PALEONTOLOGICAL RESOURCES ASSESSMENT REPORT

CACTUS CLUB HOTEL PROJECT

Assessor's Parcel Numbers 0608-051-02, -03, and -04
Near the City of Twentynine Palms, San Bernardino County, California

For Submittal to:

County of San Bernardino, Planning Division
Jerry Lewis High Desert Government Center
15900 Smoke Tree Street, Suite 131
Hesperia, CA 92345

Prepared for:

Jennings Environmental, LLC
35414 Acacia Avenue
Yucaipa, CA 92399

Prepared by:

Ron Schmidtling, M.S., Paleontologist
Michael Hogan, Ph.D., Principal
CRM TECH
1016 E. Cooley Drive, Suite A/B
Colton, CA 92324

March 8, 2023

Approximately 12.6 acres
USGS Sunfair, Calif., 7.5' quadrangle
Section 35, T1N R7E, San Bernardino Baseline and Meridian
CRM TECH Project No. 3954P

EXECUTIVE SUMMARY

Between September 2022 and February 2023, at the request of Jennings Environmental, LLC, CRM TECH performed a paleontological resources study on 12.64 acres of undeveloped land near the City of Twentynine Palms, San Bernardino County, California. The subject property of the study consists of Assessor's Parcel Numbers 0608-051-02, -03, and -04, located on the southeast corner of the intersection of Twentynine Palms Highway (State Route 62) and Mile Square Road, in the northeast quarter of Section 35, T1N R7E, San Bernardino Baseline and Meridian.

The study is a part of the environmental review process for a proposed construction of a hotel, known as the Cactus Club Hotel, on the property. The County of San Bernardino, as the lead agency for the project, required the study in compliance with the California Environmental Quality Act (CEQA). To determine if any paleontological resources exist in or near the project area and to assess the potential for such resources to be encountered during the project, CRM TECH initiated a paleontological records search, reviewed pertinent geological literature and maps, and carried out a systematic field survey in accordance with the guidelines of the Society of Vertebrate Paleontology. The results of these research procedures indicate that no fossil localities are known to be present within the project area and that the surficial soils have a low potential to contain significant paleontological resources.

Based on these findings, the present study concludes that no known paleontological resources will be affected by the proposed project. No further paleontological resources investigation is recommended for the project unless development plans undergo such changes as to include areas not covered by this study. However, if any suspected fossils or undisturbed potential fossiliferous soils are discovered during earth-moving operations associated with the project, all work in that area should be halted or diverted until a qualified paleontologist can evaluate the nature and significance of the finds.

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INTRODUCTION

Between September 2022 and February 2023, at the request of Jennings Environmental, LLC, CRM TECH performed a paleontological resources study on 12.64 acres of undeveloped land near the City of Twentynine Palms, San Bernardino County, California (Figure 1). The subject property of the study consists of Assessor's Parcel Numbers 0608-051-02, -03, and -04, located on the southeast corner of the intersection of Twentynine Palms Highway (State Route 62) and Mile Square Road, in the northeast quarter of Section 35, T1N R7E, San Bernardino Baseline and Meridian (Figures 2, 3).

The study is a part of the environmental review process for a proposed construction of a hotel, known as the Cactus Club Hotel, on the property. The County of San Bernardino, as the lead agency for the project, required the study in compliance with the California Environmental Quality Act (CEQA; PRC §21000, et seq.). CRM TECH was contracted to conduct the necessary research to determine if the project has the potential to disrupt or adversely affect any significant, nonrenewable paleontological resources.

To provide the County with the necessary information and analysis, CRM TECH initiated a paleontological records search, reviewed pertinent geological literature and maps, and carried out a systematic field survey in accordance with the guidelines of the Society of Vertebrate Paleontology. The following report is a complete account of the methods, results, and final conclusion of this study. Personnel who participated in the study are named in the appropriate sections below, and their qualifications are provided in Appendix 1.

