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11 February 2014

Ms. Julie Clemmer
Brubaker-Mann, Inc.
36011 Soap Mine Road
Barstow, California 92311

RE: Verified absence of desert tortoise on the Gold, Brown, Lilac Quarries expansion areas

Dear Ms. Clemmer,

As described in section 1.1 below, Circle Mountain Biological Consultants, Inc. (CMBC) has been contracted by Brubaker-Mann, Inc. on several occasions to provide biological baseline information and feedback on the proposed expansion of the Gold, Brown, Lilac Quarries near the unincorporated community of Yermo, San Bernardino County, California (Figure 1). The legal description for the subject property is Township 9 North, Range 1 West, a portion of the West ½ of Section 1, S.B.B.&M.

1.1. Previous Surveys. There have been three previous tortoise surveys within potential expansion areas of the subject property (Figure 2). A 72-acre site was first surveyed by CMBC biologists on 8 September 2011 (CMBC 2011), at which time tortoise sign was found throughout much of the survey area. After seeing the distribution of tortoise sign, particularly to the west and east, the proponent then enlisted CMBC biologists to survey a 38-acre area, including a portion of the original survey area, plus areas to the east and south, on 19 April 2012. A third survey of a proposed 2.0-acre expansion area to the northeast was surveyed on 15 May 2012.

Tortoise sign found during the original survey on 8 September 2011 are depicted in Figure 3a. One can see that most of the sign was found to the southwest, northeast, and east. The purpose of the 19 April 2012 survey of 38 acres and 15 May 2012 survey of 2.0 acres was to see if expansion could be reconfigured to the east, south, and northeast, respectively. Tortoise sign found during those two surveys are depicted in Figure 3b. Given all of the tortoise sign found during the three surveys (Figure 4), the proponent then decided to expand the existing quarry into the 12-acre area to the south ("Southern Area" in Figure 4) and the 2-acre area to the northeast ("Northern Area" in Figure 4). These two sites were selected for the absence of tortoise sign. Following new surveys of the two areas on 29 October 2012 by Ed LaRue and Bill Donnan to confirm that tortoise were still absent, a tortoise-proof perimeter fence was installed while being monitored by Donnan.

