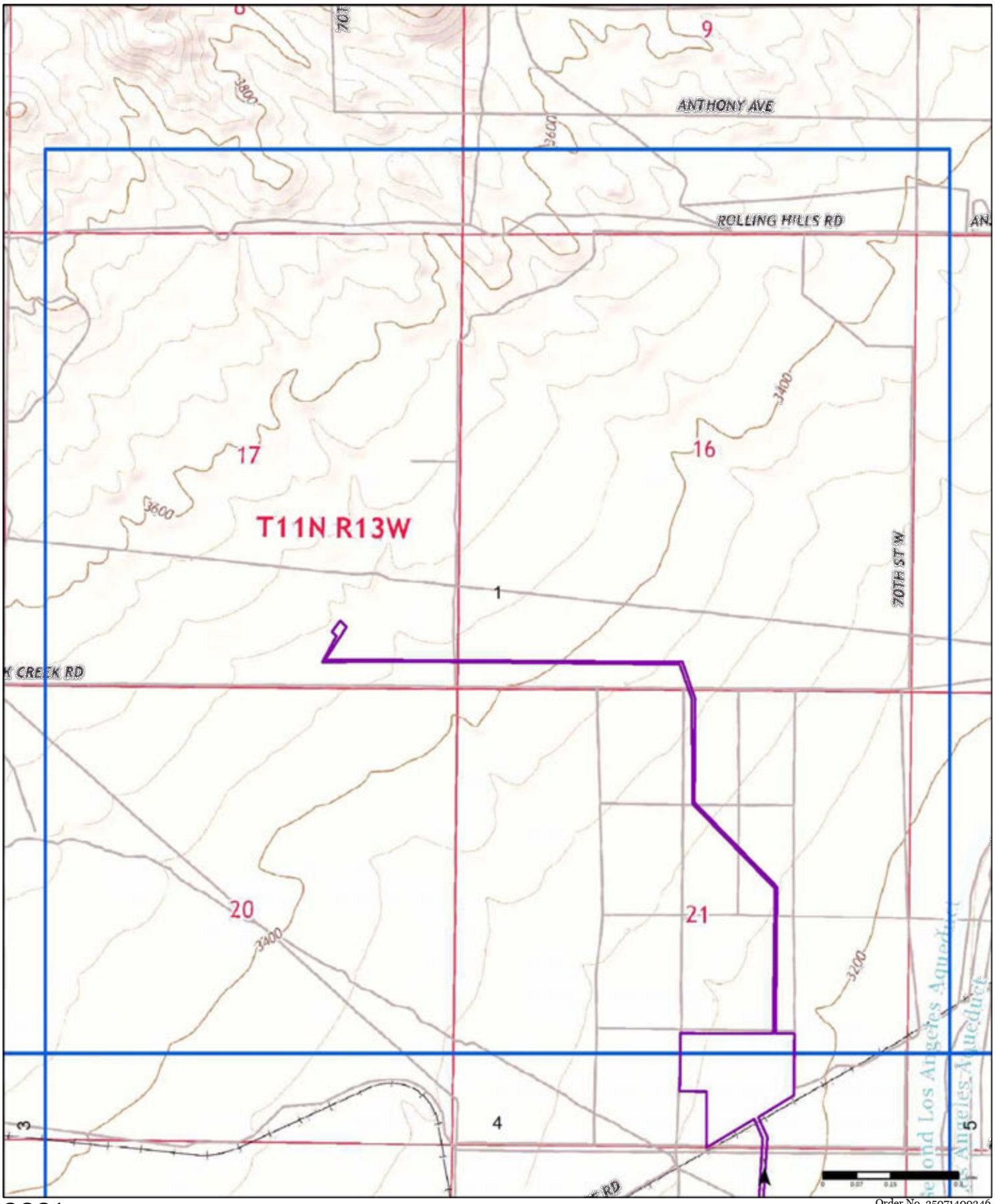
Mojave, CA
Tehachapi South, CA
Tylerhorse Canyon, CA

Source: USGS 7.5 Minute Topographic Map

PARTNER



2021

Order No. 25071400346



Available Quadrangle(s): Monolith, CA
Willow Springs, CA
Soledad Mountain, CA
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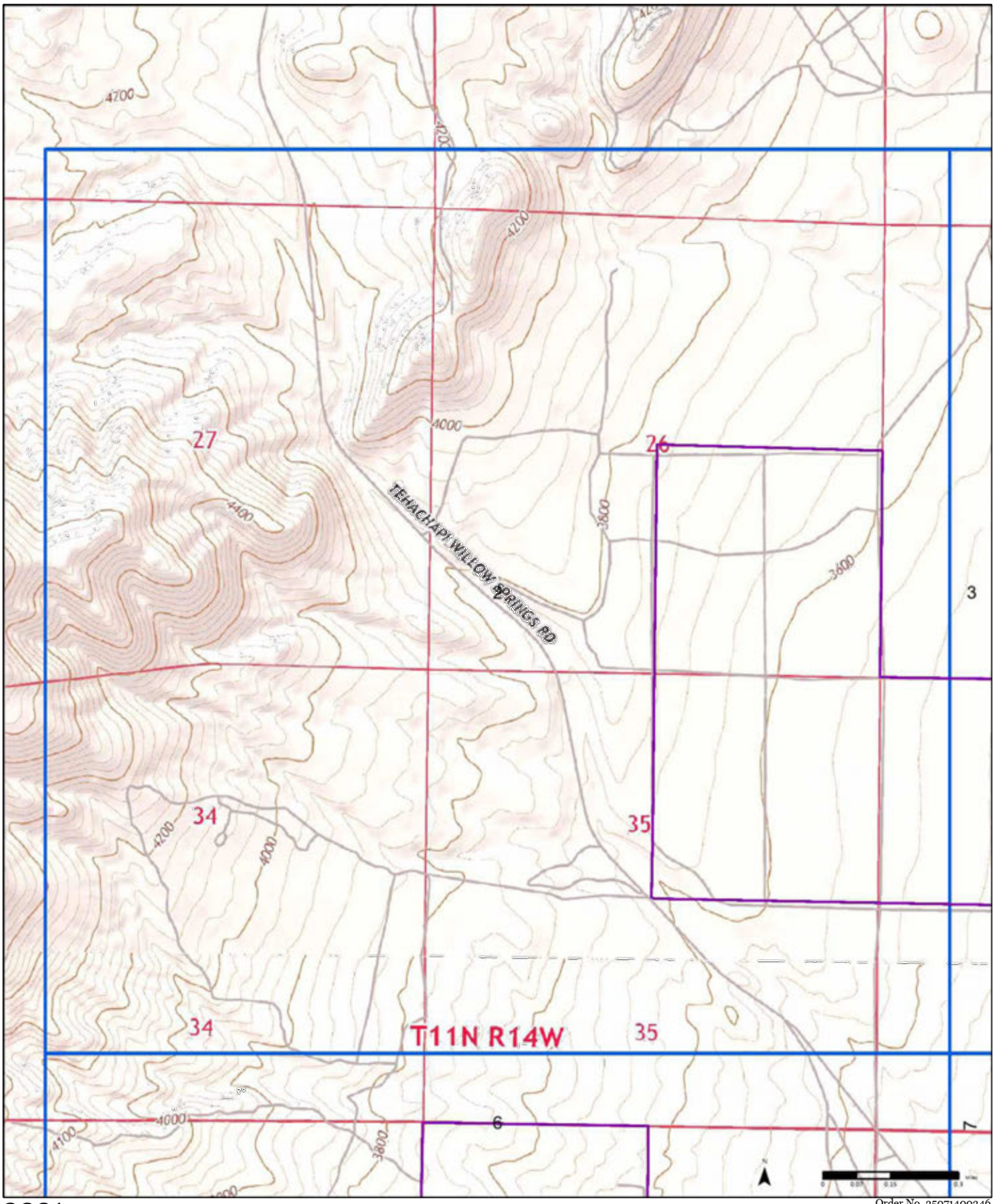
Tehachapi South, CA
Tylerhorse Canyon, CA

Source: USGS 7.5 Minute Topographic Map

PARTNER



2021

Order No. 25071400346



Available Quadrangle(s): Monolith, CA
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Tylerhorse Canyon, CA

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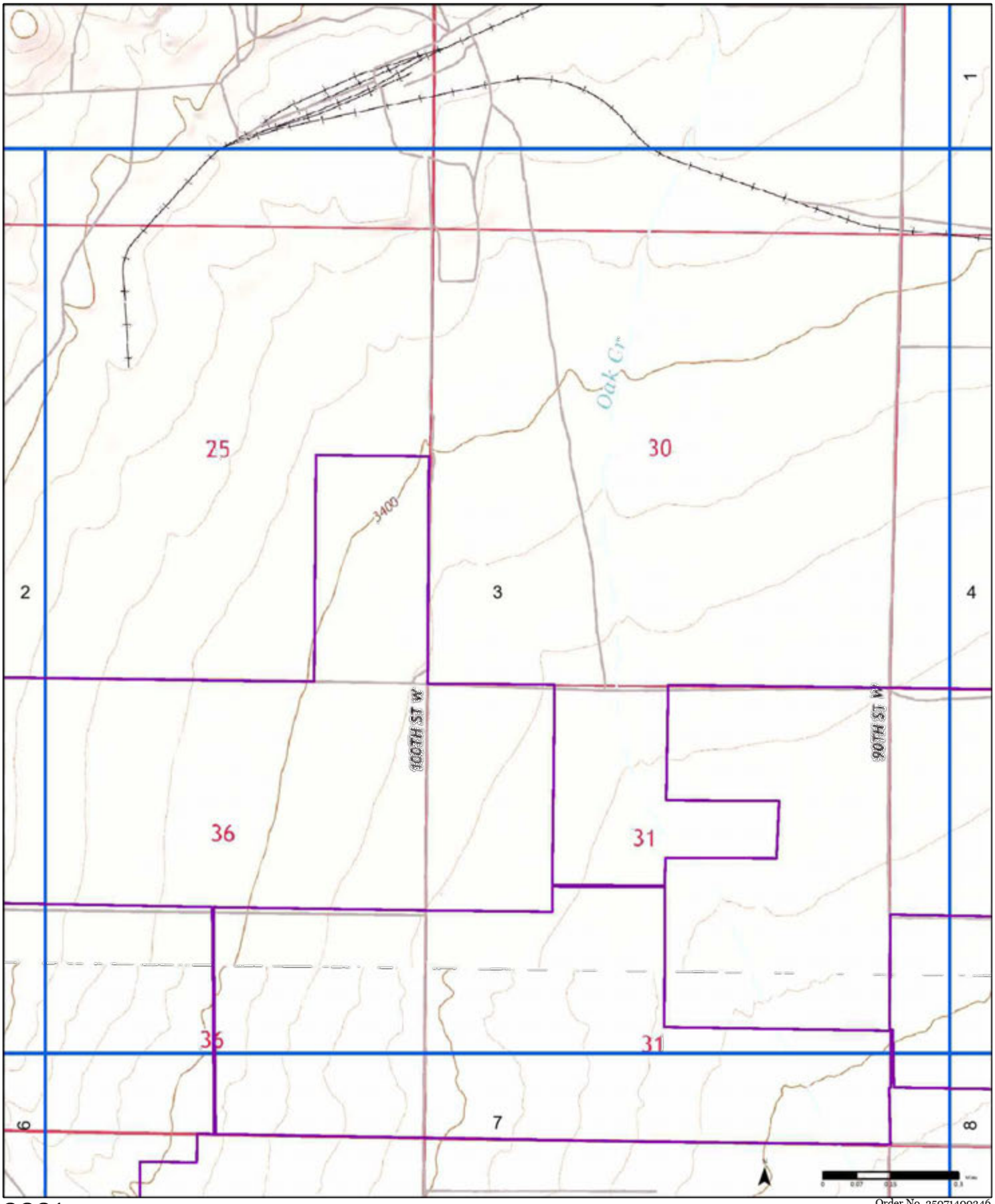
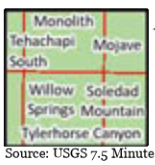
PARTNER



2021

Order No. 25071400346



Available Quadrangle(s): Monolith, CA
Willow Springs, CA
Soledad Mountain, CA
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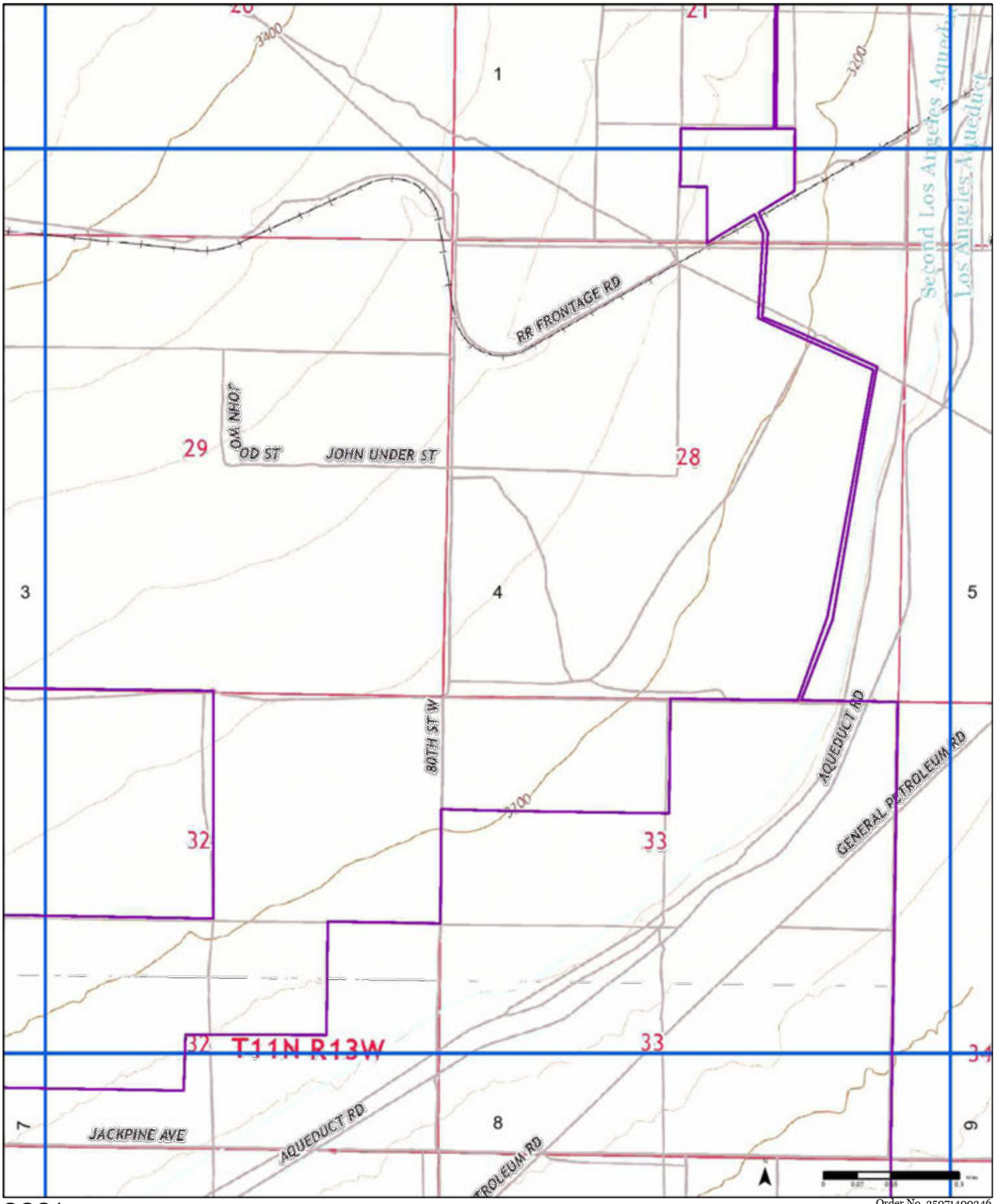
Tehachapi South, CA
Tylerhorse Canyon, CA

Source: USGS 7.5 Minute Topographic Map

PARTNER



2021

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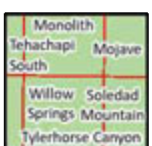

Available Quadrangle(s): Monolith, CA
Willow Springs, CA
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Mojave, CA
Tehachapi South, CA
Tylerhorse Canyon, CA

Source: USGS 7.5 Minute Topographic Map

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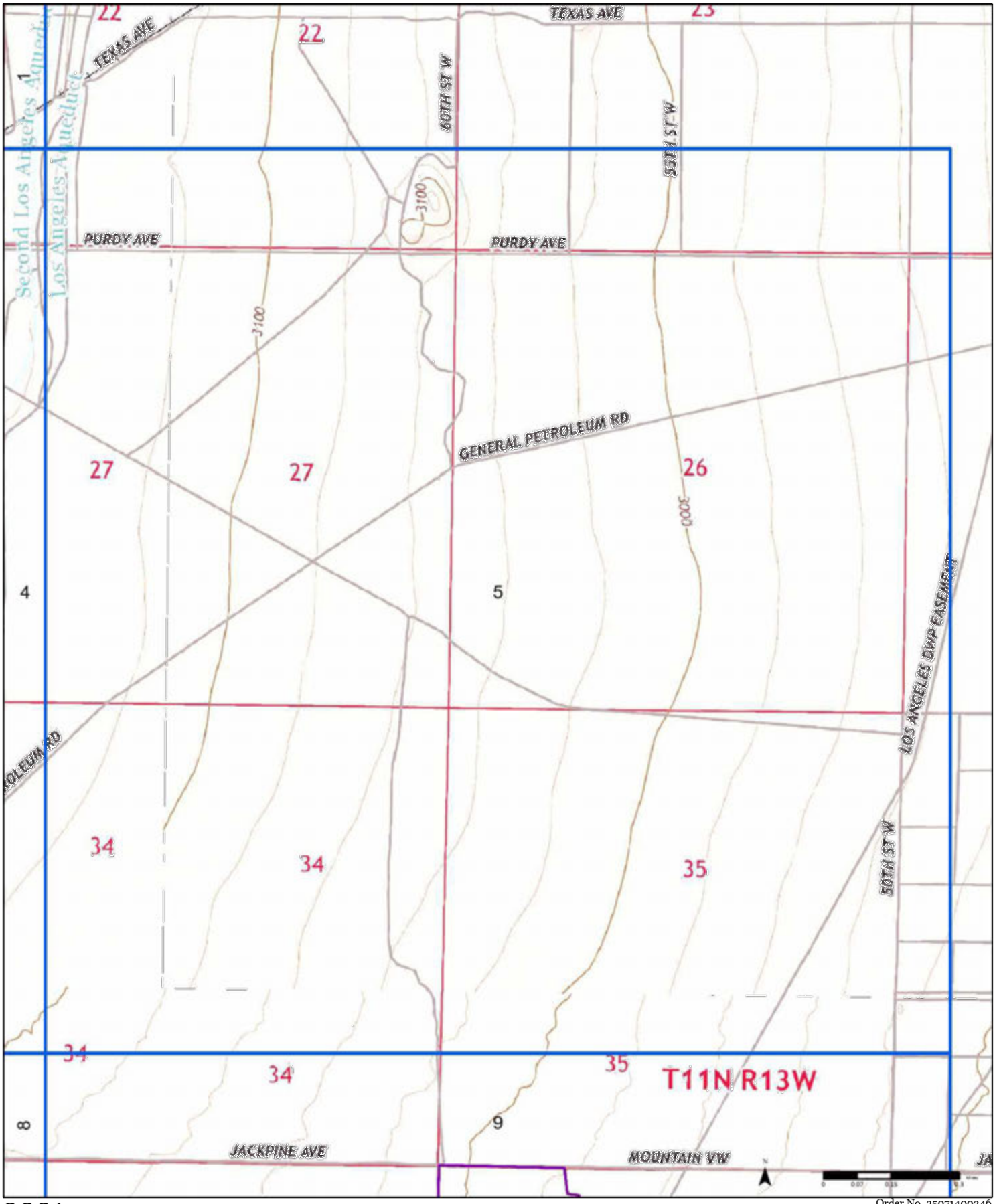
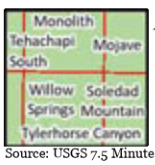


2021

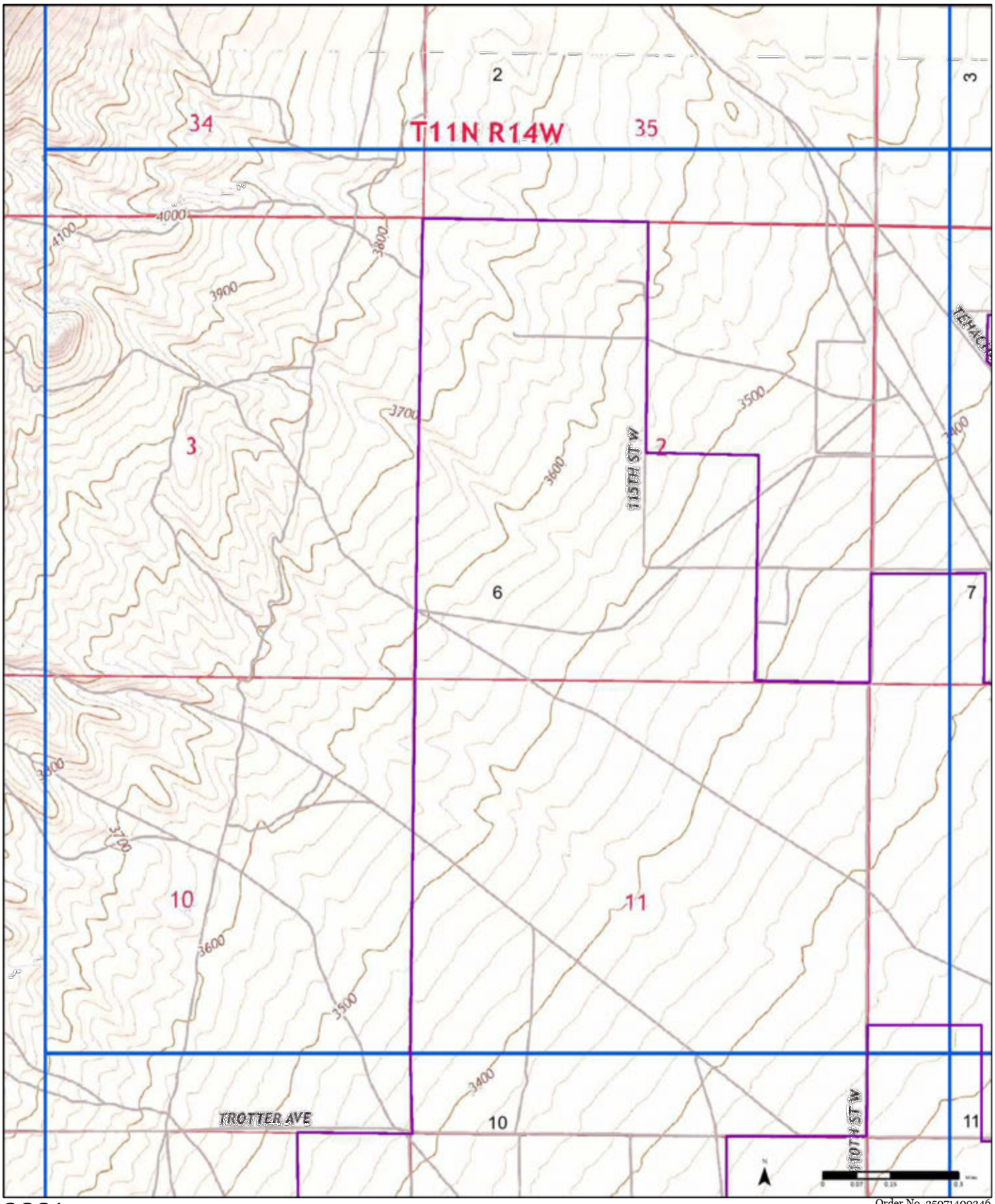
Order No. 25071400346



Available Quadrangle(s): Monolith, CA
Willow Springs, CA
Soledad Mountain, CA
Mojave, CA
Tehachapi South, CA
Tylerhorse Canyon, CA

Source: USGS 7.5 Minute Topographic Map

PARTNER



2021

Order No. 25071400346



Available Quadrangle(s): Monolith, CA
Willow Springs, CA
Soledad Mountain, CA
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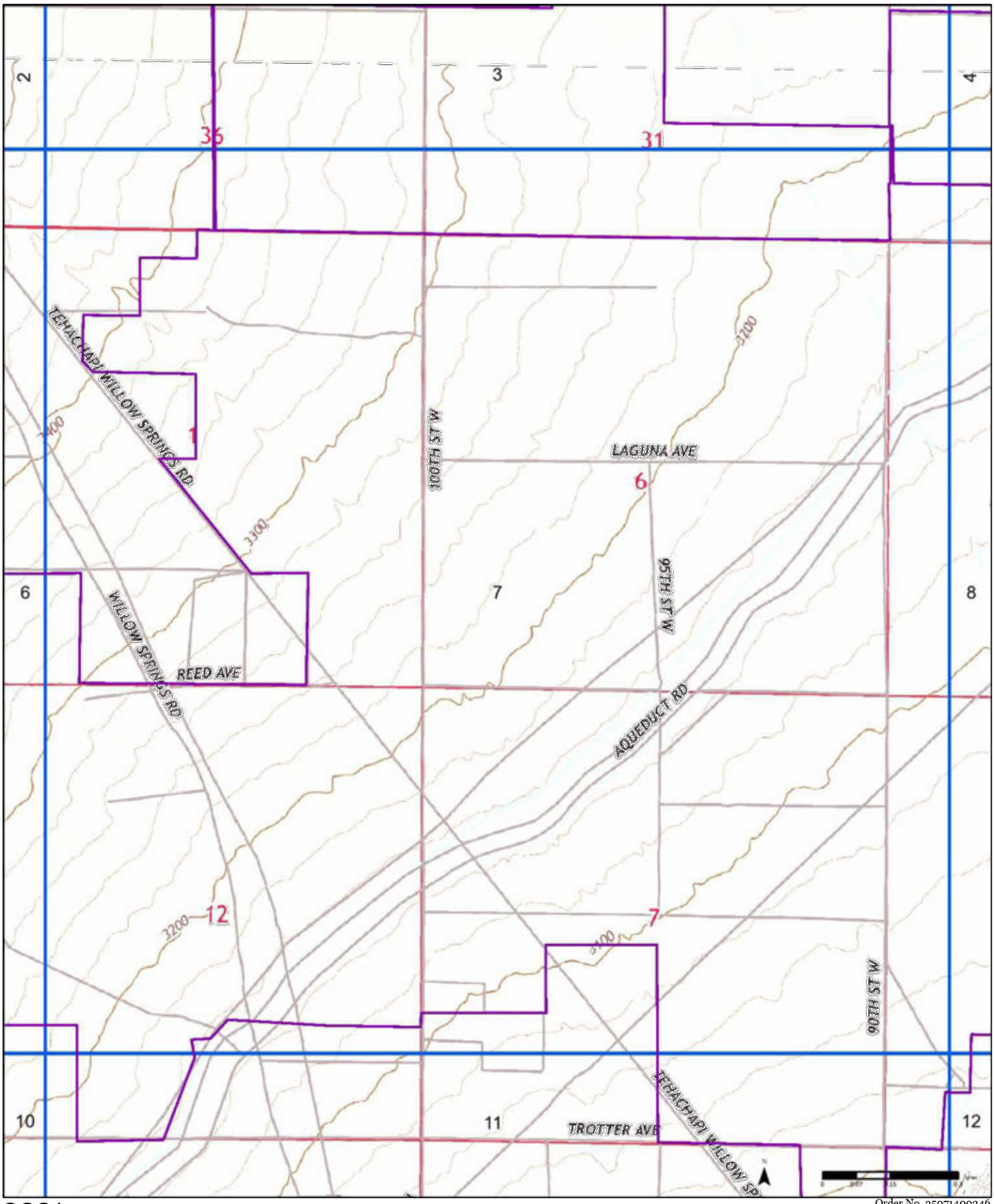
Tylerhorse Canyon, CA

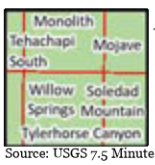
Source: USGS 7.5 Minute Topographic Map

PARTNER



2021

Order No. 25071400346



Available Quadrangle(s): Monolith, CA
Willow Springs, CA
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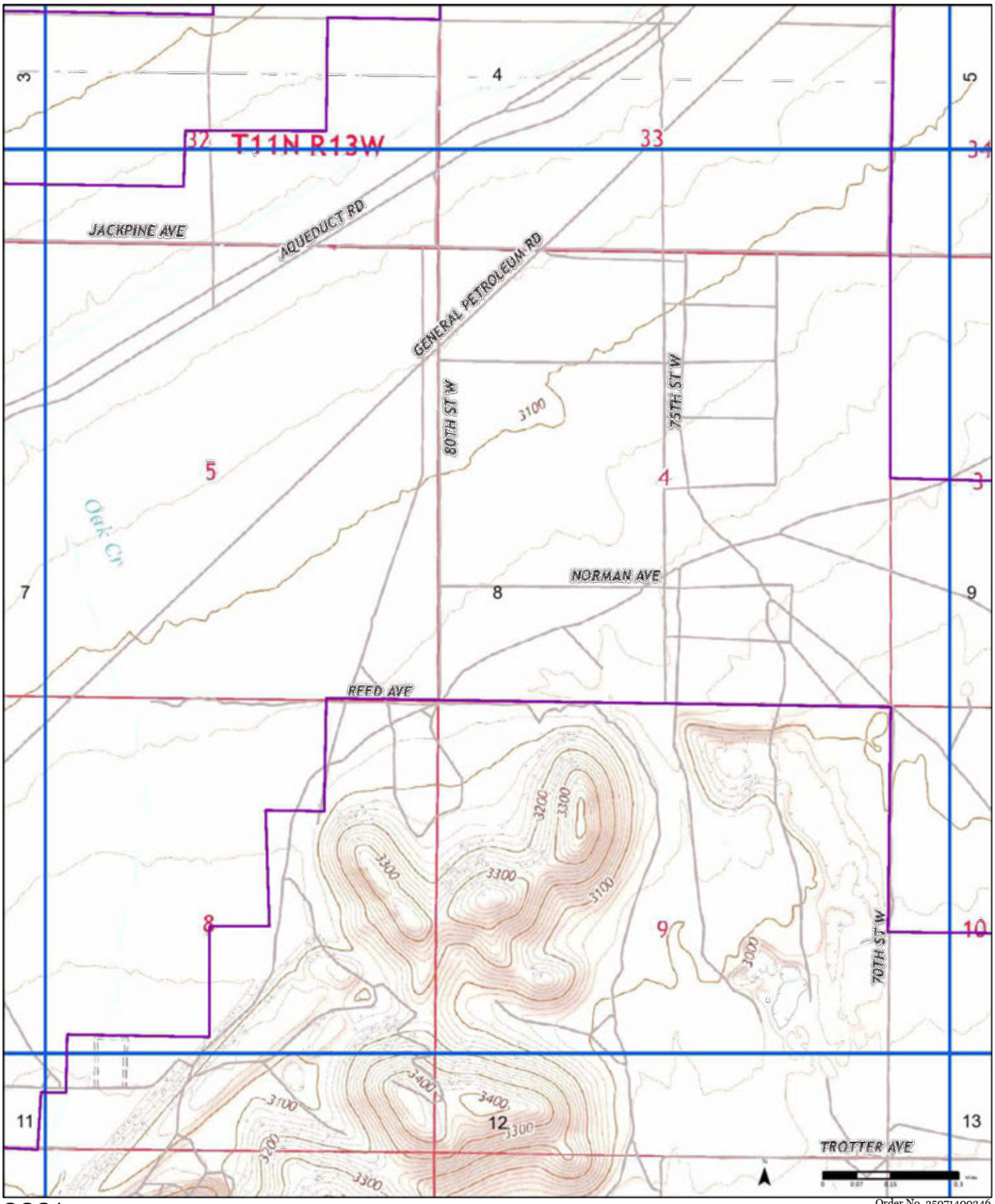

2021

Order No. 25071400346



Available Quadrangle(s): **Monolith, CA**
Willow Springs, CA
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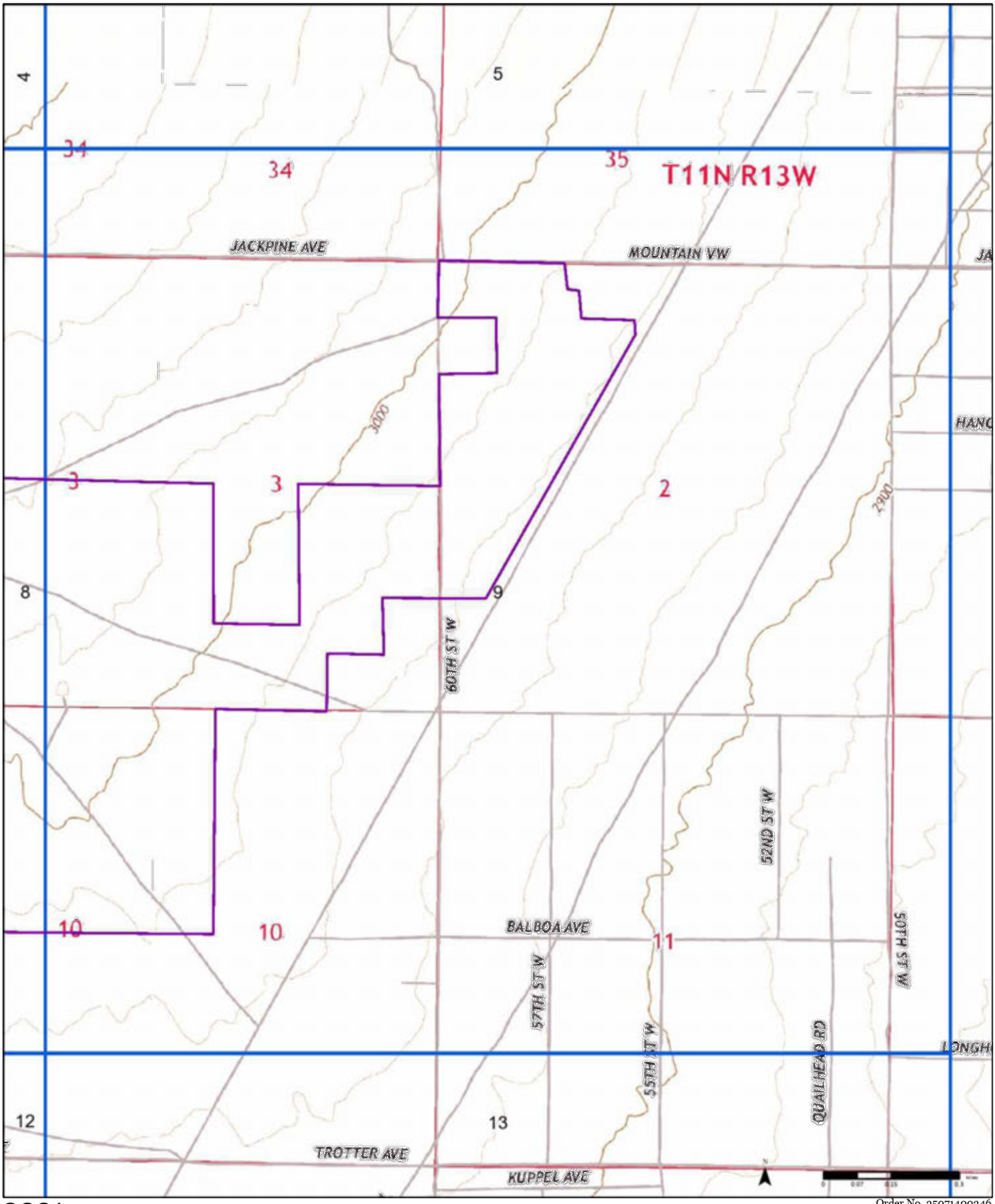
PARTNER



2021

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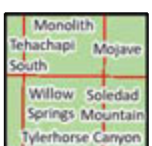

Available Quadrangle(s): Monolith, CA
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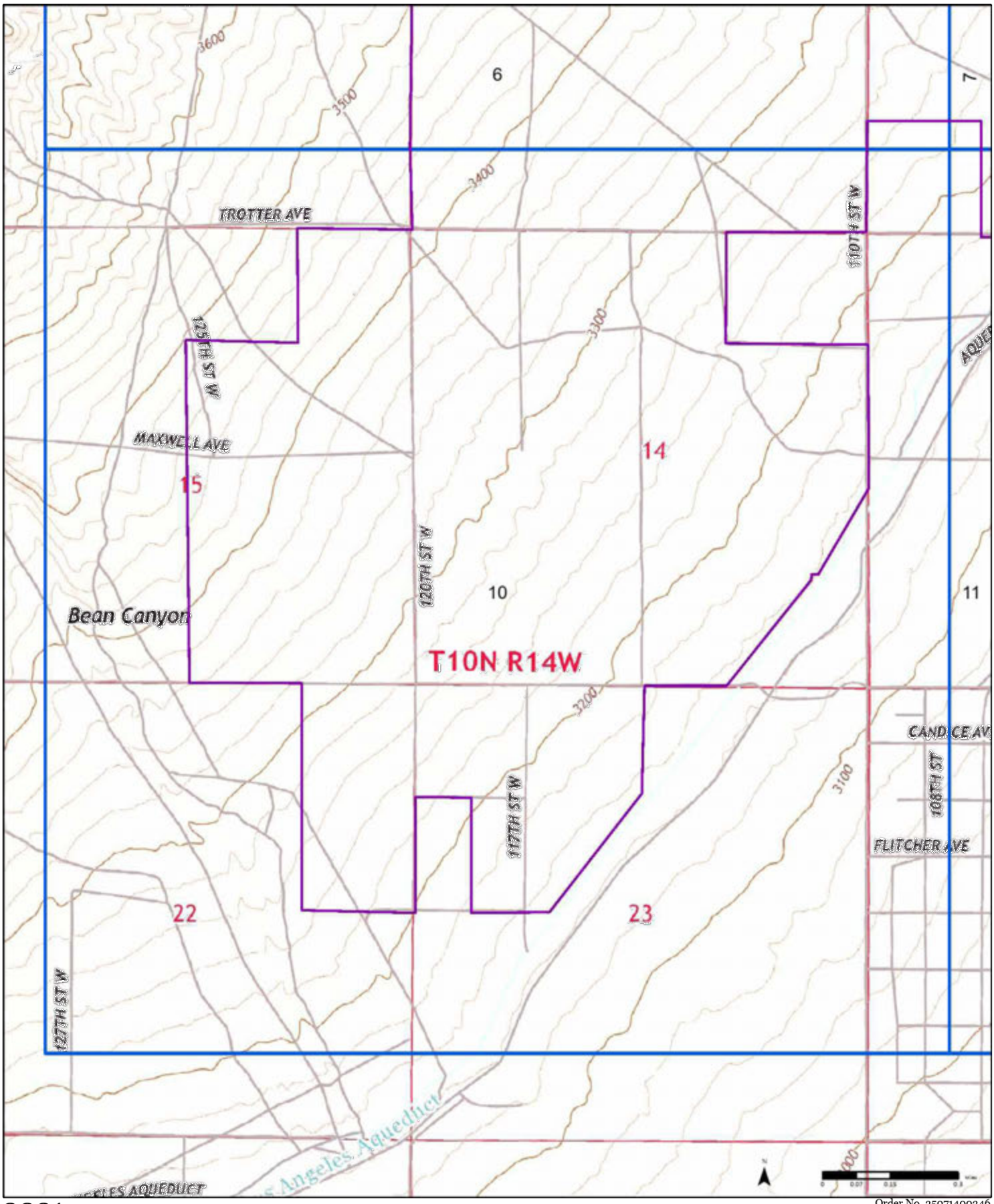
PARTNER



2021

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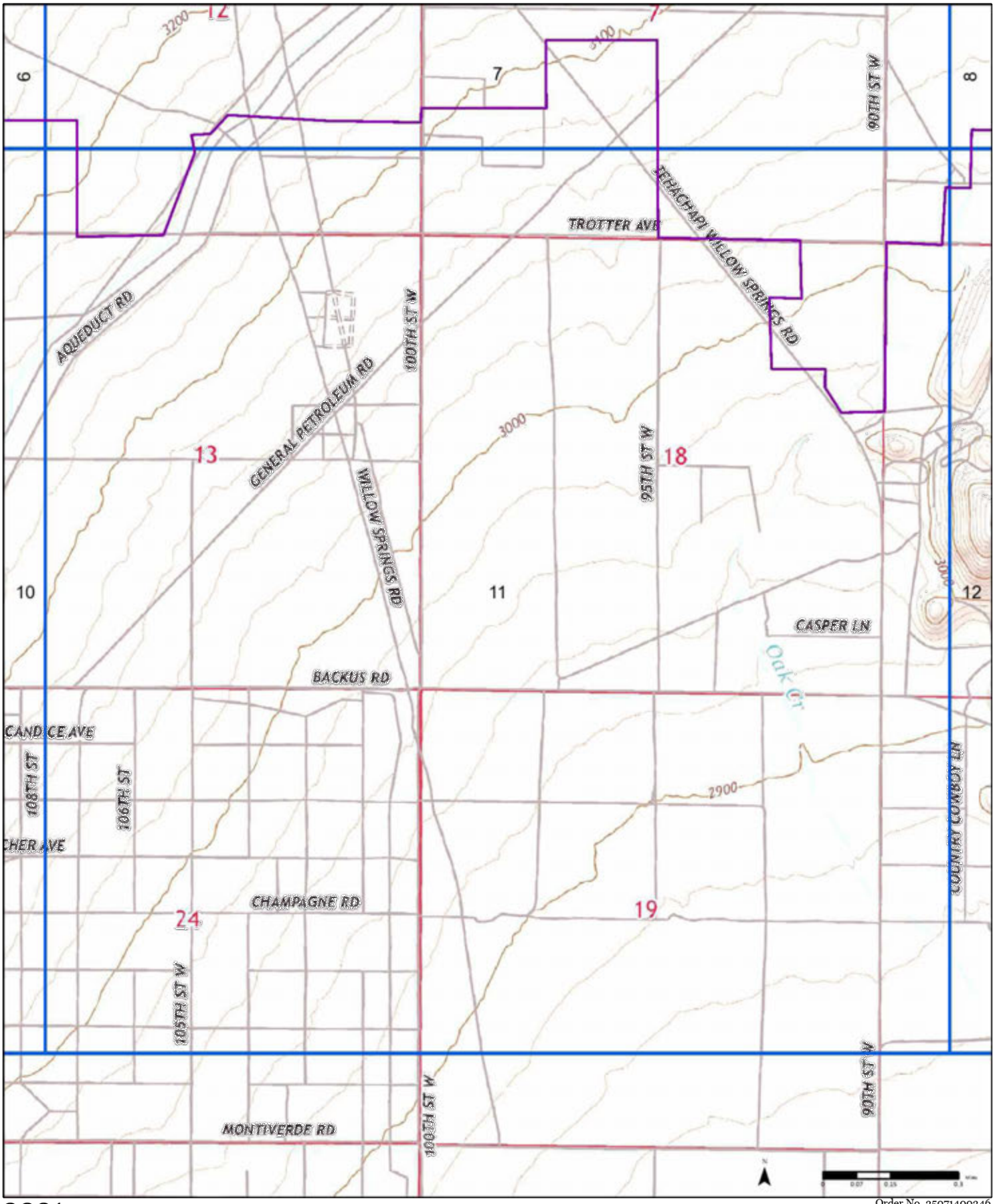

2021

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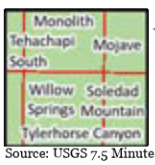

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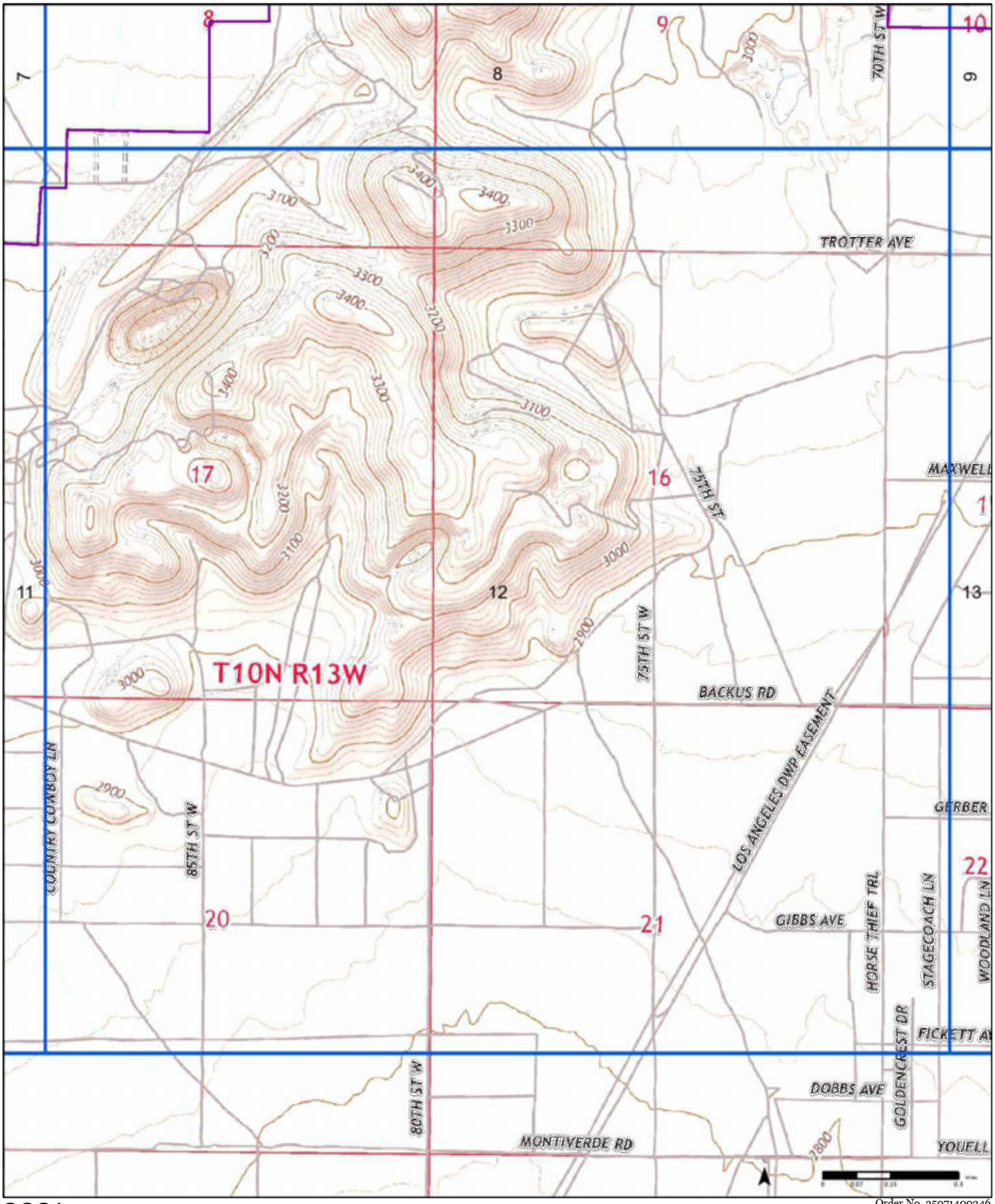
PARTNER



2021

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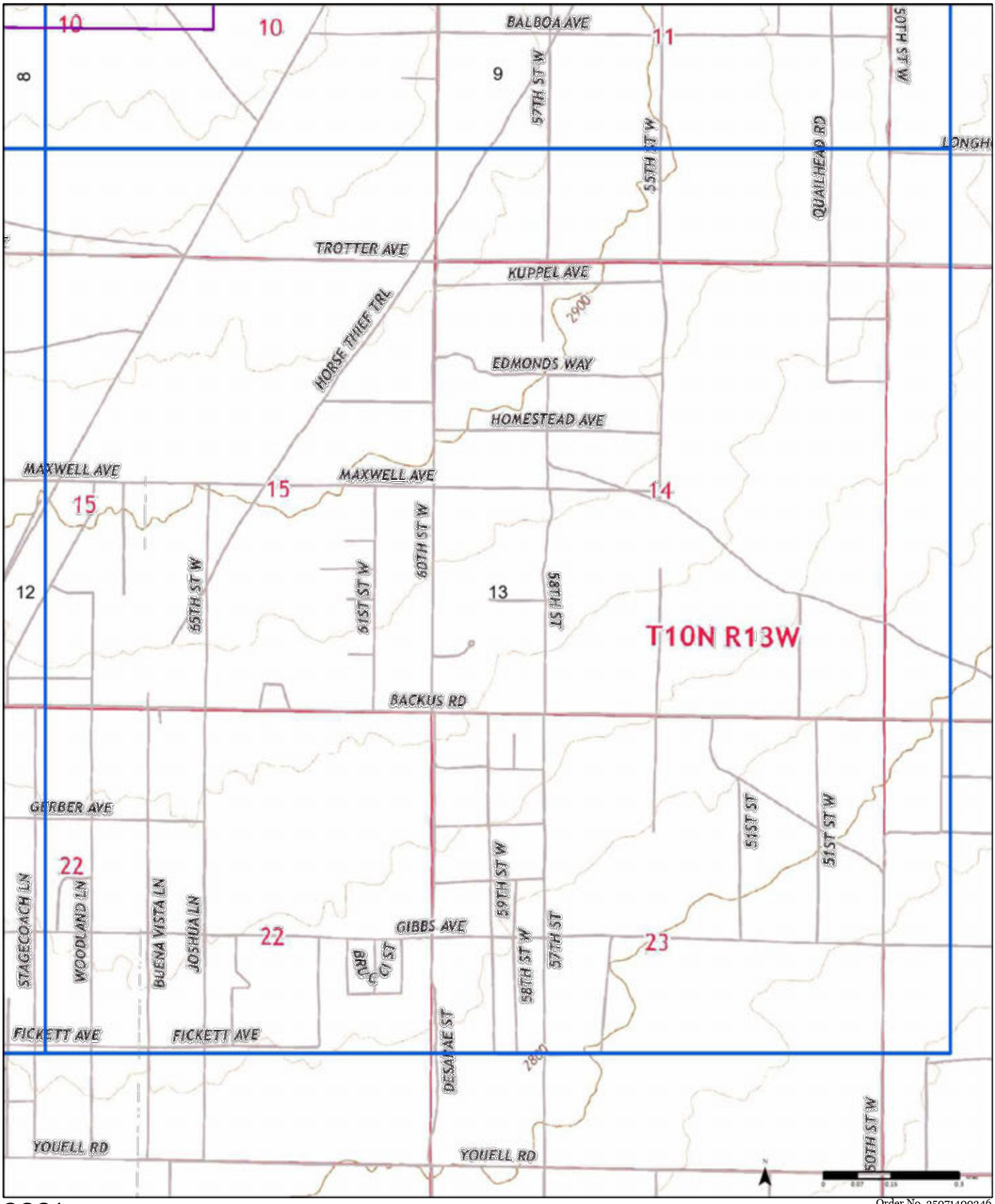

2021

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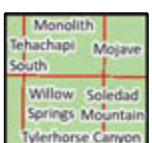

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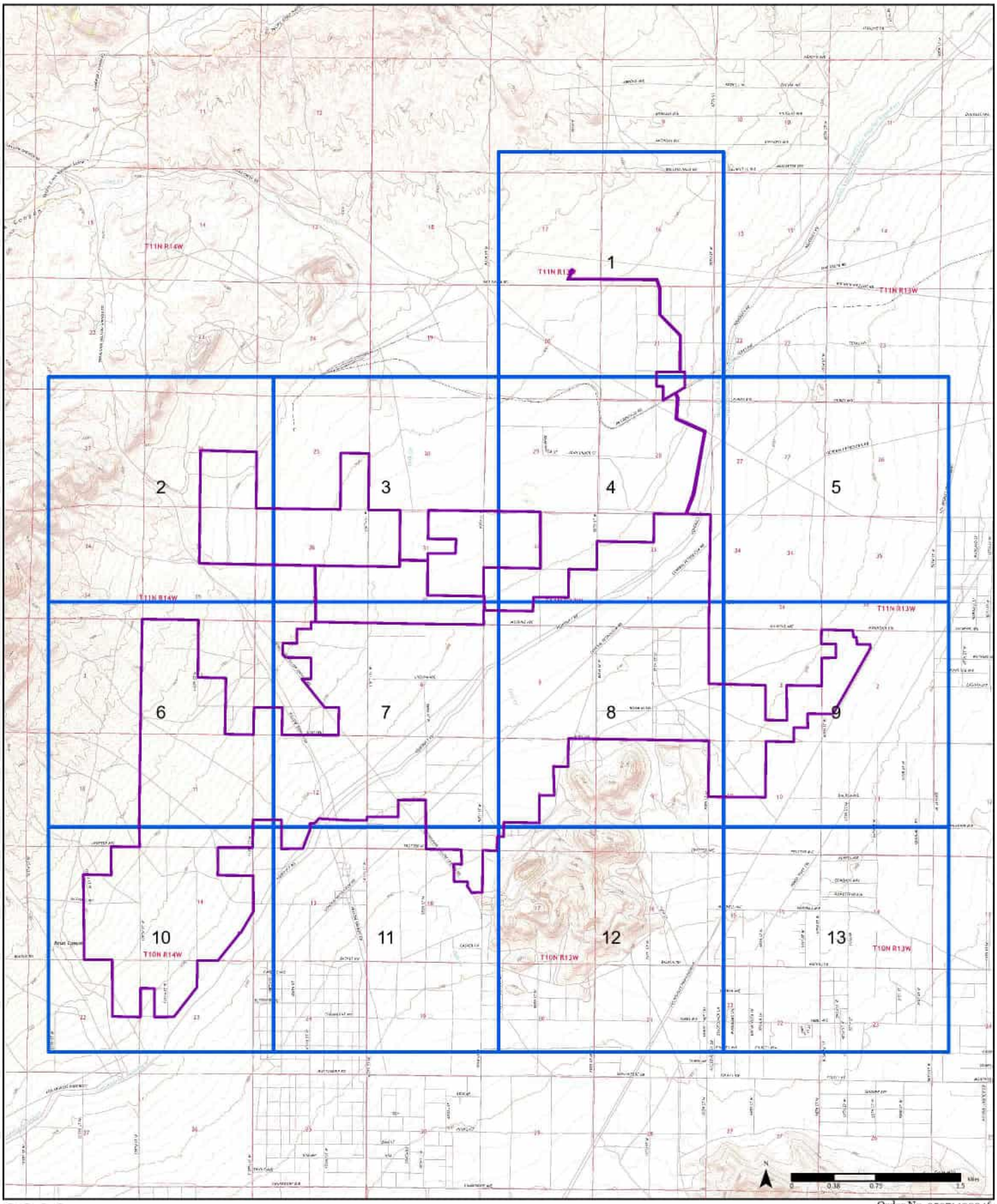
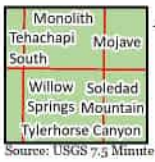
PARTNER



2022

Order No. 25071400346

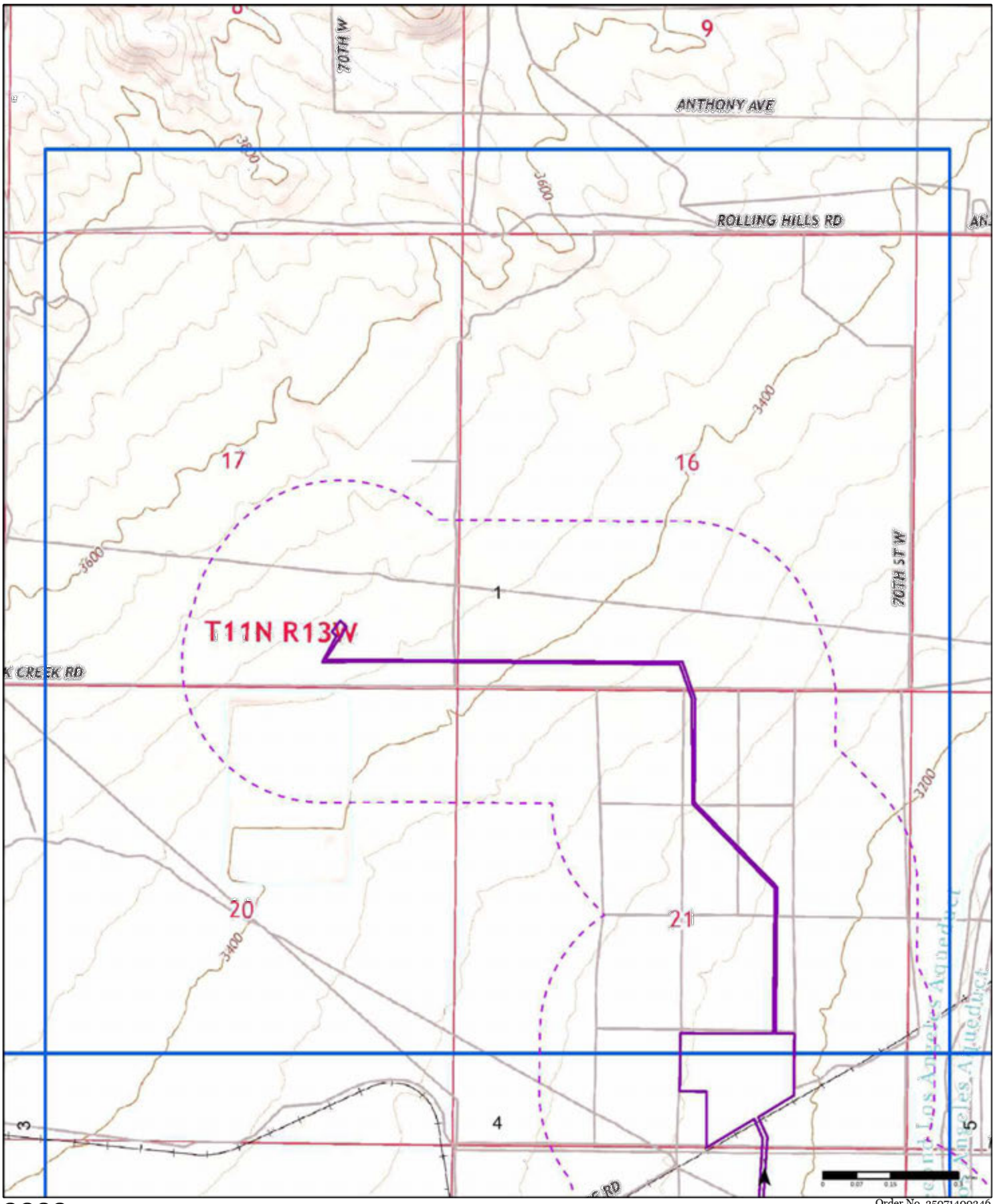


Available Quadrangle(s): Willow Springs, CA
Soledad Mountain, CA
Monolith, CA
Tylerhorse Canyon, CA
Tehachapi South, CA

Mojave, CA

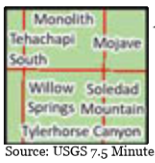
Source: USGS 7.5 Minute Topographic Map

PARTNER



2022

Order No. 25071400346



Available Quadrangle(s): Willow Springs, CA
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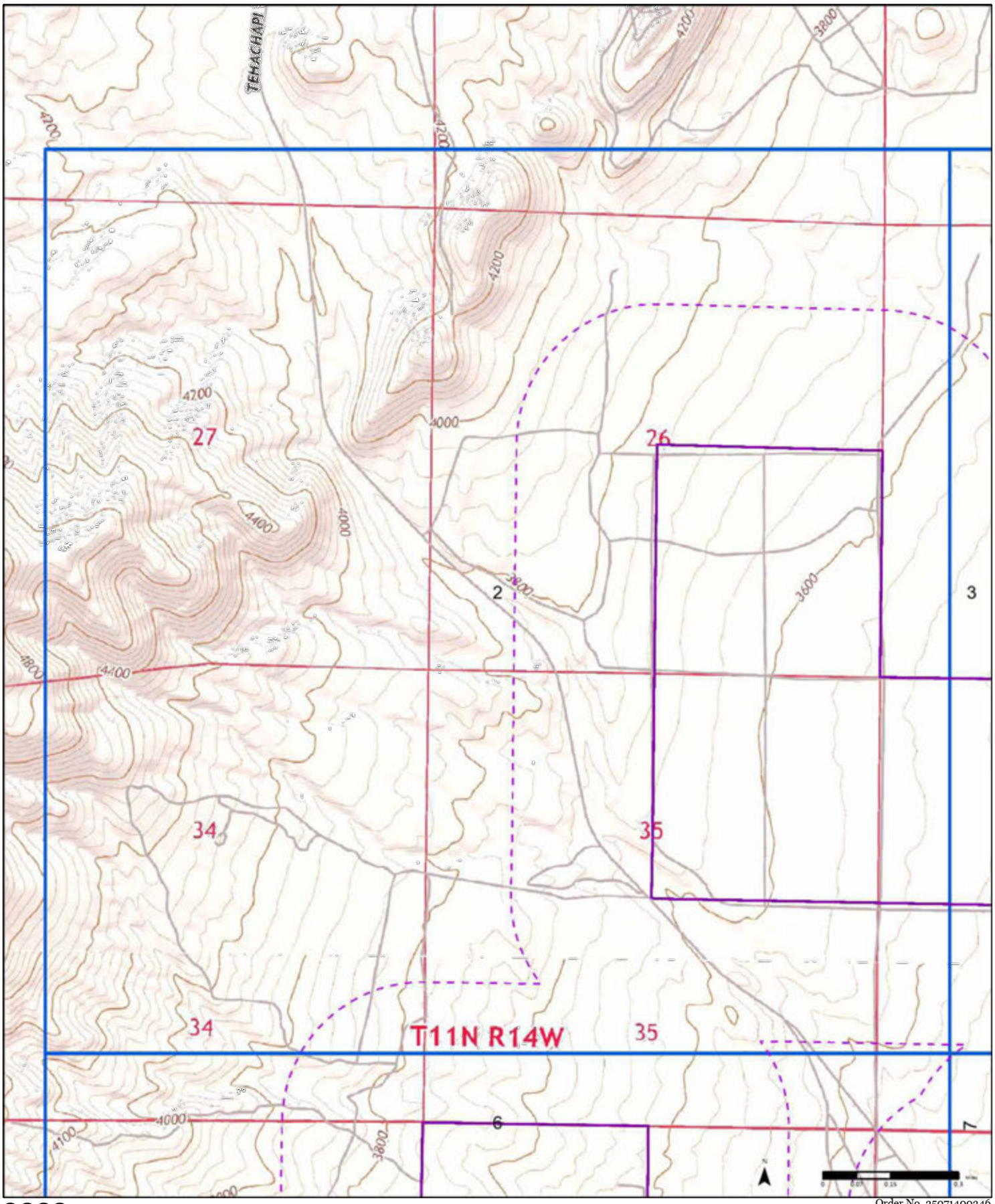
Tylerhorse Canyon, CA
Tehachapi South, CA

Mojave, CA

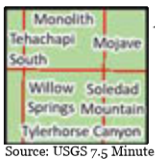
Source: USGS 7.5 Minute Topographic Map

PARTNER



2022

Order No. 25071400346



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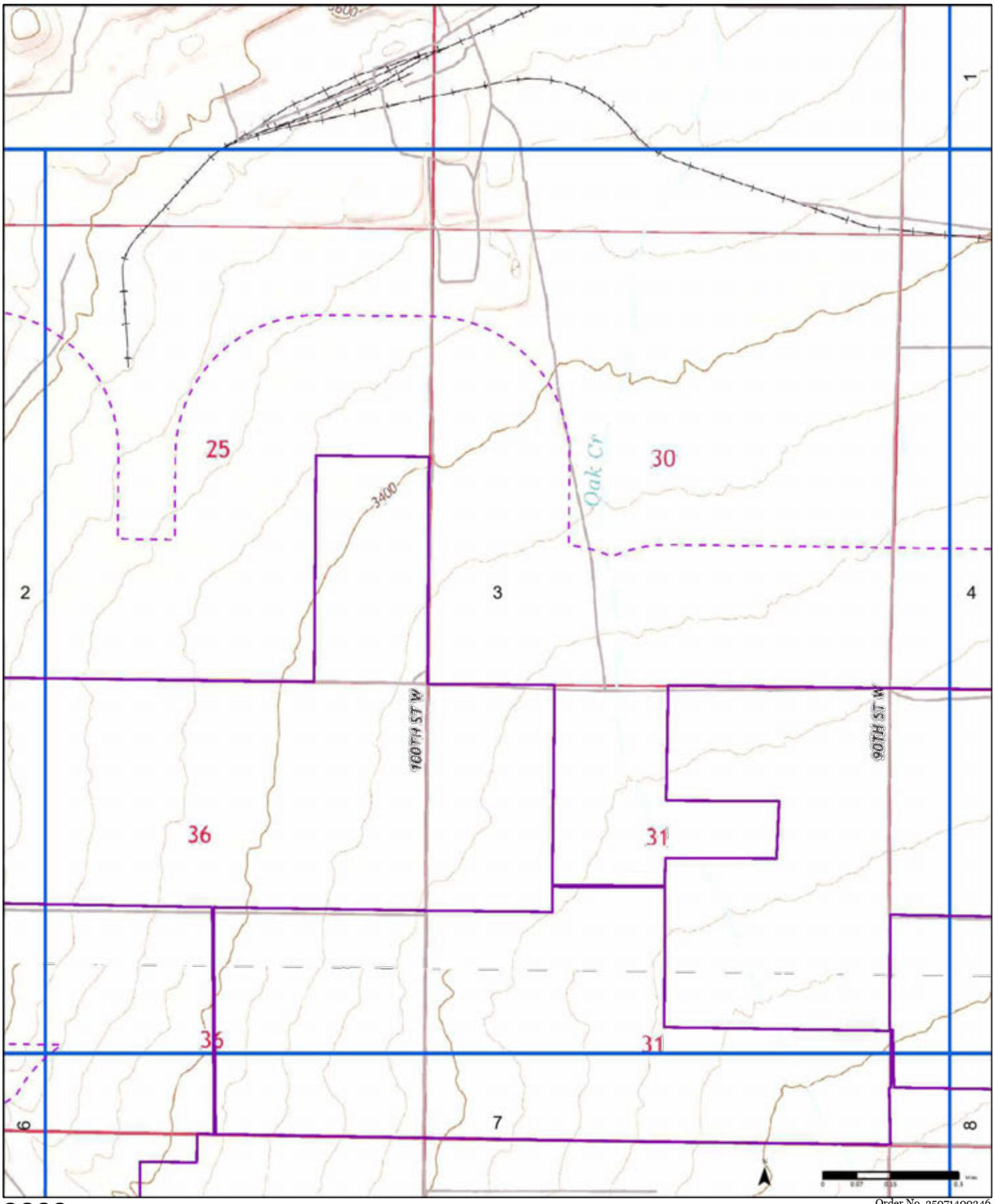
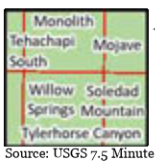
Source: USGS 7.5 Minute Topographic Map

