

## 5.5 Cultural Resources

### CULTURAL RESOURCES

Would the project:

	Potentially Significant Impact	Less than Significant With Mitigation Incorporated	Less than Significant Impact	No Impact
a. Cause a substantial adverse change in the significance of a historical resource as defined in §15064.5?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b. Cause a substantial adverse change in the significance of an archaeological resource pursuant to §15064.5?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c. Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d. Disturb any human remains, including those interred outside of formal cemeteries?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Significance criteria established by CEQA Guidelines, Appendix G.

### 5.5.1 Setting

This section describes the cultural resources that occur in the area of the Proposed Project. The following setting information is derived largely from the *Phase I Cultural Resources Assessment of Telecommunications Lines, Subtransmission Extension Lines, and Proposed Substation Locations for the Banducci 66/12kV "B" Substation Project* report (Orfila, 2011) and summarizes the prehistoric, ethnohistoric, and historical setting for the Proposed Project Area.

#### Prehistory

The cultural chronology provided below comes primarily from Moratto (1984). Moratto identified the Sierran crest as “a boundary between the ethnographic Tübatulabal on the west slope and the Numic Kawaiisu and Panamint of the Great Basin” (Moratto, 1984). Given the geographic placement of the Kawaiisu territory (as identified by Zigmond, 1981) between the southern Sierra Nevada and the Mojave Desert, it is highly probable that cultural phases specific to those two regions would be present in the archaeological record for the study area as well. The Proposed Project Area is approximately twelve miles from the southern edge of Tübatulabal territory and the environmental resources of the area are consistent with those found in the Sierra Nevada. As such, the cultural chronology presented below is that of the southern Sierra Nevada (Orfila, 2011:13).

**Paleoindian (8,000 to 10,000 BP).** The earliest agreed upon archaeological culture in the New World is Clovis, typified by a particular type of fluted projectile point. These points are generally viewed as representing a Big Game Hunting Tradition, which exploited large Pleistocene animals such as mammoth and bison (Orfila, 2011:13). The term Paleoindian is a catchall to refer to material belonging to the Fluted Point Tradition or earlier, including any remains belonging to a Pre-projectile Point Period.

**Lake Mojave Period (8,000 to 6,000 BP).** Following the Paleoindian Period is the Lake Mojave Period, which is associated with the Early Holocene occupation of lakeside environments. The hallmark of the period is the presence of Lake Mojave or Silver Lake projectile points found near old lakeshores. Hunting and use of lake resources presumably formed the subsistence base during this period. No Lake Mojave Period sites are known in the immediate vicinity of the Project Area (Orfila, 2011:14).

**Pinto Period (7,000 to 4,000 BP).** Sites from the Pinto Period sites are identified by the presence of Pinto series projectile points. The Pinto Period reflects an occupation of the desert after the rain created Pleistocene lakes dried up, with a focus on stream and spring habitats. The Pinto Period appears to be a cultural pattern developed in response to this drying out, along with a climatic change toward an overall

drier environment. It is possible that the Pinto Period developed directly from the Lake Mojave Period at the end of the Pleistocene (Orfila, 2011:14).

Pinto sites in the western and central Mojave Desert, such as the Pinto Basin, Stahl site, Awl site and Rogers Ridge, contained diverse artifact assemblages. Artifacts from this period include Pinto series projectile points, leaf-shaped points and knives, domed and elongated scrapers, flake scrapers, drills, and engraving tools, as well as millings and handstones. Previous research has demonstrated the exploitation of hares, rabbits, deer, sheep, and pronghorn, along with reptiles and rodents. Milling stones also were introduced during this period, suggesting a move toward a broader and more diverse diet (Orfila, 2011:14).

**Gypsum Period (4,000 to 1,500 BP).** The Gypsum Period is marked by the presence of Gypsum and Elko series projectile points (dart points), although Humboldt Concave Base points also occur. Very little is known regarding the subsistence base or social organization of Gypsum Period populations, as few sites dating to this period have been excavated. Archaeological remains dating from the Gypsum Period are relatively uncommon in the Mojave Desert. The Gypsum Period appears to represent a somewhat cooler and wetter time in the desert (Orfila, 2011:15).

Gypsum Period sites in the western and central Mojave Desert include Newberry Cave, Rose Spring, Hinkley, and Ord Shelter, and others. Although Gypsum Period site assemblages have some similarities to those of the Pinto Period, there are also distinct differences between the two (Orfila, 2011:15).

Artifact assemblages from Gypsum Period sites include medium to large stemmed and notched projectile points, such as Elko Eared, Elko Corner-notched, Gypsum, and Humboldt Concave Base forms. There also is evidence of specialized ritual items, such as quartz crystals, paint, and rock art. Large numbers of bifaces (two-sided stone tools) also have been recovered from Gypsum Period sites. In addition, milling implements became more common during this time as compared to the Pinto Period. Faunal assemblages have contained large amounts of artiodactyl (even-toed hoofed animals) remains (including mountain sheep), as well as hares, rabbits, rodents, and tortoise. During this time, tree crops, such as mesquite beans and acorns, began to be used, as evidenced by the introduction of the mortar and pestle (Orfila, 2011:15).

**Rose Spring Period (1,500 to 800 BP).** The Rose Spring Period is thought to represent a return to more moderately moist conditions, with settlement and subsistence likely focused on lake resources. Sites dating to this period are relatively common in the western Mojave Desert. The marker artifact for this period is the Rose Spring series projectile point, which appears to reflect the introduction of the bow and arrow to the area, replacing dart points used in conjunction with the atlatl (spear thrower) (Orfila, 2011:15).

Rose Spring sites in the western and central Mojave Desert include those at Saratoga Springs, Rose Spring, Cottonwood Creek, Coso Junction Ranch, Koehn Lake, and Cantil, among others. During this period, there appears to have been a major increase in population, as demonstrated by the presence of large villages, dramatic differences in artifact assemblages, and well-developed middens (refuse heaps) (Orfila, 2011:15).

Other than Rose Spring points, other artifacts common to these sites are Eastgate series points, knives, drills, stone pipes, bone awls, a wide variety of milling equipment (including manos, metates, mortars, and pestles), marine shell artifacts, and large quantities of obsidian. There also is evidence of architecture in the form of wickiups, pithouses, and other structures. Medium to small animals, such as hares, rabbits, and rodents, were the primary game, with less emphasis on larger game. A variety of botanical remains has also been documented, such as pinyon and juniper (Orfila, 2011:15).

