

1 Nos. 142, 145, 146, 147, 148, 149) and replies (ECF Nos. 170, 171, 172, 173, 174, 175).¹
2 In addition, the court heard argument on three of the United States’ motions (ECF Nos.
3 130, 134, and 135) on September 22, 2017. (ECF No. 237.) The Court then ruled on two
4 of the United States’ motions (ECF Nos. 128, 129) as well as Defendants’ motion to
5 preserve issues for the jury (ECF No. 241).

6 This order resolves the United States’ remaining motions to exclude evidence (ECF
7 Nos. 130, 133, 134, 135).²

8 **II. RELEVANT BACKGROUND**

9 The Court incorporates the relevant background facts set forth in the Court’s
10 previous order. (ECF No. 241 at 2-3.)

11 **III. LEGAL STANDARD GOVERNING ADMISSIBILITY OF EXPERT TESTIMONY**

12 “A witness who is qualified as an expert by knowledge, skill, experience, training,
13 or education may testify in the form of an opinion or otherwise if: (a) the expert’s scientific,
14 technical, or other specialized knowledge will help the trier of fact to understand the
15 evidence or to determine a fact in issue; (b) the testimony is based on sufficient facts or
16 data; (c) the testimony is the product of reliable principles and methods; and (d) the expert
17 has reliably applied the principles and methods to the facts of the case.” Fed. R. Evid. 702.

18 The Supreme Court provided additional guidance on Rule 702 and its application
19 in *Daubert v. Merrell Dow Pharmaceuticals, Inc.*, 509 U.S. 579 (1993), and *Kumho Tire*
20 *Co., Ltd. v. Carmichael*, 526 U.S. 137 (1999). In *Daubert*, the Court held that scientific
21 testimony must be reliable and relevant to be admissible. *Daubert*, 509 U.S. at 589. *Kumho*
22 *Tire* clarified that *Daubert*’s principles also apply to technical and specialized knowledge.
23 *See Kumho*, 526 U.S. at 141. The trial court has “considerable leeway” in deciding how to

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25 ¹Defendants Christine Wheatley Tanis and Mark Tanis joined Landowners’
responses to the United States’ motions. (ECF Nos. 162, 163, 164, 165, 166, 167.)

26 ²Landowners asserted counter motions in response to several of the United States’
27 motions to exclude Landowners’ expert opinions. (ECF Nos. 146, 147, 148, 149.) As the
28 Court explained during the September 22 hearing, these filings fail to comply with LR IC
2-2(b) and will not be considered as separate counter motions. The Court will nevertheless
consider the points raised in these counter motions in addressing the United States’
motions.

1 determine the reliability of an expert's testimony and whether the testimony is in fact
2 reliable. *Id.* at 152. The "test of reliability is 'flexible,' and *Daubert's* list of specific factors
3 neither necessarily nor exclusively applies to all experts or in every case." *Id.* at 141.

4 The Ninth Circuit has emphasized that "Rule 702 is applied consistent with the
5 liberal thrust of the Federal Rules and their general approach of relaxing the traditional
6 barriers to opinion testimony." *Jinro Am. Inc. v. Secure Investments, Inc.*, 266 F.3d 993,
7 1004 (9th Cir.), *opinion amended on denial of reh'g*, 272 F.3d 1289 (9th Cir. 2001)
8 (citations and internal quotation marks omitted). "An expert witness—unlike other
9 witnesses—is permitted wide latitude to offer opinions, including those that are not based
10 on firsthand knowledge or observation, so long as the expert's opinion has a reliable basis
11 in the knowledge and experience of his discipline." *Id.* (citations and internal quotation
12 marks omitted). Shaky but admissible evidence should not be excluded but instead
13 attacked by cross-examination, contrary evidence, and attention to the burden of proof.
14 *Primiano v. Cook*, 598 F.3d 558, 564 (9th Cir.), *as amended* (Apr. 27, 2010).

15 **IV. UNITED STATES' MOTION TO EXCLUDE SAMPLE SURVEY DATA AND**
16 **RELATED PORTIONS OF DEFENDANTS' EXPERT OPINIONS (ECF NO. 133)**

17 The United States argues that data from certain sample surveys are inadmissible
18 (as are the portions of the five expert opinions that relied upon that data). (ECF No. 133
19 at 1-2.) The surveys at issue consist of two that were administered by a data collection
20 company called Qualtrics and two that were administered by the staff of a retail tourist
21 destination near the Property on the way to Area 51 called the Alien Research Center
22 ("ARC"). (ECF No. 147 at 3-6.) Five of the expert reports Landowners seek to introduce
23 relied on results from at least some of the surveys to predict how much revenue the
24 Property would generate if it were transformed into a tourism destination. (ECF No. 133 at
25 3.) Two of the reports relied only on the Qualtrics surveys: the report submitted by
26 Cameron Steinagel of the Innovation Group ("Steinagel report") (ECF No. 133-2 at 4) and
27 the report submitted by Richard Roddewig and Charles Brigden of Clarion Associates, Inc.
28 ("Clarion report") (ECF No. 133-5 at 27, 105-09). Three of the reports relied on both the

1 Qualtrics and ARC surveys: the report submitted by Tio DiFederico of the DiFederico
2 Group (“DiFederico report”) and two of the three reports submitted by Terrence Clauretjie
3 (“Clauretjie I” and “Clauretjie II”). (ECF No. 133-16 at 108-09 (DiFederico); ECF No. 133-
4 17 at 3 (Clauretjie I); ECF No. 133-18 at 3 (Clauretjie II).)

5 **A. THE SURVEYS**

6 **1. Qualtrics I**

7 The first Qualtrics survey (“Qualtrics I”) attempted to gauge “demand and pricing to
8 visit the Landowners’ Property.” (ECF No. 147 at 3.) The survey questions were designed
9 by Steinagel, DiFederico, and Landowners’ counsel. (*Id.*) Steinagel’s staff transcribed the
10 survey questions into the Qualtrics survey interface program, made sure it flowed properly,
11 and submitted the survey to Qualtrics. (*Id.* at 4.) Then a Qualtrics employee “ran this
12 survey and provided the necessary format to assure the survey was reliable.” (*Id.*)
13 Qualtrics sent the survey to randomly selected individuals in a database provided by an
14 entity called Tap Research (“TAP”). (*Id.*) “Qualtrics regularly does surveys with TAP and
15 considers it a top provider in the market.” (*Id.* (citing ECF No. 147-1 at 1 (“In the industry
16 they . . . are considered reliable.”))) The TAP database contains “participants 18 years and
17 over.” (ECF No. 134-2 at 2.) Steinagel provided links to TAP’s and SSI’s websites in a
18 supplement to his initial report. (*Id.* at 3.) Steinagel also provided links to several news
19 articles about Qualtrics to demonstrate its reliability. (*Id.*)

20 Qualtrics I contained three screening questions. (ECF No. 147 at 3-4.)
21 Respondents could only continue to the full survey if they answered yes to at least one of
22 the screening questions. (*Id.*) The screening questions were:

- 23 1. Do you travel to Las Vegas or plan to travel to Las Vegas within the next
24 several years?
25 2. Are you interested in extraterrestrials and/or government conspiracies?
26 3. Have you heard of Area 51?

27 (*Id.* at 4 (citing ECF No. 133-20 at 2).) The next seven questions purportedly tested
28 respondents’ “interest in participating in an Area 51 excursion:”

4. In which North America region do you live? (West, Midwest, Southwest,
Southeast, Northeast, Canada, Mexico, outside America)

- 1 5. How often do you visit Las Vegas in a one year period? (less than one
2 time per year, one to three times per year, four to seven times per year,
3 eight to eleven times per year, twelve or more times per year)
- 4 6. During your stay in Las Vegas, how many excursions/sightseeing
5 opportunities do you typically participate in? (zero, one, two, three, four
6 or more)
- 7 7. Please rank your likelihood to participate in the following excursions
8 based on your interest (1 indicates you are most likely). (Grand Canyon;
9 Hoover Dam; Area 51, including a visit where you have an unobstructed
10 view of the Area [5]1 base; Zion National Park/Bryce Canyon; Red Rock
11 Canyon; Death Valley; Valley of Fire; Lake Mead; other)
- 12 8. Would you be interested in visiting a location where you have an
13 unobstructed view of Area 51? (yes, no)
- 14 9. When traveling to Las Vegas, would you be interested in visiting a
15 location where you have an unobstructed view of Area 51? (yes, no)
- 16 10. What intrigues you about Area 51? (interested in government/historic
17 landmarks; interested in extraterrestrials/government conspiracies;
18 interested in Area 51 specifically)

19 (ECF No. 147 at 4; ECF No. 133-20 at 2-3.)