PARTNER



2022

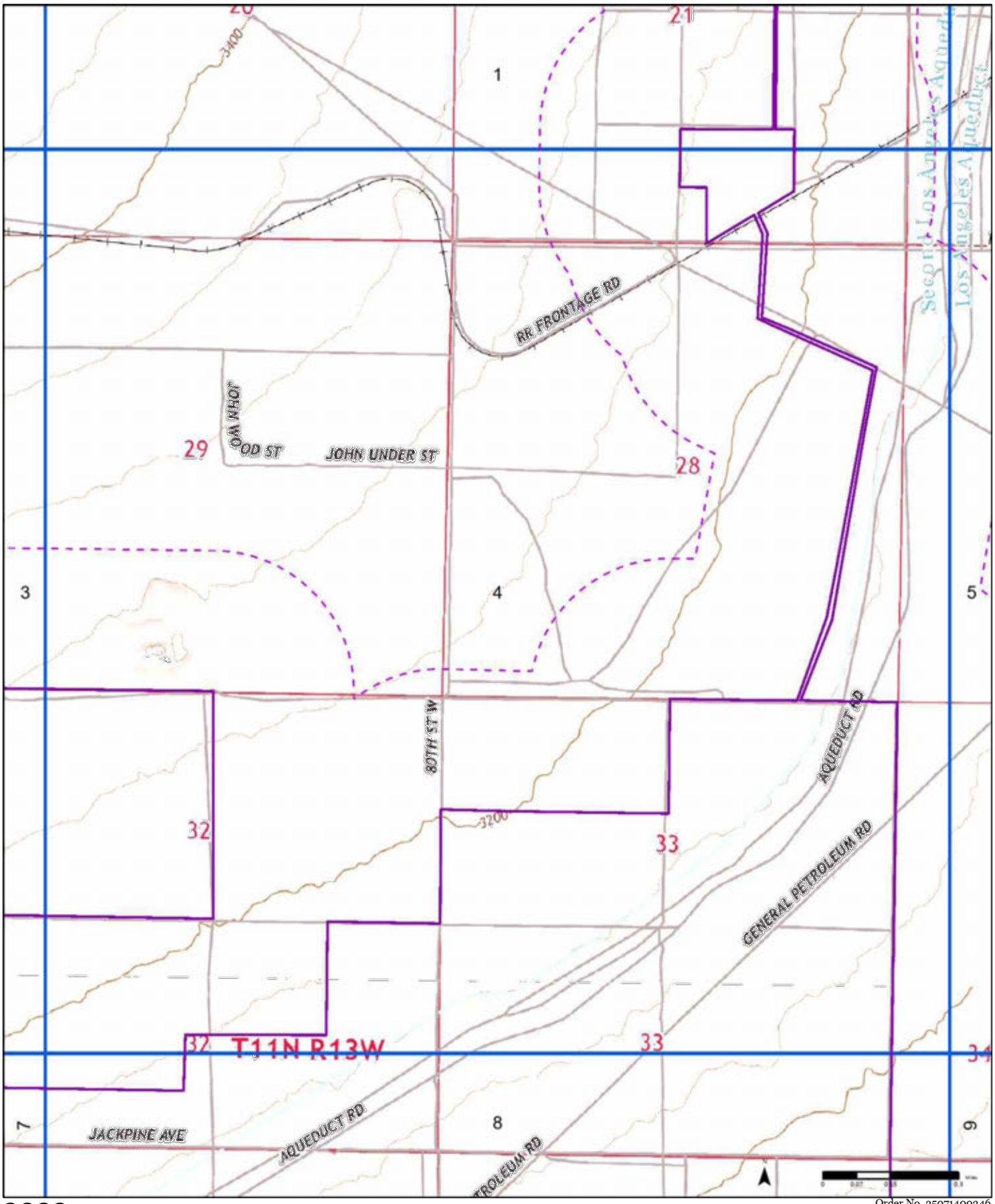
Order No. 25071400346



Available Quadrangle(s): Willow Springs, CA
Soledad Mountain, CA
Monolith, CA
Tylerhorse Canyon, CA
Tehachapi South, CA
Mojave, CA

Source: USGS 7.5 Minute Topographic Map

PARTNER



2022

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Mojave, CA

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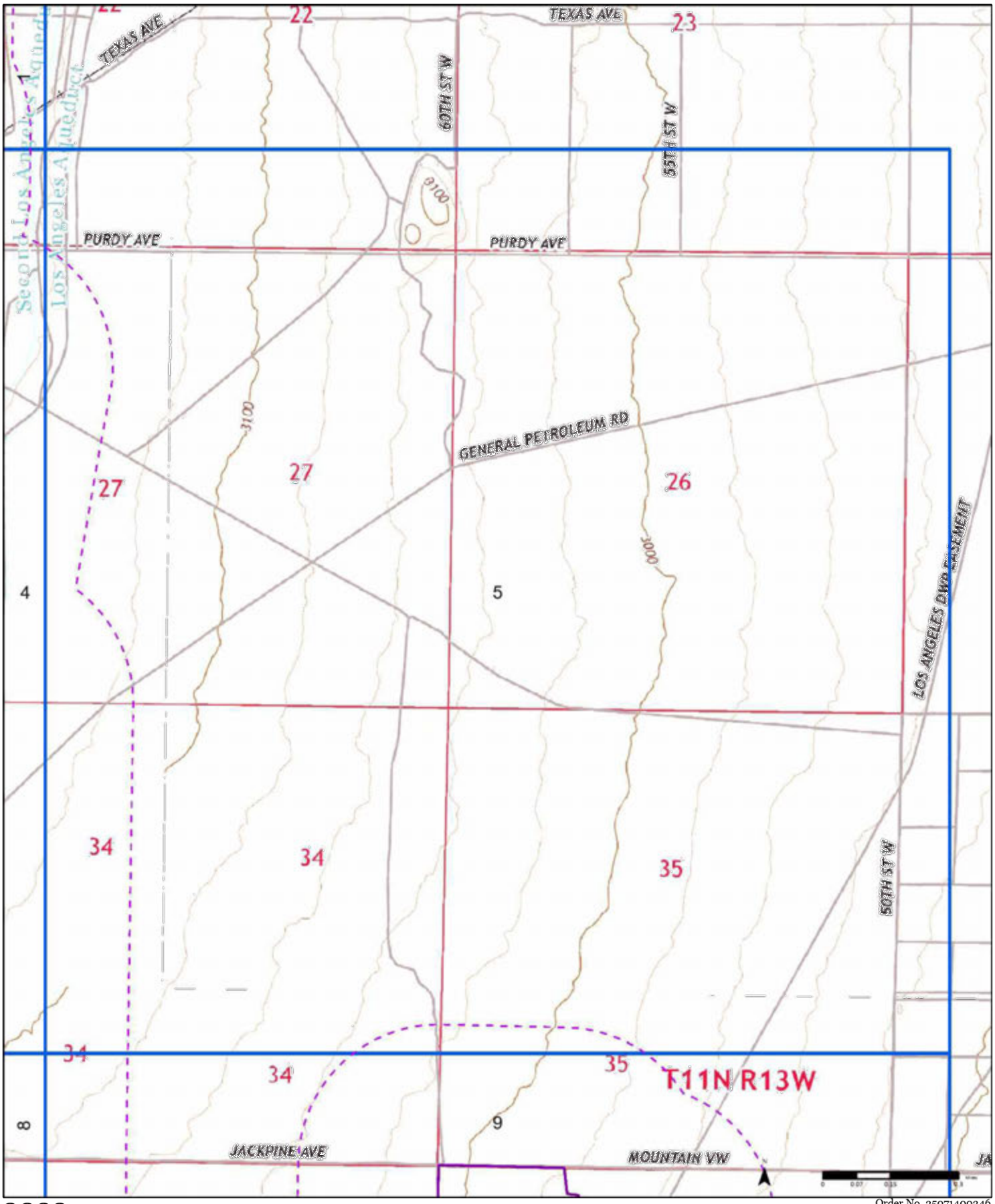
PARTNER



2022

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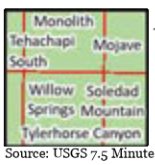

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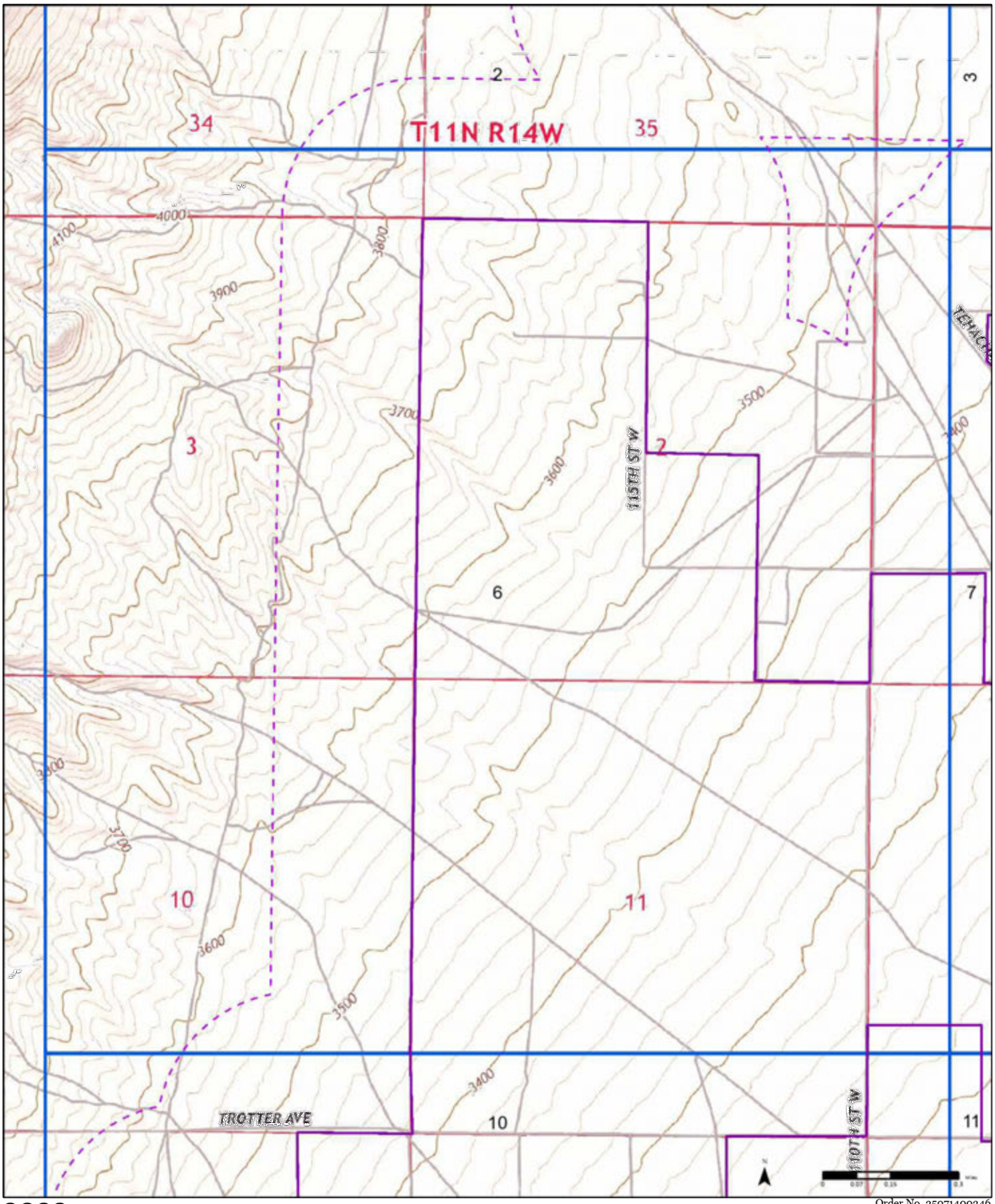

2022

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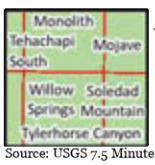

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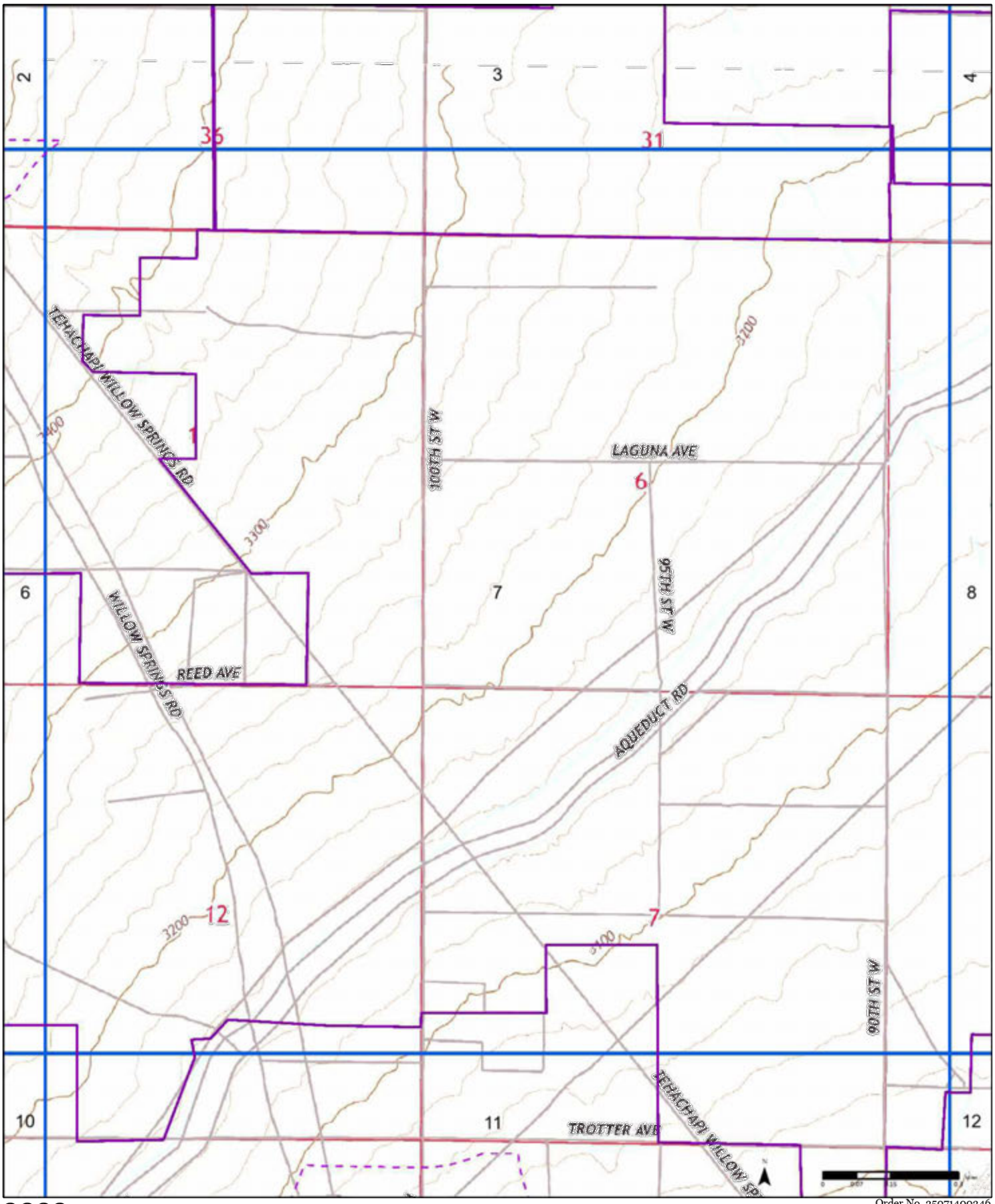
PARTNER



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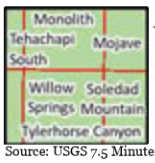

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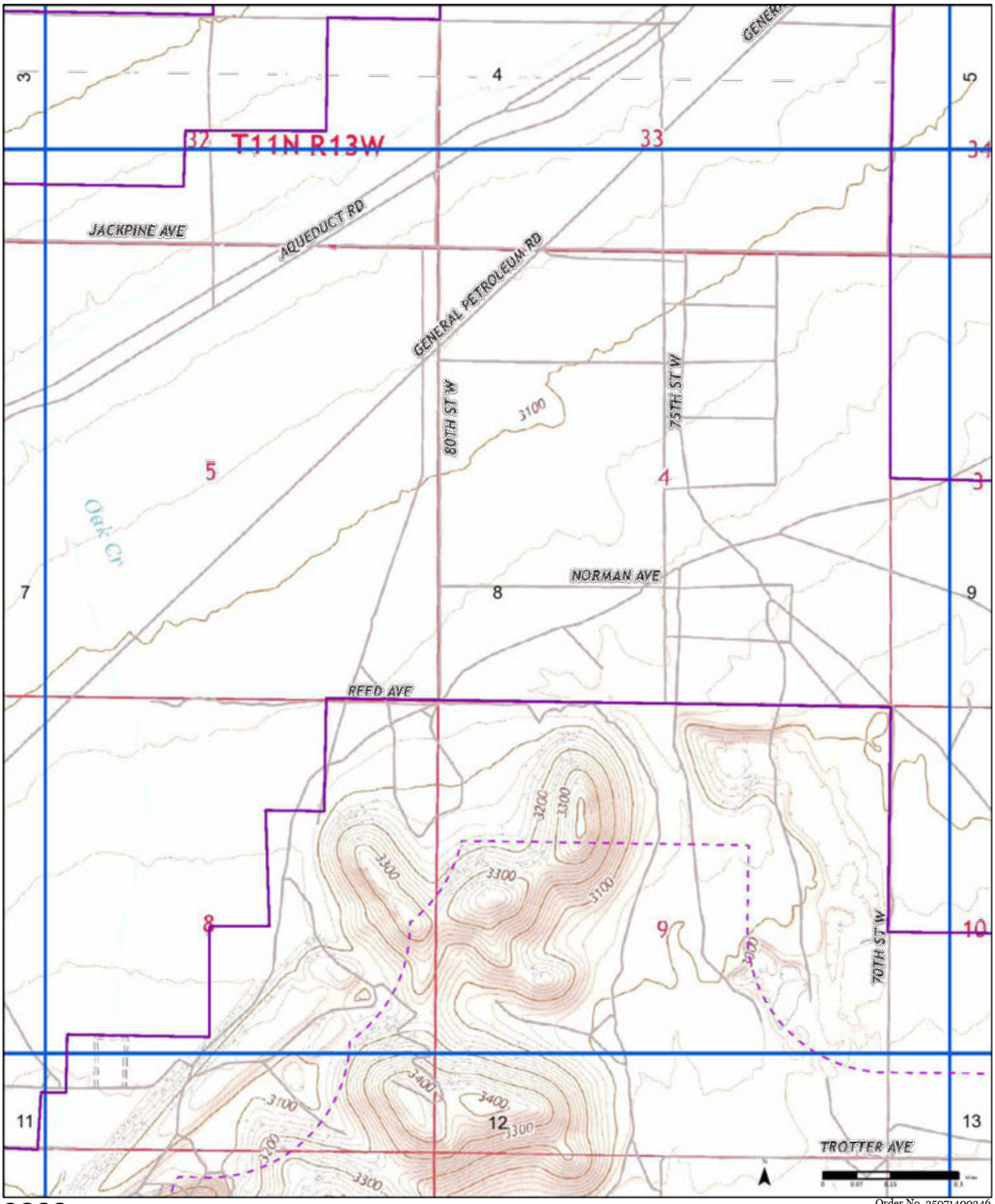

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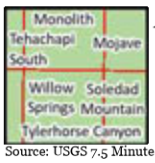

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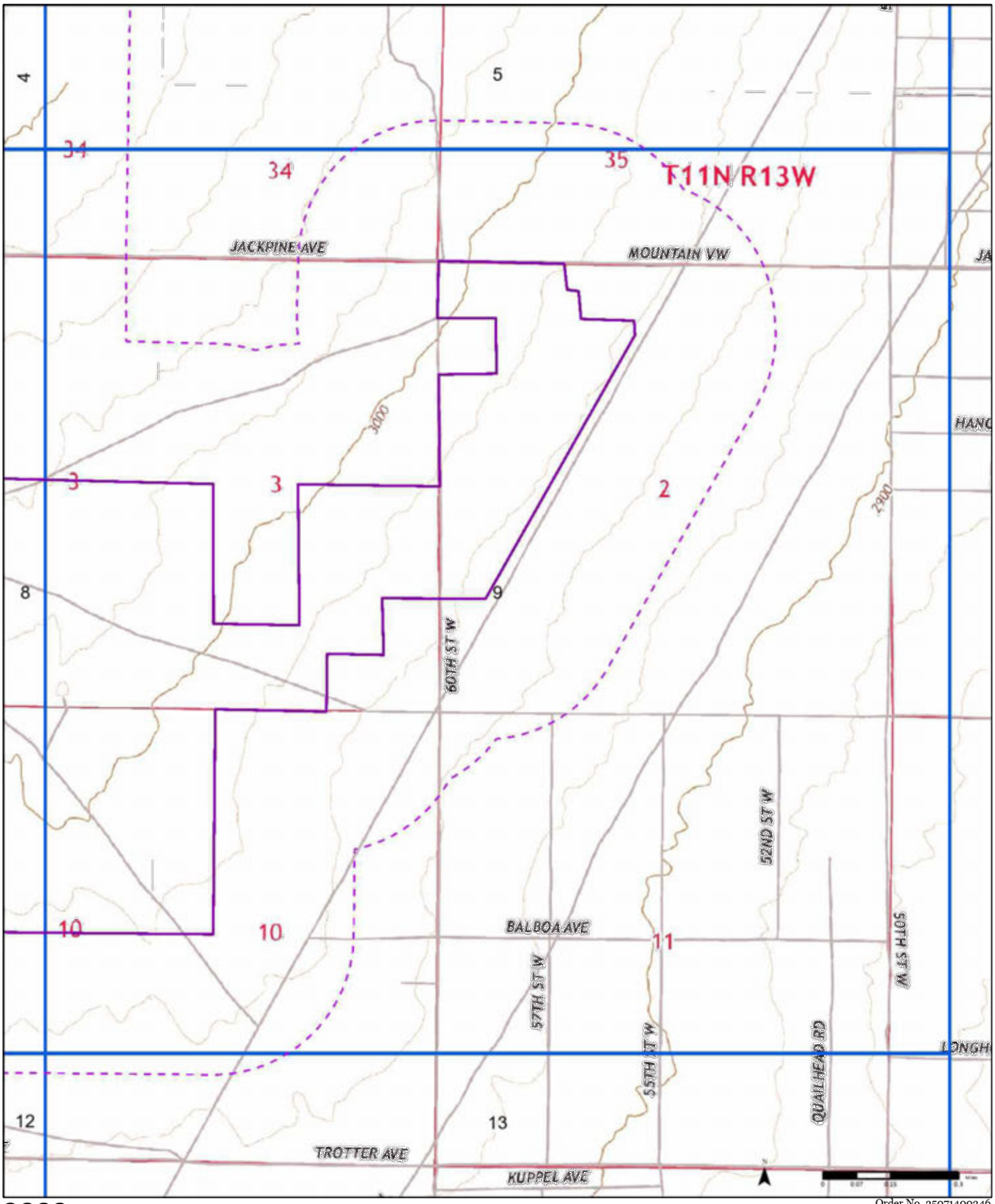

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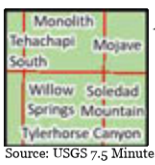

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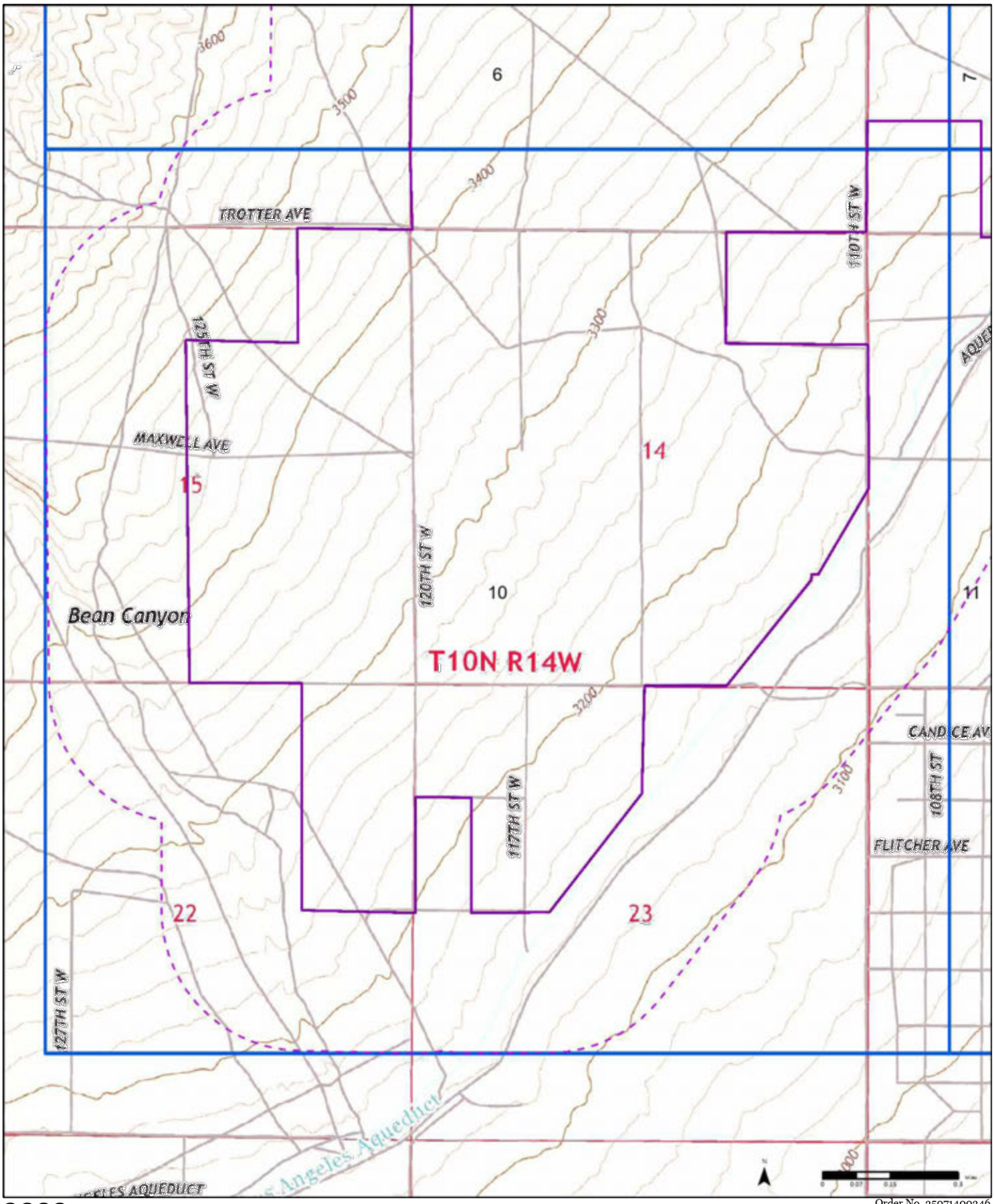

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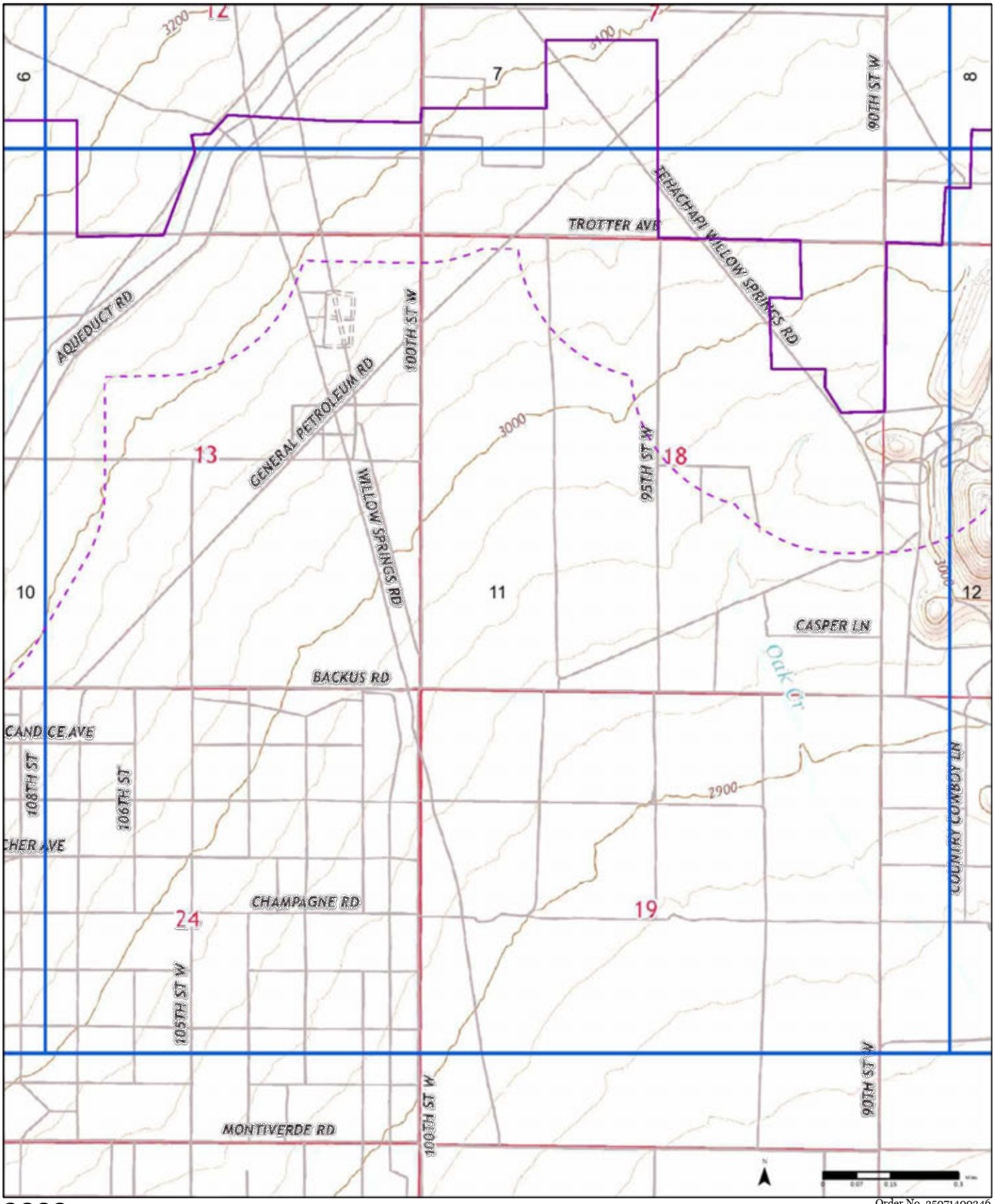

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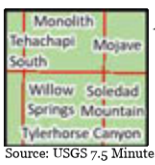

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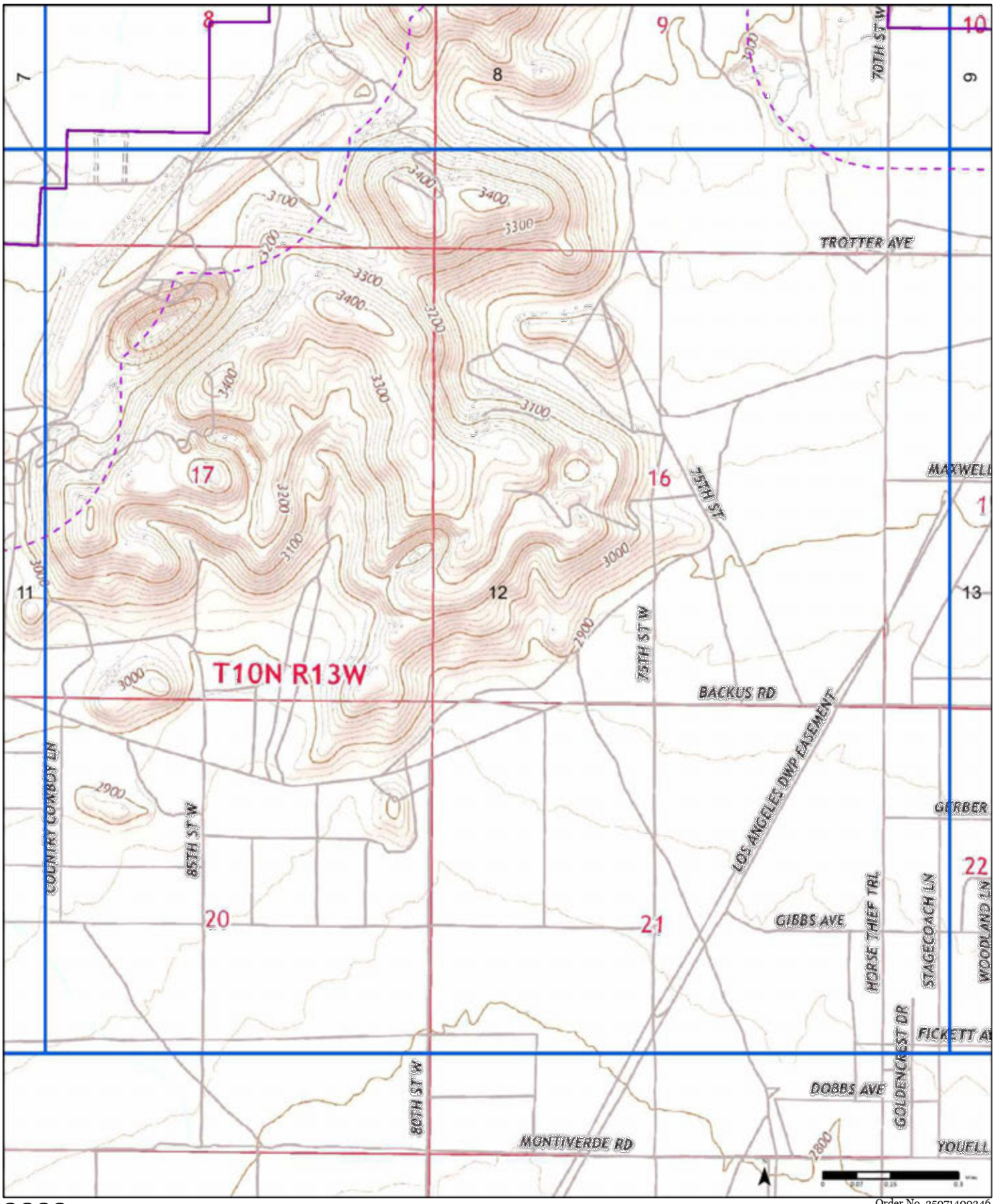

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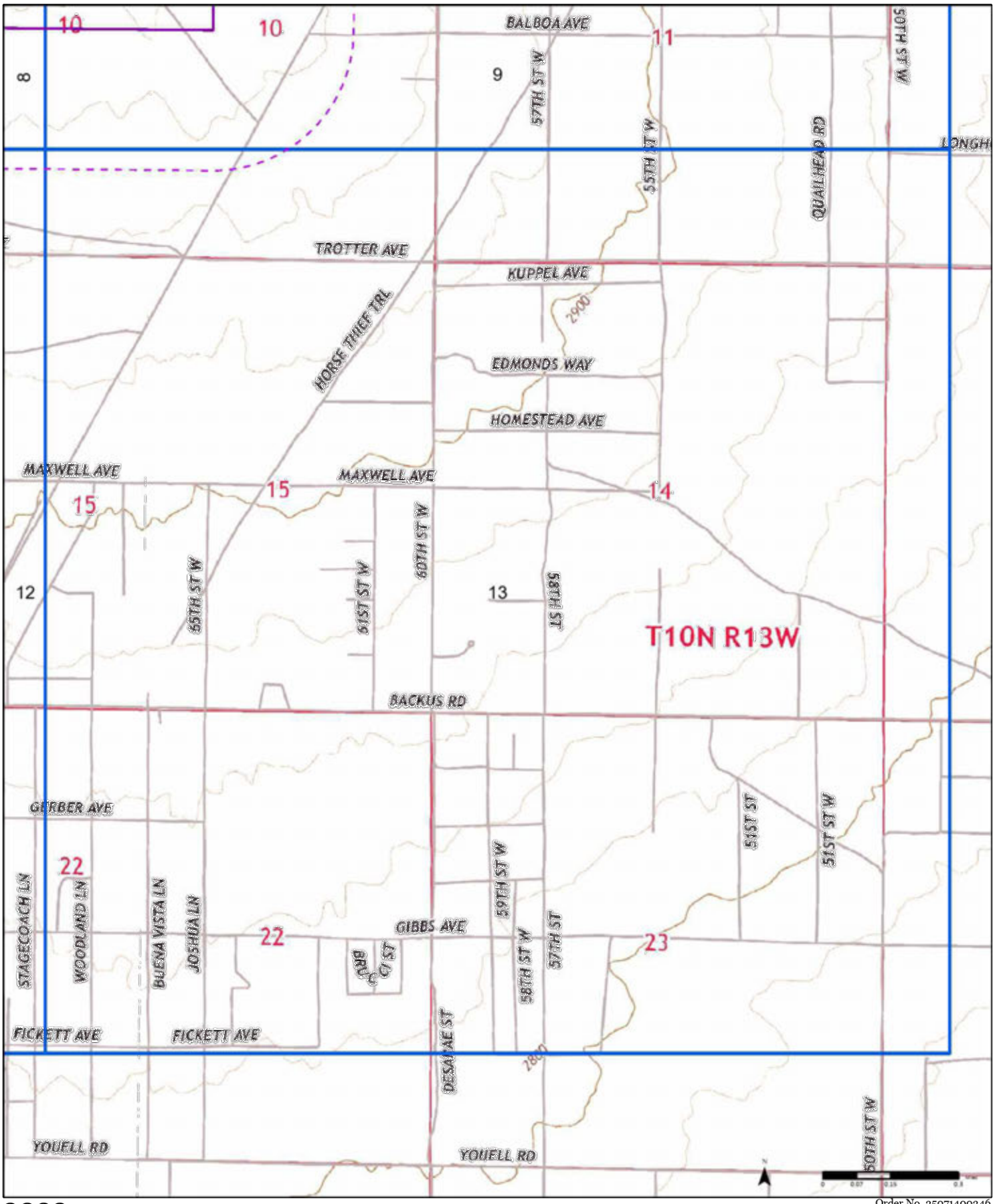

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PARTNER

SCE High-Windhub Project 5 Road Repair
WILLOW SPRINGS CA

PROFILE | MAP | REGULATORY PROGRAMS



Geopolitical

COUNTY
Kern County

CALENVIROSCREEN 4.0 PERCENTILE RANGE
>60 - 70

Site Codes

None.

Alternate IDs

FACILITIES EXPLORER ID 940118

Alternate Names

None.

Regulatory Programs

Wetlands - Fill and Dredge Material

ENVIRONMENTAL INTEREST START DATE
04/17/2024

SOURCE SYSTEM
California Integrated Water Quality System

SOURCE SYSTEM ID
894139

Site Contacts

None.

SCE High-Windhub Project 5 Road Repair
WILLOW SPRINGS CA

PROFILE MAP REGULATORY PROGRAMS

Description	Source System	Program Id	Start Date	End Date	Long Description
Wetlands - Fill and Dredge Material	California Integrated Water Quality System	894139	04/17/2024		This program regulates discharges of fill and dredged material under Clean Water Act Section 401 and the Porter-Cologne Water Quality Control Act.

Reed Mine
CA

PROFILE | MAP | REGULATORY PROGRAMS | COMPLIANCE



Geopolitical

COUNTY
Kern County

CALENVIROSCREEN 4.0 PERCENTILE RANGE
>60 - 70

Site Codes

None.

Alternate IDs

FACILITIES EXPLORER ID 147258

Alternate Names

None.

Regulatory Programs

Land Disposal

ENVIRONMENTAL INTEREST START DATE
08/02/2019

ENVIRONMENTAL INTEREST END DATE
08/02/2019

LAST INSPECTED
03/27/2024

SOURCE SYSTEM
California Integrated Water Quality System

SOURCE SYSTEM ID
808721

Site Contacts

None.

Reed Mine
CA

PROFILE | MAP | REGULATORY PROGRAMS | COMPLIANCE

Description	Source System	Program Id	Start Date	End Date	Long Description
Land Disposal	California Integrated Water Quality System	808721	08/02/2019	08/02/2019	The Land Disposal program regulates of waste discharge to land for treatment, storage and disposal in waste management units. Waste management units include waste piles, surface impoundments, and landfills. California Code of Regulations (CCR) Title 23, (Chapter 15) contains the regulatory requirements for hazardous waste. CCR Title 27, contains the regulatory requirements for wastes other than hazardous waste. These sites require orders issued by the regional board. See http://waterboards.ca.gov/cwphome/land/index.html for more information.

Vejar, Ramiro

From: Air Pollution Control District, Eastern Kern <ekapcd@kerncounty.com>
Sent: Monday, July 28, 2025 11:19 AM
To: Vejar, Ramiro
Subject: RE: Request for Public Records (7,700 Acres in Mojave/Rosamond, CA)

CAUTION: This message originated from outside the Partner organization. Do not click links or open attachments unless you recognize the sender and know the content is safe.

A search for the addresses below did not yield any results in our database.

APN sites listed below are located on undeveloped land.

A random sample was taken of the APN sites.

The search also produced no results in our database.

Sincerely,

Eastern Kern Air Pollution Control District
2700 M Street, Suite 302
Bakersfield, CA 93301
(661) 862-5250
Eastern Kern APCD: Home (kernair.org)
Accountability, Excellence, & Integrity

From: Vejar, Ramiro <RVejar@partneresi.com>
Sent: Monday, July 21, 2025 2:14 PM
To: Air Pollution Control District, Eastern Kern <ekapcd@kerncounty.com>
Subject: Request for Public Records (7,700 Acres in Mojave/Rosamond, CA)

CAUTION: This email originated from outside of the organization. Do not click links, open attachments, or provide information unless you recognize the sender and know the content is safe.

Good afternoon, Partner Engineering and Science Inc. (Partner) is conducting a Phase I Environmental Site Assessment of the following approximately 7,700 acres in Kern County:

Addresses Issued:

- **9635 Laguna Avenue, Rosamond, CA 93560**
- **11354 115th Street, Rosamond, CA 93560**
- **11741 115th Street, Rosamond, CA 93560**
- **11100 90th Street, West Willow Springs, CA 93560**
- **8500 Oak Creek Road, Mojave, CA 93501**

As part of the assessment, Partner would like to request copies of the following records (if any):

- Permits to Operate
- Emissions Reports
- Asbestos Notification/Records
- Site Inspection Reports
- Air Monitoring Data
- Notices to Comply
- Notices of Violation
- Complaints

All APNs Combined (In order)
237-031-04; 38
237-032-38
237-053-02; 04; 05; 06; 08; 09; 10; 11; 12; 13; 14; 16
237-054-09; 10; 11; 12; 13; 25; 26; 27; 28; 33; 26; 39; 40; 41; 44
237-055-10; 12; **16;** 17; 18
237-093-10; 11; 12; 13; 14; 15; 16; 18; 46; 47; 49; 50; 51; 53; 55; 56
237-113-13; 14; 15; 16
237-114-04; 06; 10; 16
237-280-01; 02; 03; 04; 05; 06; 07; 08
237-332-11; 15; 16; 17; 18; 19
237-370-01; 02; 03; 04; 05; 06; 07; 08; 09; 11; 12; 13; 14; 15; 16; 17; 18
237-400-02; 03; 05; 06; 07; 08; 11; 13; 14; 15
237-410-01; 02; 03; 05; 06; 07; 08; 09; 10; 11; 12; 13; 14; 15; 18
345-011-03; 07; 08; 09; 10; 11; 12; 13; 14; 15; 16; 24; 25; 26; 31; 36; 37; 39; 40; 41; 42
345-062-01; 02; 03; 04; 05; 07; 08; 26; 27; 28; 29; 30; 31; 39; 40; 42; 56
345-063-29
345-100-01
346-011-**02;** 07; 08; 09; 12; 13; 14; 15; 17; 18
346-012-04; 06; 07; 09; 10; 11; 12
346-041-01; 02; 03; 05; 07; 08; 10; 13; 14; 16; 17; 18; 19; 21; 22; 23; 24; 25; 26; 28; 29; 30; 31; 32
346-042-35; 37; 39; 40; 43; 44; 45; 46; 47; 48; 49; 50; 51; 52; 53; 54; 55; 56; 57; 58; 59; 60; 61; 62
346-050-03; 04; 05; 06; 07; 13; 14; 15; 17; 18; 19; 20; 21; 22; 23; 24; 25; 26; 27; 28; 29; 30; 31; 32; 33; 35; 36
346-061-01; 04; 05; **06**; ; 08; 09; 11; 12; 13; 14; 15; 16; 17; 18; 21; 22; 24; 25; 28; 29; 30; 31; **33**; 35; 37; 39; 40; 45; 46; 47; 48; 49; 51; 52; 53; 54; 55; 56
346-062-03; 04; 06; 07; **09**; **11**; 12; 14; 16; 17; 18; 19; 23; 24; 25; 26; 27; 29; 30; 31; 32; 34; 35; 36; 37; 38; 39; 40; 41; 42; 44; 46; 47; 48; 49; 50; 51; 52; 53; 57; 58; 59; 60; 61; 62
346-071-01; 02; 03; 04; 05; **07**; 08; 09; 10; 15; 16; 17; 18; 23; 24; 25; 26
346-081-01; 02; 03; 13; 14
346-090-01; 07; 09; 11; 12; 13; 14; 19; 21; 22; 23; 24; 28; 29; 30; 33; 35; 36; 41; 42
346-132-19; 22; 23; 24; 25; 26; 27; 28
474-010-04; 29; 30; 31
474-021-04; 05; 06; 18; 19; 20; 21
474-040-15; 16; 17; 19; 20
474-051-04; 05; 06; 07; 08; 09; 10; 12; 14; 15; 16; 17; 18; 19; 20; 21; 22; 23; 24; 25; 26; 27; 28; 29; 33
474-052-01; 02; 03; 29; 31; 32; 33
474-060-03; 05; 09; 11; 12; 13; 14; 15; 16; **17**; 19; 20; 21; 22; 24; 25; 26; 27; 30; 31; 32; 33; 34; 35; 36; 38; 39; 40; 41; 42; 43; 44; 45
474-071-01; 02; 03; 04; 05; 06; 07; 08; 09; 10; 11; 12; 18
474-072-03
474-083-06; 07
474-160-01; 02; 05; 06; 07; 08; 09
474-171-01

474-172-02; 03; 04; 05; 08; 13; 14
474-180-02; 03; 04; 05; 06; 07; 08; 11; 13; 14; 15
474-220-15; 22

Please let me know if you need any additional information.

Thank you,

Ramiro Vejar
Project Scientist
361 Corporate Terrace Circle, Corona, CA 92879
C: 909-333-8592 | O: 310-765-7264
PARTNER ENGINEERING AND SCIENCE, INC. | www.partneresi.com

More than just assessments – *solutions*.

Request Visibility: Unpublished

Request 25-1157 Closed

Dates

Due
August 14, 2025

Received
July 21, 2025 via web

Requester

Ramiro Vejar
rvejar@partneresi.com
361 Corporate Terrace Circle, Corona, CA, 92879
9093338592
Partner Engineering and Science, Inc./ Partner Energy

Invoices

No invoices due

Staff assigned

Departments
Fire Department

Point of contact
Sofia C. Reyes

Request

Good afternoon, Partner Engineering and Science Inc. is conducting a Phase I Environmental Site Assessment of the below Mojave/Rosamond referenced property:

- **9635 Laguna Avenue, Rosamond, CA 93560**
- **11354 115th Street, Rosamond, CA 93560**
- **11741 115th Street, Rosamond, CA 93560**
- **11100 90th Street, West Willow Springs, CA 93560**
- **8500 Oak Creek Road, Mojave, CA 93501**

+7,770 acres

****(Please see attachment for complete APN List)**

As part of the investigation, I would like to request all **Fire/Hazmat** records you may have for the above-referenced property pertaining to the following:

- Current or historical use/generating of hazardous materials and/or hazardous waste
- Current or historical underground/aboveground storage tanks
- UST/Tank removal, remediation, cleanup reports/closure letters
- Current or historical clarifiers, sumps, or waste water
- Chemical Inventories
- Releases, Spills, or Cleanups
- Violations or Notices to Comply

Please let me know if you need any additional information. Thank you,

Show less

Timeline | Documents

Request closed

Anyone with access to this request

A search was performed by Public Works, Public Health, and the Fire Department, there were no records found for this request.

Thank you.

August 6, 2025, 11:03am by Staff

KERN COUNTY
Public Health Services
DEPARTMENT

ENVIRONMENTAL HEALTH DIVISION
UNIFIED PROGRAM AGENCY (UPA)

MATTHEW CONSTANTINE
DIRECTOR

2700 M STREET, SUITE 300 BAKERSFIELD, CALIFORNIA 93301-2370 VOICE: 661-862-8740 FAX: 661-862-8701 KERNPUBLICHEALTH.COM

HAZARDOUS MATERIALS BUSINESS PLAN (HMBP) INSPECTION REPORT

Facility Name: SCE Windhub Substation		**Facility ID:** FA0034742
Site Address: 8500 Oak Creek Rd Mojave, CA 93501		**CERS ID:** 10198972
Phone: (626) 302-1212	**Consent Granted By:**	**Inspection Date:** 08/20/2019
Inspection Type: ☒ Routine ☐ Reinspection		**Reinspection required:** ☐ Yes ☒ No
Inspection Element: BUS PLAN LARGE LOW RISK 1 UNIT		

File/CERS Review Violations

V	Viol #	Summary	Code
	H335	Failure to adequately submit a complete HMBP into the California Environmental Reporting System (CERS)	HSC 6.95 25505, 25508(a)(1)
	F001	Failure to pay the HMBP annual permit fees	KCOC 8.04.030
	H344	Failure to complete and submit the Business Activities page and/or Business Owner/Operator Identification page in CERS	HSC 6.95 25508(a)(1); 19 CCR 4 2729.2(a)(1);
	H342	Failure to complete and submit Hazardous Materials Inventory information for all hazardous materials at or above reportable quantities in CERS	HSC 6.95 25505(a)(1), 25506, 25508(a)(1)
	H341	Failure to annually review and electronically certify that the HMBP is complete and accurate on or before the annual due date	HSC 6.95 25508(c), 25508.2
	H346	Failure to complete and submit Site Map with all required content in CERS	HSC 6.95 25505(a)(2), 25508(a)(1)
	H347	Failure to submit an adequate Emergency Response/Contingency plan in CERS	HSC 6.95 25505(a)(3), 25508(a)(1)
	H353	Failure to submit an adequate Employee Training Plan in CERS	HSC 6.95 25505(a)(4), 25508(a)(1)
	H340	Failure to notify property owner in writing that a HMBP is required	HSC 6.95 25505.1
	H336	Failure to provide property owner a copy of the HMBP upon request	HSC 6.95 25505.1

Onsite Inspection Violations

V	Viol #	Summary	Code
	H334	Failure to adequately establish and implement a HMBP	HSC 6.95 25507
	H345	Failure to revise HMBP in CERS within 30 days upon a change of information, inventory, address, ownership, or operation.	HSC 6.95 25508.1(a)-(f)
	H348	Failure to provide initial and annual safety training to all employees and/or failure to document and maintain training records for 3 years	HSC 6.95 25505(a)(4)
	H338	Failure to report a release or threatened release of a hazardous material to the CUPA and to California Office of Emergency Services	HSC 6.95 25510(a)
	H761	Failure to have the HMBP readily available to personnel of the business/facility	HSC 6.95 25505(c)

Inspector: GENE BLAIR **Inspection Date:** 08/20/2019

CONDITIONAL EXEMPTIONS FROM REPORTING REQUIREMENTS

Agricultural handlers are conditionally exempt from electronically submitting Emergency Response and Employee Training Plans in CERS if the following requirements are met:

- Owner/Operator annually submits the Facility Information and Hazardous Materials Inventory electronically into CERS
- Each location/building, where hazardous materials (i.e. pesticides, petroleum products, fertilizers, etc.) are stored, is posted with warning signs that meet the following requirements:
  - Shall be conspicuous and visible from any direction of probable approach
  - Shall be of such size that it is readable from 25 feet and shall be labeled as follows:

> DANGER HAZARDOUS MATERIAL STORAGE AREA
> (the hazardous materials stored within shall be noted by category
> [i.e. pesticides, petroleum products, fertilizers, etc.])
> ALL UNAUTHORIZED PERSONS-KEEP OUT - IN AN EMERGENCY, CONTACT:
> (list the name and phone number of an emergency contact person(s))

  - Shall be repeated in an appropriate language other than English when persons who do not understand the English language may enter the posted location/building
- Owner/Operator provides training for all new employees and annual training, including refresher courses, for all employees in safety

Exempt Facility Violations

V	Viol #	Summary	Code
	H760	Failure to submit Emergency Response/Contingency Plan in CERS when not meeting agricultural handler exemption requirements	HSC 6.95 25507.1, 25508(a)(1); 19 CCR 4 2670, 2671
	H758	Failure to submit Employee Training Plan in CERS when not meeting agricultural handler exemption requirements	HSC 6.95 25507.1, 25508(a)(1); 19 CCR 4 2670, 2671
	H759	Failure to establish and submit a HMBP in CERS when not meeting remote unstaffed facility exemption requirements	HSC 6.95 25505, 25506, 25507.2, 25508(a)(1)

SUMMARY OF OBSERVATIONS/VIOLATIONS

☒ **No violations of hazardous materials business plan laws/regulations were discovered. Kern County UPA greatly appreciates your efforts to comply with all the laws and regulations applicable to your facility.**

☐ **Violations were observed/discovered as listed below. ALL VIOLATIONS MUST BE CORRECTED WITHIN 30 DAYS OR AS SPECIFIED. UPA must be informed in writing with a certification that compliance has been achieved. A false statement that compliance has been achieved is a violation of the law and punishable by a fine of not less than $2,000 or more than $25,000 for each violation. Your facility may be reinspected any time during normal business hours. If a second reinspection becomes necessary due to non compliance, a reinspection charge of $115.00 per hour may be charged to the facility.**

You may request a meeting with the Program Manager to discuss the inspection findings and/or the proposed corrective actions. The issuance of this Summary of Violations does not preclude the CUPA from taking administrative, civil, or criminal action.

INSPECTION COMMENTS:

COMMENTS: **Go to http://www.kernpublichealth.com/hazardous-materials for forms and information.**

Inspector: GENE BLAIR **Signature of Facility Representative:**

Inspection Date: 08/20/2019

SCE Windhub Substation (CERSID: 10198972)

Facility Information **Accepted Feb 11, 2025**

Submitted on 2/7/2025 12:54:28 PM by *Tiffany Chapman* of Southern California Edison, Transmission and Distribution Organization (TD) (Rosemead, CA)
Comments by Submitter: 2025 Annual Submittal.
Submittal was ***Accepted*** on 2/11/2025 3:54:42 PM by COGLEY, JOHN

- Business Activities
- Business Owner/Operator Identification

Hazardous Materials Inventory **Accepted Feb 11, 2025**

Submitted on 2/7/2025 12:54:28 PM by *Tiffany Chapman* of Southern California Edison, Transmission and Distribution Organization (TD) (Rosemead, CA)
Submittal was ***Accepted*** on 2/11/2025 3:54:49 PM by COGLEY, JOHN

- Hazardous Material Inventory (4)
- Site Map (Official Use Only)
  - *Annotated Site Map (Official Use Only)* (Adobe PDF, 231KB)

Emergency Response and Training Plans **Accepted Feb 11, 2025**

Submitted on 2/7/2025 12:54:28 PM by *Tiffany Chapman* of Southern California Edison, Transmission and Distribution Organization (TD) (Rosemead, CA)
Submittal was ***Accepted*** on 2/11/2025 3:54:46 PM by COGLEY, JOHN

- Emergency Response/Contingency Plan
  - *Emergency Response/Contingency Plan* (Adobe PDF, 520KB)
- Employee Training Plan
  - Provided In Submital Element: Emergency Response and Training Plans

California Environmental Reporting System (CERS) — Business Activities

Site Identification

SCE Windhub Substation
8500 Oak Creek Rd
Mojave, CA 93501

County
Kern

CERS ID
10198972

EPA ID Number

Submittal Status

Submitted on 2/7/2025 by *Tiffany Chapman* of Southern California Edison, Transmission and Distribution Organization (TD) (Rosemead, CA)
Comments by submitter: 2025 Annual Submittal.
Submittal was ***Accepted***; Processed on 2/11/2025 by *COGLEY, JOHN* for Kern County Environmental Health Services Department

Hazardous Materials

Does your facility have on site (for any purpose) at any one time, hazardous materials at or above 55 gallons for liquids, 500 pounds for solids, or 200 cubic feet for compressed gases (include liquids in ASTs and USTs); or is regulated under more restrictive inventory local reporting requirements (shown below if present); or the applicable Federal threshold quantity for an extremely hazardous substance specified in 40 CFR Part 355, Appendix A or B; or handle radiological materials in quantities for which an emergency plan is required pursuant to 10 CFR Parts 30, 40 or 70?	**Yes**

Underground Storage Tank(s) (UST)

Does your facility own or operate underground storage tanks?	**No**

Hazardous Waste

Is your facility a Hazardous Waste Generator?	**No**
Does your facility treat hazardous waste on-site?	**No**
Is your facility's treatment subject to financial assurance requirements (for Permit by Rule and Conditional Authorization)?	**No**
Does your facility consolidate hazardous waste generated at a remote site?	**No**
Does your facility need to report the closure/removal of a tank that was classified as hazardous waste and cleaned on-site?	**No**
Does your facility generate in any single calendar month 1,000 kilograms (kg) (2,200 pounds) or more of federal RCRA hazardous waste, or generate in any single calendar month greater than 1 kg (2.2 pounds) of RCRA acute hazardous waste; or generate more than 100 kg (220 pounds) of spill cleanup materials contaminated with RCRA acute hazardous waste.	**No**
Is your facility a Household Hazardous Waste (HHW) Collection site?	**No**

Excluded and/or Exempted Materials

Does your facility recycle more than 100 kg/month of excluded or exempted recyclable materials (per HSC 25143.2)?	**No**

Aboveground Petroleum Storage

Does your facility own or operate aboveground petroleum storage tanks or containers AND: * have a total aboveground petroleum storage capacity of 1,320 gallons or more, OR * have one or more petroleum tanks in an underground area?	**No**

Regulated Substances

Does your facility have Regulated Substances stored onsite in quantities greater than the threshold quantities established by the California Accidental Release prevention Program (CalARP)?	**No**

Additional Information

No additional comments provided.

Facility/Site

SCE Windhub Substation
8500 Oak Creek Rd
Mojave, CA 93501

CERS ID
10198972

Submittal Status

Submitted on 2/7/2025 by *Tiffany Chapman* of Southern California Edison, Transmission and Distribution Organization (TD) (Rosemead, CA)
Comments by submitter: 2025 Annual Submittal.
Submittal was ***Accepted***; Processed on 2/11/2025 by *COGLEY, JOHN* for Kern County Environmental Health Services Department

Identification

Southern California Edison

Operator Phone	Business Phone	Business Fax
(626) 302-1212	(626) 302-1212	

Beginning Date	Ending Date	
Dun & Bradstreet	**SIC Code**	**Primary NAICS**
195138458	4911	221122

Facility/Site Mailing Address

P.O. Box 5085 (Attn: Environmental)
Rosemead, CA 91770

Primary Emergency Contact

Environmental Operation Center
Title
Environmental Advisor

Business Phone	24-Hour Phone	Pager Number
(844) 468-7745	(844) 468-7745	

Owner

Southern California Edison
(626) 302-1212
P.O. Box 5085 (Attn: Environmental)
Rosemead, CA 91770

Secondary Emergency Contact

Environmental Operation Center
Title
Environmental Sr. Manager

Business Phone	24-Hour Phone	Pager Number
(844) 468-7745	(844) 468-7745	

Billing Contact

Southern California Edison
(626) 302-1212 EHSync@sce.com
P.O. Box 5085 (Attn: Environmental)
Rosemead , CA 91770

Environmental Contact

Environmental Operation Center
(844) 468-7745 AgencyInspections@SCE.COM
P.O. Box 5085 (Attn: Environmental)
Rosemead, CA 91770

Name of Signer	Signer Title	Document Preparer
Tiffany Chapman	Senior Specialist	Tiffany Chapman

Additional Information
Taxpayer Identification Number: 95-1240335

Locally-collected Fields

Some or all of the following fields may be required by your local regulator(s).

Property Owner

Southern California Edison
Phone
(626) 302-1212
Mailing Address
P.O. Box 5085 (Attn: Environmental)
Rosemead, CA 91770

Assessor Parcel Number (APN)
237-032-38-00-0
Number of Employees
0
Facility ID
FA0034742

Hazardous Materials And Wastes Inventory Matrix Report

CERS Business/Org.	**Southern California Edison, Transmission and Distribution Organization (TD)**	Chemical Location	CERS ID **10198972**
Facility Name	**SCE Windhub Substation** 8500 Oak Creek Rd, Mojave 93501	**In Battery Room**	Facility ID **FA0034742** Status **Submitted** on 2/7/2025 12:54 PM

DOT Code/Fire Haz. Class	Common Name	Unit	Quantities: Max. Daily	Quantities: Largest Cont.	Quantities: Avg. Daily	Annual Waste Amount	Federal Hazard Categories	Hazardous Components (For mixture only): Component Name	% Wt	EHS	CAS No.
DOT: 8 - Corrosives (Liquids and Solids) Corrosive	**Lead Acid Batteries** CAS No State: Liquid Type: Mixture	**Gallons** Storage Container: Other Days on Site: 365	**767**	**11.1**	767 Pressue: Ambient Temperature: Ambient	Waste Code	- Physical Corrosive To Metal - Health Skin Corrosion Irritation - Health Serious Eye Damage Eye Irritation	Sulfuric Acid	40%	✓	7664-93-9

Hazardous Materials And Wastes Inventory Matrix Report

CERS Business/Org. **Southern California Edison, Transmission and Distribution Organization (TD)**

Chemical Location

CERS ID **10198972**

Facility Name **SCE Windhub Substation**
8500 Oak Creek Rd, Mojave 93501

Inside Electrical Equipment

Facility ID **FA0034742**

Status **Submitted** on 2/7/2025 12:54 PM

DOT Code/Fire Haz. Class	Common Name	Unit	Quantities: Max. Daily	Quantities: Largest Cont.	Quantities: Avg. Daily	Annual Waste Amount	Federal Hazard Categories	Hazardous Components (For mixture only): Component Name	% Wt	EHS	CAS No.
DOT: 2.2 - Nonflammable Gases	**SF6 Gas** CAS No 2551-62-4	**Cu. Feet** State Gas Type Pure	**63487** Storage Container Other Days on Site: 365	**4277**	63487 Pressue > Ambient Temperature Ambient	Waste Code	- Physical Gas Under Pressure - Health Simple Asphyxiant				
DOT: 3 - Flammable and Combustible Liquids Combustible Liquid, Class III-B	**Mineral Oil** CAS No 64742-53-6	**Gallons** State Liquid Type Mixture	**341282** Storage Container Other Days on Site: 365	**22508**	341282 Pressue Ambient Temperature Ambient	Waste Code	- Health Aspiration Hazard	Severely Hydrotreated Light Naphthenic Petroleum Butylated Hydroxy Toluene	100% 0%		64742-53-6 128-37-0

Hazardous Materials And Wastes Inventory Matrix Report

CERS Business/Org.	**Southern California Edison, Transmission and Distribution Organization (TD)**	Chemical Location	CERS ID **10198972**
Facility Name	**SCE Windhub Substation** 8500 Oak Creek Rd, Mojave 93501	**Stationary emergency generator (east of control Bldg)**	Facility ID **FA0034742** Status **Submitted** on 2/7/2025 12:54 PM

DOT Code/Fire Haz. Class	Common Name	Unit	Quantities: Max. Daily	Quantities: Largest Cont.	Quantities: Avg. Daily	Annual Waste Amount	Federal Hazard Categories	Hazardous Components (For mixture only): Component Name	% Wt	EHS	CAS No.
DOT: 3 - Flammable and Combustible Liquids Combustible Liquid, Class II	**Diesel Fuel No. 2** CAS No 68476-34-6	**Gallons** State Liquid Type Pure	**965** Storage Container Other Days on Site: 365	**965**	965 Pressue Ambient Temperature Ambient	Waste Code	- Physical Flammable - Health Carcinogenicity - Health Acute Toxicity - Health Respiratory Skin Sensitization - Health Specific Target Organ Toxicity - Health Aspiration Hazard				

AT&T ENTERPRISES: EXPANDED NATIONAL MGMT CORP - SAXCN (CERSID: 10821064)

Facility Information Accepted Feb 11, 2025

Submitted on 1/7/2025 7:54:57 AM by *Andrew George* of AT&T Enterprises: Expanded National Mgmt Corp (Dallas, TX)
Comments by Submitter: Annual Inventory
Submittal was ***Accepted*** on 2/11/2025 2:54:21 PM by COGLEY, JOHN

- Business Activities
- Business Owner/Operator Identification

Guidance Messages

- **Warning:**
  1. Business Activities - The Facility Name for CERSID: 10821064 has changed from: 'AT&T Corp. - SAXCN' to 'AT&T ENTERPRISES: EXPANDED NATIONAL MGMT CORP - SAXCN'.