**Late Prehistoric Period (800 BP to Historic Contact).** The Late Prehistoric Period (sometimes referred to as the Protohistoric Period), is characterized by Desert series (Desert Side-notched and Cottonwood) projectile points for use with bows and arrows. This period presumably reflects the late prehistory of the ethnographic groups inhabiting the region. The Late Prehistoric Period was much drier than the Rose Spring or Gypsum periods, with an apparent change in subsistence and settlement focused on streams, springs, and wells (Orfila, 2011:15,16).

Sites containing Late Prehistoric Period components in the western and central Mojave Desert include Oro Grande, Afton Canyon, Coso Hot Springs, Cottonwood Creek, Coso Junction Ranch, Cantil, and Rose Spring, as well as a few sites associated with the Rogers/Rosamond lake system on Edwards Air Force Base. Some of these sites were major villages with associated cemeteries, as well as special purpose and seasonal sites (Orfila, 2011:16).

Artifacts from this period include Desert series projectile points, brown ware ceramics, shell and steatite (soapstone) beads, slate pendants, incised stones, and a variety of millingstones (including manos, metates, mortars, and pestles). There was also a reduction in the use of obsidian as compared to the Rose Spring Period, with a parallel shift to macrocrystalline stone, including locally available cherts. Animal remains include hares, rabbits, deer, rodents, reptiles, and tortoise. Little is known of botanical resources of this time, but remains from archaeological contexts have included mesquite and juniper (Orfila, 2011:16).

## **Ethnography**

The greater Tehachapi area is located between the southern San Joaquin Valley and the western Mojave Desert. The extreme western Mojave Desert was claimed by the Kawaiisu during the ethnographic period. The Kawaiisu occupied the Sierra Nevada south of the Kern River and into the northern Tehachapi Mountains just south of Tehachapi Pass. They also claimed portions of the western Mojave Desert, including the Project Area, although it seems that these areas were used only briefly during the ethnographic period. Kroeber (1925) estimated that there were about 500 Kawaiisu just prior to European contact (Orfila, 2011:16).

The Yokuts lived to the west of the Kawaiisu, in the San Joaquin Valley. The Kawaiisu often ventured into the San Joaquin Valley to trade and interact, and to conduct game drives. The Tübatulabal and the Owens Valley Paiute lived to the north of the Kawaiisu. The Panamint Shoshone lived in the desert to the east and north of the Kawaiisu, while the Kitanemuk lived to the south of them (Orfila, 2011:16).

The social organization of the Kawaiisu was centered on the family. Although there were no formal political groupings (at least during the ethnographic period), the position of chief (or headman) was conferred “simply through tacit acknowledgment of the people about him” (Zigmond, 1986). The qualifications for chief depended upon wealth, and might be passed from father to son, although such status was not automatically inherited, as “acceptance was dependent upon personal endowment” (Zigmond, 1986; Orfila, 2011:16).

The Kawaiisu economy was one of hunting and gathering. No agriculture was practiced, but there is evidence of tobacco plant pruning to stimulate growth and of burning wild seed fields to improve plant yields in the following year. Acorns were a major staple, but many other plants were used as well. Zigmond (1981) identified over 250 taxa of plants used by the Kawaiisu. Of that number, 120 were used for food, 100 for medicine, 90 for miscellaneous purposes, and 40 for ritual activity. Most of these plants were gathered in the mountains; with fewer plants collected from the desert. Numerous animals were hunted, including deer, chuckwalla, and bighorn sheep. Pronghorn and rabbits were hunted commu-

nally. While little is known of Kawaiisu material culture, ethnographic data indicate that it was varied and complex (Orfila, 2011:16,17).

Many groups passed through or used the western Mojave Desert from time to time. Along with the Owens Valley Paiute, the Kitanemuk, and the Yokuts, these undoubtedly included the Chumash, Mojave, Chemehuevi, Vanyume, and others. Relations between Kawaiisu and other groups were generally friendly, although there were intermittent hostilities, particularly with the Yokuts. Trade was conducted with a number of groups, including the Western Shoshone of Little Lake, with whom the Kawaiisu traded acorns for obsidian and salt. Intertribal game drives were conducted primarily with the Chumash, Yokuts, and the Tübatulabal (Orfila, 2011:17).

## Regional History

The Tehachapi Mountains and western Mojave Desert sustained growing communities of European- and Asian-Americans following the gold rush of the 1840s and the introduction of the railroad to the mountain range. Considered by many to be the first European to discover the Tehachapi Valley, Padre Francisco Garcés arrived in San Joaquin Valley in 1776. Noted travelers to this area prior to settlement included Jedediah Smith, Ewing Young, Kit Carson, and John C. Fremont. In 1853, surveyors led by Lieutenant Robert S. Williamson entered the area to find a suitable route for a railroad (Orfila, 2011:17).

Following the initial discovery in 1849 of gold in the California hills and the Kern River Rush of 1854, prospectors began to enter the Tehachapi Valley in search of wealth and prosperity. Gold was discovered in the Grizzly and Water Canyons, south of Tehachapi. By the time the Southern Pacific Railroad arrived in the Tehachapi Valley in 1876, there were two small towns: Williamsburg (1867) and Greenwich (1875). Williamsburg (Old Town) was named after the first resident, James Williams. The town of Tehachapi, originally named Summit Station (1876) then Tehachapi Summit, was the pinnacle of railroad construction before the descent into the Mojave Desert. The first business to open was a saloon followed by a restaurant with hotels, liveries, feed lots, and stores (Orfila, 2011:17).

Brite Valley, where a portion of the telecommunications fiber optic cable would be located, was named for John and Amanda Brite, who purchased a majority of Brite Valley in the 1850s. The Brites are remembered locally as the first permanent settlers in the small valley. The original home was adobe and served as the home for their family of fifteen, and was followed by a two-story Victorian home, built in 1892. The Brites built and operated a lumber mill, and their sons branched into the livestock business. The remains of Brite family ranch buildings are visible northwest of the intersection of Cummings Valley Road and Reata Street (Orfila, 2011:18).

