

**VENT\_252**

**VENT\_252**

1 STATE OF NEVADA  
 2 DEPARTMENT OF CONSERVATION AND NATURAL RESOURCES  
 3 DIVISION OF WATER RESOURCES  
 4 BEFORE SUSAN JOSEPH-TAYLOR, HEARING OFFICER  
 5  
 6  
 7 IN THE MATTER OF APPLICATIONS  
 8 81719, 81720, 81825, 82268,  
 8 82570, 82571, 82572 and 82573 /  
 9  
 10 TRANSCRIPT OF PROCEEDINGS  
 11 PUBLIC HEARING  
 12 VOLUME I  
 13 MONDAY, NOVEMBER 18, 2013  
 14  
 15  
 16  
 17  
 18  
 19  
 20  
 21  
 22  
 23 Reported by: CAPITOL REPORTERS  
 24 Certified Court Reporters  
 24 BY: MICHEL LOOMIS, NV CCR #228  
 25 208 North Curry Street  
 Carson City, Nevada 89703  
 (775) 882-5322  
 CAPITOL REPORTERS (775) 882-5322  
 1

1 APPEARANCES:  
 2 Jason King, State Engineer  
 3 Susan Joseph-Taylor, Deputy Administrator  
 4 Malcolm Wilson, Assistant Hearing Officer  
 5 Rick Felling, Chief Hydrologist  
 6 Kristen Geddes, Hearing Officer  
 7 Section of the Division of Water Resources  
 8 Steve Walmsley, Water Resource Specialist  
 9  
 10 For Sadler Ranch, LLC: Taggart & Taggart, Ltd.  
 11 By: Paul G. Taggart, Esq.  
 12 For Daniel Venturacci: Thorndal, Armstrong, Delk,  
 13 Balkenbush & Eisinger  
 By: Brent Kolvet, Esq.  
 14 For Kenneth Benson,  
 15 Diamond Cattle Company  
 and Etcheverry Family  
 16 Limited Partnership: Schroeder Law Offices P. C.  
 By: Therese A. Ure, Esq.  
 17 For Diamond Natural  
 18 Resources Protection and  
 Conservation Association: Bob Burnham  
 19 For James Gallagher: James Gallagher  
 20 For Mark Moyle Farms: Mark Moyle  
 21 For Eureka County: Allison MacKenzie, et al.  
 22 By: Karen A. Peterson, Esq.  
 23 Also present: Theodore Beutel, Esq.  
 24 Chairman Ithurrealde  
 Vice Chairman Goicoechea  
 Dale Bugenig  
 Jake Tibbitts  
 25 CAPITOL REPORTERS (775) 882-5322  
 2

1 INDEX  
 2  
 3 WITNESSES: DIRECT CROSS REDIRECT RECROSS  
 4 Doug Frazer 38 121, 137, 154 161  
 5 162, 164,  
 169  
 6 Ted Yednock 173 229, 248, 266 271  
 7 Mike Buschelman 273  
 8  
 9 EXHIBITS MARKED RECEIVED  
 10 28 through 74 8  
 11 187 39  
 12 180 through 184 58  
 13 112 61  
 14 174 and 175 66  
 15 406 67  
 16 118 67  
 17 156 72  
 18 157 and 158 77  
 19 160 and 161 77  
 20 159 83  
 21 163 84  
 22 616 84  
 23 170 87  
 24 171 87  
 25 173 88  
 CAPITOL REPORTERS (775) 882-5322  
 3

1 EXHIBITS MARKED RECEIVED  
 2 162 92  
 3 164 93  
 4 165 through 168 93  
 5 172 93  
 6 110 97  
 7 111 98  
 8 113 98  
 9 177 98  
 10 198 98  
 11 155 103  
 12 176 103  
 13 319 115  
 14 605 117  
 15 191 and 192 117  
 16 617 121  
 17 149 and 150 172  
 18 197 172  
 19 196 172  
 20 136 181  
 21 138 188  
 22 142 197  
 23 178 198  
 24 132 and 139 203  
 25 130 and 137 208  
 CAPITOL REPORTERS (775) 882-5322  
 4

1	EXHIBITS	MARKED	RECEIVED
2	131		209
3	133		216
4	139		220
5	140		224
6	103		228
7	437		237
8	145		266
9	143		285
10	602		285
11			
12			
13			
14			
15			
16			
17			
18			
19			
20			
21			
22			
23			
24			
25			

CAPITOL REPORTERS (775) 882-5322

1 CARSON CITY, NEVADA, MONDAY, NOVEMBER 18, 2013, 8:30 A.M.  
2 -o0o-  
3  
4 HEARING OFFICER JOSEPH-TAYLOR: Let's be on the  
5 record. Good morning. As set forth in the hearing notice of  
6 June 7th, 2013 this is the time and place noticed for a  
7 hearing in the matter of protested applications 81719, 81720,  
8 81825, 82268, 82570, 82571, 82572 and 82573.  
9 For the record, my name is Susan Joseph-Taylor  
10 and I'm a deputy administrator with the Division of Water  
11 Resources. To my left is the State Engineer Jason King, chief  
12 hydrologist Rick Felling. This is Malcolm Wilson who is  
13 assistant hearing officer. For those of you haven't met  
14 Kristen Geddes, she's the new chief in the hearing section.  
15 This may be my last hearing. And Steve Walmsley with the  
16 adjudication section. At this time I'll take appearances for  
17 the record.  
18 MR. TAGGART: Good morning, my name is  
19 Paul Taggart, I'm here on behalf of Sadler Ranch.  
20 MR. KOLVET: My name is Brent Kolvet, I'm here  
21 for Venturacci.  
22 HEARING OFFICER JOSEPH-TAYLOR: Thank you. Spell  
23 that for the court reporter, please.  
24 MR. KOLVET: I would. V-E-N-T-U-R-A-C-C-I.  
25 HEARING OFFICER JOSEPH-TAYLOR: Thank you.  
CAPITOL REPORTERS (775) 882-5322

1 MS. PETERSON: Karen Peterson appearing on behalf  
2 of Eureka County. And also here today is Ted Beutel who's  
3 also appeared on behalf of Eureka County. And then I did want  
4 to introduce you to Commissioner Michael Sharkozy who's also  
5 here today.  
6 HEARING OFFICER JOSEPH-TAYLOR: So let's spell  
7 Beutel for the court reporter.  
8 MS. PETERSON: B-E-U-T-E-L.  
9 HEARING OFFICER JOSEPH-TAYLOR: And then?  
10 MS. PETERSON: Sharkozy, S-H-A-R-K-O-Z-Y.  
11 HEARING OFFICER JOSEPH-TAYLOR: Thank you,  
12 Ms. Peterson.  
13 MS. URE: Good morning, I'm Therese Ure  
14 representing the Etcheverry Family Limited Partnership and  
15 Diamond Cattle Company and Kenneth Benson. And Mr. Benson is  
16 in the courtroom today.  
17 HEARING OFFICER JOSEPH-TAYLOR: Good morning,  
18 Mr. Benson.  
19 MR. BENSON: Good morning.  
20 HEARING OFFICER JOSEPH-TAYLOR: Diamond Natural  
21 Resources Protection and Conservation Association, any  
22 appearance?  
23 MR. BURNHAM: Bob Burnham.  
24 HEARING OFFICER JOSEPH-TAYLOR: Spell your last  
25 name, please, sir.  
CAPITOL REPORTERS (775) 882-5322

1 MR. BURNHAM: B-U-R-N-H-A-M.  
2 HEARING OFFICER JOSEPH-TAYLOR: Thank you. James  
3 E. Gallagher and James T. Gallagher?  
4 MR. GALLAGHER: Jim Gallagher is here.  
5 HEARING OFFICER JOSEPH-TAYLOR: Good morning,  
6 Mr. Gallagher. Dusty Moyle? Let the record reflect no show.  
7 James Moyle? Let the record reflect no show. Mark Moyle  
8 Farms?  
9 MR. MOYLE: Mark Moyle here.  
10 HEARING OFFICER JOSEPH-TAYLOR: Good morning,  
11 Mr. Moyle.  
12 MR. MOYLE: Good morning.  
13 HEARING OFFICER JOSEPH-TAYLOR: And Mark Moyle on  
14 his own behalf.  
15 As set forth in the Nevada Administrative Code,  
16 Chapter 5339, the court reporter will file an original and one  
17 copy of the transcript with the State Engineer. Anyone  
18 wanting a copy of the transcript can make arrangements with  
19 the court reporter. As provided in Nevada Administrative Code  
20 533, subsection 300, I will take administrative notice of the  
21 files and records in the office of the State Engineer.  
22 I'm going to begin by introducing some exhibits  
23 to get us all started and I hope I don't have to read them  
24 all. I sent you all an exhibit list last Wednesday and  
25 Exhibits 29 through 74, which have not been put in the record  
CAPITOL REPORTERS (775) 882-5322

1 yet are copies of the applications, the protests, the notice  
2 for this hearing, the legal briefs you filed and the State  
3 Engineer's interim order. So instead of reading those all  
4 into the record I can give Michel, you, an exhibit list, but  
5 is there any objection to the admission of Exhibits 29 through  
6 74?

7 MS. PETERSON: No objection.

8 HEARING OFFICER JOSEPH-TAYLOR: Hearing none,  
9 they will be admitted. Thank you. We're going to try and be  
10 efficient here.

11 (Exhibits 28 through 74 admitted into  
12 evidence.)

13 HEARING OFFICER JOSEPH-TAYLOR: 28 through 74.

14 Thank you, Malcolm. Are there any preliminary matters we need  
15 to take care of before we get started?

16 MS. PETERSON: Yes.

17 HEARING OFFICER JOSEPH-TAYLOR: Ms. Peterson?

18 MS. PETERSON: Thank you. I would like just to  
19 put on the record I note that the interim order in this  
20 proceeding dated August 9th, 2013 stated that the State  
21 Engineer was not making any determination on the arguments  
22 raised in the briefs until after the hearing. But I would  
23 again assert that based on the applications made by the  
24 Applicants for mitigation water rights pursuant to order 1226,  
25 the Applicants are really requesting an adjudication of their  
CAPITOL REPORTERS (775) 882-5322

9

1 rights, their claims to vested rights to determine priority  
2 and quantity. And adjudication is the appropriate procedure  
3 and I'm just going to reiterate for the record I guess our  
4 basis for that.

5 And one basis that adjudication is the  
6 appropriate procedure is if you look on the Nevada Department  
7 of Conservation and Natural Resources website under Nevada  
8 water law 101, there's a section that deals with important  
9 concepts and definitions. And under surface water the  
10 explanation there states most surface water has been or will  
11 be required to be adjudicated, which is a statutory process by  
12 which pre-statutory vested water right claims are quantified  
13 and finally judicially decreed.

14 Also noting in Applicant's Exhibit 294, which is  
15 Hugh Shamberger's oral history. On page 25, former State  
16 Engineer Hugh Shamberger recognized rights prior to 1905 are  
17 thus classified as vested rights, the magnitude and extent of  
18 which can only be determined by a process of adjudication by  
19 the State Engineer as outlined in the water law.

20 And then goes on to state that an appropriator  
21 can file with the State Engineer a proof of appropriation  
22 together with a map which is his proof of claim to vested  
23 water right.

24 And then in 1982 as you've been made aware, State  
25 Engineer Peter Moros indicated that adjudication was the  
CAPITOL REPORTERS (775) 882-5322

10

1 appropriate way to quantify and determine the priority of  
2 claims to vested rights. And even looking at the definition  
3 of water rights in the dictionary of water words on the State  
4 Engineer's website, vested water is defined as the water right  
5 to use either surface or groundwater acquired through more or  
6 less continual beneficial use prior to the enactment of water  
7 law pertaining to the source of the water. These --

8 HEARING OFFICER JOSEPH-TAYLOR: Slow down, the  
9 court reporter can't take it that fast.

10 MS. PETERSON: These claims become final through  
11 adjudication.

12 And so we would move at this time to vacate the  
13 hearing and postpone action on these applications pursuant to  
14 NRS 533.370, subsection 4, subsection F and NRS 533.370,  
15 subsection 4, subsection G, which allow the State Engineer to  
16 defer action on any applications if he determines that an  
17 adjudication needs to be made.

18 And we'd ask this so that the State Engineer can  
19 adjudicate the undetermined claims of vested rights at issue  
20 in this proceeding prior to considering the pending  
21 groundwater applications for mitigation.

22 MS. URE: And on behalf of Etcheverry, Diamond  
23 Cattle Company and Mr. Benson we would adopt Ms. Peterson's  
24 initial remarks and join in her motion.

25 HEARING OFFICER JOSEPH-TAYLOR: Response,  
CAPITOL REPORTERS (775) 882-5322

11

1 Mr. Taggart?

2 MR. TAGGART: Thank you. First I want to thank  
3 you, Mr. King, for giving us the opportunity to come here and  
4 ask for replacement water for Sadler Ranch. The State  
5 Engineer's Office certainly has the power to replace water  
6 rights that have been impaired, particularly vested rights  
7 that have been impaired by junior appropriators. And that's a  
8 situation we're dealing with here.

9 Since the beginning of the water law was adopted  
10 and the State Engineer's Office was created the most important  
11 responsibility the State Engineer has is to protect rights  
12 that have been initiated prior to that time. And when the  
13 water code was adopted it was -- the whole process was  
14 litigated. And the Nevada Supreme Court and the legislature  
15 all indicated that the State Engineer could only exercise its  
16 powers if he protected the rights that existed prior to the  
17 adoption of the statutes.

18 That's been the -- that's been the law ever since  
19 1905. And in this situation junior appropriators have caused  
20 an impact to a senior water right holder.

21 The -- the -- the question is what powers does  
22 the State Engineer have to do something about this problem.  
23 And Eureka County's argument is that you -- you can't do  
24 anything to protect an existing right -- or a vested right.  
25 And here now -- now we're saying we have to go through an  
CAPITOL REPORTERS (775) 882-5322

12



1 procedure is that Monday through Wednesday is the time for the  
2 Applicants to put on their case and Thursday and Friday is the  
3 time for Protestants. It's my understanding, Mr. Taggart,  
4 Sadler Ranch is going first; is that correct?

5 MR. TAGGART: That's correct.

6 HEARING OFFICER JOSEPH-TAYLOR: And I see for the  
7 Protestants that Eureka County, Diamond Cattle Company,  
8 Etcheverry Family Limited Partnership and Benson are the only  
9 ones that had submitted any exhibits so I am assuming the  
10 other Protestants don't plan on putting on a case in chief; is  
11 that correct, Mr. Moyle?

12 MR. MOYLE: I plan on making a comment.

13 HEARING OFFICER JOSEPH-TAYLOR: I couldn't hear  
14 you, sir, could you --

15 MR. MOYLE: I plan on making a comment.

16 HEARING OFFICER JOSEPH-TAYLOR: Oh, a comment?

17 MR. MOYLE: Yes.

18 HEARING OFFICER JOSEPH-TAYLOR: Okay.

19 Mr. Gallagher, is that true for you also?

20 MR. GALLAGHER: Yes.

21 HEARING OFFICER JOSEPH-TAYLOR: And, Mr. Burnham,  
22 is that true for you also?

23 MR. BURNHAM: Yes.

24 HEARING OFFICER JOSEPH-TAYLOR: Thank you. I  
25 just wanted to make a record of that. Have the Protestants  
CAPITOL REPORTERS (775) 882-5322

17

1 decided which order they're presenting their cases, who's  
2 going first between you two?

3 MS. PETERSON: Probably Eureka County.

4 HEARING OFFICER JOSEPH-TAYLOR: Okay. I'm just  
5 trying to get a feel for how we're going to proceed. I would  
6 assume I was going to take public comment at the end of the  
7 hearing. Mr. Gallagher and Mr. Moyle, are you planning on  
8 staying all week?

9 MR. GALLAGHER: I am.

10 HEARING OFFICER JOSEPH-TAYLOR: All right. You  
11 too, Mr. Gallagher?

12 MR. GALLAGHER: Yes.

13 HEARING OFFICER JOSEPH-TAYLOR: Mr. Benson,  
14 you're represented by counsel, you don't get to talk, you talk  
15 through Therese, Ms. Ure, I'm sorry.

16 Mr. Taggart, first witness, please? Or did  
17 anyone want an opening?

18 MR. TAGGART: I would like to, yes.

19 HEARING OFFICER JOSEPH-TAYLOR: Sure. Go ahead.

20 MR. TAGGART: Again, thank you. And good  
21 morning, everyone. Good morning, staff, good morning, State  
22 Engineer. You know, we're here in an unusual situation where  
23 there's been an impact to senior rights from junior rights.  
24 And as I indicated before, the legislature and the courts were  
25 clear a hundred years ago on this kind of a situation.  
CAPITOL REPORTERS (775) 882-5322

18

1 STATE OF NEVADA )  
2 ) ss.  
3 CARSON CITY )

4  
5 I, MICHEL DOTY LOOMIS, a Certified Court  
6 Reporter, do hereby certify;

7 That on the 18th of November, 2013, in Carson  
8 City, Nevada, I was present and took stenotype notes of the  
9 hearing held before the Nevada Department of Conservation and  
10 Natural Resources, Division of Water in the within entitled  
11 matter, and thereafter transcribed the same into typewriting  
12 as herein appears;

13 That the foregoing transcript, consisting of  
14 pages 1 through 301 hereof, is a full, true and correct  
15 transcription of my stenotype notes of said hearing.

16  
17 Dated at Carson City, Nevada, this 13th day of  
18 December, 2013.

19  
20  
21 \_\_\_\_\_  
22 MICHEL LOOMIS, NV CCR #228

23  
24  
25 CAPITOL REPORTERS (775) 882-5322

303

1 STATE OF NEVADA  
2 DEPARTMENT OF CONSERVATION AND NATURAL RESOURCES  
3 DIVISION OF WATER RESOURCES  
4 BEFORE SUSAN JOSEPH-TAYLOR, HEARING OFFICER

5  
6  
7 IN THE MATTER OF APPLICATIONS  
8 81719, 81720, 81825, 82268,  
9 82570, 82571, 82572 and 82573 /

10 TRANSCRIPT OF PROCEEDINGS

11 PUBLIC HEARING

12 VOLUME II

13 TUESDAY, NOVEMBER 19, 2013

14  
15  
16  
17  
18  
19  
20  
21  
22 Reported by: CAPITOL REPORTERS  
23 Certified Court Reporters  
24 BY: CHRISTY JOYCE, NV CCR #625  
25 208 North Curry Street  
Carson City, Nevada 89703  
(775)882-5322

CAPITOL REPORTERS (775) 882-5322

304

1	APPEARANCES:	
2	Jason King, State Engineer	
3	Susan Joseph-Taylor, Deputy Administrator	
4	Malcolm Wilson, Assistant Hearing Officer	
5	Rick Felling, Chief Hydrologist	
6	Kristen Geddes, Hearing Officer	
7	Section of the Division of Water Resources	
8	Steve Walmsley, Water Resource Specialist	
9		
10	For Sadler Ranch, LLC:	Taggart & Taggart, Ltd.
11	For Daniel Venturacci:	By: Paul G. Taggart, Esq.
12		Thorndal, Armstrong, Delk
		Balkenbush & Eisinger
		By: Brent Kolvet, Esq.
13	For Kenneth Benson,	
14	Diamond Cattle Company	
15	And Etcheverry Family	
	Limited Partnership:	Schroeder Law Offices P.C.
		By: Therese A. Ure, Esq.
16	For Diamond Natural	
17	Resources Protection and	
	Conservation Association:	Bob Burnham
18	For James Gallagher:	James Gallagher
19	For Mark Moyle Farms:	Mark Moyle
20	For Eureka County:	Allison MacKenzie, et al.
21		By: Karen A. Peterson, Esq.
22	Also present:	Theodore Beutel, Esq.
23		Chairman Ithurrealde
24		Vice Chairman Goicoechea
		Dale Eugenio
		Jake Tibbitts
25		

CAPITOL REPORTERS (775) 882-5322

1	INDEX	
2	WITNESS	PAGE
3	MIKE BUSCHELMAN	
4	Direct Examination by Mr. Taggart	309
5	Cross-Examination by Ms. Ure	408
6	Cross-Examination by Ms. Peterson	430
7	Redirect Examination by Mr. Taggart	464
8	Recross-Examination by Ms. Ure	469
9	Examination by Mr. Felling	471
10	Examination by Mr. Walmsley	483
11	Examination by The State Engineer	486
12	DWIGHT SMITH (Panel with Terry Katzer)	
13	Direct Examination by Mr. Taggart	497
14	TERRY KATZER (Panel with Dwight Smith)	
15	Direct Examination by Mr. Kolvet	501
16		
17		
18		
19		
20		
21		
22		
23		
24		
25		

CAPITOL REPORTERS (775) 882-5322

1	EXHIBITS	
2	EXHIBIT NUMBER	RECEIVED
3	124, 126 and 127	326
4	115 through 117	332
5	141	347
6	114	380
7	193 and 194	383
8	123	387
9	609	401
10	603	402
11	105	405
12	190	405
13	297	406
14	106	406
15	104	406
16	128	407
17	125	408
18	129	408
19	101 and 102	451
20	185 and 186	452
21	146	508
22	121 and 122	513
23	303	514
24	304 and 289	516
25	119	517

CAPITOL REPORTERS (775) 882-5322

1	EXHIBITS	
2	EXHIBIT NUMBER	RECEIVED
3	147	532
4	263 and 201	533
5	202 and 203	535
6	204 through 206	544
7	208	544
8	209	545
9	214 and 216	545
10	215	545
11	217	545
12	294	552
13	287	553
14	279 through 285	555
15	218 and 219	584
16	108	585
17	109	585
18	310	585
19		
20		
21		
22		
23		
24		
25		

CAPITOL REPORTERS (775) 882-5322

1 TUESDAY, NOVEMBER 19, 2013, 8:00 A.M.

2 ---oOo---

3 HEARING OFFICER JOSEPH-TAYLOR: We are going to  
4 continue with direct examination of Mr. Buschelman. Welcome  
5 back, Mr. Buschelman.