20 2. Qualtrics II

21 The second Qualtrics survey (“Qualtrics II”) apparently attempted to gauge
22 respondents’ willingness to pay for an excursion to the Property. (See ECF No. 147 at 5.)
23 The survey was designed and carried out in a similar manner as Qualtrics I (*see id.*),
24 though the database of participants came from SSI instead of TAP. (ECF No. 134-2 at 2.)
25 Qualtrics II contained three screening questions. (ECF No. 147 at 5.) Respondents could
26 only proceed to the full survey if they answered yes to all three questions. (*Id.*) The
27 screening questions were:

- 28 Q1.1 Have you heard of the secret military base located in Nevada known
as “Area 51”?
- Q1.2 Would you be interested in purchasing a one day’s entry past military
guard gates and onto the only private property in the world with an
exclusive and unobstructed view of the secret military base known as
“Area 51”?
- Q1.3 Would you be willing to submit to a security background check in
order to obtain a one day’s entry past the military guard gates onto
the only private property in the world with an exclusive and
unobstructed view of the secret military base known as “Area 51”?

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1 (*Id.* (citing ECF No. 133-22 at 2)) Individuals who responded yes to all three of the
2 screening questions were then asked how much they would be willing to pay to enter the
3 Property:

4 Q2.1 Would you be willing to pay \$1,000 (one thousand dollars) to be one
5 of the limited persons that could get a one day's entry past military
6 guard gates onto the only private property in the world with an
exclusive and unobstructed view of the secret military base known as
"Area 51"?

7 If the answer is yes, the survey skips to the next section of demographic questions.

8 (*Id.*) Respondents who answered no would be presented with the same question but a
9 different dollar amount: first \$750, then \$500, and finally \$250. (*Id.*) Respondents then
10 answered certain demographic questions. (*Id.*)

11 3. ARC I

12 The first survey administered by the Alien Research Center ("ARC I") also
13 apparently sought to gauge demand and willingness to pay to visit the Landowners'
14 Property.³ (See ECF No. 147 at 6.) The questions in ARC I "were prepared with the
15 assistance of the Landowners' experts." (*Id.* at 5.) The survey was administered by the
16 owner of the ARC between April and June 2016. (*Id.* at 5-6.) The owner's staff asked
17 customers to fill out the paper survey in exchange for a magnet. (*Id.*) ARC I contained five
18 questions:

- 19 1. In what Country and City do you live?
- 20 2. Have you heard of Area 51?
- 21 3. Are you interested in extraterrestrials and/or government conspiracies?
- 22 4. Would you be interested in visiting a location where you have an
unobstructed view of the Area 51 facility?
- 23 5. How much would you pay to visit a location where you have an
unobstructed view of the Area 51 facility? (\$250 - \$350; \$350 - \$450;
\$450 - \$550; \$550 - \$1,000; \$1,000 or more)

24 (ECF No. 147 at 6; ECF No. 133-10 at 2.)

26 ³The Court has numbered the ARC surveys consistently with the Landowners'
27 numbering scheme, but there is some ambiguity in the record as to which ARC survey
28 came first. The United States labeled the four-question ARC survey as ARC I (ECF No.
133-9 at 1-2), but Landowners labeled it as ARC II (ECF No. 147 at 6). The United States
labeled the five-question ARC survey as ARC II (ECF No. 133-10 at 1-2), but Landowners
labeled it as ARC I. (ECF No. 147 at 6).

1 **4. ARC II**

2 The second survey administered by the Alien Research Center (“ARC II”) similarly
3 attempted to gauge demand and willingness to pay. The survey was designed and carried
4 out in the same way as ARC I but was administered between June and November 2016.
5 (ECF No. 147 at 6.) ARC II contained four questions:

- 6 1. In what Country and City do you live? (open-ended)
7 2. Have you heard of Area 51? (yes, no)
8 3. Would you be willing to pay an admission price of \$300 to obtain a one
9 day’s entry past the military guard gates and entrance onto the only
10 private property in the world with an exclusive and unobstructed view of
11 the Area 51 facility? (yes, no)
12 4. Would you be willing to pay an admission price of \$500 or more to obtain
13 a one day’s entry past the military guard gates and entrance onto the
14 only private property in the world with an exclusive and unobstructed
15 view of the Area 51 facility? (yes, no)

16 (ECF No. 147 at 6; see also ECF No. 133-9 at 2 (containing slightly different wording for
17 the fourth question).)

18 **B. ADMISSIBILITY OF SURVEYS**

19 Surveys are admissible if they are relevant, conducted according to accepted
20 principles, and set upon a proper foundation for admissibility. *Clicks Billiards, Inc. v.*
21 *Sixshooters, Inc.*, 251 F.3d 1252, 1263 (9th Cir. 2001). As long as surveys “are conducted
22 according to accepted principles,’ survey evidence should ordinarily be found sufficiently
23 reliable under [*Daubert v. Merrell Dow Pharm., Inc.*, 509 U.S. 579 (1993)].” *Southland Sod*
24 *Farms v. Stover Seed Co.*, 108 F.3d 1134, 1143 n.8 (9th Cir. 1997) (quoting *E. & J. Gallo*
25 *Winery v. Gallo Cattle Co.*, 967 F.2d 1280, 1292 (9th Cir. 1992)). The proponent bears the
26 burden of showing “that the survey was conducted in accordance with generally accepted
27 survey principles and that the results were used in a statistically correct manner.” *Keith v.*
28 *Volpe*, 858 F.2d 467, 480 (9th Cir. 1988). In the absence of evidence that the surveys
were conducted in accordance with generally accepted principles, surveys have been
inadmissible when their creators were not qualified to design or interpret surveys, *Elliott v.*
Google, Inc., 860 F.3d 1151, 1160 (9th Cir. 2017); *M2 Software, Inc. v. Madacy Entm’t*,
421 F.3d 1073, 1087 (9th Cir. 2005); see also *United States v. 0.59 Acres of Land*, 109

1 F.3d 1493, 1496 (9th Cir. 1997) (noting that an “unscientific” survey “prepared by a non-
2 witness of unknown qualifications” violated Fed. R. Evid. 703 and would not meet the
3 *Daubert* standards for scientific evidence), and when the experts introducing the surveys
4 did not actually conduct them, *F.T.C. v. Commerce Planet, Inc.*, 642 F. App’x 680, 682
5 (9th Cir. 2016), *cert. denied sub nom. Gugliuzza v. F.T.C.*, 137 S. Ct. 624 (2017).

6 “Once the survey is admitted, however, follow-on issues of
7 methodology, survey design, reliability, the experience and reputation of the expert,
8 critique of conclusions, and the like go to the weight of the survey rather than its
9 admissibility.” *Clicks Billiards, Inc.*, 251 F.3d at 1263. “Unlike novel scientific theories, a
10 jury should be able to determine whether asserted technical deficiencies undermine a
11 survey’s probative value.” *Southland Sod Farms*, 108 F.3d at 1143 n.8. “Technical
12 inadequacies in the survey, including the format of the questions or the manner in which
13 it was taken, bear on the weight of the evidence, not its admissibility.” *Keith*, 858 F.2d at
14 480. Thus, even surveys with technical problems such as improper participant pools,
15 biased questions, *Southland Sod Farms*, 108 F.3d at 1143, or flawed coding of responses,
16 *E. & J. Gallo Winery*, 967 F.2d at 1292, are admissible.

17 **C. DISCUSSION**

18 The United States argues that none of the survey data is admissible because none
19 of the surveys conform to generally accepted principles of survey research. (ECF No. 133
20 at 15.) The United States also argues that even if the surveys conform with generally
21 accepted principles, they cannot be admitted consistently with Fed. R. Evid. 702 and the
22 United States Supreme Court’s holding in *Daubert*. (*Id.* at 20-23.) The United States further
23 argues that the surveys’ probative value is substantially outweighed by risk of unfair
24 prejudice under Fed. R. Evid. 403. (*Id.* at 23-24.) The Court disagrees and finds that the
25 surveys are admissible.

26 **1. Accordance with Generally Accepted Principles**

27 The United States argues that the experts and Landowners’ counsel flouted
28 generally accepted survey research principles by including biased questions, reporting

1 survey results inaccurately, and failing to identify the proper target population and
2 sampling frame. (*Id.* at 15.) The United States identifies a number of generally accepted
3 principles of survey research, the following of which are relevant here: (1) the proper
4 universe was selected and examined; (2) a representative sample was drawn from that
5 universe; (3) the data gathered were accurately reported; (4) the mode of questioning the
6 interviewees was correct; and (5) the sample design, the questionnaire and the
7 interviewing were in accordance with generally accepted standards of objective procedure
8 and statistics in the field of such surveys. (*Id.*) The United States argues that the surveys
9 do not comport with (1) and (2) because none of Landowners' experts identified the target
10 population or sampling frame; with (3) because the experts do not address certain
11 inconsistencies in the data; and with (4) and (5) because the surveys contain biased
12 questions. Landowners respond that the degree to which a survey conforms to these
13 principles affects only probative value, not admissibility. (ECF No. 147 at 22 (citing
14 *Southland Sod Farms*, 108 F.3d at 1143).)

15 The Landowners are at least partially correct. The Ninth Circuit has expressly and
16 consistently held that the bias of survey questions bears on the survey's probative value
17 rather than its admissibility. *See Southland Sod Farms*, 108 F.3d at 1143; *E. & J. Gallo*
18 *Winery*, 967 F.2d at 1292. Accordingly, the United States' arguments that the survey
19 questions are ambiguous, biased, and leading do not affect the surveys' admissibility.