Cummings Valley, located to the southeast of the Project Area, was named for George Cummings, an Austrian by birth, who first entered the valley while herding cattle in 1849 or 1850. He returned in 1854 and established a cattle ranch, which incorporated the former Hart Ranch. The *Pacific Rural Press* of May 5, 1877, reported that Cummings had 2,000 fruit trees on his farm. The former site of the Cummings Valley School is located on the northwest corner of Pelliser and Highline Road. The ca. 1910 school building, constructed of concrete and wood, was a total loss from the 1952 White Wolf earthquake (7.7 Richter) (Orfila, 2011:18).

Banducci Road, which lies south of the Project Area, was named after the Banducci family who arrived in 1900. Angelo and Jane Banducci purchased a ranch in the Cummings Valley where they farmed, raised livestock, and made charcoal. An experienced midwife, Jane established a thriving practice in Cummings Valley. The original Banducci Road followed the bottom of the canyon (Water Canyon along Cummings Creek), and was used until the county constructed a new road in 1930 (Orfila, 2011:18).

## Geologic Setting

Paleontological resources are the evidence of once-living organisms as preserved in the rock record. They include both the fossilized remains of ancient plants and animals and the traces left by them (trackways, imprints, burrows, etc.). In general, fossils are greater than 5,000 years old (older than Middle Holocene) and are typically preserved in sedimentary rocks. Although rare, fossils can also be preserved in volcanic rocks and low-grade metamorphic rocks formed under certain conditions (SVP, 2010).

The *Southern California Edison Banducci Substation and Telecommunications Routes Project – Paleontological Resources Assessment* (Smith, 2011) describes the geology of the Project area as follows.

The Project area is located within the Sierra Nevada geomorphic province. The Sierra Nevada is a 400-mile-long westward-tilted fault block that is 50–80 miles wide. This province is characterized by an eastern escarpment that is steep and high and a gentle western slope (about 2 degrees) that disappears under the sediments of the Great Valley geomorphic province, located to the west. The Sierra Nevada is characterized by extensive exposures of granitic rock from the Sierra Nevada Batholith as well as metamorphic rocks. The Project is located at the southern end of the Sierra Nevada and immediately north of the Mojave Desert geomorphic province, separated by the Garlock Fault and the Transverse Ranges geomorphic province (Smith, 2011:5).

Specifically, the Project is located within the Tehachapi Mountains. The Tehachapi Mountains were primarily formed by movement along the Garlock Fault located to the south. The alignment of the telecommunications lines passes through three gently sloping valleys from west to east known as Cummings Valley, Brite Valley, and Tehachapi Valley. According to the geology map compiled by Dibblee (2008), the majority of the Project is located within sediments composed of Quaternary alluvium from the Holocene (less than 11,700 years). However, there are exposures of older Quaternary alluvium from the middle to late Pleistocene (1.8 million–11,700 years ago) as well as a few exposures of Late Jurassic to early Cretaceous (approximately 160–100 million years ago) igneous rocks (primarily diorite and granite) and Precambrian (greater than 541 million years ago) metamorphic schist (Smith, 2011:5).

## Regulatory Background – Cultural Resources

### State

**California Environmental Quality Act.** The Proposed Project is subject to compliance with CEQA, as amended. Therefore, cultural resource management work conducted as part of the Proposed Project is to comply with the CEQA Statute and Guidelines, which direct lead agencies to first determine whether cultural resources are “historically significant” resources. CEQA requires that impacts that a project may have on cultural resources be assessed and requires mitigation if significant (or “unique”) cultural resources are to be impacted (Section 21083.2 [a-1] and Appendix K). Generally, a cultural resource is considered “historically significant” if the resource is 45 years old or older, possesses integrity of location, design, setting, materials, workmanship, feeling, and association, and meets the requirements for listing on the California Register of Historical Resources (CRHR) under any one of the following criteria:

1. Is associated with events that have made a significant contribution to the broad patterns of California’s history and cultural heritage;
2. Is associated with the lives of persons important in our past;
3. Embodies the distinctive characteristics of a type, period, region, or method of construction, or represents the work of an important creative individual, or possesses high artistic values; or,
4. Has yielded, or may be likely to yield, information important in prehistory or history (Title 14 CCR, § 15064.5).

The statutes and guidelines specify how cultural resources are to be managed in the context of projects, such as the Proposed Project. Briefly, archival and field surveys must be conducted, and identified cultural resources must be inventoried and evaluated in prescribed ways. Prehistoric and historical archaeological resources, as well as historical resources such as standing structures and other built-environment features, deemed “historically significant” must be considered in project planning and development. As well, any proposed project that may affect “historically significant” cultural resources must be submitted to the SHPO for review and comment prior to project approval by the responsible agency and prior to construction.

If a Lead Agency determines that an archaeological site is a historical resource, the provisions of California Public Resources Code (CPRC) §21084.1 and CEQA Guidelines §15064.5 would apply. If an archaeological site does not meet the CEQA Guidelines criteria for a historical resource, then the site is to be treated in accordance with the provisions of PRC §21083 regarding unique archaeological resources. The CEQA Guidelines note that if a resource is neither a unique archaeological resource nor a historical resource, the effects of a project on that resource shall not be considered a significant effect on the environment (CEQA Guidelines §15064[c][4]).

If human remains of any kind are found during construction activities, CEQA Guidelines Section 15064.5(e) and Assembly Bill 2641 are to be followed. These require that all construction activities cease immediately and the County Coroner and a qualified archaeologist must be notified. The coroner will examine the remains and determine the next appropriate action based on his or her findings. If the coroner determines the remains to be of Native American origin, the Native American Heritage Commission (NAHC) must be notified. The NAHC will then identify a most-likely descendant to be consulted regarding treatment and/or reburial of the remains.

**Native American Heritage Commission.** Section 5097.91 of the CPRC established the NAHC, whose duties include the inventory of places of religious or social significance to Native Americans and the identification of known graves and cemeteries of Native Americans on private lands. Section 5097.98 of the CPRC specifies a protocol to be followed when the NAHC receives notification of a discovery of Native American human remains from a county coroner.