Figure 1. Brubaker-Mann, Inc. Gold, Brown, Lilac Quarries: Vicinity Map

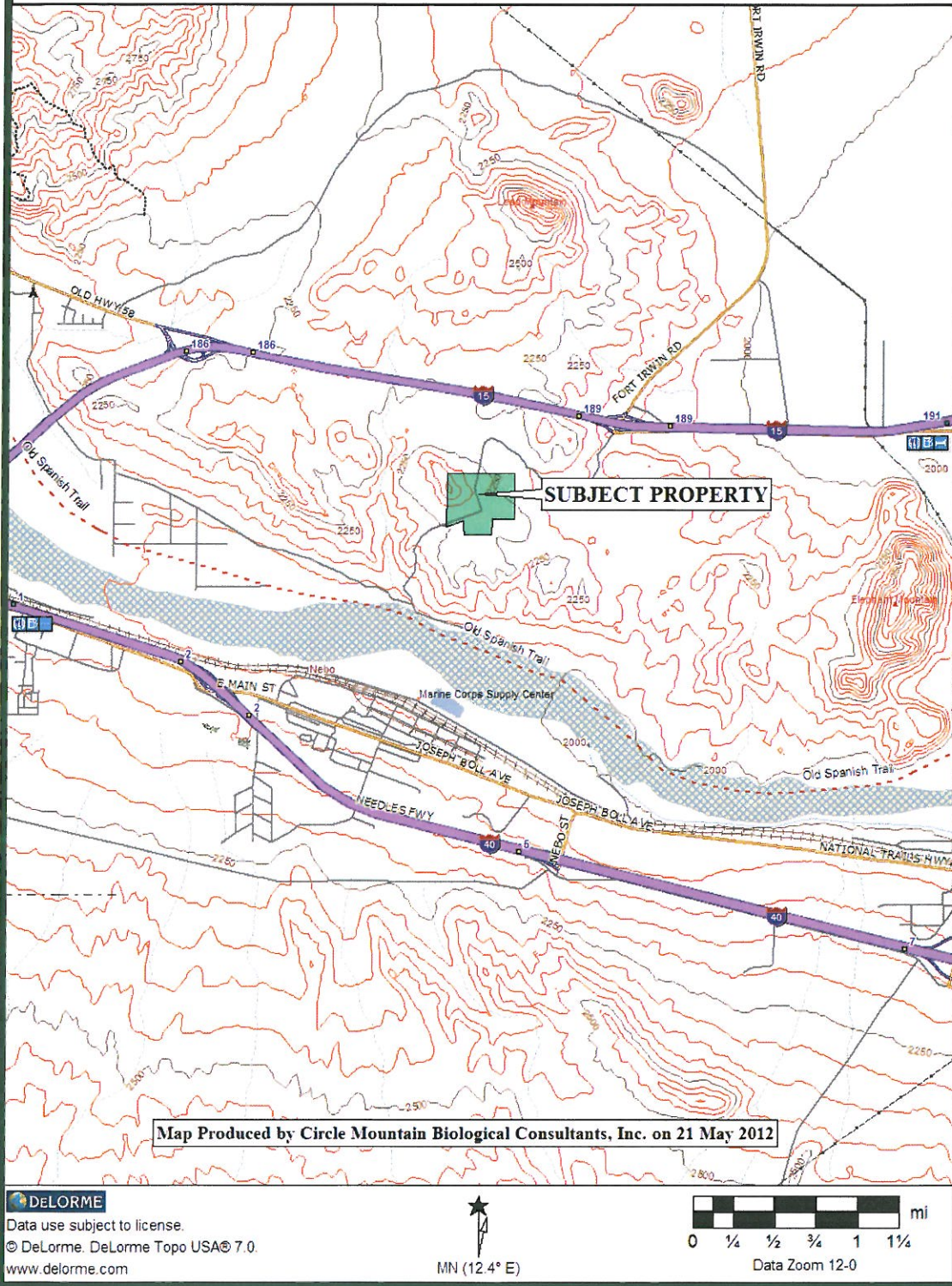