6 THE WITNESS: Thank you.

7 HEARING OFFICER JOSEPH-TAYLOR: Mr. Taggart.

8 (The court reporter interrupts)

9 THE WITNESS: It's Mike. And it's  
10 B-u-s-c-h-e-l-m-a-n.

11 HEARING OFFICER JOSEPH-TAYLOR: And we're on his  
12 direct, Christy.

13 MR. TAGGART: Good morning, everyone.

14  
15 MIKE BUSCHELMAN

16 Called as a witness on behalf of the  
17 Applicant, having been first duly sworn,  
18 Was examined and testified as follows:

19  
20 DIRECT EXAMINATION

21 By Mr. Taggart:

22 Q. Good morning, Mr. Buschelman.

23 A. Good morning.

24 Q. We're going to start where we ended yesterday.

25 And we were talking about the plat maps from the surveys that  
CAPITOL REPORTERS (775) 882-5322

309

1 were done in the 1870s. And now I'm going to ask you about  
2 field notes that are associated with those plat maps. And  
3 could you describe just generally what are field notes that  
4 are taken as part of that survey?

5 A. Yes. As part of the general land office  
6 contracts, the surveyors are required to keep accurate field  
7 notes of their surveys when they're in the course of their  
8 field survey. And part of the requirement of the field  
9 surveys is to note topographical features, roadways, ditches,  
10 fences, any type of feature along those lines that they are  
11 surveying, section lines, township lines.

12 The effort is that if in the future someone had  
13 to come back and recreate that line, which happens to be the  
14 case, that they can follow in the footsteps of the surveyor  
15 using those calls in the notes to help recreate the section  
16 line and then find the monument that they placed in the  
17 field. So they're critical and very important as part of the  
18 field notes that are prepared by the surveyors.

19 Q. All right. Let's turn to Exhibit 124. And are  
20 these field notes?

21 A. Yes, they are.

22 Q. Can you tell from these field notes what the date  
23 of the survey was?

24 A. Yes. In the notes themselves the surveyors will  
25 indicate what time frame they were actually in the field.  
CAPITOL REPORTERS (775) 882-5322

310

1 Q. And on Exhibit 124 we have page 20. And what --  
2 Can you walk us through what on that page you found  
3 significant?

4 A. Yes. What the surveyor is describing is that  
5 they are surveying the section line, or the township line  
6 actually in this case between Township 2452 -- Sorry. 24  
7 north, Range 52 east and Township 24 north, Range 53 east.  
8 The common line between those two townships is referred to as  
9 the section line between Sections 13 and 18. And it  
10 describes how they're progressing north along that line.  
11 They're starting off in the southeast corner of Section 13,  
12 which is the same corner as the southwest corner of Section  
13 18. And then on a due north line they're progressing in what  
14 they call chains.

15 The number on the left side of the page is  
16 reference to chains, the number of chains they are traveling  
17 along that line. In this case you'll see ten chains to the  
18 line of the meadow bearing east and west and then 13 chains  
19 to the southwest corner of a hay corral. And then at 40  
20 chains, which is half a mile in length, they set a cedar pine  
21 monument on earth with pits and charred stake as per  
22 instructions. And then they continue north to the 80 chains,  
23 which is one mile.

24 Q. What did you find significant about this  
25 particular field note?

CAPITOL REPORTERS (775) 882-5322

311

1 A. What caught my attention is that when they noted  
2 13 chains to the southwest corner of hay corral.

3 Q. And what's the significance of a hay corral?

4 A. Hay corral is very significant to show that there  
5 was the harvest of a crop and the effort to keep that  
6 harvestable crop in an area that would be secured from cattle  
7 feeding on it during the growing season so that they could  
8 use that hay to feed cattle during the winter season.

9 Q. All right. Let's turn to page 43 of that same  
10 exhibit. And just because the record might be confusing,  
11 there's two separate pages listed up in the top left-hand  
12 corner of these field notes. There's 42 and then that's more  
13 in handwriting and then a 43. I'm referring to what's 43 in  
14 bold on that field note. Do you see that?

15 A. I do.

16 Q. Okay. And there's also 42 on this page as well.  
17 What is the significance of these field notes on this page?

18 A. In this section of the notes, they describe a  
19 very hot spring about 60 feet in diameter from which flows a  
20 stream ten links wide and three foot deep with a strong  
21 current and sinks in about two miles.

22 Q. And what's the significance of that?

23 A. What it shows is that there is a significant flow  
24 coming out of this spring. Ten links is roughly 6.6 feet  
25 wide.

CAPITOL REPORTERS (775) 882-5322

312

1 HEARING OFFICER JOSEPH-TAYLOR: I'm going to stop  
2 you, Mr. Buschelman.

3 Is this on this page, Mr. Taggart?

4 MS. PETERSON: I think you need the next page.  
5 He's on page 44.

6 MR. TAGGART: Oh, I'm sorry.

7 Q. (By Mr. Taggart) Yeah, on this page, 43, do you  
8 see in the last paragraph there's a statement there are  
9 several settlements?

10 A. Oh, I'm sorry.

11 Q. Do you see that?

12 A. I do.

13 Q. And what's the significance of what you see on  
14 that set of field notes?

15 A. Well, again, this is coming from the survey notes  
16 of the 1870 survey. And what it's describing is that there  
17 is definitely activity, human activity in the area that they  
18 actually -- when it says settlements, that means that there's  
19 houses, structures, features such as corrals. That's part of  
20 the definition of a settlement in this case. And it speaks  
21 of the first tier of the sections, which is on each side of  
22 the range line, which is, again, in the vicinity of where we  
23 saw a call to the hay corral. It also describes meadow land  
24 formed by the sink of water from Hot Springs, which again  
25 correlates to the Big Shipley Hot Springs.  
CAPITOL REPORTERS (775) 882-5322

313

1 Q. All right. Now I want to show you the full --  
2 We've been asking about certain pages out of Exhibit 124.  
3 But in Exhibit 124 what's marked page 40 by the field notes  
4 and then there's a bold number 41 next to it. That is the --  
5 Does that indicate what date the field survey was actually  
6 taken?

7 A. Yes, it does. It says November 4th 1870.

8 Q. Okay. Now, can we turn to a table that was  
9 prepared for -- to help summarize the field notes.

10 And just for the hearing officer, what we tried  
11 to do is summarize about 15 or 20 of these separate sets of  
12 field notes on this table to help him kind of walk through  
13 them without having to go directly to each one of those.  
14 It's just to save time. So this is not something that was  
15 submitted in to the exhibits ahead of time, but it's  
16 something we've done to help speed up the presentation.

17 Now, could you describe the table that's up on  
18 the screen?

19 A. Yes. It's basically a summary of information  
20 that was described in the field notes under the 1870 field  
21 survey by Adrian and Bates. They were the two surveyors that  
22 were contracted in 1870 to conduct the survey along the  
23 township line between Townships 24 north, Range 52 and 53  
24 east. And then it's also a summary of the notes from 1879  
25 conducted by a survey conducted by Bridges and Eaton. And  
CAPITOL REPORTERS (775) 882-5322

314

1 again, these were more of the internal section lines within  
2 the townships that we just mentioned, Township 24 north and  
3 Township 25 east and west.

4 Q. And the exhibit number that they've been  
5 identified by for this hearing, that's also shown?

6 A. It is.

7 Q. And then the page number for each one of these  
8 entries is also shown on the table?

9 A. That's correct.

10 Q. All right. Have we already referred to the first  
11 one?

12 A. We have.

13 Q. And the second one as well?

14 A. We have.

15 Q. Why don't we start with what's shown there as  
16 under Exhibit 126 from page 26?

17 A. 126 describes -- Exhibit 126 describes the  
18 information contained on page 26 of the survey notes  
19 describing that the surveyors are traveling north between  
20 Sections 29 and 30. And again, the number is reference to  
21 chains and it says that it's entering a meadow that is east  
22 and west.

23 And then at chain 23.6 chains they intersect M.  
24 Semore's desert land claim. And then it continues on between  
25 Section 19 and 30 going north.  
CAPITOL REPORTERS (775) 882-5322

315

1 At ten chains they come across a small pond 50  
2 links to the south.

3 At 20 chains they enter an overflow land north  
4 and south. Overflowed land. Sorry. That is north and  
5 south. And then they also note that the southwest corner of  
6 Semore's desert land claim.

7 Q. What's the significance when you see a reference  
8 to the desert claim?

9 A. In the process of trying to take public land and  
10 bring it in to private ownership, the government had several  
11 programs, one of which was the desert land entry program.  
12 And as part of that program, you were required as a claimant  
13 or as a person who wanted to gain title to the land to go out  
14 and actually physically identify the land that you were  
15 trying to settle and being patented. And in many cases they  
16 would construct rock monuments, fence lines, any type of  
17 monument in the field that they could say these are the  
18 boundaries of my claim. And these were actually found by the  
19 surveyor as they were going up these sections.

20 Q. And what significance does the existence of a  
21 claim like that have to the determination of whether water  
22 was being put to beneficial use?

23 A. Part of the requirements for these programs, like  
24 I said, the desert land entry program, the homestead entry  
25 program, the carry act program, was that you had to show that  
CAPITOL REPORTERS (775) 882-5322

316

1 you were using -- utilizing that land for agricultural  
2 purposes, you were constructing facilities, houses. You had  
3 to occupy the land, which was one requirement. So that meant  
4 that a house had to be built. You had to show that you were  
5 putting improvements on the land, such as a mechanism to  
6 divert water or bring water to that property. And then you  
7 had to show that you were actually cultivating land or a  
8 portion of that land before you could gain title or patent to  
9 that land.

10 Q. Let's move on. I think you stopped with what's  
11 marked there as page 28 on the table.

12 A. That's correct. And on page 30 of the survey  
13 notes, they were continuing north again between Section 18  
14 and 19. And at 45.1 chains they intersect P. Doherty's  
15 desert land claims.

16 And then on page 31 then they notice that a house  
17 was within reasonable distance of their survey line so they  
18 would identify features such as houses or other types of  
19 things like that that they could see when they were going  
20 along these section lines.

21 Page 35 they were continuing north between  
22 Sections six and seven. And then they identified White's  
23 house, White being the name of the person that owned the  
24 house, and it gives a bearing towards that house.

25 It also identifies at 65 chains a fence that runs  
CAPITOL REPORTERS (775) 882-5322

317

1 north and south.

2 Q. Now, you've identified that as a fence. What's  
3 the significance of the fact that there was a fence there?

4 A. Again, as part of their responsibility to show  
5 that they were actually improving the land or using the land,  
6 fences were one of the main, basically documents that they  
7 were investing in the land. Fencing at that time was quite  
8 expensive and it was hard to get. Usually it had to be  
9 brought in by rail and brought to you as a person. So  
10 fencing was an expensive item and something that was showing  
11 due diligence on trying to perfect the land and bring it in  
12 to -- you know, bring it in to patent.

13 Q. Thank you. And I think the next is what's been  
14 marked as page 37 of the exhibit that was submitted in  
15 Exhibit 126?

16 A. Correct. In most cases, not all cases but in  
17 most cases in the survey notes, the general land office, the  
18 surveyor general asked if the surveyors that were in the  
19 field would provide a general description of the land, which  
20 would help them or assist with them in identifying areas that  
21 were more compatible to development and resources. And so  
22 you'll see these general descriptions in survey notes. And  
23 in this case on page 37 of the survey notes it states, the  
24 subdivided portion of this township is level and with the  
25 exception of the extreme south part is all meadow and mostly  
CAPITOL REPORTERS (775) 882-5322

318

1 natural meadow with rich soil and suitable for cultivation.  
2 Hay is now cut from a considerable portion of it and a small  
3 part is now under cultivation. The unusable part is all  
4 alkali desert.

5 Q. So that may be self-explanatory on the answer to  
6 my next question. But how did you find this significant?

7 A. Again, this reenforced to me that human activity  
8 was now well beyond what it was in 1870, that there had been  
9 many more people that had come out there. They had  
10 physically identified their parcels on the ground. They had  
11 actually constructed fences. There were homes built. And  
12 this takes time.

13 So in 1879, considerable improvements had already  
14 been established. And the 1870 note of a hay corral tells me  
15 that they were there during that time as well. So there's  
16 considerable amount of activity during that time frame.

17 Q. All right. Now let's move on to Exhibit 127 and  
18 on the table you listed some entries from that exhibit.

19 A. Again, this is in 1879, Bridges and Eaton again.  
20 And now they're doing some other work in that same area.  
21 Another series of notes.

22 And it's on page five of their notes, there's a  
23 general description that states, the eastern part of this  
24 township is level land, most of which is meadow and the  
25 remainder covered with sage brush and grass with rich soil  
CAPITOL REPORTERS (775) 882-5322

319

1 all easily irrigated. A considerable portion is now occupied  
2 by settlers engaged in cutting hay.

3 Q. Thank you. And just for the record, the bold  
4 number there is actually the page in the exhibit as it was  
5 submitted. So it's not -- Again, I guess we've inserted  
6 another number in to this field note situation. So page  
7 five, the fifth page of the exhibit that was submitted. And  
8 what's significant about that entry?

9 A. Again, it speaks of irrigation, which to me is  
10 important because it reinforces the fact that as these people  
11 were settling in these areas they were doing anything they  
12 could to encourage that natural hay, the natural grasses to  
13 grow. So what may have been there prior to their occupancy  
14 they were now trying to enhance that growth by adding water  
15 to those areas that would of course increase the growth of  
16 the crop they were cutting and putting in hay corrals. So to  
17 me that was very significant.

18 And of course, as we know in the desert  
19 environment in which we're in, anytime you have a source of  
20 water, especially one like Big Shipley Springs, to utilize  
21 that water is the first thing you're going to do to enhance  
22 your ability to survive and create an economical farm unit or  
23 ranch unit.

24 Q. Based on your experience, do you have an  
25 understanding if any of these original settlements did --  
CAPITOL REPORTERS (775) 882-5322

320

1 were there efforts made to maximize the use of water from  
2 sources like this spring?

3 A. Yes. In the number of surveys that I've done,  
4 historical surveys associated with vested rights, it was one  
5 of the things that was, one, critical for them to prove  
6 occupancy of the land to satisfy the requirement so the entry  
7 programs can gain patent. And significant because when they  
8 had livestock and their own lives at stake, getting that  
9 water to grow crops, grow gardens, anything to sustain  
10 themselves was important. You couldn't go to the grocery  
11 store, so you had to provide for yourselves and your animals  
12 immediately before you considered doing anything else.

13 Q. Let's go to the next entry.

14 A. In this case, speaking -- he's progressing north,  
15 the surveyors are progressing north between Sections 23 and  
16 24. And at 9.5 chains there's a fence that runs east and  
17 west and they leave a field.

18 At ten chains they enter a meadow. And it's --  
19 the meadow is northwest -- it bears northwest to southeast.

20 At 25 chains they enter in to a swamp that is the  
21 same orientation of northwest southeast.

22 At 26 chains they cross a creek that is two  
23 chains wide that is running easily.

24 At 59 chains they leave the swamp that again is  
25 oriented east and west.

CAPITOL REPORTERS (775) 882-5322

321

1 At 30.7 chains they intersect and -- I'm not sure  
2 if 30 is the right number there, but it was seen at another  
3 distance they intersect the south boundary of GA Hills desert  
4 land claim.

5 Q. And that's on page 13 of the exhibit; correct?

6 A. That's correct.

7 Q. Let me just show you the field notes there on  
8 page 13. I'm a little surprised at the number of chains  
9 that's listed there.

10 A. Oh, I see the problem. It's not 59. It's 29.  
11 It's 26 chains, 29 chains and then 30 chains.

12 Q. How long is a chain?

13 A. A chain is 66 feet in length. The reason for  
14 that number is that it works very conveniently in to a mile.  
15 20 chains is a quarter mile. 40 chains is a half a mile. 60  
16 chains is three quarters of a mile. And 80 chains is a mile.

17 Q. All right. Let's move on to page 14 of that  
18 exhibit.

19 A. On page 14 of the exhibit it states Wence Hills  
20 House bears north 42 and a quarter east. Again, as the  
21 surveyors are going through along the lines of their survey,  
22 they will try to note specific features that are not  
23 necessarily on the line but are notable to indicate occupancy  
24 or settlement within an area.

25 Then it says at 45 chains there's an irrigation  
CAPITOL REPORTERS (775) 882-5322

322

1 ditch 15 chains wide that bears northeast.

2 At 59.8 chains, another irrigation ditch 15  
3 chains wide that bears north 15 degrees east.

4 At 67 chains, a fence and a road that bears  
5 northwest. And then they start north between Sections 13 and  
6 14.

7 At 14.5 chains they intersect an irrigation ditch  
8 again that's 15 links wide that bears north -- bears east and  
9 north.

10 And then at 27.1 chains they intersect an east --  
11 they enter east boundaries of Hill's desert land claim. And  
12 then they specifically cite that there's a corner, and this  
13 is part of the monuments that these desert land entry people  
14 would put in the fields, stacks of rocks, cedar post,  
15 anything that they could show a more permanent boundary or  
16 monument. And they identify that as corner number ten of  
17 this claim.

18 And then at 30.5 chains they intersect the west  
19 boundary of Dohertys, which is another desert claim.

20 Q. Basically is this the same type of information  
21 you've seen before? Anything now about this entry?

22 A. No. What is encouraging though is now we're  
23 starting to see as the surveyors are getting more internal  
24 within the township where they're surveying within the  
25 township instead of just along the exterior boundaries that  
CAPITOL REPORTERS (775) 882-5322

323

1 they're finding specific features that speak of water and  
2 utilizing that water to irrigate land.

3 Q. What about from page 23 and 24?

4 A. Now, again this is a general description that was  
5 provided by the surveyors when they were surveying Township  
6 24 north, Range 52 east subdivision. And it says, the  
7 subdivided portion of this township is mostly level. A large  
8 portion is rich meadowland and the remainder covered in sage  
9 brush and grass with good soil and all available land which  
10 can easily be irrigated from numerous creeks and springs and  
11 a portion of it is natural meadow. A considerable part of  
12 the township is taken up by settlers and several hundred tons  
13 of hay is cut yearly from the meadows.

14 Q. All right. And that's the last entry that we  
15 have on this table. What's the significance of this entry?

16 A. Again, it describes that this is very productive  
17 land, very desirable land. That also is evidenced by the  
18 number of settlers that were out there trying to put that  
19 land in to production and of course gain title to it as well.  
20 That was a very valuable piece of property and it was  
21 recognized by the surveyors that this is good stuff. This is  
22 the type of thing that they wanted to see and encourage for  
23 privatization of much of the public land that they had.

24 Q. Now, I wanted to clarify that the first set of  
25 field notes that you reviewed that are marked as Exhibit 124,  
CAPITOL REPORTERS (775) 882-5322

324

1 those were from 1870; is that correct?  
2 A. That's correct.  
3 Q. And the other two that have been marked as  
4 Exhibit 126 and 127, those are from 1879?  
5 A. That's correct.  
6 Q. I need to add as we move past the field notes of  
7 what those field notes indicated to you in your analysis as  
8 to when water was first put to beneficial use in this area or  
9 have you summarized that already?  
10 A. Say the question again.  
11 Q. Do you have anything to add -- We are going to  
12 move past the field notes now. Is there anything else about  
13 the field notes that's important that we haven't already  
14 discussed?  
15 A. Yes. In my review of Allen Boyack's culture map  
16 that he submitted to support Big Shipley Springs Claim 03289,  
17 he indicated in his notes that he utilized the 1879 field  
18 notes from the general land office as his basis for prior to  
19 1879 priority statement on his proof.  
20 But by going through earlier notes by earlier  
21 surveyors, we were also able to find indications and  
22 statements that would convince me along with other data that  
23 was also found by Dr. Yednock that there was activity there  
24 prior to 1879.  
25 And so in my conclusion I think that we can  
CAPITOL REPORTERS (775) 882-5322

325

1 safely say without much debate that there was use there prior  
2 to 1870. Diversion of water was occurring prior to 1870 for  
3 irrigation purposes.  
4 Q. Thank you. I'm going to ask you now to turn to  
5 Exhibit 135.  
6 HEARING OFFICER JOSEPH-TAYLOR: Did you want to  
7 move to admit those field notes, Mr. Taggart?  
8 MR. TAGGART: Yes. We would like to offer in to  
9 evidence Exhibit 124, 126 and 127.  
10 HEARING OFFICER JOSEPH-TAYLOR: Any objection?  
11 MS. PETERSON: No objection.  
12 HEARING OFFICER JOSEPH-TAYLOR: They'll be  
13 admitted.  
14 MR. TAGGART: If it would be more useful for the  
15 State Engineer to have the table as well, we can make copies  
16 of that. I don't have those now.  
17 HEARING OFFICER JOSEPH-TAYLOR: We're fine.  
18 Q. (By Mr. Taggart) All right. So now let's talk  
19 about Exhibit 135. What is this exhibit?  
20 A. This is a copy of the Lander County assessor's  
21 records in 1870. And as part of this, it's other information  
22 that showed that there was activity and use of water in that  
23 area. We also looked at tax records.  
24 These are important because, as we know, the  
25 state statute did not begin until 1905. So part of the  
CAPITOL REPORTERS (775) 882-5322

326

1 process of showing your possessory claim to land was to show  
2 that you were being taxed. And having a tax record was  
3 evidence of your intent to establish possessory ownership of  
4 property. And one of the things that we looked for is these  
5 tax records. And in 1870 we were able to, you know, conclude  
6 that there was actual activity by William Shapley -- Shipley,  
7 I'm sorry. And he was being taxed for horses, mules, cattle  
8 and a wagon. Now, that doesn't indicate that he was actually  
9 irrigating.  
10 But we went on to look at the next year in 1871  
11 of the Lander County assessment records. And again, William  
12 Shipley is noted in this year. And it goes on to say under  
13 the 1871 assessments that there was improvements, stockade,  
14 house and a ranch in Diamond Valley. So that tells me that  
15 having a house, stockade and a ranch confirms what we found  
16 in the surveyor's notes that he was a player at that time and  
17 being very active in that area.  
18 Q. And the last entry that you reference that's on  
19 the last page of the exhibit, is that true?  
20 A. Yes.  
21 Q. All right then. And why Lander County at this  
22 point? Is Sadler Ranch currently in Eureka County?  
23 A. It currently is. However, at the time, Lander  
24 County encompassed this area. And there were changes to the  
25 county boundaries and Eureka County was a subset of Lander  
CAPITOL REPORTERS (775) 882-5322