Hazardous Materials Inventory Accepted Feb 11, 2025

Submitted on 1/7/2025 7:54:57 AM by *Andrew George* of AT&T Enterprises: Expanded National Mgmt Corp (Dallas, TX)
Submittal was ***Accepted*** on 2/11/2025 2:54:40 PM by COGLEY, JOHN

- Hazardous Material Inventory (1)
- Site Map (Official Use Only)
  - *Annotated Site Map (Official Use Only)* (Adobe PDF, 155KB)

Emergency Response and Training Plans Accepted Feb 11, 2025

Submitted on 1/7/2025 7:54:57 AM by *Andrew George* of AT&T Enterprises: Expanded National Mgmt Corp (Dallas, TX)
Submittal was ***Accepted*** on 2/11/2025 2:54:32 PM by COGLEY, JOHN

- Emergency Response/Contingency Plan
  - *Emergency Response/Contingency Plan* (Adobe PDF, 513KB)
- Employee Training Plan
  - *Employee Training Plan* (Adobe PDF, 208KB)

California Environmental Reporting System (CERS) — Business Activities

Site Identification

AT&T ENTERPRISES: EXPANDED NATIONAL MGMT CORP - SAXCN
8500 Oak Creek Rd
Mojave, CA 93501
County
Kern

CERS ID
10821064

EPA ID Number

Submittal Status

Submitted on 1/7/2025 by *Andrew George* of AT&T Enterprises: Expanded National Mgmt Corp (Dallas, TX)
Comments by submitter: Annual Inventory
Submittal was ***Accepted***; Processed on 2/11/2025 by *COGLEY, JOHN* for Kern County Environmental Health Services Department

Hazardous Materials

Does your facility have on site (for any purpose) at any one time, hazardous materials at or above 55 gallons for liquids, 500 pounds for solids, or 200 cubic feet for compressed gases (include liquids in ASTs and USTs); or is regulated under more restrictive inventory local reporting requirements (shown below if present); or the applicable Federal threshold quantity for an extremely hazardous substance specified in 40 CFR Part 355, Appendix A or B; or handle radiological materials in quantities for which an emergency plan is required pursuant to 10 CFR Parts 30, 40 or 70?	**Yes**

Underground Storage Tank(s) (UST)

Does your facility own or operate underground storage tanks?	**No**

Hazardous Waste

Is your facility a Hazardous Waste Generator?	**No**
Does your facility treat hazardous waste on-site?	**No**
Is your facility's treatment subject to financial assurance requirements (for Permit by Rule and Conditional Authorization)?	**No**
Does your facility consolidate hazardous waste generated at a remote site?	**No**
Does your facility need to report the closure/removal of a tank that was classified as hazardous waste and cleaned on-site?	**No**
Does your facility generate in any single calendar month 1,000 kilograms (kg) (2,200 pounds) or more of federal RCRA hazardous waste, or generate in any single calendar month greater than 1 kg (2.2 pounds) of RCRA acute hazardous waste; or generate more than 100 kg (220 pounds) of spill cleanup materials contaminated with RCRA acute hazardous waste.	**No**
Is your facility a Household Hazardous Waste (HHW) Collection site?	**No**

Excluded and/or Exempted Materials

Does your facility recycle more than 100 kg/month of excluded or exempted recyclable materials (per HSC 25143.2)?	**No**

Aboveground Petroleum Storage

Does your facility own or operate aboveground petroleum storage tanks or containers AND: * have a total aboveground petroleum storage capacity of 1,320 gallons or more, OR * have one or more petroleum tanks in an underground area?	**No**

Regulated Substances

Does your facility have Regulated Substances stored onsite in quantities greater than the threshold quantities established by the California Accidental Release prevention Program (CalARP)?	**No**

Additional Information

No additional comments provided.

Facility/Site

AT&T ENTERPRISES: EXPANDED NATIONAL MGMT CORP - SAXCN

CERS ID **10821064**

8500 Oak Creek Rd
Mojave, CA 93501

Submittal Status

Submitted on 1/7/2025 by *Andrew George* of AT&T Enterprises: Expanded National Mgmt Corp (Dallas, TX)
Comments by submitter: Annual Inventory
Submittal was ***Accepted***; Processed on 2/11/2025 by *COGLEY, JOHN* for Kern County Environmental Health Services Department

Identification

AT&T ENTERPRISES: EXPANDED NATIONAL MGMT CORP

Operator Phone	Business Phone	Business Fax
(800) 566-9347	(800) 566-9347	

Beginning Date	Ending Date	
1/7/2025	3/1/2026	
Dun & Bradstreet	**SIC Code**	**Primary NAICS**
006980800	4813	517311

Facility/Site Mailing Address

311 S. Akard Street, Floor 12
Dallas, TX 75202

Primary Emergency Contact

AT&T EH&S Hotline - Option #1
Title
Environmental Site Manager

Business Phone	24-Hour Phone	Pager Number
(800) 566-9347	(800) 566-9347	

Owner

AT&T ENTERPRISES: EXPANDED NATIONAL MGMT CORP
(469) 295-2319
311 S. Akard Street, Floor 12
Dallas, TX 75202

Secondary Emergency Contact

AT&T EH&S Hotline - Option #1
Title
24 Hour Emergency Service

Business Phone	24-Hour Phone	Pager Number
(800) 566-9347	(800) 566-9347	

Billing Contact

AT&T EH&S
(469) 295-2319 g43573@att.com
311 S. Akard Street, Floor 12
Dallas, TX 75202

Environmental Contact

AT&T EH&S Hotline - Option #1
(800) 566-9347 g43573@att.com
311 S. Akard Street, Floor 12
Dallas, TX 75202

Name of Signer	Signer Title	Document Preparer
Jeremy McGrue	National EPCRA Manager	Peter Burnell, Sigma Consultants, Inc.

Additional Information
Prepared under the direction of AT&T Services, Inc

Locally-collected Fields

Some or all of the following fields may be required by your local regulator(s).

Property Owner

Phone

Mailing Address

,

Assessor Parcel Number (APN)

Number of Employees

Facility ID

Hazardous Materials And Wastes Inventory Matrix Report

CERS Business/Org. **AT&T Enterprises: Expanded National Mgmt Corp**
Facility Name **AT&T ENTERPRISES: EXPANDED NATIONAL MGMT CORP - SAXCN**
8500 Oak Creek Rd, Mojave 93501

Chemical Location **Battery Racks Inside Site**

CERS ID **10821064**
Facility ID
Status **Submitted** on 1/7/2025 7:54 AM

DOT Code/Fire Haz. Class	Common Name	Unit	Quantities Max. Daily	Largest Cont.	Avg. Daily	Annual Waste Amount	Federal Hazard Categories	Hazardous Components (For mixture only) Component Name	% Wt	EHS	CAS No.
DOT: 8 - Corrosives (Liquids and Solids) Corrosive, Toxic	**NiCad Batteries** CAS No N/A	**Pounds** State Solid Type Mixture	**648** Storage Container Other Days on Site: 365	**324**	648 Pressue Ambient Temperature Ambient	Waste Code	- Physical Corrosive To Metal - Health Skin Corrosion Irritation - Health Serious Eye Damage Eye Irritation	Cadium (Cadmium Hydroxide) Nickel Electrolyte (KOH) Cobalt	30% 26% 6% 3%		7440-43-9 7440-02-0 1310-58-3 7440-48-8

KERN COUNTY / Public Health

Brynn Carrigan - DIRECTOR
Kristopher Lyon, MD - HEALTH OFFICER

UNIFIED PROGRAM AGENCY (UPA)
INSPECTION CONSENT AND ACKNOWLEDGEMENT CERTIFICATION

Facility Name: SCE Wendhub Substation Inspection Date: 6/4/2025

Facility ID: FA0034742 CERS ID: 10198972

The State of California and the Health and Safety Code (HSC) gives the UPA the authority to conduct business facility inspections for compliance with the programs listed below. By signing this document, you are consenting to an inspection of the above referenced facility by the Kern County Public Health Services Department, Environmental Health Division, UPA for the County of Kern. Inspections may consist of the physical inspection of all business areas on the property, review and copying of documentation/records, video or photographs (includes aerial), employee interviews, and conducting sampling activities to evaluate compliance with UPA requirements.

- Hazardous Waste (Health & Safety Code [HSC § 25185, subd. (a)];
- California Accidental Release Prevention [HSC § 25534.5];
- Hazardous Materials Release Response Plans and Inventory [HSC § 25511, subd. (a)];
- Underground Storage Tanks - [HSC § 25289]; and
- Aboveground Petroleum Storage Act - [HSC § 25270.5, subd. (a)].

Signature Facility Representative	Gabriel Rubio, Reg. Env. Advisor Print Name and Title	6-4-25 Date Signed

☐ Declined to sign, verbal consent to inspect given. ☐ Inspection Refused

Acknowledgement of Method to Receive Inspection Report:

E-mail to: gabriel.rubio@sce.com Mail to: _____

Fax to: _____ _____

_____ _____

Signature Inspector	John Cadey CUPA Inspector Print Name and Title	6/4/2025 Date Signed

KERN COUNTY
Public Health Services
DEPARTMENT

MATTHEW CONSTANTINE
DIRECTOR

2700 M STREET, SUITE 300 BAKERSFIELD, CALIFORNIA 93301-2370 VOICE 661-862-8740 FAX: 661-862-8701 WWW.CO.KERN.CA.US/EH

INTEROFFICE MEMORANDUM
CLOSURE OF HAZMAT FACILITY/PROGRAM(S)

To: Chris Hollinger Date: 8/15/17
From: *Laurel/Shelly/Dani*
Subject: FA 00 34742 CERS ID 10198972 Closure/inactivation of facility/program(s)
Name: SCE Windhub Substation

☐ An inspection was completed at the above facility and no hazardous materials/waste were found.

☒ An inspection was done at the above facility and the following Program(s) are no longer regulated:
PE: CD01 Description: APSA
PE: SC25 Description: APSA Enclose
PE: _____ Description: _____

☐ All open violations have been closed and comments have been made in Envision.

Inspector name/signature and date: [signature] 8/15/17

Refer to Designated CERS Staff

☐ All violations closed, comments by inspector in Envision.

☐ Facility's submittal(s) have been processed through CIW and into Envision, facility has been changed to "Not Applicable" in CERS.

☐ Verified not a PIP facility (if so, deleted from PIP Possible and PIP scoring template spreadsheets).

☐ /NA Open invoice attached to facility. Comments made in Envision and referred to Fiscal for closure of invoice. Invoice # _____

☐ /NA No open invoice attached to facility. All appropriate programs inactivated in Envision and facility comments added. Refer to Fiscal.

Designated CERS Staff name/signature and date: _____

Refer to Fiscal Staff

☑ Verification by Fiscal complete. Facility closed/inactivated. APSA only

Fiscal Staff name/signature and date: [signature] 8-29-17

Return to Designated CERS Staff

Printed on Recycled Paper

KERN COUNTY PUBLIC HEALTH SERVICES DEPARTMENT
ENVIRONMENTAL HEALTH DIVISION
INVOICE ADVISORY / GOVERNMENTAL CODE REFUNDS

Facility Name:	SOUTHERN CALIFORNIA EDISON - WINDHUB			
Facility No (FA):	FA0034742	Accounts Rec ID (AR):	AR0046980	
Invoice/Receipt No:	IN0403369	DATE 08/16/17	Total	$151.00
Customer Name:	SOUTHERN CALIFORNIA EDISON			
Address, City, State, Zip:	8500 OAK CREEK ROAD, MOJAVE CA 93501			

Action to be Taken				
AUG 29 2017		Reverse Fee, Invoiced in Error		Send to Collections
	X	Waive Permit Fee - PARTIAL		Remove from Collections
		Waive Service Fee		Payment Schedule Requested
		Waive Penalties		Credit Adjustment
		Refund due to Customer		Other: TRANSFER OVERPAYMENT

Comments: SOUTHERN CAL EDISON CONTACTED US THAT THEY HAD REMOVED THEIR ABOVEGROUND TANKS IN 2015, CERS CONFIRMED. EHS STAFF DID NOT UPDATE PROGRAMS WHEN APSA WAS REMOVED. REQUEST TO REMOVE APSA FEES CD01 $125.00 AND SC25 $26.00 RESULTING IN INVOICE IN0403369 GOING FROM $1575.00 TO $1424.00

Comments:

Date of Deposit:		**Fund No:**	
EROD No:		**Rev Code:**	
Dept No:		Payment Type:	

Authorizations				**Yes**	**No**
Requested by:	Chris Hollinger - FSS HazMat/Land/Septic	Date:	8/16/2017	X	
EH Program Supervisor:		Date:	8/17/17	X	
EH FS Supervisor:		Date:	8-18-17	X	
PH Admin Svcs Ofcr:		Date:		Y	
PH Deputy Director:		Date:	8/25/17	X	

Return Form to: CHRIS HOLLINGER - FSS - HAZMAT/LAND/SEPTIC Date Posted: 8-29-17

INVOICE

Public Health Services DEPARTMENT

Invoice ID	Account ID	Date
IN0403369	AR0046980	8/15/2017

FA0034742
SCE Windhub Substation

Make checks payable to:
COUNTY OF KERN
ENVIRONMENTAL HEALTH SERVICES DIVISION
2700 M STREET, SUITE 300
BAKERSFIELD, CA 93301-2730

Now accepting online credit card payments at http://kernpublichealth.com/environmental-health/

To avoid 50% Penalty, pay by:	8/2/2017
Total Due:	$1,575.00
Amount Paid:	

ATTN: CES COMPLIANCE GATEWAY 6040
Southern California Edison
P.O. Box 5085 (Attn: ESD, Programs & Governance)
Rosemead, CA 91770

Please return the top portion of this invoice notice with payment

County of Kern
Environmental Health Services Division

Unpaid balances will be sent to a collection agency
and you will be responsible for any associated charges

RE: SCE Windhub Substation, FA0034742
8500 Oak Creek Rd
Mojave, CA 93501

Date	Program Element	Description	Record Identifier	Amount
Invoice # IN0403369 -- Date of Invoice: 7/3/2017				
07/03/2017	CB3T	BUS PLAN LARGE LOW RISK 1 UNIT	PR0061462	1,375 00
07/03/2017	SC10	STATE SERVICE CHG - OVERSITE	PR0061463	49 00
07/03/2017	SC25	STATE SERVICE CHG - APSA PROGRAM	PR0068034	~~150.00~~
07/03/2017	CD01	APSA 1,320-9,999 GALLON CAPACITY	PR0066678	~~125.00~~
			Total For this Invoice	1,575.00

Total Amount Due for this Invoice
-- Please Remit this Amount --

$1,575.00

1424

For questions related to your invoice, please feel free to contact us.

(661) 862-8713	**Food Program**	**(661) 862-8733**	**Haz Mat/Land Program**
(661) 862-8773	**Water/Solid Waste Program**	**(661) 862-8740**	**Main Line**

You must notify Environmental Health of any changes of Ownership, Billing Address, Business Name, Closure
FAILURE to notify Environmental Health may result in LATE PENALTIES, PERMIT DENIAL, OR REVOCATION
Permits and Fees Paid are NOT TRANSFERABLE

Public Health Services

INVOICE

Invoice ID	Account ID	Date
IN0403369	AR0046980	8/29/2017

FA0034742
SCE Windhub Substation

Make checks payable to:
COUNTY OF KERN
ENVIRONMENTAL HEALTH SERVICES DIVISION
2700 M STREET, SUITE 300
BAKERSFIELD, CA 93301-2730

Now accepting online credit card payments at http://kernpublichealth.com/environmental-health/

To avoid 50% Penalty, pay by:	8/2/2017
Total Due:	$0.00
Amount Paid:	

ATTN: CES COMPLIANCE GATEWAY 6040
Southern California Edison
P.O. Box 5085 (Attn: ESD, Programs & Governance)
Rosemead, CA 91770

Please return the top portion of this invoice notice with payment

County of Kern
Environmental Health Services Division

Unpaid balances will be sent to a collection agency
and you will be responsible for any associated charges.

RE: SCE Windhub Substation, FA0034742
8500 Oak Creek Rd
Mojave, CA 93501

Date	Program Element	Description	Record Identifier	Amount
Invoice # IN0403369 -- Date of Invoice: 7/3/2017				
07/03/2017	CB3T	BUS PLAN LARGE LOW RISK 1 UNIT	PR0061462 RECEIPT#: CH0010306	1,375.00
07/03/2017	SC10	STATE SERVICE CHG - OVERSITE	PR0061463 RECEIPT#: CH0010306	49.00
07/03/2017	SC25	STATE SERVICE CHG - APSA PROGRAM	PR0068034	26.00
07/03/2017	CD01	APSA 1,320-9,999 GALLON CAPACITY	PR0066678	125.00
08/23/2017	9999	PAYMENT CHECK 43156817	RECEIPT#: CH0010306	-1,375.00
08/23/2017	9999	PAYMENT CHECK 43156817	RECEIPT#: CH0010306	-49.00
08/29/2017	9997	CORRECTION TO A CHARGE (CREDIT) NO APSA ON SITE		-26.00
08/29/2017	9997	CORRECTION TO A CHARGE (CREDIT) NO APSA ON SITE		-125.00

Total For this Invoice: 0.00

Total Amount Due for this Invoice
-- Please Remit this Amount -- $0.00

For questions related to your invoice, please feel free to contact us.

(661) 862-8713 Food Program	**(661) 862-8733 Haz Mat/Land Program**
(661) 862-8773 Water/Solid Waste Program	**(661) 862-8740 Main Line**

You must notify Environmental Health of any changes of Ownership, Billing Address, Business Name, Closure
FAILURE to notify Environmental Health may result in LATE PENALTIES, PERMIT DENIAL, OR REVOCATION
Permits and Fees Paid are NOT TRANSFERABLE

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CERTIFIED UNIFIED PROGRAM AGENCY PERMIT

KERN COUNTY PUBLIC HEALTH SERVICES DEPARTMENT

ENVIRONMENTAL HEALTH SERVICE DIVISION

2700 M ST, SUITE 300, BAKERSFIELD, CA 93301

(661) 862-8740 http://kernpublichealth.com/environmental-health/ e-mail: hazmatprogram@kerncounty.com

REGULATED FACILITY:

AT&T Corp. - SAXCN
8500 Oak Creek RD
Mojave CA 93501

IDENTIFICATION NUMBERS:

FACILITY ID: FA0048464
CERS ID: 10821064

OWNER(S) OF RECORD:

AT&T Corp.

General Health Program	Permit #	Additional Information	PIP*	Effective Thru
BUS PLAN SMALL LOW RISK 1 UNIT	0036294			06/30/2022

Permit Issued:

Matthew Constantine
Public Health Services Director

This ENVIRONMENTAL HEALTH PERMIT is issued to the owner(s) and establishment shown above subject to compliance with all applicable laws and regulations. Permit is valid unless revoked or suspended for violation of applicable laws and regulations.

PERMIT IS NON-TRANSFERABLE AND MUST BE PROMINENTLY DISPLAYED IN THE PLACE OF BUSINESS

*** PIP - P**erformance **I**ncentive **P**rogram is a voluntary program for facilities that handle extremely hazardous material(s).

AT&T EH&S
AT&T Corp.
308 S. Akard St., 17th Floor
Dallas, TX 75202

KERN COUNTY
Public Health Services
DEPARTMENT

ENVIRONMENTAL HEALTH DIVISION
CERTIFIED UNIFIED PROGRAM AGENCY (CUPA)

MATTHEW CONSTANTINE
DIRECTOR

2700 M STREET, SUITE 300 BAKERSFIELD, CALIFORNIA 93301-2370 VOICE: 661-862-8740 FAX: 661-862-8701 KERNPUBLICHEALTH.COM

ABOVEGROUND PETROLEUM STORAGE ACT
INSPECTION REPORT

Facility Name: SCE Windhub Substation		**Facility ID:** FA0034742
Site Address: 8500 Oak Creek Rd Mojave, CA 93501		**CERS ID:** 10198972
Phone: (626) 302-1212	**Consent Granted By:** Al Camas, FES	**Inspection Date:** 09/14/2016
Inspection Type: ☒ Routine ☐ Reinspection		**Reinspection required:** ☐ Yes ☒ No
Facility Classification:		

Tier I Qualified Facility	Tier II Qualified Facility	Non Qualified Facility
1,320 gal. - 10,000 gal. cumulative liquid oil, including petroleum, storage capacity All containers 5,000 gal. capacity or less	1,320 gal. - 10,000 gal. cumulative liquid oil, including petroleum, storage capacity One or more container greater than 5,000 gal. capacity	10,001 gal. or more cumulative liquid oil, including petroleum, storage capacity Spill Prevention, Control, & Countermeasure (SPCC) plan must be certified by a Professional Engineer (PE)

CONDITIONALLY EXEMPT FROM APSA REQUIREMENTS*:

FARMS DAIRIES NURSERIES LOGGING SITES CONSTRUCTION SITES

No AST Exceeds 20,000 Gallons **and** the cumulative storage capacity of the tank facility does not exceed 100,000 Gallons

Failure to comply with the following will result in loss of Exempt status

* Conduct daily visual inspections of any storage tank storing a petroleum product
* Allow the CUPA to conduct a periodic inspection of the tank facility
* Install a secondary containment for each tank or group of tanks (if required by the CUPA)

* *While farms, nurseries, logging sites, or construction sites are conditionally exempt from the requirements to prepare an SPCC Plan under APSA, these facilities are not exempt from federal SPCC requirements enforced by US EPA.*

OIL PRODUCTION FACILTIES

If a tank or other facility is used for a purpose other than oil and gas production, such as a diesel tank in a maintenance yard to service trucks that are used on the lease, then it is generally not a facility attendent to oil and gas production and therefore is not under the California

General Violations

V	Viol #	Summary	Code
	H004	FAILURE TO PREPARE/IMPLEMENT A SPCC PLAN	40 CFR 112.3; HSC 6.67 25270.4.5(a)
	H087	FAILURE TO MAINTAIN A VALID PERMIT	HSC 6.11 25404.1
	H090	FAILURE TO SUBMIT AN ANNUAL TANK STATEMENT	HSC 6.67 25270.6(a)(1), 25270.6(a)(2)
	H091	FAILURE TO REPORT SPILLS OF ONE BARREL OR MORE	HSC 6.67 25270.8
	H092	FAILURE TO PAY FEES	HSC 6.67 25270.6(b)

Inspector: GABRIEL RUBIO **Inspection Date:** 09/14/2016

Spill Prevention, Control, & Countermeasure (SPCC) Plan Violations

V	Viol #	Summary	Code
	H001	SPCC PLAN IS NOT CERTIFIED BY A PROFESSIONAL ENGINEER (IF REQUIRED)	40 CFR 112.3(d); HSC 6.67 25270.4.5(a)
	H002	FAILURE TO MAINTAIN SPCC PLAN ON SITE	40 CFR 112.3(e)(1); HSC 6.67 25270.4.5(a)
	H005	FAILURE TO AMEND PLAN	40 CFR 112.5(a); HSC 6.67 25270.4.5(a)
	H006	FAILURE TO COMPLETE FIVE-YEAR PLAN REVIEW	40 CFR 112.5(b); HSC 6.67 25270.4.5(a)
	H008	FAILURE TO HAVE CERTIFICATION FOR TECHNICAL AMENDMENTS	40 CFR 112.5(c), 112.6(a)(2); HSC 6.67 25270.4.5(a)
	H022	FAILURE TO ADEQUATELY DESCRIBE THE FACILITY LAYOUT IN SPCC PLAN	40 CFR 112.7(a)(3); HSC 6.67 25270.4.5(a)
	H023	FAILURE TO ADEQUATELY DISCUSS FACILITY TRANSFER OPERATIONS	40 CFR 112.7(a)(3), 112.8(a), 112.8(d); HSC 6.67 25270.4.5(a)
	H024	SPCC PLAN DOES NOT MEET BASIC REQUIREMENTS	40 CFR 112.7, 112.7(a)(1); HSC 6.67 25270.4.5(a)
	H025	INCOMPLETE/INADEQUATE FACILITY DIAGRAM	40 CFR 112.7(a)(3); HSC 6.67 25270.4.5(a)
	H026	FAILURE TO ADEQUATELY DISCUSS REPORTING PROCEDURES FOR A DISCHARGE	40 CFR 112.7(a)(4); HSC 6.67 25270.4.5(a)
	H027	FAILURE TO ADEQUATELY ORGANIZE DISCHARGE PROCEDURES	40 CFR 112.7(a)(5); HSC 6.67 25270.4.5(a)
	H028	FAILURE TO PREDICT THE EXTENT OF A DISCHARGE WITHIN THE SPCC PLAN	40 CFR 112.7(b); HSC 6.67 25270.4.5(a)
	H029	FAILURE TO DISCUSS APPROPRIATE CONTAINMENT	40 CFR 112.7(c); HSC 6.67 25270.4.5(a)
	H030	IMPRACTICABILITY CLAIMS OF APPROPRIATE CONTAINMENT NOT DEMONSTRATED	40 CFR 112.7(d); HSC 25270.4.5(a)
	H035	NO PERSON DESIGNATED FOR DISCHARGE PREVENTION	40 CFR 112.7(f)(2); HSC 6.67 25270.4.5(a)
	H037	FAILURE TO DISCRIBE THE FACILITY'S SECURITY MEASURES	40 CFR 112.7(g); HSC 6.67 25270.4.5(a)
	H045	FAILURE TO ADEQUATELY DISCUSS FACILITY DRAINAGE	40 CFR 112.8(b); HSC 6.67 25270.4.5(a)
	H061	FAILURE TO ADEQUATELY DISCUSS BULK STORAGE TANKS	40 CFR 112.8(c); HSC 6.67 25270.4.5(a)

Site Inspection Violations

V	Viol #	Summary	Code
	H038	FAILURE TO IMPLEMENT SECURITY MEASURES FOR FACILITY	40 CFR 112.7(g); HSC 6.67 25270.4.5(a)
	H039	FAILURE TO ADEQUATELY DISCUSS LOADING/UNLOADING RACKS	40 CFR 112.7(h); HSC 6.67 25270.4.5(a)
	H040	FAILURE TO MAINTAIN SECONDARY CONTAINMENT SYSTEMS	40 CFR 112.7(h)(1); HSC 6.67 25270.4.5(a)
	H041	FAILURE TO PROVIDE WARNING TO PREVENT VEHICLE DEPARTURE	40 CFR 112.7(h)(2); HSC 6.67 25270.4.5(a)
	H042	FAILURE TO INSPECT DRAINS AND OUTLETS	40 CFR 112.7(h)(2); HSC 6.67 25270.4.5(a)
	H046	VALVES FOR DRAINAGE ARE UNCONTROLLED	40 CFR 112.8(b)(2); HSC 6.67 25270.4.5(a)
	H058	INADEQUATE DRAINAGE	40 CFR 112.8(b)(3), 112.8(b)(4); HSC 6.67 25270.4.5(a)
	H062	TANKS INCOMPATIBLE WITH STORED MATERIALS	40 CFR 112.8(c)(1); HSC 6.67 25270.4.5(a)
	H063	INADEQUATE SECONDARY CONTAINMENT	40 CFR 112.8(c)(2); HSC 6.67 25270.4.5(a)
	H064	CONTAINMENT NOT SUFFICIENTLY IMPERVIOUS TO OIL	40 CFR 112.8(c)(2); HSC 6.67 25270.4.5(a)
	H065	FAILURE TO CLOSE CONTAINMENT BYPASS VALVES WHEN NOT DRAINING RAINWATER	40 CFR 112.8(c)(3)(i); HSC 6.67 25270.4.5(a)
	H066	FAILURE TO INSPECT RUN-OFF FROM CONTAINMENT	40 CFR 112.8(c)(3)(ii); HSC 6.67 25270.4.5(a)
	H067	VALVES OPERATED WITHOUT RESPONSIBLE SUPERVISION	40 CFR 112.8(c)(3)(iii); HSC 6.67 25270.4.5(a)
	H069	FAILURE TO HAVE ADEQUATE CORROSION PROTECTION	40 CFR 1 112.8(c)(5); HSC 6.67 25270.4.5(a)

Site Inspection Violations (continued)

V	Viol #	Summary	Code
	H074	CONTAINER INSTALLATION NOT PROPERLY ENGINEERED WITH HIGH LEVEL MONITORING DEVICE	40 CFR 112.8(c)(8)(i), 112.8(c)(8)(ii), 112.8(c)(8)(iii), 112.8(c)(8)(iv); HSC 6.67 25270.4.5(a)
	H075	LIQUID LEVEL SENSING DEVICES NOT TESTED	40 CFR 1 112.8(c)(8)(v); HSC 6.67 25270.4.5(a)
	H077	LEAKS NOT IMMEDIATELY ADDRESSED	40 CFR 112.8(c)(10); HSC 6.67 25270.4.5(a)
	H078	INADEQUATE SECONDARY CONTAINMENT SYSTEMS-PORTABLE TANKS	40 CFR 112.8(c)(11); HSC 6.67 25270.4.5(a)
	H079	IMPROPER MOBILE TANK POSITIONING	40 CFR 112.8(c)(11); HSC 6.67 25270.4.5(a)
	H080	BURIED PIPING NOT REPAIRED WHEN DETERIORATION FOUND	40 CFR 112.8(d)(1); HSC 6.67 25270.4.5(a)
	H081	BURIED PIPING IS NOT CATHODICALLY PROTECTED	40 CFR 112.8(d)(1); HSC 6.67 25270.4.5(a)
	H082	STAND-BY PIPING IS NOT CAPPED AND/OR LABELED	40 CFR 112.8(d)(2); HSC 6.67 25270.4.5(a)
	H084	FAILURE TO REGULARLY INSPECT ABOVEGROUND PIPING	40 CFR 1 112.8(d)(4); HSC 6.67 25270.4.5(a)
	H086	FAILURE TO WARN VEHICLES ABOUT ABOVEGROUND PIPING OR TRANSFER OPERATIONS	40 CFR 112.8(d)(5); HSC 6.67 25270.4.5(a)

Supplemental to SPCC Plan Violations

V	Viol #	Summary	Code
	H033	INADEQUATE INSPECTIONS/TESTS AND/OR WRITTEN RECORDS NOT MAINTAINED	40 CFR 1 112.7(e); HSC 6.67 25270.4.5(a)
	H034	FAILURE TO MEET EMPLOYEE TRAINING REQUIREMENTS	40 CFR 1 112.7(f)(1); HSC 6.67 25270.4.5(a)
	H036	FAILURE TO SCHEDULE AND CONDUCT SPILL PREVENTION BRIEFINGS	40 CFR 1 112.7(f)(3); HSC 6.67 25270.4.5(a)
	H068	FAILURE TO MAINTAIN ADEQUATE DRAINAGE RECORDS	40 CFR 1 112.8(c)(3)(iv); HSC 6.67 25270.4.5(a)
	H070	FAILURE TO MAINTAIN INSPECTION RECORDS	40 CFR 1 112.8(c)(6); HSC 6.67 25270.4.5(a)
	H072	TANKS NOT INTEGRITY TESTED PER INDUSTRY STANDARDS	40 CFR 1 112.8(c)(6); HSC 6.67 25270.4.5(a)
	H085	BURIED PIPING NOT TESTED AT INSTALLATION, MODIFICATION, CONSTRUCTION, RELOCATION, OR REPLACEMENT	40 CFR 1 112.8(d)(4); HSC 6.67 25270.4.5(a)

Exempt Facility Violations

V	Viol #	Summary	Code
	H093	EXEMPT FACILITY - NO DAILY INSPECTIONS	HSC 6.67 25270.4.5(b)(1)
	H094	EXEMPT FACILITY - FAILURE OF AN EXEMPT FACILITY TO ALLOW CUPA TO CONDUCT PERIODIC INSPECTIONS	HSC 6.67 25270.4.5(b)(2)
	H095	EXEMPT FACILITY-NO SECONDARY CONTAINMENT	HSC 6.67 25270.4.5(b)(3)

SUMMARY OF OBSERVATIONS/VIOLATIONS

☒ No violations of aboveground petroleum storage act laws/regulations were discovered. KERN CUPA greatly appreciates your efforts to comply with all the laws and regulations applicable to your facility.

☐ Violations were observed/discovered as listed below. All violations must be corrected by implementing the corrective action listed by each violation. If you disagree with any of the violations or corrective actions required, please inform the CUPA in writing.

ALL VIOLATIONS MUST BE CORRECTED WITHIN 30 DAYS OR AS SPECIFIED. CUPA must be informed in writing with a certification that compliance has been achieved. A false statement that compliance has been achieved is a violation of the law and punishable by a fine of not less than $2,000 or more than $25,000 for each violation. Your facility may be reinspected any time during normal business hours. If a second reinspection becomes necessary due to non compliance, a reinspection charge of $115.00 per hour may be charged to the facility.

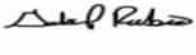
You may request a meeting with the Program Manager to discuss the inspection findings and/or the proposed corrective actions. The issuance of this Summary of Violations does not preclude the CUPA from taking administrative, civil, or criminal action.

Facility Name: SCE Windhub Substation

Facility ID: FA0034742
CERS ID: 10198972

INSPECTION COMMENTS:

COMMENTS: Go to http://www.kernpublichealth.com/hazardous-materials for forms and information.



Inspector: GABRIEL RUBIO
Inspection Date: 09/14/2016

Signature of Facility Representative:

KERN COUNTY
Public Health Services
DEPARTMENT

MATTHEW CONSTANTINE
DIRECTOR

2700 M STREET, SUITE 300 BAKERSFIELD, CALIFORNIA 93301-2370 VOICE: 661-862-8740 FAX: 661-862-8701 KERNPUBLICHEALTH.COM

ENVIRONMENTAL HEALTH DIVISION
INSPECTION CONSENT AND ACKNOWLEDGEMENT CERTIFICATION

Facility Name: SCE - WINDHUB SUBSTATION Inspection Date: 9-14-16

Facility ID: FA 00 34742 CERS ID: 10198972

Consent: By signing this document, you are consenting to an inspection of the above referenced facility by the Kern County Public Health Services Department, Environmental Health Division, Certified Unified Program Agency (CUPA) for the county of Kern. The State of California has authorized the CUPA to conduct business facility inspections for compliance with the programs listed below. These inspections may include the inspection of all business areas on the property, the review and copying of records, the taking of photographs, and the taking of samples to evaluate compliance with CUPA requirements. The following Health and Safety Code (HSC) sections give the CUPA the authority to inspect:

- Hazardous Waste (Health & Safety Code [HSC § 25185, subd. (a)];
- California Accidental Release Prevention [HSC § 25534.5];
- Hazardous Materials Release Response Plans [HSC § 25508, subd. (a)];
- Underground Storage Tanks – [HSC § 25289]; and
- Aboveground Storage Tanks – [HSC § 25270.5, subd. (a)].

Alvaro Camas ALVARO CAMAS (FES) 9/14/16
Signature Facility Representative | Print Name and Title | Date Signed

☐ Declined to sign, verbal consent to inspect given. ☐ Inspection Refused

Acknowledgement of Method to Receive Inspection Report:

☒ E-mail to: alvaro.camas@sce.com ☐ Mail to: _____

☐ Fax to: _____

Gabriel Rubio GABRIEL RUBIO, WMT II 9-14-16
Signature Inspector | Print Name and Title | Date Signed

Printed on Recycled Paper

KERN COUNTY
Public Health Services
DEPARTMENT

ENVIRONMENTAL HEALTH DIVISION
CERTIFIED UNIFIED PROGRAM AGENCY (CUPA)

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DIRECTOR

2700 M STREET, SUITE 300 BAKERSFIELD, CALIFORNIA 93301-2370 VOICE: 661-862-8740 FAX: 661-862-8701 KERNPUBLICHEALTH.COM

HAZARDOUS MATERIALS BUSINESS PLAN (HMBP) INSPECTION REPORT

Facility Name: SCE Windhub Substation		**Facility ID:** FA0034742
Site Address: 8500 Oak Creek Rd Mojave, CA 93501		**CERS ID:** 10198972
Phone: (626) 302-1212	**Consent Granted By:** Al Camas, FES	**Inspection Date:** 09/14/2016
Inspection Type: ☒ Routine ☐ Reinspection	**Reinspection required:** ☐ Yes ☒ No	
Inspection Element: BUS PLAN LARGE LOW RISK 1 UNIT		

File/CERS Review Violations

V	Viol #	Summary	Code
	H335	Failure to adequately submit a complete HMBP into the California Environmental Reporting System (CERS)	HSC 6.95 25505, 25508(a)(1)
	H344	Failure to complete and submit the Business Activities page and/or Business Owner/Operator Identification page in CERS	HSC 6.95 25508(a)(1); 19 CCR 4 2729.2(a)(1);
	H342	Failure to complete and submit Hazardous Materials Inventory information for all hazardous materials at or above reportable quantities in CERS	HSC 6.95 25505(a)(1), 25506, 25508(a)(1)
	H341	Failure to annually review and electronically certify that the HMBP is complete and accurate on or before the annual due date	HSC 6.95 25508(c), 25508.2
	H346	Failure to complete and submit Site Map with all required content in CERS	HSC 6.95 25505(a)(2), 25508(a)(1)
	H347	Failure to submit an adequate Emergency Response/Contingency plan in CERS	HSC 6.95 25505(a)(3), 25508(a)(1)
	H353	Failure to submit an adequate Employee Training Plan in CERS	HSC 6.95 25505(a)(4), 25508(a)(1)
	H340	Failure to notify property owner in writing that a HMBP is required	HSC 6.95 25505.1
	H336	Failure to provide property owner a copy of the HMBP upon request	HSC 6.95 25505.1

Onsite Inspection Violations

V	Viol #	Summary	Code
	H334	Failure to adequately establish and implement a HMBP	HSC 6.95 25507
	H345	Failure to revise HMBP in CERS within 30 days upon a change of information, inventory, address, ownership, or operation.	HSC 6.95 25508.1(a)-(f)
	H348	Failure to provide initial and annual safety training to all employees and/or failure to document and maintain training records for 3 years	HSC 6.95 25505(a)(4)
	H338	Failure to report a release or threatened release of a hazardous material to the CUPA and to California Office of Emergency Services	HSC 6.95 25510(a)
	H761	Failure to have the HMBP readily available to personnel of the business/facility	HSC 6.95 25505(c)

Inspector: GABRIEL RUBIO **Inspection Date:** 09/14/2016

CONDITIONAL EXEMPTIONS FROM REPORTING REQUIREMENTS

Agricultural handlers are conditionally exempt from electronically submitting Emergency Response and Employee Training Plans in CERS if the following requirements are met:

- Owner/Operator annually submits the Facility Information and Hazardous Materials Inventory electronically into CERS
- Each location/building, where hazardous materials (i.e. pesticides, petroleum products, fertilizers, etc.) are stored, is posted with warning signs that meet the following requirements:
  - Shall be conspicuous and visible from any direction of probable approach
  - Shall be of such size that it is readable from 25 feet and shall be labeled as follows:

> DANGER HAZARDOUS MATERIAL STORAGE AREA
> (the hazardous materials stored within shall be noted by category
> [i.e. pesticides, petroleum products, fertilizers, etc.])
> ALL UNAUTHORIZED PERSONS-KEEP OUT - IN AN EMERGENCY, CONTACT:
> (list the name and phone number of an emergency contact person(s))

  - Shall be repeated in an appropriate language other than English when persons who do not understand the English language may enter the posted location/building
- Owner/Operator provides training for all new employees and annual training, including refresher courses, for all employees in safety

Exempt Facility Violations

V	Viol #	Summary	Code
	H760	Failure to submit Emergency Response/Contingency Plan in CERS when not meeting agricultural handler exemption requirements	HSC 6.95 25507.1, 25508(a)(1); 19 CCR 4 2733, 2734
	H758	Failure to submit Employee Training Plan in CERS when not meeting agricultural handler exemption requirements	HSC 6.95 25507.1, 25508(a)(1); 19 CCR 4 2733, 2734
	H759	Failure to establish and submit a HMBP in CERS when not meeting remote unstaffed facility exemption requirements	HSC 6.95 25505, 25506, 25507, 25507.2, 25508(a)(1)

SUMMARY OF OBSERVATIONS/VIOLATIONS

☒ **No violations of hazardous materials business plan laws/regulations were discovered. KERN CUPA greatly appreciates your efforts to comply with all the laws and regulations applicable to your facility.**

☐ **Violations were observed/discovered as listed below. ALL VIOLATIONS MUST BE CORRECTED WITHIN 30 DAYS OR AS SPECIFIED. CUPA must be informed in writing with a certification that compliance has been achieved. A false statement that compliance has been achieved is a violation of the law and punishable by a fine of not less than $2,000 or more than $25,000 for each violation. Your facility may be reinspected any time during normal business hours. If a second reinspection becomes necessary due to non compliance, a reinspection charge of $115.00 per hour may be charged to the facility.**

You may request a meeting with the Program Manager to discuss the inspection findings and/or the proposed corrective actions. The issuance of this Summary of Violations does not preclude the CUPA from taking administrative, civil, or criminal action.

INSPECTION COMMENTS:

COMMENTS: **Go to http://www.kernpublichealth.com/hazardous-materials for forms and information.**

Inspector: GABRIEL RUBIO **Signature of Facility Representative:**

Inspection Date: 09/14/2016

KERN COUNTY
Public Health Services
DEPARTMENT

ENVIRONMENTAL HEALTH DIVISION
CERTIFIED UNIFIED PROGRAM AGENCY (CUPA)

MATTHEW CONSTANTINE
DIRECTOR

2700 M STREET, SUITE 300 BAKERSFIELD, CALIFORNIA 93301-2370 VOICE: 661-862-8740 FAX: 661-862-8701 WWW. CO.KERN.CA.US/EH

HAZARDOUS MATERIALS BUSINESS PLAN INSPECTION REPORT

Facility Name: SO CAL EDISON - WINDHUB SUBSTATION		**Facility ID:** FA0034742
		File #: 001575
Site Address: 8500 OAK CREEK RD MOJAVE, CA 93501		**CERS ID:** 10198972
Phone: (661) 947-0333	**Consent Granted By:** Al Camas	**Inspection Date:** 09/09/2013
Inspection Type: ☒ Routine ☐ Reinspection	**Reinspection required:** ☐ Yes ☒ No	
Inspection Element: BUS PLAN LARGE LOW RISK 1 UNIT		

File/CERS Review Violations

V	Viol #	Summary	Code
	H335	FAILURE TO SUBMIT A HAZARDOUS MATERIALS BUSINESS PLAN	19 CCR 4 2729.2(a); HSC 6.95 25505(a)
	H344	FAILURE TO COMPLETE THE BUSINESS ACTIVITIES PAGE AND OR OWNER/OPERATOR IDENTIFICATION PAGE	19 CCR 4 2729.2(a)(1)
	H342	FAILURE TO COMPLETE/SUBMIT HAZARDOUS MATERIALS INVENTORY FORMS FOR ALL REPORTABLE HAZARDOUS MATERIALS	19 CCR 4 2729.2(a)(2); HSC 6.95 25504(a)
	H341	FAILURE TO COMPLETE THE HAZARDOUS MATERIALS INVENTORY RE-CERTIFICATION OR RE-SUBMITTAL	19 CCR 4 2729.4(b), 2729.5
	H337	FAILURE TO COMPLETE THE TRIENNUAL HAZARDOUS MATERIALS BUSINESS PLAN REVIEW AND RE-CERTIFICATION	HSC 6.95 25505(c)
	H346	INCOMPLETE ANNOTATED SITE MAP	19 CCR 4 2729.2(a)(3), HSC 25504
	H347	EMERGENCY RESPONSE PLAN AND PROCEDURES NOT INCLUDED OR NOT ADEQUATE	19 CCR 4 2731; HSC 6.95 25504(b)
	H353	TRAINING PROGRAM NOT INCLUDED OR IS NOT ADEQUATE	19 CCR 4 2732(a); HSC 6.95 25504(c)
	H340	PROPERTY OWNER WAS NOT NOTIFIED IN WRITING THAT A HAZARDOUS MATERIALS BUSINESS PLAN IS REQUIRED	HSC 6.95 25503.6
	H336	PROPERTY OWNER WAS NOT PROVIDED A COPY OF THE HAZARDOUS MATERIALS BUSINESS PLAN	HSC 6.95 25503.6

Onsite Inspection Violations

V	Viol #	Summary	Code
	H334	FAILURE TO ESTABLISH AND IMPLEMENT A HAZARDOUS MATERIALS BUSINESS PLAN	19 CCR 4 2729.1(a); HSC 6.95 25503.5(a)
	H343	FAILURE TO REVISE HAZARDOUS MATERIALS BUSINESS PLAN UPON A SUBSTANTIAL CHANGE	HSC 6.95 25505(b)
	H345	FAILURE TO UPDATE HAZARDOUS MATERIALS INVENTORY UPON A SIGNIFICANT CHANGE	19 CCR 4 2729.4(d); HSC 6.95 25505(b), 25510
	H348	TRAINING PROGRAM NOT IMPLEMENTED	19 CCR 4 2732(b); HSC 6.95 25504(c)
	H338	FAILURE TO REPORT A RELEASE OF A HAZARDOUS MATERIAL	19 CCR 4 2703; HSC 6.95 25507

Inspector: GABRIEL RUBIO **Inspection Date:** 09/09/2013

SUMMARY OF OBSERVATIONS/VIOLATIONS

☒ No violations of hazardous waste laws/regulations were discovered. KERN CUPA greatly appreciates your efforts to comply with all the laws and regulations applicable to your facility.

☐ Violations were observed/discovered as listed below. All violations must be corrected by implementing the corrective action listed by each violation. If you disagree with any of the violations or corrective actions required, please inform the CUPA in writing.

ALL VIOLATIONS MUST BE CORRECTED WITHIN 30 DAYS OR AS SPECIFIED. CUPA must be informed in writing with a certification that compliance has been achieved. A false statement that compliance has been achieved is a violation of the law and punishable by a fine of not less than $2,000 or more than $25,000 for each violation. Your facility may be reinspected any time during normal business hours. If a second reinspection becomes necessary due to non compliance, a reinspection charge of $100.00 per hour may be charged to the facility.

You may request a meeting with the Program Manager to discuss the inspection findings and/or the proposed corrective actions. The issuance of this Summary of Violations does not preclude the CUPA from taking administrative, civil, or criminal action.

Facility Name: SO CAL EDISON - WINDHUB SUBSTATION
Facility ID: FA0034742
File #: 001575

INSPECTION COMMENTS:

COMMENTS: Go to http://www.co.kern.ca.us/eh/ (Hazardous Materials) for forms and information.

Inspector: GABRIEL RUBIO

Inspection Date: 09/09/2013

Signature of Facility Representative:

ENVIRONMENTAL HEALTH
DIVISION

2700 M STREET, SUITE 300, BAKERSFIELD, CA 93301-2370
VOICE: (661) 862-8700 FAX: (661) 862-8701
Web: www.co.kern.ca.us/eh E-mail: eh@co.kern.ca.us
"ONE VOICE"

MATTHEW CONSTANTINE, DIRECTOR
PUBLIC HEALTH SERVICES

CLAUDIA JONAH, MD
PUBLIC HEALTH OFFICER

CERTIFIED UNIFIED PROGRAM AGENCY (CUPA)
HAZARDOUS MATERIAL INSPECTION FORM

Report Date: 09/15/2010 Facility ID: FA0034742 File #: 001575

Facility Name: SOUTHERN CAL EDISON - WINDHUB SUBSTATION	**Inspection Type**
Site Address: 8500 OAK CREEK RD MOJAVE, CA 93501	☒ Routine ☐ Reinspection ☐ Complaint
Phone: (661)947-0333	

PROGRAMS INSPECTED:	☒ Business Plan	☐ HW Generator	☐ UST	☐ APSA
REINSPECTION REQUIRED:	☐ Business Plan	☐ HW Generator	☐ UST	☐ APSA

VIOLATION	VIOLATION NUMBER	BUSINESS PLAN REQUIREMENTS
	BP01	Inventory of hazardous materials is accurate, up to date, and complete [HSC 6.95, 25504, Title 19 CCR 2729].
	BP02	Site layout/facility maps are accurate [HSC 6.95,25504; Title 19 CCR 2729].
	BP03	Hazardous materials are stored in properly labeled and non-deteriorated containers [HSC 25124(b)(3)(A & B)].
	BP04	The hazardous materials inventory shall be submitted annually on or before March 1 [Title 19 CCR 2729.4(b)].
	ER01	Contingency Plan is complete, updated, and maintained on site [HSC 6.95, 25504;Title 19 CCR 2731 Title 22 CCR 66265.53-54].
	ER02	Facility is operated and maintained to prevent/mitigate fire, explosion, or release of hazardous material or waste which could threaten human health or the environment [Title 22 CCR 66265.31; Title 19 CCR 2731].
	ER03	Business has equipment required to, or appropriate for, safe handling of hazardous materials [Title 22 CCR 66265.32 & .34].
	TR01	Facility has a training program appropriate for the size and complexity of business and nature of hazardous materials handled [Title 19 CCR 2732; Title 22 CCR 66265.16].
	TR02	Training documentation is maintained on site for current personnel [Title 19 CCR 2732; Title 22 CCR 66265.16].

INSPECTOR: GREG MOORE **INSPECTION DATE:** 09/14/2010

FACILITY NAME: SOUTHERN CAL EDISON - WINDHUB SUBSTATION

ADDRESS: 8500 OAK CREEK RD MOJAVE, CA 93501

FA ID: FA0034742
FILE ID: 001575

SUMMARY OF OBSERVATIONS/VIOLATIONS

☒ **No violations of underground storage tank, hazardous materials, or hazardous waste laws/regulations were discovered. KERN CUPA greatly appreciates your efforts to comply with all the laws and regulations applicable to your facility.**

☐ **Violations were observed/discovered as listed below. All violations must be corrected by implementing the corrective action listed by each violation. If you disagree with any of the violations or corrective actions required, please inform the CUPA in writing.**

ALL VIOLATIONS MUST BE CORRECTED WITHIN 30 DAYS OR AS SPECIFIED. CUPA must be informed in writing with a certification that compliance has been achieved. A false statement that compliance has been achieved is a violation of the law and punishable by a fine of not less than $2,000 or more than $25,000 for each violation. Your facility may be reinspected any time during normal business hours. If a second reinspection becomes necessary due to non compliance, a reinspection charge of $100.00 per hour may be charged to the facility.

You may request a meeting with the Program Manager to discuss the inspection findings and/or the proposed corrective actions. The issuance of this Summary of Violations does not preclude the CUPA from taking administrative, civil, or criminal action.

VIOLATIONS

VIOLATION #	DEGREE OF VIOLATION	CORRECTIVE ACTION REQUIRED

INSPECTION COMMENTS:

COMMENTS: **Go to http://www.co.kern.ca.us/eh/cupaprogram.asp for forms and information.**

INSPECTOR: GREG MOORE
INSPECTION DATE: 09/14/2010

SIGNATURE OF FACILITY REP:

FA ID: FA0034742 **FACILITY NAME: SOUTHERN CAL EDISON - WINDHUB SUBSTATION** **FILE ID: 001575**

Certification: I certify under penalty of perjury that this facility has complied with the corrective actions listed on this inspection form.

_____ _____
Printed Name of Owner/Operator **Title**

_____ _____
Signature of Owner/Operator **Date**

KERN COUNTY DEPARTMENT OF PLANNING AND DEVELOPMENT SERVICES
BUILDING INSPECTION DIVISION
RANDALL L. ABBOTT, DIRECTOR

PERMIT APPLICATION

2700 M STREET
BAKERSFIELD, CA. 93301
PHONE (805) 861-2615

1 Job Address: LOCUST STREET	Insp. Area: 43	ZM: 214-B5	Map: 55587	Lot: 2	Block:
Assessor's Parcel No.: 346-062-0053-00					

2 Project Description Or Comments: M-H S/P & INSTALL — Permit # 33799

3 Permit Class (New/Add or Alter/Conversion/Remodel): NEW CONSTRUCTION

4 Property Owner(s) 1. HARRION SCOTT — 2.
Mailing Address: BOX 3 BOX 255 — City/State: ROSAMOND CA
Phone Number — Zip Code: 93560-0000

5 Architect/Engineer — License#
Mail Address — Phone#

6 Contractor's Name: OWNER — Hiring Licensed Contractor's (Y/N)
Mailing Address — City/State
Phone Number — Cont. St. Lic.#

Project Manager: SCOTT HARRION
7 Phone Number: 1-805-726-3885

ZONE CLASSIFICATION: A
APPROVED PER PLAN AS FOLLOWS: Installation of Mobile home + Site Prep w/ flood reviews as per Kris Cardoza

8 C.S.A. # — 9 School Dist. # 44

10 Comments: 0000000

11 Census Code # 112 — 12 Census Tract # 55.01

Con # Sub Code	Census Number Description	A/D/Y	A/D/Y PER BLDG.	BVD CODE	UNITS Per Bldg	BLDG.
M	MOBILE HOME INSTALLATION	A	528		1	1

E. Turner — By — 9/17/92 — Date

Ref. Case #

Total Area: 528 — Total Value/Yards

THE FOLLOWING PRELIMINARY FEES ARE SUBJECT TO CHANGE BEFORE PERMIT ISSUANCE:

	FEE	PAID
MOBILE HOME PERMIT FEES	162.00	Y
FLOOD FEES 141.1.214.6.1	180.00	Y
SCHOOL FEES	871.20	Y

*PARTIAL PAYMENT

	FEE	PAID
TOTAL FEES	1,213.20	
AMOUNT PAID	1,213.20	
BALANCE	.00	

Application Number: 33799
Application Date: 9/17/92
Issuance Date: 9/17/92
Activity Code: P
Activity Date: 9/17/92 MS-ID

CONSTRUCTION LENDING AGENCY

I hereby affirm that there is a construction lending agency for the performance of the work for which this permit is issued (Sec. 3097, Civ. C)

Lender's Name
Lender's Address

LICENSED CONTRACTOR DECLARATION

I hereby affirm that I am licensed under the provisions of Chapter 9, commencing with Section 7000 of Division 3 of the Business and Professions Code, and that my license is in full force and effect.

License Class — Lic. Number
Date — Contractor

OWNER-BUILDER DECLARATION

I hereby affirm that I am exempt from the Contractor's License Law for the following reason. (Sec. 7031.5, Business and Professions Code: Any city or county which requires a permit to construct, alter, improve, demolish, or repair any structure, prior to its issuance, also requires the applicant for such permit to file a signed statement that he is licensed pursuant to the provisions of the Contractor's License Law (Chapter 9 commencing with Section 7000 of Division 3 of the Business and Professions Code) or that he is exempt therefrom and the basis for the alleged exemption. Any violation of Section 7031.5 by any applicant for a permit subjects the applicant to a civil penalty of not more than five hundred dollars ($500).)

☒ I, as owner of the property, or my employees with wages as their sole compensation will do the work, and the structure is not intended or offered for sale. (Sec. 7044, Business and Professions Code: The Contractor's License Law does not apply to an owner of property who builds or improves thereon, and who does such work himself or through his own employees, provided that such improvements are not intended or offered for sale. If, however, the building or improvement is sold within one year of completion, the owner-builder will have the burden of proving that he did not build or improve for the purpose of sale.)

☐ I, as owner of the property, am exclusively contracting with licensed contractors to construct the project. (Sec. 7044, Business and Professions Code: The Contractor's License Law does not apply to an owner of property who builds or improves thereon, and who contracts for such projects with a person with a contractors license pursuant to the Contractor's License Law.)

☐ I am exempt under Sec. ____ B & P for this reason

Date 9/17/92 — X Scott Harrion

WORKERS' COMPENSATION DECLARATION

I hereby affirm that I have a certificate of consent to self-insure, or a certificate of Worker's Compensation Insurance, or a certified copy thereof (Sec. 3800, Lab C).

Policy No. — Company
☐ Certified copy is hereby furnished
☐ Certified copy is filed with the county Building Inspection Division
Date — Applicant

CERTIFICATE OF EXEMPTION FROM WORKERS' COMPENSATION INSURANCE

(This section needs to be completed if the permit is for one hundred dollars ($100) or more.)

I certify that in the performance of the work for which this permit is issued, I shall not employ any person in any manner so as to become subject to the Workers' Compensation Laws of California.

Date 9/17/92 — Applicant X Scott Harrion

NOTICE TO APPLICANT: If after making this Certificate of Exemption, you should become subject to the Workers' Compensation provisions of the Labor Code, you must forthwith comply with such provisions or this permit shall be deemed revoked.

I certify that I have read the application and state that the above information is correct. I agree to comply with all county ordinances and state laws relating to building construction, and hereby authorize representatives of the county to enter upon the above-mentioned property for inspection purposes.

X Scott Harrion
(Signature of Applicant or Agent) — Date

OCC. MH	TYPE CONST.	
STRUCT.	PLMBG.	MECH.
ELECT.	GRADING	ENERGY
Released By: Evelyn Turner	Release Date: 9/17/92	

Planning & Devel. 560 2625 175 (Rev. 3/89)

KERN COUNTY BID INSPECTION LOG

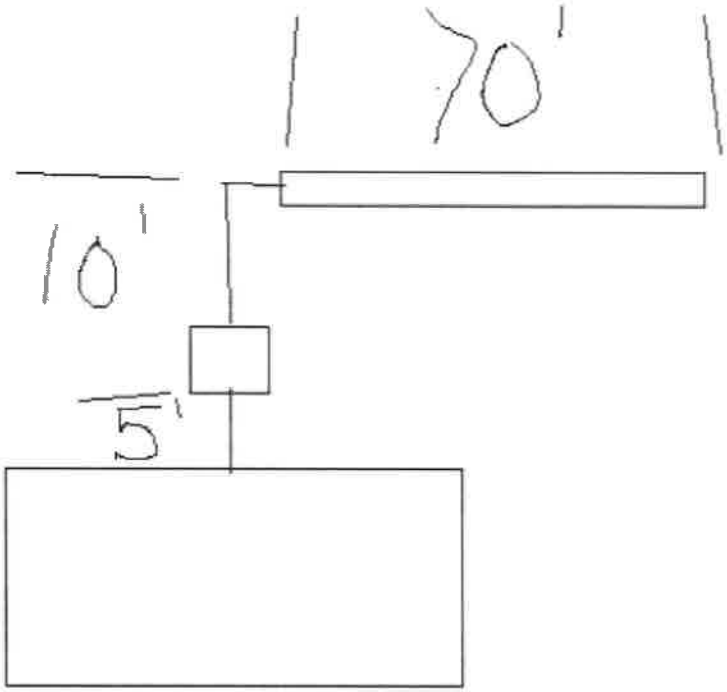
Notice To Comply for Permit: K200605827

Project Address:	11354 115TH ST WEST, ROSAMOND, CA	**PERMIT NO:**	**K200605827**
Project Parcel:	474-083-060	Application Date:	Jun 14, 2006
Inspector Area:	43	Permit Issued Date:	Jun 14, 2006
Subtype:	Residential Mobile Home	Permit Status:	FINALED
Project Description:	INSTALL 1984, 3 BDRM M.H. ONTO PERM FOUNDATION SYSTEM.		

Inspection	Scheduled	Inspected	Inspector	Result
Piers & Seismic	6/19/2006	6/20/2006	Bill Ferrell	Approved
Foundation / Tie Downs	6/19/2006	6/20/2006	Bill Ferrell	Approved
Piers & Seismic	6/19/2006	6/20/2006	Bill Ferrell	Approved
Septic Tank	4/16/2007	4/16/2007	Bill Ferrell	Approved
Job Complete	4/16/2007	4/16/2007	Bill Ferrell	Approved
Final - Zoning	4/16/2007	4/16/2007	Bill Ferrell	Approved
Final - Structural	4/16/2007	4/16/2007	Bill Ferrell	Approved
Electrical Continuity	4/16/2007	4/16/2007	Bill Ferrell	Approved

SEPTIC TANK DIAGRAM

N



SBAWDST finaled 10-26-89 8009 Oak 5481/2 Rock Rd.

KERN COUNTY DEPARTMENT OF PLANNING AND DEVELOPMENT SERVICES
BUILDING INSPECTION DIVISION
RANDALL L. ABBOTT, DIRECTOR

JOB CARD
CONSTRUCTION PERMIT

2700 M STREET
BAKERSFIELD, CA. 93301
PHONE (805) 861-2615

1 Job Address / Assessor's Parcel No.	8009 OAK CREEK RD 237-031-0004-00	Insp. Area 43	ZM 1-37	Map	Lot / Block

2 Project Description Or Comments: 220 KV TRANSMITION LINE-11 MILES — Permit # 54816-B
3 Permit Class (New/Add or Alter/Conversion/Remodel): NEW CONSTRUCTION

4 Property Owner(s) 1. SAGEBRUSH — 2.
Mailing Address: 655 W AVE J — City/State: LANCASTER — Zip Code: 93534-0000
Phone Number:

5 Architect/Engineer: PATRICK & HENDERSON — License # 25224
Mail Address — Phone #

6 Contractor's Name: UNKNOWN — Hiring Licensed Contractor's (Y/N)
Mailing Address — City/State
Phone Number — Cont. St. Lic.#

ZONE CLASSIFICATION: A 80
APPROVED PER PLAN AS FOLLOWS:
Transmission poles accessory to approved wind energy project per plot plan

Project Manager
7 Phone Number
8 C.S.A. #
9 School Dist. # 34
10 Comments: PROJECT TO KERN/LA BORDER
11 Census Code # 329
12 Census Tract # 60.00

Cen # Sub Code	Census Number Description	A/D/Y	A/D/Y PER BLDG.	BVD CODE	UNITS Per Bldg	BLDG.
0	OTHER REPORTABLE NON-BUILDINGS	$	3,536,000	1.1	1	1

Bob Poteet — By
10-26-89 — Date
Ref. Case #

Total Area | Total Value/Yards

THE FOLLOWING PRELIMINARY FEES ARE SUBJECT TO CHANGE BEFORE PERMIT ISSUANCE:

J. Rittle

	FEE	REC.#
BUILDING PERMIT FEES	13,763.41	
PLAN CHECK FEES	7,136.19	
MECHANICAL PERMIT FEES		
ELECTRICAL PERMIT FEES		
PLUMBING PERMIT FEES		
MOBILE HOME PERMIT FEES		
SOLAR PERMIT FEES		
S.M.I.P. FEES	530.40	
ENERGY PLAN CHECK FEES		

J - 10/26/89

	FEE	REC.#
DRC SITE PLAN REVIEW		
TIME & MATERIAL		
APPLICATION ISSUANCE FEE		
ELEMENTARY SCHOOL FEES		
HIGH SCHOOL FEES		
NON-UBC FEES		
ADMINISTRATIVE		
HABITAT FEE		
TOTAL FEES	$ 21,430.00	
AMOUNT PAID	$ .00	
BALANCE	$ 21,430.00	

Application Number 5098
Application Date 6/26/89
Issuance Date
Activity Code A
Activity Date 6/26/89 MS-ID MA

REMARKS

Date

5486-B

COUNTY DEPARTMENT OF PLANNING & DEVELOPMENT SERVICES
BUILDING INSPECTION DIVISION
RANDALL L. ABBOTT, DIRECTOR

INSPECTION RECORD

POST CARD AT JOBSITE

BAKERSFIELD AREA INSPECTION REQUESTS ONLY
7 am - 5 pm 861-2158
After Hours 861-3321

2700 "M" Street, Bakersfield, California 93301-2499
Phone: 861-3615 Office Hours: 7:00 — 5:00

Arvin Office - 131 North "A" Street — Ph. 854-5308 Office Hours 8:00-9:00
Frazier Park Office - Fire Station — Ph. 245-1221 Office Hours 8:00-5:00
Isabella Office - County Building - 6329 Highway 178, Isabella 93240
Phone: 379-2531 — Office Hours: 8:00-5:00
Shafter Office - 336 Pacific Street — Ph. 746-3084 Office Hours 8:00-5:00
McFarland Office - 401 W. Kern — Ph. 792-3092 Office Hours 8:00-9:00
Taft Office - 315 Lincoln — Ph. 763-4622 Office Hours 8:00-9:00
Mojave Office - 1775 Hwy. 58 — Ph. 824-4631 Office Hours 8:00-5:00
Ridgecrest Office - 400 N. China Lake Blvd — Ph. 375-1564 Office Hours 8:00-5:00
Tehachapi Office - 125 E. "F" St., Rm. F — Ph. 822-6329 Office Hours 8:00-5:00

	Inspection	Date	Inspector
GROUND WORK	Grading		
	Set Backs		
	Underground Elec.		
	Underground Pits.		
	Underground Mech.		