Figure 2. Brubaker-Mann, Inc. Gold, Brown, Lilac Quarries: Site Map

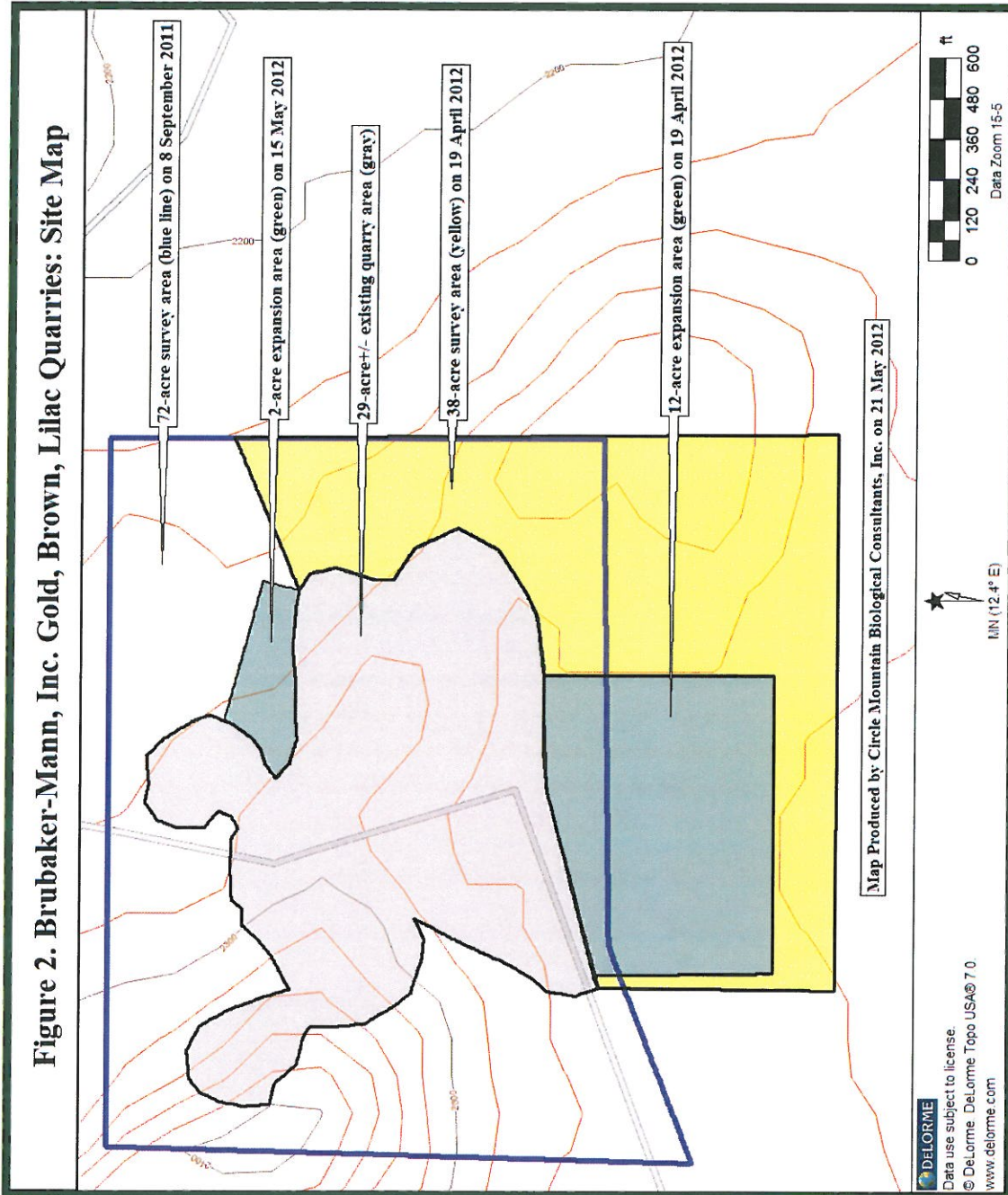