327

1 County. So that's why Lander County records would show up in  
2 1870, 1871.  
3 Q. Now let's look at Exhibit 134. Could you  
4 describe what that is?  
5 A. As we were still looking at more of the  
6 assessment records, we continued past 1870 to see what more  
7 may have been going on with Mr. Shipley. And as we continued  
8 in time, 1872, three, four and on, it continues to show more  
9 improvements that were being taxed, more cattle, more land,  
10 more of the required improvements to establish private  
11 ownership of property.  
12 So again, as he was making these improvements of  
13 course he was using more water from the spring. So this  
14 reenforced the fact that not only was he out there, he  
15 continues to stay there and continues to make more  
16 improvements.  
17 MR. TAGGART: I'd like to offer Exhibit 134 and  
18 135 in to evidence.  
19 HEARING OFFICER JOSEPH-TAYLOR: Any objection?  
20 MS. PETERSON: I don't have an objection. But  
21 Exhibit 134 is pretty important and it's really hard to read.  
22 So I would offer to transcribe the entries in that exhibit  
23 subject to opposing counsel's, you know, concurrence with  
24 that if it is a late-filed exhibit.  
25 HEARING OFFICER JOSEPH-TAYLOR: Any objection to  
CAPITOL REPORTERS (775) 882-5322

328

1 that, Mr. Taggart?  
2 MR. TAGGART: No. I assume that will happen  
3 later. Or is that going to happen now?  
4 MS. PETERSON: No. With my eyes I can't  
5 translate that. So it would be a late-filed exhibit probably  
6 after the hearing.  
7 HEARING OFFICER JOSEPH-TAYLOR: We couldn't have  
8 it by the end of the week?  
9 MS. PETERSON: I can definitely try that.  
10 HEARING OFFICER JOSEPH-TAYLOR: That would be  
11 fine. So I'll admit Exhibit 134 and 135. And by Friday --  
12 Mac, could you write a note by Friday to follow that up. And  
13 we would just attach it to Exhibit 134.  
14 Q. (By Mr. Taggart) Now let's move on to Exhibit  
15 115. What is this document?  
16 A. This document is a deed from William Shipley to  
17 George Hill, indicating the conveyance of title of land that  
18 is commonly known as Shipley Spring and the associated  
19 properties.  
20 Q. And what about Exhibit 117?  
21 A. This is also a deed where William Lewiston sold  
22 to George Hill. And it also references certain properties  
23 that were also commonly known as Shipley Ranch or Warm Spring  
24 Ranch.  
25 Q. Do you know the date of this deed?  
CAPITOL REPORTERS (775) 882-5322

329

1 A. The deed from Lewiston to Hill is July 14th 1879.  
2 Q. Let's go back, I'm sorry, to Exhibit 115. What  
3 was the date on that one?  
4 A. The date on the deed from William Shipley to  
5 George Hill is May 13th, 1877.  
6 Q. And then Exhibit 116, what is that?  
7 A. This is a patent issued to Reinhold Sadler,  
8 R-e-i-n-h-o-l-d. And it's a patent describing portions of  
9 Section 19, Township 24 north, Range 53 east. It totals  
10 160.17 acres and it's dated June 2nd 1891.  
11 Q. Now, what's the significance to you in your  
12 analysis of the date and priority of the two deeds that we  
13 looked at?  
14 A. What is pointed out to me is when the surveyors  
15 as they were going north they noted many of the desert claim  
16 possessory parcels. This area, again because of its  
17 desirability, was settled by many people. There were a  
18 number of people that wanted to be there. And there were a  
19 number of people that had established possessory claims. Not  
20 patent necessarily, but claims to land that further down the  
21 road could be put in place of patent.  
22 It was very common that if someone with enough  
23 financial means or influence could come in and purchase those  
24 possessory claims and consolidate them in to one large ranch  
25 and get patent to a larger body of water based on each of  
CAPITOL REPORTERS (775) 882-5322

330

1 those components of possessory claims that they consolidated.  
2 Q. A larger body of land or -- You said water?  
3 A. I'm sorry. Land and water. It would be both  
4 actually. So as someone like Mr. Sadler came in to the play,  
5 he would approach each of these individuals and purchase  
6 their possessory claims and then eventually follow through  
7 with patents to gain private ownership of those public lands.  
8 That's very common. We see that in many places throughout  
9 the state.  
10 Q. So could Shipley have been one of those?  
11 A. Yes.  
12 Q. And when we look at the tax rolls, we looked at  
13 Shipley specifically. Was there also information about  
14 other -- others of these possessory claimants in those tax  
15 rolls?  
16 A. There were. In fact, if I can go back to Exhibit  
17 134. If you look, let's see, I'm trying to find a date. You  
18 can also see Reinhold Sadler being assessed in that same time  
19 frame. So he was also out there engaging in possessory  
20 claims and interest in property in that area, either by  
21 purchasing existing possessory claims or by establishing one  
22 on his own.  
23 Q. There's also a Mr. Hill is included in that  
24 Exhibit 134 as well?  
25 A. That's correct.  
CAPITOL REPORTERS (775) 882-5322

331

1 Q. And he was one -- a party to one of the deeds  
2 that we looked at?  
3 A. He was. And he was also mentioned in the notes  
4 of 1879, the general land office surveyors.  
5 Q. So is it your understanding that Reinhold Sadler  
6 then consolidated many of these possessory claims in to the  
7 ranch?  
8 A. Yes.  
9 MR. TAGGART: We offer Exhibits 115, 116 and 117  
10 in to evidence at this time.  
11 HEARING OFFICER JOSEPH-TAYLOR: Any objection?  
12 MS. PETERSON: No objection.  
13 HEARING OFFICER JOSEPH-TAYLOR: They'll be  
14 admitted. What about -- No. We already got those.  
15 MR. TAGGART: Okay. Now I want to ask about  
16 Exhibit 138, which is already in evidence and it was prepared  
17 by Dr. Yednock and it is the Romano v. Sadler stipulation.  
18 Are you familiar with this document?  
19 HEARING OFFICER JOSEPH-TAYLOR: Spell Yednock for  
20 this -- We have a new court reporter.  
21 MR. TAGGART: Oh, hi. Yednock, Y-e-d-n-o-c-k.  
22 THE WITNESS: Yes, I'm familiar with this  
23 exhibit.  
24 Q. (By Mr. Taggart) All right. Now, in prior  
25 testimony we talked about this, but I want you to turn to  
CAPITOL REPORTERS (775) 882-5322

332

1 what's been transcribed in that exhibit. It's towards the  
2 end of the pages that were submitted. And there is some  
3 bolded text that we've, again, referenced in earlier  
4 testimony. Are you familiar with that, with the reference to  
5 30 years prior to the entry of this document there being a  
6 dam? Are you familiar with all of that information?

7 A. I am.

8 Q. How significant is this information in your  
9 analysis of the priority date for this water right?

10 A. This action was taken in 1913. And as they state  
11 here that the water from this source had been used for more  
12 than 30 years before the commencement of this action and has  
13 been continually maintained at the east end of the Big  
14 Shipley Spring. So to me that says that there has been a  
15 continual effort on the part of who ever is involved in this  
16 action that that water is not lapsed or has not had a break  
17 in use, that it has been continually maintained and utilized.

18 The significance of the 30 years, doing the math,  
19 takes us back to 1883, which shows that there's history of  
20 use that extends prior to 1905. It also, you know, sets up  
21 some agreements between the parties in this lawsuit that I  
22 think are significant to how we look at the water today. One  
23 in respect to flow speaks of -- that the spring or at least  
24 in this case one of the users is going to receive the ability  
25 to use five cubic feet per second, which is noted as being  
CAPITOL REPORTERS (775) 882-5322

333

1 about one-third of the total flow of the spring. So that  
2 gives us a reference of approximate flow of being 15 CFS as  
3 the total flow from that spring.

4 And again, being involved in adjudication  
5 processes similar to this one where they're trying to settle  
6 disputes to come up with a solution, they're going to want to  
7 have some reliable numbers to be included in their  
8 assessment. So this tells me that there had to be some form  
9 of qualified person to come out and judge the flow or measure  
10 the flow from that spring, otherwise they would have just  
11 said one-third and not quantify a flow.

12 So to me those numbers are significant because  
13 there had to be some thought behind them or some validity  
14 behind them before they were incorporated in to the  
15 settlement.

16 It also speaks that this water is for the purpose  
17 of flooding and irrigating land and that has been  
18 continuously used on this land for quite a bit of time.  
19 Let's see, we turn to -- on page 531 of this report or this  
20 settlement, there is a statement in here that says wherein  
21 to -- this is where the plaintiff will receive wherein a  
22 sufficient, to a sufficient extent to prepare the soil each  
23 year and produce the crops of which the lands of the  
24 plaintiffs are capable. And that it has been the custom of  
25 the defendant corporation herein and its predecessors in  
CAPITOL REPORTERS (775) 882-5322

334

1 interest to so open said ditches each year during more than  
2 20 years for the benefit of the descendants of this land.  
3 And I have a copy here that's highlighted in my book.

4 But what that tells me is that what is happening  
5 here is an agreement. There has been -- This practice has  
6 been going on for more than 20 years. They're -- Based on a  
7 handshake, this stipulation is part of the adjudication of  
8 that process. And they're saying, yes, even though it was a  
9 handshake deal, today it's now written down and we have a  
10 recorded record of it.

11 So it wasn't in 1913 that this practice began.  
12 It actually had been occurring for 20 years prior to 1913,  
13 which again gets us before the 1905 statutory time frame.

14 So there's a number of significant statements in  
15 this adjudication.

16 Q. Thank you. And I wanted to ask you about the  
17 reference to the dam and the construction of the dam, which  
18 is on page 529 of that stipulation. Do you see that?

19 A. Here, is that correct?

20 Q. Yes. If you continue on to the colon in that  
21 sentence, it says that the main dam at the eastern end of  
22 Shipley Spring was constructed by said predecessors and  
23 interest --

24 HEARING OFFICER JOSEPH-TAYLOR: The court  
25 reporter is having a hard time hearing you, Mr. Taggart.  
CAPITOL REPORTERS (775) 882-5322

335

1 THE WITNESS: Oh, right here? This is it right  
2 here. I'm sorry. I found it. The statement that's bolded  
3 is that the main dam at the eastern end of said Big Shipley  
4 Spring was constructed by said predecessors in interest of  
5 said defendant corporation more than 30 years before the  
6 commencement of this action and has been continuously  
7 maintained at the eastern end of Big Shipley Spring by  
8 defendant corporation herein and its predecessors and  
9 grantors.

10 Q. (By Mr. Taggart) And that indicates when the  
11 works were initiated for this use of water?

12 A. I don't know if it documents the initiation of  
13 it, but it definitely documents that it was used for 30 years  
14 and maybe even more.

15 Q. So the initiation in your view could have been  
16 before the 30 years that are referenced here?

17 A. It could be, yes.

18 Q. Okay. Let's move on to Exhibit 137. And this  
19 exhibit is already in evidence and it was discussed by  
20 Dr. Yednock. On the third page of that exhibit there's a  
21 letter to -- from the -- well, it's dated September 23rd  
22 1913. Do you see that?

23 A. I do.

24 Q. And why don't you describe what you found  
25 significant in this letter.

CAPITOL REPORTERS (775) 882-5322

336

1 A. This letter is referenced Application Number 2679  
2 that was filed by I believe that's H.J. Sadler. Or is that  
3 M? Sorry.

4 Q. I think it's an H.

5 A. H, okay. H. Mr. Sadler, who is different than  
6 Reinhold Sadler, had filed an application to appropriate 45  
7 cubic feet per second from the Big Shipley Spring. And in  
8 that application he had proposed to irrigate the same lands  
9 as Reinhold Sadler and utilize the spring, the same source  
10 that we know during other documentation that Reinhold Sadler  
11 was using to irrigate his ranch, which was an accumulation of  
12 many small possessory claims.

13 So in 1913, the State Engineer receives this  
14 application. They have documentation based on the  
15 stipulation we just read through that it was essentially  
16 adjudicated, that the water had been used 30 years prior and  
17 that there was a substantial vesting of water rights with  
18 that source. So in this case they denied this application,  
19 2679, based on the fact that the water, there was no  
20 unappropriated water at the source. And that follows with  
21 the adjudication that says that, yes, all of the water is  
22 owned by the corporation.

23 And then that case would have been Edgar Sadler  
24 and Huntington and Diamond Valley Stock and Land Company.  
25 That was who they showed the owners to be. So its process of  
CAPITOL REPORTERS (775) 882-5322

337

1 the adjudication process earlier, the state denied that  
2 application.

3 Q. And what else is significant about this letter?

4 A. It does state that the fact that the water is  
5 used beneficially under title dating back and beyond the year  
6 of 1905 is sufficient for this. And go to the second page.  
7 It says to consider the water right as valid.

8 Q. Okay. And yesterday there was an Exhibit 437 put  
9 in to evidence, which is the denial of Application 2679. And  
10 I want to ask a couple questions about that. Do you see on  
11 the second page there is an area where the State Engineer  
12 typed in the reasons for denial of the application?

13 A. I do.

14 Q. And what was the first statement by the State  
15 Engineer on why the application was denied?

16 A. It says, "This is to certify that I have examined  
17 the foregoing application and do by -- and do hereby deny the  
18 same on the ground that the waters of Big Shipley Springs are  
19 entirely appropriated at this time."

20 Q. So what to you is the significance of the  
21 information you found in the file for Application 2679?

22 A. The denial by the State Engineer's office of this  
23 application reinforces that the water flowing from Big  
24 Shipley Springs had been fully appropriated prior to 1905.

25 Q. And the State Engineer made that determination in  
CAPITOL REPORTERS (775) 882-5322

338

1 1913?

2 A. Yes, they did.

3 Q. And I want to clear something up potentially here  
4 for the record. This may be a little confusing. Look at  
5 who -- Look from the Exhibit 437, who filed that application?  
6 Who was it filed by?

7 A. The application was filed by H.J. Sadler.

8 Q. And who is the applicant on it?

9 A. Diamond Valley Stock and Land Company.

10 Q. And then did it say who protested the  
11 application?

12 A. It was protested by Louisa Sadler.

13 Q. And I just thought it might be a little confusing  
14 because the Sadlers appear to be fighting amongst themselves.  
15 And the State Engineer was recognizing a right that existed  
16 prior to, in his view, a right that existed. And that  
17 stipulation that we represented before, I think that's  
18 relevant to determining what water the State Engineer  
19 believed was already appropriated.

20 A. It does, yes.

21 Q. All right. Let's move on to Exhibit 141. Are  
22 you familiar with this exhibit?

23 A. I am.

24 Q. And what does it indicate about water use on  
25 Sadler Ranch before 1905?  
CAPITOL REPORTERS (775) 882-5322

339

1 A. This certificate describes a parcel of land that  
2 is located in what we've earlier been defined as the hexagon  
3 area, the lower southeast portion of the Sadler Ranch where  
4 Matilda Eccles was trying to establish a possessory claim and  
5 gain patent to a parcel of land in that area. And as an  
6 effort to gain private ownership, she had to show that she  
7 had water resources to irrigate that parcel.

8 In 1917, a claim or proof of appropriation of a  
9 vested right had not yet been filed with the State Engineer's  
10 office, so therefore there was no written or recorded record  
11 that she could utilize in order to verify to the general land  
12 office that she had the resources to irrigate.

13 As a function of that and a function of the  
14 stipulation in 1913 about the use of water, this particular  
15 water right was filed to provide the written documentation  
16 that water -- there was an agreement of using water.

17 Essentially this was a top filing on an existing  
18 right, a vested right. Again, because of the documentation  
19 filed with the state, the vested right had only been  
20 recognized by the Court through an adjudication process but  
21 had not been -- the documents had not been filed with the  
22 state's office. So that's what was needed in order to go  
23 forward with the application for possessory right or an entry  
24 to patent.

25 Q. You referenced a cover filing?  
CAPITOL REPORTERS (775) 882-5322

340

1 A. Yes. Top filing.  
2 Q. Top filing, what is that?  
3 A. Top filing is something that we have seen  
4 historically where there is a base water right that is  
5 already approved for a property and there's another water  
6 right that is filed on top of that same property, same place  
7 of use.

8 In some cases, a top filing is a supplemental  
9 right. In other cases, it's an additional right. We've seen  
10 that happen -- occur in many instances. But again, basically  
11 it's one water right on top of another water right.

12 Q. In your experience have you seen examples of  
13 where statutory water rights were requested while a vested  
14 claim or proof was also filed at the same time?

15 A. Yes.

16 Q. And please describe your understanding of why  
17 that was done.

18 A. Well, this is a good example of why, where she  
19 needed a document from a state agency recognizing a -- the  
20 ability for that person to utilize water to irrigate a parcel  
21 of land. I've seen this case in this particular action.  
22 I've seen cases where they were filing, again, to reenforce  
23 the fact that there's occupancy and use of a specific water  
24 source to get something of record at the State Engineer's  
25 office, not necessarily going through the formal adjudication  
CAPITOL REPORTERS (775) 882-5322

341

1 process or filing of a proof of vested right or proof of  
2 appropriation, but a method to let others know that, hey,  
3 there is actually a water right on this source. So that is  
4 common.

5 Q. What does this document indicate about use prior  
6 to 1905? And if I could, I'll ask you to turn to the last  
7 page of the exhibit and there's a map included. And if you  
8 could describe what that map is and how it relates to  
9 pre-1905 use.

10 MS. PETERSON: I have two pages of a map for that  
11 exhibit. Which page would it be?

12 MR. TAGGART: The last page.

13 THE WITNESS: On this page, which is a cultured  
14 map that was filed in support of, in support of the  
15 Application 4273, and what it illustrates is a portion of the  
16 area that is adjacent to the property that is being sought by  
17 Matilda Eccles. It has vested water right -- or vested right  
18 in that area. It shows that on the map.

19 Q. (By Mr. Taggart) That's written on the map?

20 A. It is. Right there.

21 Q. So the words "vested right" are written on an  
22 area that's not shaded black?

23 A. That's correct.

24 Q. And what else is written on this map?

25 A. The other significant note is that this one right  
CAPITOL REPORTERS (775) 882-5322

342

1 here that is in the red box and it says it's enlarged on the  
2 screen here, it says the area within the dotted line and the  
3 fence is flooded with water from big springs during the  
4 months of January, February and March. The soil is such the  
5 moisture is then held until time for haying.

6 Q. Why is that significant?

7 A. This is very important to show that water was  
8 actually diverted and applied to the land during the  
9 non-irrigation season in an effort to augment soil moisture  
10 content in that soil so that when the growing season did come  
11 about, whether it had warmed up, that is soils would already  
12 have moisture in them and the plants could begin growing  
13 immediately. It also reinforces the fact that in this case,  
14 particularly on Big Shipley Springs, that the water flow from  
15 this spring continues every day 24/7. And that water flow  
16 was actually utilized by the owners of these ranches and this  
17 ranch in particular, to -- during the wintertime to push  
18 water and utilize water on areas that were far removed from  
19 the source, that could during the non-irrigation season,  
20 during the cold and freezing portions of the year they could  
21 transport that water to further extents of the ranch and  
22 provide water for growing their crops.

23 And this is also important because the State  
24 Engineer's office recognized that practice and even allowed a  
25 permit condoning that practice.  
CAPITOL REPORTERS (775) 882-5322

343

1 Q. Let's go back to the first map that's in that  
2 exhibit. Do you see that?

3 A. I do.

4 Q. And what's the difference between these two maps,  
5 do you know?

6 A. Well, in this case, this map was filed to support  
7 the proof of beneficial use.

8 Q. Okay. The last page of the exhibit?

9 A. This last page, the one that has the dark shaded  
10 area and the note that we spoke of just previously.

11 Q. So is this a cultivation map, is that what it's  
12 sometimes called?

13 A. Yes.

14 Q. So this was filed to actually get a certificate?

15 A. That's correct.

16 Q. What about the first map?

17 A. The first map was actually filed with the  
18 application to show the general lands that were proposed to  
19 be irrigated under this scenario of irrigation during  
20 January, February and March.

21 Q. And we don't -- unfortunately we didn't have that  
22 one set up to put on the screen. But can you read from the  
23 copy that you have what's written in handwriting on that map.  
24 If not, we can just blow it up on the -- we can enlarge it on  
25 the screen?

CAPITOL REPORTERS (775) 882-5322

344

1 A. I can read it, I believe. It says, these lands  
2 are irrigated chiefly by flooding during winter and early  
3 spring. Two main dams shown, a vested right is claim for  
4 most of the land so irrigated.

5 Q. And again, this -- I'm sorry. Strike that. Go  
6 back to the first page of the exhibit and that's the  
7 certificate itself. So what season of use was the  
8 certificate granted for?

9 A. The season of use was for the period of January  
10 1st to April 1st of each year.

11 Q. And how much water rights were awarded in  
12 acre-feet?

13 A. 702.6 acre-feet.

14 Q. And do you know how many acre-feet that is per  
15 acre in the certificated land?

16 A. Yes. It is three acre-feet per acre.

17 Q. Do you know why the five CFS that she requested  
18 in the stipulation is not shown on the certificate?

19 A. I do.

20 Q. Why?

21 A. At the time that this certificate was issued, the  
22 State Engineer was operating under a law that stipulated that  
23 they could allow one cubic foot per second for the irrigation  
24 of 100 acres. So you can see there's a direct correlation  
25 between the cubic feet per second in the certificate and the  
CAPITOL REPORTERS (775) 882-5322

345

1 number of acres irrigated. So that takes the one CFS to 100  
2 acres and converts it in to a flow rate. It's not a  
3 measurement of flow.

