APPENDIX B

Focused Survey for Agassiz's Desert Tortoise,

Habitat Evaluation for Burrowing Owl and Joshua Tree,

and

General Biological Resource Assessment

For a 304-acre± Site

(APN 0599-191-49)

In the

Community of Joshua Tree

San Bernardino County, California

Focused Survey for Agassiz's Desert Tortoise,
Habitat Evaluation for Burrowing Owl and Joshua Tree, and
General Biological Resource Assessment for a
304-acre± Site (APN 0599-191-49) in the Community of Joshua Tree,
San Bernardino County, California

(U.S. Geological Survey 7.5' Joshua Tree North quadrangle, Township 11 North, Range 6 East, a portion of the Eastern ½ of Section 11, S.B.B.&M.)

Job#: 21-036

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I hereby certify that the statements furnished herein, including attached exhibits, present the data and information required for this biological evaluation, and that the facts, statements, and information presented are true and correct to the best of my knowledge and belief. Field work conducted for this assessment was performed by me or under my direct supervision. I certify that I have not signed a nondisclosure or consultant confidentiality agreement with the project applicant or applicant's representative and that I have no financial interest in the project.

Circle Mountain Biological Consultants, Inc.
Author and Field Investigator: Edward L. LaRue, Jr.

December 2021

Figure 1. JT304: Vicinity Map

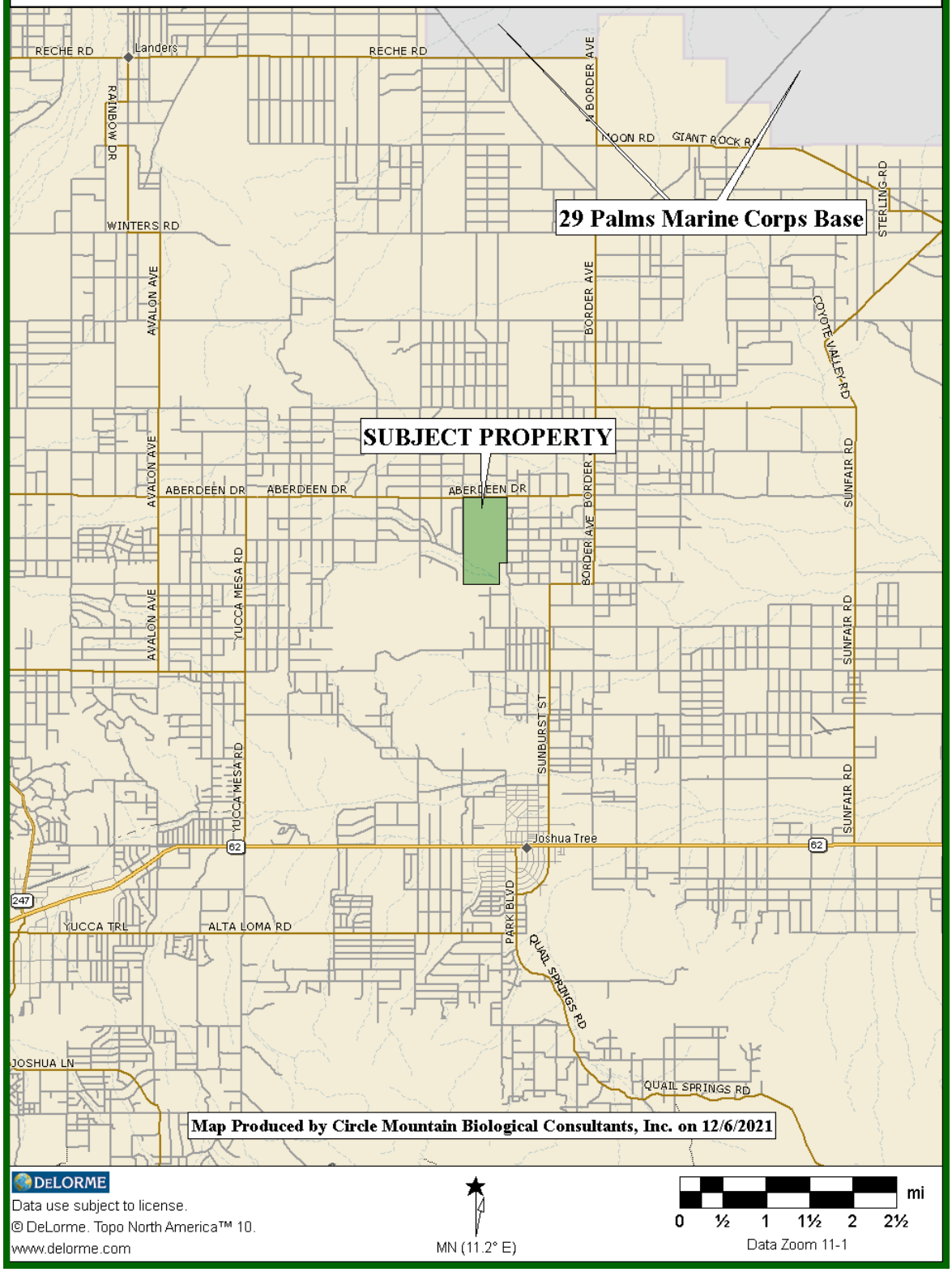


Figure 2a. JT304: Site Map with Tortoise Sign Locations

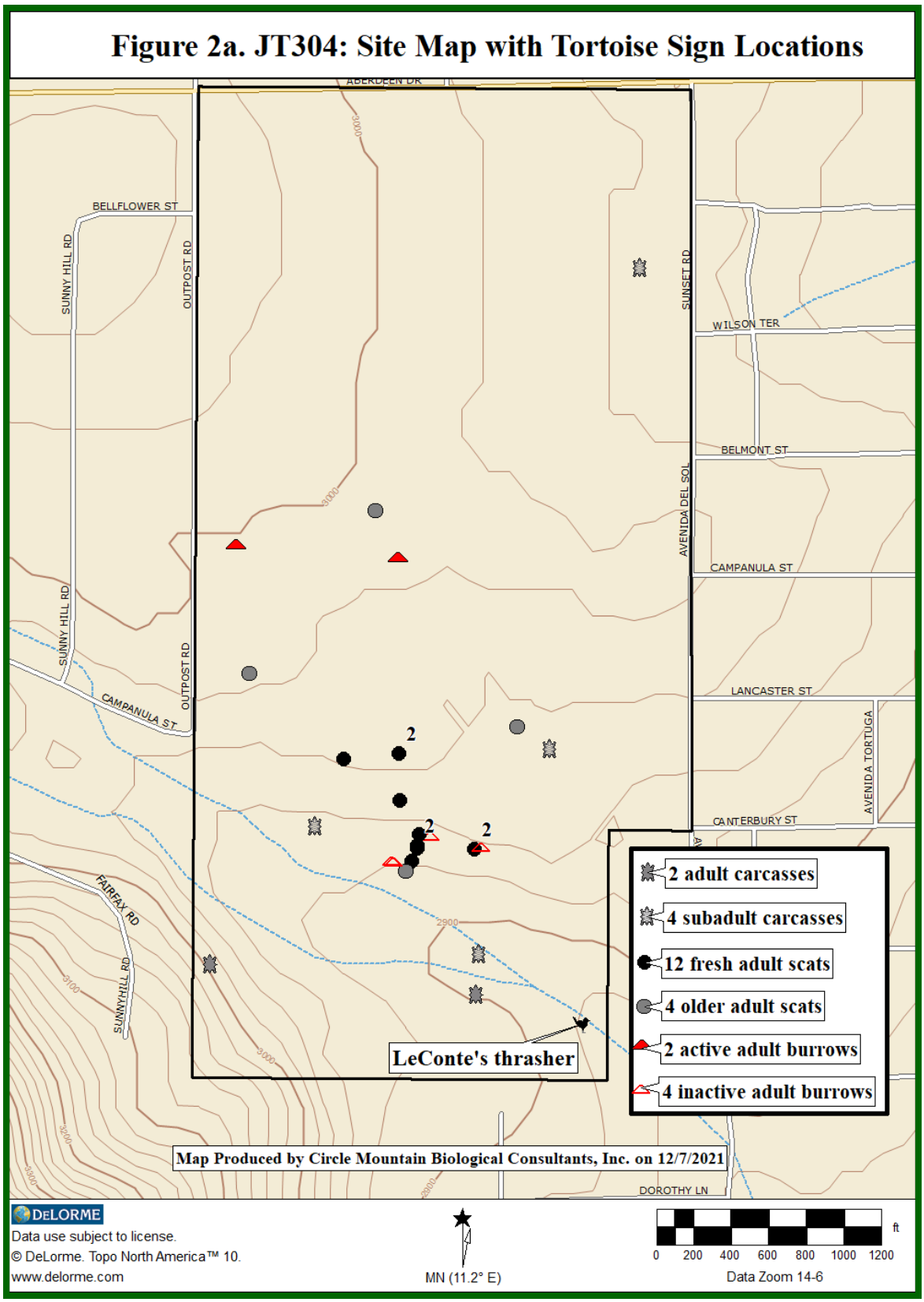


Figure 2b. JT304: Locations of 179 Joshua Trees and 11 Larger Creosote Bush Rings