Figure 3a. Tortoise Sign Found in September 2011

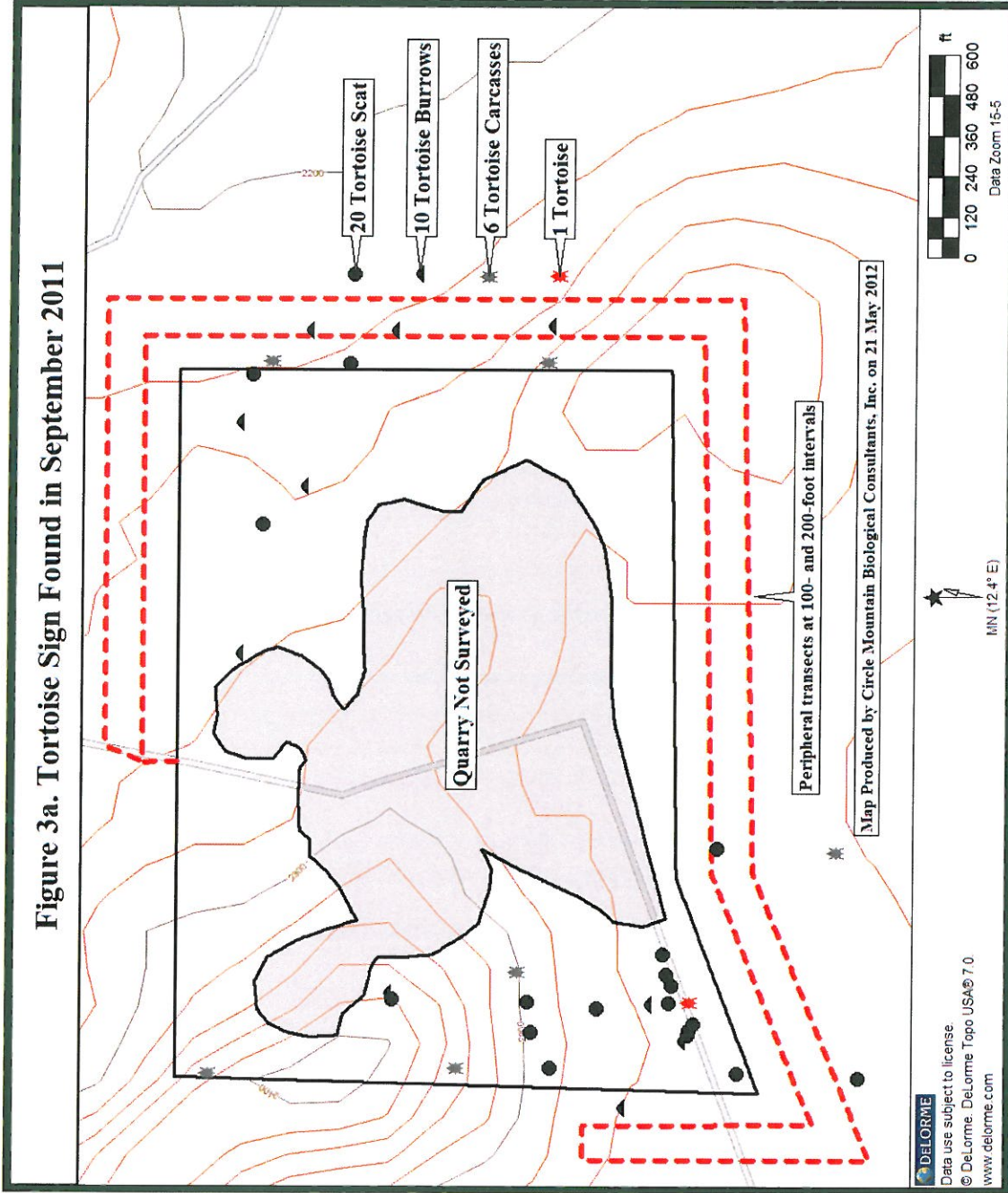


Figure 3b. Tortoise Sign