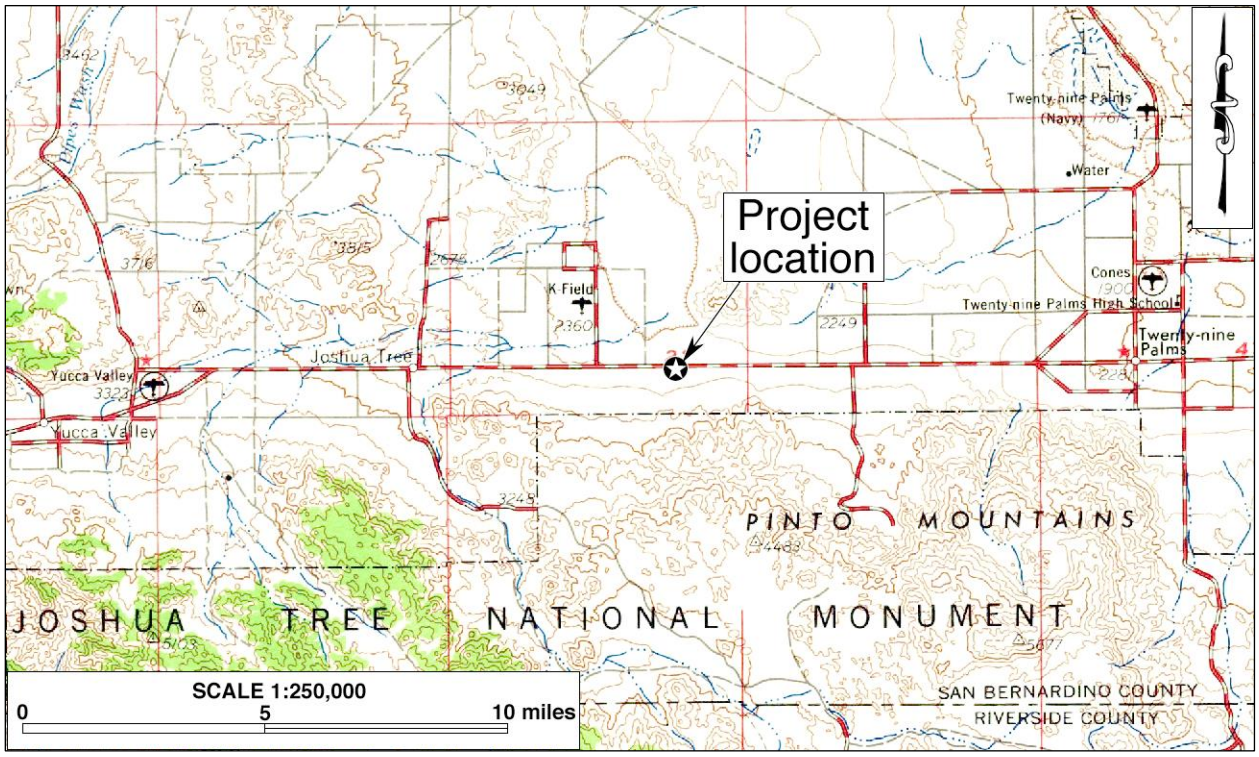

Figure 1. The project location in relation to topographical and man-made features (based on the USGS San Bernardino, Calif., 120'x60' quadrangle [USGS 1969]).