COVER NO WORK UNTIL ABOVE HAS BEEN SIGNED

FOUNDATION	Foundation Reinforcements		
	Slab Mesh		
	Slab Membrane		
	Rebar for Grounding		

PLACE NO CONCRETE FOR FLOOR UNTIL ABOVE HAS BEEN SIGNED

FLOOR WALL ROOF FRAMING	Floor Joists		
	Floor Sheathing		
	Rough Electrical		
	Plumbing Top-out		
	Fire Sprinkler System		
	Shower Pan		
	Grease Trap		
	Roush Mechanical		
	Roof Sheathing		
	Structural		

COVER NO WORK UNTIL ABOVE HAS BEEN SIGNED

STUCCO PLASTER WALLBOARD SIDING	Roofing		
	Interior Lathing		
	Exterior Lathing / Siding		
	Dry Wall		
	Exterior Membrane		
	Wall Insulation		
	Attic Ventilation		

DO NOT PLASTER OR APPLY SIDING UNTIL ABOVE HAS BEEN SIGNED

SEWAGE DISPOSAL	First Inspection		
	Sewer Line		
	Septic Tank		
	Seepage Pit		
	Leach Field		

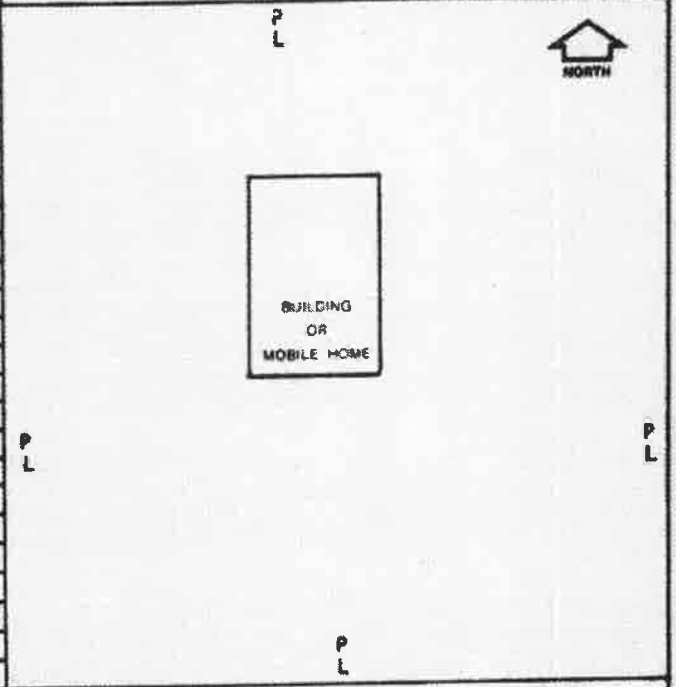
COVER NO WORK UNTIL ABOVE HAS BEEN SIGNED

MASONRY AND CONCRETE WALLS	Foundation Steel		
	Wall Reinforcing		
	Bond Beam		
	Fire Place Reinforcing		
	Fire Place		
	Wood Stove		

COVER NO WORK UNTIL ABOVE HAS BEEN SIGNED

SWIMMING POOL	Location		
	Steel		
	Conduit under deck		
	Recirculation piping		
	Electrical wiring		
	Gas line under deck		
	Fencing & Gates		

COVER NO WORK UNTIL ABOVE HAS BEEN SIGNED



	Date	Inspector
Temp Elec.		
Temp Gas		

PRE-FINAL APPROVALS

	Date	Inspector
Fire Department		
Health Department		
Road Department		
Grading		
Drainage		
Landscaping		
C.U.P. Requirements		
P.D. Requirements		

FINAL	Gas pressure test		
	Electrical final	10/27	Mc Dwight
	Plumbing final		
	Mechanical final		
*	Structural final	Per Stu Bone - D C Dunham 10-26-89	
	Energy final		
*	Zoning requirements	D C Dunham 10-26-89	
	Insulation requirements		
	Fire Requirements		
*	Job complete	Per Stu Bone - D C Dunham 10-26-89	

* PER STU BONE & MANNY WRIGHT - DCD

Planning & Development

KERN COUNTY DEPARTMENT OF PLANNING AND DEVELOPMENT SERVICES
BUILDING INSPECTION DIVISION
RANDALL L. ABBOTT, DIRECTOR

PERMIT APPLICATION

2700 M STREET
BAKERSFIELD, CA. 93301
PHONE (805) 861-2615

1 Job Address: 5089 OAK CREEK RD
Assessor's Parcel No.: 237-031-0004-00
Insp. Area: 41 | ZM: 1-97 | Map | Lot | Block

2 Project Description Or Comments: CONST ELECTRICAL SUBSTATION
3 Permit Class (New/Add or Alter/Conversion/Remodel): NEW CONSTRUCTION
Permit #: 54838-1

4 Property Owner(s): 1. RESIDUAL RANCH CORP / SEA WEST IND.
Mailing Address: 1455 FRAZEE RD
Phone Number:
City/State: SAN DIEGO CA
Zip Code: 92108-0000

5 Architect/Engineer: PATRICK A HENDERSON
Mail Address:
License: 25224
Phone #:

6 Contractor's Name: UNKNOWN
Mailing Address:
Phone Number:
Hiring Licensed Contractor's (Y/N):
City/State:
Cont. St. Lic.#:

Project Manager:
7 Phone Number:
ZONE CLASSIFICATION: A ST
APPROVED FOR PLAN OR TOWERS: Construction of electrical substation as accessory to allowed Energy facility.

8 C.S.A. #:
9 School Dist. #: 54
10 Comments: SEE 54836-1
11 Census Code #: 321
12 Census Tract #: 68.00

Can # Sub Code	Census Number Description	A/D/Y	A/D/Y PER BLDG.	BVD CODE	UNITS Per Bldg	BLDG.
0	OTHER REPORTABLE NON-BUILDINGS	$	1,850,000	1.1	1	1

By: Bob Poteet
Date: 10-6-89
Ref. Case #:

Total Area:
Total Value/Yards: 1,850,000

THE FOLLOWING PRELIMINARY FEES ARE SUBJECT TO CHANGE BEFORE PERMIT ISSUANCE:

	FEE	REC.#
BUILDING PERMIT FEES	5,845.50	
PLAN CHECK FEES	2,997.00	
MECHANICAL PERMIT FEES		
ELECTRICAL PERMIT FEES		
PLUMBING PERMIT FEES		
MOBILE HOME PERMIT FEES		
SOLAR PERMIT FEES		
S.M.I.P. FEES	157.50	
ENERGY PLAN CHECK FEES		

	FEE	REC.#
DEC SITE PLAN REVIEW		
TIME & MATERIAL		
APPLICATION ISSUANCE FEE		
ELEMENTARY SCHOOL FEES		
HIGH SCHOOL FEES		
NON-BDC FEES		
ADMINISTRATIVE		
HABITAT FEE		
TOTAL FEES	$ 9,000.00	
AMOUNT PAID	$ .00	
BALANCE	$ 9,000.00	

Application Number: 5120
Application Date: 5/27/89
Issuance Date:
Activity Code: A
Activity Date: 6/27/89 90-10-01

CONSTRUCTION LENDING AGENCY

I hereby affirm that there is a construction lending agency for the performance of the work for which this permit is issued (Sec. 3097, Civ. C).
Lender's Name:
Lender's Address:

LICENSED CONTRACTOR DECLARATION

I hereby affirm that I am licensed under the provisions of Chapter 9, commencing with Section 7000 of Division 3 of the Business and Professions Code, and that my license is in full force and effect.
License Class: Lic. Number:
Date: Contractor:

OWNER-BUILDER DECLARATION

I hereby affirm that I am exempt from the Contractor's License Law for the following reason (Sec. 7031.5, Business and Professions Code: Any city or county which requires a permit to construct, alter, improve, demolish, or repair any structure, prior to its issuance, also requires the applicant for such permit to file a signed statement that he (or she) is licensed pursuant to the provisions of the Contractor's License Law (Chapter 9, commencing with Section 7000 of Division 3 of the Business and Professions Code) or that he is exempt therefrom and the basis for the alleged exemption. Any violation of Section 7031.5 by any applicant for a permit subjects the applicant to a civil penalty of not more than five hundred dollars ($500).):

☐ I, as owner of the property, or my employees with wages as their sole compensation will do the work, and the structure is not intended or offered for sale. (Sec. 7044, Business and Professions Code: The Contractor's License Law does not apply to an owner of property who builds or improves thereon, and who does such work himself or through his own employees, provided that such improvements are not intended or offered for sale. If, however, the building or improvement is sold within one year of completion, the owner-builder will have the burden of proving that he did not build or improve for the purpose of sale.)

☐ I, as owner of the property, am exclusively contracting with licensed contractors to construct the project. (Sec. 7044, Business and Professions Code: The Contractor's License Law does not apply to an owner of property who builds or improves thereon, and who contracts for such projects with a person who is licensed pursuant to the Contractor's License Law.)

☐ I am exempt under Sec. B & P.C. for this reason:

Date: 6-27-89

WORKERS' COMPENSATION DECLARATION

I hereby affirm that I have a certificate of consent to self-insure, or a certificate of Worker's Compensation Insurance, or a certified copy thereof (Sec. 3800, Lab. C).
Policy No.: Company:
☐ Certificate copy is hereby furnished
☐ Certified copy is filed with the county Building Inspection Division
Date: Applicant:

CERTIFICATE OF EXEMPTION FROM WORKERS' COMPENSATION INSURANCE

(This section needs to be completed if the permit is for one hundred dollars ($100) or more.)
I certify that in the performance of the work for which this permit is issued, I shall not employ any person in any manner so as to become subject to the Workers' Compensation Laws of California.
Date: 6-27-89 Applicant:

NOTICE TO APPLICANT: If, after making this Certificate of Exemption, you should become subject to the Workers' Compensation provisions of the Labor Code, you must forthwith comply with such provisions or this permit shall be deemed revoked.

I certify that I have read the application and state that the above information is correct. I agree to comply with all county ordinances and state laws relating to building construction, and hereby authorize representatives of the county to enter upon the above-mentioned property for inspection purposes.

Signature of Applicant or Agent: 6-27-89
Date

OCC.	TYPE CONST.		
STRUCT.	PLMBG. N/A	MECH.	
ELECT.	GRADING	ENERGY	
Released By		Release Date 10/6/89	

Planning & Devel. 580/2625 170 (Rev. 3/89)

SEC. 17

KERN COUNTY DEPARTMENT OF PLANNING AND DEVELOPMENT SERVICES
BUILDING INSPECTION DIVISION
RANDALL L. ABBOTT, DIRECTOR

JOB CARD
CONSTRUCTION PERMIT

2700 M STREET
BAKERSFIELD, CA. 93301
PHONE (805) 861-2615

1 Job Address: 9000 OLD CORRAL RD	Insp. Area: 83	ZM: 197-00	Map	Lot / Block
Assessor's Parcel No. 237-031-0001-00				

2 Project Description Or Comments: CONDO ELECTRICAL SUBSTATION — Permit # 50890-97
3 Permit Class (New/Add or Alter/Conversion/Remodel): NEW CONSTRUCTION

4 Property Owner(s): T. SHERBURNE — SEA WEST IND.
Mailing Address: 669 E AVE J — 2. City/State: LANCASTER
Phone Number — Zip Code: 93535-7906

5 Architect/Engineer: PATRICK G SHERBURNE — License: 25226
Mail Address — Phone

6 Contractor's Name: UNKNOWN — Hiring Licensed Contractor's (Y/N):
Mailing Address — City/State
Phone Number — Const. Type

7 Project Manager — Phone Number

8 C.S.A. # — 9 School Dist. #: 34

10 Comments: REV. 50816-2 — 90540388

11 Census Code # 320 — 12 Census Tract #: 68.00

Construction of Electrical Substation as per plans by Patrick Sherburne

Con # Sub Code	Census Number Description	A/D/Y	A/D/Y PER BLDG.	BVD CODE	UNITS Per Bldg	BLDG.
0	OTHER REPORTABLE NON-BUILDINGS	$	1,050,000	1.1	1	1

Plan/Site Sheet 10/6/87
Plan — Date
Ref. Case #

Total Area — Total Value/Yards: 1,050,000

THE FOLLOWING PRELIMINARY FEES ARE SUBJECT TO CHANGE BEFORE PERMIT ISSUANCE:

	FEE	REC.#
BUILDING PERMIT FEES	5,845.50	54833
PLAN CHECK FEES	2,997.00	54859
MECHANICAL PERMIT FEES		
ELECTRICAL PERMIT FEES		
PLUMBING PERMIT FEES		
MOBILE HOME PERMIT FEES		
SOLAR PERMIT FEES		
S.M.I.P. FEES	197.50	54836
SURVEY PLAN CHECK FEES		

	FEE	REC.#
DOC SITE PLAN REVIEW		
TIME & MATERIAL		
APPLICATION ISSUANCE FEE		
SCHOOL FEES		
STATE FEES		
NON-DOC FEES		
ARCHEOLOGRAPHIC		
HABITAT FEE		
TOTAL FEES	$	9,000.00
AMOUNT PAID	$	9,000.00
BALANCE	$	.00

Application Number: 5128
Application Date: 6/23/88
Issuance Date: 10/06/88
Activity Code: P
Activity Date: 10/06/88

REMARKS

Date

5483B

COUNTY DEPARTMENT OF PLANNING & DEVELOPMENT SERVICES
BUILDING INSPECTION DIVISION
RANDALL L. ABBOTT, DIRECTOR

INSPECTION RECORD

POST CARD AT JOBSITE

BAKERSFIELD AREA INSPECTION REQUESTS ONLY
7 am - 5 pm 861-2150
After Hours 861-2221

	Inspection	Date	Inspector
GROUND WORK	Grading		
	Set Backs		
	Underground Elec.		
	Underground Plb.		
	Underground Mech.		
COVER NO WORK UNTIL ABOVE HAS BEEN SIGNED			
FOUNDATION	Foundation Reinforcement		
	Slab Work		
	Slab Membrane		
	Holes for Grounding		
PLACE NO CONCRETE FOR FLOOR UNTIL ABOVE HAS BEEN SIGNED			
FLOOR WALL ROOF FRAMING	Floor Joists		
	Floor Sheathing		
	Roofs Sheathed		
	Plumbing Tested		
	Fire Sprinkler System		
	Shower Pan		
	Piping Tests		
	Roofs Membrane		
	Roof Sheeting		
	Structural		
COVER NO WORK UNTIL ABOVE HAS BEEN SIGNED			
STUCCO PLASTER WALLBOARD SIDING	Roofing		
	Interior Lathing		
	Exterior Lathing / Siding		
	Dry Wall		
	Exterior Membrane		
	Wall Insulation		
	Attic Ventilation		
DO NOT PLASTER OR APPLY SIDING UNTIL ABOVE HAS BEEN SIGNED			
SEWAGE DISPOSAL	First Inspection		
	Sewer Line		
	Septic Tank		
	Seepage Pit		
	Leach Field		
COVER NO WORK UNTIL ABOVE HAS BEEN SIGNED			
MASONRY AND CONCRETE WALLS	Foundation Steel		
	Wall Reinforcing		
	Bond Beam		
	Fire Place Reinforcing		
	Fire Place		
	Wood Stove		
COVER NO WORK UNTIL ABOVE HAS BEEN SIGNED			
SWIMMING POOL	Location		
	Steel		
	Conduit under deck		
	Recirculation piping		
	Electrical wiring		
	Gas line under deck		
	Fencing & Gates		
COVER NO WORK UNTIL ABOVE HAS BEEN SIGNED			

5720 "B" Street, Bakersfield, California 93301-2370
Phone: 861-2150 Office Hours: 7:30 – 5:30

Arvin Office - 131 North "A" Street — Ph. 854-2588 Office Hours 8:00-5:00
Frazier Park Office - Fire Station — Ph. 245-1231 Office Hours 8:00-5:00
Isabella Office - County Building - 6680 Highway 178, Isabella 93240
Phone: 379-2251 — Office Hours 8:00-5:00
Shafter Office - 336 Pacific Street — Ph. 746-3064 Office Hours 8:00-5:00
McFarland Office - 401 W. Kern — Ph. 792-3703 Office Hours 8:00-5:00
Taft Office - 315 Lincoln — Ph. 765-4203 Office Hours 8:00-5:00
Mojave Office - 1775 Hwy. 58 — Ph. 824-4991 Office Hours 8:00-5:00
Ridgecrest Office - 400 N. China Lake Blvd. — Ph. 375-3564 Office Hours 8:00-5:00
Tehachapi Office - 125 E. "F" St., Rm. 7 — Ph. 822-8220 Office Hours 8:00-5:00

P L

NORTH

BUILDING OR MOBILE HOME

P L

P L

	Date	Inspector
Temp Elec.		
Temp Gas		

FIRE FINAL APPROVALS

	Date	Inspector
Fire Department		
Health Department		
Road Department		
Grading		
Drainage		
Landscaping		
C.U.P. Requirements		
P.D. Requirements		

FINAL	Gas pressure test		
	Electrical final	FIRE PANEL OK 10-10-95	
	Plumbing final		
	Mechanical final		
	Structural final	10-13-95 SAT	
	Energy final		
	Zoning requirements	SATISFACTORY	
	Insulation requirements		
	Fire Requirements		
	Job complete	10-13-95 SAT FINAL APPR	

KERN COUNTY DEPARTMENT OF PLANNING AND DEVELOPMENT SERVICES
BUILDING INSPECTION DIVISION
RANDALL L. ABBOTT, DIRECTOR

PERMIT APPLICATION

2700 M STREET
BAKERSFIELD, CA. 93301
PHONE (805) 861-2615

1 Job Address	9009 OAK CREEK RD	Insp. Area	ZM	Map	Lot
Assessor's Parcel No.	237-031-0004-00	41	1-97		Block

2 Project Description Or Comments: 10'X 40' COMM COACH INSTALL — Permit # 55358-B
3 Permit Class (New/Add or Alter/Conversion/Remodel): NEW CONSTRUCTION

55358B

4 Property Owner(s) 1. SAGEBRUSH — 2.
Mailing Address: 665 W AVE I / OAK CREEK ENERGY P.O. BOX 469
Phone Number: / TEHACHAPI, CA
City/State: LANCASTER
Zip Code: 93534-0000 — 93561

5 Architect/Engineer: VNI SERVICES — Licensee
Mail Address — Phone #

6 Contractor's Name: OWNER — Hiring Licensed Contractor's (Y/N)
Mailing Address — City/State
Phone Number — Cont. St. Lic.#

Project Manager: VNI SERVICES
7 Phone Number: 1-805-397-3858

ZONE CLASSIFICATION APPROVED PER PLAN AS FOLLOWS: 1-97 Comm. Coach for temp. office for existing wind park operations per plot plan

8 C.S.A. #
9 School Dist. # 34
10 Comments: TEHA COMET TRAILER
11 Census Code # 328
12 Census Tract # 58.00

Com # Sub Code	Census Number Description	A/D/Y	A/D/Y PER BLDG.	BVD CODE	UNITS Per Bldg	BLDG.
C	ACCESSORY BUILD. COMMERCIAL	$	3,500	1.1	1	1

C. Cardoph — By — 7-26-89 — Date
Ref. Case #

Total Area: — Total Value/Yards: 3,500

THE FOLLOWING PRELIMINARY FEES ARE SUBJECT TO CHANGE BEFORE PERMIT ISSUANCE:

	FEE	REC.#
BUILDING PERMIT FEES	27.50	55358
PLAN CHECK FEES	13.75	55358
MECHANICAL PERMIT FEES		
ELECTRICAL PERMIT FEES	9.00	55358
PLUMBING PERMIT FEES		
MOBILE HOME PERMIT FEES		
SOLAR PERMIT FEES		
S.M.I.P. FEES	.50	55358
ENERGY PLAN CHECK FEES		

	FEE	REC.#
DHC SITE PLAN REVIEW		
TIME & MATERIAL		
APPLICATION ISSUANCE FEE	22.00	55358
ELEMENTARY SCHOOL FEES	104.00	55358
HIGH SCHOOL FEES		
NON-URC FEES		
ADMINISTRATIVE		
HABITAT FEE		
TOTAL FEES	$ 176.75	
AMOUNT PAID	$ 176.75	
BALANCE	$ .00	

Application Number: 5534
Application Date: 7/26/89
Issuance Date: 7/26/89
Activity Code: P
Activity Date: 7/26/89 AS-IS #1

CONSTRUCTION LENDING AGENCY

I hereby affirm that there is a construction lending agency for the performance of the work for which this permit is issued (Sec. 3097, Civ. C).
Lender's Name
Lender's Address

LICENSED CONTRACTOR DECLARATION

I hereby affirm that I am licensed under the provisions of Chapter 9, commencing with Section 7000 of Division 3 of the Business and Professions Code, and that my license is in full force and effect.
License Class — Lic. Number
Date — Contractor

OWNER-BUILDER DECLARATION

I hereby affirm that I am exempt from the Contractor's License Law for the following reason: (Sec. 7031.5, Business and Professions Code: Any city or county which requires a permit to construct, alter, improve, demolish, or repair any structure, prior to its issuance, also requires the applicant for such permit to file a signed statement that he is licensed pursuant to the provisions of the Contractor's License Law (Chapter 9, commencing with Section 7000 of Division 3 of the Business and Professions Code) or that he is exempt therefrom and the basis for the alleged exemption. Any violation of Section 7031.5 by any applicant for a permit subjects the applicant to a civil penalty of not more than five hundred dollars ($500).)

☐ I, as owner of the property, or my employees with wages as their sole compensation will do the work, and the structure is not intended or offered for sale. (Sec. 7044, Business and Professions Code: The Contractor's License Law does not apply to an owner of property who builds or improves thereon, and who does such work himself or through his own employees, provided that such improvements are not intended or offered for sale. If, however, the building or improvement is sold within one year of completion, the owner-builder will have the burden of proving that he did not build or improve for the purpose of sale.)

☐ I, as owner of the property, am exclusively contracting with licensed contractors to construct the project. (Sec. 7044, Business and Professions Code: The Contractor's License Law does not apply to an owner of property who builds or improves thereon, and who contracts for such projects with a person with a contractor's license pursuant to the Contractor's License Law.)

☐ I am exempt under Sec. ____ B & P.C. for the following reason:

Date 7-26-89 Owner

WORKERS' COMPENSATION DECLARATION

I hereby affirm that I have a certificate of consent to self-insure, or a certificate of Worker's Compensation Insurance, or a certified copy thereof (Sec. 3800, Lab C).
Policy No. — Company
☐ Certified copy is hereby furnished
☐ Certified copy is filed with the county Building Inspection Division
Date — Applicant

CERTIFICATE OF EXEMPTION FROM WORKERS' COMPENSATION INSURANCE

(This section needs to be completed if the permit is for one hundred dollars ($100) or more.)
I certify that in the performance of the work for which this permit is issued, I shall not employ any person in any manner so as to become subject to the Workers' Compensation Laws of California.
Date 7-26-89 Applicant

NOTICE TO APPLICANT: If after making this Certificate of Exemption, you should become subject to the Workers' Compensation provisions of the Labor Code, you must forthwith comply with such provisions or this permit shall be deemed revoked.

I certify that I have read this application and state that the above information is correct. I agree to comply with all county ordinances and state laws relating to building construction, and hereby authorize representatives of the county to enter upon the above-mentioned property for inspection purposes.

Signature of Applicant or Agent — Date 7-26-89

OCC. B2	TYPE CONST. VB		
STRUCT.	PLMBG.	MECH.	
ELECT.	GRADING	ENERGY	
Released By	Release Date 7-26-89		

Planning & Devel. 960 3625 17B (Rev. 3/89)

55358B

KERN COUNTY DEPARTMENT OF ENGINEERING AND SURVEY SERVICES

BUILDING INSPECTION DIVISION

Facility Location: 2700 "M" Street, Suite 570, Bakersfield, Ca. 93301

SEPTEMBER 15, 1994 Telephone: (805) 861-2395 JOB COMPLETED 9/15/94

Oak Creek Energy
P.O.Box 469
Tehachapi CA 93561

cut

Certificate of Occupancy

Granted By
KERN COUNTY DEPARTMENT OF ENGINEERING AND SURVEY SERVICES
BUILDING INSPECTION DIVISION
2700 "M" STREET, SUITE 570, BAKERSFIELD, CALIFORNIA 93301

ADDRESS: 8009 Oak Creek Rd Teh DATE: September 15,94

LEGAL DESCRIPTION: 237-031-04 PERMIT NO: 55358B ZONE: A WE

This is to certify that the building or portion of building constructed under the above permit, at the above address complies with the provisions of the Building Code and related ordinances and laws in effect for the following use and occupancy group.

USE: Comm Coach OCCUPANCY GROUP: B DIVISION: 2

LARRY GARRATT, Chief Building Inspector

WILLIAM A. WILBANKS, P.E. Director
ENGINEERING AND SURVEY SERVICES

THIS CERTIFICATE MUST BE POSTED IN A CONSPICUOUS PLACE IN THE BUILDING AND MAY NOT BE REMOVED EXCEPT BY THE BUILDING OFFICIAL.

Plans for this building have been approved and inspections made to verify conformance with current building regulations. You are responsible for maintaining this building as certified.

NOTE: Make no change, additions or alterations of any structural, mechanical, plumbing or electrical without consulting the Building Division as this will void the Certificate of Occupancy.

Make no changes of use or occupancy without contacting the Building Division.

KERN COUNTY DEPARTMENT OF PLANNING AND DEVELOPMENT SERVICES
BUILDING INSPECTION DIVISION
RANDALL L. ABBOTT, DIRECTOR

JOB CARD
CONSTRUCTION PERMIT

2700 M STREET
BAKERSFIELD, CA. 93301
PHONE: (805) 861-2322

1 Job Address: [illegible] | Assessor's Parcel No. 237-031-0006-00 | Unit/Apt. [illegible] | Zip 93307 | Map | Lot | Block

2 Project Description Or Comments: 10'X 40' CONEX COACH INSTALL

3 Permit Class (New/Add or Alter/Conversion/Remodel): NEW CONSTRUCTION

Permit # [illegible] 55358

4 Property Owner(s) 1. SAGEBRUSH 2.
Mailing Address: 665 W AVE J
City/State: LANCASTER
Zip Code: 93534-8000
Phone Number:

CAL COMMERCIAL

5 Architect/Engineer: VRI SERVICES
Mail Address:
License
Phone

6 Contractor's Name: UNKNOWN
Mailing Address
Phone Number
Hiring Licensed Contractor's (Y/N)
City/State
Cont. St. Lic. #

Project Manager: VRI SERVICES
7 Phone Number: 1-805-397-3851

8 C.S.A. # | 9 School Dist. # 94

10 Comments: [illegible]

11 Census Code # 328 | 12 Census Tract # 69.00

Occ # Sub Code	Census Number Description	A/D/Y	A/D/Y PER BLDG.	BVD CODE	UNITS Per Bldg.	BLDG.
C	ACCESSORY BUILD. COMMERCIAL	S	1,500	1.1	1	1

By [illegible] Date
Ref. Case #

Total Area | Total Value/Yards 1,500

THE FOLLOWING PRELIMINARY FEES ARE SUBJECT TO CHANGE BEFORE PERMIT ISSUANCE:

	FEE	REC.#
BUILDING PERMIT FEES	27.50	55358
PLAN CHECK FEES	13.75	55358
MECHANICAL PERMIT FEES		
ELECTRICAL PERMIT FEES	9.00	55358
PLUMBING PERMIT FEES		
MOBILE HOME PERMIT FEES		
SOLAR PERMIT FEES		
S.M.I.P. FEES	.50	55358
ENERGY PLAN CHECK FEES		

	FEE	REC.#
SMC SIZE PLAN REVIEW		
TIME & MATERIAL		
APPLICATION ISSUANCE FEE	22.00	55358
ELEMENTARY SCHOOL FEES	104.00	55364
HIGH SCHOOL FEES		
NON-SMC FEES		
ADMINISTRATION		
HABITAT FEE		
TOTAL FEES	$	176.75
AMOUNT PAID	$	176.75
BALANCE	$	.00

Application Number 5534
Application Date 7/26/89 | Issuance Date 7/26/89 | Activity Code P | Activity Date 7/26/89 08:28 AM

REMARKS

Date

5535RB

COUNTY DEPARTMENT OF PLANNING & DEVELOPMENT SERVICES
BUILDING INSPECTION DIVISION
KENNETH L. ABBOTT, DIRECTOR

INSPECTION RECORD

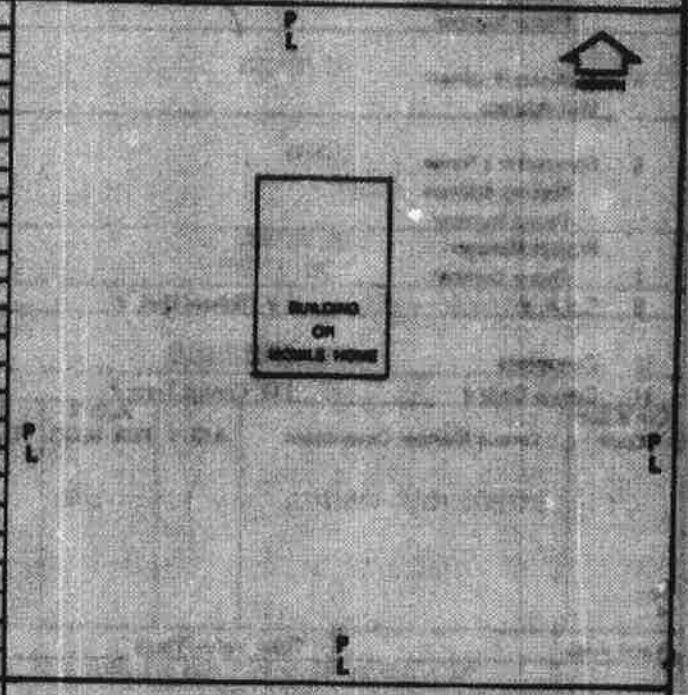
POST CARD AT JOBSITE

BAKERSFIELD AREA INSPECTION REQUESTS ONLY
7 am - 5 pm 861-2100
After Hours 861-2121

	Inspection	Date	Inspector
GRADING PERMIT	Grading		
	Soil Tests		
	Underground Elec.		
	Underground Plb.		
	Underground Mech.		
COVER NO WORK UNTIL ABOVE HAS BEEN SIGNED			
FOUNDATION	Foundation Reinforcement		
	Slab Work		
	Slab Moisture		
	Poles for Grounding		
PLACE NO CONCRETE FOR FLOOR UNTIL ABOVE HAS BEEN SIGNED			
FRAME, WALL, ROOF SHEATHING	Floor Joists		
	Floor Sheathing		
	Roof Sheathing		
	Electric Tenons		
	Gas Appliance Stubs		
	Heating Ducts		
	Water Lines		
	Sewer Connection		
	Roof Plumbing		
	Framing		
COVER NO WORK UNTIL ABOVE HAS BEEN SIGNED			
STUCCO, PLASTER, WALLBOARD, SIDING	Lathing		
	Interior Lathing		
	Exterior Lathing / Siding		
	Dry Wall		
	Exterior Plastering		
	Wall Insulation		
	Attic Ventilation		
DO NOT PLASTER OR APPLY SIDING UNTIL ABOVE HAS BEEN SIGNED			
SEWAGE DISPOSAL	First Inspection		
	Sewer Line		
	Septic Tank		
	Seepage Pit		
	Leach Field		
COVER NO WORK UNTIL ABOVE HAS BEEN SIGNED			
MASONRY AND CONCRETE WALLS	Foundation Steel		
	Wall Reinforcing		
	Sand Blast		
	Fire Place Reinforcing		
	Fire Place		
	Wood Stove		
COVER NO WORK UNTIL ABOVE HAS BEEN SIGNED			
SWIMMING POOL	Location		
	Steel		
	Conduit under deck		
	Reinforcing piping		
	Electrical wiring		
	Gas line under deck		
	Plaster & Tiles		
COVER NO WORK UNTIL ABOVE HAS BEEN SIGNED			

5700 "W" Street, Bakersfield, California 93301-2370
Phone: 861-2615 Office Hours: 7:30 — 5:30

Arvin Office - 121 North "A" Street Ph. 854-3301 Office Hours 8:00-5:00
Frazier Park Office - Fire Station Ph. 245-3691 Office Hours 8:00-5:00
Isabella Office - County Building - 3325 Highway 178, Isabella 93523
Phone: 379-3691 — Office Hours: 8:00-5:00
Shafter Office - 336 Pacific Street Ph. 746-3086 Office Hours 8:00-5:00
McFarland Office - 401 W. Kern Ph. 792-3081 Office Hours 8:00-5:00
Taft Office - 315 Lincoln Ph. 765-4202 Office Hours 8:00-5:00
Mojave Office - 1775 Hwy. 58 Ph. 824-4991 Office Hours 8:00-5:00
Ridgecrest Office - 400 N. China Lake Blvd. Ph. 375-4264 Office Hours 8:00-5:00
Tehachapi Office - 115 E. "F" St., Rm. F Ph. 822-4500 Office Hours 8:00-5:00



	Date	Inspector
Temp Elec.		
Temp Gas		

PRE-FINAL APPROVALS

	Date	Inspector
Fire Department		
Health Department		
Road Department		
Grading		
Drainage		
Landscaping		
C.U.P. Requirements		
P.O. Requirements		

		Date	Inspector
FINAL	Gas pressure test		
	Electrical final	8-1-97	S Blanco
	Plumbing final		
	Mechanical final		
	Structural final	8-1-97	S Blanco
	Energy final		
	Zoning requirements		
	Installation requirements		
	Fire Requirements		
	Job complete	8-1-97	S Blanco

Planning & Development 861-2615 Rev. 5/93

KERN COUNTY DEPARTMENT OF PLANNING AND DEVELOPMENT SERVICES
BUILDING INSPECTION DIVISION
RANDALL L. ABBOTT, DIRECTOR

PERMIT APPLICATION

2700 M STREET
BAKERSFIELD, CA. 93301
PHONE (805) 861-2615

Insp. Area	ZM	Map	Lot	Block
43	197-B8			

1 Job Address: 5985 OAK CREEK RD
Assessor's Parcel No. 337-031-0004-00

Permit # 14809

2 Project Description Or Comments: REPAIR KV BLOCK SUBSTATION
3 Permit Class (New/Add or Alter/Conversion/Remodel): NEW CONSTRUCTION

4 Property Owner(s) 1. EAGEBASE - SEAWEST
Mailing Address: 555 W AVE J
Phone Number:
2. City/State: LANCASTER
Zip Code: 93534-0000

5 Architect/Engineer: PATRICK & HENDERSON
Mail Address:
License#
Phone#: 25234

6 Contractor's Name: UNKNOWN
Mailing Address:
Phone Number:
Hiring Licensed Contractor's (Y/N)
City/State
Cont. St. Lic.#

Project Manager
7 Phone Number:
8 C.S.A.#
9 School Dist. # 34

ZONE CLASSIFICATION: 1 ME
APPROVED PER PLAN AS SHOWN: Expansion of existing substation per plot plan

10 Comments: REF 58416-8;58838-8
11 Census Code # 111
12 Census Tract # 48.00

Can # Sub Code	Census Number Description	A/D/Y	A/D/Y PER BLDG.	BVD CODE	UNITS Per Bldg	BLDG.
0	OTHER NONCATEGORIZED NON BUILDINGS	A	150,000	1.0	1	1

Total Area
Total Value/Yards 150,000

L Riddle 8/2/90
By Date

Ref. Case #

THE FOLLOWING PRELIMINARY FEES ARE SUBJECT TO CHANGE BEFORE PERMIT ISSUANCE:

	FEE	REC.#
BUILDING PERMIT FEES	1,206.00	
PLAN CHECK FEES	599.40	
MECHANICAL PERMIT FEES		
ELECTRICAL PERMIT FEES		
PLUMBING PERMIT FEES		
MOBILE HOME PERMIT FEES		
SPECIAL/MISC PERMIT FEES		
S.M.I.P. FEES		
ENERGY PLAN CHECK FEES		

	FEE	REC.#
DRC SITE PLAN REVIEW		
TIME & MATERIAL		
APPLICATION ISSUANCE FEE		
SCHOOL FEES		
STATE FEES		
NON-UBC FEES		
ADMINISTRATIVE		
HABITAT FEE		
CSA FEE		
TOTAL FEES	$ 1,806.00	
AMOUNT PAID	$ .00	
BALANCE	$ (1,806.00)	

Activity Code: L
Activity Date: 8/01/90 RS-ID A2

Application Number: 14809
Application Date: 8/01/90
Issuance Date

CONSTRUCTION LENDING AGENCY

I hereby affirm that there is a construction lending agency for the performance of the work for which this permit is issued (Sec. 3097, Civ. C).

Lender's Name
Lender's Address

LICENSED CONTRACTOR DECLARATION

I hereby affirm that I am licensed under the provisions of Chapter 9 commencing with Section 7000 of Division 3 of the Business and Professions Code, and that my license is in full force and effect.

License Class: Lic. Number:
Date: Contractor:

OWNER-BUILDER DECLARATION

I hereby affirm that I am exempt from the Contractor's License Law for the following reason: Sec. 7031.5, Business and Professions Code: Any city or county which requires a permit to construct, alter, improve, demolish, or repair any structure, prior to its issuance, also requires the applicant for such permit to file a signed statement that he is licensed pursuant to the provisions of the Contractor's License Law (Chapter 9 commencing with Section 7000) of Division 3 of the Business and Professions Code) or that he is exempt therefrom and the basis for the alleged exemption. Any violation of Section 7031.5 by any applicant for a permit subjects the applicant to a civil penalty of not more than five hundred dollars ($500):

☐ as owner of the property, or my employees with wages as their sole compensation, will do the work, and the structure is not intended or offered for sale. (Sec. 7044, Business and Professions Code: The Contractor's License Law does not apply to an owner of property who builds or improves thereon, and who does such work himself or through his own employees, provided that such improvements are not intended or offered for sale. If, however, the building or improvement is sold within one year of completion, the owner-builder will have the burden of proving that he did not build or improve for the purpose of sale.)

☐ as owner of the property, an employee with wages as his sole compensation, will do the work, and the structure is not intended or offered for sale. (Sec. 7044, Business and Professions Code: The Contractor's License Law does not apply to an owner of property who builds or improves thereon, and who does such work himself or through his own employees, provided that such improvements are not intended or offered for sale. If, however, a person employed by such owner has not built or improved the property more than once in a three-year period, the employee-builder will have the burden of proving that he did not build or improve for the purpose of sale.)

☐ as owner of the property, an employee with wages as his sole compensation, will do the work, and the structure is not intended or offered for sale. (Sec. 7044, Business and Professions Code: The Contractor's License Law does not apply to an owner of property who builds or improves thereon, and who does such work himself or through his own employees, provided that such improvements are not intended or offered for sale. If, however, a person employed by such owner has not built or improved the property more than once in a three-year period, the employee-builder will have the burden of proving that he did not build or improve for the purpose of sale.)

☐ as owner of the property, or my employees with wages as their

14901

COUNTY DEPARTMENT OF PLANNING & DEVELOPMENT SERVICES
BUILDING INSPECTION DIVISION
RANDALL L. ABBOTT, DIRECTOR

INSPECTION RECORD

POST CARD AT JOBSITE

BAKERSFIELD AREA INSPECTION REQUESTS ONLY
7 am - 5 pm 861-2158
After Hours 861-3321

2700 M Street, Bakersfield, California 93301-2370
Phone 861-2615 Office Hours 7:45 — 5:30

Arvin Office - 151 North "A" Street — Ph. 854-5395 Office Hours 8:00-5:00
Frazier Park Office - Fire Station — Ph. 245-1221 Office Hours 8:00-5:00
Isabella Office - County Building - 6329 Highway 178, Isabella 93240
Phone 379-2531 — Office Hours 8:00-5:00
Shafter Office - 336 Pacific Street — Ph. 746-3994 Office Hours 8:00-5:00
McFarland Office - 401 W. Kern — Ph. 792-3092 Office Hours 8:00-5:00
Taft Office - 315 Lincoln — Ph. 765-4822 Office Hours 8:00-5:00
Mojave Office - 1775 Hwy 58 — Ph. 824-4831 Office Hours 8:00-5:00
Ridgecrest Office - 400 N. China Lake Blvd. — Ph. 375-1564 Office Hours 8:00-5:00
Tehachapi Office - 125 E. "F" St. Rm. F — Ph. 822-8329 Office Hours 8:00-5:00

	Inspection	Date	Inspector
GROUND WORK	Grading		
	Set Backs		
	Underground Elec.		
	Underground Plb.		
	Underground Mech.		

COVER NO WORK UNTIL ABOVE HAS BEEN SIGNED

FOUNDATION	Foundation Reinforcements		
	Slab Mesh		
	Slab Membrane		
	Rebar for Grounding		

PLACE NO CONCRETE FOR FLOOR UNTIL ABOVE HAS BEEN SIGNED

FLOOR WALL ROOF FRAMING	Floor Joists		
	Floor Sheathing		
	Rough Electrical		
	Plumbing Top-out		
	Fire Sprinkler System		
	Shower Pan		
	Grease Trap		
	Rough Mechanical		
	Roof Sheathing		
	Structural		

COVER NO WORK UNTIL ABOVE HAS BEEN SIGNED

STUCCO PLASTER WALLBOARD SIDING	Roofing		
	Interior Lathing		
	Exterior Lathing / Siding		
	Dry Wall		
	Exterior Membrane		
	Wall Insulation		
	Attic Ventilation		

DO NOT PLASTER OR APPLY SIDING UNTIL ABOVE HAS BEEN SIGNED

SEWAGE DISPOSAL	First Inspection		
	Sewer Line		
	Septic Tank		
	Seepage Pit		
	Leach Field		

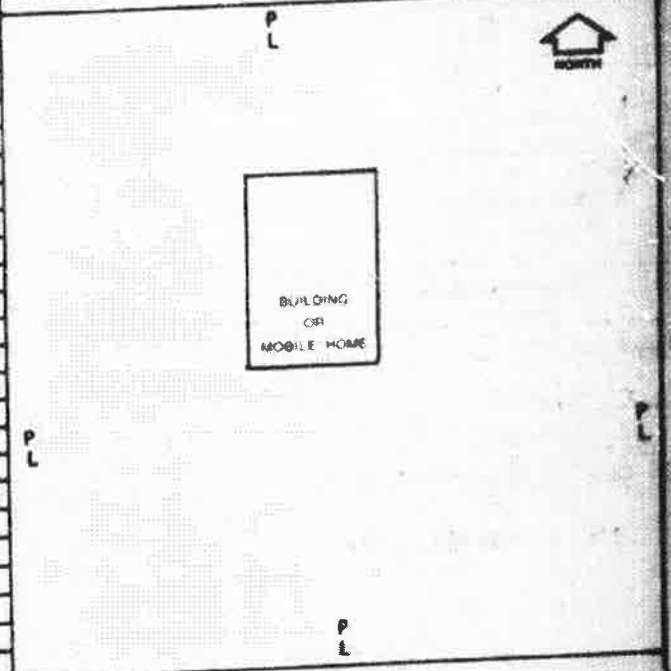
COVER NO WORK UNTIL ABOVE HAS BEEN SIGNED

MASONRY AND CONCRETE WALLS	Foundation Steel		
	Wall Reinforcing		
	Bond Beam		
	Fire Place Reinforcing		
	Fire Place		
	Wood Stove		

COVER NO WORK UNTIL ABOVE HAS BEEN SIGNED

SWIMMING POOL	Location		
	Steel		
	Conduit under deck		
	Recirculation piping		
	Electrical wiring		
	Gas line under deck		
	Fencing & Gates		

COVER NO WORK UNTIL ABOVE HAS BEEN SIGNED



	Date	Inspector
Temp Elec.		
Temp Gas		

PRE-FINAL APPROVALS

	Date	Inspector
Fire Department		
Health Department		
Road Department		
Grading		
Drainage		
Landscaping		
C.U.P. Requirements		
P.D. Requirements		

FINAL	Gas pressure test		
	Electrical final	12-27-90	[signature]
	Plumbing final		
	Mechanical final		
	Structural final	12-27-90	[signature]
	Energy final		
	Zoning requirements		
	Insulation requirements		
	Fire Requirements		
	Job complete	1/8/91	[signature]

Planning & Development Fees $10 due $10

KERN COUNTY DEPARTMENT OF PLANNING AND DEVELOPMENT SERVICES
BUILDING INSPECTION DIVISION
RANDALL L. ABBOTT, DIRECTOR

JOB CARD
CONSTRUCTION PERMIT

2700 M STREET
BAKERSFIELD, CA. 93301
PHONE (805) 861-2615

		Insp. Area	ZM	Map	Lot / Block
1	Job Address: 8005 OAK CREEK RD Assessor's Parcel No. 217-031-0004-00	43	197-00		

Permit # 14809

2 Project Description Or Comments: EXPAND EX ELECT SUBSTATION
3 Permit Class (New/Add or Alter/Conversion/Remodel): NEW CONSTRUCTION

4 Property Owner(s) 1. SAGEBRUSH
Mailing Address: 665 W AVE J
Phone Number:
2.
City/State: LANCASTER
Zip Code: 93534-0000

5 Architect/Engineer: PATRICK G HENDERSON
Mail Address:
License: 25226
Phone:

6 Contractor's Name: UNKNOWN
Mailing Address:
Phone Number:
Hiring Licensed Contractor's (Y/N)
City/State
Cont. St. Lic.#

Project Manager
7 Phone Number

ZONE CLASSIFICATION: A UR
APPROVED PER PLAN AS FOLLOWS: expand existing substation per plot plan

8 C.S.A. #
9 School Dist. # 94

10 Comments: REF 54816-B;54838-B

11 Census Code # 329
12 Census Tract # 60.00

Cen # Sub Code	Census Number Description	A/D/Y	A/D/Y PER BLDG.	BVD CODE	UNITS Per Bldg	BLDG.
0	OTHER REPORTABLE NON-BUILDINGS	$	150,000	1.1	1	1

By: JM/L.F Date: 8/2/90

Ref. Case #

Total Area
Total Value/Yards: 150,000

THE FOLLOWING PRELIMINARY FEES ARE SUBJECT TO CHANGE BEFORE PERMIT ISSUANCE:

	FEE	REC.#
BUILDING PERMIT FEES	1,200.60	14809
PLAN CHECK FEES	599.40	14809
MECHANICAL PERMIT FEES		
ELECTRICAL PERMIT FEES		
PLUMBING PERMIT FEES		
MOBILE HOME PERMIT FEES		
SPECIAL/MISC PERMIT FEES		
S.M.I.P. FEES		
ENERGY PLAN CHECK FEES		

	FEE	REC.#
DRC SITE PLAN REVIEW		
TIME & MATERIAL		
APPLICATION ISSUANCE FEE		
SCHOOL FEES		
STATE FEES		
NON-DSC FEES		
ADMINISTRATIVE		
HABITAT FEE		
CBA FEE		
TOTAL FEES	$ 1,800.00	
AMOUNT PAID	$ 1,800.00	
BALANCE	$ .00	

Application Number: 14809
Application Date: 8/01/90
Issuance Date: 8/02/90
Activity Code: P
Activity Date: 8/02/90 MS-ID AZ

REMARKS

Date

KERN COUNTY BID INSPECTION LOG

Notice To Comply for Permit: K201102167

Project Address:	8560 OAK CREEK RD, MOJAVE, CA	**PERMIT NO:**	**K201102167**
Project Parcel:	237-032-388	Application Date:	May 13, 2011
Inspector Area:	43	Permit Issued Date:	Jun 02, 2011
Subtype:	Commercial Alteration	Permit Status:	FINALED

Project Description: CONST FREESTANDING MEZZANINE W/SHELVING FOR STORAGE ONLY IINSIDE AND ACC TO EX BLDG

Inspection	Scheduled	Inspected	Inspector	Result
Job Complete	6/10/2011	6/13/2011	Bill Ferrell	Approved
Final - Structural	6/10/2011	6/13/2011	Bill Ferrell	Approved
Final - Electrical	6/10/2011	6/13/2011	Bill Ferrell	Approved

KERN COUNTY BID INSPECTION LOG

Notice To Comply for Permit: K201103481

Project Address:	10209 OAK CREEK RD, MOJAVE, CA	**PERMIT NO:**	**K201103481**
Project Parcel:	237-032-388	Application Date:	Jul 25, 2011
Inspector Area:	44	Permit Issued Date:	Jan 12, 2012
Subtype:	Commercial Miscellaneous	Permit Status:	FINALED
Project Description:	INSTALL ELEC TRANSMISSION LINE FOR BRODIE WIND FARM SECT 15 & CR		

Inspection	Scheduled	Inspected	Inspector	Result
Job Complete	5/1/2012	5/2/2012	Dave Burt	Approved
Final - Structural	5/1/2012	5/2/2012	Dave Burt	Approved

KERN COUNTY BID INSPECTION LOG

Notice To Comply for Permit: K201300774

Project Address:	8560 OAK CREEK RD, MOJAVE, CA	**PERMIT NO:**	**K201300774**
Project Parcel:	237-032-388	Application Date:	Feb 07, 2013
Inspector Area:	43	Permit Issued Date:	Feb 07, 2013
Subtype:	Residential Electrical	Permit Status:	FINALED
Project Description:	Temp Power Pole for existing trailers at Southern California Edison yard.		

Inspection	Scheduled	Inspected	Inspector	Result
Final - Electrical	2/7/2013	2/8/2013	Bill Ferrell	Approved
Job Complete	2/7/2013	2/8/2013	Bill Ferrell	Approved
Electric Release		2/8/2013	Bill Ferrell	Approved

KERN COUNTY BID INSPECTION LOG

Notice To Comply for Permit: K200706003

Project Address:	99999 OAK CREEK, ROSAMOND, CA	**PERMIT NO:**	**K200706003**
Project Parcel:	237-053-020	Application Date:	Jul 23, 2007
Inspector Area:	43	Permit Issued Date:	Jul 27, 2007
Subtype:	Commercial Miscellaneous	Permit Status:	FINALED
Project Description:	197 foot Met Tower		

Inspection	Scheduled	Inspected	Inspector	Result

KERN COUNTY BID INSPECTION LOG

Notice To Comply for Permit: K200706013

Project Address:	99999 OAK CREEK, ROSAMOND, CA	**PERMIT NO:**	**K200706013**
Project Parcel:	237-053-046	Application Date:	Jul 23, 2007
Inspector Area:	43	Permit Issued Date:	Jul 27, 2007
Subtype:	Commercial Miscellaneous	Permit Status:	FINALED
Project Description:	197 foot Met Tower STD PLAN #1146		

Inspection	Scheduled	Inspected	Inspector	Result

KERN COUNTY BID INSPECTION LOG

Notice To Comply for Permit: K201002400

Project Address:	999999 WILLOWSPRINGS RD, MOJAVE, CA	**PERMIT NO:**	**K201002400**
Project Parcel:	237-053-012	Application Date:	May 21, 2010
Inspector Area:	44	Permit Issued Date:	Jun 29, 2010
Subtype:	Commercial Grading Engineered	Permit Status:	FINALED
Project Description:	ENGINEERED GRADING - 17,475 CY - FOR PHASE 3 ALTA WIND ACCESS ROADS		

Inspection	Scheduled	Inspected	Inspector	Result
Rough Grading	7/8/2011	7/11/2011	Dave Burt	Approved
Job Complete	7/12/2011	7/12/2011	Dave Burt	Approved

KERN COUNTY BID INSPECTION LOG

Notice To Comply for Permit: K201304294

Project Address:	999999 90TH ST WEST, MOJAVE, CA	**PERMIT NO:**	**K201304294**
Project Parcel:	237-053-061	Application Date:	Jul 11, 2013
Inspector Area:	43	Permit Issued Date:	Aug 26, 2013
Subtype:	Commercial Miscellaneous	Permit Status:	FINALED
Project Description:	EXPAND ELECTRICAL SU6D FOR ALTA X		

Inspection	Scheduled	Inspected	Inspector	Result
Foundation - Pier/Posts 34 pier footings	9/24/2013	9/25/2013	Bill Ferrell	Approved
Foundation - Slab 2 pads breakers BRK1 & BRK2	9/30/2013	10/1/2013	Bill Ferrell	Approved
Foundation - Pier/Posts 6 pier footings	10/8/2013	10/9/2013	Bill Ferrell	Approved
Underground Electrical	10/10/2013	10/11/2013	Bill Ferrell	Approved
Job Complete	5/6/2014	5/6/2014	Bill Ferrell	Approved

KERN COUNTY BID INSPECTION LOG

Notice To Comply for Permit: K201003401

Project Address:	999999 OAK CREEK RD, MOJAVE, CA	**PERMIT NO:**	**K201003401**
Project Parcel:	237-032-024	Application Date:	Jul 21, 2010
Inspector Area:	43	Permit Issued Date:	Jul 23, 2010
Subtype:	Commercial Energy Wind	Permit Status:	FINALED
Project Description:	INSTALL 175 3MW WIND TURBINES PER SP 1219 - turbin # 170		

Inspection	Scheduled	Inspected	Inspector	Result
Foundation - Footings	7/26/2010	7/26/2010	Bill Ferrell	Approved
Foundation - Footings #171 PAD REBAR,GROUND AND BOLTS	7/26/2010	7/26/2010	Bill Ferrell	Approved
Foundation - Footings #170 PAD,FOOTING, BOLTS, GROUNDING AND CIVIL & ROUGH GRADING	7/27/2010	7/27/2010	Bill Ferrell	Approved
Foundation - Footings 170	7/27/2010	7/27/2010	Bill Ferrell	Approved
Foundation - Footings #169 pad,footing,bolts,grounding civil and soils engineer	7/27/2010	7/28/2010	Bill Ferrell	Approved
Foundation - Footings #169	7/27/2010	7/28/2010	Bill Ferrell	Approved
Foundation - Pier/Posts PEDESTAL #171	7/28/2010	7/29/2010	Bill Ferrell	Approved
Foundation - Footings # 168 " " " " "	7/28/2010	7/29/2010	Bill Ferrell	Approved
Foundation - Footings #168	7/28/2010	7/29/2010	Bill Ferrell	Approved
Foundation - Footings #167	7/29/2010	7/30/2010	Bill Ferrell	Approved
Foundation - Footings #167	7/29/2010	7/30/2010	Bill Ferrell	Approved
Foundation - Footings #167	7/29/2010	7/30/2010	Bill Ferrell	Approved
Foundation - Footings #167	7/29/2010	7/30/2010	Bill Ferrell	Approved
Foundation - Footings #166 & 165	7/30/2010	8/2/2010	Bill Ferrell	Approved
Foundation - Footings 166 & 165	7/30/2010	8/2/2010	Bill Ferrell	Approved
Foundation - Pier/Posts #170	7/30/2010	8/2/2010	Bill Ferrell	Approved
Foundation - Footings 163 & 164	8/2/2010	8/3/2010	Bill Ferrell	Approved
Foundation - Footings	8/2/2010	8/3/2010	Bill Ferrell	Approved

163 & 164				
Foundation - Pier/Posts # 169	8/2/2010	8/3/2010	Bill Ferrell	Approved
Foundation - Pier/Posts # 169	8/2/2010	8/3/2010	Bill Ferrell	Approved
Foundation - Footings # 163 & 164	8/2/2010	8/3/2010	Bill Ferrell	Approved
Foundation - Footings # 163 & 164	8/2/2010	8/3/2010	Bill Ferrell	Approved
Foundation - Footings 162	8/4/2010	8/4/2010	Bill Ferrell	Approved
Foundation - Footings 162	8/4/2010	8/4/2010	Bill Ferrell	Approved
Foundation - Pier/Posts # 168 ok. Rebar ok #166 & 167	8/4/2010	8/4/2010	Bill Ferrell	Approved
Foundation - Footings 161	8/5/2010	8/5/2010	Bill Ferrell	Approved
Foundation - Pier/Posts 165, 166 & 167	8/5/2010	8/5/2010	Bill Ferrell	Approved
Foundation - Footings 161	8/5/2010	8/5/2010	Bill Ferrell	Approved
Foundation - Footings 160	8/6/2010	8/6/2010	Bill Ferrell	Approved
Foundation - Pier/Posts 164	8/6/2010	8/6/2010	Bill Ferrell	Approved
Foundation - Footings 160	8/6/2010	8/6/2010	Bill Ferrell	Approved
Foundation - Footings 111 & 110	8/6/2010	8/9/2010	Bill Ferrell	Approved
Foundation - Footings 111 & 110	8/9/2010	8/9/2010	Bill Ferrell	Approved
Foundation - Footings 111 & 110	8/9/2010	8/9/2010	Bill Ferrell	Approved
Foundation - Footings 111 & 110	8/9/2010	8/9/2010	Bill Ferrell	Approved
Foundation - Footings 111 & 110	8/9/2010	8/9/2010	Bill Ferrell	Approved
Foundation - Pier/Posts 163 & 162	8/6/2010	8/9/2010	Bill Ferrell	Approved
Foundation - Pier/Posts 163 & 162	8/9/2010	8/9/2010	Bill Ferrell	Approved
Foundation - Pier/Posts 163 & 162	8/9/2010	8/9/2010	Bill Ferrell	Approved
Foundation - Pier/Posts 163 & 162	8/9/2010	8/9/2010	Bill Ferrell	Approved
Foundation - Pier/Posts 163 & 162	8/9/2010	8/9/2010	Bill Ferrell	Approved
Foundation - Footings 111 &110	8/6/2010	8/9/2010	Bill Ferrell	Approved
Foundation - Footings 111 &110	8/9/2010	8/9/2010	Bill Ferrell	Approved
Foundation - Footings	8/9/2010	8/9/2010	Bill Ferrell	Approved

111 &110				
Foundation - Footings 111 &110	8/9/2010	8/9/2010	Bill Ferrell	Approved
Foundation - Footings 111 &110	8/9/2010	8/9/2010	Bill Ferrell	Approved
Foundation - Pier/Posts 161 & 160	8/9/2010	8/10/2010	Bill Ferrell	Approved
Foundation - Pier/Posts 161 & 160	8/9/2010	8/10/2010	Bill Ferrell	Approved
Foundation - Pier/Posts 161 & 160	8/9/2010	8/10/2010	Bill Ferrell	Approved
Foundation - Pier/Posts 161 & 160	8/9/2010	8/10/2010	Bill Ferrell	Approved
Foundation - Footings 109 & 108 bottom of base	8/9/2010	8/10/2010	Bill Ferrell	Approved
Foundation - Footings 109 & 108 bottom of base	8/9/2010	8/10/2010	Bill Ferrell	Approved
Foundation - Footings 109 & 108 bottom of base	8/9/2010	8/10/2010	Bill Ferrell	Approved
Foundation - Footings 109 & 108 bottom of base	8/9/2010	8/10/2010	Bill Ferrell	Approved
Foundation - Footings 109 & 108 top of base	8/9/2010	8/10/2010	Bill Ferrell	Approved
Foundation - Footings 109 & 108 top of base	8/9/2010	8/10/2010	Bill Ferrell	Approved
Foundation - Footings 109 & 108 top of base	8/9/2010	8/10/2010	Bill Ferrell	Approved
Foundation - Footings 109 & 108 top of base	8/9/2010	8/10/2010	Bill Ferrell	Approved
Foundation - Footings 107 & 106	8/10/2010	8/11/2010	Bill Ferrell	Approved
Foundation - Footings 107 & 106	8/10/2010	8/11/2010	Bill Ferrell	Approved
Foundation - Footings 107 & 106	8/10/2010	8/11/2010	Bill Ferrell	Approved
Foundation - Footings 107 & 106	8/10/2010	8/11/2010	Bill Ferrell	Approved
Foundation - Footings 107 & 106	8/10/2010	8/11/2010	Bill Ferrell	Approved
Foundation - Footings 107 & 106	8/10/2010	8/11/2010	Bill Ferrell	Approved
Foundation - Footings 107 & 106	8/10/2010	8/11/2010	Bill Ferrell	Approved
Foundation - Footings 107 & 106	8/10/2010	8/11/2010	Bill Ferrell	Approved
Foundation - Pier/Posts 111 &110	8/10/2010	8/11/2010	Bill Ferrell	Approved
Foundation - Pier/Posts 111 &110	8/10/2010	8/11/2010	Bill Ferrell	Approved
Foundation - Pier/Posts 111 &110	8/10/2010	8/11/2010	Bill Ferrell	Approved
Foundation - Pier/Posts	8/10/2010	8/11/2010	Bill Ferrell	Approved

111 &110				
Foundation - Footings 104 &105	8/11/2010	8/12/2010	Bill Ferrell	Approved
Foundation - Footings 104 &105	8/11/2010	8/12/2010	Bill Ferrell	Approved
Foundation - Footings 104 &105	8/11/2010	8/12/2010	Bill Ferrell	Approved
Foundation - Footings 104 &105	8/11/2010	8/12/2010	Bill Ferrell	Approved
Foundation - Pier/Posts 108 & 109	8/11/2010	8/12/2010	Bill Ferrell	Approved
Foundation - Pier/Posts 108 & 109	8/11/2010	8/12/2010	Bill Ferrell	Approved
Foundation - Pier/Posts 108 & 109	8/11/2010	8/12/2010	Bill Ferrell	Approved
Foundation - Pier/Posts 108 & 109	8/11/2010	8/12/2010	Bill Ferrell	Approved
Foundation - Footings 104 & 105	8/11/2010	8/12/2010	Bill Ferrell	Approved
Foundation - Footings 104 & 105	8/11/2010	8/12/2010	Bill Ferrell	Approved
Foundation - Footings 104 & 105	8/11/2010	8/12/2010	Bill Ferrell	Approved
Foundation - Footings 104 & 105	8/11/2010	8/12/2010	Bill Ferrell	Approved
Address Verification	8/13/2010	8/13/2010	Bill Ferrell	Approved
Foundation - Pier/Posts 106 & 107	8/12/2010	8/16/2010	Bill Ferrell	Approved
Foundation - Pier/Posts 106 & 107	8/16/2010	8/16/2010	Bill Ferrell	Approved
Foundation - Pier/Posts 106 & 107	8/16/2010	8/16/2010	Bill Ferrell	Approved
Foundation - Pier/Posts 106 & 107	8/16/2010	8/16/2010	Bill Ferrell	Approved
Foundation - Footings 102 & 103	8/16/2010	8/16/2010	Bill Ferrell	Approved
Foundation - Footings 102 & 103	8/16/2010	8/16/2010	Bill Ferrell	Approved
Foundation - Footings 102 & 103	8/16/2010	8/16/2010	Bill Ferrell	Approved
Foundation - Footings 102 & 103	8/12/2010	8/16/2010	Bill Ferrell	Approved
Foundation - Footings 102 &103	8/16/2010	8/16/2010	Bill Ferrell	Approved
Foundation - Footings 102 &103	8/16/2010	8/16/2010	Bill Ferrell	Approved
Foundation - Footings 102 &103	8/16/2010	8/16/2010	Bill Ferrell	Approved
Foundation - Footings 102 &103	8/12/2010	8/16/2010	Bill Ferrell	Approved
Foundation - Footings 118 & 119	8/12/2010	8/17/2010	Bill Ferrell	Approved

Foundation - Footings 118 & 119	8/16/2010	8/17/2010	Bill Ferrell	Approved
Foundation - Footings 118 & 119	8/16/2010	8/17/2010	Bill Ferrell	Approved
Foundation - Footings 118 & 119	8/16/2010	8/17/2010	Bill Ferrell	Approved
Foundation - Footings 118 & 119	8/16/2010	8/17/2010	Bill Ferrell	Approved
Foundation - Footings 118 & 119	8/16/2010	8/17/2010	Bill Ferrell	Approved
Foundation - Footings 118 & 119	8/16/2010	8/17/2010	Bill Ferrell	Approved
Foundation - Footings 118 & 119	8/12/2010	8/17/2010	Bill Ferrell	Approved
Foundation - Pier/Posts 104 & 105	8/12/2010	8/17/2010	Bill Ferrell	Approved
Foundation - Pier/Posts 104 & 105	8/16/2010	8/17/2010	Bill Ferrell	Approved
Foundation - Pier/Posts 104 & 105	8/16/2010	8/17/2010	Bill Ferrell	Approved
Foundation - Pier/Posts 104 & 105	8/16/2010	8/17/2010	Bill Ferrell	Approved
Foundation - Pier/Posts 103	8/18/2010	8/18/2010	Bill Ferrell	Approved
Foundation - Pier/Posts 103	8/17/2010	8/18/2010	Bill Ferrell	Approved
Foundation - Pier/Posts 103	8/18/2010	8/18/2010	Bill Ferrell	Approved
Foundation - Pier/Posts 103	8/17/2010	8/18/2010	Bill Ferrell	Approved
Foundation - Footings 120	8/18/2010	8/18/2010	Bill Ferrell	Approved
Foundation - Footings 120	8/17/2010	8/18/2010	Bill Ferrell	Approved
Foundation - Footings 120	8/18/2010	8/18/2010	Bill Ferrell	Approved
Foundation - Footings 120	8/17/2010	8/18/2010	Bill Ferrell	Approved
Foundation - Footings 120	8/18/2010	8/18/2010	Bill Ferrell	Approved
Foundation - Footings 120	8/17/2010	8/18/2010	Bill Ferrell	Approved
Foundation - Footings 120	8/18/2010	8/18/2010	Bill Ferrell	Approved
Foundation - Footings 120	8/17/2010	8/18/2010	Bill Ferrell	Approved
Foundation - Pier/Posts 102	8/19/2010	8/19/2010	Bill Ferrell	Approved
Foundation - Footings 121 & 122	8/20/2010	8/20/2010	Kal Haglund	Approved
Foundation - Footings 121 & 122	8/20/2010	8/20/2010	Kal Haglund	Approved