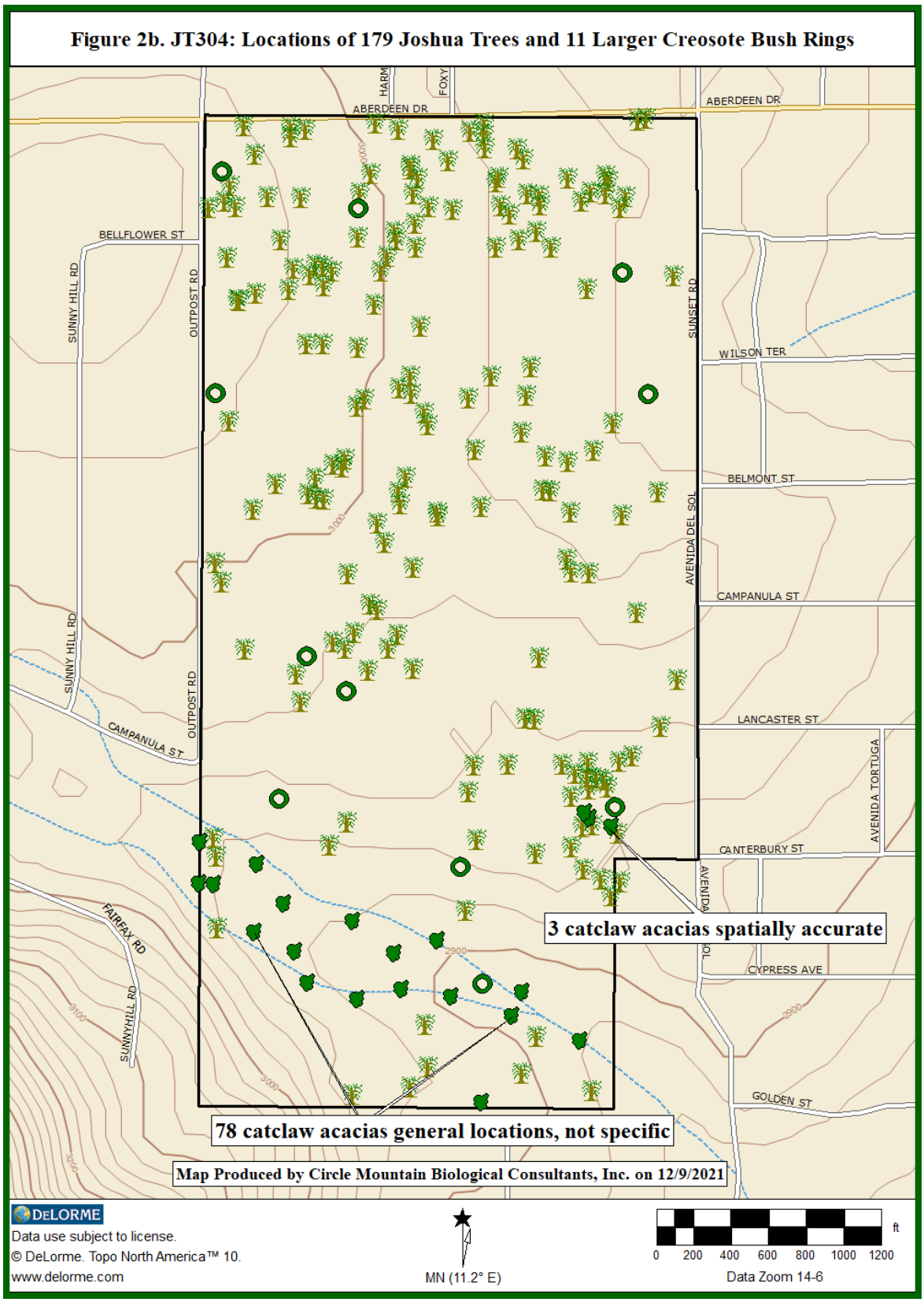


Figure 3. Results of 16 Tortoise Surveys in the Area between 1993 and 2021

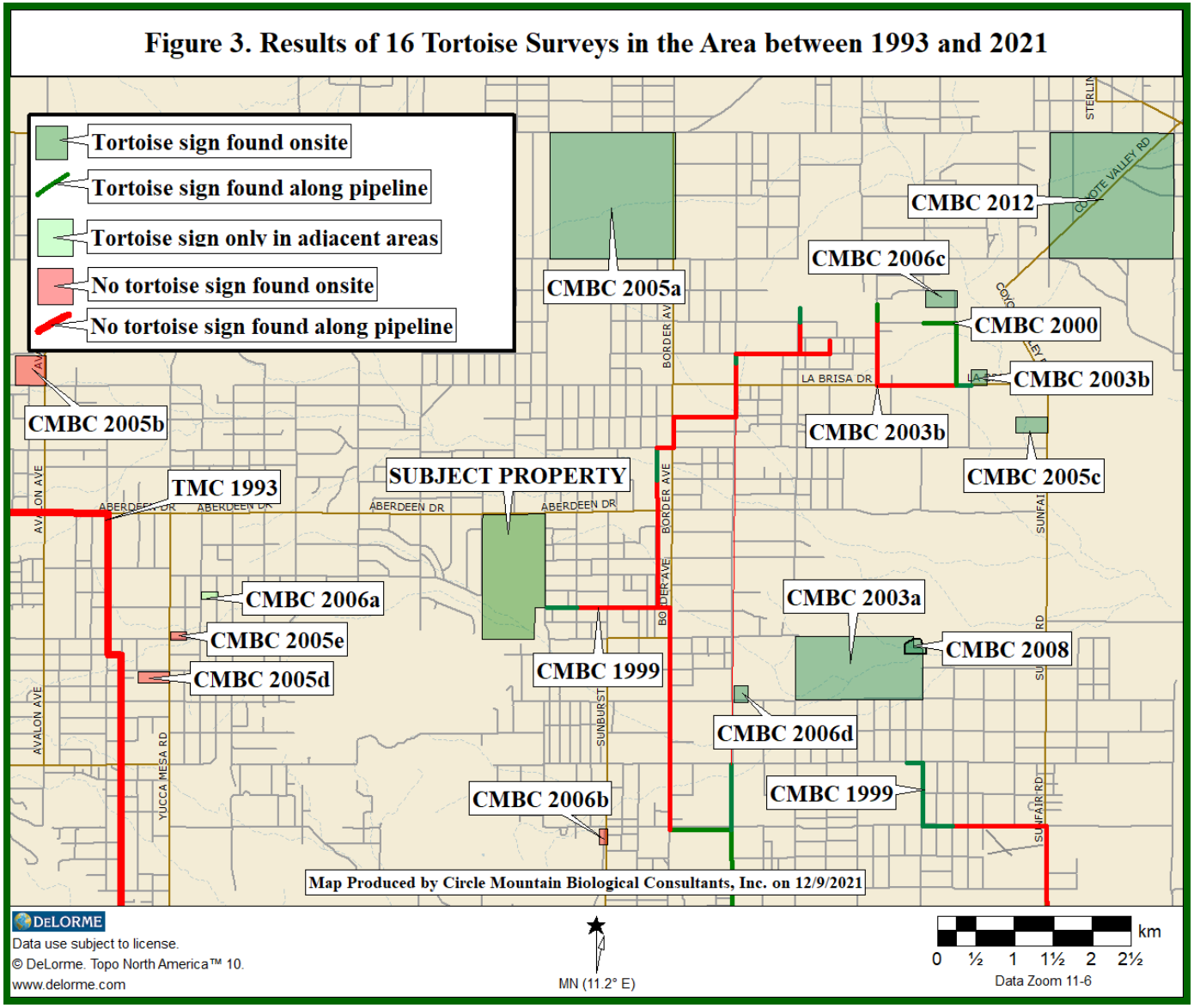
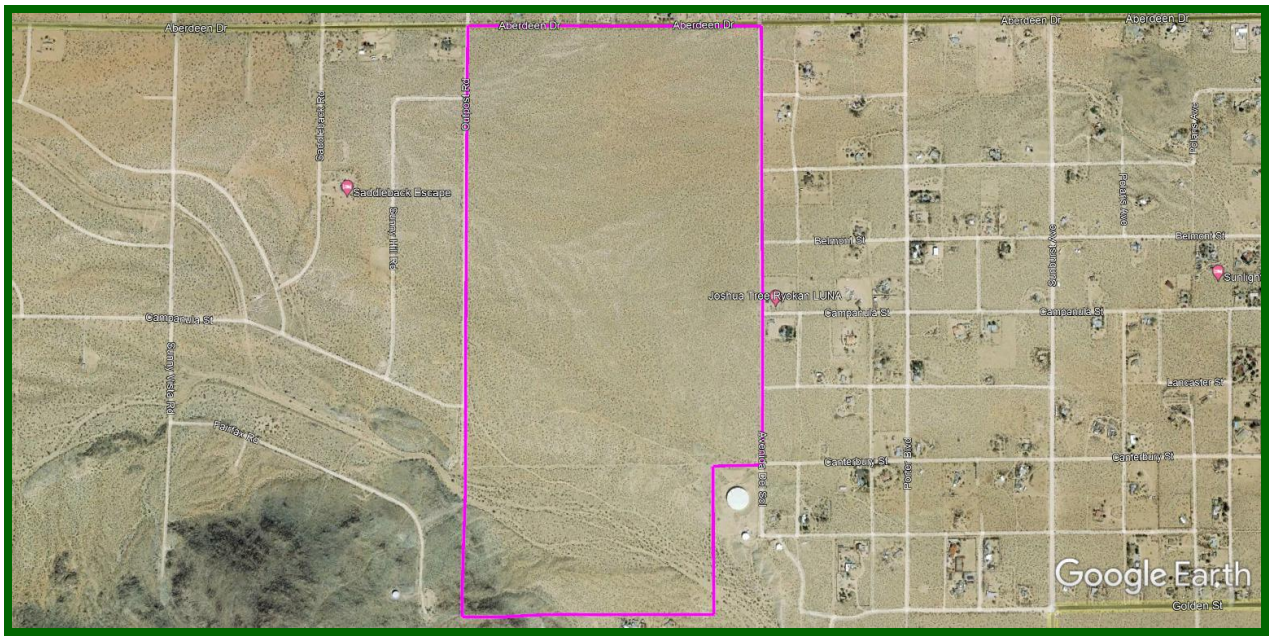
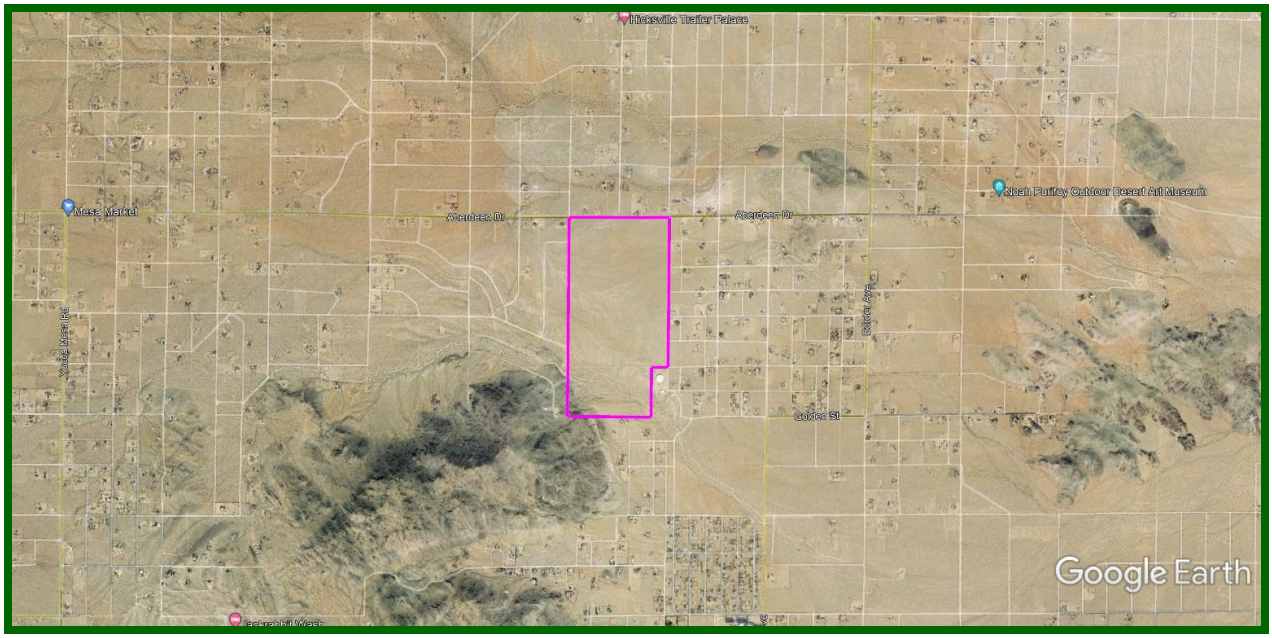


Figure 4. JT304: Aerial Photograph (©2021Google Earth)



Enlarged aerial view from approximately 12,660 feet altitude (Image date: 9/18/2018)



Regional aerial view from approximately 31,700 feet altitude.