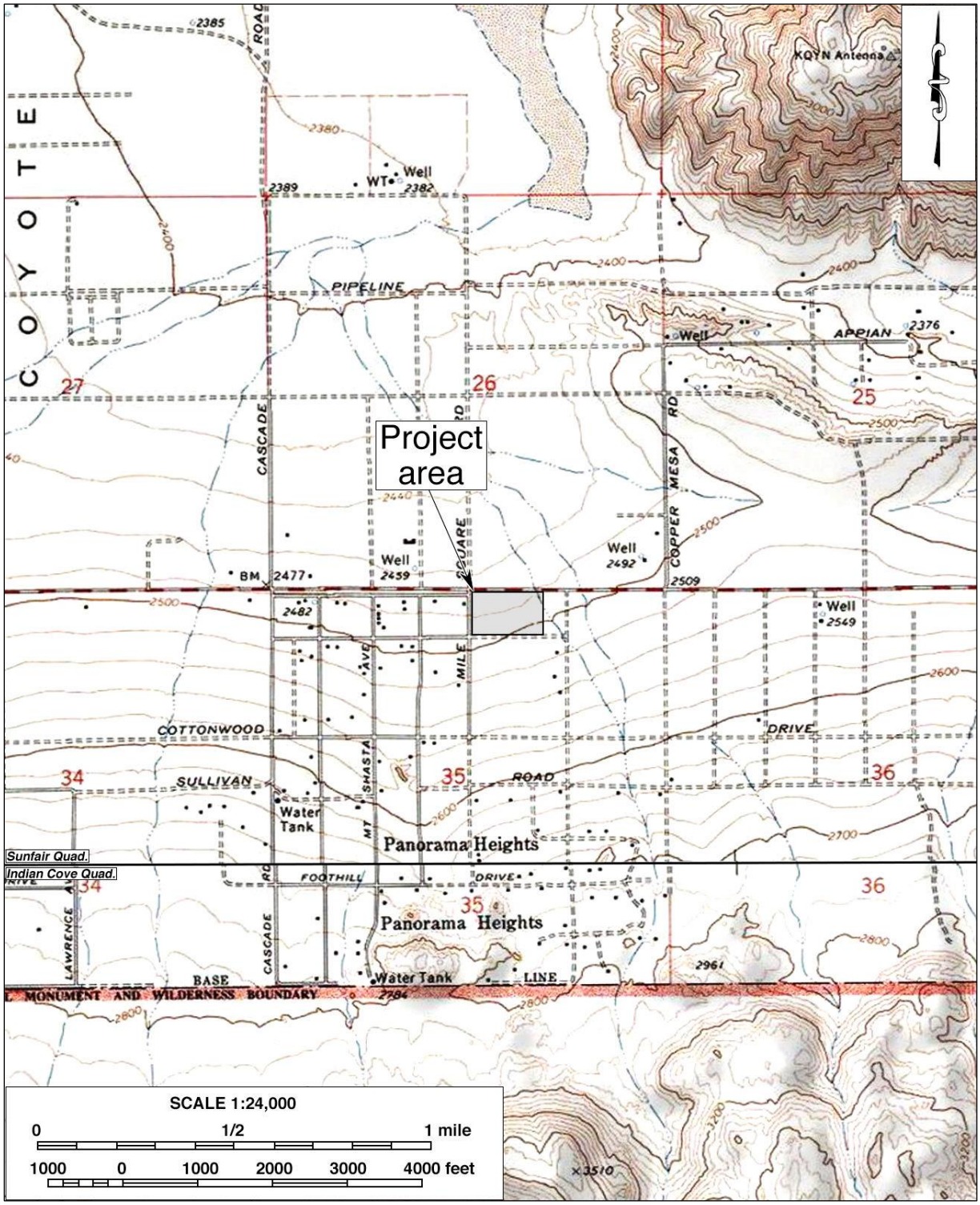

Figure 2. The project area and vicinity (based on the USGS Sunfair and Indian Cove, Calif., 7.5' quadrangles [USGS 1972; 1995]).

Figure 3. Recent satellite image of the project area and vicinity.

PALEONTOLOGICAL RESOURCES

A brief review of paleontological resources and what might be considered to be significant paleontological resources is presented here. Also presented is information regarding types of paleontological resources and the depositional contexts in which they may be found.

DEFINITION

Paleontological resources represent the remains of prehistoric life, exclusive of any human remains, and include the fossils themselves as well as the sedimentary rock formations in which they were found. The defining character of fossils or fossil deposits is their geologic age, typically older than recorded human history and/or older than the middle Holocene Epoch, which dates to circa 5,000 radiocarbon years (Society of Vertebrate Paleontology 2010:11).

Common fossil remains include marine and freshwater mollusk shells; the bones and teeth of fish, amphibians, reptiles, and mammals; leaf imprint assemblages; and petrified wood. Fossil traces, another type of paleontological resource, include internal and external molds (impressions), trackways, and casts created by these organisms. These items can serve as important guides to the age of the rocks and sediments in which they are contained and may prove useful in determining the temporal relationships between rock deposits from one area and those from another as well as the timing of geologic events. They can also provide information regarding evolutionary relationships, development trends, and environmental conditions.

Fossil resources generally occur only in areas of sedimentary rock (e.g., sandstone, siltstone, mudstone, claystone, or shale). Because of the infrequency of fossil preservation, fossils, particularly vertebrate fossils, are considered nonrenewable paleontological resources. Occasionally fossils may be exposed at the surface through the process of natural erosion or because of human disturbances; however, they generally lay buried beneath the surficial soils. Thus, the absence of fossils on the surface does not preclude the possibility of their being present within subsurface deposits, while the presence of fossils at the surface is often a good indication that more remains may be found in the subsurface.

SIGNIFICANCE CRITERIA

According to guidelines proposed by Scott and Springer (2003:6), paleontological resources can be considered to be of significant scientific interest if they meet one or more of the following criteria:

1. The fossils provide information on the evolutionary relationships and developmental trends exhibited among organisms, living or extinct;
2. The fossils provide data useful in determining the age(s) of the rock unit or sedimentary stratum, including data important in determining the depositional history of the region and the timing of geologic events therein;
3. The fossils provide data regarding the development of biological communities or the interactions between paleobotanical and paleozoological biotas;
4. The fossils demonstrate unusual or spectacular circumstances in the history of life; and/or
5. The fossils are in short supply and/or in danger of being depleted or destroyed by the elements, vandalism, or commercial exploitation, and are not found in other geographic locations.