4 Q. And Ms. Eccles filed for 480 acres. Do you know  
5 why she only got a certificate for 234 acres?

6 A. That was the amount of land that she actually  
7 irrigated.

8 Q. And that was shown on the cultivation map?

9 A. And it was shown on that cultivation map, yes.

10 One other point that I wanted to make on the  
11 calculation of that flow rate is that in the law it  
12 stipulated that that flow was at the head of the field, not  
13 at the source that developed the water. So in the case of  
14 this 2.342 cubic feet per second, that would have been  
15 measured at the head of the field. So whatever amount of  
16 water -- And the three cubic feet per second was measured at  
17 the head of the field. Whatever the amount of water flow  
18 that it took to get it there is in addition to these numbers.

19 Q. All right. We've been through the exhibits  
20 involving the field notes, the surveys, the tax rolls, the  
21 deeds, the State Engineer records that we just talked about,  
22 the litigation information from Romano v. Sadler. Based on  
23 all of this information could you just restate your  
24 conclusion about what the priority of the vested claim for  
25 Sadler's ranch should be?

CAPITOL REPORTERS (775) 882-5322

346

1 A. Based on the information that I've been able to  
2 review and the documentation that I've been able to identify,  
3 it supports the priority should be prior to 1870.

4 Q. All right. Now we're going to move on to another  
5 topic.

6 HEARING OFFICER JOSEPH-TAYLOR: Let's get your  
7 exhibit admitted, 141.

8 MR. TAGGART: Thank you. We offer 141 in to  
9 evidence at this time.

10 HEARING OFFICER JOSEPH-TAYLOR: Any objection?

11 MS. PETERSON: No objection.

12 HEARING OFFICER JOSEPH-TAYLOR: It will be  
13 admitted.

14 Q. (By Mr. Taggart) So now I want to start asking  
15 you about the amount of acreage that you believe qualifies  
16 under the vested claim. So first let's turn to Exhibit 112.  
17 And what is Exhibit 112?

18 A. Exhibit 112 is a culture map identifying lands  
19 irrigated by Big Shipley Spring and Indian Camp Spring.

20 Q. And we covered this already. But what was the  
21 date of the survey under this map?

22 A. The field survey was conducted in February and  
23 March of 1978.

24 Q. Do you agree with the acreage that is included in  
25 this map?

CAPITOL REPORTERS (775) 882-5322

347

1 A. The acreage included in this map is less than  
2 what is shown to be irrigated in other documents, other  
3 information.

4 MS. PETERSON: Excuse me. I -- Are you amending  
5 your -- this vested claim? Because I'm not sure what the --

6 MR. TAGGART: We'll cover that.

7 MS. PETERSON: I'm not sure what the relevance of  
8 this is.

9 MR. TAGGART: It's certainly relevant. The  
10 questions we ask the witness will explain the relevance of  
11 this and other information. Can I get more in to it right  
12 now?

13 HEARING OFFICER JOSEPH-TAYLOR: Well, if that's  
14 an objection on relevance, I'm going to overrule it.

15 MS. PETERSON: Well, can I make my record on that  
16 then?

17 HEARING OFFICER JOSEPH-TAYLOR: Yeah.

18 MS. PETERSON: Because the application relates to  
19 vested claim 03289 and 03290. So those are the vested claims  
20 that are in front of you?

21 MR. TAGGART: Yes. And I think I can --

22 Mr. Buschelman will be clear that, and we understand that  
23 there are applications before the State Engineer and that's  
24 what we're asking to be granted for the amount of water that  
25 is included in those applications.

CAPITOL REPORTERS (775) 882-5322

348

1 It is relevant that there is information that  
2 indicates that more acreage was actually irrigated  
3 historically. But at this time we understand that the  
4 applications before the State Engineer are the only thing  
5 that can be considered to be granted. But in determining  
6 what the amount of acreage is and the application acreage is  
7 at least the amount that was historically irrigated, we think  
8 it's relevant to indicate what the evidence shows about the  
9 historical irrigation. So we will not be asking for more  
10 water in this hearing than what was filed for in those  
11 applications.

12 MS. PETERSON: And that sounds like an  
13 adjudication to me if they're asking for more than what's in  
14 their application or trying to put in to evidence on this  
15 record more than what's in their application.

16 HEARING OFFICER JOSEPH-TAYLOR: They didn't ask  
17 for more than in their application and they can't because you  
18 have to go back to publication. I hear it as justifying the  
19 quantity asked for in the application. So the objection is  
20 overruled.

21 Q. (By Mr. Taggart) I'm trying to remember where I  
22 was. Let's move on to Exhibit 113. And are you familiar  
23 with this exhibit?

24 A. I am.

25 Q. And this has already been admitted in to  
CAPITOL REPORTERS (775) 882-5322

349

1 evidence. Mr. Frazer discussed this exhibit. Why was this  
2 prepared?

3 A. This was prepared in an attempt to overlay the  
4 Boyack culture map that was filed in support of proof of  
5 appropriation 033289 and 033290, which is Big Shipley Springs  
6 and Indian Camp Spring. Take that culture map and overlay it  
7 on a series of aerial photographs to see if, in  
8 fact, Mr. Boyack did include the acreage that was irrigated  
9 and to kind of give us a chance to ground proof his map.

10 Even though he actually conducted field  
11 investigations and surveys in 1978, we felt it important also  
12 to go out and check to see what we could find out in more  
13 current time frames and in historical time frames. Because  
14 it's obvious from the map that Mr. Boyack prepared that he  
15 stop his cultural boundaries based on ownership lines.

16 And it's obvious when you look at aerial  
17 photographs that the culture did not stop at those property  
18 boundaries lines, those private property boundary lines.  
19 They extended out in to the Bureau of Land Management lands  
20 and were not cut off by some property line defined on paper.

21 Q. Well, can land that's not on private land be  
22 included in a vested claim if it's irrigated?

23 A. Yes.

24 Q. And why is that?

25 A. The right goes to the water right owner, not the  
CAPITOL REPORTERS (775) 882-5322

350

1 property owner.

2 Q. Now, you say you conducted a field investigation  
3 to test essentially the Boyack map. What did you see during  
4 that investigation?

5 A. Well, as part of this map here, it gave us the  
6 ability prior to going in to the field to do a lot of  
7 Reconnaissance in a way to make our field investigation more  
8 productive.

9 So again, what we did is we took the features  
10 that were identified on the 1870 GLO plats, the 1879 deed  
11 calls. I'm sorry. Survey calls that were done by the  
12 general land office surveyors. We looked at aerial  
13 photography beginning in the forties and continuing through  
14 until current periods of time. We also looked at areas that  
15 Mr. Boyack had omitted from his culture tabulation. For  
16 whatever reason, we don't know, it was noted on the map, it  
17 was noted in the culture tabulation but not included on the  
18 proof of appropriation form. So we were trying to solve a  
19 lot of these questions before we went in to the field to see  
20 if there may have been something that changed possibly. We  
21 were trying to get a list of questions that we could answer  
22 by field investigations.

23 Also in comparing aerial photography and the  
24 Boyack map, we were trying to draw a visual comparison of  
25 land that had been irrigated so that we could tell the shades  
CAPITOL REPORTERS (775) 882-5322

351

1 of color that we talked about earlier in Dr. Yednock's  
2 presentation and in Mr. Frazer's presentation as to why is  
3 that shade darker, why is it lighter. We were trying to get  
4 all of those basically in to our head before we went in to  
5 the field.

6 Once we looked at those features on the photos,  
7 then we were going to correlate those features on those  
8 photos with what we could see on the land, on the property.  
9 So this preparation was significant in our efforts to do our  
10 homework before we went in the field.

11 Q. Were you able to confirm Mr. Frazer's  
12 understanding of the light versus dark colors on the aerial  
13 photographs corresponding with lower and higher areas in the  
14 field?

15 A. Yes.

16 Q. And were you able to develop an opinion of  
17 whether water had been applied in those lower areas?

18 A. Yes.

19 Q. And what was your opinion? What is your opinion?

20 A. It was very obvious in the field that, one, the  
21 existence of the ditches that were illustrated on the Boyack  
22 map were still there when we visited the property earlier  
23 this summer. It was obvious that the dams that were  
24 identified on the aerial photos through time were still there  
25 in the field where you could see where they were -- where  
CAPITOL REPORTERS (775) 882-5322

352

1 they were actually creating a dike or a berm system. It's  
2 called dams on this photo here. This is Exhibit 183, image  
3 44 that illustrates the dams. They're also called berms or  
4 dikes and where water would flow across the -- it's called a  
5 sheet flow. Flow across the property or the land and then  
6 accumulate behind these elevated structures and then be  
7 redistributed again so they wouldn't just focus themselves in  
8 to one single channel. They could be kicked back out again  
9 on the pastures and then flow again out. In many cases you  
10 can see that illustration here where you can see several flow  
11 lines coming from this particular structure.

12 Q. Now, right now you're referencing page 98 of  
13 Exhibit 617; is that accurate? Exhibit 617 is the power  
14 point slide that Mr. Frazer spoke from. Exhibit 183 is the  
15 actual photograph itself. Okay. And so when you're speaking  
16 from slide number 98, you're talking about the dam areas and  
17 then you were speaking of features running from those dam  
18 areas?

19 A. That's correct. That's correct. You can see,  
20 again, these flow lines coming from this dike or dam  
21 structure which would then rebroadcast out water that had  
22 been collected behind it. And then you can see another  
23 structure here that's doing the same thing. Another dam or  
24 berm structure also doing that same thing to, again, spread,  
25 respread that water over and over again so that it wouldn't  
CAPITOL REPORTERS (775) 882-5322

353

1 collect in one main channel.

2 We observed that in the field and also we were  
3 able to see through vegetation in the soil, dry vegetation in  
4 the soil that plants had grown there. And it was  
5 considerably different than when you would go to the higher  
6 areas where there was no vegetative -- no vegetative presence  
7 in those soils.

8 We also -- Tammy, do you have a picture of the  
9 ranch as a whole?

10 Q. We're going to go over to -- Why don't you go to  
11 the irrigation infrastructure slides. Before we do that,  
12 describe what your overall impression was of the ranch based  
13 upon the field investigation.

14 A. The overall impression was that the spring, the  
15 Big Shipley Spring supported a huge amount of growth. And  
16 it's evidenced when you look at the aerial photos as to the  
17 extent of the arms you might say that extended out in to the  
18 alkali flat. If you look at the northern part of Diamond  
19 Valley and the alkali flat that is there, it is a dominant  
20 feature that stands out and it is a physical evidence of how  
21 much water was actually flowing through that system bleaching  
22 the soils of salt and enabling plant life to grow.

23 And it was very impressive to me to see it on the  
24 ground after I had visualized it in the photos. It really  
25 helped a lot to be on the ground to see the difference in the  
CAPITOL REPORTERS (775) 882-5322

354

1 soils, the difference in how the water was actually moved  
2 around using the dikes and the dam systems and ditches to  
3 create that area of growth.

4 Q. Describe the distances that you traveled from the  
5 spring to the areas that you investigated.

6 A. The distances were great. At the further  
7 extreme, I believe it's in the southeast arm of the ranch,  
8 it's three and a half miles, somewhere in that magnitude,  
9 three and a half miles from the spring to what is called the  
10 Johns Field or the Hexagon Field that Mr. Frazer has  
11 referenced. So it's a considerable distance between the  
12 source and the outlying areas of cultivation -- irrigation.

13 Q. Did you see the pond or lake that is shown in the  
14 USGS maps when you did your field investigation?

15 A. Yes. We made a specific point to go to that  
16 site.

17 Q. And what did you -- What did you see there? And  
18 again, now we're looking at slide 97 of Exhibit 617.

19 A. We actually hiked up this channel, which is a  
20 ditch structure that is essentially a release channel and  
21 this area called the lake, which was shown on the USGS map as  
22 a more permanent storage structure or water containment  
23 structure. You can see where this channel was definitely  
24 constructed and utilized to bring water in to this lower area  
25 that was in the lower right-hand corner of this photo. It  
CAPITOL REPORTERS (775) 882-5322

355

1 would be to the southeast. We also saw several what I would  
2 call kind of beach lines along the sides of this elevated  
3 area as well as this area here which would have impounded the  
4 water at different levels at different times.

5 HEARING OFFICER JOSEPH-TAYLOR: Saying "right  
6 here" is not going to come across on the record.

7 THE WITNESS: Sorry. When you look at the lake  
8 structure, there is an impoundment that sits on the east side  
9 and south side that is very prominent of this feature. The  
10 elevation of this impoundment is -- I'm six-foot-two and it  
11 was definitely double or triple my height when I was standing  
12 in the middle of the lake structure. So there was a  
13 significant amount of material either naturally or added that  
14 would have kept the water in that feature.

15 And again, this is the area where we saw snails,  
16 remnants of snails in the lake bottom. There were several  
17 features here that confirmed that water was stored there for  
18 many times.

19 Q. (By Mr. Taggart) I'm going to show you a few  
20 pictures that come from Exhibit 183 and ask you to describe  
21 the picture. Is this what you saw in the field? This is  
22 picture number 94 from Exhibit 183.

23 A. Yes, it is.

24 Q. Can you describe what we're seeing here?

25 A. Yeah. This picture illustrates a ditch system  
CAPITOL REPORTERS (775) 882-5322

356

1 that's leading southeast from Big Shipley Springs. The trees  
2 in the center right of the photo is Big Shipley Springs and  
3 this ditch system basically is flowing southeast out of that  
4 particular source.

5 Q. How about the next picture? This one is picture  
6 99. Can you describe what you see there?

7 A. This is another ditch system that we observed in  
8 the field. And it was also identifiable on the photos.  
9 Again, as part of our Reconnaissance prior to doing the field  
10 investigation, we identified specific features we wanted to  
11 see in the field.

12 Q. And what about picture 101, what do we see here?

13 A. This is an example or a photo of one of the dikes  
14 or dams that we speak of -- that we spoke of earlier. And  
15 again, it shows where channels either coming in to this were  
16 then redistributed so that they could be spread out.

17 Q. And the dike that you referenced, that just runs  
18 from the left to the right of the picture just to the  
19 foreground of the fence line?

20 A. Thank you. Yes.

21 Q. All right. Now I'm showing you slide 99 from  
22 Exhibit 617. And this was discussed by Mr. Frazer. Were you  
23 able to confirm the location of these ditches and dams in  
24 your field investigation?

25 A. Yes.  
CAPITOL REPORTERS (775) 882-5322

357

1 Q. And based upon this figure, can you describe your  
2 understanding of how water would have been applied to  
3 irrigate these fields from these ditches and dams?

4 A. Big Shipley Springs, which is this dark area on  
5 the west side of the photo near the ranch headquarters, which  
6 is just to the north of the springs, there is a dam structure  
7 around the east and southeast side of the spring that helps  
8 to regulate the flow out of -- out of Big Shipley Springs.  
9 The springs are located under water, under the pond. So when  
10 we were there on the field investigation, essentially there  
11 was no flow coming in to the Big Shipley Pond but there was  
12 flow coming out of it through a head gate system that could  
13 be used to divert water to the north as seen on these two  
14 blue lines heading north out of the Big Shipley Pond area.  
15 And then it was also a stream -- a ditch system that was  
16 heading south out of the pond.

17 Now, due east of the Big Shipley Pond you can see  
18 this green area -- I'm sorry, this darker shaded area which  
19 was basically a distribution facility and another series of  
20 head gates and a dam structure due east of the Big Shipley  
21 Springs, which then allowed more ditches and more head gates  
22 to further control the flow of water.

23 And again, looking at the photo, you'll see  
24 ditches heading north, northeast, east, southeast and south  
25 from Big Shipley Springs and the diversion structure.  
CAPITOL REPORTERS (775) 882-5322

358

1 Q. Do you see the four dams that are identified  
2 towards the north? I think that's in the north meadow area.

3 A. Yes.

4 Q. Is that what you were describing earlier of how  
5 water moved from one of those structures to the next?

6 A. Yes. That's the location that was illustrated  
7 on those photos.

8 Q. When you were in the field did you also in the  
9 Eccles' field area notice dams between these higher hummock  
10 areas?

11 A. Yes. The Eccles' field area down here in the  
12 southeast corner of this photo, and you'll note as you come  
13 kind of to the northwest from that area you'll see these red  
14 areas, these little red lines. When we were in the field, we  
15 observed that they were actually for a better word a small  
16 dam that was maybe three -- three to four feet in height.  
17 And essentially what they would do is take dirt from each  
18 side of the hummock area where it would restrict down to a  
19 narrow passage, take that dirt and build up a berm and allow  
20 it to back water up in to these areas and then you could see  
21 where those dams or berms were breached and allow the water  
22 to then flow southeasterly in to other fields. And there  
23 were several, several that we identified on the photo and  
24 then also identified in the field where this was done  
25 throughout this hummocky and low area that was to the  
CAPITOL REPORTERS (775) 882-5322

359

1 southeast of the ranch.

2 Q. And those structures are shown on this diagram in  
3 red?

4 A. They are.

5 Q. I want to ask you about fence lines and hay  
6 corrals. Did you see fence lines and hay corrals when you  
7 reviewed -- when you did your field investigation?

8 A. Yes.

9 Q. And I'm showing you slide 100 from Exhibit 617.  
10 Can you describe what you saw in the field, specifically  
11 fences and hay corrals, from this exhibit?

12 A. Yes. One of the things that I was very  
13 interested in seeing was the hay corral. And if we could, I  
14 wanted to go along the section line between Sections 13 and  
15 18, that area identified by the 1870 surveyors, to see if  
16 there were actually hay corrals in that area to reinforce the  
17 fact that what we saw in the notes was still something that  
18 we could see hopefully today. And there were. There were  
19 hay corrals in that area. I can't say that I walked up to  
20 the specific one that was identified in the GLO notes.  
21 However, we did identify and locate several hay corrals in  
22 that vicinity.

23 Q. What about hay corrals as far out as Johns Field,  
24 did you confirm the location of those?

25 A. Yes.  
CAPITOL REPORTERS (775) 882-5322

360

1 Q. And what did you see when you saw a hay corral?

2 A. They varied. Some of them were basically cedar  
3 posts that you could tell had been there for a long time and  
4 they were in a row. There was some remnants of barbed wire  
5 in some cases and other cases there was a very good stand of  
6 barbed wire that was there. But we saw quite a few old cedar  
7 posts in a specific square that had all the characteristics  
8 of being a hay corral.

9 Q. Why would they put a hay corral out there?

10 A. Well, the reason that hay was gathered and stored  
11 was to feed animals in the wintertime. So to prevent those  
12 animals from eating it during the summertime you had to fence  
13 them out. That was important. And the location of the hay  
14 corral was important because you couldn't haul it all that  
15 far in order to stack it. And so if you harvested a  
16 particular field, you wanted to keep your hay corral fairly  
17 close to that field so you weren't moving it at great  
18 distances.

19 And again, keeping in mind that this is 1870,  
20 1879, there's no tractors and trailers. This is all horse  
21 and man-operated equipment. In many cases before hay  
22 machinery became available, this was all with sickles and a  
23 horse and you were pulling this stuff around that you could  
24 gather up that you could cut with a sickle, lay it on some  
25 form of a sled and drag it to a location that you could then  
CAPITOL REPORTERS (775) 882-5322

361

1 restack it in to a hay corral.

2 Q. So the hay corrals were located close to where  
3 the hay actually grew?

4 A. Yes.

5 Q. The hay that was stacked in the corral?

6 A. That's correct.

7 Q. Let's turn to Exhibit 314.

8 HEARING OFFICER JOSEPH-TAYLOR: About how much  
9 longer? You've been going about an hour and a half.

10 MR. TAGGART: This is actually a good time. And  
11 we probably have another 15 minutes before we get to another  
12 one.

13 HEARING OFFICER JOSEPH-TAYLOR: Okay. Let's be  
14 in recess until 9:45. Off the record.

15 (Recess was taken)

16 HEARING OFFICER JOSEPH-TAYLOR: Please continue,  
17 Mr. Taggart.

18 MR. TAGGART: Thank you.

19 Q. (By Mr. Taggart) Mr. Buschelman, welcome back.

20 A. Thank you.

21 Q. Let's go to Exhibit 114. What is this?

22 A. This is a compilation of -- or I should say this  
23 is an overlay of, again, the Boyack map that was filed in  
24 support of proof numbers 03289 and 033290, Big Shipley and  
25 Indian Camp Springs respectively. It's an overlay of that  
CAPITOL REPORTERS (775) 882-5322

362

1 map over some aerial photographs. This one in particular is  
2 a photograph that we utilized as a form of comparison to  
3 illustrate that the cultures that were identified  
4 by Mr. Boyack on his map extended beyond the property  
5 boundaries on to the Bureau of Land Management lands. And it  
6 shows also areas that we felt were needed to be included in  
7 the culture map showing the full extent of the land irrigated  
8 by Big Shipley Springs and Indian Camp Springs.

9 And the coloring in general is this, that the  
10 area outside of the private land is additive. This is an  
11 area that was irrigated and it correlates to the Matilda  
12 Eccles permit that we discussed just a little while ago. It  
13 shows more land in this part of the ranch being irrigated.  
14 It extends out.

15 Q. That's yellow?

16 A. Yes, that's yellow. The green area is areas that  
17 were cultures like meadow. There was an area here that is  
18 red that was for some reason omitted on the Boyack map.

19 HEARING OFFICER JOSEPH-TAYLOR: Mr. Buschelman,  
20 that's not going to come across because there's lots of  
21 greens. There's lots of reds. You need to work yourself  
22 directionally. So starting from the southeast, is that blue  
23 area the Eccles certificate?