20 Whether the surveys' failure to conform with the other principles the United States
21 identifies bears on weight or admissibility is less clear. However, the Ninth Circuit's
22 standard clearly favors admissibility by assigning the following factors to surveys'
23 probative value instead of admissibility: methodology, survey design, reliability, the
24 experience and reputation of the expert, critique of conclusions, technical inadequacies,
25 the format of the questions, the manner in which it was taken, and "the like." *See Clicks*
26 *Billiards, Inc.*, 251 F.3d at 1263; *Keith*, 858 F.2d at 480.

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1 “The target population consists of all elements (i.e., individuals or other units)
2 whose characteristics or perceptions the survey is intended to represent.” REFERENCE
3 MANUAL ON SCIENTIFIC EVIDENCE 376. Landowners’ experts and counsel do not explicitly
4 identify the surveys’ target population, but it is readily apparent that the target population
5 is anyone who would be interested in visiting the Property. This is clear from the way the
6 experts used the survey data as well as the survey questions themselves. The experts
7 primarily used the survey data to predict how much money individuals would pay to visit
8 the Property.⁴ (ECF No. 133-2 at 4; ECF No. 133-5 at 108; ECF No. 133-16 at 108; ECF
9 No. 133-17 at 9; ECF No. 133-18 at 7-8.) The only population relevant to the question of
10 willingness to pay consists of individuals who would be interested in visiting the Property.
11 Individuals uninterested in visiting the Property would not pay anything at all (or might
12 require compensation) to visit the Property. The survey questions themselves also seem
13 to focus on the population of individuals interested in visiting the Property. The surveys
14 contained screening questions that resulted in the collection of data only from individuals
15 who were interested or likely to be interested in visiting the Property. Qualtrics I only
16 included individuals who travel to Las Vegas regularly, had plans to travel to Las Vegas in
17 the next few years, possessed an interest in government conspiracies, or had heard of
18 Area 51. (See ECF No. 147 at 4; ECF No. 133-20 at 2.) These screening questions are
19 overinclusive, sweeping in individuals who might be interested in visiting the general
20 geographic area but not the Property specifically. But the included individuals are almost
21 certainly more likely to have an interest in visiting the Property than those who were
22 screened out. Qualtrics II only included individuals who had heard of Area 51, were
23 interested in purchasing a one-day entry “past military guard gates and onto the only
24 private property in the world with an exclusive and unobstructed view” of Area 51, and
25 were willing to submit to a background check. (ECF No. 147 at 5.) The ARC surveys were
26 only administered to individuals who were presumptively interested in visiting the Property.

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28 ⁴The Clarion report used the data for the additional purpose of determining that demand for visiting the Property was “high.” (ECF No. 133-5 at 106.)

1 Individuals who took the ARC surveys had trekked to the rather remote Alien Research
2 Center where few attractions exist other than those that draw extraterrestrial enthusiasts
3 (who would likely be interested in visiting the Property). (See ECF No. 147 at 5-6.)

4 “The sampling frame is the source (or sources) from which the sample actually is
5 drawn.” REFERENCE MANUAL ON SCIENTIFIC EVIDENCE 377. The sampling frame here
6 consisted of the following four sources: the TAP database of participants ages eighteen
7 and older (Qualtrics I) (see ECF No. 134-2 at 2); the SSI database of participants ages
8 eighteen and older (Qualtrics II) (see *id.*); individuals who visited the Alien Research
9 Center during April, May, and June 2016 (ARC I) (see ECF No. 147 at 5-6); and individuals
10 who visited the Alien Research Center between June and November 2016 (ARC II) (see
11 *id.*).

12 The target population and sampling frame often fail to overlap completely in survey
13 research. REFERENCE MANUAL ON SCIENTIFIC EVIDENCE 378. Such is the case here, where
14 the sampling frame excludes part of the target population. The target population comprises
15 all individuals who would be interested in visiting the Property, but the sampling frame was
16 limited to individuals who are part of the TAP or SSI databases and individuals who visited
17 the Alien Research Center between April and November 2016. Excluded from the
18 sampling frame, for example, is a hypothetical individual who is interested in visiting the
19 Property but went to the Alien Research Center in January 2016 before the ARC surveys
20 began. Thus, the sampling frame is underinclusive. See REFERENCE MANUAL ON SCIENTIFIC
21 EVIDENCE 378.

22 Underinclusive sampling frames may affect probative value: “If the coverage is
23 underinclusive, the survey’s value depends on the proportion of the target population that
24 has been excluded from the sampling frame and the extent to which the excluded
25 population is likely to respond differently from the included population.” *Id.* But the effect
26 of an underinclusive sampling frame can be virtually impossible to quantify. “In some
27 cases, it is difficult to determine whether a sampling frame that omits some members of
28 the population distorts the results of the survey and, if so, the extent and likely direction of

1 the bias.” REFERENCE MANUAL ON SCIENTIFIC EVIDENCE 379. An example of this difficulty is
2 described in the REFERENCE MANUAL ON SCIENTIFIC EVIDENCE:

3 [A] trademark survey was designed to test the likelihood of confusing an
4 analgesic currently on the market with a new product that was similar in
5 appearance. The plaintiff’s survey included only respondents who had used
6 the plaintiff’s analgesic, and the court found that the target population should
7 have included users of other analgesics, ‘so that the full range of potential
8 customers for whom plaintiff and defendants would compete could be
9 studied.’ In this instance, it is unclear whether users of the plaintiff’s products
10 would be more or less likely to be confused than users of the defendants’
11 product or users of a third analgesic.”

12 *Id.* at 379 (citing *American Home Prods. Corp. v. Barr Lab., Inc.*, 656 F. Supp. 1058
13 (D.N.J.), *aff’d*, 834 F.2d 368 (3d Cir. 1987)). The situation here is analogous. Just as it
14 was unclear whether users of the plaintiff’s products would be more or less likely to be
15 confused than users of a different product in *American Home*, it is unclear whether
16 extraterrestrial enthusiasts who were included in the sampling frame (those who are part
17 of the TAP or SSI databases and those who visited the Alien Research Center between
18 April and November 2016) would pay more or less than extraterrestrial enthusiasts who
19 were not.

20 Nevertheless, the underinclusive or overinclusive nature of the surveys does not
21 preclude admissibility. The Fifth Circuit discussed the adequacy of an overinclusive target
22 population in *Honestech, Inc. v. Sonic Sols.*, 430 F. App’x 359 (5th Cir. 2011). In that case,
23 Honestech, a technology company, sued another company called Sonic Solutions
24 (“Sonic”) for trademark infringement. *Id.* at 360. Both sold VHS to DVD converters with
25 similar marks: “VTD” (Honestech’s mark) and “EVTD” (Sonic’s mark). *Id.* At trial, Sonic
26 sought to introduce a sample survey showing that the VTD mark was not distinctively
27 associated with Honestech. *Id.* The trial court admitted the survey over Honestech’s
28 objection, and the jury found in Sonic’s favor. *Id.* On appeal, Honestech argued that the
survey expert failed to identify the correct target population of relevant consumers (mature
males who previously purchased analog-to-digital converter products or might in the
future) by using overinclusive screening questions. *Id.* at 360-61. The screening questions
resulted in the inclusion of all those who “bought or participated in selecting computers

1 and/or audio and video equipment for their household; owned . . . at least one device
2 capable of playing analog content; and had audio or video material recorded in an analog
3 format.” *Id.* at 362. The Fifth Circuit affirmed the trial court, finding that the survey’s
4 screening questions reflected “a reasonable attempt to identify individuals who would be
5 interested in buying the software” and that the questions, at the very least, “eliminated
6 individuals that would be unlikely to have any need for the product.” *Id.*

7 The screening questions here similarly reflect a reasonable attempt to identify
8 relevant individuals—those who would be interested in visiting the Property. Just as Sonic
9 sought to identify only those individuals who were likely to buy a VHS to DVD recorder,
10 the surveys here sought to identify only those individuals who were likely to “buy” the
11 experience of visiting Area 51. In both cases, the only relevant individuals were those
12 conceivably interested in purchasing the product (or here, an experience). The target
13 universe was adequate in *Honestech* even though the screening questions were
14 imprecise, and the same outcome is appropriate here. Though the Landowners’ targeting
15 and sampling was imperfect, even a survey that is “not a good survey” deserves its day
16 before the jury under Ninth Circuit precedent. *Wendt v. Host Int’l, Inc.*, 125 F.3d 806, 813
17 (9th Cir. 1997).

18 **b. Accurate Reporting**

19 The United States further argues that data collected in the Qualtrics surveys was
20 not reported accurately. (ECF No. 133 at 20.) First, the United States identifies an
21 inconsistency between the meaning of certain numerical values in Qualtrics I. (*Id.*) The
22 seventh question of Qualtrics I asked respondents to rank their interest in visiting a number
23 of tourist destinations such as Zion National Park, Death Valley, and Area 51 on a
24 numerical scale from one to four. (ECF No. 133-20 at 3.) According to expert reports and
25 work files submitted by Clarion, DiFederico, and Clauretje, a response of one indicates
26 that the respondent is “most likely” to visit the destination. (*Id.* (Clauretje); ECF No. 133-
27 31 at 2 (DiFederico); ECF No. 133-30 at 2 (Clarion).) But according to Landowners’

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1 counsel, a response of one indicates that the respondent is “unlikely to visit.” (ECF No.
2 133-32 at 3.)