Foundation - Pier/Posts Ped 118	8/20/2010	8/20/2010	Kal Haglund	Approved
Foundation - Pier/Posts Ped 118	8/20/2010	8/20/2010	Kal Haglund	Approved
Foundation - Footings 121 & 122	8/20/2010	8/20/2010	Kal Haglund	Approved
Foundation - Footings 121 & 122	8/20/2010	8/20/2010	Kal Haglund	Approved
Foundation - Pier/Posts ped 119, 120	8/23/2010	8/23/2010	Kal Haglund	Approved
Foundation - Pier/Posts ped 119, 120	8/23/2010	8/23/2010	Kal Haglund	Approved
Foundation - Footings base 123, 124	8/23/2010	8/23/2010	Kal Haglund	Approved
Foundation - Footings base 123, 124	8/23/2010	8/23/2010	Kal Haglund	Approved
Foundation - Footings 136 & 137	8/23/2010	8/24/2010	Bill Ferrell	Approved
Foundation - Pier/Posts 122 & 1121	8/23/2010	8/24/2010	Bill Ferrell	Approved
Foundation - Footings 136 & 137	8/23/2010	8/24/2010	Bill Ferrell	Approved
Foundation - Footings 138 & 139	8/24/2010	8/25/2010	Bill Ferrell	Approved
Foundation - Footings 138 & 139	8/25/2010	8/25/2010	Bill Ferrell	Approved
Foundation - Footings 138 & 139	8/25/2010	8/25/2010	Bill Ferrell	Approved
Foundation - Footings 138 & 139	8/25/2010	8/25/2010	Bill Ferrell	Approved
Foundation - Pier/Posts 123 & 124	8/24/2010	8/25/2010	Bill Ferrell	Approved
Foundation - Pier/Posts 123 & 124	8/25/2010	8/25/2010	Bill Ferrell	Approved
Foundation - Pier/Posts 123 & 124	8/25/2010	8/25/2010	Bill Ferrell	Approved
Foundation - Pier/Posts 123 & 124	8/25/2010	8/25/2010	Bill Ferrell	Approved
Foundation - Footings 138 & 139	8/24/2010	8/25/2010	Bill Ferrell	Approved
Foundation - Footings 138 & 139	8/25/2010	8/25/2010	Bill Ferrell	Approved
Foundation - Footings 138 & 139	8/25/2010	8/25/2010	Bill Ferrell	Approved
Foundation - Footings 138 & 139	8/25/2010	8/25/2010	Bill Ferrell	Approved
Foundation - Pier/Posts 136 & 137	8/25/2010	8/26/2010	Bill Ferrell	Approved
Foundation - Pier/Posts 136 & 137	8/26/2010	8/26/2010	Bill Ferrell	Approved
Foundation - Pier/Posts 136 & 137	8/26/2010	8/26/2010	Bill Ferrell	Approved

Foundation - Pier/Posts 136 & 137	8/26/2010	8/26/2010	Bill Ferrell	Approved
Foundation - Pier/Posts 138 & 139	8/27/2010	8/27/2010	Bill Ferrell	Approved
Foundation - Pier/Posts 138 & 139	8/27/2010	8/27/2010	Bill Ferrell	Approved
Foundation - Pier/Posts 145	8/31/2010	9/1/2010	Bill Ferrell	Approved
Foundation - Footings 145 inspected 8-30-10	8/31/2010	9/1/2010	Bill Ferrell	Approved
Foundation - Footings 145 inspected8-30-10	8/31/2010	9/1/2010	Bill Ferrell	Approved
Foundation - Footings 127 & 128	9/8/2010	9/9/2010	Bill Ferrell	Approved
Foundation - Footings 127 & 128	9/9/2010	9/9/2010	Bill Ferrell	Approved
Foundation - Footings 127 & 128	9/8/2010	9/9/2010	Bill Ferrell	Approved
Foundation - Footings 127 & 128	9/9/2010	9/9/2010	Bill Ferrell	Approved
Foundation - Pier/Posts 129 & 114	9/9/2010	9/10/2010	Bill Ferrell	Approved
Foundation - Pier/Posts 129 & 114	9/10/2010	9/10/2010	Bill Ferrell	Approved
Foundation - Footings 129 & 114	9/10/2010	9/10/2010	Bill Ferrell	Approved
Foundation - Footings 129 & 114	9/9/2010	9/10/2010	Bill Ferrell	Approved
Foundation - Footings 115 & 116	9/9/2010	9/13/2010	Bill Ferrell	Approved
Foundation - Footings 115 & 116	9/13/2010	9/13/2010	Bill Ferrell	Approved
Foundation - Footings 115 & 116	9/13/2010	9/13/2010	Bill Ferrell	Approved
Foundation - Footings 115 & 116	9/13/2010	9/13/2010	Bill Ferrell	Approved
Foundation - Pier/Posts 127 & 128	9/13/2010	9/13/2010	Bill Ferrell	Approved
Foundation - Pier/Posts 127 & 128	9/13/2010	9/13/2010	Bill Ferrell	Approved
Foundation - Pier/Posts 127 & 128	9/9/2010	9/13/2010	Bill Ferrell	Approved
Foundation - Pier/Posts 127 & 128	9/13/2010	9/13/2010	Bill Ferrell	Approved
Foundation - Footings 115 & 116	9/13/2010	9/13/2010	Bill Ferrell	Approved
Foundation - Footings 115 & 116	9/9/2010	9/13/2010	Bill Ferrell	Approved
Foundation - Footings 115 & 116	9/13/2010	9/13/2010	Bill Ferrell	Approved
Foundation - Footings 115 & 116	9/13/2010	9/13/2010	Bill Ferrell	Approved

Foundation - Pier/Posts 114 & 129	9/9/2010	9/14/2010	Bill Ferrell	Approved
Foundation - Pier/Posts 114 & 129	9/14/2010	9/14/2010	Bill Ferrell	Approved
Foundation - Pier/Posts 114 & 129	9/14/2010	9/14/2010	Bill Ferrell	Approved
Foundation - Pier/Posts 114 & 129	9/14/2010	9/14/2010	Bill Ferrell	Approved
Foundation - Footings 146 & 147	9/9/2010	9/14/2010	Bill Ferrell	Approved
Foundation - Footings 146 & 147	9/14/2010	9/14/2010	Bill Ferrell	Approved
Foundation - Footings 146 & 147	9/14/2010	9/14/2010	Bill Ferrell	Approved
Foundation - Footings 146 & 147	9/14/2010	9/14/2010	Bill Ferrell	Approved
Foundation - Footings 146 & 147	9/9/2010	9/14/2010	Bill Ferrell	Approved
Foundation - Footings 146 & 147	9/14/2010	9/14/2010	Bill Ferrell	Approved
Foundation - Footings 146 & 147	9/14/2010	9/14/2010	Bill Ferrell	Approved
Foundation - Footings 146 & 147	9/14/2010	9/14/2010	Bill Ferrell	Approved
Foundation - Footings 148 & 149	9/14/2010	9/15/2010	Bill Ferrell	Approved
Foundation - Footings 148 & 149	9/14/2010	9/15/2010	Bill Ferrell	Approved
Foundation - Footings 148 & 149	9/14/2010	9/15/2010	Bill Ferrell	Approved
Foundation - Footings 148 & 149	9/14/2010	9/15/2010	Bill Ferrell	Approved
Foundation - Footings 148 & 149	9/14/2010	9/15/2010	Bill Ferrell	Approved
Foundation - Footings 148 & 149	9/14/2010	9/15/2010	Bill Ferrell	Approved
Foundation - Footings 148 & 149	9/14/2010	9/15/2010	Bill Ferrell	Approved
Foundation - Footings 148 & 149	9/14/2010	9/15/2010	Bill Ferrell	Approved
Foundation - Pier/Posts 115 & 116	9/14/2010	9/15/2010	Bill Ferrell	Approved
Foundation - Pier/Posts 115 & 116	9/14/2010	9/15/2010	Bill Ferrell	Approved
Foundation - Pier/Posts 115 & 116	9/14/2010	9/15/2010	Bill Ferrell	Approved
Foundation - Pier/Posts 115 & 116	9/14/2010	9/15/2010	Bill Ferrell	Approved
Foundation - Pier/Posts 146 & 147	9/16/2010	9/16/2010	Bill Ferrell	Approved
Foundation - Pier/Posts 146 & 147	9/16/2010	9/16/2010	Bill Ferrell	Approved

Foundation - Pier/Posts 146 & 147	9/16/2010	9/16/2010	Bill Ferrell	Approved
Foundation - Pier/Posts 146 & 147	9/16/2010	9/16/2010	Bill Ferrell	Approved
Foundation - Pier/Posts 146 & 147	9/16/2010	9/16/2010	Bill Ferrell	Approved
Foundation - Footings 130 & 131	9/16/2010	9/16/2010	Bill Ferrell	Approved
Foundation - Footings 130 & 131	9/16/2010	9/16/2010	Bill Ferrell	Approved
Foundation - Footings 130 & 131	9/16/2010	9/16/2010	Bill Ferrell	Approved
Foundation - Footings 130 & 131	9/16/2010	9/16/2010	Bill Ferrell	Approved
Foundation - Footings 130 & 131	9/16/2010	9/16/2010	Bill Ferrell	Approved
Foundation - Footings 130 & 131	9/16/2010	9/16/2010	Bill Ferrell	Approved
Foundation - Footings 130 & 131	9/16/2010	9/16/2010	Bill Ferrell	Approved
Foundation - Footings 130 & 131	9/16/2010	9/16/2010	Bill Ferrell	Approved
Foundation - Footings 130 & 131	9/16/2010	9/16/2010	Bill Ferrell	Approved
Foundation - Footings 130 & 131	9/16/2010	9/16/2010	Bill Ferrell	Approved
Foundation - Footings 130 & 131	9/16/2010	9/16/2010	Bill Ferrell	Approved
Foundation - Footings 132 & 134 & 135	9/16/2010	9/17/2010	Bill Ferrell	Approved
Foundation - Footings 132 & 134 & 135	9/16/2010	9/17/2010	Bill Ferrell	Approved
Foundation - Footings 132 & 134 & 135	9/16/2010	9/17/2010	Bill Ferrell	Approved
Foundation - Footings 132 & 134 & 135	9/16/2010	9/17/2010	Bill Ferrell	Approved
Foundation - Footings 132 & 134 & 135	9/16/2010	9/17/2010	Bill Ferrell	Approved
Foundation - Footings 132 & 134 & 135	9/16/2010	9/17/2010	Bill Ferrell	Approved
Foundation - Footings 132 & 134 & 135	9/16/2010	9/17/2010	Bill Ferrell	Approved
Foundation - Footings 132 & 134 & 135	9/16/2010	9/17/2010	Bill Ferrell	Approved
Foundation - Pier/Posts 148 & 149	9/16/2010	9/17/2010	Bill Ferrell	Approved
Foundation - Pier/Posts 148 & 149	9/16/2010	9/17/2010	Bill Ferrell	Approved
Foundation - Pier/Posts 148 & 149	9/16/2010	9/17/2010	Bill Ferrell	Approved
Foundation - Pier/Posts 148 & 149	9/16/2010	9/17/2010	Bill Ferrell	Approved
Foundation - Footings 150	9/17/2010	9/20/2010	Bill Ferrell	Approved

Foundation - Footings 150	9/20/2010	9/20/2010	Bill Ferrell	Approved
Foundation - Footings 150	9/20/2010	9/20/2010	Bill Ferrell	Approved
Foundation - Footings 150	9/20/2010	9/20/2010	Bill Ferrell	Approved
Foundation - Pier/Posts 130 & 131	9/17/2010	9/20/2010	Bill Ferrell	Approved
Foundation - Pier/Posts 130 & 131	9/20/2010	9/20/2010	Bill Ferrell	Approved
Foundation - Pier/Posts 130 & 131	9/20/2010	9/20/2010	Bill Ferrell	Approved
Foundation - Pier/Posts 130 & 131	9/20/2010	9/20/2010	Bill Ferrell	Approved
Foundation - Footings 150	9/20/2010	9/20/2010	Bill Ferrell	Approved
Foundation - Footings 150	9/20/2010	9/20/2010	Bill Ferrell	Approved
Foundation - Footings 150	9/20/2010	9/20/2010	Bill Ferrell	Approved
Foundation - Footings 150	9/17/2010	9/20/2010	Bill Ferrell	Approved
Foundation - Footings 151 & 152	9/20/2010	9/21/2010	Bill Ferrell	Approved
Foundation - Footings 151 & 152	9/20/2010	9/21/2010	Bill Ferrell	Approved
Foundation - Footings 151 & 152	9/20/2010	9/21/2010	Bill Ferrell	Approved
Foundation - Footings 151 & 152	9/20/2010	9/21/2010	Bill Ferrell	Approved
Foundation - Footings 151 & 152	9/20/2010	9/21/2010	Bill Ferrell	Approved
Foundation - Footings 151 & 152	9/20/2010	9/21/2010	Bill Ferrell	Approved
Foundation - Footings 151 & 152	9/20/2010	9/21/2010	Bill Ferrell	Approved
Foundation - Footings 151 & 152	9/20/2010	9/21/2010	Bill Ferrell	Approved
Foundation - Pier/Posts 132 & 135	9/20/2010	9/21/2010	Bill Ferrell	Approved
Foundation - Pier/Posts 132 & 135	9/20/2010	9/21/2010	Bill Ferrell	Approved
Foundation - Pier/Posts 132 & 135	9/20/2010	9/21/2010	Bill Ferrell	Approved
Foundation - Footings 153 & 183	9/21/2010	9/22/2010	Bill Ferrell	Approved
Foundation - Footings 153 & 183	9/21/2010	9/22/2010	Bill Ferrell	Approved
Foundation - Footings 153 & 183	9/21/2010	9/22/2010	Bill Ferrell	Approved

Foundation - Footings 153 & 183	9/21/2010	9/22/2010	Bill Ferrell	Approved
Foundation - Pier/Posts 150 & 134	9/21/2010	9/22/2010	Bill Ferrell	Approved
Foundation - Pier/Posts 150 & 134	9/21/2010	9/22/2010	Bill Ferrell	Approved
Foundation - Pier/Posts 150 & 134	9/21/2010	9/22/2010	Bill Ferrell	Approved
Foundation - Pier/Posts 150 & 134	9/21/2010	9/22/2010	Bill Ferrell	Approved
Foundation - Footings 153 & 183	9/21/2010	9/22/2010	Bill Ferrell	Approved
Foundation - Footings 153 & 183	9/21/2010	9/22/2010	Bill Ferrell	Approved
Foundation - Footings 153 & 183	9/21/2010	9/22/2010	Bill Ferrell	Approved
Foundation - Footings 153 & 183	9/21/2010	9/22/2010	Bill Ferrell	Approved
Foundation - Footings 184 & 185	9/23/2010	9/23/2010	Bill Ferrell	Approved
Foundation - Footings 184 & 185	9/23/2010	9/23/2010	Bill Ferrell	Approved
Foundation - Footings 184 & 185	9/23/2010	9/23/2010	Bill Ferrell	Approved
Foundation - Footings 184 & 185	9/23/2010	9/23/2010	Bill Ferrell	Approved
Foundation - Footings 184 & 185	9/23/2010	9/23/2010	Bill Ferrell	Approved
Foundation - Footings 184 & 185	9/23/2010	9/23/2010	Bill Ferrell	Approved
Foundation - Footings 184 & 185	9/23/2010	9/23/2010	Bill Ferrell	Approved
Foundation - Footings 184 & 185	9/23/2010	9/23/2010	Bill Ferrell	Approved
Foundation - Footings 184 & 185	9/23/2010	9/23/2010	Bill Ferrell	Approved
Foundation - Footings 184 & 185	9/23/2010	9/23/2010	Bill Ferrell	Approved
Foundation - Footings 184 & 185	9/23/2010	9/23/2010	Bill Ferrell	Approved
Foundation - Footings 184 & 185	9/23/2010	9/23/2010	Bill Ferrell	Approved
Foundation - Footings 184 & 185	9/23/2010	9/23/2010	Bill Ferrell	Approved
Foundation - Footings 184 & 185	9/23/2010	9/23/2010	Bill Ferrell	Approved
Foundation - Footings 184 & 185	9/23/2010	9/23/2010	Bill Ferrell	Approved
Foundation - Footings 184 & 185	9/23/2010	9/23/2010	Bill Ferrell	Approved
Foundation - Footings 184 & 185	9/23/2010	9/23/2010	Bill Ferrell	Approved
Foundation - Footings 184 & 185	9/23/2010	9/23/2010	Bill Ferrell	Approved
Foundation - Pier/Posts 151 & 152	9/23/2010	9/23/2010	Bill Ferrell	Approved

Foundation - Pier/Posts 151 & 152	9/23/2010	9/23/2010	Bill Ferrell	Approved
Foundation - Pier/Posts 151 & 152	9/23/2010	9/23/2010	Bill Ferrell	Approved
Foundation - Pier/Posts 151 & 152	9/23/2010	9/23/2010	Bill Ferrell	Approved
Foundation - Pier/Posts 151 & 152	9/23/2010	9/23/2010	Bill Ferrell	Approved
Foundation - Pier/Posts 151 & 152	9/23/2010	9/23/2010	Bill Ferrell	Approved
Foundation - Pier/Posts 151 & 152	9/23/2010	9/23/2010	Bill Ferrell	Approved
Foundation - Pier/Posts 151 & 152	9/23/2010	9/23/2010	Bill Ferrell	Approved
Foundation - Pier/Posts 153 & 183	9/23/2010	9/24/2010	Bill Ferrell	Approved
Foundation - Pier/Posts 153 & 183	9/23/2010	9/24/2010	Bill Ferrell	Approved
Foundation - Pier/Posts 153 & 183	9/23/2010	9/24/2010	Bill Ferrell	Approved
Foundation - Pier/Posts 153 & 183	9/23/2010	9/24/2010	Bill Ferrell	Approved
Foundation - Pier/Posts 153 & 183	9/23/2010	9/24/2010	Bill Ferrell	Approved
Foundation - Footings 186 & 187	9/23/2010	9/24/2010	Bill Ferrell	Approved
Foundation - Footings 186 & 187	9/23/2010	9/24/2010	Bill Ferrell	Approved
Foundation - Footings 186 & 187	9/23/2010	9/24/2010	Bill Ferrell	Approved
Foundation - Footings 186 & 187	9/23/2010	9/24/2010	Bill Ferrell	Approved
Foundation - Footings 186 & 187	9/23/2010	9/24/2010	Bill Ferrell	Approved
Foundation - Footings 186 & 187	9/23/2010	9/24/2010	Bill Ferrell	Approved
Foundation - Footings 186 & 187	9/23/2010	9/24/2010	Bill Ferrell	Approved
Foundation - Footings 186 & 187	9/23/2010	9/24/2010	Bill Ferrell	Approved
Foundation - Footings 186 & 187	9/23/2010	9/24/2010	Bill Ferrell	Approved
Foundation - Footings 188 & 197	9/24/2010	9/27/2010	Bill Ferrell	Approved
Foundation - Footings 188 & 197	9/27/2010	9/27/2010	Bill Ferrell	Approved
Foundation - Footings 188 & 197	9/27/2010	9/27/2010	Bill Ferrell	Approved
Foundation - Footings 188 & 197	9/27/2010	9/27/2010	Bill Ferrell	Approved

Foundation - Footings 188 & 197	9/24/2010	9/27/2010	Bill Ferrell	Approved
Foundation - Footings 188 & 197	9/27/2010	9/27/2010	Bill Ferrell	Approved
Foundation - Footings 188 & 197	9/27/2010	9/27/2010	Bill Ferrell	Approved
Foundation - Footings 188 & 197	9/27/2010	9/27/2010	Bill Ferrell	Approved
Foundation - Pier/Posts 184 & 185	9/24/2010	9/27/2010	Bill Ferrell	Approved
Foundation - Pier/Posts 184 & 185	9/27/2010	9/27/2010	Bill Ferrell	Approved
Foundation - Pier/Posts 184 & 185	9/27/2010	9/27/2010	Bill Ferrell	Approved
Foundation - Pier/Posts 184 & 185	9/27/2010	9/27/2010	Bill Ferrell	Approved
Foundation - Footings 198 & 199	9/27/2010	9/28/2010	Bill Ferrell	Approved
Foundation - Footings 198 & 199	9/27/2010	9/28/2010	Bill Ferrell	Approved
Foundation - Footings 198 & 199	9/27/2010	9/28/2010	Bill Ferrell	Approved
Foundation - Footings 198 & 199	9/27/2010	9/28/2010	Bill Ferrell	Approved
Foundation - Pier/Posts 186 & 187	9/27/2010	9/28/2010	Bill Ferrell	Approved
Foundation - Pier/Posts 186 & 187	9/27/2010	9/28/2010	Bill Ferrell	Approved
Foundation - Pier/Posts 186 & 187	9/27/2010	9/28/2010	Bill Ferrell	Approved
Foundation - Pier/Posts 186 & 187	9/27/2010	9/28/2010	Bill Ferrell	Approved
Foundation - Footings 198 & 199	9/27/2010	9/28/2010	Bill Ferrell	Approved
Foundation - Footings 198 & 199	9/27/2010	9/28/2010	Bill Ferrell	Approved
Foundation - Footings 198 & 199	9/27/2010	9/28/2010	Bill Ferrell	Approved
Foundation - Footings 198 & 199	9/27/2010	9/28/2010	Bill Ferrell	Approved
Foundation - Footings 200 & 201	9/28/2010	9/29/2010	Bill Ferrell	Approved
Foundation - Footings 200 & 201	9/28/2010	9/29/2010	Bill Ferrell	Approved
Foundation - Footings 200 & 201	9/28/2010	9/29/2010	Bill Ferrell	Approved
Foundation - Footings 200 & 201	9/28/2010	9/29/2010	Bill Ferrell	Approved
Foundation - Footings 200 & 201	9/28/2010	9/29/2010	Bill Ferrell	Approved
Foundation - Footings 200 & 201	9/28/2010	9/29/2010	Bill Ferrell	Approved

Foundation - Footings 200 & 201	9/28/2010	9/29/2010	Bill Ferrell	Approved
Foundation - Footings 200 & 201	9/28/2010	9/29/2010	Bill Ferrell	Approved
Foundation - Pier/Posts 188 & 197	9/28/2010	9/29/2010	Bill Ferrell	Approved
Foundation - Pier/Posts 188 & 197	9/28/2010	9/29/2010	Bill Ferrell	Approved
Foundation - Pier/Posts 188 & 197	9/28/2010	9/29/2010	Bill Ferrell	Approved
Foundation - Pier/Posts 188 & 197	9/28/2010	9/29/2010	Bill Ferrell	Approved
Foundation - Footings 202 & 203	9/29/2010	9/30/2010	Bill Ferrell	Approved
Foundation - Footings 202 & 203	9/29/2010	9/30/2010	Bill Ferrell	Approved
Foundation - Footings 202 & 203	9/29/2010	9/30/2010	Bill Ferrell	Approved
Foundation - Footings 202 & 203	9/29/2010	9/30/2010	Bill Ferrell	Approved
Foundation - Footings 202 & 203	9/29/2010	9/30/2010	Bill Ferrell	Approved
Foundation - Footings 202 & 203	9/29/2010	9/30/2010	Bill Ferrell	Approved
Foundation - Footings 202 & 203	9/29/2010	9/30/2010	Bill Ferrell	Approved
Foundation - Footings 202 & 203	9/29/2010	9/30/2010	Bill Ferrell	Approved
Foundation - Pier/Posts 198 & 199	9/29/2010	9/30/2010	Bill Ferrell	Approved
Foundation - Pier/Posts 198 & 199	9/29/2010	9/30/2010	Bill Ferrell	Approved
Foundation - Pier/Posts 198 & 199	9/29/2010	9/30/2010	Bill Ferrell	Approved
Foundation - Pier/Posts 198 & 199	9/29/2010	9/30/2010	Bill Ferrell	Approved
Foundation - Pier/Posts 200 & 201	10/1/2010	10/1/2010	Bill Ferrell	Approved
Foundation - Pier/Posts 200 & 201	10/1/2010	10/1/2010	Bill Ferrell	Approved
Foundation - Pier/Posts 200 & 201	9/30/2010	10/1/2010	Bill Ferrell	Approved
Foundation - Pier/Posts 200 & 201	10/1/2010	10/1/2010	Bill Ferrell	Approved
Foundation - Pier/Posts 200 & 201	10/1/2010	10/1/2010	Bill Ferrell	Approved
Foundation - Footings 204 & 205	10/1/2010	10/1/2010	Bill Ferrell	Approved
Foundation - Footings 204 & 205	9/30/2010	10/1/2010	Bill Ferrell	Approved
Foundation - Footings 204 & 205	10/1/2010	10/1/2010	Bill Ferrell	Approved

Foundation - Footings 204 & 205	10/1/2010	10/1/2010	Bill Ferrell	Approved
Foundation - Footings 204 & 205	10/1/2010	10/1/2010	Bill Ferrell	Approved
Foundation - Footings 204 & 205	9/30/2010	10/1/2010	Bill Ferrell	Approved
Foundation - Footings 204 & 205	10/1/2010	10/1/2010	Bill Ferrell	Approved
Foundation - Footings 204 & 205	10/1/2010	10/1/2010	Bill Ferrell	Approved
Foundation - Footings 204 & 205	10/1/2010	10/1/2010	Bill Ferrell	Approved
Foundation - Footings 204 & 205	10/1/2010	10/1/2010	Bill Ferrell	Approved
Foundation - Pier/Posts 202 & 203	9/30/2010	10/4/2010	Bill Ferrell	Approved
Foundation - Pier/Posts 202 & 203	10/1/2010	10/4/2010	Bill Ferrell	Approved
Foundation - Pier/Posts 202 & 203	10/1/2010	10/4/2010	Bill Ferrell	Approved
Foundation - Pier/Posts 202 & 203	10/1/2010	10/4/2010	Bill Ferrell	Approved
Foundation - Pier/Posts 202 & 203	10/1/2010	10/4/2010	Bill Ferrell	Approved
Foundation - Footings 225 & 226	9/30/2010	10/4/2010	Bill Ferrell	Approved
Foundation - Footings 225 & 226	10/1/2010	10/4/2010	Bill Ferrell	Approved
Foundation - Footings 225 & 226	10/1/2010	10/4/2010	Bill Ferrell	Approved
Foundation - Footings 225 & 226	10/1/2010	10/4/2010	Bill Ferrell	Approved
Foundation - Footings 225 & 226	10/1/2010	10/4/2010	Bill Ferrell	Approved
Foundation - Footings 225 & 226	10/1/2010	10/4/2010	Bill Ferrell	Approved
Foundation - Footings 225 & 226	9/30/2010	10/4/2010	Bill Ferrell	Approved
Foundation - Footings 225 & 226	10/1/2010	10/4/2010	Bill Ferrell	Approved
Foundation - Footings 225 & 226	10/1/2010	10/4/2010	Bill Ferrell	Approved
Foundation - Footings 225 & 226	10/1/2010	10/4/2010	Bill Ferrell	Approved
Foundation - Footings 206 & 207	10/1/2010	10/5/2010	Bill Ferrell	Approved
Foundation - Footings 206 & 207	10/1/2010	10/5/2010	Bill Ferrell	Approved
Foundation - Footings 206 & 207	10/1/2010	10/5/2010	Bill Ferrell	Approved
Foundation - Footings 206 & 207	10/1/2010	10/5/2010	Bill Ferrell	Approved

Foundation - Footings 206 & 207	10/1/2010	10/5/2010	Bill Ferrell	Approved
Foundation - Footings 206 & 207	10/1/2010	10/5/2010	Bill Ferrell	Approved
Foundation - Footings 206 & 207	10/1/2010	10/5/2010	Bill Ferrell	Approved
Foundation - Footings 206 & 207	10/1/2010	10/5/2010	Bill Ferrell	Approved
Foundation - Pier/Posts 204 & 205	10/1/2010	10/5/2010	Bill Ferrell	Approved
Foundation - Pier/Posts 204 & 205	10/1/2010	10/5/2010	Bill Ferrell	Approved
Foundation - Pier/Posts 204 & 205	10/1/2010	10/5/2010	Bill Ferrell	Approved
Foundation - Pier/Posts 204 & 205	10/1/2010	10/5/2010	Bill Ferrell	Approved
Foundation - Pier/Posts 225 & 226	9/30/2010	10/6/2010	Bill Ferrell	Approved
Foundation - Pier/Posts 225 & 226	10/5/2010	10/6/2010	Bill Ferrell	Approved
Foundation - Pier/Posts 225 & 226	10/5/2010	10/6/2010	Bill Ferrell	Approved
Foundation - Pier/Posts 225 & 226	10/5/2010	10/6/2010	Bill Ferrell	Approved
Foundation - Pier/Posts 225 & 226	10/5/2010	10/6/2010	Bill Ferrell	Approved
Foundation - Footings 208 & 209	9/30/2010	10/6/2010	Bill Ferrell	Approved
Foundation - Footings 208 & 209	10/5/2010	10/6/2010	Bill Ferrell	Approved
Foundation - Footings 208 & 209	10/5/2010	10/6/2010	Bill Ferrell	Approved
Foundation - Footings 208 & 209	10/5/2010	10/6/2010	Bill Ferrell	Approved
Foundation - Footings 208 & 209	10/5/2010	10/6/2010	Bill Ferrell	Approved
Foundation - Footings 208 & 209	9/30/2010	10/6/2010	Bill Ferrell	Approved
Foundation - Footings 208 & 209	10/5/2010	10/6/2010	Bill Ferrell	Approved
Foundation - Footings 208 & 209	10/5/2010	10/6/2010	Bill Ferrell	Approved
Foundation - Footings 208 & 209	10/5/2010	10/6/2010	Bill Ferrell	Approved
Foundation - Footings 208 & 209	10/5/2010	10/6/2010	Bill Ferrell	Approved
Foundation - Footings 212 & 213	10/6/2010	10/7/2010	Bill Ferrell	Approved
Foundation - Footings 212 & 213	10/6/2010	10/7/2010	Bill Ferrell	Approved
Foundation - Footings 212 & 213	10/6/2010	10/7/2010	Bill Ferrell	Approved

Foundation - Footings 212 & 213	10/6/2010	10/7/2010	Bill Ferrell	Approved
Foundation - Footings 212 & 213	10/6/2010	10/7/2010	Bill Ferrell	Approved
Foundation - Footings 212 & 213	10/6/2010	10/7/2010	Bill Ferrell	Approved
Foundation - Footings 212 & 213	10/6/2010	10/7/2010	Bill Ferrell	Approved
Foundation - Footings 212 & 213	10/6/2010	10/7/2010	Bill Ferrell	Approved
Foundation - Pier/Posts 206 & 207	10/6/2010	10/7/2010	Bill Ferrell	Approved
Foundation - Pier/Posts 206 & 207	10/6/2010	10/7/2010	Bill Ferrell	Approved
Foundation - Pier/Posts 206 & 207	10/6/2010	10/7/2010	Bill Ferrell	Approved
Foundation - Pier/Posts 206 & 207	10/6/2010	10/7/2010	Bill Ferrell	Approved
Foundation - Footings 214 & 215	10/7/2010	10/8/2010	Bill Ferrell	Approved
Foundation - Footings 214 & 215	10/7/2010	10/8/2010	Bill Ferrell	Approved
Foundation - Footings 214 & 215	10/7/2010	10/8/2010	Bill Ferrell	Approved
Foundation - Footings 214 & 215	10/7/2010	10/8/2010	Bill Ferrell	Approved
Foundation - Footings 214 & 215	10/7/2010	10/8/2010	Bill Ferrell	Approved
Foundation - Footings 214 & 215	10/7/2010	10/8/2010	Bill Ferrell	Approved
Foundation - Footings 214 & 215	10/7/2010	10/8/2010	Bill Ferrell	Approved
Foundation - Footings 214 & 215	10/7/2010	10/8/2010	Bill Ferrell	Approved
Foundation - Pier/Posts 208 & 209	10/7/2010	10/8/2010	Bill Ferrell	Approved
Foundation - Pier/Posts 208 & 209	10/7/2010	10/8/2010	Bill Ferrell	Approved
Foundation - Pier/Posts 208 & 209	10/7/2010	10/8/2010	Bill Ferrell	Approved
Foundation - Pier/Posts 208 & 209	10/7/2010	10/8/2010	Bill Ferrell	Approved
Foundation - Pier/Posts 212 & 213	10/8/2010	10/11/2010	Bill Ferrell	Approved
Foundation - Pier/Posts 212 & 213	10/8/2010	10/11/2010	Bill Ferrell	Approved
Foundation - Pier/Posts 212 & 213	10/8/2010	10/11/2010	Bill Ferrell	Approved
Foundation - Pier/Posts 212 & 213	10/8/2010	10/11/2010	Bill Ferrell	Approved
Foundation - Pier/Posts 212 & 213	10/8/2010	10/11/2010	Bill Ferrell	Approved

Foundation - Footings 189, 190 & 191	10/8/2010	10/11/2010	Bill Ferrell	Approved
Foundation - Footings 189, 190 & 191	10/8/2010	10/11/2010	Bill Ferrell	Approved
Foundation - Footings 189, 190 & 191	10/8/2010	10/11/2010	Bill Ferrell	Approved
Foundation - Footings 189, 190 & 191	10/8/2010	10/11/2010	Bill Ferrell	Approved
Foundation - Footings 189, 190 & 191	10/8/2010	10/11/2010	Bill Ferrell	Approved
Foundation - Footings 189, 190 & 191	10/8/2010	10/11/2010	Bill Ferrell	Approved
Foundation - Footings 189, 190 & 191	10/8/2010	10/11/2010	Bill Ferrell	Approved
Foundation - Footings 189, 190 & 191	10/8/2010	10/11/2010	Bill Ferrell	Approved
Foundation - Footings 189, 190 & 191	10/8/2010	10/11/2010	Bill Ferrell	Approved
Foundation - Footings 189, 190 & 191	10/8/2010	10/11/2010	Bill Ferrell	Approved
Foundation - Footings 192 & 193	10/12/2010	10/12/2010	Bill Ferrell	Approved
Foundation - Footings 192 & 193	10/12/2010	10/12/2010	Bill Ferrell	Approved
Foundation - Footings 192 & 193	10/12/2010	10/12/2010	Bill Ferrell	Approved
Foundation - Footings 192 & 193	10/12/2010	10/12/2010	Bill Ferrell	Approved
Foundation - Footings 192 & 193	10/12/2010	10/12/2010	Bill Ferrell	Approved
Foundation - Pier/Posts 189 , 214 & 215	10/12/2010	10/12/2010	Bill Ferrell	Approved
Foundation - Pier/Posts 189 , 214 & 215	10/12/2010	10/12/2010	Bill Ferrell	Approved
Foundation - Pier/Posts 189 , 214 & 215	10/12/2010	10/12/2010	Bill Ferrell	Approved
Foundation - Pier/Posts 189 , 214 & 215	10/12/2010	10/12/2010	Bill Ferrell	Approved
Foundation - Pier/Posts 189 , 214 & 215	10/12/2010	10/12/2010	Bill Ferrell	Approved
Foundation - Footings 192 & 193	10/12/2010	10/12/2010	Bill Ferrell	Approved
Foundation - Footings 192 & 193	10/12/2010	10/12/2010	Bill Ferrell	Approved
Foundation - Footings 192 & 193	10/12/2010	10/12/2010	Bill Ferrell	Approved
Foundation - Footings 192 & 193	10/12/2010	10/12/2010	Bill Ferrell	Approved
Foundation - Footings 192 & 193	10/12/2010	10/12/2010	Bill Ferrell	Approved
Foundation - Footings 194 & 195	10/12/2010	10/13/2010	Bill Ferrell	Approved

Foundation - Footings 194 & 195	10/12/2010	10/13/2010	Bill Ferrell	Approved
Foundation - Footings 194 & 195	10/12/2010	10/13/2010	Bill Ferrell	Approved
Foundation - Footings 194 & 195	10/12/2010	10/13/2010	Bill Ferrell	Approved
Foundation - Pier/Posts 190 & 191	10/12/2010	10/13/2010	Bill Ferrell	Approved
Foundation - Pier/Posts 190 & 191	10/12/2010	10/13/2010	Bill Ferrell	Approved
Foundation - Pier/Posts 190 & 191	10/12/2010	10/13/2010	Bill Ferrell	Approved
Foundation - Pier/Posts 190 & 191	10/12/2010	10/13/2010	Bill Ferrell	Approved
Foundation - Footings 194 & 195	10/12/2010	10/13/2010	Bill Ferrell	Approved
Foundation - Footings 194 & 195	10/12/2010	10/13/2010	Bill Ferrell	Approved
Foundation - Footings 194 & 195	10/12/2010	10/13/2010	Bill Ferrell	Approved
Foundation - Footings 194 & 195	10/12/2010	10/13/2010	Bill Ferrell	Approved
Foundation - Footings 227 & 228	10/13/2010	10/14/2010	Bill Ferrell	Approved
Foundation - Footings 227 & 228	10/13/2010	10/14/2010	Bill Ferrell	Approved
Foundation - Footings 227 & 228	10/13/2010	10/14/2010	Bill Ferrell	Approved
Foundation - Footings 227 & 228	10/13/2010	10/14/2010	Bill Ferrell	Approved
Foundation - Footings 227 & 228	10/13/2010	10/14/2010	Bill Ferrell	Approved
Foundation - Footings 227 & 228	10/13/2010	10/14/2010	Bill Ferrell	Approved
Foundation - Footings 227 & 228	10/13/2010	10/14/2010	Bill Ferrell	Approved
Foundation - Footings 227 & 228	10/13/2010	10/14/2010	Bill Ferrell	Approved
Foundation - Pier/Posts 192 & 193	10/13/2010	10/14/2010	Bill Ferrell	Approved
Foundation - Pier/Posts 192 & 193	10/13/2010	10/14/2010	Bill Ferrell	Approved
Foundation - Pier/Posts 192 & 193	10/13/2010	10/14/2010	Bill Ferrell	Approved
Foundation - Pier/Posts 192 & 193	10/13/2010	10/14/2010	Bill Ferrell	Approved
Foundation - Footings 229 & 230	10/14/2010	10/15/2010	Bill Ferrell	Approved
Foundation - Footings 229 & 230	10/14/2010	10/15/2010	Bill Ferrell	Approved
Foundation - Footings 229 & 230	10/14/2010	10/15/2010	Bill Ferrell	Approved

Foundation - Footings 229 & 230	10/14/2010	10/15/2010	Bill Ferrell	Approved
Foundation - Pier/Posts 194 & 195	10/14/2010	10/15/2010	Bill Ferrell	Approved
Foundation - Pier/Posts 194 & 195	10/14/2010	10/15/2010	Bill Ferrell	Approved
Foundation - Pier/Posts 194 & 195	10/14/2010	10/15/2010	Bill Ferrell	Approved
Foundation - Pier/Posts 194 & 195	10/14/2010	10/15/2010	Bill Ferrell	Approved
Foundation - Footings 229 & 230	10/14/2010	10/15/2010	Bill Ferrell	Approved
Foundation - Footings 229 & 230	10/14/2010	10/15/2010	Bill Ferrell	Approved
Foundation - Footings 229 & 230	10/14/2010	10/15/2010	Bill Ferrell	Approved
Foundation - Footings 229 & 230	10/14/2010	10/15/2010	Bill Ferrell	Approved
Foundation - Footings 231 & 232	10/15/2010	10/18/2010	Bill Ferrell	Approved
Foundation - Footings 231 & 232	10/15/2010	10/18/2010	Bill Ferrell	Approved
Foundation - Footings 231 & 232	10/15/2010	10/18/2010	Bill Ferrell	Approved
Foundation - Footings 231 & 232	10/15/2010	10/18/2010	Bill Ferrell	Approved
Foundation - Footings 231 & 232	10/15/2010	10/18/2010	Bill Ferrell	Approved
Foundation - Footings 231 & 232	10/15/2010	10/18/2010	Bill Ferrell	Approved
Foundation - Footings 231 & 232	10/15/2010	10/18/2010	Bill Ferrell	Approved
Foundation - Pier/Posts 227 & 228	10/15/2010	10/18/2010	Bill Ferrell	Approved
Foundation - Footings 231 & 232	10/15/2010	10/18/2010	Bill Ferrell	Approved
Foundation - Pier/Posts 227 & 228	10/15/2010	10/18/2010	Bill Ferrell	Approved
Foundation - Pier/Posts 227 & 228	10/15/2010	10/18/2010	Bill Ferrell	Approved
Foundation - Pier/Posts 227 & 228	10/15/2010	10/18/2010	Bill Ferrell	Approved
Foundation - Footings 238 & 239	10/18/2010	10/19/2010	Bill Ferrell	Approved
Foundation - Footings 238 & 239	10/18/2010	10/19/2010	Bill Ferrell	Approved
Foundation - Pier/Posts 229 & 230	10/18/2010	10/19/2010	Bill Ferrell	Approved
Foundation - Pier/Posts 229 & 230	10/18/2010	10/19/2010	Bill Ferrell	Approved
Foundation - Pier/Posts 229 & 230	10/18/2010	10/19/2010	Bill Ferrell	Approved

Foundation - Pier/Posts 229 & 230	10/18/2010	10/19/2010	Bill Ferrell	Approved
Foundation - Footings 238 & 239	10/18/2010	10/19/2010	Bill Ferrell	Approved
Foundation - Footings 238 & 239	10/18/2010	10/19/2010	Bill Ferrell	Approved
Foundation - Footings 238 & 239	10/18/2010	10/19/2010	Bill Ferrell	Approved
Foundation - Footings 238 & 239	10/18/2010	10/19/2010	Bill Ferrell	Approved
Foundation - Footings 238 & 239	10/18/2010	10/19/2010	Bill Ferrell	Approved
Foundation - Footings 238 & 239	10/18/2010	10/19/2010	Bill Ferrell	Approved
Foundation - Footings 240 & 241	10/20/2010	10/20/2010	Bill Ferrell	Approved
Foundation - Footings 240 & 241	10/20/2010	10/20/2010	Bill Ferrell	Approved
Foundation - Footings 240 & 241	10/20/2010	10/20/2010	Bill Ferrell	Approved
Foundation - Footings 240 & 241	10/20/2010	10/20/2010	Bill Ferrell	Approved
Foundation - Footings 240 & 241	10/20/2010	10/20/2010	Bill Ferrell	Approved
Foundation - Footings 240 & 241	10/20/2010	10/20/2010	Bill Ferrell	Approved
Foundation - Footings 240 & 241	10/20/2010	10/20/2010	Bill Ferrell	Approved
Foundation - Footings 240 & 241	10/20/2010	10/20/2010	Bill Ferrell	Approved
Foundation - Pier/Posts 231 & 232	10/20/2010	10/20/2010	Bill Ferrell	Approved
Foundation - Pier/Posts 231 & 232	10/20/2010	10/20/2010	Bill Ferrell	Approved
Foundation - Pier/Posts 231 & 232	10/20/2010	10/20/2010	Bill Ferrell	Approved
Foundation - Pier/Posts 231 & 232	10/20/2010	10/20/2010	Bill Ferrell	Approved
Foundation - Footings 242	10/21/2010	10/21/2010	Bill Ferrell	Approved
Foundation - Footings 242	10/21/2010	10/21/2010	Bill Ferrell	Approved
Foundation - Footings 242	10/21/2010	10/21/2010	Bill Ferrell	Approved
Foundation - Footings 242	10/21/2010	10/21/2010	Bill Ferrell	Approved
Foundation - Footings 242	10/21/2010	10/21/2010	Bill Ferrell	Approved
Foundation - Footings 242	10/21/2010	10/21/2010	Bill Ferrell	Approved
Foundation - Footings 242	10/21/2010	10/21/2010	Bill Ferrell	Approved

Foundation - Footings 242	10/21/2010	10/21/2010	Bill Ferrell	Approved
Foundation - Footings 243, 244 & 245	10/22/2010	10/22/2010	Bill Ferrell	Approved
Foundation - Footings 243, 244 & 245	10/22/2010	10/22/2010	Bill Ferrell	Approved
Foundation - Footings 243, 244 & 245	10/22/2010	10/22/2010	Bill Ferrell	Approved
Foundation - Footings 243, 244 & 245	10/22/2010	10/22/2010	Bill Ferrell	Approved
Foundation - Footings 243, 244 & 245	10/22/2010	10/22/2010	Bill Ferrell	Approved
Foundation - Footings 243, 244 & 245	10/22/2010	10/22/2010	Bill Ferrell	Approved
Foundation - Footings 243, 244 & 245	10/22/2010	10/22/2010	Bill Ferrell	Approved
Foundation - Footings 243, 244 & 245	10/22/2010	10/22/2010	Bill Ferrell	Approved
Foundation - Footings 243, 244 & 245	10/22/2010	10/22/2010	Bill Ferrell	Approved
Foundation - Footings 243, 244 & 245	10/22/2010	10/22/2010	Bill Ferrell	Approved
Foundation - Footings 243, 244 & 245	10/22/2010	10/22/2010	Bill Ferrell	Approved
Foundation - Footings 243, 244 & 245	10/22/2010	10/22/2010	Bill Ferrell	Approved
Foundation - Footings 243, 244 & 245	10/22/2010	10/22/2010	Bill Ferrell	Approved
Foundation - Footings 243, 244 & 245	10/22/2010	10/22/2010	Bill Ferrell	Approved
Foundation - Footings 243, 244 & 245	10/22/2010	10/22/2010	Bill Ferrell	Approved
Foundation - Footings 243, 244 & 245	10/22/2010	10/22/2010	Bill Ferrell	Approved
Foundation - Footings 243, 244 & 245	10/22/2010	10/22/2010	Bill Ferrell	Approved
Foundation - Pier/Posts 240 & 241	10/22/2010	10/22/2010	Bill Ferrell	Approved
Foundation - Pier/Posts 238 & 239	10/22/2010	10/22/2010	Bill Ferrell	Approved
Foundation - Pier/Posts 240 & 241	10/22/2010	10/22/2010	Bill Ferrell	Approved
Foundation - Pier/Posts 238 & 239	10/22/2010	10/22/2010	Bill Ferrell	Approved
Foundation - Pier/Posts 240 & 241	10/22/2010	10/22/2010	Bill Ferrell	Approved
Foundation - Pier/Posts 238 & 239	10/22/2010	10/22/2010	Bill Ferrell	Approved
Foundation - Pier/Posts 240 & 241	10/22/2010	10/22/2010	Bill Ferrell	Approved
Foundation - Pier/Posts 238 & 239	10/22/2010	10/22/2010	Bill Ferrell	Approved
Foundation - Pier/Posts 240 & 241	10/22/2010	10/22/2010	Bill Ferrell	Approved

Foundation - Pier/Posts 238 & 239	10/22/2010	10/22/2010	Bill Ferrell	Approved
Foundation - Pier/Posts 240 & 241	10/22/2010	10/22/2010	Bill Ferrell	Approved
Foundation - Pier/Posts 238 & 239	10/22/2010	10/22/2010	Bill Ferrell	Approved
Foundation - Pier/Posts 240 & 241	10/22/2010	10/22/2010	Bill Ferrell	Approved
Foundation - Pier/Posts 238 & 239	10/22/2010	10/22/2010	Bill Ferrell	Approved
Foundation - Pier/Posts 240 & 241	10/22/2010	10/22/2010	Bill Ferrell	Approved
Foundation - Pier/Posts 238 & 239	10/22/2010	10/22/2010	Bill Ferrell	Approved
Foundation - Pier/Posts 242 & 243	10/25/2010	10/25/2010	Bill Ferrell	Approved
Foundation - Pier/Posts 242 & 243	10/25/2010	10/25/2010	Bill Ferrell	Approved
Foundation - Pier/Posts 242 & 243	10/25/2010	10/25/2010	Bill Ferrell	Approved
Foundation - Pier/Posts 242 & 243	10/25/2010	10/25/2010	Bill Ferrell	Approved
Foundation - Pier/Posts 242 & 243	10/25/2010	10/25/2010	Bill Ferrell	Approved
Foundation - Footings 248	10/25/2010	10/25/2010	Bill Ferrell	Approved
Foundation - Footings 246 & 247	10/25/2010	10/25/2010	Bill Ferrell	Approved
Foundation - Footings 248	10/25/2010	10/25/2010	Bill Ferrell	Approved
Foundation - Footings 246 & 247	10/25/2010	10/25/2010	Bill Ferrell	Approved
Foundation - Footings 248	10/25/2010	10/25/2010	Bill Ferrell	Approved
Foundation - Footings 246 & 247	10/25/2010	10/25/2010	Bill Ferrell	Approved
Foundation - Footings 248	10/25/2010	10/25/2010	Bill Ferrell	Approved
Foundation - Footings 246 & 247	10/25/2010	10/25/2010	Bill Ferrell	Approved
Foundation - Footings 248	10/25/2010	10/25/2010	Bill Ferrell	Approved
Foundation - Footings 246 & 247	10/25/2010	10/25/2010	Bill Ferrell	Approved
Foundation - Footings 248	10/25/2010	10/25/2010	Bill Ferrell	Approved
Foundation - Footings 246 & 247	10/25/2010	10/25/2010	Bill Ferrell	Approved
Foundation - Footings 248	10/25/2010	10/25/2010	Bill Ferrell	Approved
Foundation - Footings 246 & 247	10/25/2010	10/25/2010	Bill Ferrell	Approved
Foundation - Footings 248	10/25/2010	10/25/2010	Bill Ferrell	Approved

Foundation - Footings 246 & 247	10/25/2010	10/25/2010	Bill Ferrell	Approved
Foundation - Footings 248	10/25/2010	10/25/2010	Bill Ferrell	Approved
Foundation - Footings 246 & 247	10/25/2010	10/25/2010	Bill Ferrell	Approved
Foundation - Footings 248	10/25/2010	10/25/2010	Bill Ferrell	Approved
Foundation - Footings 246 & 247	10/25/2010	10/25/2010	Bill Ferrell	Approved
Foundation - Footings 248	10/25/2010	10/25/2010	Bill Ferrell	Approved
Foundation - Footings 233 & 234	10/26/2010	10/26/2010	Bill Ferrell	Approved
Foundation - Footings 233 & 234	10/26/2010	10/26/2010	Bill Ferrell	Approved
Foundation - Footings 233 & 234	10/26/2010	10/26/2010	Bill Ferrell	Approved
Foundation - Footings 233 & 234	10/26/2010	10/26/2010	Bill Ferrell	Approved
Foundation - Footings 233 & 234	10/26/2010	10/26/2010	Bill Ferrell	Approved
Foundation - Footings 233 & 234	10/26/2010	10/26/2010	Bill Ferrell	Approved
Foundation - Footings 233 & 234	10/26/2010	10/26/2010	Bill Ferrell	Approved
Foundation - Footings 233 & 234	10/26/2010	10/26/2010	Bill Ferrell	Approved
Foundation - Footings 233 & 234	10/26/2010	10/26/2010	Bill Ferrell	Approved
Foundation - Footings 233 & 234	10/26/2010	10/26/2010	Bill Ferrell	Approved
Foundation - Footings 233 & 234	10/26/2010	10/26/2010	Bill Ferrell	Approved
Foundation - Pier/Posts 244 & 245	10/26/2010	10/26/2010	Bill Ferrell	Approved
Foundation - Pier/Posts 244 & 245	10/26/2010	10/26/2010	Bill Ferrell	Approved
Foundation - Pier/Posts 244 & 245	10/26/2010	10/26/2010	Bill Ferrell	Approved
Foundation - Pier/Posts 244 & 245	10/26/2010	10/26/2010	Bill Ferrell	Approved
Foundation - Pier/Posts 244 & 245	10/26/2010	10/26/2010	Bill Ferrell	Approved
Foundation - Pier/Posts 246, 247 & 248	10/26/2010	10/27/2010	Bill Ferrell	Approved
Foundation - Pier/Posts 246, 247 & 248	10/26/2010	10/27/2010	Bill Ferrell	Approved
Foundation - Pier/Posts 246, 247 & 248	10/26/2010	10/27/2010	Bill Ferrell	Approved
Foundation - Pier/Posts 246, 247 & 248	10/26/2010	10/27/2010	Bill Ferrell	Approved
Foundation - Pier/Posts 246, 247 & 248	10/26/2010	10/27/2010	Bill Ferrell	Approved

Foundation - Pier/Posts 246, 247 & 248	10/26/2010	10/27/2010	Bill Ferrell	Approved
Foundation - Footings 235 & 236	10/26/2010	10/27/2010	Bill Ferrell	Approved
Foundation - Footings 235 & 236	10/26/2010	10/27/2010	Bill Ferrell	Approved
Foundation - Footings 235 & 236	10/26/2010	10/27/2010	Bill Ferrell	Approved
Foundation - Footings 235 & 236	10/26/2010	10/27/2010	Bill Ferrell	Approved
Foundation - Footings 235 & 236	10/26/2010	10/27/2010	Bill Ferrell	Approved
Foundation - Footings 235 & 236	10/26/2010	10/27/2010	Bill Ferrell	Approved
Foundation - Footings 235 & 236	10/26/2010	10/27/2010	Bill Ferrell	Approved
Foundation - Footings 235 & 236	10/26/2010	10/27/2010	Bill Ferrell	Approved
Foundation - Footings 235 & 236	10/26/2010	10/27/2010	Bill Ferrell	Approved
Foundation - Footings 235 & 236	10/26/2010	10/27/2010	Bill Ferrell	Approved
Foundation - Footings 235 & 236	10/26/2010	10/27/2010	Bill Ferrell	Approved
Foundation - Footings 235 & 236	10/26/2010	10/27/2010	Bill Ferrell	Approved
Foundation - Footings 237 & 249	10/28/2010	10/28/2010	Bill Ferrell	Approved
Foundation - Footings 237 & 249	10/28/2010	10/28/2010	Bill Ferrell	Approved
Foundation - Footings 237 & 249	10/28/2010	10/28/2010	Bill Ferrell	Approved
Foundation - Footings 237 & 249	10/28/2010	10/28/2010	Bill Ferrell	Approved
Foundation - Footings 237 & 249	10/28/2010	10/28/2010	Bill Ferrell	Approved
Foundation - Footings 237 & 249	10/28/2010	10/28/2010	Bill Ferrell	Approved
Foundation - Footings 237 & 249	10/28/2010	10/28/2010	Bill Ferrell	Approved
Foundation - Footings 237 & 249	10/28/2010	10/28/2010	Bill Ferrell	Approved
Foundation - Pier/Posts 233 & 234	10/28/2010	10/28/2010	Bill Ferrell	Approved
Foundation - Pier/Posts 233 & 234	10/28/2010	10/28/2010	Bill Ferrell	Approved
Foundation - Pier/Posts 233 & 234	10/28/2010	10/28/2010	Bill Ferrell	Approved
Foundation - Pier/Posts 233 & 234	10/28/2010	10/28/2010	Bill Ferrell	Approved
Foundation - Pier/Posts 235 & 236	10/28/2010	10/29/2010	Bill Ferrell	Approved

Foundation - Pier/Posts 235 & 236	10/28/2010	10/29/2010	Bill Ferrell	Approved
Foundation - Pier/Posts 235 & 236	10/28/2010	10/29/2010	Bill Ferrell	Approved
Foundation - Pier/Posts 235 & 236	10/28/2010	10/29/2010	Bill Ferrell	Approved
Foundation - Footings 250 & 251	10/28/2010	10/29/2010	Bill Ferrell	Approved
Foundation - Footings 250 & 251	10/28/2010	10/29/2010	Bill Ferrell	Approved
Foundation - Footings 250 & 251	10/28/2010	10/29/2010	Bill Ferrell	Approved
Foundation - Footings 250 & 251	10/28/2010	10/29/2010	Bill Ferrell	Approved
Foundation - Footings 250 & 251	10/28/2010	10/29/2010	Bill Ferrell	Approved
Foundation - Footings 250 & 251	10/28/2010	10/29/2010	Bill Ferrell	Approved
Foundation - Footings 250 & 251	10/28/2010	10/29/2010	Bill Ferrell	Approved
Foundation - Footings 250 & 251	10/28/2010	10/29/2010	Bill Ferrell	Approved
Foundation - Footings 252 & 253	10/29/2010	11/1/2010	Bill Ferrell	Approved
Foundation - Footings 252 & 253	10/29/2010	11/1/2010	Bill Ferrell	Approved
Foundation - Footings 252 & 253	10/29/2010	11/1/2010	Bill Ferrell	Approved
Foundation - Footings 252 & 253	10/29/2010	11/1/2010	Bill Ferrell	Approved
Foundation - Footings 252 & 253	10/29/2010	11/1/2010	Bill Ferrell	Approved
Foundation - Footings 252 & 253	10/29/2010	11/1/2010	Bill Ferrell	Approved
Foundation - Footings 252 & 253	10/29/2010	11/1/2010	Bill Ferrell	Approved
Foundation - Footings 252 & 253	10/29/2010	11/1/2010	Bill Ferrell	Approved
Foundation - Pier/Posts 237 & 249	10/29/2010	11/1/2010	Bill Ferrell	Approved
Foundation - Pier/Posts 237 & 249	10/29/2010	11/1/2010	Bill Ferrell	Approved
Foundation - Pier/Posts 237 & 249	10/29/2010	11/1/2010	Bill Ferrell	Approved
Foundation - Pier/Posts 237 & 249	10/29/2010	11/1/2010	Bill Ferrell	Approved
Foundation - Pier/Posts 250 & 251	11/1/2010	11/2/2010	Bill Ferrell	Approved
Foundation - Pier/Posts 250 & 251	11/1/2010	11/2/2010	Bill Ferrell	Approved
Foundation - Pier/Posts 250 & 251	11/1/2010	11/2/2010	Bill Ferrell	Approved

Foundation - Pier/Posts 250 & 251	11/1/2010	11/2/2010	Bill Ferrell	Approved
Foundation - Footings 291 & 292	11/1/2010	11/2/2010	Bill Ferrell	Approved
Foundation - Footings 291 & 292	11/1/2010	11/2/2010	Bill Ferrell	Approved
Foundation - Footings 291 & 292	11/1/2010	11/2/2010	Bill Ferrell	Approved
Foundation - Footings 291 & 292	11/1/2010	11/2/2010	Bill Ferrell	Approved
Foundation - Footings 291 & 292	11/1/2010	11/2/2010	Bill Ferrell	Approved
Foundation - Footings 291 & 292	11/1/2010	11/2/2010	Bill Ferrell	Approved
Foundation - Footings 291 & 292	11/1/2010	11/2/2010	Bill Ferrell	Approved
Foundation - Footings 291 & 292	11/1/2010	11/2/2010	Bill Ferrell	Approved
Foundation - Footings 289 & 290	11/2/2010	11/3/2010	Bill Ferrell	Approved
Foundation - Footings 289 & 290	11/2/2010	11/3/2010	Bill Ferrell	Approved
Foundation - Footings 289 & 290	11/2/2010	11/3/2010	Bill Ferrell	Approved
Foundation - Footings 289 & 290	11/2/2010	11/3/2010	Bill Ferrell	Approved
Foundation - Footings 289 & 290	11/2/2010	11/3/2010	Bill Ferrell	Approved
Foundation - Footings 289 & 290	11/2/2010	11/3/2010	Bill Ferrell	Approved
Foundation - Footings 289 & 290	11/2/2010	11/3/2010	Bill Ferrell	Approved
Foundation - Footings 289 & 290	11/2/2010	11/3/2010	Bill Ferrell	Approved
Foundation - Pier/Posts 252 & 253	11/2/2010	11/3/2010	Bill Ferrell	Approved
Foundation - Pier/Posts 252 & 253	11/2/2010	11/3/2010	Bill Ferrell	Approved
Foundation - Pier/Posts 252 & 253	11/2/2010	11/3/2010	Bill Ferrell	Approved
Foundation - Pier/Posts 252 & 253	11/2/2010	11/3/2010	Bill Ferrell	Approved
Foundation - Pier/Posts 291 & 292	11/2/2010	11/4/2010	Bill Ferrell	Approved
Foundation - Pier/Posts 291 & 292	11/2/2010	11/4/2010	Bill Ferrell	Approved
Foundation - Pier/Posts 291 & 292	11/2/2010	11/4/2010	Bill Ferrell	Approved
Foundation - Pier/Posts 291 & 292	11/2/2010	11/4/2010	Bill Ferrell	Approved
Foundation - Footings 287 & 288	11/2/2010	11/4/2010	Bill Ferrell	Approved

Foundation - Footings 287 & 288	11/2/2010	11/4/2010	Bill Ferrell	Approved
Foundation - Footings 287 & 288	11/2/2010	11/4/2010	Bill Ferrell	Approved
Foundation - Footings 287 & 288	11/2/2010	11/4/2010	Bill Ferrell	Approved
Foundation - Footings 287 & 288	11/2/2010	11/4/2010	Bill Ferrell	Approved
Foundation - Footings 287 & 288	11/2/2010	11/4/2010	Bill Ferrell	Approved
Foundation - Footings 287 & 288	11/2/2010	11/4/2010	Bill Ferrell	Approved
Foundation - Footings 287 & 288	11/2/2010	11/4/2010	Bill Ferrell	Approved
Foundation - Footings Bases 285, 286 Pedestals 289,290	11/4/2010	11/5/2010	Dave Burt	Approved
Foundation - Footings Bases 285, 286 Pedestals 289,290	11/4/2010	11/5/2010	Dave Burt	Approved
Foundation - Footings Bases 285, 286 Pedestals 289,290	11/4/2010	11/5/2010	Dave Burt	Approved
Foundation - Footings Bases 285, 286 Pedestals 289,290	11/4/2010	11/5/2010	Dave Burt	Approved
Foundation - Footings 282, 283 & 284	11/5/2010	11/8/2010	Bill Ferrell	Approved
Foundation - Footings 282, 283 & 284	11/8/2010	11/8/2010	Bill Ferrell	Approved
Foundation - Footings 282, 283 & 284	11/8/2010	11/8/2010	Bill Ferrell	Approved
Foundation - Footings 282, 283 & 284	11/8/2010	11/8/2010	Bill Ferrell	Approved
Foundation - Footings 282, 283 & 284	11/8/2010	11/8/2010	Bill Ferrell	Approved
Foundation - Footings 282, 283 & 284	11/8/2010	11/8/2010	Bill Ferrell	Approved
Foundation - Footings 282, 283 & 284	11/8/2010	11/8/2010	Bill Ferrell	Approved
Foundation - Footings 282, 283 & 284	11/5/2010	11/8/2010	Bill Ferrell	Approved
Foundation - Footings DAVE ON 11-5-10 289 & 290	11/5/2010	11/8/2010	Bill Ferrell	Approved
Foundation - Footings 282, 283 & 284	11/8/2010	11/8/2010	Bill Ferrell	Approved
Foundation - Footings DAVE ON 11-5-10 289 & 290	11/8/2010	11/8/2010	Bill Ferrell	Approved
Foundation - Footings 282, 283 & 284	11/8/2010	11/8/2010	Bill Ferrell	Approved
Foundation - Footings DAVE ON 11-5-10 289 & 290	11/8/2010	11/8/2010	Bill Ferrell	Approved
Foundation - Footings 282, 283 & 284	11/8/2010	11/8/2010	Bill Ferrell	Approved
Foundation - Footings DAVE ON 11-5-10 289 & 290	11/8/2010	11/8/2010	Bill Ferrell	Approved