Executive Summary

Circle Mountain Biological Consultants, Inc. was contracted by JT304, LLC to perform a focused survey for Agassiz's desert tortoise, habitat assessment for burrowing owl, and a general biological resource assessment on APN 0599-191-49, which is a 304-acre± parcel located southeast of the junction of Aberdeen Drive along the north boundary and Outpost Drive along the west boundary in the unincorporated community of Joshua Tree, San Bernardino County, California. The Proponent plans to complete a parcel split of the property, dividing the parcel into 15 lots, ranging from 10 to 65 acres per lot. The legal description for the subject property is Township 1 North, Range 6 East, a portion of the Eastern ½ of Section 11, S.B.B.&M.

For a total of 68 hours, between 6 and 8 December 2021, Ed LaRue and Sharon Dougherty of CMBC and subcontractors, Patricia Seamount and Ellen Schafhauser, surveyed the site as described herein. This entailed a survey of 160 transects, spaced at 10-meter (30-foot) intervals and oriented in an east-west direction throughout the 304-acre± parcel.

Based on DeLorme Topo USA® 10.0 software, elevations on the subject property range from approximately 935 meters (3,070 feet) at the southwest corner down to 895 meters (2,940 feet) at the northeast corner. Terrain is variable, ranging from flat on the north half, to hilly on the south half, including mountainous areas on the southwest corner that are part of Bartlett Mountains. As such, soils range from being very sandy in the washes running northwest-to-southeast on the southern quarter of the site to boulder outcrops in the mountainous areas to the southwest. The two southern washes are USGS-designated blueline streams. The 72 plant species identified during the survey are listed in Appendix A. The 6 reptile, 17 bird, and 7 mammal species identified during the survey are listed in Appendix B.

Based on the presence of tortoise burrows and scats, less so carcasses, CMBC concludes that Agassiz's desert tortoise occurs or has recently occurred on the site. The distribution suggests that tortoises are more likely to occur on the southern half of the site than the northern half, but habitats are suitable throughout and given tortoise's mobility, they could be found anywhere on the site at the time of development.

We note that whereas the parcel split is a discretionary paper transaction that will not result in imminent and direct impacts to tortoises and habitats, it does facilitate the eventual loss of tortoises when ministerial permits are issued for grading, for example. We expect that the County will ensure that tortoises are not lost as the result of any of their authorizations, and will inform all future residents that tortoises are protected.

Based on the field survey and habitat assessment, CMBC concludes that each of the following special status species reported from the region could occur on the subject property and eventually be affected by site development: LeConte's thrasher, loggerhead shrike, prairie falcon, Swainson's hawk, Cooper's hawk, northern harrier, golden eagle, and kit fox. At the time of this survey, burrowing owl is presumed to be absent. Additional concerns are expressed relative to protected desert plants (Joshua tree, Mohave yucca, catclaw acacia, silver cholla, hedgehog cactus, beavertail cactus, and larger creosote bush rings), streambed alteration, and protecting of nesting birds.

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**Focused Survey for Agassiz's Desert Tortoise,
Habitat Evaluation for Burrowing Owl and Joshua Tree, and
General Biological Resource Assessment for a
304-acre± Site (APN 0599-191-49) in the Community of Joshua Tree,
San Bernardino County, California**

1.0. Introduction

1.1. Purpose and Need for Study. Circle Mountain Biological Consultants, Inc. (CMBC) was contacted by Temil Marmon on behalf of JT304, LLC (Proponent) to perform a focused survey for Agassiz's desert tortoise (*Gopherus agassizii*), habitat assessment for burrowing owl (*Athene cunicularia*), and a general biological resource assessment on a 304-acre± site located in San Bernardino County, California (see Figures 1 and 2). Given the location of the site in an unincorporated portion of the county, this report has been prepared, in part, according to County of San Bernardino's *Report Protocol for Biological Assessment Reports* (County of San Bernardino 2006).

As the California Environmental Quality Act (CEQA) Lead Agency, the County of San Bernardino, Public and Support Services Group, Land Use Services Department, Advance Planning Division (County) is required to complete an initial study to determine if site development will result in any adverse impacts to rare biological resources. The information may also be useful to federal and State regulatory agencies, including U.S. Fish and Wildlife Service (USFWS) and California Department of Fish and Wildlife (CDFW), respectively, if the Lead Agency asks them to assess impacts associated with proposed development. Results of CMBC's focused tortoise survey, burrowing owl habitat assessment, and general biological resource assessment are intended to provide sufficient baseline information to these agencies to determine if significant impacts will occur and to identify mitigation measures, if any, to offset those impacts.

1.2. Project Description. APN 0599-191-49 is a 304-acre± parcel located southeast of the junction of Aberdeen Drive along the north boundary and Outpost Drive along the west boundary in the unincorporated community of Joshua Tree, San Bernardino County, California. The Proponent plans to complete a parcel split of the property, dividing the parcel into 15 lots, ranging from 10 to 65 acres per lot. The legal description for the subject property is Township 1 North, Range 6 East, a portion of the Eastern ½ of Section 11, S.B.B.&M.

2.0. Methods

2.1. Literature Review. CMBC consulted materials included in our library to determine the nearest tortoise locations and other special status plant and animal species that have been reported from the vicinity of the subject property. Of relevance given their proximity to the subject property are 15 focused tortoise surveys completed on 15 sites, located immediately east of the subject property (CMBC 1999) and 4.5 miles northeast of the parcel CMBC 2012), between 1993 (Tierra Madre Consultants, Inc. 1993) and 2012 (CMBC 2012), which, along with the subject property, are mapped in Figure 3. These and other materials used in the completion of this report are listed in Section 5.0, below.

2.2. Field Survey.

2.2.1. *Survey and Habitat Assessment Protocols*. A significant paper was published in June 2011 (Murphy et al. 2011) whereby the "desert tortoise" of the Mojave Desert was split into two species, including *Gopherus agassizii*, referred to as "Agassiz's desert tortoise," and a newly described species, *G. morafkai*, referred to as "Morafka's desert tortoise," which occurs in the Sonoran Desert. According to Murphy et al. (2011), "…this action reduces the distribution of *G. agassizii* to only 30% of its former range. This reduction has important implications for the conservation and protection of *G. agassizii*, which may deserve a higher level of protection." Then in 2016 (Edwards et al. 2016), a third species of tortoise was described, referred to as the "Goode's Thornscrub Tortoise" (*Gopherus evgoodei*), which further reduced the perceived range of Morafka's desert tortoise. Agassiz's desert tortoise is the threatened species that occurs in the region surrounding the subject property.

For **Agassiz's desert tortoise**, CMBC followed the presence-absence survey protocol first developed by the USFWS in 1992 and recently revised in 2019. USFWS (2019) protocol recommends surveying transects at 10-meter (30-foot) intervals throughout all portions of a given parcel and its associated action area. The *action area* is defined by regulation as all areas to be affected directly or indirectly by proposed development and not merely the immediate area involved in the action (50 CFR §402.02). For this site, the action area is the same as the subject property. Since the site is smaller than 500 acres, it may be surveyed year-round but there is no opportunity to estimate the density of tortoises on the 304-acre± subject property (USFWS 2019) since no animals were observed.

For **burrowing owl**, although the formal habitat assessment does not specify a given interval to survey a site (Appendix C in CDFG 2012), subsequent breeding and nonbreeding studies identify that transects are surveyed at 7 to 20 meters (23 to 65 feet) apart, with five additional transects surveyed at 30-meter intervals out to 150 meters (500 feet) in adjacent areas in potential habitat (i.e., excluding areas substantially developed for commercial, residential, and/or industrial purposes) (Appendix D in CDFG 2012). With its narrower transect intervals, the tortoise survey is sufficient to cover the site for burrowing owl. The focus of the survey is to find and inspect all burrows sufficiently large to be used by burrowing owls. Importantly, this methodology is considered a formal *habitat assessment* for presence of burrowing owls, which can be conducted any time of the year. Had burrowing owl sign been found, which it was not, it would have then been necessary to perform breeding burrowing owl surveys during the spring and summer as outlined in CDFG (2012).

For **Joshua tree**, in October 2020, the California Fish and Game Commission accepted as complete a petition to list Joshua tree as a California Endangered Species. The Commission had a year to consider the petition and publish its determination, which was in October 2021, and has been extended another six months to make the decision. To provide data requested in a December 2020 letter from San Bernardino County to a client in the community of Joshua Tree, CA, LaRue recorded locations of 179 Joshua trees using a Garmin GPS unit, which has a horizontal accuracy of 2 to 3 meters. Additional

information taken for each tree included number of trunks, height(s), range of heights from the shortest to tallest trunks, and a general health assessment of poor, moderate, or good based on the color of leaves (i.e., spikes), necrosis on the leaves, posture (i.e., erect versus leaning), dead versus live branches on each tree, and adherence of bark to the trunk(s). The tabulated information for each Joshua tree is included in Appendix E.

2.2.2. *Field Survey Methods*. For a total of 68 hours, between 6 and 8 December 2021, Ed LaRue and Sharon Dougherty of CMBC and subcontractors, Patricia Seamount and Ellen Schafhauser, surveyed the site as described herein. This entailed a survey of 160 transects, spaced at 10-meter (30-foot) intervals and oriented in an east-west direction throughout the 304-acre± parcel. Since tortoise sign was found onsite and a parcel split is a paper transaction that will not result in immediate impacts to tortoises and other species, no peripheral transects were surveyed. Copies of CMBC's data sheets completed in the field and USFWS' (2019) pre-project survey data sheet are included in this report (see Appendix C).

As the site was surveyed, LaRue kept tallies of observable human disturbances encountered on the 45 transects he surveyed. The results of this method provide *encounter rates* for observable human disturbances. For example, two roads observed on each of 10 transects would yield a tally of 20 roads (i.e., two roads encountered 10 times). Habitat quality, adjacent land uses, and this disturbance information are discussed below in Section 3.2 relative to the potential occurrence of Agassiz's desert tortoise and other special status species on and adjacent to the subject property.

Weather conditions recorded at the beginning and ending of the survey included temperatures measured approximately 5 centimeters (2 inches) above the ground, percent cloud cover, and wind speeds measured by a hand-held Kestrel® weather and wind speed meter, as reported in Table 1.

Table 1. Weather Summary Data for the Survey

Date 2021	Begin to End = Total hours*	Weather Conditions	
		Beginning	Ending
12/6	1000 to 1545 = 21 hrs	75°F, 1 ↑ 2 mph, 90% cloud	69°F, 6 ↑ 8 mph, 100% cloud
12/7	0730 to 1615 = 36 hrs	51°F, 1 ↑ 3 mph, 100% cloud Light rain for several hours	61°F, Calm, 100% cloud
12/8	0715 to 1000 = 11 hrs	46°F, 3 ↑ 6 mph, 5% cloud	64°F, 1 ↑ 3 mph, 0% cloud

All plant and animal species identified during the survey were recorded in field notes. A Garmin® hand-held, global positioning system (GPS) unit was used to survey straight transects and record Universal Transverse Mercator (UTM) coordinates (North American Datum – NAD 83) for property boundaries, rare species locations, and other pertinent information (Appendix C). A digital camera was used to take representative photographs (Appendix D), with locations and directions of exhibits shown in Figure 5. ©2021Google™ Earth was accessed via the internet to provide recent aerial photographs of the subject property and surrounding areas (Figure 4).