Found in April and May 2012

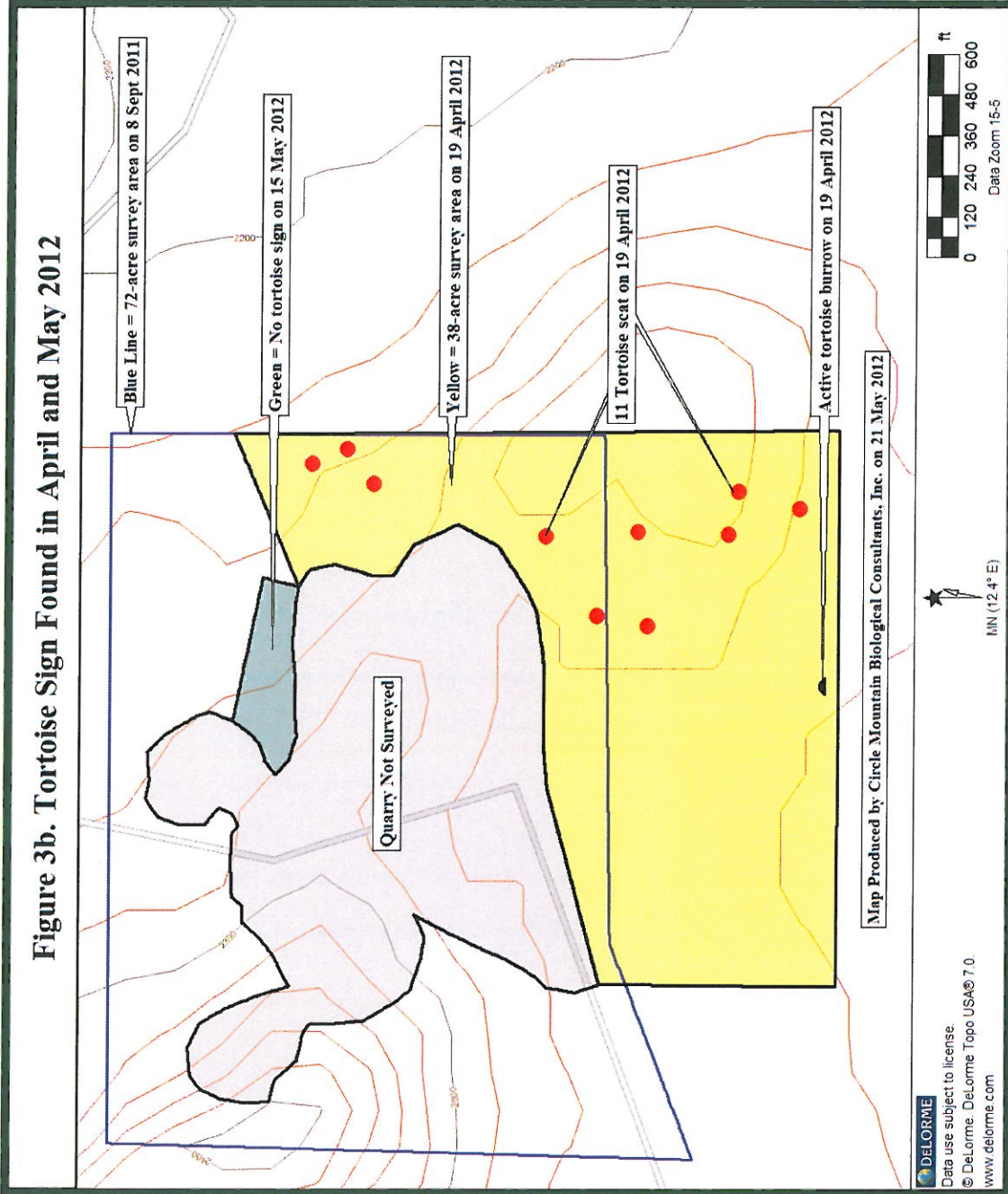
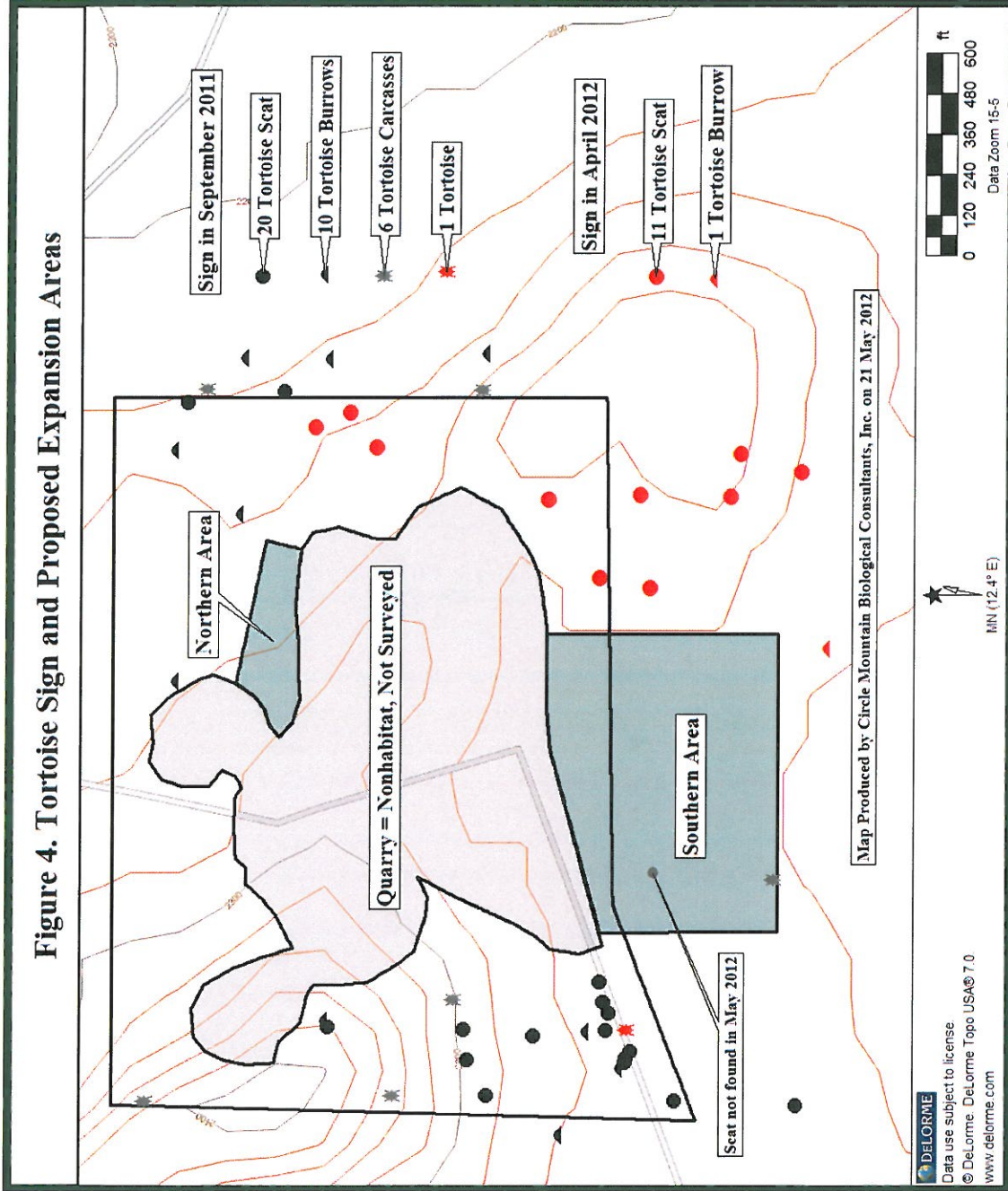