24 THE WITNESS: That's correct. Again, to orient,  
25 we're in the southeast corner of the photo which is also the  
CAPITOL REPORTERS (775) 882-5322

363

1 southeast corner of the ranch. The yellow area is area that  
2 is irrigated outside of the private land ownership of the  
3 Sadler Ranch. The blue area represents the area that was  
4 irrigated by Matilda Eccles. The green and a portion of the  
5 red as we're continuing up northeasterly are areas that were  
6 part of the Romano Ranch.

7 HEARING OFFICER JOSEPH-TAYLOR: Northwesterly?

8 THE WITNESS: Westerly, northwesterly. This red  
9 area here, which is the furthest to the southeast in the  
10 photo, illustrates an area that was not included on the Allen  
11 Boyack map. However, again, in our preparation to go in to  
12 the field, this was one area that we wanted to see in  
13 particular and we saw no distinction of culture between  
14 further northwest where there was meadow and further  
15 southeast where there was meadow. We saw the same features.  
16 We saw flow lines. We saw dams. So that area in my opinion  
17 needed to be added to the culture.

18 There's further red areas as you continue  
19 northwest. Those we found to be areas not included on the  
20 Boyack map, but again upon our field review we saw no  
21 distinction that would separate them out as non-irrigated  
22 versus irrigated.

23 So again, I felt that it was important that we  
24 add those areas as additionally irrigated lands above the  
25 number that Allen Boyack had totalled.

CAPITOL REPORTERS (775) 882-5322

364

1           There was some areas that we were able to  
2 identify as being harvest on the aerial photos where the  
3 Boyack map only quantified them as meadow. So we went  
4 through a process of changing the culture in some regards,  
5 not the acreage but the culture from meadow to hay meadow.

6           Q. What would you see in the field that would  
7 indicate that to you?

8           A. Well, again, we saw stack yards -- or hay corrals  
9 and we also saw evidence of wind grows on aerial photos. So  
10 that gave us the confidence to say that it was actually  
11 harvested as opposed to just being grazed.

12           As we continue to the northwest, we'll see these  
13 blue areas. Those areas correspond to what the Boyack map  
14 showed and what we verified in the field as being meadow.

15           Q. Those are light blue in the picture?

16           A. Light blue, correct.

17           Q. And this is the second page of Exhibit 114.  
18 There were two pages that built up to this. So I want to  
19 know that we're talking about the second page of 114 and the  
20 colors on that map. Please continue.

21           A. As we continue northwest, you'll see areas that  
22 of course are green. There's some pink areas. There's some  
23 dark blue areas. Again, each of these colors are trying to  
24 identify culture types or omissions from the Boyack map that  
25 we felt actually should have been included.

CAPITOL REPORTERS (775) 882-5322

365

1           Q. The pink area you mentioned is down at the  
2 southern end?

3           A. Yes. There's a pink area on the very southern  
4 end of the ranch. It's a rectangular-shaped parcel.

5           Q. What are the dark blue areas?

6           A. The dark blues are along the westerly boundary of  
7 the ranch and those are the more intensely irrigated,  
8 cultivated areas that are identified as alfalfa.

9           HEARING OFFICER JOSEPH-TAYLOR: Mr. Buschelman,  
10 I'm going to stop you a second.

11           Mr. Taggart, that's page one in our Exhibit 114.  
12 Are we missing a page? That's our page two. This is page  
13 one. You said it was page two. I just want to make sure  
14 we're not missing a page in our exhibit.

15           MR. TAGGART: If that's the way yours is, that's  
16 the way mine is. So we are talking about page one of Exhibit  
17 114. I apologize.

18           HEARING OFFICER JOSEPH-TAYLOR: No. That's okay.  
19 I just want to make sure we got it.

20           Q. (By Mr. Taggart) All right. Did you mention  
21 open water areas and how those were addressed in this map?

22           A. Can we go to page two? I think that might help  
23 us a little bit more.

24           Q. Okay. So now we are going to talk about page  
25 two.

CAPITOL REPORTERS (775) 882-5322

366

1           A. Thank you. Page one just kind of gave us an  
2 overview of the Boyack map over the top of the aerial. Page  
3 two helps me to explain more of what we felt was additional  
4 land that was irrigated not only from our observation of the  
5 aeriels but our ability to go in to the field and correspond  
6 shade differences with land that had -- that was irrigated at  
7 the time we were there and compare those shadings and color  
8 variations with lands that were previous aerial photos.

9           The sum total of that is that in this photo,  
10 again, in the southeast portion of the ranch, which is also  
11 the southeast portion of the photo, we can see the yellow  
12 area, which is added culture. It's on BLM land. You can  
13 also go, again, northwesterly along the area that's shaded  
14 dark, we can see red areas that we added to the cultures to  
15 the tabulation because we felt there was actually culture in  
16 those areas that were inside of the Boyack map but not  
17 included by him.

18           We have some blue area in here which was actually  
19 a change from meadow to hay meadow because of the evidence of  
20 the hay corrals in those areas and other evidence that we saw  
21 in the aerial photos of wind grows and the collection of hay  
22 of putting in the stack yards.

23           If you go to, again, continuing northwest, we  
24 have these green areas. On the Allen Boyack map, they were  
25 identified as water features. Upon review of other aerial  
CAPITOL REPORTERS (775) 882-5322

367

1 photos, there were times that these areas did have water, but  
2 there were other times that they did not have water and they  
3 actually had what was seen to be the same type of shading as  
4 other culture around it.

5           So it helped to verify that they would use these  
6 dams that we had identified on the other photo to back water  
7 up on to fields and then breach those dams and allow that  
8 water to flow on later in the season or in the growing  
9 season.

10           Q. Mr. Buschelman, did you identify what date and  
11 the year Mr. Boyack visited the farm and did that influence  
12 your decision about these green areas?

13           A. It did. Because the survey, the field survey  
14 that Allen Boyack conducted was in February and March of the  
15 year, which was the time that water would have been  
16 transported down the ditch system because of the freezing of  
17 the ditch system, allowing it to transport itself further  
18 down to the furthest extents of the ranch and then allowing  
19 it to be stored in these small impoundments for later release  
20 in the growing season.

21           As we look at the very --

22           Q. And so that's what he would have seen, given the  
23 date that he was out there. He was out there in February or  
24 March, is that what you said?

25           A. That's correct. That's correct. And it also  
CAPITOL REPORTERS (775) 882-5322

368

1 correlates to some of the photos that were shown to us  
2 earlier during Dr. Yednock's presentation where during the  
3 winter you can see all of those water areas that were  
4 inundated, which again, reinforces during the wintertime that  
5 they were storing water during the winter for icing the  
6 fields as a form of storage or in these impoundments as a  
7 form of storage.

8 At the center of the picture on the bottom of the  
9 private property there is some black areas noted here. Those  
10 were areas that were not included in the Boyack table that  
11 was submitted with the proof of appropriation. They were  
12 included on the map and had culture identified on it. But we  
13 felt that it was an omission that he forgot to add it up in  
14 to the overall total.

15 So we identified those areas and visited those in  
16 the field. And the culture was -- the evidence of culture  
17 was evident as well as it corresponded to other areas that we  
18 had seen culture in the past, photos. So the only thing that  
19 we could think of is that when he was adding up, which is a  
20 fairly extensive list of acreage that he forgot to include  
21 these in his tabulation.

22 So we identified those. You'll also notice  
23 there's one due north of this large square black area.  
24 There's a few up in here in the more central part of the  
25 property that was also omitted. So again, we included those.  
CAPITOL REPORTERS (775) 882-5322

369

1 One thing that is of note is in this area which  
2 is due north of Shipley Springs and due north of the ranch  
3 headquarters on Allen's map he identified an area of alfalfa  
4 on the northern portion of the ranch. There was one corner  
5 up here where the ditch actually rounded the corner in a  
6 sense. And we looked through a series of photos and we could  
7 not see that that had been irrigated. Mr. Boyack's map  
8 showed that it was in alfalfa. However, we felt that that  
9 was not in alfalfa historically so we removed that from our  
10 total land that was irrigated from the source. So we found  
11 some that we had to eliminate as well.

12 Q. And that's shown in red?

13 A. Yes, yes. So overall, what we had found as  
14 basically trying to ground proof Mr. Boyack's map was that he  
15 accounted for what we felt was irrigated land accurately. We  
16 did feel that he was limited either by the client that  
17 says -- that told him only to identify culture on private  
18 land. But there was definitely culture and irrigation beyond  
19 the private land boundaries that we feel are significant and  
20 represent what the full extent of the irrigation from the  
21 spring actually is.

22 Q. And I'd like you to turn to the last page, the  
23 last page of Exhibit 114. What do these tables show?

24 A. These tables are a draft. We're still fine  
25 tuning the numbers. However, we're within the order of  
CAPITOL REPORTERS (775) 882-5322

370

1 magnitude of these numbers very closely. But this was our  
2 attempt to trace or track the changes that we felt were  
3 needed, the additions and the subtractions from the Allen  
4 Boyack map to what we felt was the full extent of the  
5 irrigation on that spring.

6 Q. And please summarize what the changes in total  
7 acres of irrigated land are that are shown in these tables?

8 A. Originally under the Boyack map totals, I'm sorry  
9 there's not a total for this first column. It's titled  
10 original Boyack totals. It's the first box on the exhibit.  
11 But these three numbers, 262.11, 499.28 969.8 add up to  
12 1,731.19 acres, which is the total of proof number 03289,  
13 which is the Big Shipley Springs, plus the irrigated acreage  
14 identified under Indian Camp Springs which is 03290. It's  
15 the total of those two numbers that were submitted on the  
16 proofs of appropriation.

17 After our review, we feel that the total for both  
18 of these claims should be in the neighborhood of 2,244 acres  
19 with some minor adjustments that we're still finishing up.

20 Q. How is this map going to be used? Do you intend  
21 to amend the vested claim?

22 A. Yes, that's the intent.

23 Q. Are you using this map in this hearing to ask for  
24 more water than is in the applications?

25 A. No.  
CAPITOL REPORTERS (775) 882-5322

371

1 Q. Does the -- Does the total irrigated acreage that  
2 you indicate on this table, the 2,244.71 acres, does that  
3 correspond with other historical information?

4 A. It does. During Dr. Yednock's presentation there  
5 were historical accounts that referenced the irrigated lands  
6 within the ranch to be in the neighborhood of 2,000 acres.  
7 And so this fits very closely with that number that had been  
8 referenced by a number of others.

9 MS. PETERSON: I'm sorry. Who did you say stated  
10 that?

11 THE WITNESS: Let's see, that would have been --

12 MS. PETERSON: Who did you just say stated that  
13 right now in your testimony?

14 THE WITNESS: Previous historical accounts.

15 MS. PETERSON: Oh, I thought you listed somebody.

16 MR. TAGGART: I think he indicated in  
17 Dr. Yednock's testimony Dr. Yednock had referred to certain  
18 documents.

19 MS. PETERSON: Okay. Thank you.

20 THE WITNESS: Yes.

21 Q. (By Mr. Taggart) Okay. Based upon all of this  
22 information that you reviewed, the field investigation that  
23 you did, the analysis of the Boyack map, what is your opinion  
24 about whether there is sufficient historic documentation to  
25 support the amount of acreage that is part of the vested  
CAPITOL REPORTERS (775) 882-5322

372

1 claims and which are the support of the applications that are  
2 filed here today?

3 A. I've been involved in a number of proofs of  
4 appropriation, to assemble documentation to show historical  
5 use of water, historical diversion dates, to establish  
6 priority. And this particular property by far has enormous  
7 amounts of historical documentation, much more than I'm used  
8 to seeing in other clients that I've worked for.

9 So I'm very encouraged by the volume of  
10 background, the volume of history that's associated with this  
11 ranch, that it definitely proves with very little debate as  
12 to how much was used, that it was used continuously without  
13 interruption and that the priority is prior to 1870.

14 Q. Okay. Let's -- I have some questions about an  
15 exhibit that was submitted by the protestants and it's  
16 Exhibit 328. Are you aware that this report was prepared?

17 A. I'm going to have to ask for a copy. I don't  
18 have it in my file. Oh, yes, I do have it in my file. Thank  
19 you. Yes, I'm aware of this and I've read through it.

20 Q. All right. And let's go to the last page of that  
21 report, page 21 of 22. Page 21 of 22. What did that report  
22 conclude regarding irrigated acreage on the Sadler Ranch?

23 A. I'm looking at table six, a summary of the range  
24 of acres calculated using NDVI derivative -- derived from  
25 land sat imagery, short for land satellite imagery. It shows  
CAPITOL REPORTERS (775) 882-5322

373

1 a number of dates. July 13th, 1974. These are image dates.  
2 July 16th 1984, August 23rd 1986, August 5th 1991 and July  
3 18th 1999. It provides the first column titled Sadler low  
4 range acreage. Going to the right, another column Sadler  
5 high range acreage. And it has two different numbers for the  
6 low and a different number for the high.

7 What it shows me here is that during these time  
8 frames there's an attempt based on imagery, satellite imagery  
9 to come up with what is assumed to be acreage. And those  
10 acreages would be irrigated acreage.

11 Q. And in some years does it indicate that in the  
12 high range of the acreage is similar to what you've been  
13 testifying about?

14 A. They are similar but low compared to what I found  
15 when I actually went out in to the field.

16 Q. Do you know whether -- And I'm going to have to  
17 ask you about this report although we haven't had a chance  
18 for this witness to testify, this is the only time I can ask  
19 about it. The -- Does that number include private land,  
20 public land? Is it restricted to just private land?

21 HEARING OFFICER JOSEPH-TAYLOR: I didn't get  
22 that.

23 Q. (By Mr. Taggart) Is it restricted to just  
24 private land?

25 A. I believe it is restricted to private land.  
CAPITOL REPORTERS (775) 882-5322

374

1 Q. And would you agree that that's how the analysis  
2 should occur in determining what acreage was irrigated under  
3 the vested claims?

4 A. No. The assessment of irrigated acreage extends  
5 beyond private land. A vested right is not limited to land  
6 ownership. It's the owner of the water right whether it  
7 extends on to public lands or even other private lands that  
8 is the owner of the water right. So it would have to include  
9 the full extents of the land irrigated from the spring, not  
10 just the private land.

11 Q. What about the fact that there's one date in a  
12 season. How does that influence in your view the conclusions  
13 made here?

14 A. Any imagery, aerial photography is a snapshot in  
15 time. It only gives you a sense of what is happening at that  
16 very moment in time. It does not provide you an assessment  
17 of what happened before or after that event. So to me it's  
18 imperative to use these images as a tool to further do more  
19 land, on the ground type of investigations to basically  
20 ground proof the images that you're seeing.

21 Q. Is it also relevant what date in the year it is,  
22 what time of year the image represents?

23 A. Yes, it's very significant.

24 Q. And in looking at some of the images in this  
25 report, like specifically looking down at the center pivots  
CAPITOL REPORTERS (775) 882-5322

375

1 in the southern part of the valley, can you describe whether  
2 one image might not pick up land that was irrigated in a  
3 particular year?

4 A. Yes. I'm looking at July 18th 1999. That is the  
5 image that is on page 20 of 22. And you can see by looking  
6 at the center pivots that the dark red color is exhibiting  
7 reflective qualities of a leafy crop. However, if you look  
8 adjacent to some of these red circles, you'll see some that  
9 are kind of a bright yellow. In that case from a picture  
10 like this it wouldn't be evident whether that had been  
11 irrigated or not. It could have also been irrigated and then  
12 harvested. And then because this was done on -- this photo  
13 was taken on July 18th, 1999, this is during the harvest  
14 period of time. So some of those that are appearing yellow,  
15 they could be non-irrigated or they could have been just  
16 harvested and now they're dried out so they're going to have  
17 to reapply water and get the crop to grow again. So that's  
18 why having a snapshot in time doesn't give you the full  
19 picture on whether that land was irrigated, harvested or not.

20 Q. What about the fact that the first photographs in  
21 1974 and there was no photographs before 1974, do you think  
22 that has any influence on the reliability of these  
23 conclusions?

24 A. I do. I think it's important that you look at as  
25 many images as you can find historically. That's why in the  
CAPITOL REPORTERS (775) 882-5322

376

1 process of reviewing the lands irrigated before I went in to  
2 the field there were photos that went, aerial photos and  
3 images that went back to 1946, fifties, sixties, seventies,  
4 eighties, nineties, as well as in to the 2000s to get a  
5 better idea of what was actually being irrigated.

6 Q. And if the spring had decreased by 1974 then this  
7 method wouldn't pick up that, for instance; right?

8 A. That's correct. It would only show what was  
9 irrigated in 1974.

10 Q. Now, have you used land sat imagery yourself in  
11 assessing the amount of irrigated acreage in a vested claim?

12 A. I have. It was infrared photography, not imagery  
13 from a satellite. But during the course of my field reviews  
14 and mapping of cultures in the adjudication of the Snake  
15 River drainage which included the Owyhee River, the Bruno  
16 River and roughly 15 ranch properties up there, I used  
17 infrared photography a lot to try to identify areas of  
18 irrigation.

19 Again, prior to going in the field I did a lot of  
20 pre-work, office work before meeting with the individual  
21 clients, the individual ranch owners and then targeted  
22 specific areas that I wanted to see as to whether or not they  
23 had been irrigated. And there are some areas that on the  
24 photo, on the aerial photo, will show very little color  
25 differentiation. When we were in the field we could see  
CAPITOL REPORTERS (775) 882-5322

377

1 definitely there was culture on the ground. Again, the date  
2 of the photo, the time of the year of the photo versus being  
3 out on the ground made a big difference in being able to  
4 quantify those areas that had been irrigated versus an image  
5 that may not have the right shading or color differentiation  
6 to give you that. Field work is imperative. It's a tool.  
7 Infrared photography, black and white photography is a tool.  
8 But without going in the field, it's hard to give it the  
9 ultimate.

10 Q. Now, obviously you're a licensed water rights  
11 surveyor in the State of Nevada?

12 A. Yes.

13 Q. And do you have to be a licensed water rights  
14 surveyor to submit a map to support a water right in Nevada?

15 A. Yes.

16 Q. Including a vested claim?

17 A. Yes.

18 Q. As a water rights surveyor would you ever  
19 recommend acreage for a vested claim based solely on a land  
20 sat image or series of land sat images?

21 A. No.

22 MR. TAGGART: We'd like to -- Thank you. We'd  
23 like to offer Exhibit 114 in to evidence.

24 MS. PETERSON: Objection. And all the testimony  
25 associated with it based on the same grounds, that it's  
CAPITOL REPORTERS (775) 882-5322

378

1 irrelevant to this proceeding.

2 HEARING OFFICER JOSEPH-TAYLOR: Do you want to  
3 respond, Mr. Taggart?

4 MR. TAGGART: Excuse me.

5 HEARING OFFICER JOSEPH-TAYLOR: You want to make  
6 a record or response to her?

7 MR. TAGGART: Oh, yeah. I thought we already  
8 did. I thought that might be a continuing objection. But  
9 yes, the information from the Exhibit 114, the map contained  
10 there, is not intended to request more water under the  
11 applications that have been filed by Sadler Ranch and which  
12 are under consideration during this hearing. They're -- That  
13 information is provided because it's the best information  
14 about historic irrigation on the ranch. It provides relevant  
15 information as to the upper range of irrigated acreage and so  
16 it supports the amount of acreage as being reflected in the  
17 application before the State Engineer.

18 HEARING OFFICER JOSEPH-TAYLOR: Thank you.

19 MS. PETERSON: May I respond?

20 HEARING OFFICER JOSEPH-TAYLOR: Hold on. Go  
21 ahead, Ms. Peterson.

22 MS. PETERSON: Just for the record, it's not the  
23 best information that's historic because it's not historic  
24 information. It's new information compiled in 2013.

25 HEARING OFFICER JOSEPH-TAYLOR: So noted. Your  
CAPITOL REPORTERS (775) 882-5322

379

1 objection is overruled. Exhibit 114 will be admitted.

2 MR. TAGGART: All right. Now I'm going to change  
3 to a topic about water duty.

4 HEARING OFFICER JOSEPH-TAYLOR: Can we go off the  
5 record for a second?

6 (Discussion was held off the record)

7 HEARING OFFICER JOSEPH-TAYLOR: I've just had an  
8 off-the-record discussion with counsel about time because I'm  
9 concerned about Mr. Venturacci's case being cut short.  
10 Mr. Taggart, how much longer do you think you have with  
11 Mr. Buschelman and who else do you have?

12 MR. TAGGART: I have -- Mr. Buschelman will  
13 probably be another half an hour and then I have Dwight Smith  
14 and I also have Levi Shoda, who will be a short witness and  
15 that's it.

16 HEARING OFFICER JOSEPH-TAYLOR: And how much time  
17 do you think you need with Mr. Smith?

18 MR. TAGGART: I think we need an hour.

19 HEARING OFFICER JOSEPH-TAYLOR: I'm seeing the  
20 day pretty much evaporate. Mr. Kolvet, are you going to be  
21 satisfied with having one day tomorrow?

22 MR. KOLVET: If I can get at least one witness on  
23 today, that would be Mr. Katzer, who will be about an hour  
24 total, I believe. So if I get an hour today, I can finish up  
25 tomorrow.

CAPITOL REPORTERS (775) 882-5322

380

1 HEARING OFFICER JOSEPH-TAYLOR: Okay.  
2 Mr. Taggart, I'm going to shoot you for being done at 2:30  
3 max. And if Mr. Kolvet agrees to let you go over, I'll let  
4 you go a little longer. But you guys made an agreement to  
5 split up the time and I don't want him coming back saying I  
6 didn't get enough time.

7 MR. KOLVET: Well, in part, some of my statement  
8 is due to the fact that some of the general discussion that  
9 Mr. Buschelman just put on the record I want to incorporate  
10 in my case, so I won't have to ask those questions of  
11 Mr. Thiel perhaps. So some of what he has already testified  
12 to will be relevant to our case as well.

13 HEARING OFFICER JOSEPH-TAYLOR: Okay. You guys  
14 are just going over your time and I want to make a record.  
15 You agreed to the three days.