PALEONTOLOGICAL SENSITIVITY

The fossil record is unpredictable, and the preservation of organic remains is rare, requiring a particular sequence of events involving physical and biological factors. Skeletal tissue with a high percentage of mineral matter is the most readily preserved within the fossil record; soft tissues not intimately connected with the skeletal parts, however, are the least likely to be preserved (Raup and Stanley 1978). For this reason, the fossil record contains a biased selection not only of the types of organisms preserved but also of certain parts of the organisms themselves. As a consequence, paleontologists are unable to know with certainty, the quantity of fossils or the quality of their preservation that might be present within any given geologic unit.

Sedimentary units that are paleontologically sensitive are those geologic units (mappable rock formations) with a high potential to contain significant nonrenewable paleontological resources. More specifically, these are geologic units within which vertebrate fossils or significant invertebrate fossils have been determined by previous studies to be present or are likely to be present. These units include, but are not limited to, sedimentary formations that contain significant paleontological resources anywhere within their geographical extent as well as sedimentary rock units temporally or lithologically amenable to the preservation of fossils.

A geologic formation is defined as a stratigraphic unit identified by its lithic characteristics (e.g., grain size, texture, color, and mineral content) and stratigraphic position. There is a direct relationship between fossils and the geologic formations within which they are enclosed and, with sufficient knowledge of the geology and stratigraphy of a particular area, it is possible for paleontologists to reasonably determine the formation's potential to contain significant nonrenewable vertebrate, invertebrate, marine, or plant fossil remains.

The paleontological sensitivity for a geologic formation is determined by the potential for that formation to produce significant nonrenewable fossils. This determination is based on what fossil resources the particular geologic formation has produced in the past at other nearby locations. Determinations of paleontologic sensitivity must consider not only the potential to yield a large collection of fossil remains but also the potential to yield a few fossils that can provide new and significant taxonomic, phylogenetic, and/or stratigraphic data.

The Society of Vertebrate Paleontology issued a set of standard guidelines intended to assist paleontologists to assess and mitigate any adverse effects/impacts to nonrenewable paleontological resources. The guidelines defined four categories of paleontological sensitivity for geologic units that might be impacted by a proposed project, as listed below (Society of Vertebrate Paleontology 2010:1-2):

- **High Potential**: Rock units from which vertebrate or significant invertebrate, plant, or trace fossils have been recovered.
- **Undetermined Potential**: Rock units for which little information is available concerning their paleontological content, geologic age, and depositional environment.
- **Low Potential**: Rock units that are poorly represented by fossil specimens in institutional collections, or based on general scientific consensus only preserve fossils in rare circumstances.
- **No Potential**: Rock units that have no potential to contain significant paleontological resources, such as high-grade metamorphic rocks and plutonic igneous rocks.

NATURAL SETTING

The subject property is located in the Morongo Basin, on the southern edge of the Mojave Desert, northeast of the Little San Bernardino Mountains, and northwest of the Pinto Mountain. The climate and environment of the region are typical of the southern California "high desert" country, so-called because of its higher elevation in relation to the Colorado Desert to the south. The climate is marked by extremes in temperature and aridity, with summer highs (generally in July) averaging over 100ºF and winter lows (generally in December) averaging 35ºF. The average annual precipitation is roughly five inches, most of which occurs during late winter, early spring, and occasional monsoon storms in summer.

The mountains closest to the site are Copper Mountain, directly to the north, and the Pinto Mountains, to the southeast. Both local mountains are composed of granitic and metamorphic rock of Mesozoic age. There is some recent volcanic activity just north of, but far to the west of, Yucca Valley at Black Top Butte. The mountains to the south are of primary concern, however, since the slope of the area, and thus, drainage, falls to the north. Almost all the onsite alluvial material is derived from the southern mountains (Dibblee 2008). These mountains are composed almost entirely of quartz monzonite (*qm1*, Figure 4), creating the rocky landforms so distinct in Joshua Tree National Park, and also the source of the sand, pebbles, and cobbles found onsite.

Situated approximately 1.3 mile to the west of the Twentynine Palms city limits, the project location lies in a sparsely populated rural residential area that features a widely spaced grid of unpaved roads and single-family homes on typically 1.25-acre to 5-acre lots. The property is bounded on the north by Twentynine Palms Highway, on the west by Mile Square Road, on the south by Cactus Drive, and on the east by undeveloped open desert land (Figure 3). Elevations within the project boundaries range from 2,470 feet to 2,510 feet above mean sea level, and the terrain is relatively level with a slight decline to the northwest.