3 Technical inadequacies, including improper or anomalous coding, bear on weight,
4 not admissibility. *E. & J. Gallo Winery*, 967 F.2d at 1292. The inconsistency between the
5 work files and the explanation of the surveys provided by Landowners’ counsel amounts
6 to a technical inadequacy (or perhaps a miscommunication) that affects only the survey’s
7 probative value, not its admissibility.

8 Second, the United States identifies a supposed inconsistency regarding the
9 number of respondents to Qualtrics II. (ECF No. 133 at 20.) According to Clauretie’s work
10 file, all respondents (525) answered yes to all three screening questions. (ECF No. 133-
11 22 at 2.) But according to Landowners’ counsel, 995 individuals took the survey. (ECF No.
12 133-21 at 2.) Landowners explain that 470 individuals were screened out because they
13 did not answer yes to all three screening questions, leaving 525 who were included in the
14 full survey. (*Id.*) In light of the explanation by Landowners’ counsel, it is apparent that the
15 data in Clauretie’s work file only included the responses of individuals who completed the
16 full survey. The United States has not identified a material inconsistency.

17 **2. Rule 702 and *Daubert***

18 The United States argues that Landowners’ experts have failed to comply with Rule
19 702 and the United States Supreme Court’s holding in *Daubert*. (ECF No. 133 at 20-23.)
20 In addition, the United States suggests that Ninth Circuit case law regarding the
21 admissibility of surveys is limited to trademark cases.⁵ (*Id.* at 20 n.50.) The Court evaluates
22 the United States’ argument in light of the Ninth Circuit’s dicta that survey evidence “should
23 ordinarily be found sufficiently reliable” under *Daubert* as long as the surveys are
24 conducted according to accepted principles. *Southland Sod Farms v. Stover Seed Co.*,
25 108 F.3d 1134, 1143 n.8 (9th Cir. 1997).

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27 ⁵Ninth Circuit precedent regarding the admissibility of surveys depends on
28 interpretation of Rule 702 and *Daubert*. See, e.g., *Fortune Dynamic, Inc. v. Victoria’s
Secret Stores Brand Mgmt., Inc.*, 618 F.3d 1025, 1035 (9th Cir. 2010); *Southland Sod
Farms v. Stover Seed Co.*, 108 F.3d 1134, 1143 n.8 (9th Cir. 1997).

1 The United States first argues the expert witnesses have not determined that the
2 surveys are reliable by the standards in their respective fields. (ECF No. 133 at 20-21.)
3 Subsequent to the United States' motion to exclude, most of the experts submitted
4 declarations stating that they are familiar with the survey methods and find them reliable.
5 DiFederico submitted a declaration attesting that he "assisted with drafting the Qualtrics
6 Surveys . . . understands how both the Qualtrics and ARC Surveys were
7 conducted . . . and . . . believe[s] the Surveys to be reliable and relevant." (ECF No. 147-
8 6 at 1.) DiFederico also stated in his declaration that the survey data "is the type of data I
9 rely upon as an expert appraiser in the normal course of appraising property." (*Id.*)
10 Clauretie submitted a declaration stating, "I understand the methodology of both Surveys,
11 consider them to be reliable and relevant to my analysis, and in my field, we regularly rely
12 upon surveys and reports by other experts." (ECF No. 147-8 at 1.) Steinagel submitted a
13 two-page supplemental report describing the Qualtrics surveys and noting the reliability of
14 Qualtrics. (ECF No. 147-1.) The authors of the Clarion report did not submit a declaration,
15 but their expert report states that the authors "understand the survey research approach
16 undertaken by Qualtrics and consider that research to be appropriately supported." (ECF
17 No. 172 at 6 (quoting ECF No. 133-5 at 39).) These assertions are sufficient to show that
18 the experts determined that the surveys are reliable by the standards in their respective
19 fields.

20 The United States further argues that surveys constitute contingent valuation, a
21 method of valuing real property that is unreliable based on one of the expert's own
22 publications. (ECF No. 133 at 21-22 (citing ECF No. 133-33).) But the surveys have not
23 been used to value real property directly. Instead, the surveys measured respondents'
24 willingness to pay for travel and admission to the Property if it were transformed into a
25 tourist destination. The suitability of contingent valuation for homes that cost hundreds of
26 thousands of dollars likely differs from the suitability of contingent valuation for a
27 recreational tourism experience that costs far less. And to the extent that contingent
28 valuation leads to results that inaccurately reflect the actual price that would be paid in a

1 hypothetical market, it is the probative value of the surveys rather than their admissibility
2 that diminishes.

3 **3. Probative Value and Prejudice**

4 The United States argues that the surveys' probative value is substantially
5 outweighed by risk of unfair prejudice under Fed. R. Evid. 403. (ECF No. 133 at 23-24.)
6 The probative value of the surveys is low because they are rudimentary and
7 unsophisticated, especially relative to the kind of high-caliber surveys one could imagine
8 being produced by research specialists with extensive experience designing and
9 administering sample surveys. But the surveys' tendency to prejudice the United States is
10 equally low due to their inadequacies. The Court finds that the surveys' probative value is
11 not substantially outweighed by risk of unfair prejudice.

12 **V. PLAINTIFF'S MOTION TO EXCLUDE OPINIONS OF LANDOWNERS' EXPERT**
13 **CAMERON STEINAGEL (ECF NO. 134)**

14 Cameron Steinagel of the Innovation Group prepared an expert report "to
15 determine the demand for visiting the Groom Mine Property" as well as "the amount of
16 money that those who have an interest in visiting the Groom Property would pay to visit
17 the property" if it were transformed into a recreational tourism destination. (ECF No. 134-
18 1 at 2.) The United States argues that the Steinagel report is unreliable because it is based
19 on faulty methodology. (ECF No. 134 at 13.) Specifically, the United States argues that
20 Steinagel improperly calculated visitor demand, growth rates, and the number of overnight
21 guests that could be expected. (*Id.*) In addition, the United States argues that Steinagel
22 improperly relied upon data from the Qualtrics surveys and failed to provide an adequate
23 basis for his opinion that transforming the Property into a recreational tourism destination
24 is financially reasonable. (*Id.* at 17-18.) The Court finds that Steinagel's methodology is
25 sufficiently reliable to be admissible and that any methodological inadequacies bear on
26 the report's probative value rather than its admissibility.

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1 **1. Calculation of Visitor Demand**

2 The Steinagel report concludes that about 150,000 to 200,000 individuals would
3 visit the Property each year if it were transformed into a recreational tourism destination
4 with a “café selling various types of American fare, a retail gift shop, a view area, site tours,
5 etc.” (ECF No. 133-2 at 3.) Steinagel based these figures on the number of vehicles
6 traveling the Extraterrestrial Highway that are not part of everyday pass-through traffic.
7 (ECF No. 148 at 8.) (The Extraterrestrial Highway—formerly Highway 375⁶—contains the
8 turn-off for the Property and connects the abandoned towns of Warm Springs at its
9 western terminal and Crystal Springs at its eastern terminal.) Steinagel calculated this
10 number in two stages. First, he found the total number of vehicles that travel the
11 Extraterrestrial Highway annually. (ECF No. 148-6 at 1-3.) Then he calculated the number
12 of those vehicles that could be attributed to everyday pass-through traffic (e.g.,
13 commuters) and deducted that number from the total number of vehicles traveling the
14 Extraterrestrial Highway. (See *id.*) The United States finds fault with the methodology
15 involved in Steinagel’s second-stage calculations—the number of vehicles attributable to
16 everyday pass-through traffic. (See ECF No. 134 at 4-6.)

17 To find the total number of vehicles traveling the Extraterrestrial Highway annually,
18 Steinagel found the average annual daily traffic counts for two points at either end of the
19 highway.⁷ (See ECF No. 148-6 at 1-3.) Steinagel explicitly assumed that vehicles do not
20 pass both points because the “points on Highway 375 do not work as a shortcut or
21 alternative route to any measurable population bases.” (*Id.* at 3.) In other words,
22 individuals approach Area 51 attractions from one side or the other, then go back the way
23 they came after visiting the attractions. Cars pass the traffic counter at the western end,
24 near Warm Springs, 150 times a day on average. (*Id.* at 2.) Cars pass the traffic counter
25 at the eastern end, near Crystal Springs, 250 times a day on average. (*Id.*) Steinagel

26 _____
27 ⁶See Carla Hall, ‘Extraterrestrial Highway’ Gets Green Light in Nevada, L.A. TIMES,
28 Feb. 3, 1996, at 1.

⁷The Nevada Department of Transportation has traffic counters set up at these
points and public reports the results. (See ECF No. 148-6 at 1-3.)