### **Local**

The California Public Utilities Commission (CPUC) General Order No. 131-D, Section XIV B states that “local jurisdictions acting pursuant to local authority are preempted from regulating electric power line projects, distribution lines, substations, or electric facilities constructed by public utilities subject to the Commission’s jurisdiction. However, in locating such projects, the public utilities shall consult with local agencies regarding land use matters.” As a public utility project that is subject to the jurisdiction of the CPUC, the Proposed Project is exempt from local regulation and discretionary permits. As such, the regional and local regulatory standards are provided in this analysis for informational purposes only.

### **Kern County General Plan**

Kern County has a General Plan that gives “long-range guidance to those County officials making decisions affecting the growth and resources of the unincorporated Kern County jurisdiction” (Kern County, 2009). Section 1.10.3, *Archaeological, Paleontological, Cultural, and Historical Preservation*, of the General Plan states that 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.”

## Regulatory Background – Paleontological Resources

Paleontological remains are recognized as nonrenewable resources significant to our culture and as such are protected under provisions of CEQA, the Antiquities Act of 1906, and subsequent related legislation, and policies. Specifically, in Section V(c) of Appendix G of the CEQA Guidelines, the “Environmental Checklist Form,” the question is posed: “Will the project directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?” In order to determine the uniqueness of a given paleontological resource, it must first be identified or recovered (i.e., salvaged).

The January 1, 1979, Clean Water Grant Program for the Protection and Preservation of Cultural Resources (California State Water Resources Control Board, Revision 6-11) defined cultural resources to include paleontological values and provided guidelines for preservation, summarizing some of the applicable legislation. Data recovery techniques are discussed (Section 7.4). Griswold E. Petty, the Acting Associate Director of the BLM, stated in a memorandum:

*There is no universally accepted definition for a significant scientific paleontological resource. A definite determination can only be made by a qualified, trained paleontologist. Using the following guidelines, a paleontological resource is of significant scientific and educational value if it:*

- 1. Provides important information of the evolutionary trends among organisms, relating living inhabitants of the earth to extinct organisms.*
- 2. Provides important information regarding development of biological communities or interaction between botanical and zoological biotas.*
- 3. Demonstrates unusual or spectacular circumstances in the history of life.*
- 4. Is in short supply and in danger of being depleted or destroyed by the elements, vandalism, or commercial exploitation, and is not found in other geographic locations.*

*All vertebrate fossils have been categorized as being of significant scientific value” (Petty, 1978 memorandum, emphasis added).*

Significant paleontological resources are fossils or assemblages of fossils that are unique, unusual, rare, uncommon, or diagnostically or stratigraphically important; and that add to an existing body of knowledge in specific areas stratigraphically, taxonomically, or regionally. They include fossil remains of large to very small aquatic and terrestrial vertebrates, remains of plants and animals previously not represented in certain portions of the stratigraphy, and assemblages of fossils that might aid stratigraphic correlations, particularly those offering data for the interpretation of tectonic events, geomorphologic evolution, paleoclimatology, and the relationships of aquatic and terrestrial species.

## Approach to Analysis of Cultural Resources and Previous Cultural Resources Studies

Between May 2010 and July 2011, five cultural resource records searches were conducted at the Southern San Joaquin Valley Information Center (SSJVIC), housed at California State University, Bakersfield. The records searches included an examination of all previously documented cultural resources within a one-half mile radius centered on the Proposed Project Area. The records search materials contain information collected from the California Historical Resources Information System that includes the locations of previous cultural resource surveys and prehistoric and historic sites as well as listings in the NRHP, CRHR, California Historic Landmarks, and California Points of Historic Interest (Orfila, 2011).

In January 2013, archival research was undertaken at the Tehachapi branch of the Kern County Public Library, the Tehachapi Museum, and at the Tehachapi Unified School District office. In addition, digital copies of historic USGS Topographic Series maps and desktop satellite imagery were reviewed, as were the Bureau of Land Management General Land Office (GLO) maps, and the Kern County Assessor's Office records. Several local historians were informally interviewed concerning the Banducci Parcel, including Jon Hammond and Roxanne Sasia. Both are long-time residents in the Tehachapi area. Photographs also were taken of the proposed staging areas (Greenberg, 2013).

Sixty-four previous cultural studies have been conducted within a one-half mile radius of the Proposed Project Area; 28 of which involved portions of the Proposed Project Area. While 32 previously documented cultural resources have been identified within a one-half mile radius of the Proposed Project Area, no previously recorded cultural resources were identified as being within the Proposed Project Area (Orfila, 2011).

The first Cummings Valley School, built in 1873, was located within the parcel to be used for Staging Yard No. 3. The school collapsed during a 1952 earthquake. The school was demolished and removed in the early 2000s. Historical aerial imagery shows the school structure, the water pump and associated 10 by 30-foot structure, and the asphalt pavement from 1995 to 2005. By August 2006, only the water tank and the asphalt pavement remained (Greenberg, 2013).

### Archaeological Field Survey Results

The Proposed Project Area includes the 6.3-acre substation site, ~~and a total of approximately 320~~ miles of fiber optic telecommunication routes with a 30-meter buffer on either side of the routes (60-meter-wide survey corridor), ~~and an approximately 1.77 acre staging area~~. Cultural resource field surveys of the Proposed Project Area were conducted in March, July, December 2011, and January 2013 (Orfila, 2011; Greenberg, 2013). With the exception of approximately 1.25 miles, the Proposed Project Area, was subjected to a pedestrian survey (15-meter transects). Approximately 1.25 miles of the Proposed Project, located within the California Correctional Facility in Cummings Valley, was surveyed using a vehicle (windshield survey) (Orfila, 2011:21). Survey limitations included portions of the Proposed Project Area obscured by paved roads and fenced corrals containing animals (Orfila, 2011:21).

Four newly identified historic-era sites were documented during the field surveys. No prehistoric sites or isolated artifacts were identified during the field surveys. Detailed descriptions of the previously unrecorded cultural resources within the Proposed Project area are provided below. None of the newly discovered cultural resources were evaluated for CRHR eligibility during the study. Table 5.5-1 lists cultural resources within the Proposed Project Area, associated Project activities, and their CRHR eligibility potential.

*Site P-15-009613/CA-KER-8362H* is a stone and concrete cistern and the remains of a chimney constructed of brick and mortar. The purpose of the 20-foot diameter cistern is unknown, but the chimney appears to be the remains of a historical period structure (Orfila, 2011:22). The site is located across from the Cummings Valley Substation within the existing Correction-Cummings-Kern River #1 66 kV subtransmission line Right-of-Way (ROW) and the proposed Telecommunications Route 1.