METHODS AND PROCEDURES

A paleontological records search was requested from the San Bernardino County Museum in Redlands, California, which is one of the local institutions that maintain files on regional paleontological localities as well as supporting maps and documents. The records search was requested to identify any known paleontological localities and previously performed paleontological resource studies within a one-mile radius of the project area. In conjunction with the records search, CRM TECH staff reviewed published literature on regional geology; topographic, geologic, and soil maps pertaining to the project area and vicinity; the County of San Bernardino GIS database; aerial images available at the Nationwide Environmental Title Research (NETR) Online website and through the Google Earth software; and other materials in the CRM TECH library, including unpublished reports produced during similar studies in the vicinity.

Besides the document research conducted regarding the geology and paleontological sensitivity of the project area, the property was inspected by CRM TECH paleontological surveyor Michael Richards on October 25, 2022. Richards conducted an intensive-level on-foot field survey of the project area and inspected the surface of the entire property by walking along parallel north-south

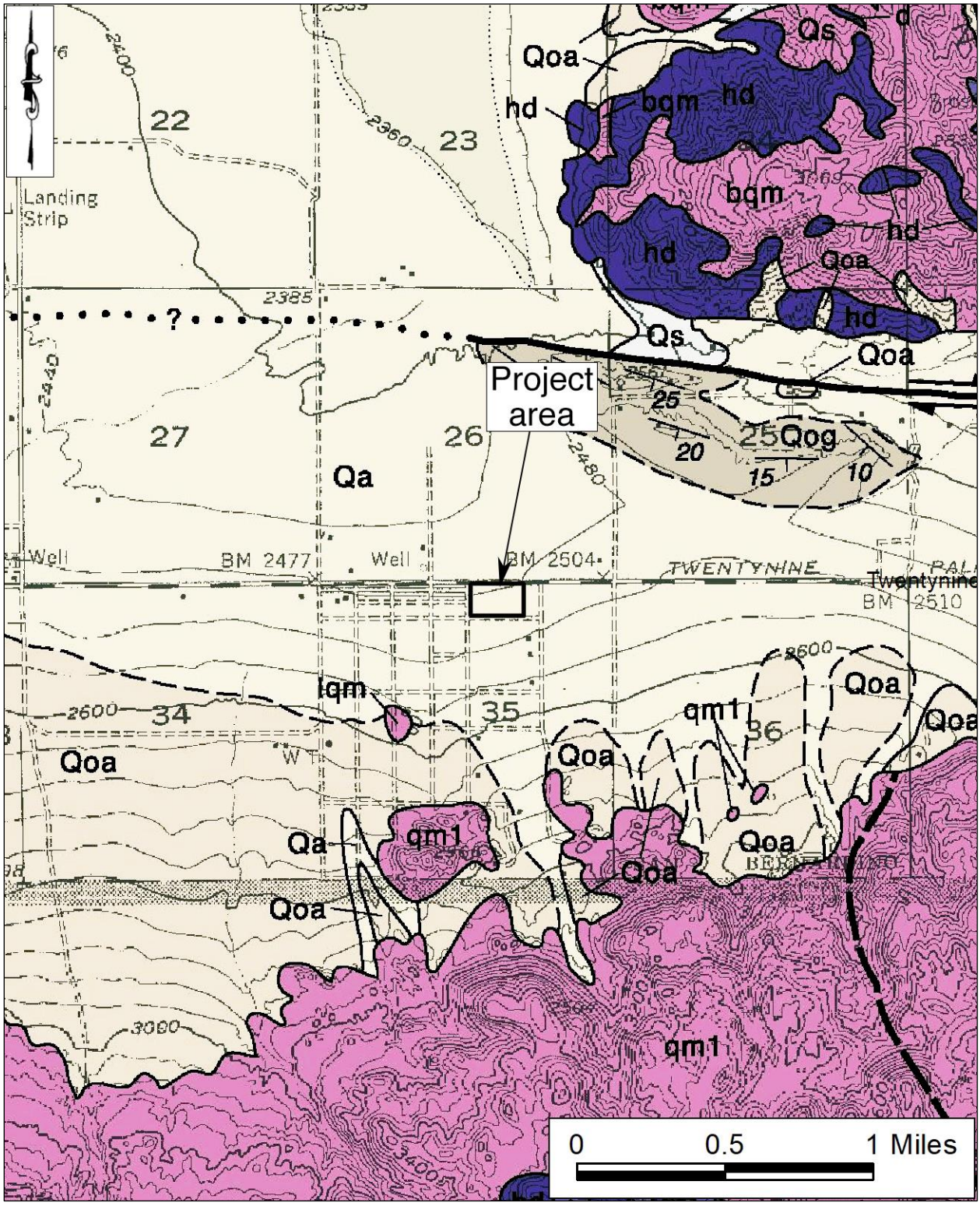

Figure 4. A portion of the geological map showing the project area and project vicinity (source: Dibblee 2008).

transects spaced 15 meters (approximately 50 feet) apart. Additionally, on December 1, 2022, CRM TECH paleontologist Ron Schmidtling also inspected the property. In this way, the ground surface in the project area was carefully examined to determine the soil types, to verify the geological formations, and to look for any indications of paleontological resources.