Figure 4. Tortoise Sign and Proposed Expansion Areas



1.2. Current Survey. Since the site has been surrounded by a tortoise-proof perimeter fence since late October 2012, and San Bernardino County Planning Department is completing its initial study to determine if there will be any adverse impacts to tortoises, the proponent was advised to resurvey the areas within the two fences to verify that tortoises are still absent from those areas.

These absence verification surveys were completed by LaRue and Mike Radakovich on 10 February 2014. Whereas a U.S. Fish and Wildlife Service (USFWS) presence-absence survey entails a single survey of the site (USFWS 2010), CMBC felt it was prudent to survey the sites twice, to be absolutely sure that no tortoises had entered into the areas since the fence was installed. As such, for a total of approximately 8.5 hours the two biologists surveyed each site twice along transects spaced at 10-meter (30-foot) intervals. Transects in the first pass were oriented in a north-south direction, followed immediately by the second survey along transects oriented in an east-west direction. Additional surveys were performed immediately outside the perimeter fences to see if there was any evidence that tortoises had attempted to enter the site.

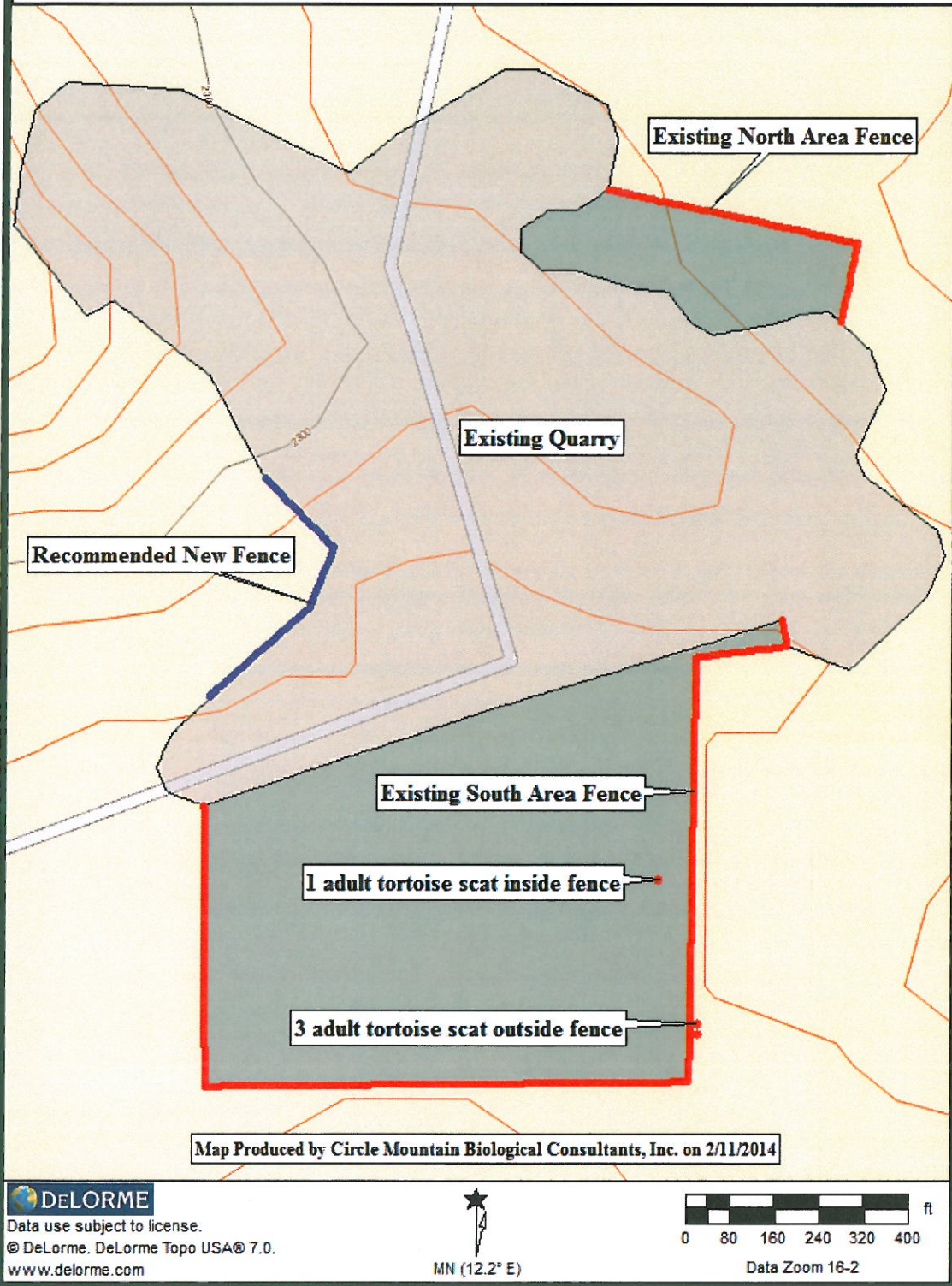
1.3. Results. The tortoise sign found on 10 February 2014 is depicted on Figure 5 and shown in Exhibits 1, 2, and 3 at the end of this letter report. As shown in the exhibits, all four of the tortoise scat found were of similar diameter and color, meaning that they were deposited by a large, adult tortoise in the spring or fall of 2013. Tortoises are well-known for traveling along fences where they may deposit scat. In this case, three of the scat near the southeast corner were still alongside the fence; the fourth scat, found approximately 50 feet inside the fence, was deposited along the fence and later blown into the site.

We conclude that the scat was blown onto the site rather than deposited there for the following reasons:

- The single scat inside the fence was the same size, shape, and color of the three scat found outside the fence.
- The scat was found approximately 50 feet inside the eastern boundary. Although the scat was approximately 265 feet from the other three scat, we surmise that it was actually deposited alongside the fence east of where it was found and that it later blew 50 feet into the site.
- No other tortoise sign was found inside the fence. Had a tortoise entered into the fenced area, it would likely have deposited other sign. The size of the scat indicate that a large, adult tortoise deposited them. Such an animal would create a burrow more than a foot wide, which would be readily detectable. In any case, there is no evidence that a tortoise is currently inside the fence.

Given the above observations, CMBC concludes that the fence has worked well to exclude tortoises from the site. The scat deposited alongside the fence indicate that an adult tortoise would have entered the area had the fence not been installed and remained intact. No gaps were observed along the fence, which will need to be monitored regularly, and particularly after rain storms, to ensure it remains intact.

Figure 5. Locations of Existing Fences, Proposed Fence, and Tortoise Sign



Following the survey, LaRue took a critical look at the locations of the fences and the likelihood that they will continue to preclude tortoises from the sites. The fence at the two-acre site seems to be well placed and is likely to preclude tortoises without further modification. There are several places at the southern, 12-acre site where the fence should be extended to provide for better protection. As shown in Exhibit 4, it is recommended that the northeast end of the fence either be extended up the berm or that a sheer wall is excavated outside the fence to preclude tortoises from entering the site around that end of the fence. There is a gap that is approximately 420 feet long on the western boundary of the 12-acre area into which a tortoise may enter the site. It is strongly recommended that this gap be fenced within the next several weeks before tortoises become active in the region.

1.4. Conclusions. Based on the results of this doubled-effort survey, CMBC concludes that the fences around both the two-acre site and the 12-acre site have functioned to preclude tortoises from the areas. The recommended extensions shown in Figure 5 and Exhibits 4, 5, and 6 should enhance the function of the existing fences.