1 converted these numbers from daily averages to annual averages by multiplying them by
2 365. (*Id.* at 3.) Steinagel then divided both numbers by two to account for cars passing the
3 same traffic counter twice—once coming and once going. (*Id.*) Steinagel concluded that
4 73,000 unique vehicles drive on the Extraterrestrial Highway annually. (*Id.*)

5 To find the number of vehicles in pass-through traffic, Steinagel found several
6 possible values then selected the most conservative among them (i.e., the highest number
7 of pass-through vehicles). First, Steinagel hypothesized that ten to thirty-five percent of
8 total traffic was pass-through based on the research of a traffic engineering and planning
9 firm in New Orleans. (*Id.*) Then Steinagel calculated real values to compare to these
10 hypothesized values. The first comparator Steinagel calculated was the average annual
11 number of cars passing a traffic counter at the intersection of the Extraterrestrial Highway
12 and Groom Lake Road (the turn-off for the Property). (*See id.*) Steinagel found that the
13 average annual traffic count at that intersection was 14,600, or about 20% of total traffic.
14 (*Id.*) The second comparator Steinagel calculated was purportedly the number of vehicles
15 in commuter flow. (*Id.*) Steinagel found that number to be 24,398, or about 33.5% of all
16 traffic. (*Id.*)

17 Significant flaws exist in Steinagel's calculation of the second comparator. First,
18 Steinagel failed to include relevant data. Using data from the U.S. Census Bureau,
19 Steinagel found that 1,743 workers are in commuting flow from Clark County to Nye
20 County (the county containing the western traffic counter near Warm Springs) for work,
21 and 10,465 workers are in commuting flow within Nye County for a sum of 12,199. (*Id.*)
22 Inexplicably, Steinagel did not include commuters from Clark County to Lincoln County
23 (the county containing most of the Extraterrestrial Highway as well as the eastern traffic
24 counter near Crystal Springs), Nye County to Clark County, or Lincoln County to Clark
25 County. Second, Steinagel multiplied the number of workers in commuting flow by two to
26 arrive at (purportedly) the number of trips commuters made (24,398). (*Id.*) But the data
27 sources that Steinagel relied upon list the number of individuals in commuter flow—not
28 the number of trips they make annually. (ECF No. 134-4 at 2.) Thus, two is the wrong

1 multiplication factor. The appropriate multiplication factor would be much higher (the
2 United States suggests 241 (ECF No. 134 at 6)) because the workers in commuting flow
3 presumably are commuting more than one day per year. Landowners do not explain
4 Steinagel's reasoning or apparent mistake (see ECF No. 148 at 9), nor does Steinagel
5 offer any explanation in a declaration he submitted after Plaintiffs argued that these
6 mistakes rendered his report unreliable (ECF No. 148-6 at 3).

7 The flaws in Steinagel's calculation of the second comparator ultimately amount to
8 harmless error for the purposes of admissibility, though. Steinagel settled on a de facto
9 pass-through traffic rate of 33.5%, very close to the highest end of his hypothesized range
10 of values. In addition, the United States' suggested approach (multiplying the number of
11 individuals in commuting traffic by 241) yields a result that lies far outside Steinagel's
12 hypothesized range of values. Even taking Steinagel's low-ball calculation of the number
13 of individuals in commuting flow as the appropriate referent, the average annual number
14 of vehicles in pass-through traffic would be about three million, more than forty-one times
15 the total number of vehicles traveling the Extraterrestrial Highway annually based on
16 Steinagel's calculations. This makes for a pass-through traffic rate of 4100% compared to
17 the hypothesized range of 10% to 35%. Steinagel's overall methodology—finding total
18 traffic and subtracting pass-through traffic—is sensible, and technical errors in his
19 calculations detract from his credibility rather than the admissibility of his testimony.

20 **2. Calculation of Growth Rates**

21 Steinagel predicted the growth rate of visitor demand for the Property if it were
22 transformed into a tourist destination based on the growth rates of visitor demand at similar
23 tourist destinations (e.g., Hoover Dam) following the development of new infrastructure.
24 (ECF No. 148 at 10.) The United States argues that Steinagel's growth rates are rife with
25 errors and impossibilities. (ECF No. 134 at 7-9.)

26 The United States first argues that there are discrepancies between Steinagel's
27 calculations and data sources. (ECF No. 134 at 8.) Steinagel labeled each of his calculated
28 growth rates as "5 years before [the property's respective infrastructure improvement]"

1 and “5 years after” (ECF No. 134 at 8 (citing ECF No. 134-3 at 6)), but Steinagel’s work
2 file only contains visitation data for two years after infrastructure improvements at Hoover
3 Dam (*id.* (citing ECF No. 134-3 at 6-8)). Steinagel explains in his declaration that his
4 ultimate opinion did not reference five-year growth rates for this reason. (ECF No. 148-6
5 at 5; *see also* ECF No. 134-1 at 3 (describing the growth rate of visitation without
6 referencing a five-year period).) The Court finds Steinagel’s explanation sufficient,
7 especially given that the “5 year before” and “5 year after” labels appeared only in a work
8 file that was not necessarily conceived of as a polished final product suited for public
9 examination.

10 The United States next argues that Steinagel erred in calculating growth rates.
11 (ECF No. 134 at 8.) The United States demonstrates that the arithmetic mean of the
12 source growth rates is different from the growth rates Steinagel calculated. (*Id.*) But the
13 United States incorrectly assumed the arithmetic mean was the basis for the growth rates
14 that Steinagel calculated. (*See id.*) In fact, Steinagel calculated compound annual growth
15 rates, rates that result from a different calculation than that used to find an arithmetic
16 mean. (ECF No. 148-6 at 8.)

17 The United States next argues that Steinagel failed to account for factors that
18 influence visitor demand besides the construction of new infrastructure. (ECF No. 134 at
19 8.) Compound annual growth rates account for other factors such as gas prices and
20 weather patterns, however. (*See* ECF No. 148-6 at 5.)

21 The United States next argues that Steinagel added two full growth rates and one
22 half growth rate to predict the growth rate of visitor demand in Development Scenario 2
23 without explanation. (ECF No. 134 at 8-9.) Steinagel’s report contemplates two different
24 development scenarios. In Development Scenario 1, Steinagel conceived of the Property
25 as a recreational tourist destination with twenty small cabins, a visitors’ center with an
26 observation area, a retail shop, a restaurant, and “other typical amenities.” (ECF No. 133-
27 2 at 3.) In Development Scenario 2, Steinagel assumed that the Property contained only
28 a retail shop, restroom facilities, and a viewing area. (*Id.* at 4.) Regarding the addition of

1 growth rates, Steinagel explained in a declaration filed subsequent to his expert report that
2 he added the growth rates because “we only calculated the incremental visitation growth
3 for each individual development enhancement. As people are induced to visit certain
4 destinations, they are exponentially induced as more options, amenities and access is [sic]
5 developed on site. As such, by adding 7.91%+8.67%+2.00%, we have an initial
6 incremental growth rate of 18.58%.” (ECF No. 148-6 at 8.) Steinagel’s explanation is not
7 wholly satisfactory because it does not explain why he added only half a growth rate in
8 Development Scenario 2 or why half the growth rate (as opposed to one-fourth or three-
9 fourths of the growth rate) was appropriate.

10 Nevertheless, the Court finds that this question about Steinagel’s work bears on
11 the probative value of his testimony rather than its admissibility. In Development Scenario
12 2, Steinagel assumed that fewer infrastructural improvements were built. As such, it was
13 appropriate to reduce the growth rate for Development Scenario 2, especially given
14 Steinagel’s theory that each subsequent improvement to a property yields an exponential
15 increase in visitor demand. If Steinagel had used the same growth rate (or a higher growth
16 rate) in Development Scenario 2, then admissibility might be at stake because such a
17 growth rate would contradict his express theory of how infrastructure improvements affect
18 growth rates. Steinagel’s overall approach appears to be reliable, and further explanations
19 of Steinagel’s decisions are likely to surface in discovery.

20 **3. Calculations of Overnight Guests**

21 The United States argues that Steinagel failed to explain how he calculated the
22 number of overnight guests that he predicted in Development Scenario 1. (ECF No. 134
23 at 16.) Steinagel explained his methodology in his subsequent declaration, and it appears
24 to be reasonable. (ECF No. 148 at 11 (quoting ECF No. 148-6 at 9).) Steinagel identified
25 his sources, calculations, and assumptions. (See ECF No. 148-6 at 9.) In addition,
26 Steinagel stated that “[t]his is the type of information and data that I use in my field of
27 preparing demand and pricing report [sic] and financial feasibility reports[,] and I consider
28 this to be reliable and relevant to my analysis on demand in this matter.” (ECF No. 148-6

1 at 10.) Landowners have sufficiently demonstrated the reliability of Steinagel's
2 methodology.

3 **4. Reliance on Qualtrics Surveys**

4 The United States further argues that Steinagel relied on the Qualtrics surveys
5 without assessing their reliability or credibility. (ECF No. 134 at 17.) This argument is
6 addressed in the section of this order discussing the United States' motion to exclude the
7 Qualtrics survey data, and the issue resolves in favor of Landowners. *See supra* Section
8 III.