3.0. Results

3.1. Common Biological Resources. The common plant and animal species identified during the survey are listed in Appendices A and B, respectively. Based on DeLorme Topo USA® 10.0 software, elevations on the subject property range from approximately 935 meters (3,070 feet) at the southwest corner down to 895 meters (2,940 feet) at the northeast corner. Terrain is variable, ranging from flat on the north half, to hilly on the south half, including mountainous areas on the southwest corner that are part of Bartlett Mountains. As such, soils range from being very sandy in the washes running northwest-to-southeast on the southern quarter of the site to boulder outcrops in the mountainous areas to the southwest. The two southern washes are USGS-designated blueline streams.

3.1.1. *Common Flora*. The 72 plant species identified during the survey are listed in Appendix A. Level portions of the site to the north and hilly areas to the south are vegetated by Mojavean creosote bush scrub, where dominant species include creosote bush (*Larrea tridentata*), burrobush (*Ambrosia dumosa*), Nevada joint-fir (*Ephedra nevadensis*), desert tea (*Ephedra californica*), white rhatany (*Krameria bicolor*), desert senna (*Senna armata*), Mohave yucca (*Yucca schidigera*), and Joshua tree (*Yucca brevifolia*). The following species are either restricted to washes or nearly so: cheesebush (*Ambrosia salsola*), four-winged saltbush (*Atriplex canescens*), catclaw acacia (*Senegalia greggii*), sandpaper plant (*Petalonyx thurberi*), and rayless encelia (*Encelia fructescens*). And, the following plants are mainly found in mountainous areas include Parish's goldeneye (*Viguiera parishii*), desert aster (*Xylorhiza tortifolia*), brittlebush (*Encelia farinosa*), matchweed (*Gutierrezia sarothrae*), desert tobacco (*Nicotiana obtusifolia*), and thick-leaf ground cherry (*Physalis crassifolia*).

3.1.2. *Common Fauna.* The 6 reptile, 17 bird, and 7 mammal species identified during the survey are listed in Appendix B. Given the wintertime survey, only two reptiles were observed, including common side-blotched lizard (*Uta stansburiana*) and Mojave rattlesnake (*Crotalus scutulatus*), the latter of which is usually dormant this time of year, and the two observed were likely responding to unseasonably warm temperatures and rain. Those detected by diagnostic scats included desert spiny lizard (*Sceloporus magister*), desert horned lizard (*Phrynosoma platyrhinos*), and common chuckwalla (*Sauromalus obesus*), which were only detected on the lower slopes of Bartlett Mountains. Other locally common reptile species that likely occur include zebra-tailed lizard (*Callisaurus draconoides*), long-nosed leopard lizard (*Gambelia wislizenii*), desert night lizard (*Xantusia vigilis*), red racer (*Masticophis flagellum*), glossy snake (*Arizona elegans*), gopher snake (*Pituophis melanoleucus*), long-nosed snake (*Rhinocheilus lecontei*), and various rattlesnake species (*Crotalus* ssp.).

The 17 bird species include those tolerant of or benefitted by human development, including common raven (*Corvus corax*), rock dove (*Columba livia*), house finch (*Carpodacus mexicanus*), northern mockingbird (*Mimus polyglottos*), and American kestrel (*Falco sparverius*). Great-horned owl (*Bubo virginianus*) and ladder-backed woodpecker (*Picoides scalaris*) are present due to the prevalence of Joshua trees, and verdin (*Auriparus flavipes*), phainopepla (*Phainopepla nitens*), and Gambel's quail (*Geococcyx californianus*) are most common in wash areas.

The seven mammal species also include those that are relatively tolerant of human presence, including kangaroo rat (*Dipodomys* sp.), desert woodrat (*Neotoma lepida*), black-tailed hare (*Lepus californicus*), Audubon cottontail (*Sylvilagus audubonii*), bobcat (*Lynx rufus*), and coyote (*Canis latrans*).

3.2. Uncommon Biological Resources.

3.2.1. *Agassiz's Desert Tortoise*. When tortoise sign is found, the County (2006) suggests that the following information be included in technical reports: (a) the number of individuals observed onsite and off-site during this survey; (b) an estimate of the total population present both on and off-site; and (c) exact locations of tortoise sign on a habitat map. Positive evidence of Agassiz's desert tortoise found during this survey is mapped in Figure 2a and included (in descending order of occurrence): 12 recent scats of adult tortoises, 4 older scats of adult tortoises, 4 inactive burrows of adult tortoises, 4 subadult tortoise carcasses (mostly fragments), 2 adult tortoise carcasses, and 2 active burrows of adult tortoises. Given that no tortoises were found, there is no opportunity to apply the USFWS (2019) formula to estimate the number of adult tortoises on the subject property. Given the spatial distribution of tortoise sign, its freshness, and size of scats and burrows, we expect that a minimum of two tortoises and perhaps three currently reside on the subject property.

Encounter rates for observable human disturbances included (in descending order of prevalence) 293 off-highway vehicle (OHV) tracks, 92 dirt roads/trails, 48 dump sites, 31 domestic dog signs, 25 shot gun shells, 5 skeet shooting areas, 4 rifle shells, and 3 miscellaneous shooting targets. OHV tracks range from just a few isolated incidences along transects on the north half of the site to as many as 22 tracks per transect to the south, along the two blueline streams. This is also reflected in the number of dirt roads/trails, where there are no roads to the north with as many 10 roads per transect near the southern border and blueline streams. Dumping is also more common to the south because of more roads and because of hills that conceal this illegal activity.

As depicted in Figure 2a, CMBC personnel have surveyed 15 sites within approximately four miles of the subject property. Tortoise sign was found on the one site to the north (CMBC 2005a) and all seven sites to the east (see green polygons in Figure 2a). The three sites to the west, the one to the south (CMBC 2006b), and portions of pipelines where not tortoise signs were found (red polygons and lines in Figure 2a) share the common characteristic of being in residential neighborhoods.

With the publication of the Bureau of Land Management's (BLM) Record of Decision (BLM 2016), the Desert Renewable Energy Conservation Plan (DRECP) revised the 1980 California Desert Conservation Area Plan (CDCA Plan; BLM 1980) in significant ways for the conservation and recovery of desert tortoises in the California Deserts. Although desert tortoise critical habitat was not changed (USFWS 1994a), Desert Wildlife Management Areas (DWMAs; USFWS 1994b) and Multiple Use Classes on BLM lands were eliminated. In addition to critical habitat, the two main designated areas under the DRECP CDCA Plan amendment that provide for tortoise conservation and recovery are Areas of Critical Environmental Concern (ACECs) and California Desert National Conservation Lands (CDNCLs). The subject property is not found within any of these conservation areas.

3.2.2. *Other Special Status Species*. U.S. Fish and Wildlife Service (2008), California Department of Fish and Wildlife [CDFW 2021a for California Natural Diversity Data Base; 2021b for Special Plant Species list; 2021c for Special Animal Species list; and California Native Plant Society (CNPS 2021)] maintain lists of animals and/or plants considered rare, threatened, or endangered, which are herein collectively referred to as "special status species." Regulatory agency-designated special status species other than desert tortoise that were identified during the current survey included LeConte's thrasher (*Toxostoma lecontei*) and kit fox (*Vulpes macrotis*).

Others that have been reported from the area on the sites in Figure 3 include loggerhead shrike (*Lanius ludovicianus*) (CMBC 2003a, 2005b, 2005c, 2005d, and TMC 1993); LeConte's thrasher (CMBC 1999, 2003a, 2005a, 2005b, and TMC 1993); prairie falcon (*Falco mexicanus*) (CMBC 1999); Swainson's hawk (*Buteo swainsoni*) (CMBC 2005a); Cooper's hawk (*Accipiter cooperii*) (CMBC 2005a); northern harrier (*Circus hudsonius*) (CMBC 2005e); and golden eagle (*Aquila chrysaetos*) (CMBC 2006c).

Burrowing owl is designated as a California Species of Special Concern by CDFW (2021c), as a Bird of Conservation Concern by the USFWS (2008), and is considered Sensitive by the BLM (CDFW 2020a). It is one of the focal species specifically sought during field surveys, and is detected by distinctive feathers, zygodactyl (x-shaped) tracks, and whitewash (fecal material deposited away from burrows may be from other bird species). Although pellets and feathers are sufficiently distinctive that they may be identified away from burrows, it is one or more of these signs at sufficiently large burrows that are the most definitive means of determining burrowing owl use of a given site.

In the case of the subject property, there was no evidence of burrowing owl. Much of the site is too densely vegetated to be suitable. Burrowing owls do not create their own burrows; rather they find existing burrows, which they may slightly modify in order to occupy. Typical existing burrows used by burrowing owls include abandoned kit fox dens, both active and inactive tortoise burrows, deeper badger digs, and inactive California ground squirrel burrows. That few such burrows were found onsite may be one of the reasons no burrowing owl sign was found. Burrowing owls have been observed or detected an unknown distance east of the site (CMBC 1999), 2.0 miles north (CMBC 2005a), 3.5 miles northeast (CMBC 2000 and 2006c), and 4.5 miles northeast (CMBC 2012). Given this information, CMBC concludes at this time that burrowing owls are absent from the site at the time of this survey.

3.3. Other Protected Biological Resources.

3.3.1. *Stream Courses*. Stream courses provide relatively important resources to animals and plants. In dry years, and particularly during prolonged drought, annual plants may only germinate in the vicinity of washes where the water table is relatively near the surface. Perennial shrubs adjacent to washes are often the only plants that produce flowers and fruit, which in turn are important to insects and the avian predators that feed on them. Shrubs also tend to be somewhat taller and denser alongside washes, which

provides cover for medium and larger sized animals that may use them as travel corridors. Biodiversity is generally enhanced by washes, and there are often both annual and perennial plants that are either restricted to or mostly associated with wash margins. There are both anecdotal accounts and published literature on washes being important to tortoises, which use them as travel corridors and access to nearby annual forage. As shown in Figures 2a, 2b, and the upper half of Figure 4 there are several well-developed streams on the southern quarter of the site, which provide exceptional resources to the region and have also been the focal point of human impacts resulting from vehicles.

3.3.2. *Protected Plant Species*. At the County level, the San Bernardino County Development Code was revised and adopted on 12 April 2007. Chapter 88.01 Plant Protection and Management, Section 88.01.020 states, "The provisions of this Chapter apply to the removal and relocation of regulated trees or plants and to any encroachment (for example, grading) within the protected zone of a regulated tree or plant on all private land within the unincorporated areas of the County and on public lands owned by the County, unless otherwise specified..."

Section 88.01.060 Desert Native Plant Protection states, "This Section provides regulations for the removal or harvesting of specified desert native plants in order to preserve and protect the plants and to provide for the conservation and wise use of desert resources…"

Section 88.01.060(c) Regulated Desert Native Plants states, "The following desert native plants or any part of them, except the fruit, shall not be removed except under a Tree or Plant Removal Permit in compliance within Section 88.01.050 (Tree or Plant Removal Permits):

(1) The following desert native plants with stems two inches or greater in diameter or six feet or greater in height:
    (A) *Dalea spinosa* (smoke tree).
    (B) All species of the genus *Prosopis* (mesquites).
(2) All species of the family *Agavaceae* (century plants, nolinas, yuccas).
(3) Creosote Rings, 10 feet or greater in diameter.
(4) All Joshua trees.
(5) Any part of the following species, whether living or dead:
    (A) *Olneya tesota* (desert ironwood).
    (B) All species of the genus *Prosopis* (mesquites).
    (C) All species of the genus *Cercidium* (palo verdes)."