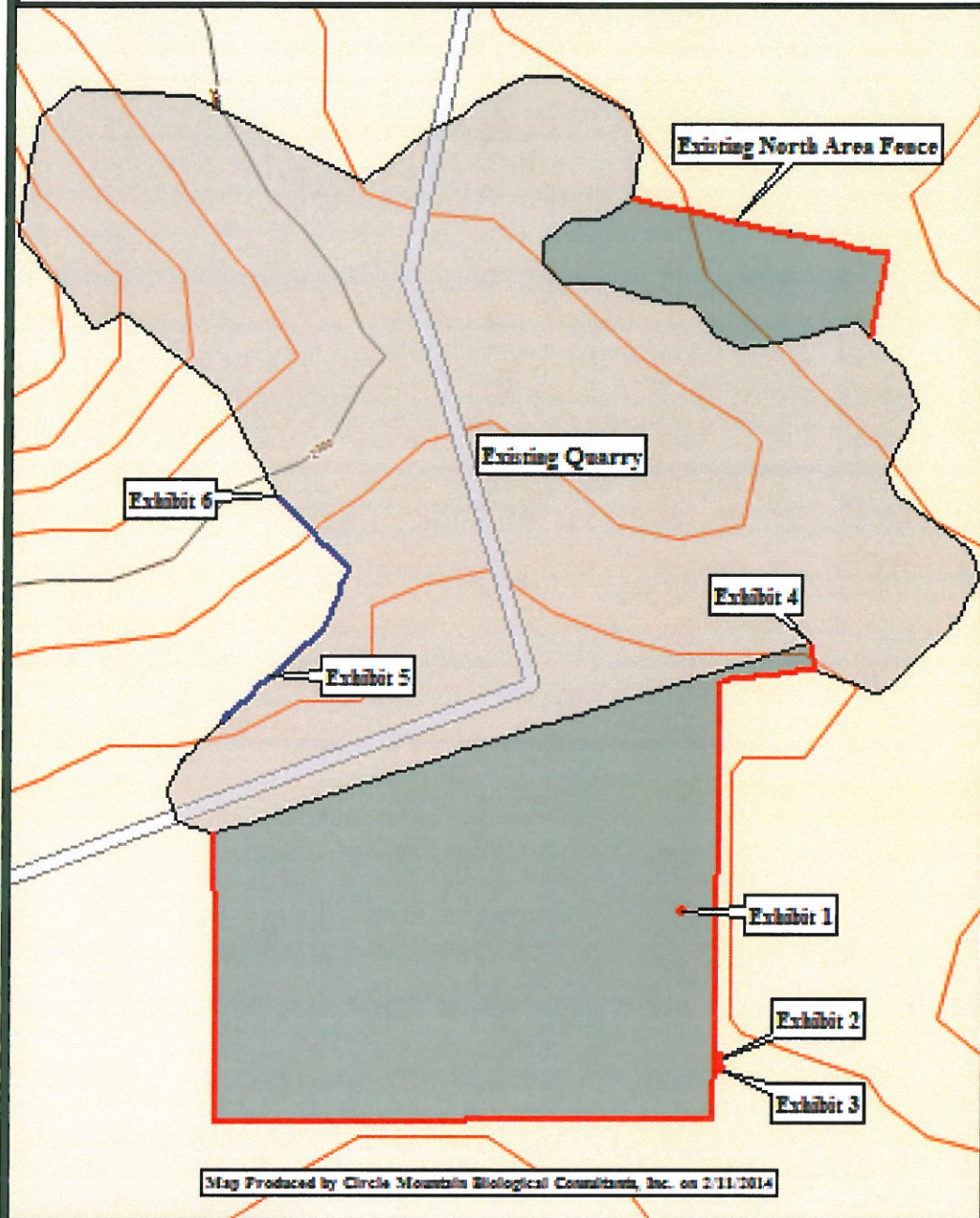
In October 2012 when the fences were installed around the two sites, all Brubaker-Mann employees received a tortoise awareness program. They were instructed to watch for tortoises along the access road to the site, and to maintain speed limits not exceeding 25 miles per hour to avoid any tortoises along the access road. They were instructed that if a tortoise is ever encountered inside the fences or in the open quarry, they are not to be handled by workers. It may be necessary to remove a portion of the fence so the tortoise may leave on its own, and it may be prudent to contact USFWS and California Department of Fish and Wildlife to see if any additional protective measures are warranted. If conscientiously implemented, the awareness program and these few protective measures should function to ensure there is no unauthorized take of tortoises at the site.

Regards,



Circle Mountain Biological Consultants, Inc.
Edward L. LaRue, Jr., M.S.
Consulting Biologist

Figure 6. Photographic Exhibit Locations



Map Produced by Circle Mountain Biological Consultants, Inc. on 2/11/2014



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0 150 300 ft
Data Zoom 16-2



Exhibit 1. Adult tortoise scat found inside south perimeter fence. (see Exhibit 6 for locations)



Exhibit 2. Adult tortoise scat found outside south perimeter fence.



Exhibit 3. Two adult tortoise scat found outside south perimeter fence.