Foundation - Footings 282, 283 & 284	11/8/2010	11/8/2010	Bill Ferrell	Approved
Foundation - Footings DAVE ON 11-5-10 289 & 290	11/8/2010	11/8/2010	Bill Ferrell	Approved
Foundation - Footings 282, 283 & 284	11/8/2010	11/8/2010	Bill Ferrell	Approved
Foundation - Footings DAVE ON 11-5-10 289 & 290	11/8/2010	11/8/2010	Bill Ferrell	Approved
Foundation - Footings 282, 283 & 284	11/8/2010	11/8/2010	Bill Ferrell	Approved
Foundation - Footings DAVE ON 11-5-10 289 & 290	11/8/2010	11/8/2010	Bill Ferrell	Approved
Foundation - Pier/Posts DAVE ON 11-5-10 289 & 290	11/5/2010	11/8/2010	Bill Ferrell	Approved
Foundation - Pier/Posts 287 & 288	11/5/2010	11/8/2010	Bill Ferrell	Approved
Foundation - Pier/Posts DAVE ON 11-5-10 289 & 290	11/8/2010	11/8/2010	Bill Ferrell	Approved
Foundation - Pier/Posts 287 & 288	11/8/2010	11/8/2010	Bill Ferrell	Approved
Foundation - Pier/Posts DAVE ON 11-5-10 289 & 290	11/8/2010	11/8/2010	Bill Ferrell	Approved
Foundation - Pier/Posts 287 & 288	11/8/2010	11/8/2010	Bill Ferrell	Approved
Foundation - Pier/Posts DAVE ON 11-5-10 289 & 290	11/8/2010	11/8/2010	Bill Ferrell	Approved
Foundation - Pier/Posts 287 & 288	11/8/2010	11/8/2010	Bill Ferrell	Approved
Foundation - Pier/Posts DAVE ON 11-5-10 289 & 290	11/8/2010	11/8/2010	Bill Ferrell	Approved
Foundation - Pier/Posts 287 & 288	11/8/2010	11/8/2010	Bill Ferrell	Approved
Foundation - Pier/Posts DAVE ON 11-5-10 289 & 290	11/8/2010	11/8/2010	Bill Ferrell	Approved
Foundation - Pier/Posts 287 & 288	11/8/2010	11/8/2010	Bill Ferrell	Approved
Foundation - Pier/Posts DAVE ON 11-5-10 289 & 290	11/8/2010	11/8/2010	Bill Ferrell	Approved
Foundation - Pier/Posts 287 & 288	11/8/2010	11/8/2010	Bill Ferrell	Approved
Foundation - Pier/Posts Pedestal 285	11/8/2010	11/9/2010	Dave Burt	Approved
Foundation - Pier/Posts Pedestal 286	11/8/2010	11/9/2010	Dave Burt	Approved
Foundation - Pier/Posts Base 280	11/8/2010	11/9/2010	Dave Burt	Approved
Foundation - Pier/Posts Base 281	11/8/2010	11/9/2010	Dave Burt	Approved
Foundation - Pier/Posts Pedestal 285	11/8/2010	11/9/2010	Dave Burt	Approved
Foundation - Pier/Posts Pedestal 286	11/8/2010	11/9/2010	Dave Burt	Approved

Foundation - Pier/Posts Base 280	11/8/2010	11/9/2010	Dave Burt	Approved
Foundation - Pier/Posts Base 281	11/8/2010	11/9/2010	Dave Burt	Approved
Foundation - Pier/Posts Pedestal 285	11/8/2010	11/9/2010	Dave Burt	Approved
Foundation - Pier/Posts Pedestal 286	11/8/2010	11/9/2010	Dave Burt	Approved
Foundation - Pier/Posts Base 280	11/8/2010	11/9/2010	Dave Burt	Approved
Foundation - Pier/Posts Base 281	11/8/2010	11/9/2010	Dave Burt	Approved
Foundation - Pier/Posts Pedestal 285	11/8/2010	11/9/2010	Dave Burt	Approved
Foundation - Pier/Posts Pedestal 286	11/8/2010	11/9/2010	Dave Burt	Approved
Foundation - Pier/Posts Base 280	11/8/2010	11/9/2010	Dave Burt	Approved
Foundation - Pier/Posts Base 281	11/8/2010	11/9/2010	Dave Burt	Approved
Foundation - Pier/Posts 282. 283 & 284	11/10/2010	11/10/2010	Bill Ferrell	Approved
Foundation - Pier/Posts 282. 283 & 284	11/10/2010	11/10/2010	Bill Ferrell	Approved
Foundation - Pier/Posts 282. 283 & 284	11/10/2010	11/10/2010	Bill Ferrell	Approved
Foundation - Pier/Posts 282. 283 & 284	11/10/2010	11/10/2010	Bill Ferrell	Approved
Foundation - Pier/Posts 282. 283 & 284	11/10/2010	11/10/2010	Bill Ferrell	Approved
Foundation - Pier/Posts 282. 283 & 284	11/10/2010	11/10/2010	Bill Ferrell	Approved
Foundation - Footings 278 & 279	11/10/2010	11/10/2010	Bill Ferrell	Approved
Foundation - Footings 278 & 279	11/10/2010	11/10/2010	Bill Ferrell	Approved
Foundation - Footings 278 & 279	11/10/2010	11/10/2010	Bill Ferrell	Approved
Foundation - Footings 278 & 279	11/10/2010	11/10/2010	Bill Ferrell	Approved
Foundation - Footings 278 & 279	11/10/2010	11/10/2010	Bill Ferrell	Approved
Foundation - Footings 278 & 279	11/10/2010	11/10/2010	Bill Ferrell	Approved
Foundation - Footings 278 & 279	11/10/2010	11/10/2010	Bill Ferrell	Approved
Foundation - Footings 278 & 279	11/10/2010	11/10/2010	Bill Ferrell	Approved
Foundation - Footings 278 & 279	11/10/2010	11/10/2010	Bill Ferrell	Approved
Foundation - Footings 278 & 279	11/10/2010	11/10/2010	Bill Ferrell	Approved

Foundation - Footings 278 & 279	11/10/2010	11/10/2010	Bill Ferrell	Approved
Foundation - Footings 278 & 279	11/10/2010	11/10/2010	Bill Ferrell	Approved
Foundation - Footings 276 & 277	11/10/2010	11/11/2010	Bill Ferrell	Approved
Foundation - Footings 276 & 277	11/10/2010	11/11/2010	Bill Ferrell	Approved
Foundation - Footings 276 & 277	11/10/2010	11/11/2010	Bill Ferrell	Approved
Foundation - Footings 276 & 277	11/10/2010	11/11/2010	Bill Ferrell	Approved
Foundation - Footings 276 & 277	11/10/2010	11/11/2010	Bill Ferrell	Approved
Foundation - Footings 276 & 277	11/10/2010	11/11/2010	Bill Ferrell	Approved
Foundation - Footings 276 & 277	11/10/2010	11/11/2010	Bill Ferrell	Approved
Foundation - Footings 276 & 277	11/10/2010	11/11/2010	Bill Ferrell	Approved
Foundation - Pier/Posts 280 & 281	11/10/2010	11/11/2010	Bill Ferrell	Approved
Foundation - Pier/Posts 280 & 281	11/10/2010	11/11/2010	Bill Ferrell	Approved
Foundation - Pier/Posts 280 & 281	11/10/2010	11/11/2010	Bill Ferrell	Approved
Foundation - Pier/Posts 280 & 281	11/10/2010	11/11/2010	Bill Ferrell	Approved
Foundation - Pier/Posts 278 & 279	11/12/2010	11/12/2010	Bill Ferrell	Approved
Foundation - Pier/Posts 278 & 279	11/12/2010	11/12/2010	Bill Ferrell	Approved
Foundation - Pier/Posts 278 & 279	11/12/2010	11/12/2010	Bill Ferrell	Approved
Foundation - Pier/Posts 278 & 279	11/12/2010	11/12/2010	Bill Ferrell	Approved
Foundation - Footings 274 & 275	11/12/2010	11/12/2010	Bill Ferrell	Approved
Foundation - Footings 274 & 275	11/12/2010	11/12/2010	Bill Ferrell	Approved
Foundation - Footings 274 & 275	11/12/2010	11/12/2010	Bill Ferrell	Approved
Foundation - Footings 274 & 275	11/12/2010	11/12/2010	Bill Ferrell	Approved
Foundation - Footings 274 & 275	11/12/2010	11/12/2010	Bill Ferrell	Approved
Foundation - Footings 274 & 275	11/12/2010	11/12/2010	Bill Ferrell	Approved
Foundation - Footings 274 & 275	11/12/2010	11/12/2010	Bill Ferrell	Approved
Foundation - Footings 274 & 275	11/12/2010	11/12/2010	Bill Ferrell	Approved

Foundation - Footings 276 & 277	11/15/2010	11/15/2010	Bill Ferrell	Approved
Foundation - Footings 276 & 277	11/15/2010	11/15/2010	Bill Ferrell	Approved
Foundation - Footings 276 & 277	11/12/2010	11/15/2010	Bill Ferrell	Approved
Foundation - Footings 276 & 277	11/15/2010	11/15/2010	Bill Ferrell	Approved
Foundation - Footings 276 & 277	11/15/2010	11/15/2010	Bill Ferrell	Approved
Foundation - Footings 272 & 273	11/15/2010	11/15/2010	Bill Ferrell	Approved
Foundation - Footings 272 & 273	11/15/2010	11/15/2010	Bill Ferrell	Approved
Foundation - Footings 272 & 273	11/12/2010	11/15/2010	Bill Ferrell	Approved
Foundation - Footings 272 & 273	11/15/2010	11/15/2010	Bill Ferrell	Approved
Foundation - Footings 272 & 273	11/15/2010	11/15/2010	Bill Ferrell	Approved
Foundation - Pier/Posts 276 & 277	11/15/2010	11/15/2010	Bill Ferrell	Approved
Foundation - Pier/Posts 276 & 277	11/12/2010	11/15/2010	Bill Ferrell	Approved
Foundation - Pier/Posts 276 & 277	11/15/2010	11/15/2010	Bill Ferrell	Approved
Foundation - Pier/Posts 276 & 277	11/15/2010	11/15/2010	Bill Ferrell	Approved
Foundation - Pier/Posts 276 & 277	11/15/2010	11/15/2010	Bill Ferrell	Approved
Foundation - Pier/Posts 274 & 275	11/15/2010	11/16/2010	Bill Ferrell	Approved
Foundation - Pier/Posts 274 & 275	11/15/2010	11/16/2010	Bill Ferrell	Approved
Foundation - Pier/Posts 274 & 275	11/15/2010	11/16/2010	Bill Ferrell	Approved
Foundation - Pier/Posts 274 & 275	11/15/2010	11/16/2010	Bill Ferrell	Approved
Foundation - Footings 270 & 271	11/15/2010	11/16/2010	Bill Ferrell	Approved
Foundation - Footings 270 & 271	11/15/2010	11/16/2010	Bill Ferrell	Approved
Foundation - Footings 270 & 271	11/15/2010	11/16/2010	Bill Ferrell	Approved
Foundation - Footings 270 & 271	11/15/2010	11/16/2010	Bill Ferrell	Approved
Foundation - Footings 270 & 271	11/15/2010	11/16/2010	Bill Ferrell	Approved
Foundation - Footings 270 & 271	11/15/2010	11/16/2010	Bill Ferrell	Approved
Foundation - Footings 270 & 271	11/15/2010	11/16/2010	Bill Ferrell	Approved

Foundation - Footings 270 & 271	11/15/2010	11/16/2010	Bill Ferrell	Approved
Foundation - Footings 269 & 305	11/16/2010	11/17/2010	Bill Ferrell	Approved
Foundation - Footings 269 & 305	11/16/2010	11/17/2010	Bill Ferrell	Approved
Foundation - Footings 269 & 305	11/16/2010	11/17/2010	Bill Ferrell	Approved
Foundation - Footings 269 & 305	11/16/2010	11/17/2010	Bill Ferrell	Approved
Foundation - Footings	11/16/2010	11/17/2010	Bill Ferrell	Approved
Foundation - Footings	11/16/2010	11/17/2010	Bill Ferrell	Approved
Foundation - Footings	11/16/2010	11/17/2010	Bill Ferrell	Approved
Foundation - Footings	11/16/2010	11/17/2010	Bill Ferrell	Approved
Foundation - Pier/Posts 272 & 273	11/16/2010	11/17/2010	Bill Ferrell	Approved
Foundation - Pier/Posts 272 & 273	11/16/2010	11/17/2010	Bill Ferrell	Approved
Foundation - Pier/Posts 272 & 273	11/16/2010	11/17/2010	Bill Ferrell	Approved
Foundation - Pier/Posts 272 & 273	11/16/2010	11/17/2010	Bill Ferrell	Approved
Foundation - Pier/Posts 270 & 271	11/17/2010	11/18/2010	Bill Ferrell	Approved
Foundation - Pier/Posts 270 & 271	11/17/2010	11/18/2010	Bill Ferrell	Approved
Foundation - Pier/Posts 270 & 271	11/17/2010	11/18/2010	Bill Ferrell	Approved
Foundation - Pier/Posts 270 & 271	11/17/2010	11/18/2010	Bill Ferrell	Approved
Foundation - Footings 11-17 269 & 305 11-18 306 & 307	11/17/2010	11/18/2010	Bill Ferrell	Approved
Foundation - Footings 11-17 269 & 305 11-18 306 & 307	11/17/2010	11/18/2010	Bill Ferrell	Approved
Foundation - Footings 11-17 269 & 305 11-18 306 & 307	11/17/2010	11/18/2010	Bill Ferrell	Approved
Foundation - Footings 11-17 269 & 305 11-18 306 & 307	11/17/2010	11/18/2010	Bill Ferrell	Approved
Foundation - Footings 306 & 307	11/17/2010	11/18/2010	Bill Ferrell	Approved
Foundation - Footings 306 & 307	11/17/2010	11/18/2010	Bill Ferrell	Approved
Foundation - Footings 306 & 307	11/17/2010	11/18/2010	Bill Ferrell	Approved
Foundation - Footings 306 & 307	11/17/2010	11/18/2010	Bill Ferrell	Approved
Foundation - Pier/Posts 269 & 305	11/19/2010	11/19/2010	Bill Ferrell	Approved
Foundation - Pier/Posts 269 & 305	11/19/2010	11/19/2010	Bill Ferrell	Approved
Foundation - Pier/Posts 269 & 305	11/19/2010	11/19/2010	Bill Ferrell	Approved

Foundation - Pier/Posts 269 & 305	11/19/2010	11/19/2010	Bill Ferrell	Approved
Foundation - Footings 308 & 309	11/19/2010	11/19/2010	Bill Ferrell	Approved
Foundation - Footings 308 & 309	11/19/2010	11/19/2010	Bill Ferrell	Approved
Foundation - Footings 308 & 309	11/19/2010	11/19/2010	Bill Ferrell	Approved
Foundation - Footings 308 & 309	11/19/2010	11/19/2010	Bill Ferrell	Approved
Foundation - Footings 308 & 309	11/19/2010	11/19/2010	Bill Ferrell	Approved
Foundation - Footings 308 & 309	11/19/2010	11/19/2010	Bill Ferrell	Approved
Foundation - Footings 308 & 309	11/19/2010	11/19/2010	Bill Ferrell	Approved
Foundation - Footings 308 & 309	11/19/2010	11/19/2010	Bill Ferrell	Approved
Foundation - Footings 310 & 311	11/22/2010	11/22/2010	Bill Ferrell	Approved
Foundation - Footings 310 & 311	11/22/2010	11/22/2010	Bill Ferrell	Approved
Foundation - Footings 310 & 311	11/22/2010	11/22/2010	Bill Ferrell	Approved
Foundation - Footings 310 & 311	11/22/2010	11/22/2010	Bill Ferrell	Approved
Foundation - Footings 310 & 311	11/22/2010	11/22/2010	Bill Ferrell	Approved
Foundation - Footings 310 & 311	11/22/2010	11/22/2010	Bill Ferrell	Approved
Foundation - Footings 310 & 311	11/22/2010	11/22/2010	Bill Ferrell	Approved
Foundation - Footings 310 & 311	11/22/2010	11/22/2010	Bill Ferrell	Approved
Foundation - Pier/Posts 306 & 307	11/22/2010	11/22/2010	Bill Ferrell	Approved
Foundation - Pier/Posts 306 & 307	11/22/2010	11/22/2010	Bill Ferrell	Approved
Foundation - Pier/Posts 306 & 307	11/22/2010	11/22/2010	Bill Ferrell	Approved
Foundation - Pier/Posts 306 & 307	11/22/2010	11/22/2010	Bill Ferrell	Approved
Foundation - Footings 312 & 313	11/22/2010	11/23/2010	Bill Ferrell	Approved
Foundation - Footings 312 & 313	11/22/2010	11/23/2010	Bill Ferrell	Approved
Foundation - Footings 312 & 313	11/22/2010	11/23/2010	Bill Ferrell	Approved
Foundation - Footings 312 & 313	11/22/2010	11/23/2010	Bill Ferrell	Approved
Foundation - Pier/Posts 308 & 309	11/22/2010	11/23/2010	Bill Ferrell	Approved

Foundation - Pier/Posts 308 & 309	11/22/2010	11/23/2010	Bill Ferrell	Approved
Foundation - Pier/Posts 308 & 309	11/22/2010	11/23/2010	Bill Ferrell	Approved
Foundation - Pier/Posts 308 & 309	11/22/2010	11/23/2010	Bill Ferrell	Approved
Foundation - Footings 312 & 313	11/22/2010	11/23/2010	Bill Ferrell	Approved
Foundation - Footings 312 & 313	11/22/2010	11/23/2010	Bill Ferrell	Approved
Foundation - Footings 312 & 313	11/22/2010	11/23/2010	Bill Ferrell	Approved
Foundation - Footings 312 & 313	11/22/2010	11/23/2010	Bill Ferrell	Approved
Address Verification	11/24/2010	11/24/2010	Bill Ferrell	Approved
Address Verification	11/24/2010	11/24/2010	Bill Ferrell	Approved
Address Verification	11/24/2010	11/24/2010	Bill Ferrell	Approved
Address Verification	11/24/2010	11/24/2010	Bill Ferrell	Approved
Address Verification	11/24/2010	11/24/2010	Bill Ferrell	Approved
Address Verification	11/24/2010	11/24/2010	Bill Ferrell	Approved
Structural exterior visual # 102,103, 104, 105, 106, 106	11/24/2010	11/24/2010	Bill Ferrell	Approved
Structural exterior visual # 102,103, 104, 105, 106, 106	11/24/2010	11/24/2010	Bill Ferrell	Approved
Structural exterior visual # 102,103, 104, 105, 106, 106	11/24/2010	11/24/2010	Bill Ferrell	Approved
Structural exterior visual # 102,103, 104, 105, 106, 106	11/24/2010	11/24/2010	Bill Ferrell	Approved
Structural exterior visual # 102,103, 104, 105, 106, 106	11/24/2010	11/24/2010	Bill Ferrell	Approved
Structural exterior visual # 102,103, 104, 105, 106, 106	11/24/2010	11/24/2010	Bill Ferrell	Approved
Structural exterior 108,109, 110, 111, 118, 119 & 120	11/29/2010	11/29/2010	Bill Ferrell	Approved
Structural exterior 108,109, 110, 111, 118, 119 & 120	11/29/2010	11/29/2010	Bill Ferrell	Approved
Structural exterior 108,109, 110, 111, 118, 119 & 120	11/29/2010	11/29/2010	Bill Ferrell	Approved
Structural exterior 108,109, 110, 111, 118, 119 & 120	11/29/2010	11/29/2010	Bill Ferrell	Approved
Structural exterior 108,109, 110, 111, 118, 119 & 120	11/29/2010	11/29/2010	Bill Ferrell	Approved
Structural exterior 108,109, 110, 111, 118, 119 & 120	11/29/2010	11/29/2010	Bill Ferrell	Approved
Structural exterior 108,109, 110, 111, 118, 119 & 120	11/29/2010	11/29/2010	Bill Ferrell	Approved
Foundation - Pier/Posts 310 & 311	11/30/2010	11/30/2010	Bill Ferrell	Approved
Foundation - Pier/Posts 310 & 311	11/30/2010	11/30/2010	Bill Ferrell	Approved

Foundation - Pier/Posts 310 & 311	11/30/2010	11/30/2010	Bill Ferrell	Approved
Foundation - Pier/Posts 310 & 311	11/30/2010	11/30/2010	Bill Ferrell	Approved
Foundation - Pier/Posts 310 & 311	11/30/2010	11/30/2010	Bill Ferrell	Approved
Foundation - Footings 314, 315 & 316	11/30/2010	11/30/2010	Bill Ferrell	Approved
Foundation - Footings 314, 315 & 316	11/30/2010	11/30/2010	Bill Ferrell	Approved
Foundation - Footings 314, 315 & 316	11/30/2010	11/30/2010	Bill Ferrell	Approved
Foundation - Footings 314, 315 & 316	11/30/2010	11/30/2010	Bill Ferrell	Approved
Foundation - Footings 314, 315 & 316	11/30/2010	11/30/2010	Bill Ferrell	Approved
Foundation - Footings 314, 315 & 316	11/30/2010	11/30/2010	Bill Ferrell	Approved
Foundation - Footings 314, 315 & 316	11/30/2010	11/30/2010	Bill Ferrell	Approved
Foundation - Footings 314, 315 & 316	11/30/2010	11/30/2010	Bill Ferrell	Approved
Foundation - Footings 314, 315 & 316	11/30/2010	11/30/2010	Bill Ferrell	Approved
Foundation - Footings 314, 315 & 316	11/30/2010	11/30/2010	Bill Ferrell	Approved
Foundation - Footings 330 & 331	11/30/2010	12/1/2010	Bill Ferrell	Approved
Foundation - Footings 330 & 331	11/30/2010	12/1/2010	Bill Ferrell	Approved
Foundation - Footings 330 & 331	11/30/2010	12/1/2010	Bill Ferrell	Approved
Foundation - Footings 330 & 331	11/30/2010	12/1/2010	Bill Ferrell	Approved
Foundation - Footings 330 & 331	11/30/2010	12/1/2010	Bill Ferrell	Approved
Foundation - Footings 330 & 331	11/30/2010	12/1/2010	Bill Ferrell	Approved
Foundation - Footings 330 & 331	11/30/2010	12/1/2010	Bill Ferrell	Approved
Foundation - Footings 330 & 331	11/30/2010	12/1/2010	Bill Ferrell	Approved
Foundation - Pier/Posts 312, 313 & 314	11/30/2010	12/1/2010	Bill Ferrell	Approved
Foundation - Pier/Posts 312, 313 & 314	11/30/2010	12/1/2010	Bill Ferrell	Approved
Foundation - Pier/Posts 312, 313 & 314	11/30/2010	12/1/2010	Bill Ferrell	Approved
Foundation - Pier/Posts 312, 313 & 314	11/30/2010	12/1/2010	Bill Ferrell	Approved
Foundation - Pier/Posts 315 & 316	12/1/2010	12/2/2010	Bill Ferrell	Approved

Foundation - Pier/Posts 315 & 316	12/1/2010	12/2/2010	Bill Ferrell	Approved
Foundation - Pier/Posts 315 & 316	12/1/2010	12/2/2010	Bill Ferrell	Approved
Foundation - Pier/Posts 315 & 316	12/1/2010	12/2/2010	Bill Ferrell	Approved
Foundation - Pier/Posts 315 & 316	12/1/2010	12/2/2010	Bill Ferrell	Approved
Foundation - Footings 328 & 329	12/1/2010	12/2/2010	Bill Ferrell	Approved
Foundation - Footings 328 & 329	12/1/2010	12/2/2010	Bill Ferrell	Approved
Foundation - Footings 328 & 329	12/1/2010	12/2/2010	Bill Ferrell	Approved
Foundation - Footings 328 & 329	12/1/2010	12/2/2010	Bill Ferrell	Approved
Foundation - Footings 328 & 329	12/1/2010	12/2/2010	Bill Ferrell	Approved
Foundation - Footings 328 & 329	12/1/2010	12/2/2010	Bill Ferrell	Approved
Foundation - Footings 328 & 329	12/1/2010	12/2/2010	Bill Ferrell	Approved
Foundation - Footings 328 & 329	12/1/2010	12/2/2010	Bill Ferrell	Approved
Foundation - Footings 328 & 329	12/1/2010	12/2/2010	Bill Ferrell	Approved
Foundation - Footings 328 & 329	12/1/2010	12/2/2010	Bill Ferrell	Approved
Foundation - Footings 326 & 327	12/2/2010	12/3/2010	Bill Ferrell	Approved
Foundation - Footings 326 & 327	12/2/2010	12/3/2010	Bill Ferrell	Approved
Foundation - Footings 326 & 327	12/2/2010	12/3/2010	Bill Ferrell	Approved
Foundation - Footings 326 & 327	12/2/2010	12/3/2010	Bill Ferrell	Approved
Foundation - Footings 326 & 327	12/2/2010	12/3/2010	Bill Ferrell	Approved
Foundation - Footings 326 & 327	12/2/2010	12/3/2010	Bill Ferrell	Approved
Foundation - Footings 326 & 327	12/2/2010	12/3/2010	Bill Ferrell	Approved
Foundation - Footings 326 & 327	12/2/2010	12/3/2010	Bill Ferrell	Approved
Foundation - Pier/Posts 330 & 331	12/2/2010	12/3/2010	Bill Ferrell	Approved
Foundation - Pier/Posts 330 & 331	12/2/2010	12/3/2010	Bill Ferrell	Approved
Foundation - Pier/Posts 330 & 331	12/2/2010	12/3/2010	Bill Ferrell	Approved
Foundation - Pier/Posts 330 & 331	12/2/2010	12/3/2010	Bill Ferrell	Approved

Foundation - Footings 324 & 325 SAT 12-4	12/6/2010	12/6/2010	Bill Ferrell	Approved
Foundation - Footings 324 & 325 SAT 12-4	12/6/2010	12/6/2010	Bill Ferrell	Approved
Foundation - Footings 324 & 325 SAT 12-4	12/6/2010	12/6/2010	Bill Ferrell	Approved
Foundation - Footings 324 & 325 SAT 12-4	12/6/2010	12/6/2010	Bill Ferrell	Approved
Foundation - Footings 324 & 325 SAT 12-4	12/6/2010	12/6/2010	Bill Ferrell	Approved
Foundation - Footings 324 & 325 SAT 12-4	12/6/2010	12/6/2010	Bill Ferrell	Approved
Foundation - Footings 324 & 325 SAT 12-4	12/6/2010	12/6/2010	Bill Ferrell	Approved
Foundation - Footings 324 & 325 SAT 12-4	12/6/2010	12/6/2010	Bill Ferrell	Approved
Foundation - Footings 322 & 323	12/6/2010	12/6/2010	Bill Ferrell	Approved
Foundation - Footings 322 & 323	12/6/2010	12/6/2010	Bill Ferrell	Approved
Foundation - Footings 322 & 323	12/6/2010	12/6/2010	Bill Ferrell	Approved
Foundation - Footings 322 & 323	12/6/2010	12/6/2010	Bill Ferrell	Approved
Foundation - Footings 322 & 323	12/6/2010	12/6/2010	Bill Ferrell	Approved
Foundation - Footings 322 & 323	12/6/2010	12/6/2010	Bill Ferrell	Approved
Foundation - Footings 322 & 323	12/6/2010	12/6/2010	Bill Ferrell	Approved
Foundation - Footings 322 & 323	12/6/2010	12/6/2010	Bill Ferrell	Approved
Foundation - Footings 324 & 325 SAT 12- 4	12/6/2010	12/6/2010	Bill Ferrell	Approved
Foundation - Footings 324 & 325 SAT 12- 4	12/6/2010	12/6/2010	Bill Ferrell	Approved
Foundation - Footings 324 & 325 SAT 12- 4	12/6/2010	12/6/2010	Bill Ferrell	Approved
Foundation - Footings 324 & 325 SAT 12- 4	12/6/2010	12/6/2010	Bill Ferrell	Approved
Foundation - Footings 324 & 325 SAT 12- 4	12/6/2010	12/6/2010	Bill Ferrell	Approved
Foundation - Footings 324 & 325 SAT 12- 4	12/6/2010	12/6/2010	Bill Ferrell	Approved
Foundation - Footings 322 & 323	12/6/2010	12/6/2010	Bill Ferrell	Approved
Foundation - Footings 322 & 323	12/6/2010	12/6/2010	Bill Ferrell	Approved
Foundation - Footings 322 & 323	12/6/2010	12/6/2010	Bill Ferrell	Approved
Foundation - Footings 322 & 323	12/6/2010	12/6/2010	Bill Ferrell	Approved

Foundation - Footings 322 & 323	12/6/2010	12/6/2010	Bill Ferrell	Approved
Foundation - Pier/Posts 328 & 329 SAT 1`2-4	12/6/2010	12/6/2010	Bill Ferrell	Approved
Foundation - Pier/Posts 328 & 329 SAT 1`2-4	12/6/2010	12/6/2010	Bill Ferrell	Approved
Foundation - Pier/Posts 328 & 329 SAT 1`2-4	12/6/2010	12/6/2010	Bill Ferrell	Approved
Foundation - Pier/Posts 328 & 329 SAT 1`2-4	12/6/2010	12/6/2010	Bill Ferrell	Approved
Foundation - Pier/Posts 328 & 329 SAT 1`2-4	12/6/2010	12/6/2010	Bill Ferrell	Approved
Foundation - Pier/Posts 328 & 329 SAT 1`2-4	12/6/2010	12/6/2010	Bill Ferrell	Approved
Foundation - Pier/Posts 328 & 329 SAT 1`2-4	12/6/2010	12/6/2010	Bill Ferrell	Approved
Foundation - Pier/Posts 326 & 327	12/6/2010	12/6/2010	Bill Ferrell	Approved
Foundation - Pier/Posts 326 & 327	12/6/2010	12/6/2010	Bill Ferrell	Approved
Foundation - Pier/Posts 326 & 327	12/6/2010	12/6/2010	Bill Ferrell	Approved
Foundation - Pier/Posts 326 & 327	12/6/2010	12/6/2010	Bill Ferrell	Approved
Foundation - Pier/Posts 326 & 327	12/6/2010	12/6/2010	Bill Ferrell	Approved
Foundation - Pier/Posts 326 & 327	12/6/2010	12/6/2010	Bill Ferrell	Approved
Foundation - Pier/Posts 326 & 327	12/6/2010	12/6/2010	Bill Ferrell	Approved
Foundation - Footings 322 & 323	12/6/2010	12/6/2010	Bill Ferrell	Approved
Foundation - Footings 322 & 323	12/6/2010	12/6/2010	Bill Ferrell	Approved
Foundation - Footings 322 & 323	12/6/2010	12/6/2010	Bill Ferrell	Approved
Foundation - Footings 324 & 325 SAT 12- 4	12/6/2010	12/6/2010	Bill Ferrell	Approved
Foundation - Footings 324 & 325 SAT 12- 4	12/6/2010	12/6/2010	Bill Ferrell	Approved
Foundation - Footings 320 & 321	12/6/2010	12/7/2010	Bill Ferrell	Approved
Foundation - Footings 320 & 321	12/6/2010	12/7/2010	Bill Ferrell	Approved
Foundation - Footings 320 & 321	12/6/2010	12/7/2010	Bill Ferrell	Approved
Foundation - Footings 320 & 321	12/6/2010	12/7/2010	Bill Ferrell	Approved

Foundation - Footings 320 & 321	12/6/2010	12/7/2010	Bill Ferrell	Approved
Foundation - Footings 320 & 321	12/6/2010	12/7/2010	Bill Ferrell	Approved
Foundation - Footings 320 & 321	12/6/2010	12/7/2010	Bill Ferrell	Approved
Foundation - Footings 320 & 321	12/6/2010	12/7/2010	Bill Ferrell	Approved
Foundation - Pier/Posts 324 & 325	12/6/2010	12/7/2010	Bill Ferrell	Approved
Foundation - Pier/Posts 324 & 325	12/6/2010	12/7/2010	Bill Ferrell	Approved
Foundation - Pier/Posts 324 & 325	12/6/2010	12/7/2010	Bill Ferrell	Approved
Foundation - Footings 320 & 321	12/6/2010	12/7/2010	Bill Ferrell	Approved
Foundation - Footings 320 & 321	12/6/2010	12/7/2010	Bill Ferrell	Approved
Foundation - Pier/Posts 324 & 325	12/6/2010	12/7/2010	Bill Ferrell	Approved
Foundation - Pier/Posts 324 & 325	12/6/2010	12/7/2010	Bill Ferrell	Approved
Foundation - Pier/Posts 322 & 323	12/7/2010	12/8/2010	Bill Ferrell	Approved
Foundation - Pier/Posts 322 & 323	12/7/2010	12/8/2010	Bill Ferrell	Approved
Foundation - Pier/Posts 322 & 323	12/7/2010	12/8/2010	Bill Ferrell	Approved
Foundation - Footings 345 & 346	12/7/2010	12/8/2010	Bill Ferrell	Approved
Foundation - Footings 345 & 346	12/7/2010	12/8/2010	Bill Ferrell	Approved
Foundation - Footings 345 & 346	12/7/2010	12/8/2010	Bill Ferrell	Approved
Foundation - Pier/Posts 322 & 323	12/7/2010	12/8/2010	Bill Ferrell	Approved
Foundation - Pier/Posts 322 & 323	12/8/2010	12/8/2010	Bill Ferrell	Approved
Foundation - Footings 345 & 346	12/7/2010	12/8/2010	Bill Ferrell	Approved
Foundation - Footings 345 & 346	12/7/2010	12/8/2010	Bill Ferrell	Approved
Foundation - Footings 345 & 346	12/7/2010	12/8/2010	Bill Ferrell	Approved
Foundation - Footings 345 & 346	12/7/2010	12/8/2010	Bill Ferrell	Approved
Foundation - Footings 345 & 346	12/8/2010	12/8/2010	Bill Ferrell	Approved
Foundation - Footings 345 & 346	12/7/2010	12/8/2010	Bill Ferrell	Approved
Foundation - Footings 345 & 346	12/8/2010	12/8/2010	Bill Ferrell	Approved

Foundation - Footings 343 & 344	12/8/2010	12/9/2010	Bill Ferrell	Approved
Foundation - Footings 343 & 344	12/8/2010	12/9/2010	Bill Ferrell	Approved
Foundation - Footings 343 & 344	12/8/2010	12/9/2010	Bill Ferrell	Approved
Foundation - Footings 343 & 344	12/8/2010	12/9/2010	Bill Ferrell	Approved
Foundation - Footings 343 & 344	12/8/2010	12/9/2010	Bill Ferrell	Approved
Foundation - Footings 343 & 344	12/8/2010	12/9/2010	Bill Ferrell	Approved
Foundation - Footings 343 & 344	12/8/2010	12/9/2010	Bill Ferrell	Approved
Foundation - Footings 343 & 344	12/8/2010	12/9/2010	Bill Ferrell	Approved
Foundation - Pier/Posts 320 &321	12/8/2010	12/9/2010	Bill Ferrell	Approved
Foundation - Pier/Posts 320 &321	12/8/2010	12/9/2010	Bill Ferrell	Approved
Foundation - Pier/Posts 320 &321	12/8/2010	12/9/2010	Bill Ferrell	Approved
Foundation - Pier/Posts 320 &321	12/8/2010	12/9/2010	Bill Ferrell	Approved
Foundation - Pier/Posts 345 & 346	12/9/2010	12/10/2010	Bill Ferrell	Approved
Foundation - Pier/Posts 345 & 346	12/9/2010	12/10/2010	Bill Ferrell	Approved
Foundation - Pier/Posts 345 & 346	12/9/2010	12/10/2010	Bill Ferrell	Approved
Foundation - Pier/Posts 345 & 346	12/9/2010	12/10/2010	Bill Ferrell	Approved
Foundation - Pier/Posts 345 & 346	12/9/2010	12/10/2010	Bill Ferrell	Approved
Foundation - Footings 340, 341 & 342	12/9/2010	12/10/2010	Bill Ferrell	Approved
Foundation - Footings 340, 341 & 342	12/9/2010	12/10/2010	Bill Ferrell	Approved
Foundation - Footings 340, 341 & 342	12/9/2010	12/10/2010	Bill Ferrell	Approved
Foundation - Footings 340, 341 & 342	12/9/2010	12/10/2010	Bill Ferrell	Approved
Foundation - Footings 340, 341 & 342	12/9/2010	12/10/2010	Bill Ferrell	Approved
Foundation - Footings 340, 341 & 342	12/9/2010	12/10/2010	Bill Ferrell	Approved
Foundation - Footings 340, 341 & 342	12/9/2010	12/10/2010	Bill Ferrell	Approved
Foundation - Footings 340, 341 & 342	12/9/2010	12/10/2010	Bill Ferrell	Approved

Foundation - Footings 340, 341 & 342	12/9/2010	12/10/2010	Bill Ferrell	Approved
Foundation - Footings 338 & 339	12/13/2010	12/13/2010	Bill Ferrell	Approved
Foundation - Footings 338 & 339	12/13/2010	12/13/2010	Bill Ferrell	Approved
Foundation - Footings 338 & 339	12/13/2010	12/13/2010	Bill Ferrell	Approved
Foundation - Footings 338 & 339	12/13/2010	12/13/2010	Bill Ferrell	Approved
Foundation - Footings 338 & 339	12/13/2010	12/13/2010	Bill Ferrell	Approved
Foundation - Footings 338 & 339	12/13/2010	12/13/2010	Bill Ferrell	Approved
Foundation - Footings 338 & 339	12/13/2010	12/13/2010	Bill Ferrell	Approved
Foundation - Footings 338 & 339	12/13/2010	12/13/2010	Bill Ferrell	Approved
Foundation - Footings 338 & 339	12/10/2010	12/13/2010	Bill Ferrell	Approved
Foundation - Footings 338 & 339	12/10/2010	12/13/2010	Bill Ferrell	Approved
Foundation - Footings 338 & 339	12/10/2010	12/13/2010	Bill Ferrell	Approved
Foundation - Footings 338 & 339	12/10/2010	12/13/2010	Bill Ferrell	Approved
Foundation - Footings 338 & 339	12/13/2010	12/13/2010	Bill Ferrell	Approved
Foundation - Footings 338 & 339	12/13/2010	12/13/2010	Bill Ferrell	Approved
Foundation - Pier/Posts 342	12/13/2010	12/13/2010	Bill Ferrell	Approved
Foundation - Pier/Posts 343 & 344	12/13/2010	12/13/2010	Bill Ferrell	Approved
Foundation - Pier/Posts 342	12/13/2010	12/13/2010	Bill Ferrell	Approved
Foundation - Pier/Posts 343 & 344	12/13/2010	12/13/2010	Bill Ferrell	Approved
Foundation - Pier/Posts 342	12/13/2010	12/13/2010	Bill Ferrell	Approved
Foundation - Pier/Posts 343 & 344	12/13/2010	12/13/2010	Bill Ferrell	Approved
Foundation - Pier/Posts 342	12/13/2010	12/13/2010	Bill Ferrell	Approved
Foundation - Pier/Posts 343 & 344	12/13/2010	12/13/2010	Bill Ferrell	Approved
Foundation - Pier/Posts 342	12/13/2010	12/13/2010	Bill Ferrell	Approved
Foundation - Pier/Posts 343 & 344	12/13/2010	12/13/2010	Bill Ferrell	Approved
Foundation - Pier/Posts 342	12/13/2010	12/13/2010	Bill Ferrell	Approved

Foundation - Pier/Posts 343 & 344	12/13/2010	12/13/2010	Bill Ferrell	Approved
Foundation - Pier/Posts 342	12/13/2010	12/13/2010	Bill Ferrell	Approved
Foundation - Pier/Posts 343 & 344	12/13/2010	12/13/2010	Bill Ferrell	Approved
Foundation - Pier/Posts 342	12/13/2010	12/13/2010	Bill Ferrell	Approved
Foundation - Pier/Posts 343 & 344	12/13/2010	12/13/2010	Bill Ferrell	Approved
Foundation - Pier/Posts 342	12/10/2010	12/13/2010	Bill Ferrell	Approved
Foundation - Pier/Posts 343 & 344	12/10/2010	12/13/2010	Bill Ferrell	Approved
Foundation - Pier/Posts 342	12/10/2010	12/13/2010	Bill Ferrell	Approved
Foundation - Pier/Posts 343 & 344	12/10/2010	12/13/2010	Bill Ferrell	Approved
Foundation - Pier/Posts 342	12/10/2010	12/13/2010	Bill Ferrell	Approved
Foundation - Pier/Posts 343 & 344	12/10/2010	12/13/2010	Bill Ferrell	Approved
Foundation - Pier/Posts 342	12/10/2010	12/13/2010	Bill Ferrell	Approved
Foundation - Pier/Posts 343 & 344	12/10/2010	12/13/2010	Bill Ferrell	Approved
Foundation - Pier/Posts 342	12/13/2010	12/13/2010	Bill Ferrell	Approved
Foundation - Pier/Posts 343 & 344	12/13/2010	12/13/2010	Bill Ferrell	Approved
Foundation - Pier/Posts 342	12/13/2010	12/13/2010	Bill Ferrell	Approved
Foundation - Pier/Posts 343 & 344	12/13/2010	12/13/2010	Bill Ferrell	Approved
Foundation - Footings 338 & 339	12/10/2010	12/13/2010	Bill Ferrell	Approved
Foundation - Footings 338 & 339	12/10/2010	12/13/2010	Bill Ferrell	Approved
Foundation - Footings 338 & 339	12/10/2010	12/13/2010	Bill Ferrell	Approved
Foundation - Footings 338 & 339	12/10/2010	12/13/2010	Bill Ferrell	Approved
Foundation - Footings 338 & 339	12/13/2010	12/13/2010	Bill Ferrell	Approved
Foundation - Footings 338 & 339	12/13/2010	12/13/2010	Bill Ferrell	Approved
Foundation - Footings 338 & 339	12/13/2010	12/13/2010	Bill Ferrell	Approved
Foundation - Footings 338 & 339	12/13/2010	12/13/2010	Bill Ferrell	Approved
Foundation - Footings 338 & 339	12/13/2010	12/13/2010	Bill Ferrell	Approved

Foundation - Footings 338 & 339	12/13/2010	12/13/2010	Bill Ferrell	Approved
Foundation - Footings 338 & 339	12/13/2010	12/13/2010	Bill Ferrell	Approved
Foundation - Footings 338 & 339	12/13/2010	12/13/2010	Bill Ferrell	Approved
Foundation - Footings 338 & 339	12/13/2010	12/13/2010	Bill Ferrell	Approved
Foundation - Footings 338 & 339	12/13/2010	12/13/2010	Bill Ferrell	Approved
Foundation - Pier/Posts 340 & 341	12/10/2010	12/14/2010	Bill Ferrell	Approved
Foundation - Pier/Posts 340 & 341	12/13/2010	12/14/2010	Bill Ferrell	Approved
Foundation - Pier/Posts 340 & 341	12/13/2010	12/14/2010	Bill Ferrell	Approved
Foundation - Pier/Posts 340 & 341	12/10/2010	12/14/2010	Bill Ferrell	Approved
Foundation - Pier/Posts 340 & 341	12/10/2010	12/14/2010	Bill Ferrell	Approved
Foundation - Footings 336 & 337	12/10/2010	12/14/2010	Bill Ferrell	Approved
Foundation - Footings 336 & 337	12/13/2010	12/14/2010	Bill Ferrell	Approved
Foundation - Footings 336 & 337	12/13/2010	12/14/2010	Bill Ferrell	Approved
Foundation - Footings 336 & 337	12/10/2010	12/14/2010	Bill Ferrell	Approved
Foundation - Footings 336 & 337	12/10/2010	12/14/2010	Bill Ferrell	Approved
Foundation - Footings 336 & 337	12/10/2010	12/14/2010	Bill Ferrell	Approved
Foundation - Footings 336 & 337	12/13/2010	12/14/2010	Bill Ferrell	Approved
Foundation - Footings 336 & 337	12/13/2010	12/14/2010	Bill Ferrell	Approved
Foundation - Footings 336 & 337	12/10/2010	12/14/2010	Bill Ferrell	Approved
Foundation - Footings 336 & 337	12/10/2010	12/14/2010	Bill Ferrell	Approved
Foundation - Footings 333, 334 & 335	12/14/2010	12/15/2010	Bill Ferrell	Approved
Foundation - Footings 333, 334 & 335	12/14/2010	12/15/2010	Bill Ferrell	Approved
Foundation - Footings 333, 334 & 335	12/14/2010	12/15/2010	Bill Ferrell	Approved
Foundation - Footings 333, 334 & 335	12/14/2010	12/15/2010	Bill Ferrell	Approved
Foundation - Footings 333, 334 & 335	12/14/2010	12/15/2010	Bill Ferrell	Approved
Foundation - Footings 333, 334 & 335	12/14/2010	12/15/2010	Bill Ferrell	Approved

Foundation - Pier/Posts 337, 338 & 339	12/14/2010	12/15/2010	Bill Ferrell	Approved
Foundation - Pier/Posts 337, 338 & 339	12/14/2010	12/15/2010	Bill Ferrell	Approved
Foundation - Pier/Posts 337, 338 & 339	12/14/2010	12/15/2010	Bill Ferrell	Approved
Foundation - Pier/Posts 337, 338 & 339	12/14/2010	12/15/2010	Bill Ferrell	Approved
Foundation - Pier/Posts 337, 338 & 339	12/14/2010	12/15/2010	Bill Ferrell	Approved
Foundation - Pier/Posts 337, 338 & 339	12/14/2010	12/15/2010	Bill Ferrell	Approved
Foundation - Footings 333, 334 & 335	12/14/2010	12/15/2010	Bill Ferrell	Approved
Foundation - Footings 333, 334 & 335	12/14/2010	12/15/2010	Bill Ferrell	Approved
Foundation - Footings 333, 334 & 335	12/14/2010	12/15/2010	Bill Ferrell	Approved
Foundation - Footings 333, 334 & 335	12/14/2010	12/15/2010	Bill Ferrell	Approved
Foundation - Footings 333, 334 & 335	12/14/2010	12/15/2010	Bill Ferrell	Approved
Foundation - Footings 333, 334 & 335	12/14/2010	12/15/2010	Bill Ferrell	Approved
Foundation - Pier/Posts 335 & 336	12/15/2010	12/16/2010	Bill Ferrell	Approved
Foundation - Pier/Posts 335 & 336	12/15/2010	12/16/2010	Bill Ferrell	Approved
Foundation - Pier/Posts 335 & 336	12/15/2010	12/16/2010	Bill Ferrell	Approved
Foundation - Footings 332	12/15/2010	12/16/2010	Bill Ferrell	Approved
Foundation - Footings 332	12/15/2010	12/16/2010	Bill Ferrell	Approved
Foundation - Footings 332	12/15/2010	12/16/2010	Bill Ferrell	Approved
Foundation - Footings 332	12/15/2010	12/16/2010	Bill Ferrell	Approved
Foundation - Footings 332	12/15/2010	12/16/2010	Bill Ferrell	Approved
Foundation - Footings 332	12/15/2010	12/16/2010	Bill Ferrell	Approved
Foundation - Pier/Posts 332, 333 & 334	12/16/2010	12/17/2010	Bill Ferrell	Approved
Foundation - Pier/Posts 332, 333 & 334	12/16/2010	12/17/2010	Bill Ferrell	Approved
Foundation - Pier/Posts 332, 333 & 334	12/16/2010	12/17/2010	Bill Ferrell	Approved
Structural exterior 160 - 169	12/20/2010	12/20/2010	Bill Ferrell	Approved
Structural exterior 160 - 169	12/20/2010	12/20/2010	Bill Ferrell	Approved

Structural exterior 160 - 169	12/20/2010	12/20/2010	Bill Ferrell	Approved
Structural exterior 160 - 169	12/20/2010	12/20/2010	Bill Ferrell	Approved
Structural exterior 160 - 169	12/20/2010	12/20/2010	Bill Ferrell	Approved
Structural exterior 160 - 169	12/20/2010	12/20/2010	Bill Ferrell	Approved
Structural exterior 160 - 169	12/20/2010	12/20/2010	Bill Ferrell	Approved
Structural exterior 160 - 169	12/20/2010	12/20/2010	Bill Ferrell	Approved
Structural exterior 160 - 169	12/20/2010	12/20/2010	Bill Ferrell	Approved
Structural exterior 160 - 169	12/20/2010	12/20/2010	Bill Ferrell	Approved
Structural 107	12/20/2010	12/21/2010	Bill Ferrell	Approved
Structural 107	12/20/2010	12/21/2010	Bill Ferrell	Approved
Structural 107	12/20/2010	12/21/2010	Bill Ferrell	Approved
Structural 107	12/20/2010	12/21/2010	Bill Ferrell	Approved
Structural 107	12/20/2010	12/21/2010	Bill Ferrell	Approved
Structural 114, 115, 116, 127, 128 &129	1/5/2011	1/6/2011	Bill Ferrell	Approved
Structural 114, 115, 116, 127, 128 &129	1/5/2011	1/6/2011	Bill Ferrell	Approved
Structural 114, 115, 116, 127, 128 &129	1/6/2011	1/6/2011	Bill Ferrell	Approved
Structural 114, 115, 116, 127, 128 &129	1/6/2011	1/6/2011	Bill Ferrell	Approved
Structural 121,122, 123 &124	1/7/2011	1/7/2011	Bill Ferrell	Approved
Structural 121,122, 123 &124	1/7/2011	1/7/2011	Bill Ferrell	Approved
Structural 121,122, 123 &124	1/7/2011	1/7/2011	Bill Ferrell	Approved
Structural 121,122, 123 &124	1/7/2011	1/7/2011	Bill Ferrell	Approved
Structural 130,131, 132, 134, &135	1/7/2011	1/10/2011	Bill Ferrell	Approved
Structural 130,131, 132, 134, &135	1/7/2011	1/10/2011	Bill Ferrell	Approved
Structural 130,131, 132, 134, &135	1/7/2011	1/10/2011	Bill Ferrell	Approved
Structural 136 & 137	1/12/2011	1/12/2011	Bill Ferrell	Approved

Structural 136 & 137	1/12/2011	1/12/2011	Bill Ferrell	Approved
Structural 136 & 137	1/12/2011	1/12/2011	Bill Ferrell	Approved
Structural 138 & 139	1/13/2011	1/14/2011	Bill Ferrell	Approved
Structural 138 & 139	1/13/2011	1/14/2011	Bill Ferrell	Approved
Structural 138 & 139	1/13/2011	1/14/2011	Bill Ferrell	Approved
Structural 130, 131 & 132	1/20/2011	1/20/2011	Bill Ferrell	Approved
Structural 130, 131 & 132	1/20/2011	1/20/2011	Bill Ferrell	Approved
Structural 134 & 135	1/20/2011	1/21/2011	Bill Ferrell	Approved
Structural 134 & 135	1/20/2011	1/21/2011	Bill Ferrell	Approved
Structural 146, 147 , 148 & 149	1/25/2011	1/26/2011	Bill Ferrell	Approved
Structural 146, 147 , 148 & 149	1/25/2011	1/26/2011	Bill Ferrell	Approved
Structural 146, 147 , 148 & 149	1/25/2011	1/26/2011	Bill Ferrell	Approved
Structural 150 , 151 , 152 & 153	1/27/2011	1/27/2011	Bill Ferrell	Approved
Structural 150 , 151 , 152 & 153	1/27/2011	1/27/2011	Bill Ferrell	Approved
Structural 150 , 151 , 152 & 153	1/27/2011	1/27/2011	Bill Ferrell	Approved
Structural 163, 164 & 165	1/28/2011	1/28/2011	Bill Ferrell	Approved
Structural 163, 164 & 165	1/28/2011	1/28/2011	Bill Ferrell	Approved
Structural 163, 164 & 165	1/28/2011	1/28/2011	Bill Ferrell	Approved
Structural 163, 164 & 165	1/28/2011	1/28/2011	Bill Ferrell	Approved
Structural 166,167,168,197,198,199,200,201&202	1/31/2011	1/31/2011	Bill Ferrell	Approved
Structural 166,167,168,197,198,199,200,201&202	1/31/2011	1/31/2011	Bill Ferrell	Approved
Structural 166,167,168,197,198,199,200,201&202	1/31/2011	1/31/2011	Bill Ferrell	Approved
Structural 203,204&205	1/31/2011	2/1/2011	Bill Ferrell	Approved
Structural 203,204&205	1/31/2011	2/1/2011	Bill Ferrell	Approved
Structural 203,204&205	1/31/2011	2/1/2011	Bill Ferrell	Approved
Structural 203,204&205	1/31/2011	2/1/2011	Bill Ferrell	Approved

Structural 206,207,208&209	2/2/2011	2/2/2011	Bill Ferrell	Approved
Structural 206,207,208&209	2/2/2011	2/2/2011	Bill Ferrell	Approved
Structural 206,207,208&209	2/2/2011	2/2/2011	Bill Ferrell	Approved
Structural 206,207,208&209	2/2/2011	2/2/2011	Bill Ferrell	Approved
Structural 189, 190, 191,192, 193,194&195	2/8/2011	2/8/2011	Bill Ferrell	Approved
Structural 212,213,214&215	2/8/2011	2/8/2011	Bill Ferrell	Approved
Structural 189, 190, 191,192, 193,194&195	2/8/2011	2/8/2011	Bill Ferrell	Approved
Structural 212,213,214&215	2/8/2011	2/8/2011	Bill Ferrell	Approved
Structural 189, 190, 191,192, 193,194&195	2/8/2011	2/8/2011	Bill Ferrell	Approved
Structural 212,213,214&215	2/8/2011	2/8/2011	Bill Ferrell	Approved
Structural 189, 190, 191,192, 193,194&195	2/8/2011	2/8/2011	Bill Ferrell	Approved
Structural 212,213,214&215	2/8/2011	2/8/2011	Bill Ferrell	Approved
Structural 227,228,229&230	2/10/2011	2/10/2011	Bill Ferrell	Approved
Structural 227,228,229&230	2/10/2011	2/10/2011	Bill Ferrell	Approved
Structural 227,228,229&230	2/10/2011	2/10/2011	Bill Ferrell	Approved
Structural 231,232,233,234&235	2/11/2011	2/11/2011	Bill Ferrell	Approved
Structural 231,232,233,234&235	2/11/2011	2/11/2011	Bill Ferrell	Approved
Structural 231,232,233,234&235	2/11/2011	2/11/2011	Bill Ferrell	Approved
Structural 231,232,233,234&235	2/11/2011	2/11/2011	Bill Ferrell	Approved
Structural 236,237,238&239	2/14/2011	2/14/2011	Bill Ferrell	Approved
Structural 236,237,238&239	2/14/2011	2/14/2011	Bill Ferrell	Approved
Structural 236,237,238&239	2/14/2011	2/14/2011	Bill Ferrell	Approved
Structural 236,237,238&239	2/14/2011	2/14/2011	Bill Ferrell	Approved
Structural 240,241,242,243,244&245	2/16/2011	2/16/2011	Bill Ferrell	Approved
Structural 240,241,242,243,244&245	2/16/2011	2/16/2011	Bill Ferrell	Approved
Structural 240,241,242,243,244&245	2/16/2011	2/16/2011	Bill Ferrell	Approved

Structural 269,270&271	2/17/2011	2/17/2011	Bill Ferrell	Approved
Structural 269,270&271	2/17/2011	2/17/2011	Bill Ferrell	Approved
Structural 269,270&271	2/17/2011	2/17/2011	Bill Ferrell	Approved
Structural 269,270&271	2/16/2011	2/17/2011	Bill Ferrell	Approved
Structural 310,311,312&313	2/18/2011	2/18/2011	Bill Ferrell	Approved
Structural 310,311,312&313	2/18/2011	2/18/2011	Bill Ferrell	Approved
Structural 310,311,312&313	2/18/2011	2/18/2011	Bill Ferrell	Approved
Structural 315,316,281,282,283,284,285	2/28/2011	2/28/2011	Bill Ferrell	Approved
Structural 314,286,287	3/1/2011	3/1/2011	Bill Ferrell	Approved
Structural 314,286,287	3/1/2011	3/1/2011	Bill Ferrell	Approved
Structural 314,286,287	3/1/2011	3/1/2011	Bill Ferrell	Approved
Structural 288,289,290	3/2/2011	3/2/2011	Bill Ferrell	Approved
Structural 288,289,290	3/2/2011	3/2/2011	Bill Ferrell	Approved
Structural 288,289,290	3/2/2011	3/2/2011	Bill Ferrell	Approved
Structural 291, 292	3/7/2011	3/7/2011	Bill Ferrell	Approved
Structural 291, 292	3/7/2011	3/7/2011	Bill Ferrell	Approved
Structural 246,247,248,249	3/8/2011	3/8/2011	Bill Ferrell	Approved
Structural 246,247,248,249	3/8/2011	3/8/2011	Bill Ferrell	Approved
Structural 246,247,248,249	3/8/2011	3/8/2011	Bill Ferrell	Approved
Structural 250,251	3/9/2011	3/10/2011	Bill Ferrell	Approved
Structural 252,253	3/11/2011	3/11/2011	Bill Ferrell	Approved
Structural 252,253	3/11/2011	3/11/2011	Bill Ferrell	Approved
Structural 252,253	3/11/2011	3/11/2011	Bill Ferrell	Approved
Structural 252,253	3/11/2011	3/11/2011	Bill Ferrell	Approved
Structural 252,253	3/11/2011	3/14/2011	Bill Ferrell	Approved
Structural 252,253	3/14/2011	3/14/2011	Bill Ferrell	Approved

Structural 252,253	3/14/2011	3/14/2011	Bill Ferrell	Approved
Structural 272,273	3/14/2011	3/15/2011	Bill Ferrell	Approved
Structural 272,273	3/15/2011	3/15/2011	Bill Ferrell	Approved
Structural 274,275	3/15/2011	3/16/2011	Bill Ferrell	Approved
Structural 274,275	3/16/2011	3/16/2011	Bill Ferrell	Approved
Structural 274,275	3/16/2011	3/16/2011	Bill Ferrell	Approved
Structural 305,306,307	3/18/2011	3/21/2011	Bill Ferrell	Approved
Structural 305,306,307	3/18/2011	3/21/2011	Bill Ferrell	Approved
Structural 305,306,307	3/21/2011	3/21/2011	Bill Ferrell	Approved
Structural	3/22/2011	3/23/2011	Bill Ferrell	Approved
Structural	3/23/2011	3/23/2011	Bill Ferrell	Approved
Structural 308,309 3-23-11 276,277,278	3/23/2011	3/24/2011	Bill Ferrell	Approved
Structural 308,309 3-23-11 276,277,278	3/23/2011	3/24/2011	Bill Ferrell	Approved
Structural 279,280	3/25/2011	3/25/2011	Bill Ferrell	Approved
Structural 279,280	3/25/2011	3/25/2011	Bill Ferrell	Approved
Structural 320, 321, 322	3/25/2011	3/28/2011	Bill Ferrell	Approved
Structural 323, 324,325	3/30/2011	3/31/2011	Bill Ferrell	Approved
Structural 326,327	4/1/2011	4/1/2011	Bill Ferrell	Approved
Structural 328, 329	4/4/2011	4/4/2011	Bill Ferrell	Approved
Structural 328, 329	4/4/2011	4/4/2011	Bill Ferrell	Approved
Structural 330, 331	4/5/2011	4/5/2011	Bill Ferrell	Approved
Structural 330, 331	4/5/2011	4/5/2011	Bill Ferrell	Approved
Structural 330, 331	4/5/2011	4/5/2011	Bill Ferrell	Approved
Structural 332, 333	4/11/2011	4/11/2011	Bill Ferrell	Approved
Structural 332, 333	4/11/2011	4/11/2011	Bill Ferrell	Approved
Structural 332, 333	4/11/2011	4/11/2011	Bill Ferrell	Approved
Structural 332, 333	4/11/2011	4/11/2011	Bill Ferrell	Approved

Structural 334,335	4/14/2011	4/14/2011	Bill Ferrell	Approved
Structural 334,335	4/14/2011	4/14/2011	Bill Ferrell	Approved
Structural 334,335	4/14/2011	4/14/2011	Bill Ferrell	Approved
Structural 336,337	4/21/2011	4/21/2011	Bill Ferrell	Approved
Structural 336,337	4/21/2011	4/21/2011	Bill Ferrell	Approved
Structural 338,339	4/22/2011	4/22/2011	Bill Ferrell	Approved
Structural 338,339	4/22/2011	4/22/2011	Bill Ferrell	Approved
Structural 340,341	4/25/2011	4/25/2011	Bill Ferrell	Approved
Structural 340,341	4/25/2011	4/25/2011	Bill Ferrell	Approved
Structural 342	4/28/2011	4/28/2011	Bill Ferrell	Approved
Structural 343,344	6/1/2011	6/1/2011	Bill Ferrell	Approved
Structural 345, 346	6/9/2011	6/9/2011	Bill Ferrell	Approved
Structural	6/20/2011	6/20/2011	Bill Ferrell	Approved

KERN COUNTY BID INSPECTION LOG

Notice To Comply for Permit: K201003250

Project Address:	999999 WILLOWSPRINGS RD, MOJAVE, CA	**PERMIT NO:**	**K201003250**
Project Parcel:	237-053-012	Application Date:	Jul 14, 2010
Inspector Area:	43	Permit Issued Date:	Aug 13, 2010
Subtype:	Commercial Energy Wind	Permit Status:	FINALED
Project Description:	INSTALL 15 3MW WIND TURBINES IN FLOOD PER SP 1220		

Inspection	Scheduled	Inspected	Inspector	Result
Foundation - Footings 140 & 141 BOTTOM REBAR	8/26/2010	8/26/2010	Bill Ferrell	Approved
Foundation - Footings 140 & 141 TOP REBAR	8/26/2010	8/26/2010	Bill Ferrell	Approved
Foundation - Footings 142 & 143	8/26/2010	8/27/2010	Bill Ferrell	Approved
Foundation - Footings 142 & 143	8/27/2010	8/27/2010	Bill Ferrell	Approved
Foundation - Footings 142 & 143	8/26/2010	8/27/2010	Bill Ferrell	Approved
Foundation - Footings 142 & 143	8/27/2010	8/27/2010	Bill Ferrell	Approved
Foundation - Footings 172 & 173	8/30/2010	8/31/2010	Bill Ferrell	Approved
Foundation - Footings 172 & 173	8/30/2010	8/31/2010	Bill Ferrell	Approved
Foundation - Pier/Posts 142 & 143	8/30/2010	8/31/2010	Bill Ferrell	Approved
Foundation - Pier/Posts 142 & 143	8/30/2010	8/31/2010	Bill Ferrell	Approved
Foundation - Footings 172 & 173	8/30/2010	8/31/2010	Bill Ferrell	Approved
Foundation - Footings 172 & 173	8/30/2010	8/31/2010	Bill Ferrell	Approved
Foundation - Pier/Posts 144	8/31/2010	9/1/2010	Bill Ferrell	Approved
Foundation - Pier/Posts 144	8/31/2010	9/1/2010	Bill Ferrell	Approved
Foundation - Pier/Posts 144	8/31/2010	9/1/2010	Bill Ferrell	Approved
Foundation - Pier/Posts 144	8/31/2010	9/1/2010	Bill Ferrell	Approved
Foundation - Footings 174 &175	8/31/2010	9/1/2010	Bill Ferrell	Approved

Foundation - Footings 174 &175	8/31/2010	9/1/2010	Bill Ferrell	Approved
Foundation - Footings 174 &175	8/31/2010	9/1/2010	Bill Ferrell	Approved
Foundation - Footings 174 &175	8/31/2010	9/1/2010	Bill Ferrell	Approved
Foundation - Footings 174 & 175	8/31/2010	9/1/2010	Bill Ferrell	Approved
Foundation - Footings 174 & 175	8/31/2010	9/1/2010	Bill Ferrell	Approved
Foundation - Footings 174 & 175	8/31/2010	9/1/2010	Bill Ferrell	Approved
Foundation - Footings 174 & 175	8/31/2010	9/1/2010	Bill Ferrell	Approved
Foundation - Pier/Posts 172 & 173	9/2/2010	9/2/2010	Bill Ferrell	Approved
Foundation - Pier/Posts 172 & 173	9/2/2010	9/2/2010	Bill Ferrell	Approved
Foundation - Footings 176 & 177	9/2/2010	9/2/2010	Bill Ferrell	Approved
Foundation - Footings 176 & 177	9/2/2010	9/2/2010	Bill Ferrell	Approved
Foundation - Footings 176 & 177	9/2/2010	9/2/2010	Bill Ferrell	Approved
Foundation - Footings 176 & 177	9/2/2010	9/2/2010	Bill Ferrell	Approved
Foundation - Footings 176 & 177	9/2/2010	9/2/2010	Bill Ferrell	Approved
Foundation - Footings 176 & 177	9/2/2010	9/2/2010	Bill Ferrell	Approved
Foundation - Footings 176 & 177	9/2/2010	9/2/2010	Bill Ferrell	Approved
Foundation - Footings 176 & 177	9/2/2010	9/2/2010	Bill Ferrell	Approved
Foundation - Pier/Posts 172 & 173	9/2/2010	9/2/2010	Bill Ferrell	Approved
Foundation - Pier/Posts 172 & 173	9/2/2010	9/2/2010	Bill Ferrell	Approved
Foundation - Pier/Posts 174 & 175	9/7/2010	9/7/2010	Bill Ferrell	Approved
Foundation - Pier/Posts 174 & 175	9/7/2010	9/7/2010	Bill Ferrell	Approved
Foundation - Pier/Posts 174 & 175	9/7/2010	9/7/2010	Bill Ferrell	Approved
Foundation - Pier/Posts 174 & 175	9/2/2010	9/7/2010	Bill Ferrell	Approved
Foundation - Footings 178 &179	9/7/2010	9/7/2010	Bill Ferrell	Approved
Foundation - Footings 178 &179	9/7/2010	9/7/2010	Bill Ferrell	Approved
Foundation - Footings 178 &179	9/7/2010	9/7/2010	Bill Ferrell	Approved