*Site P-15-014996/CA-KER-8361H* is the remnants of ranch buildings. The site includes a metal barn/shed in poor condition. There is a corral adjacent to the structure. The remainder of the site is littered with rusting farming/ranching materials and equipment (Orfila, 2011:23). The northern boundary of the site is located within the existing Correction-Cummings-Kern River #1 66 kV subtransmission line ROW and the proposed Telecommunications Route 1.



*Site P-15-014995* is a 65- to 70-year old structure known as the Ranch Motel. During the post-World War II period, as the economy improved and more individuals invested in family vehicles and family trips, the establishment of motor hotels, or motels, allowed travelers to overnight in a reserved hotel room and have their car parked outside. Previously, hotels were large, multi-story facilities in major cities. With the military base(s) in the Mojave, plus the growing local economy (agriculture and mining), Tehachapi had a need for hotel space. Motels were less expensive to construct and offered easier placement on the landscape. The sixteen-unit motor lodge also has manager’s quarters that function as the office for the facility. The neon sign outside the facility is original. As of 2011, the motel was still in operation (Orfila, 2011:24). The eastern boundary of the site is located within an existing subtransmission line ROW and the proposed Telecommunications Route 2.

*Site P-15-014997* is the Douglas Gasoline Station. The Douglas Gasoline Station was a popular independent gas station. Currently abandoned, the wooden station (1500 sq.ft.) is located 18 feet south of the road. The remains of the iconic Flying Heart logo of the Douglas Gasoline Company still stand at the northeast corner of the station property. While the exact date of the structure and signage is unknown, based on a review of travel brochures of the period, it is estimated to date from the 1940s to 1960s (Orfila, 2011:24). The northern boundary of the site is located within an existing subtransmission line ROW and the proposed Telecommunications Route 2.

**Table 5.5-1. Cultural Resources within the Proposed Project Area**

Site Number	Site Description	Project Area	Proposed Project Activity	CRHR Eligibility
P-15-009613 (CA-KER-8362H)	Cistern and Chimney	Proposed Telecommunications Route 1	Installation of fiber optic cable into new underground conduit	Undetermined
P-15-014996 (CA-KER-8361H)	Metal Barn/Shed on Abandoned Farm/Ranch	Proposed Telecommunications Route 1	Installation of fiber optic cable on existing overhead structures	Undetermined
P-15-014995	The Ranch Motel	Proposed Telecommunications Route 2	Installation of fiber optic cable on existing overhead structures; pole replacement	Potentially Eligible
P-15-014997	Douglas Gasoline Station	Proposed Telecommunications Route 2	Installation of fiber optic cable on existing overhead structures	Potentially Eligible

### Native American Consultation

SCE requested a search of the Sacred Lands File maintained by the Native American Heritage Commission (NAHC) on June 22, 2011. The Sacred Lands File search revealed that no known sacred Native American cultural resources were identified within the Proposed Project Area. The NAHC suggested that SCE consult with 11 Native American tribes and communities and Native American individuals who hold special interest in the Proposed Project Area and provided a list of those individuals (SCE, 2014a).

SCE sent certified letters on July 9, 2011 to the 11 Tribal entities and individuals on the NAHC list. The letter described the Proposed Project, the cultural resource survey, and background research that had been completed at that time. Recipients were requested to reply with information they were able to share regarding any Native American resources that may be affected by the Proposed Project. The Tejon Indian Tribe responded on August 17, 2011, stating that the Tribe had no conflict with the Proposed Project, but asked to be notified should any sites or artifacts be discovered during the Proposed Project (SCE, 2014a).

Additional follow-up letters and correspondence were sent on April 4, 2012, to the same 11 tribal entities and individuals describing updated information regarding the cultural surveys performed since

the initial letter. The Tübatulabal Tribe and the Tejon Indian Tribe responded that they had no conflict with the Proposed Project. In June 2012, phone calls were made to those Tribal entities and individuals that had not responded. Three additional comments were received via phone. Charlie Cook, representative for the Tehachapi Indian Tribe, questioned who would be monitoring during construction and stated that he had a “concern about preservation” of sites. He also asked to be kept updated on the Project (SCE, 2014b). Dee Dominguez, Chairperson of the Kitanemuk & Yowlumne Tejon Indians, stated that she had no comments regarding the project (SCE, 2014b). John Valenzuela, Chairperson of the San Fernando Band of Mission Indians, stated that he had no comments. He asked to be kept updated on the project and to contact him if anything was found during the project (SCE, 2014b).

## **Approach to Analysis of Paleontological Resources and Previous Paleontological Resources Studies**

### ***Methods Used to Identify Paleontological Resources***

The Society of Vertebrate Paleontology’s (SVP) guidelines (1995, 2010) provide uniform procedures for mitigating impacts to paleontological resources within sediments that are likely to contain resources. These guidelines call for supervision of all phases of mitigation by a professional paleontologist; monitoring for and salvage of paleontological resources during excavation; screen washing of sediments to recover small fossil specimens (if applicable); preparation of all collected specimens to a point of stabilization and identification; curation, including identification and cataloging of specimens; submission of all collected fossils for permanent storage in an institution, such as a museum, with the ability to retrieve specimens for additional studies; and preparation of a final report that details the methods and results of monitoring, including geology, what specimens were recovered, and the significance of any finds.

Paleontological Sensitivity is determined only after a field survey of the rock unit in conjunction with a review of available literature and paleontologic locality records. In cases where no subsurface data are available, sensitivity may be determined by subsurface excavation. The SVP (1995, 2010) provides the following definitions of sensitivity:

**Paleontological Potential** is the potential for the presence of significant nonrenewable paleontological resources. All sedimentary rocks, some volcanic rocks, and some metamorphic rocks have the potential for the presence of significant nonrenewable paleontological resources. The SVP has only three categories of sensitivity: high, low, and undetermined. The determination of a rock unit’s degree of paleontological potential is first founded on a review of pertinent geological and paleontological literature and on locality records of specimens deposited in institutions. This preliminary review may suggest particular areas of known high potential. If a geographic area or geological unit is classified as having undetermined potential for paleontological resources, studies must be undertaken to determine whether that rock unit has a sensitivity of either high or low. The field survey may extend outside the defined project area to areas where rock units are better exposed. Each of the potentials is defined below in more detail.