16 MR. KOLVET: We did.

17 HEARING OFFICER JOSEPH-TAYLOR: Go ahead,  
18 Mr. Taggart.

19 Q. (By Mr. Taggart) Mr. Buschelman, I'm going to  
20 make an effort to speed this up. We might go through some  
21 things faster than we had anticipated. But from your  
22 research, and I'm going to reference page five of your  
23 report, which is -- Excuse me. 105. What types of crops are  
24 historically cultivated on the Sadler Ranch?

25 A. There's actually a fairly wide variety of crops.  
CAPITOL REPORTERS (775) 882-5322

381

1 Alfalfa, native grasses, native hay is its term. Also wheat  
2 and other grain type of crops. So a fairly extensive variety  
3 of crops.

4 Q. Are you -- I'm going to turn to Exhibit 194. And  
5 this is a document that's been prepared by the Division of  
6 Water Resources. Do you see that?

7 A. I do.

8 Q. And in that document it references what's called  
9 the net irrigation water requirement. Are you familiar with  
10 that?

11 A. I am.

12 Q. And I think maybe it would be quicker for me to  
13 just talk through what we've got in these exhibits. In  
14 Exhibit 194 there is discussion of net irrigation water  
15 requirement on page 68. And within that, the portion that's  
16 been highlighted in the exhibit that was submitted to the  
17 State Engineer it says the NIWR is defined as the ETACT  
18 active minus precipitation regarding the root zone and  
19 represents the amount of additional water that the crop would  
20 evapotranspire beyond precipitation regarding the root zone.  
21 Do you see that?

22 A. I do.

23 Q. And it says NIWR is synonymous with the terms net  
24 consumptive use and precipitation deficit; right?

25 A. Yes.  
CAPITOL REPORTERS (775) 882-5322

382

1 Q. And then in Exhibit 193, which is what's referred  
2 to as the dictionary, it's put out by Nevada Division of  
3 Water Planning. It's a dictionary of technical water, water  
4 quality and environmental and water-related terms. We've  
5 provided pages from that. And if you can turn to page 63 of  
6 that, there is a definition of consumptive use. Excuse me.  
7 Page 62. And you understand the definitions of these terms?

8 A. I do.

9 Q. And does the net irrigation water requirement  
10 include all the water that's required to grow a crop?

11 A. No.

12 MS. PETERSON: Objection. I think this is  
13 outside the scope of his expertise.

14 HEARING OFFICER JOSEPH-TAYLOR: I'll overrule it.

15 MR. TAGGART: Do you remember the question?

16 THE WITNESS: I do.

17 MR. TAGGART: Before I get started, can I just  
18 offer 193 and 194 in to evidence?

19 HEARING OFFICER JOSEPH: Any objection to 193 and  
20 194?

21 MS. PETERSON: No objection.

22 HEARING OFFICER JOSEPH-TAYLOR: They'll be  
23 admitted.

24 MR. TAGGART: Go ahead and answer.

25 THE WITNESS: The net irrigation water  
CAPITOL REPORTERS (775) 882-5322

383

1 requirement for consumptive use portion identified here is  
2 only one component of determining a duty to serve the needs  
3 of a crop.

4 Q. (By Mr. Taggart) And if you go to page 68 of  
5 Exhibit 194, there is a definition of crop irrigation  
6 requirement. Do you see that?

7 A. I do.

8 Q. It says that the amount of irrigation water in  
9 acre-feet per acre required by the crop, it is the difference  
10 between crop consumptive use or crop requirement in the  
11 affected precipitation for client growth. To this amount the  
12 following items as applicable are added, irrigation applied  
13 prior to crop growth, water required for leaching,  
14 miscellaneous requirements of germination, frost protection,  
15 plant cooling, et cetera and for the decrease in soil  
16 moisture should be subtracted. Explain how this definition I  
17 just read is relevant in your opinion to the duty that's  
18 necessary to grow a crop.

19 A. The definition of duty, as I understand it,  
20 incorporates many of the aspects that you just identified  
21 under crop irrigation requirement. And it is imperative when  
22 establishing or trying to estimate a duty that you take in to  
23 account, first of all, the need to transport the water from  
24 one location to the crop, to the source of water to the crop  
25 and the irrigation method. If it's an open ditch, flood  
CAPITOL REPORTERS (775) 882-5322

384

1 irrigation, there's going to be transportation losses that  
2 are incurred to transport the water from the source to the  
3 crop. There's also going to be the need to improve the soil  
4 chemistry to get a crop to grow. That's the leaching factor  
5 that is sometimes included in duty, sometimes is additive.  
6 There's also the need to consider the type of plant that  
7 you're irrigating, the frequency of irrigation, the time of  
8 year due to evapotranspiration. There's a number of factors  
9 that are needed in order to calculate or estimate a total  
10 duty to irrigate a crop.

11 Q. Let's go to Exhibit 278. And on the last page is  
12 what we provided, page 251, it lists the net irrigation water  
13 requirement for Diamond Valley; correct?

14 A. Yes.

15 Q. And did you use these numbers in your analysis of  
16 what duty was required to irrigate crops on Sadler Ranch?

17 A. Yes.

18 Q. And let's go to Exhibit 1 of 6 then. And this is  
19 a table that you prepared. And are those the figures that  
20 are shown in the table?

21 A. Yes.

22 MS. PETERSON: So I'm trying to make my record  
23 here. I would object to this exhibit also and any testimony  
24 about it, just so that it's clear in the record before he  
25 starts testifying.

CAPITOL REPORTERS (775) 882-5322

385

1 HEARING OFFICER JOSEPH-TAYLOR: What's the  
2 objection?

3 MS. PETERSON: It's irrelevant because it's  
4 outside the scope of the vested claim.

5 HEARING OFFICER JOSEPH-TAYLOR: Overruled.

6 MR. TAGGART: Can I just respond for the record?

7 HEARING OFFICER JOSEPH-TAYLOR: Sure.

8 MR. TAGGART: What we're establishing is the duty  
9 of water that is necessary to irrigate crops in the  
10 pre-statutory period, the vested claim period. And so we're  
11 looking at the amount of water that would be necessary to  
12 irrigate the lands that Mr. Buschelman testified about in  
13 that pre-statutory period. And so that's the relevance of  
14 this information.

15 MS. PETERSON: And then just so can I put it on  
16 the record too? The claim states a duty of four or 4.5.

17 Q. (By Mr. Taggart) All right. So in table 106 --  
18 I'm sorry. Exhibit 106, you have those net irrigation water  
19 requirements indicated. Describe for me, if you will,  
20 efficiencies and how to determine what efficiency -- Well,  
21 first of all, what is efficiency and how does it apply duty?

22 A. Efficiency is a term utilized to kind of  
23 understand what it takes to, again, bring the water from the  
24 source to the crop and then apply it to the plant and then  
25 even somehow amend the soil chemistry to encourage the plant

CAPITOL REPORTERS (775) 882-5322

386

1 to grow. So efficiencies take all of those factors in to  
2 consideration.

3 Q. And did you investigate efficiencies that would  
4 be necessary on Sadler Ranch in that pre-statutory time  
5 frame?

6 A. I did. I researched the web and asked -- I  
7 queried efficiencies and methods to calculate or understand  
8 efficiencies. And I utilized an example or a report that was  
9 prepared by the food and agriculture organization of the  
10 United Nations, which is also part of the National Resource  
11 and Conservation Service, which is also a part of the  
12 Department of Agriculture.

13 Q. And that's been identified as Exhibit 123. And  
14 as you just described it, you relied upon it. We'll offer  
15 Exhibit 123 in to evidence?

16 HEARING OFFICER JOSEPH-TAYLOR: Any objection?

17 MS. PETERSON: Same objection.

18 HEARING OFFICER JOSEPH-TAYLOR: Overruled. It  
19 will be admitted.

20 Q. (By Mr. Taggart) Does the grade or the slope of  
21 ditches on a ranch influence the efficiency of the  
22 application of water to irrigate crops?

23 A. It does. Specifically in a flood irrigation  
24 method or open ditch methods to deliver water to crops, it  
25 has a very big impact on efficiency.

CAPITOL REPORTERS (775) 882-5322

387

1 Q. Would you look at the grade of the ditches in  
2 Sadler Ranch to determine what those grades are?

3 A. I did.

4 Q. And describe that.

5 A. First of all, I noted on the proof of  
6 appropriation, that Allen Boyack had actually listed the  
7 grade to be .5 percent. So in an effort to check myself, I  
8 went to the USGS map for that particular section of the area  
9 and utilizing elevations noted on the USGS map I calculated  
10 an average slope of .2 percent. So under those two  
11 circumstances, Mr. Boyack's calculation and my calculation  
12 were somewhere between .2 and .5 percent grade between the  
13 spring and the outer reaches of the irrigated acreage on the  
14 Sadler Ranch.

15 Q. So the lower the slope, the more water is  
16 necessary to irrigate? Is that a fair statement?

17 A. It is. In many cases if the grade is as flat as  
18 these numbers tell us, in many cases you have to develop a  
19 head of water, which is basically a higher flow of water to  
20 get it to push itself further down the ditch system. So  
21 under those conditions, more water is required to transport  
22 the water than it would be under a steeper slope.

23 Q. Did you review the USGS quad sheet for this area  
24 in doing your calculation grade?

25 A. I did.

CAPITOL REPORTERS (775) 882-5322

388

1 Q. And when you looked at that document that's been  
2 admitted as Exhibit 123, did it say what an efficiency for  
3 flood irrigation would be -- should be in a situation like  
4 Sadler Ranch?

5 A. Yes. It actually gave a range of efficiencies  
6 and they range from 40 percent to 60 percent.

7 Q. And on -- Strike that. If you can turn to  
8 exhibit --

9 HEARING OFFICER JOSEPH-TAYLOR: Excuse me a  
10 second. Is that water lost back to the system 40 to 60  
11 percent?

12 THE WITNESS: Not necessarily lost. It's the --  
13 In other words, if you diverted one CFS at the source and  
14 wanted to get 40 percent of it, you would only get 40 percent  
15 of it to a specific crop based on a 40 percent efficiency.  
16 So lost, part of it would be evaporated. Part of it would be  
17 recharged in to the soil profile. Part of it would be  
18 consumed by the crop itself. And part of it may even be a  
19 waste or drain component of that crop. The efficiencies are  
20 based on what they call scheme irrigation efficiencies and  
21 the scheme efficiency is a component of all of those.

22 HEARING OFFICER JOSEPH-TAYLOR: What I'm trying  
23 to get for the record, Mr. Buschelman, does that mean, 40  
24 percent efficiency, does that mean 40 percent gets to the  
25 crop?

CAPITOL REPORTERS (775) 882-5322

389

1 THE WITNESS: Yes.

2 HEARING OFFICER JOSEPH-TAYLOR: Okay. Thank you.

3 Q. (By Mr. Taggart) 40 percent more than the amount  
4 of water necessary to grow the crop to the net irrigation  
5 watering?

6 A. No. Actually 40 percent that's left over. You  
7 put a -- You put one CFS in at the head gate, you're only  
8 going to get four-tenths of a CFS at the crop or consumed by  
9 the crop.

10 Q. At a 40 percent efficiency?

11 A. At a 40 percent efficiency.

12 Q. Turn to document 287. This was a power point  
13 presented by the State Engineer in, I believe, 2009. If you  
14 could turn to page 27 of that power point. That's 287. Does  
15 that page indicate an efficiency for sprinkler irrigation?

16 A. It does.

17 Q. What does it say?

18 A. It says the efficiencies range between 65 and 75  
19 percent for a gross pumpage estimate.

20 Q. Is sprinkler irrigation more efficient than flood  
21 irrigation?

22 A. Yes.

23 Q. Based upon your analysis, describe your  
24 conclusion of what the duty of water is necessary for Sadler  
25 Ranch on average per acre.

CAPITOL REPORTERS (775) 882-5322

390

1 MS. PETERSON: And again, just for the record, my  
2 objection, my continuing objection.

3 HEARING OFFICER JOSEPH-TAYLOR: So noted.

4 THE WITNESS: Utilizing the efficiencies stated  
5 in the food and agricultural organization, irrigation  
6 deficiencies information that I received, and looking at the  
7 40, 50 and 60 percent efficiency ranges, I calculated that at  
8 a 40 percent efficiency it would require 6.25 acre-feet per  
9 acre as a maximum amount of duty required. Then I also  
10 looked at a higher efficiency at the 60 percent and also did  
11 the calculation at 60 percent to try to obtain a lower or the  
12 lower number of acre-foot per acre and I came up with 3.33  
13 acre-feet per acre. So the low of the range is 3.33. The  
14 high of the range is 6.25. I simply averaged those and I  
15 came up with 4.73 acre-feet per acre as an average duty based  
16 on those efficiencies.

17 Q. And that would be during the irrigation season?

18 A. Yes, that's during the irrigation season.

19 Q. There was some testimony earlier about the  
20 temperature of Shipley Spring being 105 or 104 degrees. Do  
21 you recall that?

22 A. I do.

23 Q. What relevance does the temperature at 104  
24 degrees approximately have to your analysis of duty?

25 A. Having a higher temperature, hot or warm water is  
CAPITOL REPORTERS (775) 882-5322

391

1 a big advantage, especially in a situation that we see out in  
2 Diamond Valley. During the wintertime that water is not  
3 frozen at the source, so at the spring. So it allows the  
4 owner to have access to water cattle, where a colder water  
5 source would freeze. That's a huge benefit. It also allows  
6 the use of that water to flow down a ditch system and enable  
7 it to stay liquid enough to get to certain areas on the ranch  
8 that could be -- where water could be stored so it can still  
9 be transported in freezing weather. It allows the ditches  
10 to, you know, remain open at times of the year when a colder  
11 water source would have stayed frozen.

12 So with that warmer water source, it allows you  
13 to do -- allows you to divert the water and actually place  
14 water in areas that you couldn't normally do that under a  
15 cold water system.

16 Q. Do you have an opinion about whether all of the  
17 water from Shipley and Indian Camp Spring was put to  
18 beneficial use prior to 1905?

19 A. I do.

20 Q. And could you with reference to Exhibit 145  
21 describe your opinion.

22 A. Based on the historical accounts that Dr. Yednock  
23 was able to describe earlier in his testimony and looking at  
24 the area of irrigation that we saw in the field and the  
25 aerial photography, it, to me, verifies that the full flow of  
CAPITOL REPORTERS (775) 882-5322

392

1 that spring was used on a year-round basis, not only for  
2 irrigation but other uses, ice production, soil augmentation,  
3 soil moisture augmentation, leaching of salts that would have  
4 occurred in areas on the ranch and getting those salts out in  
5 to the alkali flats so that you can utilize the improved soil  
6 chemistry to encourage growth or increase growth.

7           So based upon those multiple uses and the extent  
8 of the irrigation, I feel all of the water was actually  
9 utilized for beneficial use.

10          Q. Exhibit 145 is a field investigation that was  
11 done in 1912, as I recall. Yes, 1912. And does that have  
12 any indication of water being used in the wintertime?

13          A. It does. There's a section here that's included  
14 within the red box. It's the larger of the two red boxes on  
15 the right-hand side of the exhibit. And it speaks of  
16 reservoirs are used in connection with the source is quite  
17 large. That speaks, again, of what we saw in the aerial  
18 photographs, what we have seen in the other photo  
19 representations of the ranch where water was actually out in  
20 the fields and used as a storage mechanism in the wintertime.

21           And then it also goes on to say, and it's right  
22 here, in the winter, and this is not circled by a box, but  
23 it's roughly about three sentences below that larger box. In  
24 the wintertime the water is turned down through Sadler's  
25 ranch and finally reaches its land at Romano's. So the  
CAPITOL REPORTERS (775) 882-5322

393

1 wintertime components of distributing water was an asset to  
2 this ranch. It was imperative to use that winter component,  
3 the warm water feature to get water in areas that would be  
4 difficult in other circumstances.

5          Q. For the record, the red boxes are only on the  
6 screen and in the exhibit we're showing in the hearing room  
7 but not the one that's in the exhibits.

8           All right. In your report you also talk about  
9 leaching and the requirement for leaching. And if I can,  
10 I'll just restate for the record where -- what documents you  
11 referenced if you were -- Let's not go through each one of  
12 those individually. And then at the end I'll ask you about  
13 that. But you referenced Exhibit 126. And I'm doing this in  
14 an effort to save time. So you referenced Exhibit 126, page  
15 164. Also the 1986 topographical map done, which is Exhibit  
16 177. You referenced the Boyack map. This is all referenced  
17 in the report. You referenced the certificate for  
18 Application Number 4273. And you referenced portions of the  
19 Romano v. Sadler litigation. And so with those pieces of  
20 information in mind, please describe to the State Engineer  
21 your understanding of why water is necessary for the leaching  
22 on Sadler Ranch.

23          A. Again, when you consider looking at the aerial  
24 photography and then also doing the field investigation, it  
25 is quite obvious that the lower, or I should say the easterly  
CAPITOL REPORTERS (775) 882-5322

394

1 portions of the ranch are influenced by salt that you can see  
2 that are out in to the playa. And as the ranch extends  
3 easterly, the evidence of salt in the soil is very much  
4 there. And the white nature of the soil is a signature color  
5 or signature shade of soil in the soils -- or salts in the  
6 soils.

7           In order to maintain those areas in such a way  
8 that the soil chemistry will either allow growth or enhance  
9 growth, it has to be somehow leached of those salts. And it  
10 may not have to happen every year, but at certain times those  
11 salts have to be taken out in to the playa and away from the  
12 soils that are supporting your crop.

13           So based on the aerial photography history and  
14 being in the field and then seeing historical accounts, that  
15 was a common practice in order to encourage growth.

16          Q. You've also mentioned storage of water as a use  
17 existing in the non-irrigation season. Describe how that  
18 occurred, in your understanding, at Sadler Ranch.

19          A. During the wintertime, the non-irrigation season,  
20 water would be transported down the ditch systems. The dams  
21 that were across the narrows between the two hummock, higher  
22 areas, were constructed. Those waters would be diverted in  
23 to those temporary storage facilities. Throughout the ranch  
24 they had many places that they could store this water on the  
25 ranch. And as time progressed, the ditches would freeze and  
CAPITOL REPORTERS (775) 882-5322

395

1 that warm water would be able to continue further out in to  
2 the ranch boundaries, they would continue to store more water  
3 further out.

4           Once the season began to warm up, they would  
5 breach those facilities in order to irrigate land below them  
6 because it allowed them to bring water to the fields almost  
7 immediately upon breaching the storage facility instead of  
8 having to transport three and a half miles to get to the same  
9 location.

10           Icing the fields is another form of storage. We  
11 see that recognized in other areas throughout the state where  
12 icing of the field is a form of storage and is allowed. So  
13 it's very common practice.

14          Q. And I won't go in to it again. But we've talked  
15 about Exhibit 141, which is Permit 4273, and this is an  
16 actual approval of a winter water right on part of this  
17 property; correct?

18          A. That's correct.

19          Q. What other uses of water here on the ranch --  
20 Again, we won't go in to detail here, but if you give a list  
21 of other types of uses other than irrigation of water on the  
22 ranch.

23          A. Utilizing the historical accounts and information  
24 that was available to us, it was evident that the ranch was a  
25 very significant piece of agricultural property in Diamond  
CAPITOL REPORTERS (775) 882-5322

396

1 Valley. It supported a store in town. The Sadler family had  
2 a store in Eureka. And they sold produce. They sold animal  
3 products, meat products, dairy products. They supported a  
4 staff as well as the family at the ranch in order to do all  
5 of the work necessary to complete the tasks necessary to run  
6 a ranch, harvested, et cetera.

7 So all in all there's numerous accounts of  
8 commercial use of the water, quasi-municipal use of the  
9 water, agricultural use, of course, as well as icing, which  
10 is kind of unique in a sense, but it's definitely recognized  
11 in many places where ice is produced, stored and used for  
12 summer cooling of produce. The history is very clear that  
13 there was a year round and multiple use of that water.

14 Q. What about the muskrats?

15 A. That would be a side benefit, kind of a  
16 non-consumptive use but a definite beneficial use.

17 Q. What does it indicate to you that there were  
18 muskrats in the numbers that we saw in Dr. Yednock's  
19 testimony, what does that indicate to you?

20 A. That that stream of water flowed considerably,  
21 had a considerable flow to it. To support an animal like the  
22 muskrat, it has to have at least enough water to swim in and  
23 develop its, you know, habitat. So it encouraged so much  
24 that it grew to a point where they could harvest that many  
25 animals shows that that water was significant in flow and  
CAPITOL REPORTERS (775) 882-5322

397

1 continuous.

2 Q. And year round?

3 A. And year round.

4 Q. How does the evidence that you've been discussing  
5 involving non-irrigation season, water use and non-irrigation  
6 water uses, how does that support the duty that's been  
7 requested in these applications?

8 A. It is not included. The 4.5 acre-feet does not  
9 include the other types of uses. Only agricultural.

10 Q. But the vested claim would include more than just  
11 the agricultural use?

12 A. Definitely.

13 MS. PETERSON: Well, let's just clarify. The  
14 vested claim on record?

15 MR. TAGGART: Yes.

16 THE WITNESS: Yes. The vested claim on record  
17 can be amended to include other uses that were not originally  
18 identified under the filing that was presented in 1980 by  
19 Allen Boyack.

20 Q. (By Mr. Taggart) Now I want to ask you a final  
21 set of questions. Protestants allege that formal  
22 adjudication must occur before the State Engineer can protect  
23 vested claims for water rights. In your experience, what  
24 situation usually causes an adjudication to occur?

25 A. An adjudication is -- occurs when there's a  
CAPITOL REPORTERS (775) 882-5322

398

1 conflict on the source of water, where two individuals or  
2 multiple individuals are having a difficulty trying to decide  
3 who gets water and how much. Under those circumstances then,  
4 an adjudication is required in order to identify priorities,  
5 places of use, ownership and period -- season of use.

6 Q. Does that kind of conflict that you mentioned  
7 earlier exist on Shipley Spring?

8 A. It does not.

9 Q. Do you think that an adjudication is required  
10 before the State Engineer can protect the vested rights at  
11 Sadler Ranch?