At the State level, the 1998 Food and Agricultural Code, Division 23: California Desert Native Plants, Chapter 3: Regulated Native Plants, Section 80073 states: The following native plants, or any parts thereof, may not be harvested except under a permit issued by the commissioner or the sheriff of the county in which the native plants are growing:

(a) All species of the family Agavaceae (century plants, nolinas, yuccas).

(b) All species of the family Cactaceae (cacti), except for the plants listed in subdivisions (b) and (c) of Section 80072 (i.e., saguaro and barrel cacti), which may be harvested under a permit obtained pursuant to that section.

(c) All species of the family Fouquieriaceae (ocotillo, candlewood).

(d) All species of the genus *Prosopis* (mesquites).

(e) All species of the genus *Cercidium* (palo verdes).

(f) *Senegalia (Acacia) greggii* (catclaw acacia).

(g) *Atriplex hymenelytra* (desert holly).

(h) *Dalea (Psorothamnus) spinosa* (smoke tree).

(i) *Olneya tesota* (desert ironwood), including both dead and live desert ironwood.

Joshua tree, Mohave yucca, catclaw acacia, silver cholla, hedgehog cactus, beavertail cactus, and larger creosote bush rings are the plant species and resources included in one or both above lists that were observed on the subject property. The Joshua trees and larger creosote bush rings depicted in Figure 2b are accurately mapped using UTM coordinates collected in the field. The three catclaw acacia plants depicted along the eastern boundary are spatially accurate, while the 78 acacia plants depicted along the two streams are an indicator of density, not distribution.

4.0. Conclusions and Recommendations

4.1. Impacts to Agassiz's Desert Tortoise and Proposed Mitigation. Based on the presence of tortoise burrows and scats, less so carcasses, CMBC concludes that Agassiz's desert tortoise occurs or has recently occurred on the site. The distribution suggests that tortoises are more likely to occur on the southern half of the site than the northern half, but habitats are suitable throughout and given tortoise's mobility, they could be found anywhere on the site at the time of development.

Whereas USFWS survey protocols historically indicated that the results of a given survey were valid for the period of only one year (USFWS 2010 and 2018), according to the revised, 2019 USFWS pre-project survey protocol, "*If the survey data are more than a year old, we encourage project proponents to contact us at the earliest possible time to allow us to assess the specific circumstances under which the data were collected (e.g., time of year, drought/rainfall conditions, size and location of the site, etc.) and to discuss whether additional surveys would be appropriate. Spatial information can be provided in pdf and GIS formats*." At the time of this writing, the Palm Springs office of the USFWS would be the appropriate office to contact [(760) 322-2070] to determine if another survey should be performed prior to ground disturbance.

Regardless of survey results and conclusions given herein, tortoises are protected by applicable State and federal laws, including the California Endangered Species Act and Federal Endangered Species Act, respectively. As such, if a tortoise is found onsite at the time of construction, all activities likely to affect that animal(s) should cease and the County contacted to determine appropriate steps.

Importantly, nothing given in this report, including recommended mitigation measures, is intended to authorize the incidental take of Agassiz's desert tortoises during site development. Such authorization must come from the appropriate regulatory agencies, including CDFW (i.e., authorization under section 2081 of the Fish and Game Code) and USFWS [i.e., authorization under section 10(a)(1)(B) of the Federal Endangered Species Act].

We note also that whereas the parcel split is a discretionary paper transaction that will not result in imminent and direct impacts to tortoises and habitats, it does facilitate the eventual loss of tortoises when ministerial permits are issued for grading, for example. We expect that the County will ensure that tortoises are not lost as the result of any of their authorizations, and will inform all future residents that tortoises are protected until which time they are delisted, which is not foreseeable given recent declines (Allison and McLuckie 2018).

4.2. Impacts to Other Biological Resources and Proposed Mitigation.

4.2.1 *Other Special Status Species*. Based on the field survey and habitat assessment, CMBC concludes that each of the following special status species reported from the region could occur on the subject property and eventually be affected by site development: LeConte's thrasher, loggerhead shrike, prairie falcon, Swainson's hawk, Cooper's hawk, northern harrier, golden eagle, and kit fox. At the time of this survey, burrowing owl is presumed to be absent.

4.2.2. *Other Protected Biological Resources.*

4.2.2.a. Stream Courses. Fish and Game Code section 1602 requires any person, state or local governmental agency, or public utility to notify CDFW before beginning any activity that will do one or more of the following: (1) substantially divert or obstruct the natural flow of any river, stream or lake; (2) substantially change or use any material from the bed, channel, or bank of, any river, stream, or lake; or (3) deposit or dispose of debris, waste, or other material containing crumbled, flaked, or ground pavement where it may pass into any river, stream, or lake. Fish and Game Code section 1602 applies to all perennial, intermittent, and ephemeral rivers, streams, and lakes in the state, including many dry washes in desert regions.

The consultant will generally collect data along each potential jurisdictional stream course, including measurements of the channels; dominant plants comprising the forb, shrub, and tree strata; and photographs at regular intervals, depending on how long the course is (100-foot intervals works well). If CDFW determines that the activity may substantially adversely affect fish and wildlife resources, a Streambed Alteration Agreement will be prepared. The Agreement includes reasonable conditions necessary to protect those resources and must comply with CEQA. The proponent may proceed with the activity in accordance with the final Agreement. The form is available at https://nrm.dfg.ca.gov/FileHandler.ashx?DocumentID=3754&inline=1. The completed form is sent along with the field baseline data to CDFW, Inland Deserts Region, Streambed Alteration, 3602 Inland Empire Boulevard, Suite C-220, Ontario, California 91764.

4.2.2.b. Protected Plants. With the exception of Joshua trees and larger creosote bush rings, it is beyond the scope of this focused survey and general resource assessment to provide necessary baseline data and a proposed program to minimize and mitigate impacts to protected native desert plants. As such, there are numerous cacti, catclaw acacia, Mohave yuccas, etc. occurring throughout the site that are not specifically addressed by this report. The County may require a Desert Native Plant Assessment to identify the numbers and locations of protected plants to be in compliance with the California Native Plant Protection Act. Joshua tree, Mohave yucca, catclaw acacia, silver cholla, hedgehog cactus, beavertail cactus, and larger creosote bush rings are the plant species and resources that may be subject to pertinent development codes.

4.2.2.c. Bird Nests. Sections 3503, 3503.5, and 3513 of the California Fish and Game Code prohibit take of all birds and their active nests, including raptors and other migratory nongame birds (As listed under the Migratory Bird Treaty Act). Typically, CDFW requires that vegetation not be removed from a project site between March 15 and September 15 to avoid impacts to nesting birds. If it is necessary to commence project construction between March 15 and September 15, a qualified biologist should survey all shrubs and structures within the project site for nesting birds, prior to project activities (including construction and/or site preparation).

Surveys should be conducted at the appropriate time of day during the breeding season, and surveys would end no more than three days prior to clearing. CDFW is typically notified in writing prior to the start of the surveys. Documentation of surveys and findings should be submitted to the CDFW within ten days of the last survey. If no nesting birds were observed project activities may begin. If an active bird nest is located, the plant in which it occurs should be left in place until the birds leave the nest. No construction is allowed near active bird nests of threatened or endangered species.

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Appendix A. Plant Species Detected

The following plant species were identified on-site during the focused floral inventory described in this report. Protected plant species are highlighted in red and signified by "(PPS)" following the common names.

GNETAE	GNETAE
Ephedraceae	**Joint-fir family**
Ephedra californica	Desert tea
Ephedra nevadensis	Nevada joint-fir
Ephedra viridis	Green joint-fir
ANGIOSPERMAE: DICOTYLEDONES	DICOT FLOWERING PLANTS
Asteraceae	**Sunflower family**
Adenophyllum cooperi	Adenophyllum
Ambrosia acanthicarpa	Annual bur-sage
Ambrosia dumosa	Burrobush
Ambrosia salsola	Cheesebush
Bebbia juncea	Sweetbush
Chaenactis fremontii	Desert pincushion
Encelia farinosa	Brittlebush
Encelia fructescens	Rayless encelia
Gutierrezia sarothrae	Matchweed
Stephanomeria pauciflora	Desert milk aster
Tetradymia stenolepis	Mohave horsebrush
Viguiera parishii	Parish's goldeneye
Xylorhiza tortifolia	Desert aster
Boraginaceae	**Borage family**
Amsinckia tessellata	Fiddleneck
Cryptantha angustifolia	Narrow-leaved forget-me-not
Cryptantha micrantha	Mountain red root
Cryptantha nevadensis	Nevada forget-me-not
Cryptantha pterocarya	Wing-nut forget-me-not
Brassicaceae	**Mustard family**
**Brassica tournefortii*	Saharan mustard
**Descurainia sophia*	Flixweed
Lepidium fremontii	Bush peppergrass
**Sisymbrium altissimum*	Tumble mustard

Cactaceae	**Cactus family**
Cylindropuntia echinocarpa	Silver cholla (PPS)
Cylindropuntia ramosissima	Pencil cholla (PPS)
Echinocactus polycephalus	Cottontop cactus (PPS)
Echinocereus engelmannii	Hedgehog cactus (PPS)
Opuntia basilaris	Beavertail cactus (PPS)
Chenopodiaceae	**Goosefoot family**
Atriplex canescens	Four-winged saltbush
Krascheninnikovia lanata	Winterfat
Cleomaceae	**Caper family**
Peritoma (*Isomerus*) *arborea*	Bladderpod
Cucurbitaceae	**Gourd family**
Cucurbita palmata	Coyote gourd
Euphorbiaceae	**Spurge family**
Ditaxis neomexicana	Ditaxis
Euphorbia polycarpa	Sandmat
Fabaceae	**Pea family**
Psorothamnus arborescens	Indigo bush
Senegalia (*Acacia*) *greggii*	Catclaw acacia (PPS)
Senna armata	Senna
Geraneaceae	**Geranium family**
**Erodium cicutarium*	Red-stemmed filaree
Krameriaceae	**Krameria family**
Krameria (*grayi*) *bicolor*	White rhatany
Lamiaceae	**Mint family**
Salvia columbariae	Chia
Sambucus nigra ssp. *caerulea* (*Salazaria mexicana*)	Paper-bag bush
Loasaceae	**Stick-leaf family**
Petalonyx thurberi	Sandpaper plant
Malvaceae	**Mallow family**
Sphaeralcea ambigua	Desert mallow
Onagraceae	**Evening-primrose family**
Chylismia (*Camissonia*) *claviformis*	Brown-eyed primrose
Eremothera (*Camissonia*) *boothii*	Red primrose
Nyctaginaceae	**Four o'clock family**
Mirabilis (*bigelovii*) *laevis*	Desert wishbone plant

Polemoniaceae	**Phlox family**
Eriastrum c.f. *sapphirinum*	Woolly star
Loeseliastrum matthewsii	Sunbonnets
Polygonaceae	**Buckwheat family**
Chorizanthe brevicornu	Brittle spineflower
Chorizanthe rigida	Rigid spineflower
Eriogonum deflexum	Desert skeleton weed
Eriogonum fasciculatum	California buckwheat
Eriogonum gracile	Buckwheat
Eriogonum inflatum	Desert trumpet
Eriogonum nidularium	Whiskbroom
Solanaceae	**Nightshade family**
Datura wrightii	Jimsonweed
Lycium andersonii	Anderson's box-thorn
Lycium cooperi	Peach thorn
Nicotiana obtusifolia	Desert tobacco
Physalis crassifolia	Thick-leaf ground-cherry
Viscaceae	**Mistletoe family**
Phorodendron californicum	Mesquite mistletoe
Zygophyllaceae	**Caltrop family**
Fagonia laevis	Fagonia
Larrea tridentata	Creosote bush
ANGIOSPERMAE: MONOCOTYLEDONES	MONOCOT FLOWERING PLANTS
Liliaceae	**Lily family**
Yucca brevifolia	Joshua tree (PPS)
Yucca schidigera	Mojave yucca (PPS)
Poaceae	**Grass family**
**Bromus madritensis* ssp. *rubens*	Red brome
**Bromus tectorum*	Cheat grass
Pleuraphis rigida	Big galleta
**Schismus* sp.	Split-grass
Stipa (*Achnatherum*) *speciosa*	Desert needlegrass

* - indicates a non-native (introduced) species.
c.f. - compares favorably to a given species when the actual species is unknown.