Exhibit 4. A tortoise could come around the northeast end of the fence on 12-acre site.

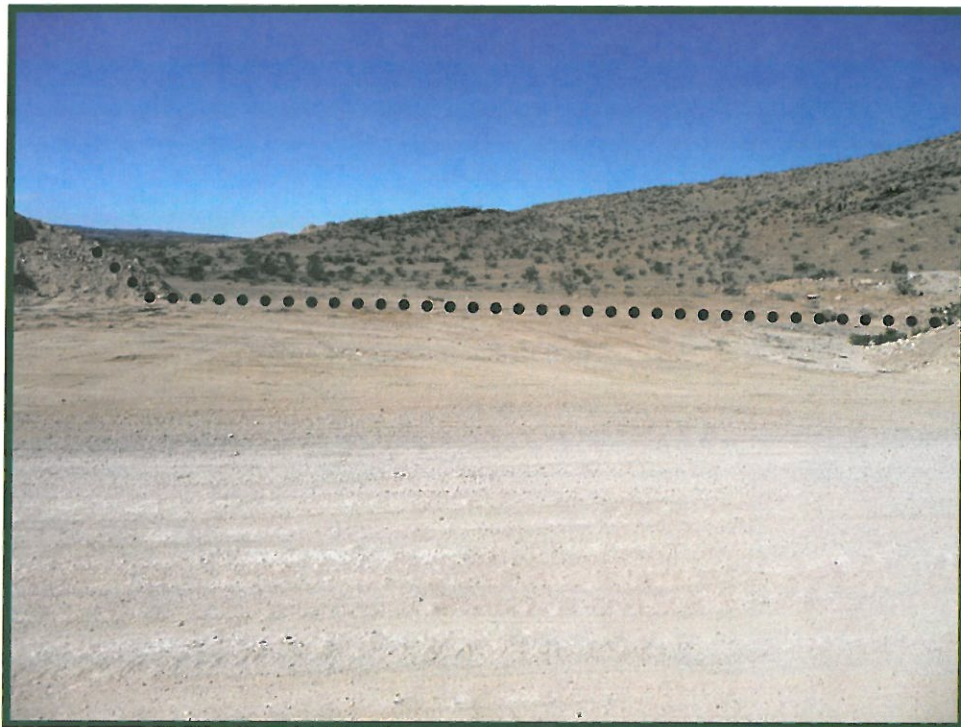


Exhibit 5. Gap along western boundary of existing quarry where a new fence is recommended.

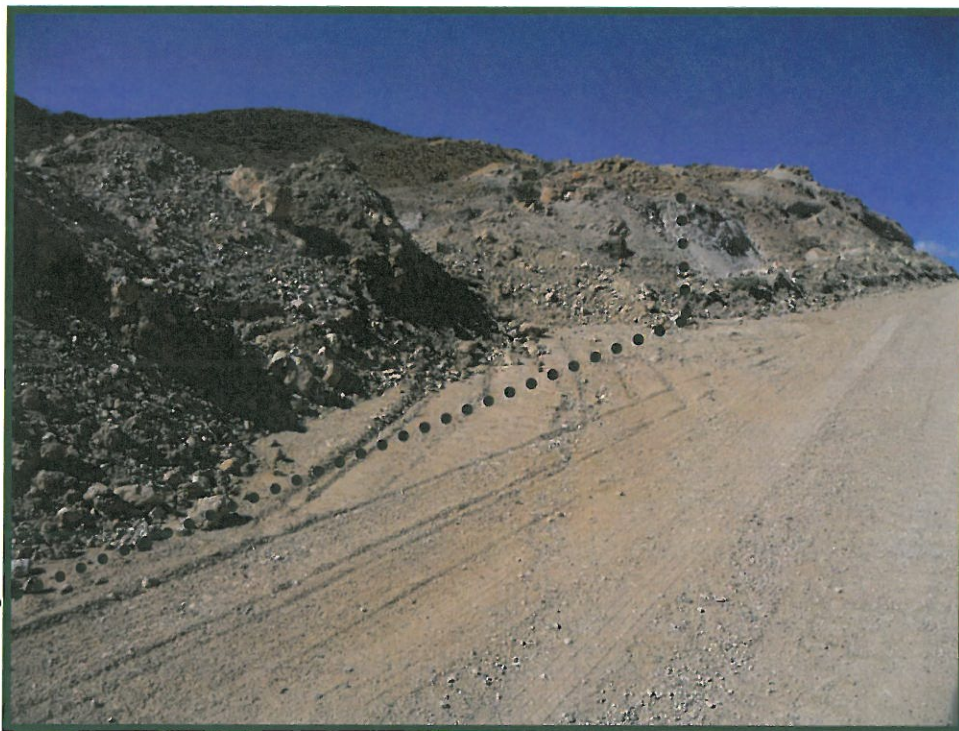


Exhibit 6. Northeast tie-in for proposed new fence along west boundary of 12-acre site.