12 A. I think an adjudication has already occurred in  
13 1913. And Romano and Sadler went to court in order to  
14 determine who had an interest in that water. And the Court  
15 identified that the water was fully appropriated by Sadler.

16 Q. Are you familiar with situations in Nevada where  
17 the State Engineer has protected vested claims for water  
18 rights before those water rights have been adjudicated in a  
19 formal adjudication?

20 A. Yes.

21 Q. And in an effort to save time, I'm going to just  
22 reference Exhibit 609. What we have here is a series of  
23 rulings by the State Engineer. And if I can, I'll just walk  
24 through what those are for the record. The first ruling --

25 MS. PETERSON: Well, wait. You know what, I  
CAPITOL REPORTERS (775) 882-5322

399

1 don't have an objection to admitting them. That way you  
2 don't have to walk through them because you're just going to  
3 be testifying and that would not be an appropriate way.

4 MR. TAGGART: Well, I'm not testifying. But I  
5 can have the witness read them.

6 MS. PETERSON: We can just admit it.

7 MR. TAGGART: Well, I would like them read. I  
8 want it to be clear what they say.

9 HEARING OFFICER JOSEPH-TAYLOR: Go ahead,  
10 Mr. Taggart.

11 MR. TAGGART: In the first ruling, 18482 --

12 HEARING OFFICER JOSEPH-TAYLOR: What? I don't  
13 know if you have that number right.

14 MR. TAGGART: I'm sorry. It's a ruling on  
15 Application 18482. And in the opinion it indicates its the  
16 opinion of this office that the granting of Applications  
17 18482 and 20908 would tend to impair the value of existing  
18 vested rights for limit and extent of which have not been  
19 determined. Another ruling involving Applications 47404  
20 and --

21 HEARING OFFICER JOSEPH-TAYLOR: Are you going to  
22 have a question from this? Because you are testifying now.

23 MR. TAGGART: I am.

24 Q. (By Mr. Taggart) Well, are these examples of  
25 times when the Nevada State Engineer has protected vested  
CAPITOL REPORTERS (775) 882-5322

400

1 rights that were not yet adjudicated?

2 A. Yes.

3 MS. TAGGART: So that -- And -- I mean, I can do  
4 this if you want me to and I will go and it will take time.

5 HEARING OFFICER JOSEPH-TAYLOR: I can just take  
6 administrative notice of it. They're our records.

7 MR. TAGGART: But no one will look at them if we  
8 do that. I mean, the State Engineer will not be aware  
9 specifically of what we think is important about these  
10 documents if we don't point it out, so that's why I'd like to  
11 point it out.

12 We've highlighted the area in 47404, that ruling,  
13 that indicates what the protest ground was and then what the  
14 reason for the denial was. And with that, go ahead and I'll  
15 offer them in to evidence. I think it's pretty self-evident  
16 what they say from the areas that have been highlighted.

17 HEARING OFFICER JOSEPH-TAYLOR: You're offering  
18 Exhibit 609?

19 MR. TAGGART: Yes.

20 HEARING OFFICER JOSEPH-TAYLOR: And we do look at  
21 them.

22 MR. TAGGART: I understand. I regretted the  
23 words as they came out of my mouth.

24 HEARING OFFICER JOSEPH-TAYLOR: I'm glad to hear  
25 you say that. Exhibit 609 will be admitted.  
CAPITOL REPORTERS (775) 882-5322

401

1 Q. (By Mr. Taggart) Okay. Now, are you familiar  
2 with situations where change applications have been granted  
3 on unadjudicated vested claims?

4 A. Yes.

5 Q. And just for the record, that is what is included  
6 in Exhibit 1 -- I'm sorry. 603, and we offer that in to  
7 evidence at this time.

8 HEARING OFFICER JOSEPH-TAYLOR: Any objection to  
9 Exhibit 603?

10 MS. PETERSON: No objection.

11 HEARING OFFICER JOSEPH-TAYLOR: It will be  
12 admitted.

13 Q. (By Mr. Taggart) Are you aware of situations  
14 where the State Engineer has previously protected water  
15 rights in this basin, Diamond Valley, to mitigate or replace  
16 impacts to vested water rights that were not adjudicated?

17 A. Yes.

18 Q. And let's turn to Exhibit 297. You want to  
19 describe what that is?

20 A. This is a copy of corrected permit 63497. This  
21 permit was approved December 21st 1998.

22 Q. And is it -- this is for Bailey Ranch; correct?

23 A. That's correct.

24 Q. And if you could go to the permit terms on the  
25 second page there. Can you read what it says in the second  
CAPITOL REPORTERS (775) 882-5322

402

1 to last paragraph?

2 A. Yes. This permit is issued for the expressed  
3 purpose of allowing this permit to replace the water  
4 historically placed to beneficial use under proof number  
5 01104, Certificate 140 and 147 and with the understanding  
6 that this right cannot be moved outside of the spring  
7 discharge area as determined by the State Engineer.

8 Q. Do you know if anyone protested the granting of  
9 this application?

10 A. I don't think anyone has. I did not see any  
11 indication of that on the application.

12 Q. All right. And then if you can turn to the -- if  
13 you turn forward in that exhibit there is a certificate page  
14 and it's for certificate 16935. Do you see that?

15 A. I do.

16 Q. And just go ahead and read what it says below the  
17 table that shows the acreage.

18 A. This certificate is subject to the terms of the  
19 permit and issued totally supplemental to proof 01104 and  
20 with the understanding that this right cannot be moved  
21 outside of the spring discharge area as determined by the  
22 State Engineer and that the total duty of water shall not  
23 exceed 3.39 acre-feet per acre per season for any and all  
24 sources for the irrigation of 120.713 acres in the above  
25 described place of use.  
CAPITOL REPORTERS (775) 882-5322

403

1 Q. Now, do you know why the State Engineer concluded  
2 that that's the duty for this particular water right?

3 A. Under -- When a proof of beneficial use is filed,  
4 it requires you to quantify the flow rate and the volume of  
5 water applied. And in this case there would have been meter  
6 readings as it recalls for a totalizing meter to be  
7 installed. So meter readings would have been included as  
8 part of the proof of beneficial use. And so the 3.39 would  
9 have been based on actual delivery of water -- or pumped  
10 water from the well.

11 Q. And just going back to the permit itself, the  
12 permit was granted at four acre-feet per acre?

13 A. Yes.

14 HEARING OFFICER JOSEPH-TAYLOR: What's the source  
15 of the water identified in the application?

16 THE WITNESS: Underground.

17 HEARING OFFICER JOSEPH-TAYLOR: Thank you.

18 Q. (By Mr. Taggart) Okay. And now, are you  
19 familiar with actions the State Engineer has taken to protect  
20 the very rights that we are discussing today, the Sadler  
21 Ranch vested claims?

22 A. I am.

23 Q. And what action is that?

24 A. Again, it goes back to the stipulated, the  
25 adjudication process and the denial of Permit 2679 where the  
CAPITOL REPORTERS (775) 882-5322

404

1 State Engineer denied that application based on -- that the  
2 source of water was fully appropriated.

3 MR. TAGGART: Thank you. I have no further  
4 questions, but I want to offer some exhibits in to evidence.  
5 603 and 609 I'd like to offer in to evidence.

6 MS. PETERSON: I think those are admitted  
7 already.

8 HEARING OFFICER JOSEPH-TAYLOR: 603 is -- They  
9 are in already.

10 MR. TAGGART: 105, which is his expert report.

11 HEARING OFFICER JOSEPH-TAYLOR: Any objection to  
12 Exhibit 105?

13 MS. PETERSON: Only to the extent that it calls  
14 for an amendment of the claim outside of the proof that's on  
15 file.

16 HEARING OFFICER JOSEPH-TAYLOR: So noted. 105  
17 will be admitted.

18 MR. TAGGART: 190 is his rebuttal report. I'd  
19 offer that in to evidence.

20 MS. PETERSON: Same objection.

21 HEARING OFFICER JOSEPH-TAYLOR: So noted. It  
22 will be admitted.

23 MR. TAGGART: 297, which was that power point  
24 from the -- No. 297 was the Bailey water right.

25 MS. PETERSON: Definitely want that in.  
CAPITOL REPORTERS (775) 882-5322

405

1 MR. TAGGART: That's beautiful.

2 HEARING OFFICER JOSEPH-TAYLOR: Exhibit 297 will  
3 be admitted.

4 MR. TAGGART: 137, that's already in?

5 HEARING OFFICER JOSEPH-TAYLOR: Uh-huh, yes.

6 MR. TAGGART: 194.

7 MS. PETERSON: I think it's in.

8 HEARING OFFICER JOSEPH-TAYLOR: It's in.

9 MR. TAGGART: Okay. Why don't I just  
10 double-check with you at recess.

11 HEARING OFFICER JOSEPH-TAYLOR: Let me go through  
12 some, Mr. Taggart, that you mentioned. 106.

13 MS. PETERSON: That's objected to.

14 HEARING OFFICER JOSEPH-TAYLOR: I know. I'm  
15 overruling it if he moves to admit it. It's the historic  
16 duty calculations.

17 MR. TAGGART: Yes, we offer that in to evidence.

18 HEARING OFFICER JOSEPH-TAYLOR: Objection noted.  
19 It will be admitted.

20 MR. TAGGART: Also 104.

21 HEARING OFFICER JOSEPH-TAYLOR: Mr. Buschelman's  
22 CV. Any objection?

23 MS. PETERSON: No objection.

24 HEARING OFFICER JOSEPH-TAYLOR: 104 will be  
25 admitted.

CAPITOL REPORTERS (775) 882-5322

406

1 MR. TAGGART: 123. I might have offered that  
2 already. I apologize.

3 HEARING OFFICER JOSEPH-TAYLOR: 123 is in. I can  
4 handle it, Ms. Peterson. Thank you. Hold on.

5 MR. TAGGART: 126, 127.

6 HEARING OFFICER JOSEPH-TAYLOR: 126 and 27 are  
7 in.

8 MR. TAGGART: 128.

9 HEARING OFFICER JOSEPH-TAYLOR: 128 has not been  
10 admitted.

11 MS. PETERSON: What is 128?

12 HEARING OFFICER JOSEPH-TAYLOR: Any objection?  
13 It's a BLM field notebook.

14 MS. PETERSON: No objection.

15 HEARING OFFICER JOSEPH-TAYLOR: Thank you. 128  
16 will be admitted.

17 MR. TAGGART: 124 and 125.

18 HEARING OFFICER JOSEPH-TAYLOR: 125 has not been  
19 admitted yet. Any objection?

20 MS. PETERSON: Let me just look at that. Field  
21 notes?

22 HEARING OFFICER JOSEPH-TAYLOR: Uh-huh.

23 MS. PETERSON: Did your witness talk about those?

24 MR. TAGGART: They're referenced in his report.

25 MS. PETERSON: Oh, okay. That's fine.  
CAPITOL REPORTERS (775) 882-5322

407

1 HEARING OFFICER JOSEPH-TAYLOR: 125 will be  
2 admitted.

3 MR. TAGGART: 129, same thing it's referenced  
4 inside his report. He did not testify about them.

5 HEARING OFFICER JOSEPH-TAYLOR: Any objection?

6 MS. PETERSON: Is 129 field notes?

7 HEARING OFFICER JOSEPH-TAYLOR: Yes.

8 MS. PETERSON: Yes. No objection.

9 HEARING OFFICER JOSEPH-TAYLOR: 129 will be  
10 admitted.

11 MR. TAGGART: That's all.

12 HEARING OFFICER JOSEPH-TAYLOR: Why do I have --  
13 Oh, never mind. Do you want a short break before cross?

14 MS. URE: Five minutes would be good.

15 HEARING OFFICER JOSEPH-TAYLOR: Okay. Let's be  
16 in recess until 11:15. Off the record.

(Recess was taken)

17 HEARING OFFICER JOSEPH-TAYLOR:

18 Cross-examination, Ms. Ure. Did I pronounce it right?

19 MS. URE: Yes. Thank you.

CROSS-EXAMINATION

22 By Ms. Ure:

23 Q. Good morning, Mr. Buschelman.

24 A. Good morning.

25 Q. In your testimony you talked about some of your  
CAPITOL REPORTERS (775) 882-5322

408

1 work for -- in the Snake River adjudication for Owyhee and  
2 Bruno; is that correct?  
3 A. Yes.  
4 Q. What state was that adjudication completed in?  
5 A. Actually there were several adjudications. Each  
6 state conducts their own series of court hearings. Nevada  
7 had theirs. Idaho had theirs. Oregon had theirs. So it was  
8 an attempt to adjudicate the head waters before they jumped  
9 in to the main stream, as I understand it.  
10 Q. And was your work on those systems done for  
11 property in Nevada?  
12 A. Yes.  
13 Q. You discussed the ability as the ranch continued  
14 to expand its use based on efficiency, is that correct,  
15 adding dams and being able to push water further, did you  
16 testify to that?  
17 A. Yes.  
18 Q. Isn't this in fact not using any more acre-feet  
19 but spreading that water further?  
20 A. I can't answer that question. I don't know the  
21 answer to that.  
22 Q. Okay. Turning to Exhibit 110.  
23 HEARING OFFICER JOSEPH-TAYLOR: She didn't ask  
24 you to put it up. Tammy, until somebody asks you.  
25 THE WITNESS: I am looking for 110, however, I'm  
CAPITOL REPORTERS (775) 882-5322

409

1 not finding it immediately.  
2 MS. URE: It's on the screen display. Will that  
3 be sufficient for you?  
4 THE WITNESS: Yeah, that works.  
5 Q. (By Ms. Ure) Do you know which property was  
6 under either ownership or under a possessory claim by  
7 Shipley's predecessors in interest at the time this map was  
8 prepared?  
9 A. No, I don't.  
10 Q. Sorry. Turning to Exhibit 126 --  
11 HEARING OFFICER JOSEPH-TAYLOR: Therese --  
12 Ms. Ure, I'm going to ask do you want them trying to put them  
13 up here? Do you need them?  
14 MS. URE: I don't need them if Mr. Buschelman has  
15 the exhibits in front of him.  
16 MR. TAGGART: I don't think he'll have all of  
17 126. That was the table that we used.  
18 Q. (By Ms. Ure) I believe 126 is the field survey  
19 notes. Do you have that in front of you?  
20 A. I just have the summary that was part of my  
21 presentation. I don't have the full notes in front of me.  
22 Q. Did you review the entire notes?  
23 A. I did.  
24 Q. Do you remember if there was any evidence of  
25 ditches referenced in the notes?  
CAPITOL REPORTERS (775) 882-5322

410

1 A. And again, which --  
2 Q. I'm looking in Exhibit 126. And if you can -- I  
3 mean, obviously pay particular attention to the township line  
4 between ranges 53 and -- 52 and 53.  
5 HEARING OFFICER JOSEPH-TAYLOR: Do you have a  
6 page you can get him to?  
7 MS. URE: Huh-uh.  
8 HEARING OFFICER JOSEPH-TAYLOR: How many pages in  
9 to the document?  
10 MS. URE: There's, I don't know, 40 or so.  
11 THE WITNESS: I believe I know where you're at.  
12 You're speaking of the line that's starting north between  
13 those two townships and there's several sections that they  
14 speak of that are along that line?  
15 MS. URE: Correct. I'm wondering if in the notes  
16 if there was any documentation of ditches along the township  
17 line.  
18 THE WITNESS: I believe in this particular series  
19 of notes --  
20 HEARING OFFICER JOSEPH-TAYLOR: Hold on a second.  
21 Gentlemen, we're trying to court report over you. Thank you.  
22 Go ahead, Mr. Buschelman.  
23 THE WITNESS: Thank you. In this series of notes  
24 I do not see a reference to a ditch along that township line.  
25 Q. (By Ms. Ure) That would confirm what I found as  
CAPITOL REPORTERS (775) 882-5322

411

1 well.  
2 So turning to Exhibit 127, and it's page 71 of  
3 the notes. And I'm sorry -- Oh, you've got it in front of  
4 you. Are you there?  
5 A. I am.  
6 Q. Is this the first time that the word "ditch" is  
7 mentioned in Exhibit 27 thus far?  
8 A. I don't know if it's the first time. But I know  
9 ditches are mentioned several times along that -- in this  
10 series of notes.  
11 Q. Okay. And then I believe you testified, and just  
12 continuing on page 73 and 74, that there is a few irrigation  
13 districts mentioned; is that correct?  
14 A. I'm sorry. Can you ask the question again,  
15 please?  
16 Q. I said I believe that you testified on page 73  
17 and 74 that field survey notes that there were -- or actually  
18 on page 74, two irrigation ditches mentioned?  
19 HEARING OFFICER JOSEPH-TAYLOR: Oh, you said  
20 districts the first time.  
21 MS. URE: Oh, sorry.  
22 THE WITNESS: I don't know if I cited a page  
23 number.  
24 Q. (By Ms. Ure) I think you had the PDF numbers and  
25 I didn't correlate because I didn't have your PDF numbers.  
CAPITOL REPORTERS (775) 882-5322

412

1 But is that an accurate representation of that page?  
2 A. I would have to correlate the PDF numbers with  
3 the notes. I'm sorry. I don't have that correlation.  
4 Q. Okay. Did you correlate these field notes with  
5 the GLO plat map that's provided on the screen at Exhibit  
6 110?  
7 A. I reviewed and read the notes and I reviewed the  
8 plat. I didn't proof the notes to the plat. I did not go  
9 line for line or call for call.  
10 Q. Turning to Exhibit 124. I didn't ask this. And  
11 on page 20 of the notes. And again, I don't have the PDF  
12 number.  
13 A. I'm on page 20.  
14 Q. Okay. I believe you testified that the  
15 information on this page showed that there was a harvestable  
16 crop there. However, do you find -- is there any ditches or  
17 irrigation ditches mentioned on -- in the notes for this  
18 section line between Sections 13 and 18?  
19 A. There are no ditches mentioned.  
20 Q. And what kind of soil is listed there?  
21 A. Soil is first rate.  
22 Q. And what's found there, like the line above that?  
23 A. Land level, sage grass.  
24 Q. And did you review the entire exhibit, 124?  
25 A. I read the notes, yes.  
CAPITOL REPORTERS (775) 882-5322

413

1 Q. And did you find any evidence of ditches in this  
2 exhibit?  
3 A. Not that I recall.  
4 Q. Turning to Exhibit 111.  
5 A. Okay. I'm there.  
6 Q. How many fields are shown on this map?  
7 A. I would ask your definition of a field.  
8 Q. A field that would be called out by a surveyor  
9 and delineated on this map.  
10 HEARING OFFICER JOSEPH-TAYLOR: I want to make  
11 sure you're looking at both the same map.  
12 MS. URE: I'm on Exhibit 111. So it's not the  
13 map that's on the screen.  
14 HEARING OFFICER JOSEPH-TAYLOR: I know. But I'm  
15 looking at what's in front of Mr. Buschelman and I want to  
16 make sure you're looking at the same thing.  
17 MS. URE: Thank you.  
18 THE WITNESS: What I have is the culture map  
19 submitted by Allen Boyack.  
20 MS. URE: For 111?  
21 THE WITNESS: No. Wait a minute. I think I  
22 grabbed the wrong one. I did. Sorry. Thank you. Your  
23 question again?  
24 Q. (By Ms. Ure) How many fields are evidenced on  
25 this map?  
CAPITOL REPORTERS (775) 882-5322

414

1 A. The map identifies one cultivated area titled  
2 field.  
3 Q. I believe in your testimony you testified that  
4 other evident -- like you testified to a list of information  
5 that you looked at to establish your priority date. Would  
6 you argue that the evidence that you found suggesting the  
7 1870 priority date is better evidence than that on these GLO  
8 plat maps at Exhibits 110 and 111?  
9 A. The GLO plat maps are a secondary product. The  
10 first product is the field notes and the plat maps are a  
11 visual representation of those notes. So the notes are the  
12 founding document. The maps are a pictorial representation  
13 of those.  
14 Q. So in your opinion what document do you base the  
15 priority on?  
16 A. The notes.  
17 Q. Okay. And I'm talking about the priority for the  
18 vested claim. Was that your understanding of my question?  
19 A. Yes.  
20 Q. Okay. Turning to Exhibit 135 and the last page  
21 of that exhibit. Would you agree that this is the 1891 land  
22 year assessment? Is that what you're looking at?  
23 A. Yes.  
24 HEARING OFFICER JOSEPH-TAYLOR: '91?  
25 MS. URE: 1871, sorry.  
CAPITOL REPORTERS (775) 882-5322

415

1 THE WITNESS: I've got to listen.  
2 Q. (By Ms. Ure) Can you read for us what the  
3 possessory acres that were claimed -- what's listed there.  
4 A. I see no listing of acres.  
5 Q. On the bottom of that page does it say possessory  
6 claim at 160 acres of grazing land?  
7 A. It does. But it's referencing a ranch in Garden  
8 Valley.  
9 Q. I thought that said William Shipley.  
10 A. It does.  
11 Q. Oh, thank you. Sorry. Turning to Exhibit 134 on  
12 the first page. Can you tell us how many acres are claimed  
13 here by William Shipley and is this what's known as Sadler  
14 Ranch?  
15 A. It's a little difficult to read. I'm trying to  
16 find it.  
17 Q. I guess I could --  
18 A. I think I found it. There's a reference to 320  
19 acres.  
20 Q. Okay. And at the top upper, like the beginning  
21 of that entry, does it reference how many head of cattle  
22 Mr. Shipley had or paid taxes on?  
23 A. I believe it says 850 head of cattle. I'm sorry.  
24 It's a little difficult to pick out without a magnifying  
25 glass.  
CAPITOL REPORTERS (775) 882-5322

416

1 Q. I show that as 250 head. But maybe I just ask  
2 that when we get it transcribed that the record would reflect  
3 the number of head as evidence?