Some species may not have been detected because of the seasonal nature of their occurrence. Common names are taken from Beauchamp (1986), Hickman (1993), Jaeger (1969), and Munz (1974).

Appendix B. Animal Species Detected

The following animal species were detected during the general biological inventory described in this report. Special status animal species are highlighted in red and signified by "(SSA)" following the common names.

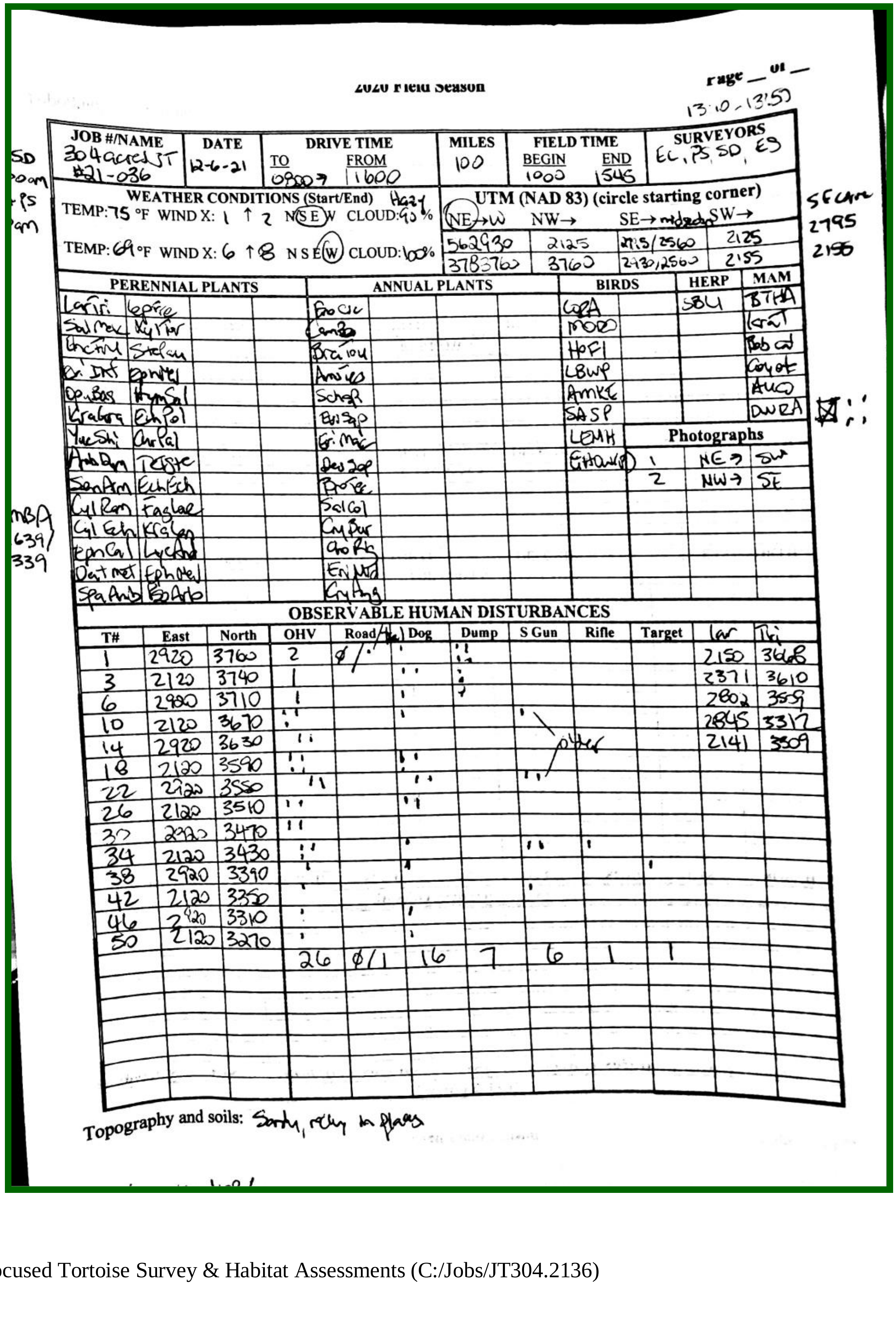
REPTILIA	REPTILES
Testudinidae	**Land tortoises**
Gopherus agassizii	Agassiz's desert tortoise (SSA)
Iguanidae	**Iguanids**
Sauromalus obesus	Common chuckwalla
Sceloporus magister	Desert spiny lizard
Uta stansburiana	Common side-blotched lizard
Phrynosoma platyrhinos	Desert horned lizard
Viperidae	**Vipers**
Crotalus scutulatus	Mojave rattlesnake
AVES	BIRDS
Falconidae	**Falcons**
Falco sparverius	American kestrel
Phasianidae	**Grouse and quail**
Callipepla gambelii	Gambel's quail
Columbidae	**Pigeons and doves**
Columba livia	Rock dove
Zenaida macroura	Mourning dove
Cuculidae	**Cuckoos**
Geococcyx californianus	Greater roadrunner
Strigidae	**Typical owls**
Bubo virginianus	Great horned owl
Camprimulgidae	**Nightjars**
Chordeiles acutipennis	Lesser nighthawk
Picidae	**Woodpeckers**
Picoides scalaris	Ladder-backed woodpecker
Corvidae	**Crows and jays**
Corvus corax	Common raven

Remizidae	**Verdins**
Auriparus flavipes	Verdin
Troglodytidae	**Wrens**
Campylorhynchus brunneicapillus	Cactus wren
Mimidae	**Mockingbirds and thrashers**
Mimus polyglottos	Northern mockingbird
Toxostoma lecontei	LeConte's thrasher (SSA)
Ptilogonatidae	**Silky flycatchers**
Phainopepla nitens	Phainopepla
Emberizidae	**Sparrows, warblers, tanagers**
Amphispiza bilineata	Black-throated sparrow
Amphispiza belli	Sage sparrow
Fringillidae	**Finches**
Carpodacus mexicanus	House finch
MAMMALIA	MAMMALS
Leporidae	**Hares and rabbits**
Lepus californicus	Black-tailed hare
Sylvilagus audubonii	Audubon cottontail
Heteromyidae	**Pocket mice**
Dipodomys sp.	Kangaroo rat
Cricetidae	**Rats and mice**
Neotoma lepida	Desert wood rat
Canidae	**Foxes, wolves and coyotes**
Canis latrans	Coyote
Vulpes macrotis	Kit fox (SSA)
Felidae	**Cats**
Lynx rufus	Bobcat

Nomenclature follows Stebbins, *A Field Guide to Western Reptiles and Amphibians* (2003), third edition; Sibley, National Audubon Society, the Sibley Guide to Birds (2000), first edition; and Ingles, Mammals of the Pacific States (1965), second edition.

Appendix C. Field Data Sheets Completed on December 6, 7, and 2021

The USFWS and County recommend that consultants include copies of the data collected in the field from which the results and conclusions given in their reports are derived. As such, below and on the following pages are copies of the data sheets completed by Ed LaRue on December 6, 7, and 8 2021.



2020 Field Season

Page __ of __

13:10 - 13:50

JOB #/NAME	DATE	DRIVE TIME TO	DRIVE TIME FROM	MILES	FIELD TIME BEGIN	FIELD TIME END	SURVEYORS
304 acre JT #21-036	12-6-21	0800 →	1600	100	1000	1545	EL, PS, SD, ES

WEATHER CONDITIONS (Start/End) Hazy

TEMP: 75 °F WIND X: 1 ↑ 2 N S E W CLOUD: 95 %

TEMP: 69 °F WIND X: 6 ↑ 8 N S E W CLOUD: 100%

UTM (NAD 83) (circle starting corner)

NE→W	NW→	SE→ midpoint	SW→
562930	2125	2725/2560	2125
3783760	3760	2930/2560	2155

PERENNIAL PLANTS		ANNUAL PLANTS	BIRDS	HERP	MAM
Lar tri	Lep fre	Ero cic	CORA	SBU	BTJA
Sal mex	Ky Par	Cam bo	MODO		Krat
Enc fri	Ste lan	Bra tou	HOFI		Bob cat
Am. dum?	Eph vir	Ams ies	LBWP		Coyote
Op. bas	Hym sal	Sch par	AMKE		AUCO
Krameria	Eri pol	Eri sap	SASP		DWRA
Yuc shi	Chr pal	Gr. mac	LEMH		
Amb dum	Tetra	Des sop	GHOW		
Sen Arm	Ech Eng	Pec rec			
Cyl ram	Fag lae	Sal col			
Cyl ech	Kra gra	Cry bur			
Eph cal	Lyc and	Geo ch			
Dat met	Eph nev	Eri mu			
Spa amb	Ers arb	Cry ang			

Photographs: 1 NE → SW; 2 NW → SE

OBSERVABLE HUMAN DISTURBANCES

T#	East	North	OHV	Road/ Trail	Dog	Dump	S Gun	Rifle	Target	Lar	Tri
1	2920	3760	2	ø/						2150	3668
3	2120	3740								2371	3610
6	2920	3710								2802	3559
10	2120	3670								2845	3317
14	2920	3630						other		2141	3309
18	2120	3590									
22	2920	3550									
26	2120	3510									
30	2920	3470									
34	2120	3430									
38	2920	3390									
42	2120	3350									
46	2920	3310									
50	2120	3270									
			26	ø/1	16	7	6	1	1		

Topography and soils: Sandy, rocky in places

1210-1310

JOB #/NAME	DATE	DRIVE TIME TO	DRIVE TIME FROM	MILES	FIELD TIME BEGIN	FIELD TIME END	SURVEYORS
JT304	12/7/21	0700			7:30		EZ, SD, PS, ES