9 **5. Financial Reasonableness**

10 The United States argues last that Steinagel failed to provide an adequate basis for
11 his opinion that transforming the Property into a recreational tourism destination is
12 financially reasonable. (ECF No. 134 at 17-18.) The Landowners' response provides
13 further explanation that adequately supports Steinagel's conclusions. (*See* ECF No. 148
14 at 13.) First, Steinagel calculated the income that could be generated by the property if it
15 were turned into a tourist destination. (*Id.*) Then Steinagel subtracted the maximum
16 "amount it would cost to get a tourist commercial use started on the Property." (*Id.*)
17 Steinagel concluded that tourist commercial use was financially reasonable because the
18 maximum "one time cost of fully building out a tourist commercial use is [about \$5 million,
19 far less than] the potential annual income [which] is between [about \$28 million and \$85
20 million]." (*Id.*) This methodology appears to be reliable, and the United States has not
21 demonstrated otherwise.

22 **VI. PLAINTIFF'S MOTION TO EXCLUDE MINERAL RESOURCE ESTIMATE** 23 **OPINION OF NEXUS GEOS, LLC (ECF NO. 130)**

24 The United States moved to exclude an expert report authored by Nexus Geos,
25 LLC ("NGL"). (ECF No. 130.) NGL concluded in its report that there are one million tons
26 of indicated resources and nine million tons of inferred resources remaining beneath the
27 Property. (ECF No. 146 at 7.) Although the report suffers from at least one serious
28 inadequacy (its leap from qualitative considerations to quantitative conclusions), the Court

1 denies the United States' motion without prejudice given that the report's inadequacy
2 could be cured through minimal additional discovery at this stage of the proceedings.

3 Plaintiff argues that NGL's mineral resource estimate is not reliable because it does
4 not adhere to industry standards. (ECF No. 130 at 11.) NGL purportedly departed from
5 industry standards by (1) failing "to provide adequate support for its reclassification of 1986
6 reserves to indicates resources under current standards;" (2) failing "to provide an
7 adequate basis for its estimate of 9 million tons of inferred resources;" (3) failing to assess
8 "reasonable prospects for eventual economic extraction" of lead and silver; and (4)
9 misusing the EMINERS program and misstating the results of the program. (*Id.*)

10 1. Reclassification of Reserves

11 The United States first argues that NGL's expert report is unreliable because NGL
12 classified the deposits at Groom Mine ("Deposits") as mineral resources rather than
13 mineral reserves without sufficient explanation. (ECF No. 130 at 11.) NGL's explanation
14 is somewhat meager: "In this report, McClung's estimate has been reclassified with the
15 category 'indicated resource', required to meet current CIM Definition Standards." (ECF
16 No. 130-1 at 24.) But Landowners have shown that NGL's decision to reclassify the
17 Deposits actually makes its opinion more reliable than it otherwise would be.

18 NGL's decision to classify the Deposits as mineral resources resolves an ambiguity
19 in an appraisal of the Property conducted by William McClung in the 1980s.⁸ In that study,
20 McClung described the Deposits as "indicated reserves" (ECF No. 130-1 at 24), but that
21 terminology is meaningless under today's industry standards.⁹ (ECF No. 146 at 16-17.)

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24 ⁸The United States' expert cites to a 1986 appraisal report (ECF No. 146-4 at 35),
25 while NGL cites to a 1988 geological study that apparently contains McClung's
conclusions (ECF No. 130-1 at 24, 27).

26 ⁹Both parties seem to agree that standards published by the Canadian Institute of
27 Mining, Metallurgy and Petroleum ("CIM") as well as the Society for Mining, Metallurgy
28 and Exploration ("SME") are current, generally accepted, and reliable. (See ECF No. 130
at 8; ECF No. 146 at 5.) CIM publishes definitions for mineral resources and mineral
reserves. (ECF No. 130-2 at 2.) SME publishes a guide for reporting exploration results,
mineral resources, and mineral reserves. (ECF No. 130 at 8-9.)

1 The word “indicated” describes mineral resources—not mineral reserves.¹⁰ (See ECF No.
2 130-2 at 4-6.) “Mineral resource” is a term of art that describes “a concentration or
3 occurrence of solid material of economic interest in or on the Earth’s crust in such form
4 grade or quality and quantity that there are reasonable prospects for eventual economic
5 extraction.” (*Id.* at 2.) Mineral resources are subdivided into inferred, indicated, and
6 measured categories. (*Id.*) Indicated mineral resources have a confidence level
7 somewhere in between inferred (lowest level of confidence) and measured (highest level
8 of confidence) mineral resources. (*Id.*) “Mineral reserve,” on the other hand, is a term of
9 art that describes “the economically mineable part of a measured and/or indicated mineral
10 resource.” (*Id.* at 6.) Thus, “mineral reserve” may describe only a portion of a mineral
11 resource—the portion that is economically mineable. Whether a portion of a mineral
12 resource is economically mineable depends on numerous factors, including marketing,
13 legal, environmental, social, and governmental factors. (ECF No. 130-5 at 10.) The term
14 “mineral resource” thus is a more general term than “mineral reserve,” encompassing a
15 greater variety of deposits.

16 NGL faced an ambiguity in McClung’s research and resolved that ambiguity in favor
17 of a more general term (mineral resource) rather than a more specific term (mineral
18 reserve). NGL’s decision to do so lends more reliability to its report than it might otherwise
19 merit. If NGL summarily described the “indicated reserves” as mineral reserves without
20 considering marketing, legal, and other factors, then the reliability of its report could
21 appropriately be called into question. The Court finds that NGL’s reclassification of
22 “indicated reserves” to “indicated resources” in this context does not render its report
23 unreliable.

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27 ¹⁰Although by definition mineral reserves consist of portions of indicated or
28 measured mineral resources. (See ECF No. 130-2 at 6 (“A Mineral Reserve is the
economically mineable part of a Measured and/or Indicated Mineral Resource.”).)

1 **2. Basis for Estimate of Inferred Resources**

2 The United States additionally argues that NGL’s mineral resource estimate should
3 be excluded because it fails to provide adequate support for its calculation of nine million
4 tons of inferred resources. (ECF No. 130 at 12.) According to the United States, NGL
5 “identified five pieces of support for this estimate . . . [but did] not connect the dots on how
6 these professed pieces of support lead to an estimate of nine million tons of inferred
7 mineral resources.” (*Id.*) A court “properly may exclude expert testimony if the court
8 concludes too great an analytical gap exists between the existing data and the expert’s
9 conclusion.” *Kennedy v. Collagen Corp.*, 161 F.3d 1226, 1230 (9th Cir. 1998); *San Diego*
10 *Comic Convention v. Dan Farr Prods.*, No. 14-cv-1865 AJB-JMA, 2017 WL 4227000 (S.D.
11 Cal. Sept. 22, 2017). Here, a significant analytical gap exists between the data and NGL’s
12 conclusion in the last substantive section of its report, titled “Inferred Resources.” In that
13 section, NGL concluded that an inferred resource at least nine times the size of the
14 indicated resource may exist at Groom Mine based on the following qualitative and
15 quantitative factors: (1) the capability of modern mining techniques to liberate four times
16 as much ore as McClung estimated to be present; (2) the existence of the Black Metal
17 Mine (rich in zinc) lying 200 feet below the Groom Mine; (3) the likely presence of additional
18 deposits based on analogy to a similar mine (the Pioche Hills district located about 75
19 miles northeast of the Property); (4) the prediction of two or three additional deposits by
20 the EMINERS program; and (5) the use of certain averages in calculating inferred
21 resources. (ECF No. 130-1 at 25.) NGL has leaped from consideration of qualitative
22 factors (e.g., the existence of additional deposits) to a specific multiplication factor (nine)
23 without any explanation. The Court is “unable to determine how [NGL] formed [its]
24 opinions” or that NGL used “a proven methodology that [it] can give to the jury so that they
25 can make a rational decision.” *San Diego Comic Convention*, 2017 WL 4227000, at *8
26 (internal citation and quotation marks omitted).

27 Additional information in other sections of the report about each of the factors NGL
28 considered does not justify or explain NGL’s analytical leap. Regarding the first factor NGL

1 listed in the “Inferred Resources” section of the report—the efficiency of modern mining
2 techniques—the report states: “If, however, the deposit were exploited with modern mining
3 methods, 20% of the existing resources would have been extracted (Figure 16) or a
4 resource increased [sic] by a multiple of four.” (ECF No. 130-1 at 23.) This statement does
5 not illuminate NGL’s analytical leap because all of the information contained therein
6 already appears among the five sources NGL identified as support for its quantitative
7 conclusion. (*Id.* at 25.)

8 Regarding the second factor NGL listed in the “Inferred Resources” section of the
9 report—the existence of the Black Metal Mine—the report states that the Black Metal Mine
10 evinces mineralization extending “to depth.” (ECF No. 130-1 at 6.) The report does not
11 specify what depth or explain the meaning of the term “to depth,” a possible term of art.
12 The report also does not translate the existence of the Black Metal Mine into a quantitative
13 multiplication factor. There is no explanation of how the Black Metal Mine’s mere existence
14 contributes to the quantitative conclusion that an inferred resource “nine times” the size of
15 the Groom Mine’s indicated resource exists.