- **High Potential.** Rock units from which vertebrate or significant invertebrate fossils or significant suites of plant fossils have been recovered are considered to have a potential for containing significant nonrenewable fossiliferous resources. These units include, but are not limited to, sedimentary formations and some volcanic formations that contain significant nonrenewable paleontological resources anywhere within their geographical extent, and sedimentary rock units temporally or lithologically suitable for the preservation of fossils. Sensitivity comprises both (1) the potential for yielding abundant or significant vertebrate fossils or for yielding a few significant fossils, large or small, vertebrate, invertebrate, or botanical, and (2) the importance of recovered evidence for new and significant

taxonomic, phylogenetic, ecologic, or stratigraphic data. Areas that contain potentially datable organic remains older than Recent, including deposits associated with nests or middens, and areas that may contain new vertebrate deposits, traces, or trackways, are also classified as significant.

- **Low Potential.** Reports in the paleontological literature or field surveys by a qualified vertebrate paleontologist may allow determination that some areas or units have low potentials for yielding significant fossils. Such units will be poorly represented by specimens in institutional collections. These deposits generally will not require protection or salvage operations.
- **Undetermined Potential.** Specific areas underlain by sedimentary rock units for which little information is available are considered to have undetermined fossiliferous potentials. Field surveys by a qualified vertebrate paleontologist to specifically determine the potentials of the rock units are required before programs of impact mitigation for such areas may be developed.

If an area is determined to have a high potential for containing paleontologic resources, the SVP recommends that a program to mitigate impacts be developed. In areas of high sensitivity, a pre-excavation survey also is recommended to locate surface concentrations of fossils that may need special salvage methods.

A paleontological locality search was conducted through the Natural History Museum of Los Angeles County (LACM). It included a review of the area geology and any known paleontological resources recovered from the surrounding area, as well as the geologic units that will likely be encountered during excavation activities associated with the Proposed Project. As geologic formations and units can be exposed over large geographic areas but contain similar lithologies and fossils, the literature review and fossil locality search included areas well beyond the Proposed Project area (Smith, 2011).

The purpose of the locality search was to establish the status and extent of previously recorded paleontological resources within and adjacent to the Proposed Project area. In addition, the paleontological sensitivity of the geologic deposits expected to be encountered within the proposed Project area could be determined. A paleontological pedestrian survey of the proposed Project area has not been conducted (Smith, 2011).

### ***Results and Evaluation of Known Paleontological Resources***

According to the locality search letter from the LACM dated July 14, 2011, the proposed Project area contains sediments of younger Quaternary alluvium (Holocene) within the Cummings Valley, Brite Valley, and Tehachapi Valley that were deposited as basinal fan and fluvial deposits from the surrounding Tehachapi Mountains. However, the LACM also states that there are some surficial exposures of older Quaternary deposits in the western area of the Tehachapi Valley that are Pleistocene in age (2.6 million to 11,700 years B.P.). The LACM states that these older Pleistocene sediments also underlie the Holocene deposits exposed elsewhere at an unspecified depth and that there are a few exposures of igneous and metamorphic rocks in the elevated and more mountainous portions of the proposed Project area, such as the area between the Cummings Valley and Brite Valley and Brite Valley and Tehachapi Valley. The LACM collections contain one fossil locality within the proposed Project area, LACM 3722, located within the City of Tehachapi. This locality yielded a fossil horse (*Equus* sp.) and was found during excavation associated with installation of a sewer line. Sediments mapped on the surface in this area are Holocene alluvium, and although not stated it is likely that this fossil was found at a depth greater than 10 feet beneath the surface. The next closest LACM localities from similar sediments are LACM 5942–5953, from pipeline excavations in Holocene and Pleistocene alluvium for a project located east of Palmdale along Avenue S, approximately 40 miles to the southeast. At these localities, small vertebrate fossils were found, including gopher snake (*Pituophis* sp.), king snake (*Lampropeltis* sp.), leopard lizard (*Gam-*

*belia wislizenii*), cottontail rabbit (*Sylvilagus* sp.), pocket mouse (*Chartodipus* sp.), kangaroo rat (*Dipodomys* sp.), and pocket gopher (*Thomomys* sp.) (Smith, 2011).

The Holocene alluvium is between 0 to 11,700 years old and is generally considered too young to contain fossils; however, these sediments can exist as a very thin veneer on top of older sediments that can contain fossils. Pleistocene alluvium ranges from 2.6 million to 11,700 years in age. Fossils have been collected in similar deposits from excavations for roads, housing developments, and quarries within California and include remains of elephants, horses, bison, camels, saber tooth cats, deer, and sloths. The potential exists to encounter similar fossils in most Pleistocene alluvium. The igneous and metamorphic rocks within the proposed Project area do not contain fossils (Smith, 2011).

Based on the fossil records from similar sediments in the area, and the results of the locality search at the LACM, shallow excavations in the younger alluvium that is exposed within the valleys over most of the proposed Project area is unlikely to encounter paleontological resources; however, deeper excavation in these areas may contact the Pleistocene sediments that could contain paleontological resources. In addition, any excavation in the Pleistocene deposits on the western side of the Tehachapi Valley has the potential to encounter paleontological resources, both at the surface and subsurface (Smith, 2011).

### Applicant Proposed Measures

SCE has committed to the following measure to ensure that there would be no impacts to paleontological resources (SCE, 2014a). This APM is listed in Table 5.5-2<sup>3</sup>.

**Table 5.5-2. Applicant Proposed Measures – Paleontological Resources**

APM	Description
APM PA-1	<b>Paleontological Resources Treatment Plan.</b> A Paleontological Resources Treatment Plan shall be developed for construction within areas that have been identified as having a high sensitivity for paleontological resources or in areas where construction activities would exceed 10 feet in depth. The Paleontological Resources Treatment Plan would be prepared by a professional paleontologist in accordance with the recommendations of the SVP.