WEATHER CONDITIONS (Start/End) lt Rain

TEMP: 51 °F WIND X: 1 ↑ 3 N S (E) W CLOUD: 60%

TEMP: °F WIND X: ↑ N S E W CLOUD: %

UTM (NAD 83) (circle starting corner)

NE→	NW→	SE→	SW→

PERENNIAL PLANTS	ANNUAL PLANTS	BIRDS	HERP	MAM
PluRi	ChaFre	GAQU	MaJS	DWRA
IsoAb	CryMic	RORO	DESPCS	KFox
AmaBr	LasMat	CORA	(FR)	(7m)
	EriDef	BTSP		
	EupBl	(17B)		
	AdeLa			
	ChoBre			

Photographs

Dump	2348 / 2691	

(2) TY16	2577 /	2828	TY16	2485 / 2528	(2) 2484 /	2533 = 2 TY16	(B) 240x1.0 + Poor	2442 / 2509	
(B) 200x0.3 x Poor		2806 /	2549	(B) 220x0.25 x F	2588 /	2532	MTY14	2476 / 2508	
(8) 320x1.0 + x Ø		2450 /	2996	(C) 120 MtoT 1-4	2316 /	2563	MTY15	2487 / 2551	
(C) SA<1	2698 /	2691	TY17 (m)	2364 / 2672	TY18	2455 /	2606	TY18	2453 / 2692
MTY16	2414	3075	(B) 200x0.5 x S	2187 / 3015		MTY16	2210 /	2809	MTY12	2647 / 2726

OBSERVABLE HUMAN DISTURBANCES

T#	East	North	OHV	Road	Dog	Dump	S Gun	Rifle	Target	Lar	Tri	Caldaw
54	2120	3210	I							2292	2384	2789 /
58	2920	3180	I	I			II			2357	2828	2600
62	2120	3130		I		II				2249	2659	2754 /
66	2920	3090	I	I	I	I				2178	2643	2624
70	2120	3050		I		II				2545	2545	2746 /
74	2920	3010	II	I	I	I	II					2633
78	2120	2970	IIII	III	I	I	I					2121 /
82	2920	2930	6	II		I						2581
86	2120	2890	7	III		I						2143 /
90	2920	2850	4	II	I							2812
94	2120	2810	4	II	I		II recent (8)					2120 /
98	2920	2770	7	II								2514
102	2120	2730	2	II	II	III						
106	2920	2690	9	IIII		III						
110	2120	2650	9	IIII		IIII						
114	2920	2610	14	IIII	I	III	III	II				
118	2120	2580	23	IIII		IIII	IIII					
122	2790	2530	13	IIII		II	III					
			107	45	8	34	18	2				

Notch = 2790E 2560N

1st shot ones (at T# 122)

Topography and soils:

2021 Field Season

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JOB #/NAME	DATE	DRIVE TIME		MILES	FIELD TIME		SURVEYORS
		TO	FROM		BEGIN	END	
JT304	12/17/21 Cont		1630	14		1615	

WEATHER CONDITIONS (Start/End)	UTM (NAD 83) (circle starting corner)			
	NE→	NW→	SE→	SW→
TEMP: 61 °F WIND X: Calm N S E W CLOUD: 100 %			2795	2120
TEMP: °F WIND X: ↑ N S E W CLOUD: %			2155	2155

PERENNIAL PLANTS	ANNUAL PLANTS	BIRDS	HERP	MAM
MinAg	BroMad	CAWR(H)	DeHeCo)	DuRA
PacFor	AmbAca	PHAN	Chuck	
NicRed				
EnFray				
EnAdSP				
NicoOT				
AchSpe				
BebJun				
MirBig				
PhyCra				
LycCoo				
KrtThu				

Photographs

SE → NW	
SW → NE	

Beginning @ SE corner

OBSERVABLE HUMAN DISTURBANCES

T#	East	North	OHV	Road	Dog	Dump	S Gun	Rifle	Target		
126	2790	2180	10						Skeet		
130	2120	2220	25								
			35	5		1		1	2	4	

Done 2510

Certainly M Sweet 8,6,

Topography and soils:

2021 Field Season Page __ of

JOB #/NAME	DATE	DRIVE TIME TO	DRIVE TIME FROM	MILES	FIELD TIME BEGIN	FIELD TIME END	SURVEYORS
JT304	12/8/21	0700	1200	100	0715	1000	EL, SP, PS, ES

WEATHER CONDITIONS (Start/End)	UTM (NAD 83) (circle starting corner)
TEMP: 46 °F WIND X: 4 ↑5 N S E W CLOUD: 5 %	NE→ NW→ SE→ SW→
TEMP: 64 °F WIND X: 2 ↑3 N S E W CLOUD: 0 %	

PERENNIAL PLANTS	ANNUAL PLANTS	BIRDS	HERP	MAM
AtrCan	CamCla	Verd		DiMA
	DitNeo	NoMo		
	CryPte	LETH (circled) 200' N of SE		
	SisAH			

4, [illegible], 8, [illegible]

Photographs

(B) 280x1.0+x Pod 2446/2507
(C) A>4 1pc 2147/2339 (D) 75mm [illegible] <1/2 [illegible] GPA 2581/2358 MT414 2467/2491

OBSERVABLE HUMAN DISTURBANCES

T#	East	North	OHV	Road	Dog	Dump	S Gun	Rifle	Target	Lat TH	Rng
134	2790	2260	16	[illegible]						2582	2356
138	2120	2300	15	[illegible]	I	I					
142	2790	2340	20	II	[illegible]		I				
146	2120	2380	12	[illegible]	I	I					
150	2790	2420	19	[illegible]		I		Skeet	-		
154	2120	2460	21	[illegible]	I						
158	2790	2500	22	[illegible]	I	[illegible]			Target	Skeet	
			125	41	7	6	1		1		
			26	1	16	7	6	1	1	Ø	
			107	45	8	34	18	2	Ø	Ø	
			35	5	Ø	1	Ø	1	2	4	
			125	41	7	6	1	Ø	Ø	1	
			293	92	31	48	25	4	3	5	

CatClaw
8, 16, 13
13, 9, 13,
6

Topography and soils:

USFWS 2009 DESERT TORTOISE PRE-PROJECT SURVEY DATA SHEET

Date of survey: 6-8/12/2021 (day, month, year) Survey biologist(s): E L Rue, S Daugherty, B Barnard, E Scharfhauer

Site description: 34-acre site in Joshua Tree (project name and size; general location)

County: San Bernardino Quad: Joshua Tree North Location: 562775/3782560 (UTM coordinates, lat-long, and/or TRS; map datum)

Transect #: 160 Transect length: 1/2 mi Type of survey: 100% Presence absence (project area size to be surveyed; 100% coverage/probabilistic sampling)

GPS Start-point: 562930/3783760 (easting, northing, elevation in meters) Start time: ______ am/pm

GPS End-point: 562125/3782155 (easting, northing, elevation in meters) End time: ______ am/pm

Start Temp: Variable °C Weather: see report

End Temp: Variable °C

Live Tortoises

Detection number	GPS location Easting	Northing	Time	Tortoise location (*in burrow*: all of tortoise beneath plane of burrow opening, or *not in burrow*)	Approx MCL >160-mm? (*Yes, No or Unknown*)	Existing tag # and color, if present
1						
2			Ø			
3						
4						
5						
6						
7						
8						

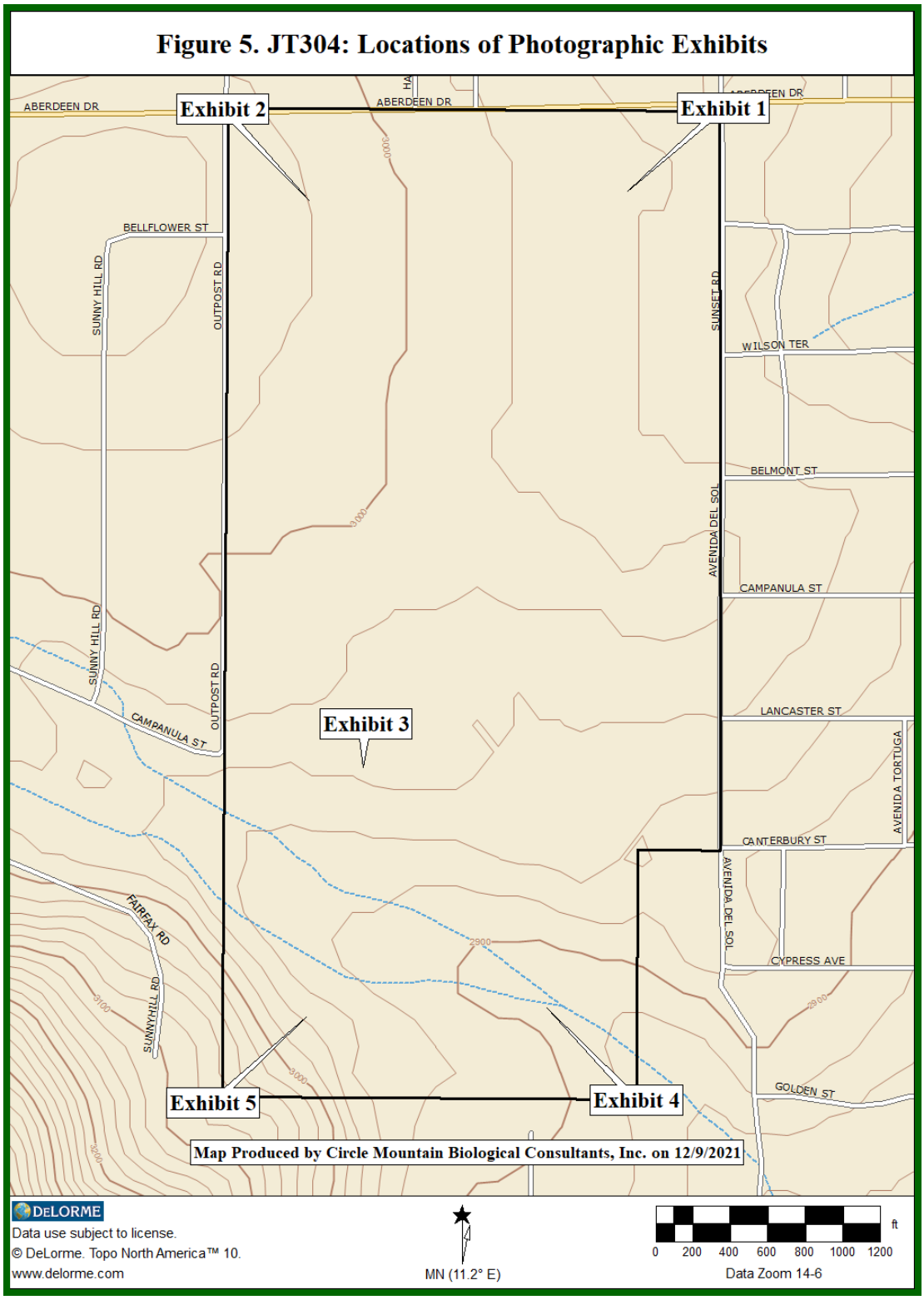
Tortoise Sign (burrows, scats, carcasses, etc)

Detection number	GPS location Easting	Northing	Type of sign (*burrows, scats, carcass, etc*)	Description and comments
1				2 adult carcasses
2				4 subadult carcasses
3		See	Report	12 fresh adult scats
4				4 older adult scats
5				4 inactive adult burrows
6				2 active adult burrows
7				
8				

Page: ____ of ____
Date of survey: ________
Transect number: ________

Appendix D. Photographic Exhibits

Figure 5. JT304: Locations of Photographic Exhibits



Locations of the five photographic exhibits on the next three pages are depicted in Figure 5.