RESULTS AND FINDINGS

The records search by the San Bernardino County Museum (SBCM) identified no known paleontological localities within the project area, and only one isolated permineralized rodent bone reported approximately 0.6 miles north of the project (Kottcamp 2022; see App. 2). According to Kottcamp, the geologic units within this project area are mapped as Holocene-age alluvial deposits comprised of medium to coarse-grained sand and gravel. Kottcamp further notes that geological units such as these are generally considered to be of low paleontological sensitivity, due to their recent age (Kottcamp 2022).

During the field survey, ground visibility was noted as being very good (approximately 80%) in the majority of the project area due to the sparse vegetation (Figure 5). The project area is situated on an alluvial fan consisting of silty sand of fine-to-coarse grain sands with gravels consisting of fine-to-coarse pebbles with small cobbles. The existing vegetation on the property includes creosote bush, Joshua tree, foxtail, several varieties of chollas, and other small desert grasses and shrubs. Portions of the project area along the southern boundary exhibit signs of past ground disturbance.

At the time of Schmidtling's visit to the project area, a geotechnical trench had been excavated in the property near Mile Square Road (Figure 5). The geotechnical pit revealed a consistent composition of recent alluvium to a depth of about three feet. Schmidtling also noted that the surface soils consisted of sand, cobbles, and pebbles of Mesozoic granite from the Joshua Tree area. Most cobbles and pebbles were sub-rounded quartz monzonite, with minor amounts of dark biotite and hornblende, in a matrix of quartz and orange to pink feldspar. No surface manifestation of any paleontological remains or potentially fossiliferous sediments was observed within the project area during the field inspections.

SUMMARY

No fossil localities are known to be present within the project area, or within one mile of it (Kottcamp 2022), and none were observed in the surface sediments during the field inspection of the property. The geologic unit of this property is mapped entirely as Holocene age alluvium (Dibblee 2008).

CONCLUSION AND RECOMMENDATIONS

CEQA guidelines (Title 14 CCR App. G, Sec. V(c)) require that public agencies in the State of California determine whether a proposed project would "directly or indirectly destroy a unique paleontological resource" during the environmental review process. The present study, conducted in compliance with this provision, is designed to identify any significant, non-renewable

Figure 5. Overview photograph of the project area (photograph taken on December 1, 2022; view to the southeast)

paleontological resources that may exist within or adjacent to the project area, and to assess the possibility for such resources to be encountered in future excavation and construction activities.

In summary of the research results presented above, the project area is situated upon surface exposure of Holocene-age alluvial sediments. Such sediments have little potential to contain significant, nonrenewable paleontological resources. Therefore, the proposed project's potential to impact significant, nonrenewable paleontological resources appears to be low.

CRM TECH recommends to the County of San Bernardino a finding of *No Impact* regarding paleontological resources. Furthermore, based on the low sensitivity of the sediments in the project area, paleontological monitoring during earth-disturbing activities associated with the project is not recommended. However, if any suspected paleontological resources or undisturbed potentially fossiliferous soils are discovered during earth-moving operations associated with the project, all work in that area should be halted or diverted until a qualified paleontologist can evaluate the nature and significance of the finds. Under this condition, CRM TECH further recommends that the

proposed project may be cleared to proceed in compliance with CEQA provisions on paleontological resources.

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Dibblee, Thomas W., Jr.
2008 Geologic Map of Joshua Tree and Twentynine Palms 15 Minute Quadrangles, Riverside and San Bernardino Counties, California. Dibblee Geology Center Map #DF-390. Santa Barbara, California.

Kottcamp, S.
2022 Letter of findings, paleontological resources records search for the proposed project. Prepared by San Bernardino County Museum, San Bernardino, California. (See Appendix 2).

Raup, David M., and Steven M. Stanley
1978 *Principle of Paleontology*. W.H. Freeman and Company, San Francisco.

Schoenherr, Allan A.
1992 *A Natural History of California*. University of California Press, Berkeley.

Scott, Eric, and Kathleen Springer
2003 CEQA and Fossil Preservation in California. *Environmental Monitor* Fall:4-10. Association of Environmental Professionals, Sacramento, California.

Society of Vertebrate Paleontology
2010 Standard Procedures for the Assessment and Mitigation of Adverse Impacts to Paleontological Resources. https://vertpaleo.org/wp-content/uploads/2021/01/SVP_Impact_Mitigation_Guidelines.pdf.