Foundation - Footings 178 &179	9/2/2010	9/7/2010	Bill Ferrell	Approved
Foundation - Footings 178 & 179	9/7/2010	9/7/2010	Bill Ferrell	Approved
Foundation - Footings 178 & 179	9/7/2010	9/7/2010	Bill Ferrell	Approved
Foundation - Footings 178 & 179	9/7/2010	9/7/2010	Bill Ferrell	Approved
Foundation - Footings 178 & 179	9/2/2010	9/7/2010	Bill Ferrell	Approved
Foundation - Footings 180 & 181	9/7/2010	9/8/2010	Bill Ferrell	Approved
Foundation - Footings 180 & 181	9/7/2010	9/8/2010	Bill Ferrell	Approved
Foundation - Footings 180 & 181	9/7/2010	9/8/2010	Bill Ferrell	Approved
Foundation - Footings 180 & 181	9/7/2010	9/8/2010	Bill Ferrell	Approved
Foundation - Footings 180 & 181	9/7/2010	9/8/2010	Bill Ferrell	Approved
Foundation - Footings 180 & 181	9/7/2010	9/8/2010	Bill Ferrell	Approved
Foundation - Footings 180 & 181	9/7/2010	9/8/2010	Bill Ferrell	Approved
Foundation - Footings 180 & 181	9/7/2010	9/8/2010	Bill Ferrell	Approved
Foundation - Pier/Posts 176 & 177	9/7/2010	9/8/2010	Bill Ferrell	Approved
Foundation - Pier/Posts 176 & 177	9/7/2010	9/8/2010	Bill Ferrell	Approved
Foundation - Pier/Posts 176 & 177	9/7/2010	9/8/2010	Bill Ferrell	Approved
Foundation - Pier/Posts 176 & 177	9/7/2010	9/8/2010	Bill Ferrell	Approved
Foundation - Pier/Posts 178 & 179	9/8/2010	9/9/2010	Bill Ferrell	Approved
Foundation - Pier/Posts 178 & 179	9/9/2010	9/9/2010	Bill Ferrell	Approved
Foundation - Pier/Posts 180 & 181	9/9/2010	9/10/2010	Bill Ferrell	Approved
Foundation - Pier/Posts 180 & 181	9/10/2010	9/10/2010	Bill Ferrell	Approved
Foundation - Pier/Posts 180 & 181	9/10/2010	9/10/2010	Bill Ferrell	Approved
Structural exterior 140 - 145	12/21/2010	12/21/2010	Bill Ferrell	Approved
Structural exterior 140 - 145	12/21/2010	12/21/2010	Bill Ferrell	Approved
Structural exterior 140 - 145	12/21/2010	12/21/2010	Bill Ferrell	Approved
Structural exterior 140 - 145	12/21/2010	12/21/2010	Bill Ferrell	Approved

Structural exterior 140 - 145	12/21/2010	12/21/2010	Bill Ferrell	Approved
Structural exterior 140 - 145	12/21/2010	12/21/2010	Bill Ferrell	Approved
Structural 172 & 173	1/5/2011	1/6/2011	Bill Ferrell	Approved
Structural 172 & 173	1/5/2011	1/6/2011	Bill Ferrell	Approved
Structural 172 & 173	1/6/2011	1/6/2011	Bill Ferrell	Approved
Structural 174 &175	1/7/2011	1/7/2011	Bill Ferrell	Approved
Structural 174 &175	1/7/2011	1/7/2011	Bill Ferrell	Approved
Structural 174 &175	1/7/2011	1/7/2011	Bill Ferrell	Approved
Structural 176 & 177	1/7/2011	1/10/2011	Bill Ferrell	Approved
Structural 176 & 177	1/7/2011	1/10/2011	Bill Ferrell	Approved
Structural 178 & 179	1/12/2011	1/12/2011	Bill Ferrell	Approved
Structural 178 & 179	1/12/2011	1/12/2011	Bill Ferrell	Approved
Structural 180 & 181	1/20/2011	1/20/2011	Bill Ferrell	Approved
Structural 145 is permit k10-3401	1/25/2011	1/26/2011	Bill Ferrell	Approved
Structural 145 is permit k10-3401	1/25/2011	1/26/2011	Bill Ferrell	Approved
Structural	3/25/2011	3/28/2011	Bill Ferrell	Approved
Flood Certificate	4/13/2011	4/13/2011	Bill Ferrell	Approved
Flood Certificate	4/22/2011	4/22/2011	Bill Ferrell	Approved

KERN COUNTY BID INSPECTION LOG

Notice To Comply for Permit: K201003188

Project Address:	99999 OAK CREEK RD, MOJAVE, CA	**PERMIT NO:**	**K201003188**
Project Parcel:	236-070-124	Application Date:	Jul 09, 2010
Inspector Area:	43	Permit Issued Date:	Jul 29, 2010
Subtype:	Commercial Grading Engineered	Permit Status:	FINALED
Project Description:	DESIGN CERT GRADING 37,160 CY MOVED PHASE 7 GRADING		

Inspection	Scheduled	Inspected	Inspector	Result
Address Verification	10/28/2010	10/28/2010	Bill Ferrell	Approved
Talk to engineer				
Job Complete	7/12/2011	7/12/2011	Dave Burt	Approved

KERN COUNTY BID INSPECTION LOG

Notice To Comply for Permit: K200611797

Project Address:	99999 WILLOW SPRINGS RD, ROSAMOND, CA	**PERMIT NO:**	**K200611797**
Project Parcel:	237-054-135	Application Date:	Dec 26, 2006
Inspector Area:	43	Permit Issued Date:	Dec 26, 2006
Subtype:	Commercial Miscellaneous	Permit Status:	FINALED
Project Description:	constr 60m met tower as per std plan 1118		

Inspection	Scheduled	Inspected	Inspector	Result
Job Complete	2/28/2008	2/29/2008	Butch Neville	Approved

KERN COUNTY BID INSPECTION LOG

Notice To Comply for Permit: K201002962

Project Address:	999999 OAK CREEK RD, MOJAVE, CA	**PERMIT NO:**	**K201002962**
Project Parcel:	237-055-124	Application Date:	Jun 25, 2010
Inspector Area:	43	Permit Issued Date:	Jul 12, 2010
Subtype:	Commercial Grading Engineered	Permit Status:	FINALED
Project Description:	ENGINEERED GRADING - 32,425 CY - FOR ALTA WIND ACCESS ROADS & PADS - PHASE 3		

Inspection	Scheduled	Inspected	Inspector	Result
Job Complete	7/8/2011	7/11/2011	Dave Burt	Approved

KERN COUNTY BID INSPECTION LOG

Notice To Comply for Permit: K201102930

Project Address:	999999 OAK CREEK RD, MOJAVE, CA	**PERMIT NO:**	**K201102930**
Project Parcel:	237-461-199	Application Date:	Jun 24, 2011
Inspector Area:	43	Permit Issued Date:	Jul 18, 2011
Subtype:	Commercial Grading Engineered	Permit Status:	FINALED
Project Description:	ENGINEERED GRADING FOR PHASE 6 AND PHASE 8 OF ALTA WIND WINDFARM		

Inspection	Scheduled	Inspected	Inspector	Result
Rough Grading	3/1/2012	3/2/2012	Bill Ferrell	Approved
Job Complete	3/1/2012	3/2/2012	Bill Ferrell	Approved

KERN COUNTY BID INSPECTION LOG

Notice To Comply for Permit: K201103003

Project Address:	999999 OAK CREEK RD, MOJAVE, CA	**PERMIT NO:**	**K201103003**
Project Parcel:	237-332-069	Application Date:	Jun 28, 2011
Inspector Area:	43	Permit Issued Date:	Jul 26, 2011
Subtype:	Commercial Grading Engineered	Permit Status:	FINALED
Project Description:	ENGINEERED GRADING - 4840 CY - FOR WIND TURBINES AND ROADS FOR ALTA WIND 6 AREA D		

Inspection	Scheduled	Inspected	Inspector	Result
Rough Grading	3/1/2012	3/2/2012	Bill Ferrell	Approved
Job Complete	3/1/2012	3/2/2012	Bill Ferrell	Approved

KERN COUNTY BID INSPECTION LOG

Notice To Comply for Permit: K200806938

Project Address:	99999 WILLOWSPRINGS RD, MOJAVE, CA	**PERMIT NO:**	**K200806938**
Project Parcel:	237-093-133	Application Date:	Nov 11, 2008
Inspector Area:	43	Permit Issued Date:	Feb 19, 2009
Subtype:	Commercial New	Permit Status:	FINALED
Project Description:	Install met tower		

Inspection	Scheduled	Inspected	Inspector	Result
Job Complete	3/23/2010	3/23/2010	Dave Burt	Approved
Final - Structural	3/23/2010	3/23/2010	Dave Burt	Approved
Final - Electrical	3/23/2010	3/23/2010	Dave Burt	Approved

KERN COUNTY BID INSPECTION LOG

Notice To Comply for Permit: K201103481

Project Address:	10209 OAK CREEK RD, MOJAVE, CA	**PERMIT NO:**	**K201103481**
Project Parcel:	237-032-388	Application Date:	Jul 25, 2011
Inspector Area:	44	Permit Issued Date:	Jan 12, 2012
Subtype:	Commercial Miscellaneous	Permit Status:	FINALED
Project Description:	INSTALL ELEC TRANSMISSION LINE FOR BRODIE WIND FARM SECT 15 & CR		

Inspection	Scheduled	Inspected	Inspector	Result
Job Complete	5/1/2012	5/2/2012	Dave Burt	Approved
Final - Structural	5/1/2012	5/2/2012	Dave Burt	Approved

KERN COUNTY BID INSPECTION LOG

Notice To Comply for Permit: K200806626

Project Address:	99999 REED AV, MOJAVE, CA	**PERMIT NO:**	**K200806626**
Project Parcel:	345-011-035	Application Date:	Oct 29, 2008
Inspector Area:	43	Permit Issued Date:	Jan 28, 2009
Subtype:	Commercial Miscellaneous	Permit Status:	FINALED
Project Description:	Install met tower		

Inspection	Scheduled	Inspected	Inspector	Result
Job Complete	2/17/2010	2/17/2010	Bill Ferrell	Approved
Final - Structural	2/17/2010	2/17/2010	Bill Ferrell	Approved

KERN COUNTY DEPARTMENT OF ENGINEERING & SURVEY SERVICES
BUILDING INSPECTION DIVISION
CHARLES LACKEY, P.E., DIRECTOR

PERMIT APPLICATION

2700 M STREET
BAKERSFIELD, CA. 93301
PHONE (805) 862-8850

1 Job Address	7037 TROPPER RD	Insp. Area	ZM	Map	Lot
Assessor's Parcel No.	386-012-0005-00	A3	2-14	30385	

2 Project Description: ELECTRICAL TO REPLACE BLOWN — Permit # 72569
3 Permit Class (New/Add or Alter/Conversion/Remodel): NEW CONSTRUCTION

4 Property Owner(s) 1. WOLF FAMILY TR (Asphalt Contractor) — 2.
Mailing Address: 25736 HIBBORN CIR
Phone Number:
City/State: WOLF ALBERT F & IRENE B T
Zip Code: BENHALL CA 91321-0000

5 Architect/Engineer: I
Mail Address:
License #:
Phone #: 999999

6 Contractor's Name: OWNER
Mailing Address:
Phone Number:
Hiring Licensed Contractor's (Y/N)
City/State
Cont. St. Lic#

Project Manager: VERN HOLLINS
7 Phone Number: 1-805-533-2121
ZONE CLASSIFICATION APPROVED FOR PLAN AS FOR (Use): 06/12/98
8 C.S.A.#
9 School Dist. #: 94
10 Comments: Electrical to Restart Plant
11 Census Code #: 325
12 Census Tract #: 44.01

Con # Sub Code	Census Number Description	A/D/Y	A/D/Y PER BLDG.	BVD CODE	UNITS Per Bldg.	BLDG.
8	MISC. BLDG. / ESSENTIAL SERV.	0	14,000	1.1	1	1

L. Turner 6/12/98 (By / Date)
Rel. Case # Add'l by Planning
See Memo

Total Area
Total Value/Yards: 14,000

THE FOLLOWING PRELIMINARY FEES ARE SUBJECT TO CHANGE BEFORE PERMIT ISSUANCE:

	FEE	PAID
ELECTRICAL PERMIT FEES	156.00	Y
APPLICATION ISSUANCE FEE	25.50	Y

*PARTIAL PAYMENT

	FEE	PAID
TOTAL FEES	181.50	
AMOUNT PAID	181.50	
BALANCE	.00	

Application Number: 72569
Application Date: 6/12/98
Issuance Date EJT: 6/12/98
Activity Code:
Activity Date: P 6/12/98 BR-TB

CONSTRUCTION LENDING AGENCY

I hereby affirm under penalty of perjury that there is a construction lending agency for the performance of the work for which this permit is issued (Sec. 3097 Civ. C)
Lender's Name
Lender's Address

LICENSED CONTRACTOR DECLARATION

I hereby affirm under penalty of perjury that the provisions of Chapter 9 (commencing with Section 7000) of Division 3 of the Business and Professions Code, and that my license is in full force and effect.
License No. Lic. Class
Contractor Exp. Date

OWNER-BUILDER DECLARATION

☐ I hereby affirm under penalty of perjury that I am exempt from the Contractor's License Law for the following reason: (Sec. 7031.5, Business and Professions Code: Any city or county which requires a permit to construct, alter, improve, demolish, or repair any structure, prior to its issuance, also requires the applicant for such permit to file a signed statement that he is licensed pursuant to the provisions of the Contractor's License Law, Chapter 9 (commencing with Section 7000) of Division 3 of the Business and Professions Code or that he is exempt therefrom and the basis for the alleged exemption. Any violation of Section 7031.5 by an applicant for a permit subjects the applicant to a civil penalty of not more than five hundred dollars ($500).)

X ☐ as owner of the property, or employees with wages as their sole compensation will do the work, and the structure is not intended or offered for sale. (Sec. 7044, Business and Professions Code: The Contractor's License Law does not apply to an owner of property who builds or improves thereon, and who does such work himself or herself or through his or her own employees, provided that such improvements are not intended or offered for sale. If, however, the building or improvement is sold within one year of completion, the owner-builder will have the burden of proving that he or she did not build or improve for the purpose of sale.)

☐ I, as owner of the property, am exclusively contracting with licensed contractors to construct the project. (Sec. 7044, Business and Professions Code: The Contractor's License Law does not apply to an owner of property who builds or improves thereon, and who contracts for such projects with a contractor(s) licensed pursuant to the Contractor's License Law.)

☐ I am exempt from Sec. because
Owner Date 6-12-98

WORKERS' COMPENSATION DECLARATION

I hereby affirm under penalty of perjury one of the following declarations:
_____ I have and will maintain a certificate of consent to self-insure for workers' compensation, as provided for by Section 3700 of the Labor Code, for the performance of the work for which this permit is issued.
_____ I have or will maintain workers' compensation insurance, as required by Section 3700 of the Labor Code, for the performance of the work for which this permit is issued. My workers' compensation insurance carrier and policy number are
Carrier
Policy Number
X (This section need not be completed if the permit is for one hundred dollars ($100) or less.) I certify that in the performance of the work for which this permit is issued, I shall not employ any person in any manner so as to become subject to the workers' compensation laws of California, and agree that if I should become subject to the workers' compensation provisions of Section 3700 of the Labor Code, I shall forthwith comply with those provisions.
Applicant X Vernon Mollins Date 6-12-98

WARNING: FAILURE TO SECURE WORKERS' COMPENSATION COVERAGE IS UNLAWFUL, AND SHALL SUBJECT AN EMPLOYER TO CRIMINAL PENALTIES AND CIVIL FINES UP TO ONE HUNDRED THOUSAND DOLLARS ($100,000), IN ADDITION TO THE COST OF COMPENSATION, DAMAGES AS PROVIDED FOR IN SECTION 3706 OF THE LABOR CODE, INTEREST, AND ATTORNEY'S FEES.

_____ I certify that I have read the application and state that the above information is correct. I agree to comply with all county ordinances and state laws relating to building construction, and hereby authorize representatives of this county to enter upon the above-mentioned property for inspection purposes.
X Signature of Applicant or Agent 6-12-98 Date
NOTARIZED LETTER ON FILE ☐ Yes ☐ No Date

OCC.	TYPE CONST.	
STRUCT	PLMBG.	MECH
ELECT.	GRADING	ENERGY
Released By: Evelyn Turner	Release Date: 6/12/98	

BUILDING INSPECTION 980 2620 175 (Rev. 5-98)

COUNTY DEPARTMENT OF ENGINEERING & SURVEY SERVICES
BUILDING INSPECTION DIVISION
CHARLES LACKEY, P.E., DIRECTOR

INSPECTION RECORD 72529

POST CARD AT JOBSITE

[redacted] FIELD AREA INSPECTION REQUESTS ONLY
8 am - 8 pm [redacted]
After Hours [redacted]
[redacted]

	Inspection	Date	Inspector
GROUND WORK	Grading		
	Set Backs		
	Underground Elec.		
	Underground Plb.		
	Underground Mech.		
	Address Verification		
COVER NO WORK UNTIL ABOVE HAS BEEN SIGNED			
FOUNDATION	Slab Mesh		
	Slab Membrane		
	Rebar for Grounding		
	Reinforcing Steel		
PLACE NO CONCRETE FOR FLOOR UNTIL ABOVE HAS BEEN SIGNED			
FLOOR WALL ROOF FRAMING	Floor Joists		
	Floor Sheathing		
	Rough Electrical		
	Plumbing Top-out		
	Fire Sprinkler System		
	Shower Pan		
	Grease Trap		
	Rough Mechanical		
	Roof Sheathing		
	Structural		
COVER NO WORK UNTIL ABOVE HAS BEEN SIGNED			
STUCCO PLASTER WALLBOARD SIDING	Roofing		
	Interior Lathing		
	Exterior Lathing / Siding		
	Dry Wall		
	Exterior Membrane		
	Wall Insulation		
	Attic Ventilation		
DO NOT PLASTER OR APPLY SIDING UNTIL ABOVE HAS BEEN SIGNED			
SEWAGE DISPOSAL	First Inspection		
	Sewer Line		
DRY SEWER WET SEWER SEPTIC SYS	Septic Tank		
	Seepage Pit		
	Leach Field		
COVER NO WORK UNTIL ABOVE HAS BEEN SIGNED			
MASONRY AND CONCRETE WALLS	Foundation Steel		
	Wall Reinforcing		
	Bond Beam		
	Fire Place Reinforcing		
	Fire Place		
	Wood Stove		
COVER NO WORK UNTIL ABOVE HAS BEEN SIGNED			
SWIMMING POOL	Location		
	Steel		
	Conduit under deck		
	Recirculation piping		
	Electrical wiring		
	Gas line under deck		
	Fencing & Gates		
COVER NO WORK UNTIL ABOVE HAS BEEN SIGNED			

[redacted]
ENGINEERING & SURVEY SERVICES
BUILDING INSPECTION DIVISION
Main Office
[redacted]
Branch Offices
[redacted]

PL

6/23/98
ELECTRIC SERVICE TO WELL OK TO RELEASE
7/6/98 ELECTRIC SERVICE @ MAIN PLANT OK TO RELEASE
ASPHALT

BUILDING OR MOBILE HOME

P
L

PROJECT ADDRESS: _____
ASSESSOR'S PARCEL NUMBER: ____ - ____ - ____

* SINGLE FAMILY RESIDENTIAL CERTIFICATE OF OCCUPANCY

Inspection	Date	Inspector
Temp Elec.		
Temp Gas		

PRE-FINAL APPROVALS

Inspection	Date	Inspector
Health Department		
Road Department		
Grading		
Drainage		
Landscaping		
C.U.P. Requirements		
P.D. Requirements		

FINAL	Gas pressure test		
	Electrical final	8/14/98	
	Plumbing final		
	Mechanical final		
	Structural final		
	Energy final		
	Zoning requirements		
	Insulation requirements		
	Fire Requirements		
*	Job complete	8/14/98	

* RESIDENTIAL PERMITS: THIS JOB CARD SERVES AS YOUR CERTIFICATE OF OCCUPANCY.

FINALED 8/11/98 Inspector's Copy

KERN COUNTY DEPARTMENT OF ENGINEERING & SURVEY SERVICES
BUILDING INSPECTION DIVISION
CHARLES LACKEY, P.E., DIRECTOR

JOB CARD
CONSTRUCTION PERMIT

2700 "M" STREET, SUITE 570
BAKERSFIELD, CA 93301-2370
PHONE (805) 862-8981

1 Job Address / Assessor's Parcel No.	7037 TROTTER RD 305-010-0009-00	Insp. Area 42	ZM 3-11	Map 20200	Lot / Block

2 Project Description: ELECTRICAL TO RESTART PLANT — Permit # 72569
3 Permit Class (New/Add or Alter/Conversion/Remodel): NEW CONSTRUCTION

4 Property Owner(s) 1. WOLF FAMILY TR (Asphalt Contractor)
Mailing Address: 26730 VINSONE CIR — City/State: WOLF ALBERT F & IRENE B T — Zip Code: BOWMAN CA 91321-0000
Phone Number:

5 Architect/Engineer: 1 — Mail Address: — License: — Phone: 999999

6 Contractor's Name: OWNER — Hiring Licensed Contractor's (Y/N):
Mailing Address: — City/State:
Phone Number: — Cont. St. Lic.#

7 Project Manager: VERN HILLIS — Zone Classification:
Phone Number: — Approved Use:
8 C.S.A.#: — Dist.#: 94 — Check All Conditions:
Electrical to Restart Plant
10 Comments:
11 Census Code #: 323 — 12 Census Tract #:

Con / Sub Code	Census Number Description	A/D/Y	A/D/Y PER UNITS	BLDG CODE	UNITS Per Bldg	BLDG.
E	MISC. BLDG. / ESSENTIAL SERV.	$	14,000	1.1	1	1

Ea. Turner 6/10/98
By Date
Ref. Comments: Clrd by Planning See memo

Total Area: — Total Value/Yards: 14,000

THE FOLLOWING PRELIMINARY FEES ARE SUBJECT TO CHANGE BEFORE PERMIT ISSUANCE:

	FEE	PAID
ELECTRICAL PERMIT FEES	156.00	Y
APPLICATION ISSUANCE FEE	25.50	Y

*PARTIAL PAYMENT

TOTAL FEES	181.50
AMOUNT PAID	181.50
BALANCE	.00

Application Number: 72569
Application Date: 6/15/98
Issuance Date: 8/7 — 6/10/98
Activity Code: Y
Activity Date: 6/10/98 08:35

REMARKS
Date

Building Insp. 000 0000 0000 (Rev. 7-97)

KERN COUNTY DEPARTMENT OF PLANNING AND DEVELOPMENT SERVICES
BUILDING INSPECTION DIVISION
RANDALL L. ABBOTT, DIRECTOR

PERMIT APPLICATION

2700 M STREET
BAKERSFIELD, CA. 93301
PHONE (805) 861-2615

1 Job Address: LOCUST STREET	Insp. Area: 43	ZM: 214-B5	Map: 55587	Lot: 2	Block:
Assessor's Parcel No.: 346-062-0053-00					

2 Project Description Or Comments: M-H S/P & INSTALL — Permit # 33799

3 Permit Class (New/Add or Alter/Conversion/Remodel): NEW CONSTRUCTION

4 Property Owner(s) 1. HARRION SCOTT — 2.
Mailing Address: BOX 3 BOX 255 — City/State: ROSAMOND CA
Phone Number — Zip Code: 93560-0000

5 Architect/Engineer — License#
Mail Address — Phone#

6 Contractor's Name: OWNER — Hiring Licensed Contractor's (Y/N)
Mailing Address — City/State
Phone Number — Cont. St. Lic.#

Project Manager: SCOTT HARRION
7 Phone Number: 1-805-726-3885

ZONE CLASSIFICATION: A
APPROVED PER PLAN AS FOLLOWS: Installation of Mobile home + Site Prep w/ flood reviews as per Kris Cardoza

8 C.S.A. # — 9 School Dist. # 44

10 Comments: 0000000

11 Census Code # 112 — 12 Census Tract # 55.01

Con # Sub Code	Census Number Description	A/D/Y	A/D/Y PER BLDG.	BVD CODE	UNITS Per Bldg	BLDG.
M	MOBILE HOME INSTALLATION	A	528		1	1

E. Turner — By — 9/17/92 — Date

Ref. Case #

Total Area: 528 — Total Value/Yards

THE FOLLOWING PRELIMINARY FEES ARE SUBJECT TO CHANGE BEFORE PERMIT ISSUANCE:

	FEE	PAID
MOBILE HOME PERMIT FEES	162.00	Y
FLOOD FEES 141.1.214.6.1	180.00	Y
SCHOOL FEES	871.20	Y

*PARTIAL PAYMENT

	FEE	PAID
TOTAL FEES	1,213.20	
AMOUNT PAID	1,213.20	
BALANCE	.00	

Application Number: 33799
Application Date: 9/17/92
Issuance Date: 9/17/92
Activity Code: P
Activity Date: 9/17/92 MS-ID

CONSTRUCTION LENDING AGENCY

I hereby affirm that there is a construction lending agency for the performance of the work for which this permit is issued (Sec. 3097, Civ. C)

Lender's Name
Lender's Address

LICENSED CONTRACTOR DECLARATION

I hereby affirm that I am licensed under the provisions of Chapter 9, commencing with Section 7000 of Division 3 of the Business and Professions Code, and that my license is in full force and effect.

License Class — Lic. Number
Date — Contractor

OWNER-BUILDER DECLARATION

I hereby affirm that I am exempt from the Contractor's License Law for the following reason. (Sec. 7031.5, Business and Professions Code: Any city or county which requires a permit to construct, alter, improve, demolish, or repair any structure, prior to its issuance, also requires the applicant for such permit to file a signed statement that he is licensed pursuant to the provisions of the Contractor's License Law (Chapter 9 commencing with Section 7000 of Division 3 of the Business and Professions Code) or that he is exempt therefrom and the basis for the alleged exemption. Any violation of Section 7031.5 by any applicant for a permit subjects the applicant to a civil penalty of not more than five hundred dollars ($500).)

☒ I, as owner of the property, or my employees with wages as their sole compensation will do the work, and the structure is not intended or offered for sale. (Sec. 7044, Business and Professions Code: The Contractor's License Law does not apply to an owner of property who builds or improves thereon, and who does such work himself or through his own employees, provided that such improvements are not intended or offered for sale. If, however, the building or improvement is sold within one year of completion, the owner-builder will have the burden of proving that he did not build or improve for the purpose of sale.)

☐ I, as owner of the property, am exclusively contracting with licensed contractors to construct the project. (Sec. 7044, Business and Professions Code: The Contractor's License Law does not apply to an owner of property who builds or improves thereon, and who contracts for such projects with a person with a contractors license pursuant to the Contractor's License Law.)

☐ I am exempt under Sec. ____ B & P for this reason

Date 9/17/92 — X Scott Harrion

WORKERS' COMPENSATION DECLARATION

I hereby affirm that I have a certificate of consent to self-insure, or a certificate of Worker's Compensation Insurance, or a certified copy thereof (Sec. 3800, Lab C).

Policy No. — Company
☐ Certified copy is hereby furnished
☐ Certified copy is filed with the county Building Inspection Division
Date — Applicant

CERTIFICATE OF EXEMPTION FROM WORKERS' COMPENSATION INSURANCE

(This section needs to be completed if the permit is for one hundred dollars ($100) or more.)

I certify that in the performance of the work for which this permit is issued, I shall not employ any person in any manner so as to become subject to the Workers' Compensation Laws of California.

Date 9/17/92 — Applicant X Scott Harrion

NOTICE TO APPLICANT: If after making this Certificate of Exemption, you should become subject to the Workers' Compensation provisions of the Labor Code, you must forthwith comply with such provisions or this permit shall be deemed revoked.

I certify that I have read the application and state that the above information is correct. I agree to comply with all county ordinances and state laws relating to building construction, and hereby authorize representatives of the county to enter upon the above-mentioned property for inspection purposes.

X Scott Harrion
(Signature of Applicant or Agent) — Date

OCC. MH	TYPE CONST.	
STRUCT.	PLMBG.	MECH.
ELECT.	GRADING	ENERGY
Released By: Evelyn Turner	Release Date: 9/17/92	

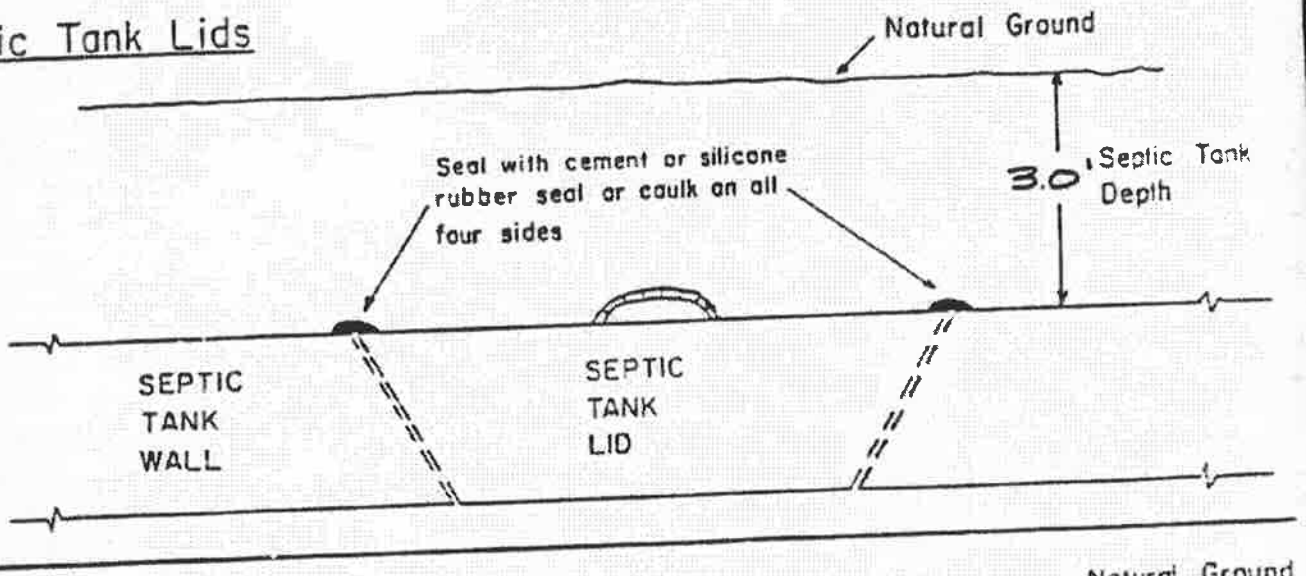
Planning & Devel. 560 2625 175 (Rev. 3/89)

Septic Tank System - Option I

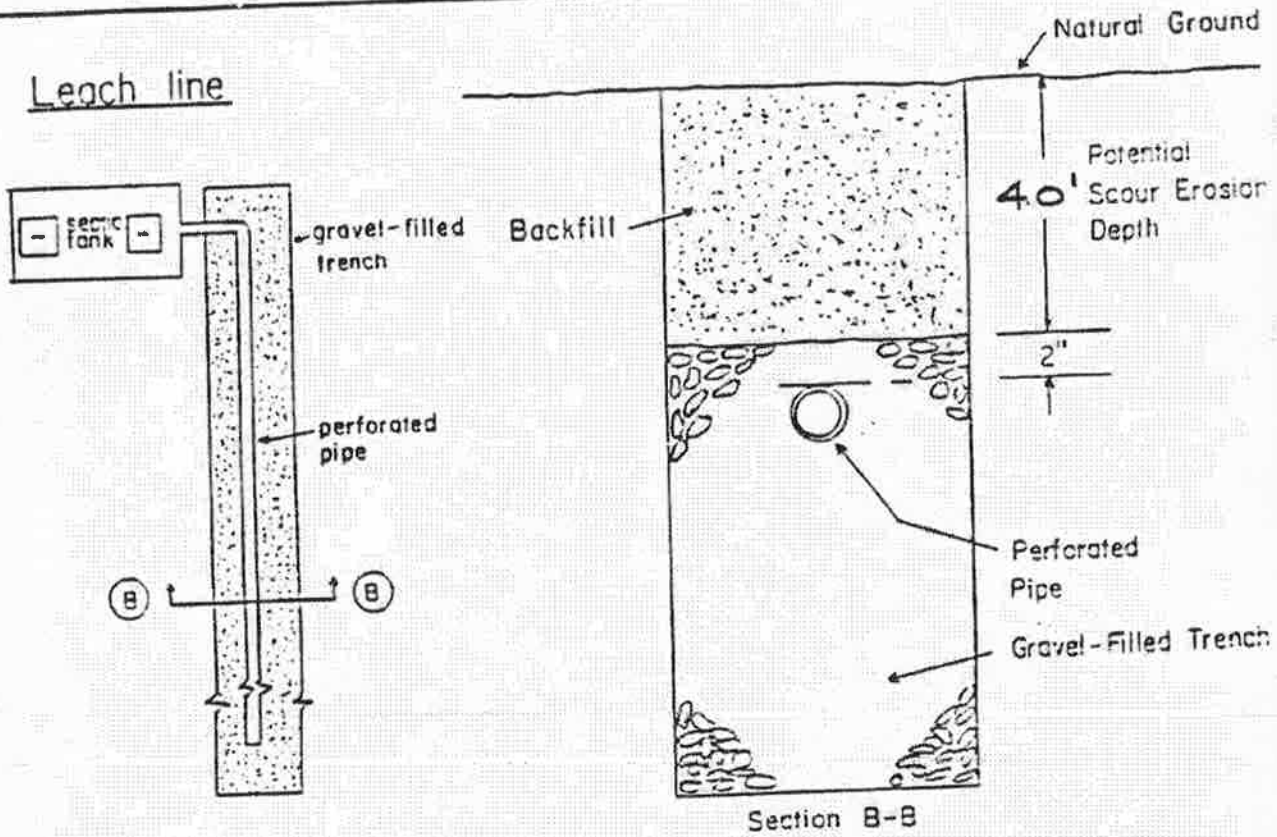
Detail "A"

33799

Septic Tank Lids



Leach line



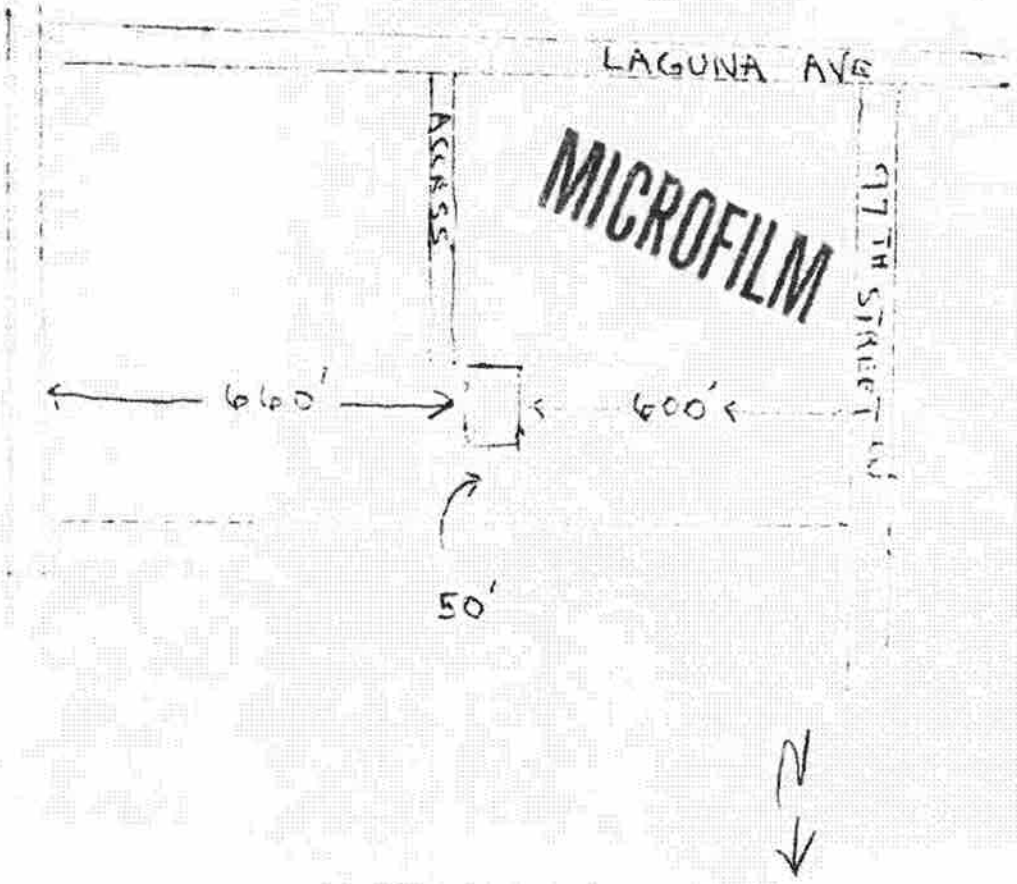
Plan

Profile

Note: Must Meet All Other Applicable Code Requirements

33799

APPROVED
FOR ZONE REQUIREMENTS ONLY
BY Evelynn Turner
DATE 9/17/92
RE Mobilehome Installation
+ Site Rep. w/ flood review
as per Kris Cardoza



11-17-92 Final Inspection Copy

KERN COUNTY DEPARTMENT OF PLANNING AND DEVELOPMENT SERVICES
BUILDING INSPECTION DIVISION
TED JAMES, DIRECTOR

JOB CARD
CONSTRUCTION PERMIT

2700 M STREET
BAKERSFIELD, CA. 93301
PHONE (805) 861-2615

1 Job Address 9635 LUGUNA STREET Assessor's Parcel No. 346-062-0033-00	Insp. Area 43	ZM 214-86	Map 9568F	Lot 2 Block	

2 Project Description Or Comments M-H S/F & INSTALL — Permit # 33799

3 Permit Class (New/Add or Alter/Conversion/Remodel) NEW CONSTRUCTION

4 Property Owner(s) 1. HARRION SCOTT — 2.
Mailing Address HCR 3 BOX 255 — City/State ROSAMOND CA
Phone Number — Zip Code 93560-0000

5 Architect/Engineer — License#
Mail Address — Phone#

6 Contractor's Name OWNER — Hiring Licensed Contractor's (Y/N)
Mailing Address — City/State
Phone Number — Cont. St. Lic.#

Project Manager SCOTT HARRION
7 Phone Number 1-805-726-8095

ZONE CLASSIFICATION A
APPROVED PER PLAN AS FOLLOWS
Mobile home Installation
& Site Prep. w/Flood
Review As per Rhs
Cardoza

8 C.S.A. # — 9 School Dist. # 94

10 Comments 0000000

11 Census Code # 112 — 12 Census Tract # 55.03

Cen # Sub Code	Census Number Description	A/D/Y	A/D/Y PER BLDG.	BVD CODE	UNITS Per Bldg	BLDG.
M	MOBILE HOME INSTALLATION	A	528		1	1

E. Turner By — 9/17/92 Date

Ref. Case #

Total Area 528 — Total Value/Yards

THE FOLLOWING PRELIMINARY FEES ARE SUBJECT TO CHANGE BEFORE PERMIT ISSUANCE:

	FEE	PAID
MOBILE HOME PERMIT FEES	162.00	Y
FLOOD FEES	180.00	Y
SCHOOL FEES	871.20	Y

DCD

F 11-17-92

*PARTIAL PAYMENT

	FEE	PAID
TOTAL FEES	1,213.20	
AMOUNT PAID	1,213.20	
BALANCE	.00	*

Application Number 33799 — BY
Application Date 9/17/92 — Issuance Date 9/17/92 — Activity Code P — Activity Date 9/17/92 MS-ID

REMARKS

Date

33799

COUNTY DEPARTMENT OF
PLANNING & DEVELOPMENT SERVICES
BUILDING INSPECTION DIVISION
TED JAMES, DIRECTOR

INSPECTION RECORD

POST CARD AT JOBSITE

BAKERSFIELD AREA INSPE
REQUESTS ONLY
7 am - 5 pm 861-2158
After Hours 861-3321

	Inspection	Date	Inspector
GROUND WORK	Grading		
	Set Backs	Pe- ok	STAGE
	Underground Elec.	D.Trch o.k.	P.Bm
	Underground Plb.	o.k.	P.Bm
	Underground Mech.		
COVER NO WORK UNTIL ABOVE HAS BEEN SIGNED			
FOUNDATION	Foundation Reinforcements	10-6-92	P.Bm
	Slab Mesh		
	Slab Membrane		
	Rebar for Grounding		
PLACE NO CONCRETE FOR FLOOR UNTIL ABOVE HAS BEEN SIGNED			
FLOOR WALL ROOF FRAMING	Floor Joists		
	Floor Sheathing		
	Rough Electrical		
	Plumbing Top-out		
	Fire Sprinkler System		
	Shower Pan		
	Grease Trap		
	Rough Mechanical		
	Roof Sheathing		
	Structural		
COVER NO WORK UNTIL ABOVE HAS BEEN SIGNED			
STUCCO PLASTER WALLBOARD SIDING	Roofing		
	Interior Lathing		
	Exterior Lathing / Siding		
	Dry Wall		
	Exterior Membrane		
	Wall Insulation		
	Attic Ventilation		
DO NOT PLASTER OR APPLY SIDING UNTIL ABOVE HAS BEEN SIGNED			
SEWAGE DISPOSAL	First Inspection		
	Sewer Line		
	Septic Tank	10-22-92	P.Bm
	~~Seepage Pit~~		
	Leach Field		
COVER NO WORK UNTIL ABOVE HAS BEEN SIGNED			
MASONRY AND CONCRETE WALLS	Foundation Steel		
	Wall Reinforcing		
	Bond Beam		
	Fire Place Reinforcing		
	Fire Place		
	Wood Stove		
COVER NO WORK UNTIL ABOVE HAS BEEN SIGNED			
SWIMMING POOL	Location		
	Steel		
	Conduit under deck		
	Recirculation piping		
	Electrical wiring		
	Gas line under deck		
	Fencing & Gates		
COVER NO WORK UNTIL ABOVE HAS BEEN SIGNED			

PLANNING AND DEVELOPMENT SERVICES
BUILDING INSPECTION DIVISION
Main Office
2700 M Street, Suite 100, Bakersfield, California 93301-2370
Phone: (805) 861-2411
Office Hours: 8:00 - 5:00
Inspection Requests (8:00 – 5:00) 861-2158
(After Hours) 861-3321
Branch Offices
Frazier Park Office - Tax Station
Lake Isabella Office - 3060 Lake Isabella Blvd
Lamont Office - 12914 Main Street, Lamont
Mojave Office - 1315 Hwy. 58
Ridgecrest Office - 400 N. China Lake Blvd.
Shafter Office - 111 Central Valley Hwy.
Taft Office - 315 Kern Street
Tehachapi Office - 125 East C Street

PL

NORTH

BUILDING OR MOBILE HOME

P L

Pier o.k. P.Bm

PL

SINGLE FAMILY RESIDENTIAL CERTIFICATE OF OCCUPANCY

	Date	Inspector
Temp Elec.		
Temp Gas		

PRE-FINAL APPROVALS

	Date	Inspector
Fire Department		
Health Department		
Road Department		
Grading		
Drainage		
Landscaping		
C.U.P. Requirements		
P.D. Requirements		

FINAL			
	Gas pressure test	N.A.	
	Electrical final	11-17-92	P.Bm
	Plumbing final	(cont. w.f.) 11-17-92	P.Bm
	Mechanical final		
	Structural final		
	Energy final		
	Zoning requirements	11-17-92	P.Bm
	Insulation requirements		
	Fire Requirements		
	Job complete	11-17-92	P.Bm

010

KERN COUNTY BID INSPECTION LOG

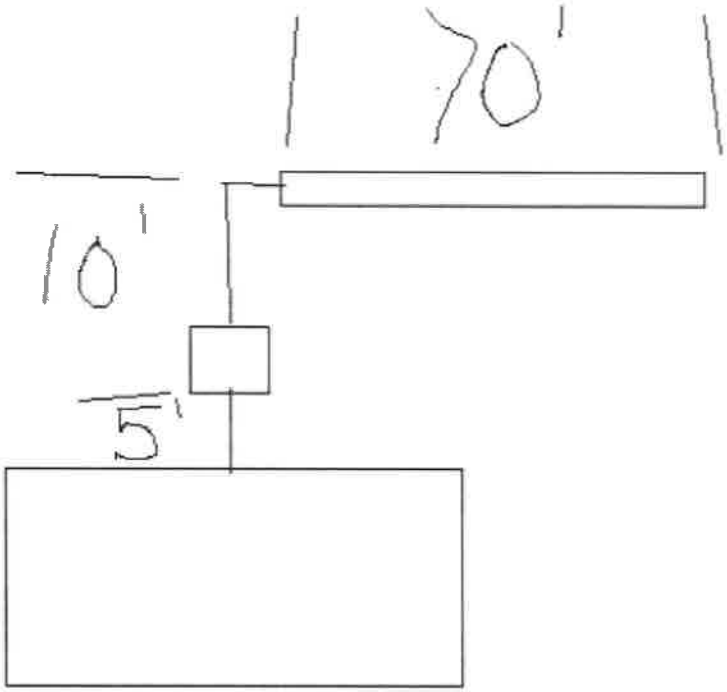
Notice To Comply for Permit: K200605827

Project Address:	11354 115TH ST WEST, ROSAMOND, CA	**PERMIT NO:**	**K200605827**
Project Parcel:	474-083-060	Application Date:	Jun 14, 2006
Inspector Area:	43	Permit Issued Date:	Jun 14, 2006
Subtype:	Residential Mobile Home	Permit Status:	FINALED
Project Description:	INSTALL 1984, 3 BDRM M.H. ONTO PERM FOUNDATION SYSTEM.		

Inspection	Scheduled	Inspected	Inspector	Result
Piers & Seismic	6/19/2006	6/20/2006	Bill Ferrell	Approved
Foundation / Tie Downs	6/19/2006	6/20/2006	Bill Ferrell	Approved
Piers & Seismic	6/19/2006	6/20/2006	Bill Ferrell	Approved
Septic Tank	4/16/2007	4/16/2007	Bill Ferrell	Approved
Job Complete	4/16/2007	4/16/2007	Bill Ferrell	Approved
Final - Zoning	4/16/2007	4/16/2007	Bill Ferrell	Approved
Final - Structural	4/16/2007	4/16/2007	Bill Ferrell	Approved
Electrical Continuity	4/16/2007	4/16/2007	Bill Ferrell	Approved

SEPTIC TANK DIAGRAM

N



KERN COUNTY BID INSPECTION LOG

Notice To Comply for Permit: K201200866

Project Address:	999999 REED AV, MOJAVE, CA	**PERMIT NO:**	**K201200866**
Project Parcel:	346-011-026	Application Date:	Feb 17, 2012
Inspector Area:	43	Permit Issued Date:	Feb 22, 2012
Subtype:	Commercial Miscellaneous	Permit Status:	FINALED
Project Description:	CONST 60M MET TOWER PER STD PLAN 1146		

Inspection	Scheduled	Inspected	Inspector	Result
Foundation - Pier/Posts	3/6/2012	3/7/2012	Bill Ferrell	Approved
Final - Structural final pending flood	5/14/2012	5/15/2012	Bill Ferrell	Approved
Final - Electrical	5/14/2012	5/15/2012	Bill Ferrell	Approved
Job Complete	5/16/2012	5/16/2012	Bill Ferrell	Approved

KERN COUNTY BID INSPECTION LOG

Notice To Comply for Permit: K202501158

Project Address:	8413 OAK CREEK RD, MOJAVE, CA	**PERMIT NO:**	**K202501158**
Project Parcel:	237-031-042	Application Date:	Feb 14, 2025
Inspector Area:	43	Permit Issued Date:	Jul 03, 2025
Subtype:	Commercial New	Permit Status:	ISSUED

Project Description: DAYLIGHT III 500 KV TRANSMISSION LINE FOR ENTERPRISE TO CONNECT THE DARKSTAR 230-500 KV SUBSTATION TO THE SCE WINDHUB SUBSTATION

Inspection	Scheduled	Inspected	Inspector	Result

KERN COUNTY BID INSPECTION LOG

Notice To Comply for Permit: K202403889

Project Address:	8413 OAK CREEK RD, MOJAVE, CA	**PERMIT NO:**	**K202403889**
Project Parcel:	237-031-042	Application Date:	May 17, 2024
Inspector Area:	43	Permit Issued Date:	Mar 20, 2025
Subtype:	Commercial New	Permit Status:	ISSUED
Project Description:	230-500 kV Darkstar Substation for Enterprise		

Inspection	Scheduled	Inspected	Inspector	Result
Foundation - Pier/Posts	4/15/2025	4/15/2025	William McCool	Customer Canceled
Customer canceled because they did not have their rough grading report.				
Foundation - Pier/Posts	4/16/2025	4/16/2025	Andrew French	Denied - NTC
Requires rough grading sign off before inspections. Correct and recall.				
Foundation - Pier/Posts	4/16/2025	4/16/2025	Andrew French	Partial Approval
Collected special inspection reports and attached to file				
Foundation - Pier/Posts	4/18/2025	4/18/2025	Jeffrey Tollefson	Partial Approval
Looked at foundations as highlighted on approved plans. Collected special inspection report and attached to file.				
Foundation - Pier/Posts	4/23/2025	4/23/2025	Andrew French	Partial Approval
Collected 3 special inspection reports and attached to file				
Foundation - Pier/Posts	4/24/2025	4/24/2025	Jeffrey Tollefson	Partial Approval
Looked at DC underground and grounding at F18B1 and F18B2. F16A 1 thru 6 Node LVAC				
Foundation - Pier/Posts	4/28/2025	4/28/2025	Andrew French	Partial Approval
Looked at pier foundations as highlighted on plans and signed				
Foundation - Pier/Posts	4/28/2025	4/28/2025	Andrew French	Partial Approval
Collected special inspection reports and attached to file				
Foundation - Pier/Posts	5/1/2025	5/1/2025	Andrew French	Partial Approval
Looked at foundations as highlighted on approved plans and signed. Collected special inspection reports and attached to file.				
Foundation - Pier/Posts	5/5/2025	5/5/2025	Andrew French	Partial Approval
Collected special inspection report forms and attached to file. Looked at two foundations as highlighted on approved plans and signed.				
Foundation - Pier/Posts	5/7/2025	5/7/2025	Jeffrey Tollefson	Partial Approval
Looked at two piers and two foundations as highlighted on approved plans and signed. Collected special inspection report and attached to file				
Foundation - Pier/Posts	5/12/2025	5/12/2025	Dale Johnson	Partial Approval
4 Dead ends 2 blast walls signed on approved set of plans this is not permission to energize.				
Foundation - Pier/Posts	5/19/2025	5/19/2025	Andrew French	Partial Approval
Looked at slab and Two foundations for blast walls as highlighted on plans and signed. Collected special inspection report forms and attached to file.				
Foundation - Pier/Posts	5/20/2025	5/20/2025	Andrew French	Partial Approval
Collected special inspection report forms, and attached to file. Looked at foundation for blast wall as highlighted on plans and signed.				
Underground Electrical	5/21/2025	5/21/2025	Dale Johnson	Partial Approval
2" and 3" conduits signed on approved set of plans this is not permission to energize.				

Foundation - Pier/Posts	5/22/2025	5/22/2025	Dale Johnson	Partial Approval
Foundation AF11 with special inspection. Conduit 21/2" and 2" signed on approved set of plans this is not permission to energize.				
Foundation - Slab	5/28/2025	5/28/2025	Andrew French	Partial Approval
Looked at slab for transformer is highlighted on approved plans and signed. Collected special inspection report form and attached to file.				
Underground Electrical	5/29/2025	5/29/2025	Andrew French	Partial Approval
Looked at underground conduits as highlighted on approved plans and signed				
Foundation - Pier/Posts	5/29/2025	5/29/2025	Andrew French	Partial Approval
Looked at foundation for peer number AF12-2 and for transformer pad TF1–5 as highlighted on approved plans and signed. Collected special inspection reports and attached to file.				
Foundation - Slab	5/30/2025	5/30/2025	Andrew French	Customer Canceled
Customer canceled at call ahead				
Foundation - Slab	6/2/2025	6/2/2025	Andrew French	Customer Canceled
Customer canceled a call ahead				
Underground Electrical	6/2/2025	6/2/2025	Andrew French	Partial Approval
Looked at underground ground grid and cad welds has highlighted on approved plans and signed				
Foundation - Pier/Posts	6/4/2025	6/4/2025	Andrew French	Partial Approval
Looked at AF12-1 pier for dead end structure as highlighted on plans and signed. Collected special inspection report form, and attached to file				
Underground Electrical	6/6/2025	6/6/2025	Andrew French	Partial Approval
Looked at underground grounding conductors for grounding grid as highlighted on plans and signed				
Foundation - Slab	6/6/2025	6/6/2025	Andrew French	Partial Approval
Looked at transformer pad and oil containment pad as highlighted on approved plans and signed. Collected special inspection report forms and attached to file.				
Foundation - Slab	6/9/2025	6/9/2025	Andrew French	Partial Approval
Looked at pad and walls for oil containment areas of transformer pad as highlighted unapproved plans and signed. Collected special inspection report attached to file.				
Foundation - Slab	6/11/2025	6/11/2025	Dale Johnson	Partial Approval
Foundation TF-1-2 and OC1-2 Signed on approved set of plans this is not permission to energize.				
Foundation - Pier/Posts	6/13/2025	6/13/2025	Andrew French	Partial Approval
Looked at foundation for transformer pad and collected special inspection, report form, and attached to file				
Underground Electrical	6/13/2025	6/13/2025	Andrew French	Partial Approval
Looked at fence grounding as highlighted on plans and signed				
Foundation - Pier/Posts	6/18/2025	6/18/2025	Andrew French	Partial Approval
Looked at foundations for AF5 1-4, AF7 1-3, and AF7 12-13 as highlighted on plans and signed. Collected special inspection report form, and attached to file.				
Foundation - Slab	6/24/2025	6/24/2025	Dale Johnson	Partial Approval
OC – 13 oil containment also FR – 16 firewall, FR – 15 firewall sign on approved set of plans. This is not permission to energize.				
Underground Electrical	6/25/2025	6/25/2025	Dale Johnson	Customer Canceled
Foundation - Slab	6/26/2025	6/26/2025	Andrew French	Not Ready
Customer was not ready				
Underground Electrical	7/1/2025	7/1/2025	Andrew French	Partial Approval
Looked at underground conduits and trenches leading to control room as highlighted on plans and signed				
Foundation - Slab	7/1/2025	7/1/2025	Andrew French	Partial Approval
Looked at foundation for transport, former pad slab as highlighted on plans and signed. Collected special inspection report form and attached to file.				
Foundation - Slab	7/2/2025	7/2/2025	Andrew French	Approved
TF1 foundation and FR1 firewall #3,#4 signed on approved set of plans this is not permission to energize.				
Foundation - Slab	7/9/2025	7/9/2025	Andrew French	Partial Approval
Looked at forms and rebar for two firewalls for transformers as highlighted on plans and signed. Collected special inspection report forms and will attach To filein the office in the morning				

Foundation - Slab	7/10/2025	7/10/2025	Jeffrey Tollefson	Partial Approval
Looked at transformer containment floor OC2-1. Collected special inspection report and attached to file.				
Foundation - Pier/Posts	7/11/2025	7/11/2025	Andrew French	Partial Approval
Looked at nine foundations for piers as highlighted on approved plans and signed				
Foundation - Pier/Posts	7/16/2025	7/16/2025	William McCool	Partial Approval
Piers AF7 -7, 8, 9, 10, 11, 16, 17, 18 AF5 - 9, 10, 11, 12, 13 Collected third-party inspection report.				

KERN COUNTY BID INSPECTION LOG

Notice To Comply for Permit: K202403396

Project Address:	8413 OAK CREEK RD, MOJAVE, CA	**PERMIT NO:**	**K202403396**
Project Parcel:	237-031-042	Application Date:	May 02, 2024
Inspector Area:	43	Permit Issued Date:	Mar 06, 2025
Subtype:	Commercial New	Permit Status:	ISSUED
Project Description:	DAYLIGHT II 230 KV UNDERGROUND TRANSMISSION LINE		

Inspection	Scheduled	Inspected	Inspector	Result
Foundation - Footings	4/4/2025	4/4/2025	Jeffrey Tollefson	Denied - NTC
This was only a construction meeting.				

KERN COUNTY BID INSPECTION LOG

Notice To Comply for Permit: K202402702

Project Address:	8413 OAK CREEK RD, MOJAVE, CA	**PERMIT NO:**	**K202402702**
Project Parcel:	237-031-042	Application Date:	Apr 10, 2024
Inspector Area:	43	Permit Issued Date:	Mar 06, 2025
Subtype:	Commercial Grading	Permit Status:	ISSUED
Project Description:	Grading and site preparation at the Darkstar Substation.		

Inspection	Scheduled	Inspected	Inspector	Result
Rough Grading	4/16/2025	4/16/2025	Andrew French	Denied - NTC
Requires completed engineer grading inspection report for rough grading sign off. Correct and recall.				
Rough Grading	4/16/2025	4/16/2025	Andrew French	Approved
Collected engineered grading inspection report and attached to file.				

KERN COUNTY BID INSPECTION LOG

Notice To Comply for Permit: K202103643

Project Address:	8009 OAK CREEK RD, MOJAVE, CA	**PERMIT NO:**	**K202103643**
Project Parcel:	237-031-042	Application Date:	Apr 30, 2021
Inspector Area:	43	Permit Issued Date:	Jul 12, 2021
Subtype:	Commercial Miscellaneous	Permit Status:	FINALED
Project Description:	UPGRADES TO EX EASTWIND SUBSTATION (OASIS POWER)		

Inspection	Scheduled	Inspected	Inspector	Result
Electric Release	8/6/2021	8/6/2021	Phillip Nichols	Denied - NTC
Date: 08/06/2021 14:59:24 GROUND RESISTANCE TEST NOT STAMPED BY ENGINEER OF RECORD				
Electric Release	8/9/2021	8/9/2021	Phillip Nichols	Approved
Date: 08/09/2021 15:14:07 ELECTRIC RELEASE LEG A ELECTRIC RELEASE LEG B ELECTRIC RELEASE LEG C				
Job Complete	11/17/2021	11/17/2021	Jeffrey Tollefson	Not Ready
Job Complete	11/18/2021	11/18/2021	Jeffrey Tollefson	Approved
Job complete was approved by Phillip Nichols on 8/9/21				

KERN COUNTY BID INSPECTION LOG

Notice To Comply for Permit: K202100820

Project Address: 8009 OAK CREEK RD, MOJAVE, CA
Project Parcel: 237-031-042
Inspector Area:
Subtype: Commercial Miscellaneous
Project Description: INSTALLATION OF REINFORCED CONCRETE FOUNDATION AND METEOROLOGICAL (MET) TOWER FOR OASIS POWER PARTNERS WIND FARM.

PERMIT NO: K202100820
Application Date: Jan 28, 2021
Permit Issued Date: May 10, 2021
Permit Status: FINALED

Inspection	Scheduled	Inspected	Inspector	Result
Foundation - Slab	5/13/2021	5/13/2021	Phillip Nichols	Approved
Job Complete	5/13/2021	5/13/2021	Phillip Nichols	Approved
Job Complete	11/17/2021	11/17/2021	Jeffrey Tollefson	Not Ready
Job Complete	11/18/2021	11/18/2021		Approved

KERN COUNTY BID INSPECTION LOG

Notice To Comply for Permit: K202100636

Project Address:	8009 OAK CREEK RD, MOJAVE, CA	**PERMIT NO:**	**K202100636**
Project Parcel:	237-031-042	Application Date:	Jan 27, 2021
Inspector Area:		Permit Issued Date:	Mar 01, 2021
Subtype:	Commercial Grading Engineered	Permit Status:	ISSUED

Project Description: ENGINEERED GRADING FOR NEW MET TOWER ACCESSORY TO EX OASIS POWER PARTNERS WIND PROJECT

Inspection	Scheduled	Inspected	Inspector	Result
Rough Grading	3/30/2021	3/30/2021	Dale Johnson	Customer Canceled
Rough Grading	5/7/2021	5/7/2021	Noah Berger	Approved
Job Complete	11/17/2021	11/17/2021	Jeffrey Tollefson	Not Ready

KERN COUNTY BID INSPECTION LOG

Notice To Comply for Permit: K202100370

Project Address:	8009 OAK CREEK RD, MOJAVE, CA	**PERMIT NO:**	**K202100370**
Project Parcel:	237-031-042	Application Date:	Jan 15, 2021
Inspector Area:	43	Permit Issued Date:	Nov 12, 2021
Subtype:	Commercial Grading Engineered	Permit Status:	FINALED
Project Description:	GRADING FOR (17) FUTURE WIND TURBINES		

Inspection	Scheduled	Inspected	Inspector	Result
Rough Grading	4/22/2021	4/22/2021	Dale Johnson	Denied - NTC
advised contractor to have civil EOR to complete rough doc. for each pad and call in for inspection when ready. Also made it clear that this is not a foundation inspection.				
Rough Grading	4/30/2021	4/30/2021	Noah Berger	Partial Approval
Date: 04/30/2021 15:44:12 WTH 1, 2, 6, 8, 10, 11, 12 and 16 Will attach rough grading docs file.				
Rough Grading	5/7/2021	5/7/2021	Noah Berger	Partial Approval
Collected rough grading certs for Met Tower-Tower #5-Tower #9				
Rough Grading	5/20/2021	5/20/2021	Noah Berger	Customer Canceled
Contractor canceled at call ahead. Advised contractor to email the inspector of the day of inspection the rough grading sign off.				
Rough Grading	6/9/2021	6/9/2021	Dale Johnson	Approved
Rough Grading	6/10/2021	6/10/2021	Noah Berger	Partial Approval
Date: 06/10/2021 15:55:42 7, 31 and 24. Will sign on card at next inspection.				
Rough Grading	6/11/2021	6/11/2021	Jeffrey Tollefson	Not Ready
Rough Grading	6/14/2021	6/14/2021	Noah Berger	Partial Approval
Date: 06/14/2021 11:21:44 Collected rough grading doc for pad 31.				
Rough Grading	6/15/2021	6/15/2021	Dale Johnson	Approved
Date: 06/15/2021 13:11:50 24 rough grading certification				
Rough Grading	6/16/2021	6/16/2021	Phillip Nichols	Denied - Not Valid
Rough Grading	6/17/2021	6/17/2021	Phillip Nichols	Denied - Not Valid
Rough Grading	6/18/2021	6/18/2021	Phillip Nichols	Denied - Not Valid
Final - Grading	8/23/2021	8/23/2021	Emily Suarez	Partial Approval
Collected final grading information for circuit 1 towers.				
Final - Grading	8/27/2021	8/27/2021	Emily Suarez	Partial Approval
Grading information for circuit #2 received and reviewed.				
Job Complete	11/17/2021	11/17/2021	Jeffrey Tollefson	Approved
Collected final grading documents for all 17 turbines. Will attach to file				

KERN COUNTY BID INSPECTION LOG

Notice To Comply for Permit: K202101159

Project Address: 8013 OAK CREEK RD, MOJAVE, CA
Project Parcel: 237-031-042
Inspector Area: 43
Subtype: Commercial Energy Wind
Project Description: INSTALL (11) V136 - 3.6 MW WIND TURBINES(O01,O02,O04,O06,O07,O09,O11,O15,O16,O23,O31) AND (6) V112 - 3.45 MW WIND TURBINES (O05,O08,O10,O12,O24,O26) FOR OASIS POWER

PERMIT NO: K202101159
Application Date: Dec 22, 2020
Permit Issued Date: Jul 21, 2021
Permit Status: FINALED

Inspection	Scheduled	Inspected	Inspector	Result
Underground Electrical	5/7/2021		Inspection Area 43	Cancelled
Underground Electrical	5/7/2021		Inspection Area 43	Cancelled
Foundation - Pier/Posts	5/13/2021		Inspection Area 43	Cancelled
Foundation - Footings	6/4/2021		Jeffrey Tollefson	Cancelled
Foundation - Footings	5/19/2021		Inspection Area 43	Cancelled
Underground Electrical	7/8/2021		Phillip Nichols	Cancelled
Underground Electrical	7/22/2021		Inspection Area 43	Cancelled
Underground Electrical	5/6/2021	5/6/2021	Noah Berger	Partial Approval
Date: 05/06/2021 17:41:39 M.V. feeders #2 between sc.2.0 and sc.2.1 partially completed O.K. to pot hole area not completed. Provide full size approved plan for inspectors to highlight and sign on.				
Underground Electrical	5/10/2021	5/10/2021	Phillip Nichols	Partial Approval
Approved cable run from where Noah left off to future location of SC 2.1 on page E.200 in plans				
Underground Electrical	5/14/2021	5/14/2021	Noah Berger	Partial Approval
Date: 05/14/2021 13:12:47 M.V from sc 2.1 to 2.2 to 2.3. Sc. 2.1 and 2.3 bonding and grounds complete. Will highlight on plan at next inspection.				
Foundation - Pier/Posts	5/14/2021	5/14/2021	Noah Berger	Partial Approval
Date: 05/14/2021 13:16:02 Base O.06 foundation collected special inspection report and signed on job card. Rough grading is signed on card for that permit. We will receive an RFI from EOR for offsets on rebar at top of base.				
Foundation - Pier/Posts	5/14/2021	5/14/2021	Noah Berger	Not Ready
Date: 05/14/2021 13:41:15 O-02 not ready.				
Foundation - Pier/Posts	5/17/2021	5/17/2021	Phillip Nichols	Partial Approval
Date: 05/17/2021 15:39:14 SC2.3 TO TOWER 11 Date: 05/17/2021 16:42:50 APPROVED BASE FOR TURBINE 0-02 APPROVED MV RUN FROM SC2.3 TO TURBINE 0-11				

Foundation - Pier/Posts	5/18/2021	5/18/2021	Noah Berger	Partial Approval
Date: 05/18/2021 17:05:55 Base at O09 . Collected special inspection report.				
Underground Electrical	5/18/2021	5/18/2021	Noah Berger	Partial Approval
Date: 05/18/2021 17:08:07 Ground ring at sc.2.1 and m.v. feeders from 2.3 to O11. Highlighted and signed on single line.				
Underground Electrical	5/21/2021	5/21/2021	Phillip Nichols	Cancelled
APPROVED 4/0 MV FROM SC1.3 TO TOWER 05 APPROVED 4/0 MV FROM SC1.3 TO TOWER 08				
Foundation - Footings	5/21/2021	5/21/2021	Phillip Nichols	Partial Approval
BONDING ON TOWER 11 FOUNDATION BONDING ON TOWER 06 PEDESTAL PROJECT LOOKS APPROVABLE, PROCEED AT OWN RISK IF WORKING BEFORE SPECIAL INSPECTIONS RECIEVED.				
Foundation - Footings	5/24/2021	5/24/2021	Dale Johnson	Approved
Date: 05/24/2021 15:20:05 PED FOR #02 AND BASE AND ROUGH GRADING FOR #08?				
Foundation - Pier/Posts	5/25/2021	5/25/2021	Noah Berger	Denied - NTC
Date: 05/25/2021 17:24:39 Pedestal 9 and base 5 appear to be approvable pending completed special inspection report. Proceed at own risk pending report.				
Foundation - Footings	5/26/2021	5/26/2021	Dale Johnson	Approved
Date: 05/26/2021 17:41:27 Ped # 9 third party report and #5 Base third party report Base 23 looks good and Ped #11 still need third party report.				
Underground Electrical	5/27/2021	5/27/2021	Dale Johnson	Approved
Date: 05/27/2021 16:21:21 tower 0-09 to cabinet 1.3 1751' 3 MV with ground and fiber				
Foundation - Footings	5/27/2021	5/27/2021	Dale Johnson	Partial Approval
Date: 05/27/2021 16:25:11 tower 10 foundation looks approved still need third party inspection. signed of rough grading.				
Foundation - Footings	6/1/2021	6/1/2021	Dale Johnson	Approved
Date: 06/01/2021 16:59:18 base 12 with third party inspection and rough grading.				
Foundation - Footings	6/2/2021	6/2/2021	Noah Berger	Denied - NTC
Date: 06/02/2021 15:22:33 Base 16 and pedestal 8 appear to be approvable. Provide special inspection report.				
Underground Electrical	6/2/2021	6/2/2021	Noah Berger	Partial Approval
Date: 06/02/2021 16:15:18 M.V from sc2.3 to sc2.4 and underground electrical at sc2.4.				
Foundation - Footings	6/3/2021	6/3/2021	Dale Johnson	Approved
Date: 06/03/2021 16:52:39 Ped 23 and Base 01 and collected third party inspection also collected third party inspection for Ped 8 and Base 16 and signed for all.				
Foundation - Footings	6/4/2021	6/4/2021	Jeffrey Tollefson	Partial Approval

Checked pedestal for tower 010 and tower 012. Checked base for tower 015. Everything appears to be ok pending third party inspection. Proceed at your own risk. Checked underground wiring from SC2.4 to tower 010. Highlighted and signed plan.