Exhibit 1. View from the northeast corner of the parcel, facing southwest (see Figure 5 for locations and directions of photographs).

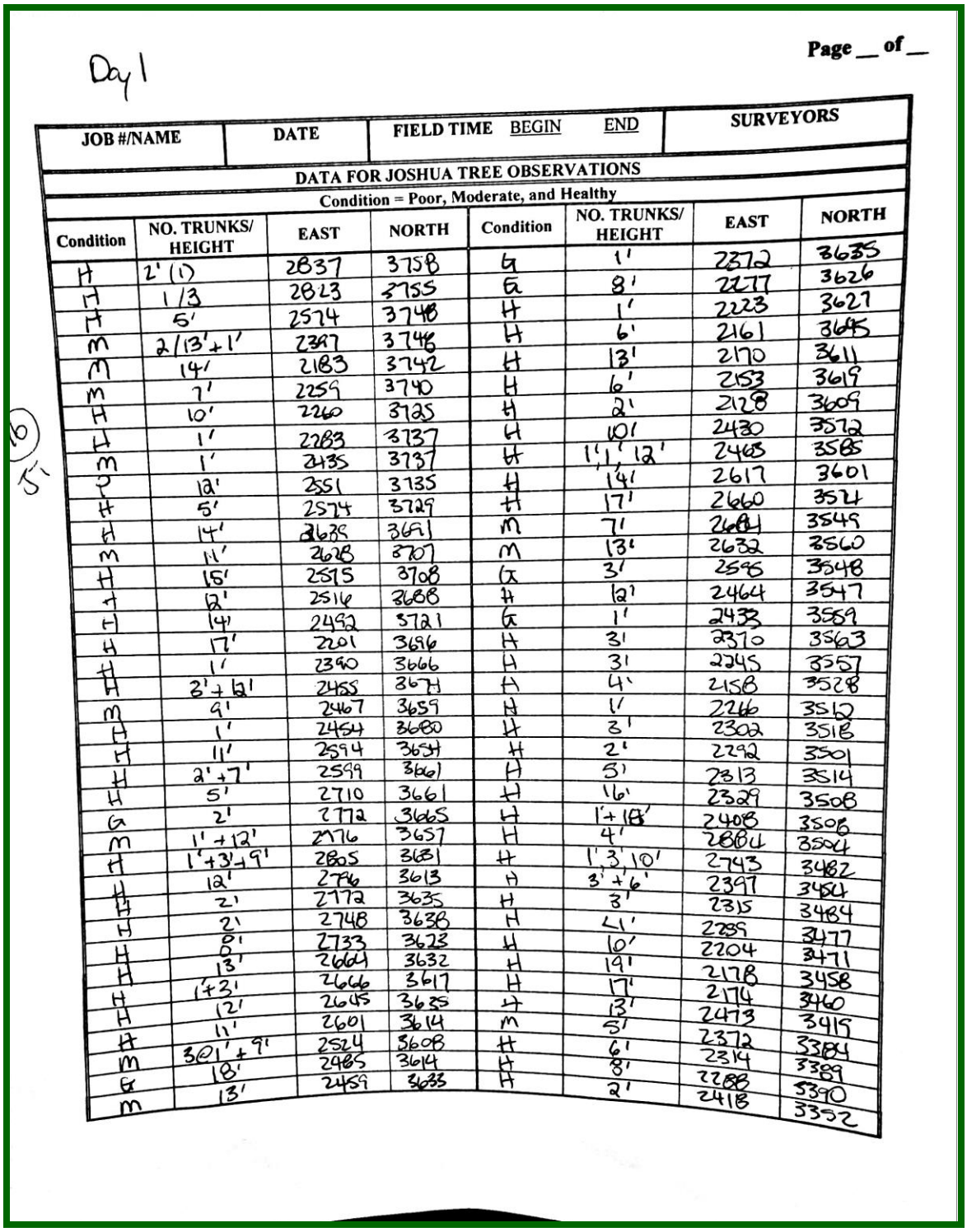
Exhibit 2. View from the northwest corner of the parcel, facing southeast.

Exhibit 3. One of the many dump sites found on the southern part of the site, facing west.

Exhibit 4. View from the southeast corner of the parcel, facing northwest.

Exhibit 5. View from the southwest corner of the parcel, facing northeast.

Appendix E. Data for Joshua Tree Observations (NAD 83)



Day 1

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JOB #/NAME	DATE	FIELD TIME BEGIN END	SURVEYORS

DATA FOR JOSHUA TREE OBSERVATIONS

Condition = Poor, Moderate, and Healthy

Condition	NO. TRUNKS/ HEIGHT	EAST	NORTH	Condition	NO. TRUNKS/ HEIGHT	EAST	NORTH
H	2' (1)	2837	3758	G	1'	2872	3635
H	1/3	2823	3755	G	8'	2277	3626
H	5'	2574	3748	H	1'	2223	3627
M	2/13'+1'	2397	3746	H	6'	2161	3685
M	14'	2183	3742	H	13'	2170	3611
M	7'	2259	3740	H	6'	2153	3619
H	10'	2260	3725	H	2'	2128	3609
H	1'	2283	3737	H	10'	2430	3572
M	1'	2435	3737	H	1',1',12'	2468	3585
H	12'	2551	3735	H	14'	2617	3601
H	5'	2574	3729	H	17'	2660	3524
H	14'	2639	3691	M	7'	2681	3549
M	11'	2628	3707	M	13'	2632	3560
H	15'	2515	3708	G	3'	2595	3548
H	12'	2516	3688	H	12'	2464	3547
H	14'	2492	3721	G	1'	2433	3589
H	17'	2201	3696	H	3'	2370	3563
H	1'	2390	3666	H	3'	2245	3557
H	3'+12'	2455	3671	H	4'	2158	3528
M	9'	2467	3659	H	1'	2266	3512
H	1'	2454	3680	H	3'	2302	3518
H	11'	2594	3654	H	2'	2292	3501
H	2'+7'	2599	3661	H	5'	2313	3514
H	5'	2710	3661	H	16'	2329	3508
G	2'	2772	3665	H	1'+18'	2408	3506
M	1'+12'	2776	3657	H	4'	2884	3504
H	1'+3'+9'	2805	3681	H	1',3',10'	2743	3482
H	12'	2796	3613	H	3'+6'	2397	3454
H	2'	2772	3635	H	3'	2315	3484
H	2'	2748	3638	H	21'	2289	3477
H	0'	2733	3623	H	10'	2204	3471
H	13'	2664	3632	H	19'	2178	3458
H	1'+3'	2666	3617	H	17'	2174	3460
H	12'	2645	3635	H	13'	2473	3419
H	11'	2601	3614	M	5'	2372	3384
M	3@1'+9'	2524	3608	H	6'	2314	3389
G	18'	2485	3614	H	8'	2288	3390
M	13'	2459	3633	H	2'	2418	3392

Day 2

Page __ of __

JOB #/NAME	DATE	FIELD TIME BEGIN END	SURVEYORS

DATA FOR JOSHUA TREE OBSERVATIONS

Condition = Poor, Moderate, and Healthy

Condition	NO. TRUNKS/ HEIGHT	EAST	NORTH	Condition	NO. TRUNKS/ HEIGHT	EAST	NORTH
H	9'	2457	3338	H	1'	2802	3116
H	5'	2589	3339	M	6'+1'	2405	3099
M	2'	2653	3354	M	1'	2417	3068
H	8'	2645	3308	H	8'	2142	3034
H	16'	2551	3304	H	1'	2463	3029
H	12'	2459	3310	H	2'	2713	3044
H	1' 8' 1'	2439	3319	H	2'	2750	3082
M	3'+1'	2383	3300	H	1'+10'	2721	3023
H	10'	2370	3285	H	13'	2357	3018
H	13'	2163	3268	H	12'	2152	3003
H	4'	2486	3259	H	15'	2393	2969
M	2'	2479	3279	H	16'	2405	2959
H	3'	2639	3249	H	10'	2828	2958
H	16'	2787	3265	H	2'	2435	2919
H	12'	2332	3195	H	1'	2369	2922
H	13'	2347	3190	H	12'	2190	2894
H	12'	2351	3204	H	14'	2334	2907
H	12'	2562	3220	H	6'	2354	2897
H	15'	2677	3210	M	9'	2424	2897
H	16'	2713	3201	H	1',1',9'	2669	2884
H	19'	2756	3220	H	5'	2894	2849
H	3'	2861	3153	H	1'	2464	2864
H	1+7	2686	3147	H	17'+13'	2391	2861
H	11'	2673	3155	H	6'	2274	2855
H	9'	2480	3174	H	2',3',11'	2282	2810
H	10'+1'	2439	3150	H	17'	2648	2786
H	11'	2304	3172	H	4'+18'	2867	2783
H	14'	2252	3147	H	1'+16'	2662	2784
M	8'	2240	3163	M	13'	2565	2709
M	13'	2203	3120	H	10'	2620	2711
H	14'	2295	3147	H	3'	2708	2711
H	12'	2305	3140	H	5'	2750	2714
H	8'	2318	3138	H	14'	2801	2717
H	9'	2342	3131	H	14'	2821	2721
H	5'	2504	3117	H	7'+1'	2782	2675
H	8'	2501	3118	H	5'	2775	2686
H	4'	2573	3128	H	10'	2764	2689
H	3'	2716	3120	H	15'	2752	2672
M	1'	2729	2697	H	1',2',8'	2748	2651
H	2'+4'	2724	2659	H	7'	2956	2466
H	2'+13'	2798	2600	H	7'	2758	2614
M	19'	2742	2586	H	1',1',8'	2742	2610
				H	12'	2358	2615

Page __ of __

JOB #/NAME	DATE	FIELD TIME BEGIN END	SURVEYORS

UTM (NAD 83)

Beginning Reference Coordinate: Joshua Tree

Mohave Fishhook Cacti

	H 20'	2147	2559	
	H 13'1'	2330	2578	
	H 11'	2570	2588	
	H 12'	2665	2566	
	H 10'1'	2724	2578	
	H 9'	2772	2525	
	H 8'1'	2744	2542	
	m 2'	2804	2521	
	H 8'	2759	2183	
	H 2'	2464	2187	
	H 1'1'13'	2371	2176	
H	1'1'11'	2493	2220	
H	6'	2646	2210	
H	6-1'+12'	2669	2270	
H	6'	2488	2268	
P	1'	2148	2443	
H	10'	2553	2474	
H	7' 10' 14'	2655	2448 + 7 pups	
H	18'	2788	2499	
	A>5 lpc		2580	2292