USGS (United States Geological Survey, U.S. Department of the Interior)
1969 Map: San Bernardino, Calif. (120'x60', 1:250,000); 1958 edition revised.
1972 Map: Sunfair, Calif. (7.5', 1:24,000); aerial photographs taken in 1970, field-checked in 1972.
1995 Map: Indian Cove, Calif. (7.5', 1:24,000); 1970 edition photoinspected in 1995.

APPENDIX 1:
PERSONNEL QUALIFICATIONS

PRINCIPAL PALEONTOLOGIST
Ron Schmidtling, M.S.

Education

1995	M.S., Geology, University of California, Los Angeles.
1991	Pasadena City College, Pasadena, California.
1985	B.A., Archaeology, Paleontology, Ancient Folklore, and Art History, University of Southern Mississippi, Hattiesburg.

Professional Experience:

2020-	Principal Paleontologist, CRM TECH, Colton, California.
2014-	Instructor of Earth Science, History of Life, Ecology, and Evolutionary Biology, Columbia College Hollywood, Reseda, California.
2013, 2015	Volunteer, excavation of a camarasaur and a diplodocid in southern Utah, Natural History Museum of Los Angeles County, California.
1993-2014	Consultant, Getty Conservation Institute, Brentwood, California.
	• Geological Consultant on the Renaissance Bronze Project, characterizing constituents of bronze core material;
	• Paleontological Consultant for Antiquities/Conservation, identifying the foraminifera and mineral constituents of a limestone torso of Aphrodite;
	• Scientific Consultant on the Brentwood Site Building Project, testing building materials for their suitability in the museum galleries.
1999-2001	Archaeological and Paleontological Monitor, Michael Brandman Associates, Irvine, California.
1997	Department of Archaeology, University of California, Los Angeles.
1994	Scientific Illustrator and Teaching Assistant, Department of Earth and Space Sciences and Department of Biological Sciences, University of California, Los Angeles.

Memberships

AAPS (Association of Applied Paleontological Sciences), USA; CSEOL (Center for the Study of Evolution and the Origin of Life), Department of Earth Sciences, University of California, Los Angeles.

Publications and Reports

Author, co-author, and contributor on numerous paleontological publications and paleontological resource management reports.

PRINCIPAL INVESTIGATOR/ARCHAEOLOGIST
Michael Hogan, Ph.D., RPA (Registered Professional Archaeologist)

Education

1991	Ph.D., Anthropology, University of California, Riverside.
1981	B.S., Anthropology, University of California, Riverside; with honors.
1980-1981	Education Abroad Program, Lima, Peru.
2002	"Section 106—National Historic Preservation Act: Federal Law at the Local Level," UCLA Extension Course #888.
2002	"Recognizing Historic Artifacts," workshop presented by Richard Norwood, Historical Archaeologist.
2002	"Wending Your Way through the Regulatory Maze," symposium presented by the Association of Environmental Professionals.
1992	"Southern California Ceramics Workshop," presented by Jerry Schaefer.
1992	"Historic Artifact Workshop," presented by Anne Duffield-Stoll.

Professional Experience

2002-	Principal Investigator, CRM TECH, Riverside/Colton, California.
1999-2002	Project Archaeologist/Field Director, CRM TECH, Riverside, California.
1996-1998	Project Director and Ethnographer, Statistical Research, Inc., Redlands, California.
1992-1998	Assistant Research Anthropologist, University of California, Riverside.
1992-1995	Project Director, Archaeological Research Unit, U.C. Riverside.
1993-1994	Adjunct Professor, Riverside Community College, Mt. San Jacinto College, U.C. Riverside, Chapman University, and San Bernardino Valley College.
1991-1992	Crew Chief, Archaeological Research Unit, U.C. Riverside.
1984-1998	Project Director, Field Director, Crew Chief, and Archaeological Technician for various southern California cultural resources management firms.

Memberships

Society for American Archaeology; Society for California Archaeology; Pacific Coast Archaeological Society; Coachella Valley Archaeological Society.

PALEONTOLOGICAL SURVEYOR
Michael D. Richards, M.A.

Education

2002 M.A., Anthropology, California State University, Northridge (CSUN).
1986 B.A., Anthropology: University of California, Los Angeles (UCLA).
1982 A.A., Los Angeles Valley College, Los Angeles, California.

2015 Section 106 workshop.
2000 CSUN "Olmec" field excavation and lab analysis; La Venta, Mexico.
1999 Rock art recording, UCLA Extension; Little Lake, California.
1998 Rock art symposium, UCLA Extension.