16 Regarding the third factor NGL listed in the “Inferred Resources” section of the
17 report—analogy to the Pioche Hills district—the report states that “there is a high
18 probability that additional portions of the Pioche unit are mineralized” (ECF No. 130-1 at
19 10) and that the Property’s “striking similarity to the Pioche Hills area suggests that there
20 is a strong likelihood of additional mineralized occurrences at depth in the eastward-
21 dipping carbonate sections of the Carrara Formation” (*Id.* at 17). The report also states: “It
22 would be reasonable to conclude that if both the chemistry and lithology are similar, then
23 the relative resource amounts present between both areas should also be correlative.” (*Id.*
24 at 18.) The report describes the relationship between the amount of mineralized deposits
25 at the Pioche Hill district and the Property (correlative), but not the quantitative values that
26 lead to the factor of nine on which NGL settles. Notably missing from the report is a
27 description of the resource amount present at the Pioche Hills district (or an explanation
28 of why that information is unavailable or would be unhelpful). Without knowing the amount

1 of resources present at Pioche Hills district, neither the Court nor a jury can determine the
2 amount of resources that should be present at Groom Mine based on the “correlative”
3 relationship between the “relative resource amounts” at the two areas.

4 Regarding the fourth factor NGL listed in the “Inferred Resources” section of the
5 report—use of the EMINERS program—the report states that “the results indicat[e] that
6 there is the likelihood that between two and three additional deposits of equal or greater
7 size could exist in the Groom Mine area.” (ECF No. 130-1 at 23.) This is the kind of
8 quantitative information that could support NGL’s conclusion that an inferred resource nine
9 times the size of the Groom Mine’s indicated resource exists. But it is insufficient. There
10 is no explanation of how the existence of these two or three additional deposits leads to
11 the factor of nine upon which NGL settles. Even assuming that NGL multiplied the
12 indicated resource by two (or three), then multiplied that product by four (to account for
13 modern mining efficiency), the result is eight (or twelve)—not nine.

14 Regarding the fifth factor NGL listed in the “Inferred Resources” section of the
15 report—the use of certain averages in calculating inferred resources—the report states
16 that “the indicated resource average Lead and Silver grades were used in the inferred
17 resource.” (*Id.* at 25.) The report does not state how those average grades were used or
18 how they contributed to NGL’s quantitative conclusion.

19 NGL’s explanation in the report’s executive summary—though entirely
20 quantitative—is similarly unavailing: “When these findings are all considered—that is,
21 doubling the originally mined resource at and below 200 feet, increasing the depth of
22 extraction by a factor of six or seven, and then increasing the efficiency of mining by a
23 factor of four with modern methods—the original approximately one millions tons of ore
24 considered present in the historical literature increases substantially. This report estimates
25 an inferred resource for the Groom Mine of nine million tons of mineralized material.” (*Id.*
26 at 4.) This summary does not describe how the multiplication factors identified (two, six or
27 seven, and four) combine to yield a multiplication factor of nine.

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1 The Court concludes that NGL’s analytical leap from qualitative considerations to
2 quantitative conclusions coupled with its failure to explain its methodology constitutes a
3 significant inadequacy, but this inadequacy could be remedied in discovery through
4 deposition testimony or a supplemental report. Given the procedural posture of this case
5 (stayed pending resolution of threshold discovery issues), the Court declines to exclude
6 the report at this time.

7 **3. Eventual Economic Extraction**

8 The United States argues that NGL’s resource estimate is unreliable and should be
9 excluded because it does not address the reasonable prospects for eventual economic
10 extraction. (ECF No. 130 at 13.) “Reasonable prospects for eventual economic extraction”
11 inheres in the definition of “mineral resources.” (ECF No. 130-2 at 4 (defining a mineral
12 resource as “a concentration or occurrence of solid material of economic interest in or on
13 the Earth’s crust in such form, grade or quality and quantity that there are reasonable
14 prospects for eventual economic extraction”).)

15 There is insufficient evidence to conclude that NGL failed to gauge reasonable
16 prospects for eventual economic extraction at the appropriate level of detail. The United
17 States cites no support for its argument that NGL must consider such granular details as
18 the revenue the mine operator would receive for each ton of mined material. (See ECF
19 No. 130 at 14.) Moreover, the definition in the SME guide indicates that a mineral resource
20 is “a realistic estimate of mineralization which, under *assumed and justifiable* technical
21 and economic conditions, might become economically extractable.” (ECF No. 130-5 at 20
22 (emphasis added).) The United States has not shown that the factors it contends NGL
23 should have considered are qualitatively different from the “technical and economic
24 conditions” that appropriately may be assumed under the SME industry standards.

25 **4. EMINERS Program**

26 The United States next argues that NGL’s report should be excluded as unreliable
27 because it improperly uses and relies upon the EMINERS program. (ECF No. 130 at 15.)
28 The EMINERS program is “developed to allow geologists to ‘estimate the number of

1 undiscovered deposits at different levels of probability.” (ECF No. 146 at 11.) The United
2 States contends that NGL improperly used EMINERS in two ways. First, the United States
3 argues that the program could not have “predicted” undiscovered deposits because NGL
4 chose the number of deposits to input. (ECF No. 130 at 15.) Second, the United States
5 asserts that the program is not made to evaluate tracts of land as small as the Property.
6 (*Id.*)

7 The United States’ first contention does not tarnish the report’s reliability. EMINERS
8 requires the operator to input hypothesized numbers of deposits at various confidence
9 levels, then the program determines, *inter alia*, the mean number of undiscovered deposits
10 estimated to be present in the assessment tract. (ECF No. 146 at 20-21; ECF No. 130-3
11 at 15.) Here, NGL hypothesized the number of deposits that exist at various confidence
12 levels based on research and experience and entered those values into EMINERS. (See
13 ECF No. 146-8 at 3.) EMINERS generated a probabilistic result that NGL interpreted as a
14 likelihood that additional undiscovered deposits exist. (*Id.*) This methodology appears to
15 be logical and not inherently unreliable. In addition, the Government provides no evidence
16 to counter NGL’s assertions in its affidavit that this methodology is reliable and generally
17 accepted (*Id.* at 2).

18 The United States’ second contention is that EMINERS results cannot be reliable
19 for a tract of land as small as the Property (which is roughly 1.6 square kilometers). (ECF
20 No. 130 at 15; ECF No. 175 at 10.) The United States argues that “[t]he scale of the
21 geologic map data used to delineate the permissive tracts affects the estimates” and that
22 “[p]ermissive tract sizes range from about 10 square kilometers to hundreds of thousands
23 of square kilometers” based on the affidavit of Jane Hammarstrom, a geologist for the U.S.
24 Geological Survey who is designated as a point of contact for individuals with questions
25 about the EMINERS program. (ECF No. 175 at 10 (quoting ECF No. 130-4 at 4).)
26 Hammarstrom’s affidavit does not expressly contemplate the reliability of the EMINERS
27 program for tract sizes smaller than ten square kilometers. (See ECF No. 130-4 at 4.)

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1 Landowners respond that “tract size” refers to volume, not area. (See ECF No. 146
2 at 22; see also ECF No. 146-8 at 10 (“The geologic area considered in EMINERS is three
3 dimensional considering the depth of the potential mineralization not just the surface
4 acreage.”).) Thus, Landowners argue, the “tract size” of the Property is significantly larger
5 than 1.6 square kilometers. (ECF No. 146 at 22.) Landowners’ response to the United
6 States’ argument is not wholly satisfactory. Landowners do not address the maximum
7 depth that could be considered in calculating the volume of a tract, nor do they explain
8 why Hammarstrom defined permissive tract size in terms of surface area (square
9 kilometers) rather than in terms of volume (e.g., cubic kilometers) if volume is the
10 appropriate measure.

11 Although the United States has identified important questions about NGL’s use of
12 the EMINERS program, the United States has not shown that the NGL report is
13 necessarily unreliable in light of Landowners’ explanations (incomplete though they may
14 be at this stage of litigation). The Court finds that the technical inconsistencies between
15 the parties’ understandings of EMINERS will be best resolved through additional discovery
16 rather than exclusion of NGL’s report given the procedural posture of the case.

17 **VII. PLAINTIFF’S MOTION TO EXCLUDE THE OPINIONS OF LANDOWNERS’**
18 **EXPERT TERRENCE CLAURETIE (ECF NO. 135)**

19 Landowners have sought to introduce three expert opinions by Terrence Clauretjie.
20 The first report (Clauretjie I) estimates the “amount of compensation necessary to put the
21 Sheahan Family back in as good a position pecuniarily as if their property had not been
22 taken.” (ECF No. 135-1 at 3.) The second report (Clauretjie II) assesses the financial
23 feasibility of a “hypothetical tenant’s hypothetical business operation on the property as of
24 September 10, 2015.” (ECF No. 135 at 3.) The third report (Clauretjie III) was excluded in
25 a prior order.¹¹ (ECF No. 241 at 11.)

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27 ¹¹Clauretjie III presented an opinion of value based on the “calculation of the burden
28 the United States will be relieved of by taking the landowners’ property.” (ECF No. 135 at
3 (quoting ECF No. 135-1 at 18).)