Foundation - Footings	6/4/2021	6/4/2021	Jeffrey Tollefson	Not Ready
Called ahead to let them know I was on my way. They called back and said they wouldn't be ready until 3:00.				
Rough Grading	6/8/2021	6/8/2021	Phillip Nichols	Partial Approval
Foundation - Footings	6/8/2021	6/8/2021	Phillip Nichols	Partial Approval
Rough Grading	6/9/2021	6/9/2021	Dale Johnson	Approved
Date: 06/09/2021 13:12:47 15,10,12 rough grading certification				
Foundation - Footings	6/9/2021	6/9/2021	Dale Johnson	Denied - NTC
Date: 06/09/2021 13:15:33 Ped 12 need third party report. collected 10,15 third party inspection				
Foundation - Footings	6/10/2021	6/10/2021	Noah Berger	Partial Approval
Date: 06/10/2021 15:53:42 Pedestal 4 and base 7. Will sign on card at next inspection. Collected special inspection report.				
Rough Grading	6/10/2021	6/10/2021	Noah Berger	Denied - Not Valid
Foundation - Footings	6/11/2021	6/11/2021	Jeffrey Tollefson	Not Ready
Rough Grading	6/11/2021	6/11/2021	Jeffrey Tollefson	Not Ready
Foundation - Footings	6/14/2021	6/14/2021	Noah Berger	Denied - NTC
Date: 06/14/2021 11:18:35 Base 31 appear to be approvable pending completed special inspection report. Proceed at own risk pending special inspection report.				
Foundation - Pier/Posts	6/14/2021	6/14/2021	Noah Berger	Partial Approval
Date: 06/14/2021 11:20:51 Pedestal 4 and base 7 are approved. Collected special inspection report for rebar.				
Foundation - Pier/Posts	6/14/2021	6/14/2021	Phillip Nichols	Partial Approval
Date: 06/14/2021 16:43:16 PEDESTAL #7 COLLECTED SPECIAL INSPECTION REPORT FOR PEDESTAL #7 AND BASE #31				
Foundation - Footings	6/15/2021	6/15/2021	Dale Johnson	Denied - NTC
Date: 06/15/2021 13:11:15 still need third-party inspection				
Foundation - Footings	6/16/2021	6/16/2021	Phillip Nichols	Partial Approval
Date: 06/16/2021 09:42:26 COLLECTED SPECIAL INSPECTION REPORT FOR PO24 BASE. PO31 PEDESTAL APPROVED PENDING SPECIAL INSPECTION PROCEED AT OWN RISK.				
Underground Electrical	6/17/2021	6/17/2021	Phillip Nichols	Partial Approval
Date: 06/17/2021 09:47:03 GT.2 GROUND RING APPROVED				
Foundation - Footings	6/17/2021	6/17/2021	Phillip Nichols	Partial Approval
Date: 06/17/2021 09:50:36 COLLECTED SPECIAL INSPECTION REPORT FOR PEDESTAL O-31				
Foundation - Footings	6/18/2021	6/18/2021	Phillip Nichols	Partial Approval
COLLECTED SPECIAL INSPECTION FOR PEDESTAL O-24				

Underground Electrical	6/23/2021	6/23/2021	Dale Johnson	Approved
Date: 06/23/2021 14:43:48 Three Triangled 4/0 with 1/0 ground and 1 fiber cable SC2.4 to windmill #012 cable runs 589' Also Three Triangled 4/0 with 1/0 ground and 1 fiber cable SC2.2 to windmill #024 cable runs 1565'				
Underground Electrical	6/29/2021	6/29/2021	Phillip Nichols	Customer Canceled
Foundation - Footings	6/29/2021	6/29/2021	Phillip Nichols	Customer Canceled
Foundation - Footings	6/29/2021	6/29/2021	Noah Berger	Denied - NTC
Date: 06/29/2021 17:54:03 26 base appears approvable. Proceed at your own risk pending rough grading sign off.				
Underground Electrical	6/29/2021	6/29/2021	Noah Berger	Partial Approval
Date: 06/29/2021 17:57:59 sc1.1 ground ring and feeders to sc1.0.				
Foundation - Footings	6/30/2021	7/1/2021	Jeffrey Tollefson	Not Ready
Underground Electrical	6/30/2021	7/1/2021	Jeffrey Tollefson	Approved
SC 1.1 to SC 2.2 Highlighted and signed plans				
Structural	7/1/2021	7/1/2021	Dale Johnson	Approved
Date: 07/01/2021 13:36:24 Collected third party on base still waiting on report for Ped.				
Underground Electrical	7/6/2021	7/6/2021	Dale Johnson	Approved
Date: 07/06/2021 16:45:24 3.2 to 3.3 337' and3.3 to T7 1645'				
Underground Electrical	7/7/2021	7/7/2021	Phillip Nichols	Partial Approval
Date: 07/07/2021 11:44:52 0-4 to subpanel				
Underground Electrical	7/8/2021	7/8/2021	Noah Berger	Partial Approval
Date: 07/08/2021 15:21:52 Sc.3.1 M.V to t-15 and t-15 to sc.3.2. Will highlight on plan at next inspection.				
Underground Electrical	7/9/2021	7/9/2021	Phillip Nichols	Partial Approval
Date: 07/09/2021 15:18:30 1. GROUND RING SEC 3.1, 3.2, 3.3 APPROVED 2. 0-31 TO SEC 3.1				
Underground Electrical	7/12/2021	7/12/2021	Dale Johnson	Approved
Date: 07/12/2021 15:03:40 3.0 to 3.1 to tower 017 signed on plans.				
Underground Electrical	7/15/2021	7/15/2021	Phillip Nichols	Partial Approval
Date: 07/15/2021 12:44:27 LOOKED AT SC3.X NEW SPLICE BOX. PLANS IN REVISION. PROCEED AT OWN RISK.				
Underground Electrical	7/16/2021	7/16/2021	Jeffrey Tollefson	Partial Approval
UG from Sc 1.2 to tower 02 U G from Sc 1.2 to tower 09 Highlighted and signed plans				
Underground Electrical	7/19/2021	7/19/2021	Dale Johnson	Approved
Date: 07/19/2021 11:36:28 from 0-08 to 0-26 2262' signed on plans				

Underground Electrical	7/23/2021	7/23/2021	Pablo Montano	Approved
Date: 07/23/2021 16:29:47 looked at junction box 3.x and 3.0				
Underground Electrical	7/26/2021	7/26/2021	Phillip Nichols	Customer Canceled
Underground Electrical	7/27/2021	7/27/2021	Dale Johnson	Approved
Date: 07/27/2021 16:21:55 SC 3.0 to T-0-01 underground electrical signed on plans.				
Underground Electrical	8/4/2021	8/4/2021	Dale Johnson	Approved
Date: 08/04/2021 17:08:57 SC1.0 GROUND RING WITH 2 GROUND RODS. SCE METER FOUNDATIONS WITH GROUND RING AND 2 GROUND RODS TIED TO SUBSTATION GROUND GRID. SC3.3 TO TOWER 023 TO MET TOWER. FOUNDATION ON GROUND TRANSFORMER WITH GROUND RING AND 2 GROUND RODS.				
Rebar for Groundwork	8/4/2021	8/4/2021	Dale Johnson	Approved
Date: 08/04/2021 17:09:19 SC1.0 GROUND RING WITH 2 GROUND RODS. SCE METER FOUNDATIONS WITH GROUND RING AND 2 GROUND RODS TIED TO SUBSTATION GROUND GRID. SC3.3 TO TOWER 023 TO MET TOWER. FOUNDATION ON GROUND TRANSFORMER WITH GROUND RING AND 2 GROUND RODS.				
Foundation - Footings	8/4/2021	8/4/2021	Dale Johnson	Approved
Date: 08/04/2021 17:09:43 SC1.0 GROUND RING WITH 2 GROUND RODS. SCE METER FOUNDATIONS WITH GROUND RING AND 2 GROUND RODS TIED TO SUBSTATION GROUND GRID. SC3.3 TO TOWER 023 TO MET TOWER. FOUNDATION ON GROUND TRANSFORMER WITH GROUND RING AND 2 GROUND RODS.				
Foundation - Footings	8/5/2021	8/5/2021	Phillip Nichols	Partial Approval
Date: 08/05/2021 15:52:40 GT-2 REBAR AND GROUND RING APPROVED SIGNED ON PLANS. COLLECTED 3RD PARTY REPORTS				
Foundation - Footings	8/6/2021	8/6/2021	Phillip Nichols	Partial Approval
Date: 08/06/2021 15:01:39 GT-1 REBAR COMPLETE				
Underground Electrical	8/9/2021	8/9/2021	Phillip Nichols	Partial Approval
Date: 08/09/2021 16:15:52 WIRE SPLICE				
Underground Electrical	8/10/2021	8/10/2021	Phillip Nichols	Partial Approval
Date: 08/10/2021 14:52:27 SPLICE ON CIRCUIT 1.0 SIGNED ON PLANS				
Final - Grading	8/20/2021	8/20/2021	Emily Suarez	Denied - Not Valid
Date: 08/20/2021 14:28:40 Documents for grading to be reviewed in the office.				
Electric Release	8/20/2021	8/20/2021	Emily Suarez	Denied - Not Valid
Date: 08/20/2021 14:29:04 Documents for grading/electrical to be reviewed in the office.				
Final - Electrical	8/23/2021	8/23/2021	Emily Suarez	Partial Approval
Information for circuit one has been submitted and it is acceptable to energize. Download information into the system.				
Underground Electrical	8/26/2021	8/27/2021	Emily Suarez	Denied - Not Valid
Final - Grading	8/26/2021	8/27/2021	Emily Suarez	Denied - Not Valid
Final - Electrical	8/27/2021	8/27/2021	Emily Suarez	Partial Approval

	Information received and reviewed. Ok energize.			
Final - Electrical	8/27/2021	8/27/2021	Emily Suarez	Partial Approval
	Information received and reviewed for circuit #2. Ok to energize. Added additional information for circuit 2 from last inspection.			
Final - Grading	9/2/2021	9/3/2021	Emily Suarez	Denied - Not Valid
	Look at K202100370 for final grading.			
Electric Release	9/2/2021	9/3/2021	Emily Suarez	Denied - Not Valid
Final - Electrical	9/3/2021	9/3/2021	Emily Suarez	Partial Approval
	Information received and reviewed for circuit #3. Ok to energize.			
Job Complete	11/12/2021	11/12/2021	Dale Johnson	Customer Canceled
Job Complete	11/17/2021	11/17/2021	Jeffrey Tollefson	Approved

KERN COUNTY BID INSPECTION LOG

Notice To Comply for Permit: K202005826

Project Address:	8009 OAK CREEK RD, MOJAVE, CA	**PERMIT NO:**	**K202005826**
Project Parcel:	237-031-042	Application Date:	Aug 13, 2020
Inspector Area:	43	Permit Issued Date:	Oct 26, 2020
Subtype:	Commercial Electrical	Permit Status:	FINALED
Project Description:	ADDITION TO EX VOYAGER WIND SUBSTATION REFERENCE # K201802274 AND K201802206		

Inspection	Scheduled	Inspected	Inspector	Result
Foundation - Slab	11/18/2020	11/19/2020	Joshua Oberlies	Customer Canceled
Customer canceled at call ahead				
Underground Electrical	11/19/2020	11/19/2020	Noah Berger	Partial Approval
Date: 11/19/2020 16:28:19 Ground ring on East side of substation highlighted and signed on plans.				
Unspecified	11/19/2020	11/19/2020	Noah Berger	Denied - Not Valid
Underground Electrical	11/24/2020	11/24/2020	Noah Berger	Partial Approval
Date: 11/24/2020 16:06:30 Ground ring and cad welds on East side of substation on inside of fence line to be highlighted and signed on plans. No plans on site to sign.				
Foundation - Slab	11/30/2020	11/30/2020	Noah Berger	Partial Approval
Date: 11/30/2020 16:02:01 F1, and 2 F3 foundations. Collected special inspection report.				
Foundation - Pier/Posts	12/1/2020	12/1/2020	Noah Berger	Partial Approval
Date: 12/01/2020 10:57:03 F6 foundation ×2				
Foundation - Slab	12/2/2020	12/2/2020	Noah Berger	Customer Canceled
Date: 12/02/2020 15:12:44 Contractor canceled at call ahead.				
Structural	12/3/2020	12/3/2020	Noah Berger	Denied - NTC
Date: 12/03/2020 10:01:22 Foundation F2×2 and F3×3 foundation appears to be approvable pending special inspection report for install. Proceed at your own risk pending special inspection.				
Rough Electric	12/11/2020	12/11/2020	Noah Berger	Denied - Not Valid
Underground Electrical	12/11/2020	12/11/2020	Noah Berger	Partial Approval
Date: 12/11/2020 14:36:31 Ground ring at fence and conduit highlighted and signed on plans.				
Reinforcing Steel	12/11/2020	12/11/2020	Noah Berger	Partial Approval
Foundation F2×2 and F3×3 foundation collected special inspection report.				
Foundation - Pier/Posts	12/22/2020	12/22/2020	Noah Berger	Customer Canceled

Date: 12/22/2020 15:22:39
Contractor canceled to my cell phone

Foundation - Pier/Posts	12/23/2020	12/23/2020	Noah Berger	Partial Approval
Date: 12/23/2020 10:55:47 F1, F3×2 and F6. Removed and re-set. Collected special inspection report. Signed in red on plan.				
Foundation - Slab	12/28/2020	12/28/2020	Jeffrey Tollefson	No Access
Customer said the would be ready about 1:00. While on my last inspection they called me and I said I would leave in 5 min. Got to job and called 3 times and texted and no answer or call back. Wanted directions to sub station				
Foundation - Slab	12/29/2020	12/29/2020	Noah Berger	Partial Approval
Date: 12/29/2020 11:48:51 F9 foundation highlighted and signed on plans.				
Underground Electrical	12/30/2020	12/30/2020	Noah Berger	Partial Approval
Ground grid. Highlighted and signed on plan.				
Rebar for Grounding	12/30/2020	12/30/2020	Noah Berger	Denied - Not Valid
Underground Electrical	1/4/2021	1/4/2021	Noah Berger	Partial Approval
Date: 01/04/2021 10:58:30 Ground grid highlighted and signed on plans.				
Foundation - Pier/Posts	1/6/2021	1/6/2021	Noah Berger	Customer Canceled
Date: 01/06/2021 14:45:45 Contractor canceled to my cell.				
Foundation - Pier/Posts	1/7/2021	1/7/2021	Noah Berger	Denied - NTC
Date: 01/07/2021 12:58:36 Post for fence line post are 3' deep by 12" round. Corners are 3' deep by 16" round. There is not a detail in plan for this from EOR with stamp. Proceed at own risk pending detail that matches on site conditions. Or correct and recall.				
Underground Electrical	1/12/2021	1/12/2021	Dale Johnson	Approved
Date: 01/12/2021 15:44:26 5 grounding tails for the fence				
Underground Electrical	1/20/2021	1/20/2021	Dale Johnson	Approved
Date: 01/20/2021 13:23:32 Marked on plans				
Electric Release	2/3/2021	2/3/2021	Noah Berger	Approved
Date: 02/03/2021 16:22:49 8015 Oak Creek Road Unit F				
Job Complete	2/12/2021	2/12/2021	Dale Johnson	Denied - NTC
Date: 02/12/2021 11:05:22 Picked up thumb drive for review				
Job Complete	3/4/2021	3/4/2021	Dale Johnson	Approved

KERN COUNTY BID INSPECTION LOG

Notice To Comply for Permit: K202005536

Project Address:	8009 OAK CREEK RD, MOJAVE, CA	**PERMIT NO:**	**K202005536**
Project Parcel:	237-031-042	Application Date:	Aug 03, 2020
Inspector Area:		Permit Issued Date:	Sep 23, 2020
Subtype:	Commercial Grading Engineered	Permit Status:	ISSUED
Project Description:	GRADING OF 38,500 C.Y FOR TEMPORARY STORAGE YARD for WTG COMPONENTS		

Inspection	Scheduled	Inspected	Inspector	Result

KERN COUNTY BID INSPECTION LOG

Notice To Comply for Permit: K202003158

Project Address:	8009 OAK CREEK RD, MOJAVE, CA	**PERMIT NO:**	**K202003158**
Project Parcel:	237-031-042	Application Date:	May 13, 2020
Inspector Area:	44	Permit Issued Date:	Jun 19, 2020
Subtype:	Commercial Electrical	Permit Status:	FINALED

Project Description: ADD OUTDOOR LIGHTING TO EX TEHACHAPI 1 ENERGY STORAGE PROJECT (REF BUILDING PERMIT K201907740)- TERRA-GEN DEVELOPMENT

Inspection	Scheduled	Inspected	Inspector	Result
Underground Electrical	6/22/2020	6/22/2020	Noah Berger	Approved
Date: 06/22/2020 10:43:58 All under ground electrical highlighted and signed on plan.				
Foundation - Slab	6/22/2020	6/22/2020	Noah Berger	Partial Approval
Date: 06/22/2020 10:49:13 Light standards on the North, East ,South and center highlighted and signed on plan. Collected the special inspection report for rebar and bolts .				
Job Complete	7/2/2020	7/1/2020	Inspection Area 44	Approved
Foundation - Reinforcing Steel	7/1/2020	7/1/2020	David Phillips	Approved
Date: 07/01/2020 13:44:58 Rebar and underground electrical inspected for light poles				
Job Complete	7/1/2020	7/1/2020	David Phillips	Approved

KERN COUNTY BID INSPECTION LOG

Notice To Comply for Permit: K202002875

Project Address: 8009 OAK CREEK RD, MOJAVE, CA
Project Parcel: 237-031-042
Inspector Area: 44
Subtype: Commercial Accessory
Project Description: INSTALL 10,000 GAL WATER TANK WITH FOUNDATION ACCESSORY BATTERY STORAGE FACILITY K201907740 ACCESSORY TO EX WIND FARM

PERMIT NO: K202002875
Application Date: May 03, 2020
Permit Issued Date: Jun 01, 2020
Permit Status: FINALED

Inspection	Scheduled	Inspected	Inspector	Result
Foundation - Slab Date: 07/01/2020 13:44:05 Checked rebar for water tank pad	7/1/2020	7/1/2020	David Phillips	Approved
Job Complete	7/1/2020	7/1/2020	David Phillips	Approved
Job Complete	7/2/2020	7/2/2020	Inspection Area 44	Approved

KERN COUNTY BID INSPECTION LOG

Notice To Comply for Permit: K202000544

Project Address:	8009 OAK CREEK RD, MOJAVE, CA	**PERMIT NO:**	**K202000544**
Project Parcel:	237-031-042	Application Date:	Jan 23, 2020
Inspector Area:	43	Permit Issued Date:	Mar 03, 2020
Subtype:	Commercial Electrical	Permit Status:	FINALED

Project Description: SUBSTATION MODIFICATION TO INTERCONNECT 70MW BATTERY STORAGE FACILITY ACCY TO EX WIND GEN

Inspection	Scheduled	Inspected	Inspector	Result
Job Complete	12/7/2020	12/7/2020	Delfino Ruiz	Approved
Completed with 70 MW battery storage				

KERN COUNTY BID INSPECTION LOG

Notice To Comply for Permit: K201907740

Project Address:	8009 OAK CREEK RD, MOJAVE, CA	**PERMIT NO:**	**K201907740**
Project Parcel:	237-031-042	Application Date:	Oct 10, 2019
Inspector Area:	44	Permit Issued Date:	Jan 07, 2020
Subtype:	Commercial Accessory	Permit Status:	FINALED

Project Description: 70 MEGAWATT / 70 MEGAWATT HOUR BATTERY STORAGE FACILITY ACCESSORY TO EXISTING MOJAVE 16/17/18 WIND GENERATION PROJECT

Inspection	Scheduled	Inspected	Inspector	Result
Underground Electrical	1/15/2020		Inspection Area 44	Cancelled
Foundation - Pier/Posts	1/15/2020		Inspection Area 44	Cancelled
Underground Electrical	4/16/2020		David Phillips	Cancelled
Underground Electrical	12/13/2019	12/13/2019	Delfino Ruiz	Not Ready
Not ready for called inspection. Provide Grounding, bonding for service. Install and land service entrance conductors, etc....				
Underground Electrical	12/13/2019	12/13/2019	Delfino Ruiz	Partial Approval
Partial approval. As Built underground electric not per scope of work on approved plans. 6 " Conduit verified and inspected. PROCEED AT YOUR OWN RISK. Full approval pending Kern County approval of Electrical package.				
Foundation - Pier/Posts	12/16/2019	12/16/2019	Delfino Ruiz	Approved
PDC building Foundation/Footing and 2 X auxiliary transformer Pads				
Foundation - Footings	1/9/2020	1/9/2020	Noah Berger	Denied - NTC
Date: 01/09/2020 13:49:51 Missing #4 Per detail 1 on all corners on openings and provide special inspection report for rebar. First North West pad. Conduits complete. Correct and recall.				
Underground Electrical	1/9/2020	1/9/2020	Noah Berger	Partial Approval
Date: 01/09/2020 13:52:04 Ground grid with crimps Highlighted and dated on plan. O.K to back fill these areas.				
Underground Electrical	1/10/2020	1/10/2020	Noah Berger	Partial Approval
Date: 01/10/2020 15:06:08 Conduits in p2. Highlighted and intialeled on plan.				
Foundation - Footings	1/10/2020	1/10/2020	Noah Berger	Denied - NTC
Date: 01/10/2020 15:07:39 P1 and p2 appear to be approvable provide special inspection report for rebar.				
Underground Electrical	1/13/2020	1/13/2020	Noah Berger	Denied - Not Valid
Foundation - Slab	1/13/2020	1/13/2020	Noah Berger	Denied - Not Valid
Foundation - Footings	1/13/2020	1/13/2020	Noah Berger	Partial Approval
Date: 01/13/2020 15:52:58 Collected inspection report for rebar for p1 and p 2 and highlighted and signed on plan.				
Underground Electrical	1/14/2020	1/14/2020	Noah Berger	Partial Approval

Date: 01/14/2020 15:38:17
M.V. conduit for p1 to p6 highlighted and signed on plan.

Foundation - Slab	1/14/2020	1/14/2020	Noah Berger	Denied - Not Valid
Foundation - Pier/Posts	1/14/2020	1/14/2020	Noah Berger	Denied - Not Valid
Foundation - Footings	1/14/2020	1/14/2020	Noah Berger	Denied - NTC

Date: 01/14/2020 15:41:03
P3 foundation is approvable upon receiving special inspection report for rebar.

Underground Electrical	1/16/2020	1/16/2020	Noah Berger	Denied - Not Valid
Foundation - Pier/Posts	1/16/2020	1/16/2020	Noah Berger	Denied - NTC

Date: 01/16/2020 15:30:56
PDC foundation appears to be Approvable upon verification of special inspection report.

Foundation - Footings	1/16/2020	1/16/2020	Noah Berger	Partial Approval

Date: 01/16/2020 15:31:56
Received special inspection report for p 3 and highlighted and signed on plan.

Underground Electrical	1/17/2020	1/17/2020	Noah Berger	Partial Approval

Date: 01/17/2020 09:40:05
Ground grid and M.V conduit signed and highlighted on plan.

Foundation - Pier/Posts	1/17/2020	1/17/2020	Noah Berger	Partial Approval

Date: 01/17/2020 09:41:41
8 post for PDC and collected special inspection report for rebar.

Underground Electrical	1/21/2020	1/21/2020	Delfino Ruiz	Partial Approval

Ground ring and conduit see plans

Underground Electrical	1/23/2020	1/23/2020	Noah Berger	Partial Approval

Date: 01/23/2020 15:10:26
Ground grid South side and M.V conduit East side highlighted and signed on plan.

Underground Electrical	1/29/2020	1/29/2020	Delfino Ruiz	Approved

Transformer pad #4 and ground grid North of existing substation as noted on plans

Foundation - Pier/Posts	1/30/2020	1/30/2020	Noah Berger	Partial Approval

Date: 01/30/2020 15:30:57
p4 and p5 signed and highlighted. Collected special inspection form and attached to the file.

Underground Electrical	1/30/2020	1/30/2020	Noah Berger	Partial Approval

Date: 01/30/2020 15:46:14
P 19 and p 20 m.v. conduit, p 5 d.c. conduit and ground grid South side signed and highlighted on plan.

Underground Electrical	2/3/2020	2/3/2020	Noah Berger	Partial Approval

Date: 02/03/2020 16:50:19
Ground grid highlighted and signed on plan.

Foundation - Footings	2/3/2020	2/3/2020	Noah Berger	Partial Approval

Date: 02/03/2020 16:57:34
P-6 foundation highlighted and signed on plan. Collected special inspection report and will attach to file.

Foundation - Slab	2/3/2020	2/3/2020	Noah Berger	Denied - NTC

Date: 02/03/2020 16:59:48
L-1 foundation is missing bearing plate on bottom of corner bolts. Will need clarification from EOR. Proceed at your own risk.

Foundation - Slab	2/6/2020	2/6/2020	Noah Berger	Partial Approval
Date: 02/06/2020 15:31:19 Inspection for P7 foundation. Special inspection report will be emailed and attached to file. Highlighted and intialeled on plan.				
Foundation - Pier/Posts	2/6/2020	2/6/2020	Noah Berger	Denied - Not Valid
Underground Electrical	2/6/2020	2/6/2020	Noah Berger	Partial Approval
Date: 02/06/2020 15:32:47 M.V Conduit on p6, p7 and L2. Highlighted and intialeled on plan.				
Foundation - Pier/Posts	2/7/2020	2/7/2020	Noah Berger	Partial Approval
Date: 02/07/2020 16:52:31 p-8 foundation and collected special inspection report for p-8, p-7 and c-2. c-1 and c-2 still need letter from EOR. Approved items signed and highlighted on plan.				
Underground Electrical	2/7/2020	2/7/2020	Noah Berger	Partial Approval
Date: 02/07/2020 16:56:17 p-8 and c-2 conduit signed and highlighted on plan.				
Underground Electrical	2/12/2020	2/12/2020	Noah Berger	Partial Approval
Date: 02/12/2020 15:25:37 P9 and C3 DC conduit highlighted and signed on plan.				
Structural	2/12/2020	2/12/2020	Noah Berger	Denied - Not Valid
Foundation - Footings	2/12/2020	2/12/2020	Noah Berger	Denied - NTC
Date: 02/12/2020 15:36:57 P9 is Approvable but missing special inspection report. C3 needs special inspection report and blanket letter from EOR concerning previous NTC. Still missing previous corrections on all C foundations. Proceed at your own risk.				
Underground Electrical	2/18/2020	2/18/2020	Noah Berger	Partial Approval
Date: 02/18/2020 15:57:16 M.V conduit p14, 15, 16, 17 and 18. D.C conduit for c 4, 5 and 6. Highlighted and intialeled on plan.				
Foundation - Footings	2/18/2020	2/18/2020	Noah Berger	Partial Approval
Date: 02/18/2020 16:11:32 c1, 2, 3, 4, 5 and 6. also p 9 signed and highlighted on plan. Recieved EOR letter for changes and special inspection reports.				
Foundation - Slab	2/18/2020	2/18/2020	Noah Berger	Denied - Not Valid
Underground Electrical	2/19/2020	2/19/2020	Delfino Ruiz	Approved
2 layers of DC conductors to battery bank				
Underground Electrical	2/20/2020	2/20/2020	Noah Berger	Partial Approval
Date: 02/20/2020 15:22:07 D.C conduit p28 and c8 signed and highlighted on plan.				
Foundation - Footings	2/20/2020	2/20/2020	Noah Berger	Denied - NTC
Date: 02/20/2020 15:45:53 Need special inspection report for rebar and bolts on p28 and c8. Otherwise approvable. Provide special inspection report. Proceed at your own risk.				
Unspecified	2/20/2020	2/20/2020	Noah Berger	Denied - Not Valid
Foundation - Footings	2/24/2020	2/24/2020	Delfino Ruiz	Approved
C7 and C19 Foundation and conduit OK				
Underground Electrical	2/24/2020	2/24/2020	Delfino Ruiz	Approved
C7 and C19 Foundation and conduit OK				

Underground Plumbing	2/24/2020	2/24/2020	Delfino Ruiz	Denied - Not Valid
Incorrect inspections scheduled				
Foundation - Pier/Posts	2/24/2020	2/24/2020	Delfino Ruiz	Denied - Not Valid
Incorrect inspections scheduled				
Foundation - Slab	2/24/2020	2/24/2020	Delfino Ruiz	Denied - Not Valid
Incorrect inspections scheduled				
Underground Electrical	2/25/2020	2/25/2020	Noah Berger	Partial Approval
Date: 02/25/2020 17:31:25				
D.C concrete p2 to c2 and c3 to p4. D.C conduit p25, 26, 27 and c18 highlighted and signed on plan.				
Foundation - Slab	2/25/2020	2/25/2020	Noah Berger	Partial Approval
Date: 02/25/2020 17:47:51				
Recieved special inspection report for c8 and p28.				
Foundation - Pier/Posts	2/25/2020	2/25/2020	Noah Berger	Denied - NTC
Date: 02/25/2020 17:51:54				
Need special inspection report for p27, 26, 25 and c8 . Stairway pads 1 and 2 and pad between PDC and fd 1 and 2 will also need special inspection report. Otherwise approvable				
Underground Electrical	2/26/2020	2/26/2020	Delfino Ruiz	Approved
Foundation - Slab	2/26/2020	2/26/2020	Delfino Ruiz	Approved
Foundation - Footings	2/27/2020	2/27/2020	Noah Berger	Partial Approval
Date: 02/27/2020 15:03:22				
C-17 Collected special inspection report.				
Underground Electrical	2/27/2020	2/27/2020	Noah Berger	Partial Approval
Date: 02/27/2020 15:05:16				
C17 d.c conduit, c3 to p5 and c4 to p5 concrete encased d.c.				
Foundation - Slab	2/27/2020	2/27/2020	Noah Berger	Denied - Not Valid
Electric Release	2/28/2020	2/28/2020	Noah Berger	Denied - Not Valid
Foundation - Slab	2/28/2020	2/28/2020	Noah Berger	Denied - Not Valid
Foundation - Footings	2/28/2020	2/28/2020	Noah Berger	Denied - NTC
Date: 02/28/2020 15:47:35				
C16 and P24 appear to be Approvable upon verification of special inspection report				
Underground Electrical	2/28/2020	2/28/2020	Noah Berger	Partial Approval
Date: 02/28/2020 15:49:07				
DC conduit highlighted and signed on plan for C16 and P24				
Foundation - Footings	3/2/2020	3/2/2020	Dale Johnson	Approved
Underground Electrical	3/2/2020	3/2/2020	Dale Johnson	Approved
Foundation - Pier/Posts	3/2/2020	3/2/2020	Dale Johnson	Approved
Structural	3/3/2020	3/4/2020	David Phillips	Denied - Not Valid
Underground Electrical	3/3/2020	3/4/2020	David Phillips	Partial Approval
Underground electrical inspected for C14 and P22				
Foundation - Slab	3/3/2020	3/4/2020	David Phillips	Partial Approval
Inspection for C14, P22 and Light poles, pier and pad @ east side of substation. Highlighted and signed on plan.				
Underground Electrical	3/5/2020	3/5/2020	David Phillips	Partial Approval
Underground electrical for C13, P21, P20 and Medium voltage A\C for P7-PDC				
Structural	3/5/2020	3/5/2020	David Phillips	Denied - Not Valid
Foundation - Pier/Posts	3/5/2020	3/6/2020	David Phillips	Partial Approval
C13, P20 and P21 signed and approved on plans. Will attach special inspection report to file.				
Underground Electrical	3/10/2020	3/10/2020	Delfino Ruiz	Denied - NTC

provide plans and permit on site when calling for inspection

Underground Electrical	3/9/2020	3/10/2020	David Phillips	Partial Approval
Inspected P19, P18 and C12 for underground electrical and medium voltage underground for P6 to PDC				
Foundation - Slab	3/9/2020	3/10/2020	David Phillips	Partial Approval
Inspected pier for P18, P19 and C12. Special inspection report will be added to file.				
Foundation - Slab	3/12/2020	3/12/2020	David Phillips	Denied - Not Valid
Underground Electrical	3/12/2020	3/12/2020	David Phillips	Partial Approval
Date: 03/12/2020 14:35:24 underground electrical for P14, P15, P16 and C11. Also underground for P7 to C5				
Foundation - Pier/Posts	3/12/2020	3/13/2020	David Phillips	Partial Approval
Pier inspection for P14, P15, P16 and C11. Collected special inspection report and attached to file.				
Underground Electrical	3/14/2020	3/14/2020	Noah Berger	Partial Approval
Date: 03/14/2020 09:37:07 D.C. direct burial encased in concrete, c1 to p1, c1 to p2, c5 to p7, c5 to p8, c6 to p8 and c6 to p9 highlighted and signed on plan.				
Underground Electrical	3/16/2020	3/16/2020	David Phillips	Partial Approval
Medium Voltage from P7 to substation concrete incased underground. Underground electrical for P12 and P13. Approved and signed on plans.				
Underground Electrical	3/18/2020	3/18/2020	David Phillips	Partial Approval
Date: 03/18/2020 07:28:24 Underground electrical for P17 marked and signed on plans.				
Foundation - Slab	3/17/2020	3/18/2020	David Phillips	Denied - NTC
C9, C10 and P17 appear to be approvable but missing special inspection report				
Foundation - Slab	3/19/2020	3/19/2020	David Phillips	Partial Approval
Date: 03/19/2020 14:59:02 slab P10, P11, P12 and P13. Special inspection report collected and will attach to file.				
Underground Electrical	3/19/2020	3/19/2020	David Phillips	Partial Approval
Date: 03/19/2020 14:59:58 Underground conduit for P13 and P12				
Underground Electrical	3/23/2020	3/23/2020	David Phillips	Partial Approval
Date: 03/23/2020 15:34:11 underground electrical for P10, P11 and MV for ESS2 PDC to Substation				
Underground Electrical	3/24/2020	3/24/2020	David Phillips	Partial Approval
Date: 03/24/2020 13:44:38 Underground DC from P27 to C18.				
Underground Electrical	3/26/2020	3/26/2020	David Phillips	Partial Approval
Date: 03/26/2020 13:14:29 Ground ring for skid 1, 2, 3 and 4. MV underground for 33 to 32.				
Underground Electrical	3/26/2020	3/26/2020	David Phillips	Partial Approval
Date: 03/26/2020 14:25:08 Last inspection was a mistake. Underground DC for P26 to C17 and C18 and underground DC for P25 to C17 are good to proceed.				
Underground Electrical	3/31/2020	3/31/2020	David Phillips	Partial Approval
Date: 03/31/2020 14:18:12 DC underground for P24 to C16, P23 to C16, P23 to C15, P22 to C15, P21 to C14				

Underground Electrical	4/3/2020	4/6/2020	David Phillips	Partial Approval
Underground DC for P20 to C13 and C14, P16 to C11, P15 to C10				
Underground Electrical	4/9/2020	4/9/2020	David Phillips	Partial Approval
Date: 04/09/2020 10:31:09 Underground DC for pads P18 to C12, P17 to C12, P17 TO C11, P14 TO C10, P14 TO C9				
Underground Electrical	4/10/2020	4/10/2020	Delfino Ruiz	Customer Canceled
Customer cancelled to save inspection for a later date				
Underground Electrical	4/14/2020	4/14/2020	Noah Berger	Partial Approval
Date: 04/14/2020 14:24:09 P-7 to P-18 M.V direct burial. Highlighted and intialeled on plan.				
Underground Electrical	4/15/2020	4/15/2020	David Phillips	Partial Approval
Underground Electrical	4/17/2020	4/17/2020	David Phillips	Partial Approval
Date: 04/17/2020 12:56:11 MV underground for C7 to P10, C13 to P19				
Underground Electrical	4/17/2020	4/18/2020	David Phillips	Partial Approval
Under ground MV to sub station				
Underground Electrical	4/23/2020	4/23/2020	David Phillips	Partial Approval
Date: 04/23/2020 13:40:18 P13 to MV hub				
Underground Electrical	4/24/2020	4/24/2020	David Phillips	Partial Approval
Date: 04/24/2020 13:01:43 P13 to C9 DC underground				
Underground Electrical	4/27/2020	4/27/2020	David Phillips	Partial Approval
Date: 04/27/2020 09:14:47 P24 and P19 to PVC				
Underground Electrical	5/7/2020	5/7/2020	David Phillips	Partial Approval
Date: 05/07/2020 15:08:48 west side fence line grounding				
Underground Electrical	5/11/2020	5/12/2020	David Phillips	Denied - NTC
No county reviewed or approved civil or structural engineered plans for light standards				
Underground Electrical	5/15/2020	5/15/2020	David Phillips	Partial Approval
Date: 05/15/2020 10:47:47 extension to underground ground ring				
Underground Electrical	5/19/2020	5/19/2020	David Phillips	Partial Approval
Date: 05/19/2020 13:03:58 Ground ring completed for the site.				
Underground Electrical	5/27/2020	5/27/2020	Jeffrey Tollefson	Partial Approval
This inspection is an addition to the ground grid between substation and batteries. Four connections to existing substation grid have not been completed. Revised plan from electrical engineer was provided on site and was highlighted and signed. Contractor advised to provide two copies to add to county's plan				
Foundation - Footings	6/4/2020	6/4/2020	David Phillips	Denied - Not Valid
Foundation - Slab	6/4/2020	6/4/2020	David Phillips	Approved
Date: 06/04/2020 15:34:06 Received special inspection report for rebar and attached to file				
Final - Energy	8/4/2020	8/4/2020	Delfino Ruiz	Approved

Job Complete	8/10/2020	8/10/2020	Delfino Ruiz	Approved

KERN COUNTY BID INSPECTION LOG

Notice To Comply for Permit: K201907377

Project Address:	8009 OAK CREEK RD, MOJAVE, CA	**PERMIT NO:**	**K201907377**
Project Parcel:	237-031-042	Application Date:	Sep 27, 2019
Inspector Area:		Permit Issued Date:	Oct 28, 2019
Subtype:	Commercial Grading Engineered	Permit Status:	FINALED
Project Description:	ENGINEERED GRADING FOR 70 MW BATTERY STORAGE ACCY TO EX WIND GENERATION FACILITY		

Inspection	Scheduled	Inspected	Inspector	Result
Address Verification	11/12/2019	11/12/2019	Dale Johnson	Customer Canceled
Job Complete Provide a final grading cert	8/4/2020	8/4/2020	Delfino Ruiz	Denied - NTC
Job Complete	8/10/2020	8/10/2020	Delfino Ruiz	Approved

KERN COUNTY BID INSPECTION LOG

Notice To Comply for Permit: K201901116

Project Address:	9680 CAMERON RD, TEHACHAPI, CA	**PERMIT NO:**	**K201901116**
Project Parcel:	224-300-020	Application Date:	Feb 19, 2019
Inspector Area:	44	Permit Issued Date:	Apr 09, 2019
Subtype:	Commercial Miscellaneous	Permit Status:	FINALED
Project Description:	INSTALL (1) MET TOWER AT EX VOYAGER WIND PROJECT - (TOWER T-7)		

Inspection	Scheduled	Inspected	Inspector	Result
Foundation - Footings	4/24/2019	4/24/2019	Christopher Romeri	Approved
Job Complete	5/17/2019	5/17/2019	Sean Brady	Approved

KERN COUNTY BID INSPECTION LOG

Notice To Comply for Permit: K201901119

Project Address:	9680 CAMERON RD, TEHACHAPI, CA	**PERMIT NO:**	**K201901119**
Project Parcel:	224-300-020	Application Date:	Feb 19, 2019
Inspector Area:	44	Permit Issued Date:	Apr 09, 2019
Subtype:	Commercial Miscellaneous	Permit Status:	FINALED
Project Description:	INSTALL (1) MET TOWER AT EX VOYAGER WIND PROJECT - (TOWER PMM T6, T7-A)		

Inspection	Scheduled	Inspected	Inspector	Result
Foundation - Footings	4/30/2019	4/30/2019	Noah Berger	Approved
Date: 04/30/2019 09:24:22 Verified special inspection report for rebar.				
Foundation - Pier/Posts	4/30/2019	4/30/2019	Noah Berger	Approved
Date: 04/30/2019 09:25:03 Verified special inspection report for rebar.				
Job Complete	5/17/2019	5/17/2019	Sean Brady	Approved

KERN COUNTY BID INSPECTION LOG

Notice To Comply for Permit: K201901120

Project Address:	9680 CAMERON RD, TEHACHAPI, CA	**PERMIT NO:**	**K201901120**
Project Parcel:	224-300-020	Application Date:	Feb 19, 2019
Inspector Area:	44	Permit Issued Date:	Apr 09, 2019
Subtype:	Commercial Miscellaneous	Permit Status:	FINALED
Project Description:	INSTALL (1) MET TOWER AT EX VOYAGER WIND PROJECT - (MET T-6)		

Inspection	Scheduled	Inspected	Inspector	Result
Foundation - Footings	4/24/2019	4/24/2019	Christopher Romeri	Approved
Job Complete	5/17/2019	5/17/2019	Sean Brady	Approved

KERN COUNTY BID INSPECTION LOG

Notice To Comply for Permit: K201901123

Project Address:	8009 OAK CREEK RD, MOJAVE, CA	**PERMIT NO:**	**K201901123**
Project Parcel:	237-031-042	Application Date:	Feb 19, 2019
Inspector Area:	44	Permit Issued Date:	Apr 15, 2019
Subtype:	Commercial Energy Wind	Permit Status:	FINALED

Project Description: INSTALL (38) V112 WIND TURBINES WITH FOUNDATIONS AT EX VOYAGER WIND PROJECT. (TURBINES NUMBERS 1 thru 18, 20 thru 25 & 27 thru 40) - GRADING K201900593

Inspection	Scheduled	Inspected	Inspector	Result
Foundation - Footings	4/26/2019	4/26/2019	Christopher Romeri	Approved
Date: 04/26/2019 09:40:59 please resubmit third-party inspections by email 2 Delfino please include Mill certs third-party inspections okay to proceed				
Foundation - Footings	4/29/2019	4/29/2019	Christopher Romeri	Approved
Foundation - Footings	5/1/2019	5/1/2019	Delfino Ruiz	Approved
Base T36				
Foundation - Footings	5/2/2019	5/2/2019	Christopher Romeri	Approved
Date: 05/02/2019 09:56:58 inspection for base 35 no plans on site for signatures will catch signatures on next inspection				
Foundation - Footings	5/3/2019	5/3/2019	Christopher Romeri	Approved
Date: 05/03/2019 09:09:12 base # 40				
Foundation - Footings	5/6/2019	5/6/2019	Delfino Ruiz	Approved
T-39 Base, T-38 Pedestal				
Foundation - Footings	5/7/2019	5/7/2019	Noah Berger	Approved
Date: 05/07/2019 10:03:55 T-37 base and T-34 pedestal rebar and bolts.				
Foundation - Footings	5/8/2019	5/8/2019	Christopher Romeri	Approved
Foundation - Footings	5/9/2019	5/9/2019	Christopher Romeri	Approved
Foundation - Footings	5/14/2019	5/15/2019	Christopher Romeri	Approved
Foundation - Footings	5/15/2019	5/15/2019	Christopher Romeri	Approved
Foundation - Footings	5/17/2019	5/17/2019	Sean Brady	Approved
BASE #31 & PED # 33				
Foundation - Footings	5/20/2019	5/20/2019	Sean Brady	Approved
#34 PED & #20 BASE				
Foundation - Footings	5/21/2019	5/21/2019	Noah Berger	Approved
Date: 05/21/2019 15:39:27 Base #21 and 6 and ped 26 signed on plans.				
Foundation - Footings	5/23/2019	5/23/2019	Noah Berger	Approved

Date: 05/23/2019 14:12:28
Bases # 22 and 7. Pedestal #31 Rebar, bolts and clearances. Verify special inspection report at end of project.

Foundation - Pier/Posts	5/23/2019	5/23/2019	Noah Berger	Denied - Not Valid
Foundation - Pier/Posts Date: 05/24/2019 15:43:11 Foundation inspection on base 23	5/24/2019	5/24/2019	Christopher Romeri	Approved
Foundation - Footings Base 24 Pedestal 20	5/29/2019	5/29/2019	Daniel Martinez	Approved
Foundation - Footings Ped #6 and 7	5/30/2019	5/31/2019	Daniel Martinez	Approved
Foundation - Footings	5/31/2019	5/31/2019	Christopher Romeri	Approved
Foundation - Footings Progress noted on plans: Pedestal 22; Base 27	6/3/2019	6/3/2019	Daniel Martinez	Approved
Foundation - Footings Base 18 Pedestal 23	6/4/2019	6/4/2019	Daniel Martinez	Approved
Foundation - Footings Base 17 Pedestal 24	6/5/2019	6/6/2019	Daniel Martinez	Approved
Foundation - Pier/Posts Base 15	6/6/2019	6/6/2019	Daniel Martinez	Approved
Foundation - Footings Base 12 Pedestal 25	6/7/2019	6/7/2019	Daniel Martinez	Approved
Foundation - Footings Date: 06/11/2019 08:31:40 Base 8 and ped 27.	6/10/2019	6/11/2019	Noah Berger	Approved
Foundation - Footings Date: 06/11/2019 14:38:51 Base 13 and pedestal 18. (No special inspection report)	6/11/2019	6/11/2019	Noah Berger	Approved
Foundation - Pier/Posts Base 3 Pedestal 17	6/12/2019	6/12/2019	Daniel Martinez	Approved
Foundation - Footings Base 10 ped 15	6/13/2019	6/13/2019	Christopher Romeri	Approved
Foundation - Footings Base 28	6/14/2019	6/14/2019	Daniel Martinez	Approved
Foundation - Footings Base 29 Pedestal 12	6/17/2019	6/17/2019	Daniel Martinez	Approved
Foundation - Footings Date: 06/19/2019 15:48:55 base 30,9 Ped 8,13,3	6/19/2019	6/19/2019	Dale Johnson	Approved
Foundation - Footings Date: 06/20/2019 11:55:03 plan didn't get signed but was approved per 10	6/20/2019	6/20/2019	Dale Johnson	Approved
Foundation - Pier/Posts	6/24/2019	6/24/2019	Dale Johnson	Approved

Date: 06/24/2019 15:51:01 ped 28,29 base 16				
Foundation - Pier/Posts Date: 06/26/2019 13:51:31 base 11 ped 30 not ready	6/26/2019	6/26/2019	Dale Johnson	Approved
Foundation - Footings Date: 06/27/2019 15:47:43 ped 30 base 4	6/27/2019	6/27/2019	Dale Johnson	Approved
Foundation - Pier/Posts Date: 06/28/2019 14:17:34 Ped 9	6/28/2019	6/28/2019	Dale Johnson	Approved
Foundation - Footings Pedestal 11 & 16 Base 5	7/11/2019	7/11/2019	Daniel Martinez	Approved
Foundation - Pier/Posts	7/16/2019	7/16/2019	Dale Johnson	Approved
Foundation - Pier/Posts	7/19/2019	7/19/2019	Dale Johnson	Approved
Foundation - Pier/Posts Date: 07/22/2019 15:03:43 ped 2	7/22/2019	7/22/2019	Dale Johnson	Approved
Job Complete Previously completed	12/7/2020	12/7/2020	Delfino Ruiz	Approved

KERN COUNTY BID INSPECTION LOG

Notice To Comply for Permit: K201807715

Project Address:	8009 OAK CREEK RD, MOJAVE, CA	**PERMIT NO:**	**K201807715**
Project Parcel:	237-031-042	Application Date:	Nov 01, 2018
Inspector Area:	44	Permit Issued Date:	Apr 02, 2019
Subtype:	Commercial New	Permit Status:	FINALED

Project Description: NEW SITE FOR 295' HIGH METEORLOGICAL TOWER WITH RELATED WIND DATA GATHERING EQUIPMENT. V1 MET-T-38

Inspection	Scheduled	Inspected	Inspector	Result
Foundation - Pier/Posts	4/10/2019	4/10/2019	Noah Berger	Approved
Job Complete	4/10/2019	4/10/2019	Noah Berger	Approved

KERN COUNTY BID INSPECTION LOG

Notice To Comply for Permit: K201807718

Project Address:	8009 OAK CREEK RD, MOJAVE, CA	**PERMIT NO:**	**K201807718**
Project Parcel:	237-031-042	Application Date:	Nov 01, 2018
Inspector Area:	44	Permit Issued Date:	Apr 02, 2019
Subtype:	Commercial New	Permit Status:	FINALED

Project Description: NEW SITE FOR 295' HIGH PERMANENT FREE STANDING METEORLOGICAL TOWER WITH RELATED WIND DATA GATHERING EQUIPMENT. V1 PERM MET-2

Inspection	Scheduled	Inspected	Inspector	Result
Foundation - Footings Date: 04/12/2019 09:34:59 with third-party inspection email to delfino's computer	4/12/2019	4/12/2019	Christopher Romeri	Approved
Job Complete	4/16/2019	4/16/2019	Delfino Ruiz	Approved

KERN COUNTY BID INSPECTION LOG

Notice To Comply for Permit: K201807311

Project Address:	8009 OAK CREEK RD, MOJAVE, CA	**PERMIT NO:**	**K201807311**
Project Parcel:	237-031-042	Application Date:	Oct 16, 2018
Inspector Area:	44	Permit Issued Date:	Mar 20, 2019
Subtype:	Commercial Grading Engineered	Permit Status:	ISSUED

Project Description: ENGINEER GRADING OF 13,323 CY. FOR 5 NEW PROPOSED MET TOWERS AT EX VOYAGER WIND PROJECT.

Inspection	Scheduled	Inspected	Inspector	Result
Final - Grading	1/10/2020	1/10/2020	Noah Berger	Denied - NTC

Date: 01/10/2020 15:08:46
Advised contractor to provide final grading sign off. Correct and recall

KERN COUNTY BID INSPECTION LOG

Notice To Comply for Permit: K201804416

Project Address: 8009 OAK CREEK RD, MOJAVE, CA
Project Parcel: 237-031-042
Inspector Area: 44
Subtype: Commercial Accessory

PERMIT NO: K201804416
Application Date: Jun 26, 2018
Permit Issued Date: Aug 06, 2018
Permit Status: FINALED

Project Description: INSTALL DOUBLE WIDE 24' X 60' SQ FT COMMERCIAL COACH ACCESSORY TO VOYAGER WIND PROJECT - (TEMP VESTAS OFFICE TRAILER)

Inspection	Scheduled	Inspected	Inspector	Result
Job Complete	8/30/2018	8/30/2018	Chris Romeri	Denied - NTC
Date: 08/30/2018 14:32:04 No inspections have been performed on this commercial coach inspections required will be continuity test Foundation tie downs and marriage line please correct and recall when ready				
Electrical Continuity	9/10/2018	9/10/2018	Chris Romeri	Not Ready
Foundation / Tie Downs	9/10/2018	9/10/2018	Chris Romeri	Not Ready
Marriage Line	9/10/2018	9/10/2018	Chris Romeri	Not Ready
Job Complete	12/16/2019	12/16/2019	Delfino Ruiz	Approved
PREVIOUSLY INSPECTED AND RECORDED				

Certificate of Occupancy

Granted by

KERN COUNTY DEPARTMENT OF PUBLIC WORKS

BUILDING INSPECTION DIVISION

2700 M Street, Suite 570, Bakersfield, CA 93301-2370

Telephone (661) 862-8650

PROJECT ADDRESS: **8009 OAK CREEK RD MOJAVE** DATE: **12/16/2019**

LEGAL DESCRIPTION: **237-031-042** PERMIT NO: **K201804416** ZONING: **A WE**

This is to certify that the building, or portion of building, constructed under the above permit, at the above address, presently complies with the provisions of the 2016 California Building Standards Code and related ordinances and laws, which were in effect at the time of the permit's issuance, for the following use and occupancy group. This certificate does not prohibit or prevent the County from making future land use decisions that could affect or even prohibit the use set forth herein.

USE: **TEMPORARY COMMERICIAL COACH FOR OFFICE ACCESSORY TO VOYAGER WIND PROJECT**

OCCUPANCY GROUP-DIVISION: **B**

OWNER: **RESIDUAL RANCH CORP**
4070 GOLDFINCH ST STE A
SAN DIEGO, CA 921031865

TYPE OF CONSTRUCTION: **V B**

DESIGN OCCUPANT LOAD: **14**

FIRE SPRINKLERS: **NO**

Ali A. Annan, P.E., CBO, Assistant Director

Craig M. Pope, P.E., Director

THIS CERTIFICATE MUST BE POSTED IN A CONSPICUOUS PLACE IN THE BUILDING AND MAY NOT BE REMOVED EXCEPT BY THE BUILDING OFFICIAL.

Plans for this building have been approved and inspections made to verify conformance with current building regulations.
You are responsible for maintaining this building as certified.

NOTE: Make no changes, additions or alterations of any structural, mechanical, plumbing, or electrical without consulting the Building Inspection Division as this will void the Certificate of Occupancy. Make no change of use or occupancy without contacting the Building Inspection Division.

KERN COUNTY BID INSPECTION LOG

Notice To Comply for Permit: K201804417

Project Address: 8009 OAK CREEK RD, MOJAVE, CA
Project Parcel: 237-031-042
Inspector Area: 44
Subtype: Commercial Accessory

PERMIT NO: K201804417
Application Date: Jun 26, 2018
Permit Issued Date: Aug 06, 2018
Permit Status: FINALED

Project Description: INSTALL SINGLE WIDE 12' X 56' SQ FT COMMERCIAL COACH ACCESSORY TO VOYAGER WIND PROJECT (ROSENDIN ELECTRIC TEMP OFFICE TRAILER)

Inspection	Scheduled	Inspected	Inspector	Result
Foundation / Tie Downs	8/9/2018	8/9/2018	Chris Romeri	Approved
Electrical Continuity	8/9/2018	8/9/2018	Chris Romeri	Approved
Underground Electrical	6/10/2019	6/10/2019	Noah Berger	Approved
Date: 06/10/2019 15:27:26 This inspection is for all underground conduits for all temporary unit's.				
B.P.M.E – Electrical	7/12/2019	7/12/2019	Dale Johnson	Approved
Date: 07/12/2019 13:25:40 electrical cabinets good				
Electric Release	8/5/2019	8/5/2019	Dale Johnson	Denied - Not Valid
Temporary Power Release	8/5/2019	8/5/2019	Dale Johnson	Approved
Job Complete	12/16/2019	12/16/2019	Delfino Ruiz	Approved
PREVIOUSLY INSPECTED AND RECORDED				

Certificate of Occupancy

Granted by

KERN COUNTY DEPARTMENT OF PUBLIC WORKS

BUILDING INSPECTION DIVISION

2700 M Street, Suite 570, Bakersfield, CA 93301-2370

Telephone (661) 862-8650

PROJECT ADDRESS: **8009 OAK CREEK RD MOJAVE** DATE: **12/16/2019**

LEGAL DESCRIPTION: **237-031-042** PERMIT NO: **K201804417** ZONING: **A WE**

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USE: **TEMPORARY ROSENDIN ELECTRIC COMMERICIAL COACH FOR OFFICE ACCESSORY TO VOYAGER WIND PROJECT**

OCCUPANCY GROUP-DIVISION: **B**

OWNER: **RESIDUAL RANCH CORP**
4070 GOLDFINCH ST STE A
SAN DIEGO, CA 921031865

TYPE OF CONSTRUCTION: **V B**

DESIGN OCCUPANT LOAD: **7**

FIRE SPRINKLERS: **NO**

Ali A. Annan, P.E., CBO, Assistant Director

COUNTY OF KERN · STATE OF CALIFORNIA

Craig M. Pope, P.E., Director

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KERN COUNTY BID INSPECTION LOG

Notice To Comply for Permit: K201802274

Project Address: 8009 OAK CREEK RD, MOJAVE, CA
Project Parcel: 237-031-042
Inspector Area: 44
Subtype: Commercial Miscellaneous

PERMIT NO: K201802274
Application Date: Apr 05, 2018
Permit Issued Date: May 30, 2018
Permit Status: FINALED

Project Description: VOYAGER SUBSTATION STRUCTURAL PACKAGE TO INCLUDE CAPACITOR BANKS, SUBSTATION FOUNDATION AND STEEL CALCS, SCADA ENCLOSURE CALCS, SUBSTATION LAYOUT WITH STRUCTURAL DRAWINGS AND SCADA ENCLOSURE DRAWINGS. - REF PERMIT K201707681

Inspection	Scheduled	Inspected	Inspector	Result
Foundation - Pier/Posts	8/25/2018		Delfino Ruiz	Cancelled
Underground Plumbing	11/5/2018		Inspection Area 43	Cancelled
Leech Line	11/5/2018		Inspection Area 43	Cancelled
Foundation - Footings	6/4/2018	6/4/2018	Delfino Ruiz	Approved
Date: 06/04/2018 11:06:16 PAD FOOTING FOR CAP BANK X 4. PAD FOOTING FOR GENERATOR SEE PLANS. DEPUTY ON SITE AT TIME OF INSPECTION.				
Foundation - Pier/Posts	6/14/2018	6/14/2018	Delfino Ruiz	Approved
Date: 06/14/2018 15:07:11 Completes all foundations and footings				
Foundation - Footings	8/25/2018	8/25/2018	Delfino Ruiz	Approved
Date: 08/25/2018 13:19:36 Stem wall for landings and PAD for water tank at SCADA shelter				
Foundation - Footings	8/29/2018	8/29/2018	Chris Romeri	Approved
Job Complete	1/10/2020	1/10/2020	Noah Berger	Denied - NTC
1) Provide special inspection report for rebar, concrete and epoxied bolts. 2) Hand rails will need to be completed. 3) Will need 2" tall curb on sides of ADA ramp if grade is not even. These item can be collected and verified when complete. Correct and recall. This is for permit # k201802274				
Accessibility Requirements	1/10/2020	1/10/2020	Noah Berger	Denied - NTC
1) Provide special inspection report for rebar, concrete and epoxied bolts. 2) Hand rails will need to be completed. 3) Will need 2" tall curb on sides of ADA ramp if grade is not even. These item can be collected and verified when complete. Correct and recall. This is for permit # k201802274				
Accessibility Requirements	4/17/2020	4/20/2020	David Phillips	Approved
PREVIOUS ADA CORRECTIONS HAVE BEEN COMPLETED				
Job Complete	4/21/2020	4/21/2020	Delfino Ruiz	Approved

Certificate of Occupancy

Granted by

KERN COUNTY DEPARTMENT OF PUBLIC WORKS

BUILDING INSPECTION DIVISION

2700 M Street, Suite 570, Bakersfield, CA 93301-2370

Telephone (661) 862-8650

PROJECT ADDRESS: **8009 OAK CREEK RD MOJAVE** DATE: **04/21/2020**

LEGAL DESCRIPTION: **237-031-042** PERMIT NO: **K201802274** ZONING: **A WE**

This is to certify that the building, or portion of building, constructed under the above permit, at the above address, presently complies with the provisions of the 2016 California Building Standards Code and related ordinances and laws, which were in effect at the time of the permit's issuance, for the following use and occupancy group. This certificate does not prohibit or prevent the County from making future land use decisions that could affect or even prohibit the use set forth herein.

USE: **EQUIPMENT AND 436 SQ FT SF SCADA BUILDING**

OCCUPANCY GROUP-DIVISION: **U, S-2**

OWNER: **RESIDUAL RANCH CORP**
4070 GOLDFINCH ST STE A
SAN DIEGO, CA 921031865

TYPE OF CONSTRUCTION: **II B**

DESIGN OCCUPANT LOAD: **2**

FIRE SPRINKLERS: **NO**

Ali A. Annan, P.E., CBO, Assistant Director

COUNTY OF KERN · STATE OF CALIFORNIA

Craig M. Pope, P.E., Director

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KERN COUNTY BID INSPECTION LOG

Notice To Comply for Permit: K201802206

Project Address:	8009 OAK CREEK RD, MOJAVE, CA	**PERMIT NO:**	**K201802206**
Project Parcel:	237-031-042	Application Date:	Apr 03, 2018
Inspector Area:	44	Permit Issued Date:	May 30, 2018
Subtype:	Commercial Miscellaneous	Permit Status:	FINALED
Project Description:	NEW TRANSMISSION LINES FOR NEW SUBSTATION - VOYAGER I WIND PROJECT		

Inspection	Scheduled	Inspected	Inspector	Result
Foundation - Pier/Posts	5/31/2018	5/31/2018	Dale Johnson	Approved
Foundation - Slab Date: 06/06/2018 11:12:34 INCORRECT INSPECTION SCHEDULED	6/6/2018	6/6/2018	Delfino Ruiz	Denied - Not Valid
Foundation - Footings Date: 06/06/2018 12:11:13 Provide a listed connection to Bolt for bonding to Rebar cage. Correct and recall.	6/6/2018	6/6/2018	Delfino Ruiz	Denied - NTC
Foundation - Footings Foundations for t-line #2 quantity 1,#3 quantity	6/7/2018	6/7/2018	Dale Johnson	Approved
Foundation - Footings foundation for 60.2	6/8/2018	6/8/2018	Dale Johnson	Approved
Foundation - Slab grounding substation and conduit	6/8/2018	6/8/2018	Dale Johnson	Approved
Foundation - Footings Date: 06/12/2018 10:50:22 Structure 5	6/12/2018	6/12/2018	Delfino Ruiz	Approved
Foundation - Slab Date: 06/13/2018 11:43:10 Structure 7	6/13/2018	6/13/2018	Delfino Ruiz	Approved
Foundation - Footings Date: 06/14/2018 14:42:32 Structure 4 2Xcaisson	6/14/2018	6/14/2018	Delfino Ruiz	Approved
Foundation - Footings Date: 06/18/2018 09:41:14 Per BID clerical	6/18/2018	6/18/2018	Delfino Ruiz	Customer Canceled
Foundation - Footings Date: 06/19/2018 13:19:53 Structure 10 T lines	6/19/2018	6/19/2018	Delfino Ruiz	Approved
Foundation - Footings	6/21/2018	6/21/2018	Delfino Ruiz	Approved

Date: 06/21/2018 14:34:33
Structure 14 and 15

Foundation - Footings	6/25/2018	6/25/2018	Chris Romeri	Approved
Date: 06/25/2018 13:43:44 This is 40 line pole number 8 and number 11				
Job Complete	8/24/2018	8/24/2018	Chris Romeri	Customer Canceled
Final - Electrical	8/24/2018	8/24/2018	Chris Romeri	Customer Canceled
Underground Electrical	8/24/2018	8/24/2018	Chris Romeri	Customer Canceled
Job Complete	12/16/2019	12/16/2019	Delfino Ruiz	Approved
PREVIOUSLY INSPECTED AND RECORDED				