Professional Experience

2018- Project Archaeologist/Paleontologist, CRM TECH, Colton, Calif.
2016-2018 Co-Principal Investigator/Archaeologist, LSA Associates Inc.
2012-2016 Co-Principal Investigator/Archaeologist, ICF International (Jones & Stokes).
2010-2012 Co-Principal Investigator/Archaeologist, various CRM firms (on call).
2007-2010 Principal Investigator/Field Director/Crew Chief, ASM Affiliates, Inc.
2004-2007 Project Manager/Co-Principal Investigator, ArchaeoPaleo Resource Management, Inc.
2003-2004 Staff Archaeologist/Crew Chief, SRI, Inc.
2000-2003 Project Archaeologist/Field Director, Ancient Enterprises (Clewlow, Jr.).
1999-2000 Staff Archaeologist/Lab Crew Chief, CSC/Edwards Air Force Base.

APPENDIX 2

RECORDS SEARCH RESULTS

2024 Orange Tree Lane, Redlands, California 92374 | Phone: 909.798.8608
www.SBCounty.gov

SAN BERNARDINO COUNTY

Museum
Division of Earth Science

Scott Kottkamp
Curator of Earth Science

12 October, 2022

CRM Tech
Attn: Nina Gallardo
1016 E. Cooley Drive, Suite A/B
Colton, CA 92324

PALEONTOLOGY RECORDS REVIEW for proposed site of proposed Cactus Club Hotel project, Twentynine Palms, San Bernardino County, California

Dear Ms. Gallardo,

The Division of Earth Science of the San Bernardino County Museum (SBCM) has completed a record search for the above-named project in San Bernardino County, California. The proposed project site (Cactus Club Hotel) are in the City of Twentynine Palms, California as shown on the United States Geological Survey (USGS) 7.5 minute Indian Cove and Sunfair, California quadrangles.

Geologic mapping of that region done by Dibblee and Minch (2008) indicates the entire project site is situated atop Holocene age alluvial deposits, comprised of medium to coarse-grained sand and gravel. The exact composition of Qa is variable, with fine sand, silt, and clay present in smaller proportions and sometimes being the primary grain size in individual layers. Qa locally settles into the center of valleys between hills, mountains and other highlands, flanked by older alluvium and the resistant bedrock of the surrounding terrain. Qa deposits are unlikely to be fossiliferous themselves, but directly overlie older Pleistocene alluvial deposits that are more likely to be so (Qoa).

Qoa mostly consists of older fan deposits sourced from the Pinto Mountains, probably deposited between ~2.5 million to ~11,000 years ago. Qoa is variable in its precise lithology, and often appears similar to units of Holocene age except slightly more consolidated. In the local

area, it is most commonly a poorly bedded to nonbedded granitic cobble-pebble gravel and sand. The source rock in the local region is primarily granitic with some gneiss. Terrestrial macro- and microfossils are commonly found in Pleistocene age alluvium throughout the southwest of North America, including much of the Mojave Desert and nearby Joshua Tree National Park (Scott et al. 2006; Harris 2014). The only other geologic units found at or near the surface within 5 miles of the project sites are non-fossiliferous igneous and metamorphic rocks of Cretaceous or older age (Dibblee and Minch 2008).

For this review, I conducted a search of the Regional Paleontological Locality Inventory (RPLI) at the SBCM. The results of this search indicate that no paleontological resources have been discovered within the proposed project sites. The nearest locality, SBCM 1.85.1, is approximately 0.6 miles north of the proposed project sites, at approximately 34°8'36" latitude and -116°12'54" longitude. Or TRS (Township Range Section) 1N 7E 26, quarter NE ¼, NE ¼, SE ¼, NE ¼ along the San Bernardino Prime Meridian. Map indicates a < 50m (164ft) uncertainty in the precise position of the locality. A black permineralized rodent humerus was recovered here from a washed sediment sample pertaining to the lower of two 0.46m (1.5ft) thick beds of sandy silt. The locality's broader stratigraphy consists of west-dipping tan fluvial sands and silts, often with cemented beds of peanut-like calcite concretions. A second locality, 1.85.2, occurs slightly further to the north, across the road, in similar sediments. No fossils are recorded from SBCM 1.85.2; the locality seems to only pertain to sediment samples. No other SBCM localities are located within 5 miles of the project site.

This records search covers only the paleontological records of the San Bernardino County Museum. It is not intended to be a thorough paleontological survey of the proposed project area covering other institutional records, a literature survey, or any potential on-site survey.

Please do not hesitate to contact us with any further questions that you may have.

Sincerely,

Scott Kottkamp

Scott Kottkamp, Curator of Earth Science
Division of Earth Science
San Bernardino County Museum

Literature Cited

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