## 5.5.2 Environmental Impacts and Mitigation Measures

### a. *Would the project cause a substantial adverse change in the significance of an historical resource as defined in §15064.5 [§15064.5 generally defines historical resource under CEQA]?*

*LESS THAN SIGNIFICANT WITH MITIGATION INCORPORATED.* As shown in Table 5.5-1, there are four cultural resources within the Proposed Project area. None of these resources have been formally evaluated for CRHR eligibility, because impacts can be avoided. All four resources (P-15-009613/CA-KER-8362H, P-15-014996/CA-KER-8361H, P-15-014995, and P-15-014997) are located within the proposed subtransmission line and fiber optic telecommunications route corridors. Two of the resources, the Metal Barn/Shed on Abandoned Farm/Ranch (P-15-014996/CA-KER-8361H) and the Douglas Gasoline Station (P-15-014997), are within areas where no ground-disturbing work is proposed and would not be impacted by the Proposed Project. The Ranch Motel (P-15-014995) is located within proposed Telecom-

<sup>3</sup> [SCE's originally proposed APM PA-1 is part of the Proposed Project and has been considered in the evaluation of environmental impacts in this IS/MND. The mitigation measures recommended in Section 5.5.2 \(Environmental Impacts and Mitigation Measures\) and referenced in Section 6 \(Mitigation Monitoring Plan\) either expand upon or add detail to SCE's APM PA-1, and for the purposes of the Proposed Project, supersede it.](#)

munications Route 2. While installation of the fiber optic cable will be on existing poles, one wood pole adjacent to the Ranch Motel is proposed for removal and replacement. The construction associated with the removal and replacement of the existing pole is considered to pose a low risk of disturbance to this known resource. In addition, the Ranch Motel is a standing structure that is currently an operating and functioning facility and will be avoided during any construction activities associated with the Proposed Project. The Cistern and Chimney (P-15-009613/CA-KER-8362H) is located within proposed Telecommunications Route 1 where new underground conduit is proposed. Trenching and ground disturbance would be confined to specific areas that have been previously disturbed or areas considered to have a decreased likelihood for containing buried cultural materials. In addition, the cistern and chimney will be avoided during any construction activities associated with the Proposed Project. Mitigation Measure C-1 (Avoid known cultural resources) provides more detail on how resources would be avoided and would ensure that impacts are reduced to a less-than-significant level.

### ***Mitigation Measure for Impacts to Known Cultural Resources***

**MM C-1**      **Avoid Known Cultural Resources.** Where feasible, all impacts to sites identified in the preliminary cultural resource inventories shall be avoided and protected. Wherever a pole, access road, equipment, etc., must be placed or accessed within 100 feet of a recorded, reported, or known archaeological site eligible or potentially eligible for the CRHR, the site will be flagged on the ground as an Environmentally Sensitive Area (ESA) (without disclosure of the exact nature of the environmental sensitivity [i.e., the ESA is not identified as an archaeological site]). Construction equipment shall then be directed away from the ESA, and construction personnel shall be directed not to enter the ESA. Archaeological monitoring of Project construction shall occur in all areas of ground disturbing activity that occur within 100 feet of a cultural resource ESA.

#### ***b. Would the project cause a substantial adverse change in the significance of an archaeological resource pursuant to §15064.5?***

*LESS THAN SIGNIFICANT WITH MITIGATION INCORPORATED.* There are no known significant archaeological resources within the Proposed Project area. However, unknown and potentially significant buried resources could be inadvertently unearthed during ground-disturbing activities associated with construction of the Proposed Project. Although the potential for buried resources is considered to be low, owing to geomorphological conditions within direct impact areas, destruction of potentially significant cultural resources without mitigation would be a significant impact. Implementation of Mitigation Measure C-2 (Conduct cultural resources surveys), Mitigation Measure C-3 (Treat previously unidentified cultural resources appropriately), and Mitigation Measure C-4 (Train Construction Personnel Regarding Cultural and Paleontological Resources) would reduce this impact to a less-than-significant level because workers would recognize possible buried cultural resources and any previously unrecorded or unknown archaeological resource discovered during the course of construction would be subsequently avoided or provided proper treatment.

### ***Mitigation Measures for Impacts to Unknown Archaeological Resources***

**MM C-2**      **Conduct Cultural Resources Surveys.** Prior to construction, and based on final engineering, cultural resource surveys would be conducted in areas of the Area of Direct Impact (ADI) that have not been previously surveyed for the Proposed Project. No work shall be conducted in the previously un-surveyed areas until approval has been received by the CPUC. Supplemental cultural resource surveys of all new areas that would be affected shall be conducted by a qualified professional archaeologist. Any identified cultural

resource would be documented and evaluated for its eligibility for listing in the CRHR. A supplemental technical report shall be provided to the CPUC discussing the supplemental surveys, documented and evaluated cultural resources, potential impacts, and avoidance and minimization measures. Ideally, cultural resources found to meet any of the CRHR eligibility criteria would be avoided and preserved in place. If avoidance is not feasible, then SCE and CPUC shall develop and implement appropriate mitigation measures to reduce any impacts to a less-than-significant level and all ground disturbing activities would be monitored by a qualified archaeologist.

**MM C-3** **Treat Previously Unidentified Cultural Resources Appropriately.** If previously unidentified cultural resources are unearthed during construction of the Proposed Project, construction work in the immediate area of the find shall be halted and directed away from the discovery until a qualified professional archaeologist assesses the significance of the resource. The archaeologist, in consultation with SCE and the CPUC, shall make the necessary plans for evaluation of the CRHR-eligibility of find(s) and for the assessment and mitigation of impacts if the finds are found to be historically significant according to CEQA (CEQA Guidelines Section 15064.5 (a)).

SCE shall develop a Cultural Resources Treatment Plan (CRTP) for all known and newly discovered cultural resources within the Project ADI, including procedures for protection and avoidance of ESAs, evaluation and treatment of the unexpected discovery of cultural resources including Native American burials; provisions and procedures for Native American consultation; detailed reporting requirements by the Project Archaeologist; curation of any cultural materials collected during the Project; and requirements to specify that archaeologists and other discipline specialists meet the Professional Qualifications Standards mandated by the California Office of Historic Preservation (OHP).

Implementation of the CRTP shall ensure that known and recorded cultural resources will be avoided during construction. Specific protective measures shall be defined in the CRTP to reduce the potential adverse impacts on any presently undetected cultural resources to less-than-significant levels. The CRTP shall be submitted to the CPUC for review and approval at least 30 days before the start of construction.