1 The United States argues that Clauretje I and II must be excluded because
2 Clauretje is not qualified to appraise property and because Clauretje merely provided
3 conclusory statements resulting in an unsupported valuation. (ECF No. 135 at 2.)

4 **1. Clauretje I**

5 Clauretje I concludes that between about \$81 million and \$116 million is the amount
6 necessary to put the Sheahan Family back in as good a position pecuniarily as if their
7 property had not been taken. (ECF No. 135-1 at 11.) The United States argues that there
8 are two fundamental problems with Clauretje I: (1) Clauretje is not an appraiser and (2)
9 Clauretje did not perform a valid highest and best use analysis in his report. (ECF No. 135
10 at 9.)

11 The United States first argues that Clauretje cannot provide an assessment of the
12 Property's value because he is not a licensed appraiser. In fact, the United States points
13 out, Nevada law makes it a misdemeanor for a person to act as an appraiser without
14 appropriate licensing. (ECF No. 135 at 9-10 (citing NRS § 645C.260(1)(A).) Landowners
15 assert that the Nevada law does not apply in eminent domain proceedings. (ECF No. 149
16 at 10 (citing NRS § 645C.150(6).) The United States counters that this statutory exception
17 applies only to state eminent domain proceedings, not federal eminent domain
18 proceedings. (ECF No. 174 at 5-6.) Ultimately, the question of whether Clauretje has
19 committed a misdemeanor by offering testimony in this case is beside the point. The
20 United States makes this argument to show that Clauretje is not qualified to value land
21 (*see id.* at 2, 5-6), but the Court finds that Landowners have made a sufficient showing
22 that Clauretje is qualified to appraise the value of land despite the lack of a license.
23 Landowners assert that Clauretje spent more than thirty years as a professor of economics
24 wherein his research, writing, and teaching focused significantly on real estate and the
25 economics of real estate. (ECF No. 149 at 4.) In addition, Clauretje has taught seminars
26 for appraisers. (*Id.*)

27 The United States next argues that Clauretje did not perform a valid highest and
28 best use analysis in his report by failing to explain his methodology. (ECF No. 135 at 9-

1 10.) Highest and best use analysis is a term of art in condemnation actions, meaning the
2 “highest and most profitable use for which the property is adaptable and needed or likely
3 to be needed in the reasonably near future.” *Olson v. United States*, 292 U.S. 246, 255
4 (1934). “The highest and best use analysis is an integral part of the appraisal process.”
5 *Nat’l Parks & Conservation Ass’n v. Bureau of Land Mgmt.*, 606 F.3d 1058, 1066 (9th Cir.
6 2009). The highest and best use is to be considered “not necessarily as the measure of
7 value, but to the full extent that the prospect of demand for such use affects the market
8 value while the property is privately held.” *Olson*, 292 U.S. at 255.

9 Claurette I contains an analysis of highest and best use:

10 Based upon the information I have reviewed in this case and my expertise,
11 it is my opinion that the highest and best use of the Sheahan Family property
12 is for a recreational tourist use, with the possibility of low intensity mining. I
13 have determined that this use is legally permissible based upon the zone
14 change and special use permit applications, staff recommendation and letter
15 of approval from Lincoln County. I have determined that this use is physically
possible based upon my personal inspection of the property and my review
of the site layout showing potential development on the Sheahan Family
property. I have determined that this use is financially feasible based on my
companion report that addresses the financial feasibility of this use. It is also
my opinion that this is the use that will be maximally productive.

16 (ECF No. 135-1 at 7-8.) Though sparse, the analysis is complete. The report identifies
17 conclusions and the basis for those conclusions. Although Claurette’s opinion “that this is
18 the use that will be maximally productive” appears somewhat bald, the context of the
19 paragraph indicates that this conclusion is based “upon the information [Claurette]
20 reviewed in this case and [his] expertise.” (*Id.* at 7.) The information Claurette reviewed
21 includes the Steinagel report discussing the use of the Property as a tourist destination.
22 (*Id.* at 3 (citing the Steinagel report among the materials on which Claurette relied).)

23 The United States additionally argues that Claurette has failed to identify or explain
24 his methodology for valuing the Property. (ECF No. 135 at 10.) This does not appear to
25 be correct. Claurette expressly described his methodology in his report. (ECF No. 135-1
26 at 8.) The United States contends that Claurette never explains why his methodology is
27 the best methodology for valuing the Property (ECF No. 135 at 10), but that also does not
28 seem to be correct. Claurette explains that his methodology is especially appropriate for

1 valuing the Property because the Property is so unique that it lacks real world
2 comparators. (ECF No. 149 at 8.) In addition, Claurette explains that his methodology is
3 reliable because it is a “generally accepted method to arrive at a real property value.” (*Id.*
4 (quoting ECF No. 149-3 at 6))

5 2. **Claurette II**

6 Claurette II concludes that it would be financially feasible for the Property to be
7 transformed into a tourist destination. (ECF No. 135 at 3.) The United States argues that
8 Claurette II improperly considers the potential future use of the property by assuming that
9 an actual tenant was operating an actual business on the Groom Property as of the date
10 of taking. (*Id.*) “[A] potential future use of condemned property should be considered not
11 as the present measure of value but only to the extent that the prospect of demand for
12 such use would have affected the price a willing buyer would have offered for the property
13 just prior to the taking.” *United States v. Benning*, 330 F.2d 527, 532 (9th Cir. 1964). The
14 United States’ argument is unavailing. Claurette II does not find the “present measure of
15 value” based on the hypothetical tourist business operation. Instead, Claurette II
16 concludes that the use of the Property as a tourist destination is financially feasible. It was
17 appropriate for Claurette to consider the potential income of a hypothetical business to
18 determine financial feasibility.

19 The United States next argues that Claurette’s opinions about whether the property
20 is “special use property” should be excluded because they are unsupported and amount
21 to legal conclusions. Claurette’s opinion is sufficiently supported by his assertion of the
22 following facts: the Property is the only privately owned property in the Groom Lake Valley,
23 and it is the only property in the world with an unobstructed view of Area 51. (ECF No. 135
24 at 11-12.)

25 Regarding the potential for Claurette’s opinion to amount to a legal conclusion,
26 “an expert witness cannot give an opinion as to her legal conclusion, i.e., an opinion on
27 an ultimate issue of law.” *Hangarter v. Provident Life & Acc. Ins. Co.*, 373 F.3d 998, 1016
28 (9th Cir. 2004) (quoting *Elsayed Mukhtar v. California State Univ., Hayward*, 299 F.3d

1 1053, 1066 n.10 (9th Cir. 2002), *amended sub nom. Mukhtar v. California State Univ.,*
2 *Hayward*, 319 F.3d 1073 (9th Cir. 2003), *overruled on other grounds by Estate of Barabin*
3 *v. AstenJohnson, Inc.*, 740 F.3d 457 (9th Cir. 2014)). Sometimes properties are so unique
4 that fair market value is an inappropriate indicator of value. *California v. United States*,
5 395 F.2d 261, 265 (9th Cir. 1968) (“In many cases [just compensation] can readily be
6 served by the ascertainment of fair market value—what a willing buyer would pay in cash
7 to a willing seller. But this is not an absolute standard nor an exclusive method of
8 valuation.” (quoting *United States v. Miller*, 317 U.S. 369, 374 (1943))). Whether a property
9 is sufficiently unique that a different indicator of value is required is not obviously a factual
10 or legal question. On the one hand, whether and to what degree a property is unique is a
11 factual question. Empirical research (as opposed to legal research) would reveal whether
12 and to what degree a given property is unlike any other property. On the other hand,
13 whether a property is unique enough that fair market value is an inappropriate or
14 inaccurate indicator of value could be considered a legal conclusion. Legal research (as
15 opposed to empirical research) could uncover analogous situations in which courts
16 determined just compensation by a method other than fair market value. But empirical
17 research could also show that fair market value is an inappropriate valuation. For instance,
18 empirical research could show that a house designed by a particular architect has a
19 different value to enthusiasts for that architect and her work than to the general population.

20 In light of this ambiguity, the Court finds that Clauretje may testify about the unique
21 nature of the property (clearly a factual question) and to what degree measures of the
22 Property’s value other than fair market value are accurate. Clauretje may not, however,
23 opine as to the legal conclusion that the Property is part of a legally recognized category
24 of properties that are so unique that fair market value is an inaccurate measure of value.

25 **VIII. CONCLUSION**


26 The Court notes that the parties made several arguments and cited to several cases
27 not discussed above. The Court has reviewed these arguments and cases and determines

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1 that they do not warrant discussion as they do not affect the outcome of the motions
2 addressed in this Order.

3 It is therefore ordered that the United States' motions to exclude the mineral
4 resource estimate opinion of NGL (ECF No. 130), survey data (ECF No. 133), the expert
5 opinion of Cameron Steinagel (ECF No. 134), and the expert opinion of Terrence Clauretie
6 (ECF No. 135) are denied. Denial of the United States' motion to exclude NGL's opinion
7 is without prejudice should Landowners fail to address the deficiencies of NGL's opinion
8 as discussed in this Order during discovery.

9 DATED THIS 24th day of October 2017.

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12 _____
13 MIRANDA M. DU
14 UNITED STATES DISTRICT JUDGE
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