**MM C-4** **Train Construction Personnel Regarding Cultural and Paleontological Resources.** Prior to the initiation of construction or ground-disturbing activities, all construction personnel shall be trained, by a qualified archaeologist, regarding the recognition of possible buried cultural resources (i.e., prehistoric and/or historical artifacts, objects, or features) and paleontological resources, and protection of all archaeological and paleontological resources during construction. SCE shall complete training for all construction personnel. Training shall inform all construction personnel of the procedures to be followed upon the discovery of cultural or paleontological materials. All personnel shall be instructed that unauthorized removal or collection of artifacts is a violation of State law and unauthorized collection or disturbance of fossils is prohibited. Any excavation contract (or contracts for other activities that may have subsurface soil impacts) shall include clauses that require construction personnel to attend training so they are aware of the potential for inadvertently exposing buried archaeological deposits or fossils. SCE shall provide a background briefing for supervisory construction personnel describing the potential for exposing cultural resources, the location of any potential ESA and anticipated procedures to treat unexpected discoveries. A record of all trained personnel shall be kept and provided to the CPUC as requested.

**c. Would the project directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?**

*LESS THAN SIGNIFICANT WITH MITIGATION INCORPORATED.* One fossil locality (LACM 3722) has been noted within the Proposed Project area. The majority of the area consists of low-sensitivity younger Quaternary alluvium (Holocene) sediments; however, these sediments can exist as a very thin veneer on top of older Pleistocene sediments that can contain fossils. Therefore, the potential exists for unique paleontological resources to be encountered within the Project area during ground-disturbing construction activities exceeding 10 feet in depth. Potential adverse impacts on these resources include, but are not limited to, destruction by construction equipment and Project-related vehicles, increased weathering and erosion, unauthorized collection of fossils by Project personnel, and vandalism. SCE has committed to APM PA-1, in which a Paleontological Resources Treatment Plan shall be developed and implemented during construction within areas that have been identified as having a high sensitivity for paleontological resources or in areas where construction activities would exceed 10 feet in depth. Mitigation Measure C-4 (Train Construction Personnel Regarding Cultural and Paleontological Resources), Mitigation Measure C-5 (Develop Paleontological Resources Management Plan), and Mitigation Measure C-6 (Monitor construction for paleontology) provide more detail on how these activities would be implemented and would ensure that impacts are reduced to a less-than-significant level.

**Mitigation Measures for Impacts to Paleontological Resources**

- MM C-5**      **Develop a Paleontological Resources Management Plan.** Prior to construction, SCE shall retain a qualified paleontologist to prepare a Paleontological Resources Management Plan (PRMP). The PRMP shall identify construction impact areas where significant paleontological resources may be encountered and the depths at which those resources are likely to be discovered. The Plan shall outline a coordination strategy to ensure that all construction disturbance in high sensitivity sediments or exceeding 10 feet in depth would be monitored full-time by qualified professionals. The Plan shall also detail methods of recovery; post-excavation preparation and analysis of specimens; final curation of specimens at a recognized, accredited facility; data analysis; and reporting, in the event that paleontological resources are encountered during construction.
- MM C-6**      **Monitor Construction for Paleontology.** Based on the paleontological sensitivity assessment and Paleontological Resource Management Plan consistent with Mitigation Measure C-5 (Develop a Paleontological Resource Management Plan), SCE shall ensure that full-time construction monitoring is conducted by the Paleontological Resource Monitor in areas determined to have high sensitivity. Sediments of moderate or undetermined sensitivity shall be monitored by a Paleontological Resource Monitor on a part-time basis (as determined by the Qualified Paleontologist). Monitoring will entail the visual inspection of excavated or graded areas and trench sidewalls. The monitor may also screen sediments to check for the presence of microvertebrates if they are believed to be present. In the event that a paleontological resource is discovered, the monitor shall have the authority to temporarily divert the construction equipment around the find until it is assessed for scientific significance, and collected. Mitigation Measure C-6 does not apply to any drilling construction activities.
- MM C-7**      **Conduct Curation and Final Reporting.** All significant fossils collected will be prepared in a properly equipped paleontology laboratory to a point ready for curation no more than 45 days after all fieldwork is completed. Preparation will include the careful removal of excess matrix from fossil materials and stabilizing and repairing specimens, as necessary.

Following laboratory work, all fossils specimens will be identified to the lowest taxonomic level, cataloged, analyzed, and delivered to an accredited museum repository for permanent curation and storage. The cost of curation is assessed by the repository and is the responsibility of SCE.

At the conclusion of laboratory work and museum curation of any discovered paleontological resources, a final report will be prepared and submitted to the CPUC describing the results of the paleontological resource monitoring efforts associated with the project. The report will include a summary of the field and laboratory methods, an overview of the project area geology and paleontology, a list of taxa recovered (if any), an analysis of fossils recovered (if any) and their scientific significance, and recommendations. A copy of the report will also be submitted to the designated museum repository.

**d. *Would the project disturb any human remains, including those interred outside of formal cemeteries?***

*LESS THAN SIGNIFICANT WITH MITIGATION INCORPORATED.* No human remains are known to be located within the Proposed Project area. However, there is always the possibility that unmarked burials may be unearthed during construction. In the unlikely event of an accidental discovery of any human remains, Mitigation Measure C-8 (Treat human remains appropriately) would be implemented. Health and Safety Code Section 7050.5, CEQA Section 15064.5(e), and Public Resources Code Section 5097.98 mandate the process to be followed in the unlikely event of an accidental discovery of any human remains in a location other than a dedicated cemetery.

***Mitigation Measure for Disturbance of Human Remains***

**MM C-8**      **Treat Human Remains Appropriately.** If human remains are unearthed during construction activities, construction work within 100 feet of the discovery shall be halted and directed away from the discovery until the county coroner can determine whether the remains are those of a Native American. If they are those of a Native American, the following would apply:

- The coroner shall contact the Native American Heritage Commission.
- If discovered human remains are determined to be Native American remains, and are released by the coroner, these remains shall be left in situ and covered by fabric or other temporary barriers.
- The human remains shall be protected until SCE, the landowner, and the Native American Heritage Commission come to a decision on the final disposition of the remains.

According to the California Health and Safety Code, six or more human burials at one location constitute a cemetery (Section 8100), and willful disturbance of human remains is a felony (Section 7052).