4 HEARING OFFICER JOSEPH-TAYLOR: Okay. We won't  
5 argue about what it says.

6 Q. (By Ms. Ure) Okay. Turning to Exhibit 115. I  
7 have this as the Shipley to Hill. Do you have that in front  
8 of you, Mr. Buschelman?

9 A. I do.

10 Q. Are any number of acres evidenced in this  
11 document?

12 A. I see one reference to 80 acres and another  
13 reference to 80 acres. So far that's all I've found.

14 Q. I think if you follow that down, it shows a total  
15 of 320 acres.

16 A. Oh, I see that number.

17 Q. Now, is this document transferring property from  
18 Shipley to Hill?

19 A. Yes.

20 Q. Is it transferring a patent or is it a possessory  
21 claim? Or do we know, I guess?

22 A. I'm trying to skim this thing quickly and I don't  
23 know at this point if it's a possessory claim or a patent. I  
24 don't know the answer without giving more time to reading the  
25 document.

CAPITOL REPORTERS (775) 882-5322

417

1 Q. We can just let the document speak for itself on  
2 this to speed things up.

3 HEARING OFFICER JOSEPH-TAYLOR: Go ahead.

4 Q. (By Ms. Ure) Okay. Mr. Buschelman, turning to  
5 Exhibit 116, I believe in your testimony you testified that  
6 this was for 160 acres. Would you like to look at that  
7 again? I believe it says 356; is that correct?

8 A. It does, 356 acres.

9 Q. Okay. Turning to Exhibit 138, now, did you read  
10 the complaint that started this action?

11 A. I have read the, basically the transcription that  
12 you see here in the exhibit. I have not read through the  
13 cursive.

14 HEARING OFFICER JOSEPH-TAYLOR: No. She asked  
15 you if you read the complaint in the litigation.

16 THE WITNESS: I have not read the complaint.

17 Q. (By Ms. Ure) So is it fair to say that you don't  
18 know if this was an adjudication versus a bankruptcy  
19 proceeding versus something else?

20 A. An adjudication based on my knowledge is an order  
21 from a court. It's not limited to a specific type,  
22 bankruptcy or whatever it is. Adjudicated means adjudged by  
23 the Court.

24 Q. Is this document that you read an adjudication,  
25 in your opinion?

CAPITOL REPORTERS (775) 882-5322

418

1 A. Yes.

2 HEARING OFFICER JOSEPH-TAYLOR: In what term?  
3 We're really mixing adjudication terms here. You're going to  
4 go on?

5 MS. URE: Yeah.

6 HEARING OFFICER JOSEPH-TAYLOR: Okay.

7 Q. (By Ms. Ure) Mr. Buschelman, do you know if the  
8 Court signed off on this stipulation that's been transcribed?

9 A. I don't understand your question, signed off?

10 Q. Sometimes when you have a stipulation in court,  
11 the judge says it is so ordered or otherwise puts his mark on  
12 that document. Did the judge in this stipulation put his  
13 mark on the document?

14 A. I don't know.

15 Q. Was the State Engineer party to the proceeding  
16 that resulted in this document?

17 MR. TAGGART: Objection. Relevance.

18 THE WITNESS: I don't know.

19 MR. TAGGART: It doesn't matter if the State  
20 Engineer was a party or not.

21 HEARING OFFICER JOSEPH-TAYLOR: Overruled.

22 MS. URE: In your --

23 HEARING OFFICER JOSEPH-TAYLOR: Let me try this.  
24 Mr. Buschelman, there's two meanings of the word adjudicated.

25 One is the court to adjudicate a dispute between parties.  
CAPITOL REPORTERS (775) 882-5322

419

1 And then you have the term of art in the water law statute  
2 adjudicating water rights. When you said this was an  
3 adjudication, did you mean this was a result of litigation or  
4 an adjudication of water rights?

5 THE WITNESS: I understand from this action there  
6 was some need to clarify the existence of a water right as  
7 part of this process. As a result of that, there was a  
8 stipulation and it was conducted in a court setting. There  
9 were positions taken and documents provided that supported  
10 this stipulation. I've been involved in a number of  
11 situations where these types of judgments are included in a  
12 more formal adjudication through the State Engineer's office  
13 where water rights may be the specific topic of a judgment.  
14 However, these stipulations, even agreements, are included as  
15 a definition of a water right in a more formal setting.

16 HEARING OFFICER JOSEPH-TAYLOR: You didn't  
17 understand my question. Was this a civil decree adjudicating  
18 the water rights, if you know?

19 THE WITNESS: I don't know.

20 HEARING OFFICER JOSEPH-TAYLOR: Does that cut to  
21 your question?

22 MS. URE: Uh-huh.

23 Q. (By Ms. Ure) And also just to clarify,  
24 Mr. Buschelman, do you know what documents were submitted in  
25 support of the stipulation?

CAPITOL REPORTERS (775) 882-5322

420

1 A. I don't.  
2 Q. Under today's application and permitting scheme  
3 in the water code, can a person file for an irrigation right  
4 on property they do not own?  
5 A. Yes.  
6 Q. Can they file for an irrigation right on public  
7 land?  
8 A. Yes.  
9 Q. Do they need authorization to actually apply  
10 water on that -- apply water for irrigation to a beneficial  
11 use on that public land?  
12 A. In today -- today?  
13 Q. Under the 1905 water code, today's scheme?  
14 MR. TAGGART: Objection. That's confusing and  
15 vague.  
16 HEARING OFFICER JOSEPH-TAYLOR: Sustained.  
17 MS. URE: Since 1905 does a person have to have  
18 authorization from the administer of the public lands to  
19 apply water on public lands for irrigation to harvest a crop  
20 to beneficial use?  
21 MR. TAGGART: Objection. Calls for a legal  
22 conclusion.  
23 HEARING OFFICER JOSEPH-TAYLOR: Overruled.  
24 THE WITNESS: Not that I'm aware of.  
25 MS. URE: So you're not aware of the federal  
CAPITOL REPORTERS (775) 882-5322

421

1 regulations that relate to trespass on public lands?  
2 MR. TAGGART: Objection. Asked and answered.  
3 HEARING OFFICER JOSEPH-TAYLOR: That's a  
4 different question. Overruled.  
5 THE WITNESS: I'm not familiar when the trespass  
6 rules came in to play.  
7 Q. (By Ms. Ure) Do you understand what the trespass  
8 rules are today?  
9 A. In the simple sense, being on public land without  
10 a specific permit to do a specific action. So, I mean,  
11 that's my sum knowledge of the trespass on public land.  
12 Q. Okay. I believe you talked about your overall  
13 impression of the ranch and that you stated it supported a  
14 huge amount of growth. Is that statement your opinion as to  
15 when you were out on the ground or is that supporting a huge  
16 amount of growth as related to prior to 1905?  
17 A. That statement is the result of my field review  
18 observation of ditch systems, flow lines, other improvements  
19 that would have supported growth.  
20 Q. And what is your definition of growth?  
21 A. A plant that grows, matures, increases in size.  
22 Q. So would you say that plant growth of greasewood  
23 or sagebrush or rabbit brush is growth in your statement?  
24 A. Growth is not limited to a specific plant type.  
25 Q. Okay. Are your -- The applications at Sadler  
CAPITOL REPORTERS (775) 882-5322

422

1 Ranch filed based on a vested claim?  
2 A. Yes.  
3 Q. And is that vested claim for water from Shipley  
4 Springs?  
5 A. Yes.  
6 Q. So given that we are all here today, would you  
7 say that there is a conflict with the use of Shipley Springs?  
8 MR. TAGGART: Objection. Vague.  
9 HEARING OFFICER JOSEPH-TAYLOR: Sustained. I  
10 didn't get it either.  
11 MS. URE: So your application that Sadler Ranch  
12 is filing is based on the use for Shipley Springs. And the  
13 Shipley Springs use is based on a vested claim. And while  
14 under objection we are not adjudicating Shipley Springs here  
15 today. Wouldn't you -- Is it your belief that there is no  
16 conflict with Shipley Springs water use? Is that better?  
17 HEARING OFFICER JOSEPH-TAYLOR: I still don't  
18 understand it. I'm sorry.  
19 MR. TAGGART: I'm just going to object. The same  
20 people own both water right applications. The same people  
21 own the vested claim and the applications. How can there be  
22 a conflict?  
23 THE STATE ENGINEER: I thought that she was  
24 trying to ask Mr. Buschelman whether or not Shipley Springs  
25 has been conflicted and that has resulted in these  
CAPITOL REPORTERS (775) 882-5322

423

1 applications being filed. Is that what you're asking?  
2 MS. URE: Sorry. Mr. Buschelman testified that  
3 in order for an adjudication to occur that there must be a  
4 conflict on a source. And so I'm wondering given that there  
5 were protests filed on the applications whose underlying  
6 vested claims relate to a source whether or not there's a  
7 conflict. If you understand.  
8 THE WITNESS: If I understand, the protests are  
9 on the proposed supplemental or mitigating well, not on the  
10 proof of appropriation or vested right.  
11 Q. (By Ms. Ure) Is that application based on the  
12 proof of the vested claim?  
13 A. Only the place of use. That's the basis of the  
14 place of use, not the source. The sources are two distinct  
15 sources.  
16 Q. In your testimony you testified that there is a  
17 sufficient amount of historical information to support the  
18 claims; is that correct?  
19 A. Yes.  
20 Q. Of that information that you testified that you  
21 reviewed, would you weigh some information more direct or a  
22 higher weight than others?  
23 A. I think just the ability to have a reference to  
24 specific irrigation or use of water and then have it  
25 corroborated with another independent recollection or  
CAPITOL REPORTERS (775) 882-5322

424

1 historical account is important. I don't necessarily weigh  
2 one heavier than the other. But I do like the circumstance  
3 we have here where we have more than one account providing us  
4 information on the use of water from Shipley Spring.

5 Q. Would you put more weight in to the GLO survey  
6 notes as opposed to an oral history that was several years  
7 later?

8 A. Not necessarily. I think they work hand in hand  
9 as opposed to one more so than the other.

10 Q. Were those providing the oral history under oath?

11 A. Not to my knowledge.

12 Q. When talking about efficiency I believe it was  
13 clarified that a 40 percent efficiency means that 40 percent  
14 of the water would reach the land; is that correct?

15 A. Well, in their -- in the exhibit that I provided,  
16 it does show that possibly part of that efficiency is the  
17 result of drain or waste water. I mean, that's going past  
18 the plants. So in a flood irrigation scenario, which this  
19 was providing information on, the document actually shows  
20 that there is the waste water or tail water component, which  
21 contributes to the efficiency, so it would be to the field  
22 and possibly past the field.

23 Q. Is waste a beneficial use?

24 A. It can be.

25 Q. Can you describe how that -- your opinion of  
CAPITOL REPORTERS (775) 882-5322

425

1 that.

2 A. It's not my opinion. If you check out the Orr  
3 Ditch decree, there is actually claims where land is  
4 irrigated from waste and drain water. So yes, waste can be a  
5 beneficial use.

6 Q. So you're talking about a return flow or other  
7 water as opposed to wasting water?

8 MR. TAGGART: Objection. Vague as to what waste  
9 is.

10 HEARING OFFICER JOSEPH-TAYLOR: I'm sorry. I was  
11 discussing with the State Engineer that -- Mr. Buschelman,  
12 you said waste is a beneficial use. I think you meant to  
13 say, correct me if I'm wrong, waste can be beneficially used.

14 THE WITNESS: Semantics, but yes, that's  
15 accurate.

16 HEARING OFFICER JOSEPH-TAYLOR: Why would it be  
17 waste if it's a beneficial use?

18 THE WITNESS: It's a term used in agriculture and  
19 waste is synonymous with drain, synonymous with return flow,  
20 synonymous with tail water.

21 HEARING OFFICER JOSEPH-TAYLOR: You're not  
22 understanding my semantics. But read the question back for  
23 me, please. I didn't hear the question that he --

24 MS. URE: I don't -- We can move on because I  
25 think you clarified.

CAPITOL REPORTERS (775) 882-5322

426

1 HEARING OFFICER JOSEPH-TAYLOR: Okay. Please do.

2 Q. (By Ms. Ure) In Exhibit 145 on the second page,  
3 are you there, Mr. Buschelman?

4 A. Yes.

5 Q. Do you know -- I'm looking at where it states  
6 Mr. Edgar Sadler informed me there was nearly 3,000 acres of  
7 land in the ranch. Do you know if Mr. Sadler at that time,  
8 is that his deeded ground?

9 A. I don't know.

10 Q. Going on, it says 250 acres of which were  
11 alfalfa, grain and garden, the rest being meadowland. Do you  
12 know if that meadowland was harvested?

13 A. Well, it says part -- Just past -- There's a  
14 comment that says part of which is cut for hay and the  
15 remainder being used for pasture.

16 Q. Do we know which part was hay and which part was  
17 pasture?

18 A. At the time of this document, no.

19 Q. And Exhibit 602 --

20 HEARING OFFICER JOSEPH-TAYLOR: Exhibit what?

21 I'm sorry.

22 MS. URE: 602.

23 THE WITNESS: I don't have that exhibit.

24 HEARING OFFICER JOSEPH-TAYLOR: It's the example  
25 of the induction well permits.  
CAPITOL REPORTERS (775) 882-5322

427

1 MS. URE: Application 70656 is the first page.

2 THE WITNESS: Okay.

3 Q. (By Ms. Ure) Do you know how deep this well was  
4 drilled?

5 A. I do not.

6 Q. Going back to Exhibit 126.

7 MR. TAGGART: Which one?

8 MS. URE: 126. Page 140 to 141 of the survey  
9 notes.

10 THE WITNESS: I'm there.

11 Q. (By Ms. Ure) Can you read the general  
12 description that's starting at the bottom part of that page?

13 A. The western part of the township is near --  
14 nearly all fine natural meadow with mineral springs and  
15 creeks and with fine soil suitable for raising all --

16 Q. Kinds, I think.

17 A. I think kinds of grain and vegetables without  
18 irrigation. Eastern part is all an alkali desert with  
19 worthless soil and nearly destitute of vegetation.

20 Q. And we're talking about Township 24 north, Range  
21 53 east; correct?

22 A. Correct.

23 MS. URE: I have no further questions.

24 HEARING OFFICER JOSEPH-TAYLOR: Thank you.

25 What's your pleasure, folks? The State Engineer, I know,  
CAPITOL REPORTERS (775) 882-5322

428

1 would like to keep plugging. I'm hungry.  
2 MR. TAGGART: Go ahead. Let's keep going.  
3 HEARING OFFICER JOSEPH-TAYLOR: How much time do  
4 you think you need for cross, Ms. Peterson?  
5 MS. PETERSON: Well, if we took a break I could  
6 try to consolidate it and move along quickly. Or I can  
7 ponder through while going through my notes.  
8 HEARING OFFICER JOSEPH-TAYLOR: Let's take a  
9 break. We'll be in recess until 1:00 o'clock. Let's be off  
10 the record.

11 (Lunch recess was taken)

12  
13  
14  
15  
16  
17  
18  
19  
20  
21  
22  
23  
24  
25 CAPITOL REPORTERS (775) 882-5322

429

1 TUESDAY, NOVEMBER 19, 2013, 1:00 P.M.

2 ---oOo---

3 HEARING OFFICER JOSEPH-TAYLOR:  
4 Cross-examination, Ms. Peterson.

5 MS. PETERSON: Thank you.

6 CROSS-EXAMINATION

7 By Ms. Peterson:

8 Q. Hi, Mr. Buschelman. My name is Karen Peterson.  
9 I represent Eureka County. And if you need to look at an  
10 exhibit or want to look at an exhibit when I'm going through  
11 my cross-examination, please let me know and we can get it to  
12 you or put it up on the screen. But I'm going to try to do  
13 cross-examination without having to pull out every single  
14 exhibit and look at it. So just let me know if you're  
15 uncomfortable with any of my questions in not seeing the  
16 exhibit.

17 So Exhibit 602 was your induction well examples.  
18 Do you remember that exhibit?

19 A. Yes.

20 Q. And isn't it true that in some of those examples  
21 that you provided the rights in those cases have been  
22 formally adjudicated?

23 A. Some of them, yes.

24 Q. And is it -- Were any of those examples induction  
25 wells, any of those examples of induction wells claims of  
CAPITOL REPORTERS (775) 882-5322

430

1 vested rights, example -- I'm sorry. Let me start over  
2 again. In any of those examples that you gave for induction  
3 wells, did any of those examples involve claims of vested  
4 rights that were going to be mitigated by granting  
5 groundwater applications?

6 A. I don't understand the question.

7 Q. You gave some examples of induction wells.

8 A. Yes.

9 Q. Is that correct?

10 A. That's correct.

11 Q. In any of those examples that you gave were --  
12 did the water rights involve claims of vested rights that  
13 were to be mitigated by granting groundwater applications?

14 A. I don't know what you mean by mitigated.

15 Q. Well, have you read Order 1226?

16 A. I have.

17 Q. And aren't we involved in a proceeding here today  
18 where claims of vested surface rights are sought to be  
19 mitigated by granting new groundwater rights?

20 A. I'm still struggling with the term mitigation.  
21 Does that mean that they retain the same priority as the  
22 rights they're mitigating or do they receive a priority as a  
23 supplemental groundwater right?

24 Q. That's a big issue here. My question didn't mean  
25 to have anything to do with priority. It meant the factual  
CAPITOL REPORTERS (775) 882-5322

431

1 situation similar to this situation where there were claims  
2 of vested rights that were to be mitigated, don't worry about  
3 a priority, by granting groundwater rights?

4 A. I guess the word that I'm struggling with is  
5 mitigation because I know that is an important definition in  
6 this proceeding. So I would need your definition of  
7 mitigation in order to answer that question.

8 Q. Okay. We can move on. Exhibit 28 is your  
9 Application 82268. You don't need to look at it. You,  
10 Sadler Ranch, have applied for 7,457.76 acre-feet; is that  
11 correct?

12 A. As I recall, yes.

13 Q. Okay. What is the CFS of that?

14 A. It would be the maximum amount that the flow  
15 would -- a flow from the spring would have produced.

16 Q. But the actual quantity of 7457, what's the CFS?

17 A. That's a volume. It isn't a flow rate.

18 Q. Did you calculate it?

19 A. No. I calculated it based on a duty times an  
20 acreage, not on a flow rate.

21 Q. Can you calculate what the CFS is of the 7400?

22 A. I can.

23 Q. Okay. Maybe at a break?

24 A. I can.

25 Q. Okay. Thank you.  
CAPITOL REPORTERS (775) 882-5322

432

1 THE STATE ENGINEER: I can tell you what it is.  
2 MS. PETERSON: Okay. Great.  
3 THE WITNESS: But I would need to know under what  
4 time frame. I mean, is it over 365 days a year or over 180  
5 days a year?  
6 MS. PETERSON: What does your application ask  
7 for?  
8 THE WITNESS: 365 days a year.  
9 MS. PETERSON: So that would be the calculation?  
10 MR. TAGGART: Objection. I mean, you can take  
11 administrative notice of what the conversion is to CFS. He  
12 doesn't have to do the calculation.  
13 MS. PETERSON: I would like to know a number, so  
14 we can use your number.  
15 THE STATE ENGINEER: 10.3 CFS.  
16 MS. PETERSON: Okay. Thank you.  
17 Q. (By Ms. Peterson) Exhibit 112 that is the  
18 culture map, the map that supported the claims of vested  
19 right. I can't remember the gentleman's name that did that.  
20 A. Understood.  
21 Q. There was noted in the claim, the proof of claim  
22 that there was a deposition of Reinhold Sadler that was  
23 included as part of the claim. Do you remember that?  
24 A. Not exactly, but I know that's -- that was  
25 something we've seen.  
CAPITOL REPORTERS (775) 882-5322

433

1 Q. Oh, okay. And I actually have the wrong exhibit  
2 number for you. So if you can look at Exhibit 26. Do you  
3 see there on the third page, fourth --  
4 MR. TAGGART: I'm sorry. What exhibit number?  
5 MS. PETERSON: Exhibit 26 on the second page  
6 under the remarks.  
7 THE WITNESS: Yes, I see that.  
8 MS. PETERSON: And to your knowledge is that  
9 deposition of Mr. Reinhold Sadler part of the record in this  
10 proceeding?  
11 HEARING OFFICER JOSEPH-TAYLOR: I'm sorry. Say  
12 that again, Ms. Peterson.  
13 MS. PETERSON: To your knowledge is the  
14 deposition of Reinhold Sadler an exhibit in this proceeding?  
15 THE WITNESS: Not that I've seen.  
16 Q. (By Ms. Peterson) Was there a reason why this  
17 deposition wasn't included as part of the record in this  
18 proceeding?  
19 A. Not that I know of.  
20 Q. Would you have an objection to admitting the  
21 deposition of Reinhold Sadler?  
22 MR. TAGGART: Objection. I don't know why she's  
23 asking the witness whether he would have an objection.  
24 HEARING OFFICER JOSEPH-TAYLOR: Thank you. It's  
25 not his objection.  
CAPITOL REPORTERS (775) 882-5322

434

1 MR. TAGGART: The State Engineer has already  
2 taken administrative notice of the records of the office and  
3 that is part of your records. Certainly we looked at it and  
4 are aware of it.  
5 MS. PETERSON: Okay. Thank you. Romano, is  
6 Sadler Ranch claiming a vested right on the Romano property?  
7 THE WITNESS: Yes.  
8 MR. TAGGART: Objection as to clarity. There's a  
9 Romano Ranch and there's a Romano Field, two separate  
10 geographic areas. I want to make sure we're clear on which  
11 one we're asking about.  
12 Q. (By Ms. Peterson) I'll ask both. I have both  
13 the Romano Field and the Romano Ranch total 480 acres. Is  
14 that your understanding?  
15 A. Well, as I understand, there's a Romano Ranch  
16 several miles south of the Sadler Ranch, but there's a Romano  
17 Field that is included in part of the private property we  
18 call today the Sadler Ranch.  
19 Q. Okay. And that's 360 acres?  
20 A. Romano Ranch or the Romano Field?  
21 Q. Field.  
22 A. I believe that's the number. I would have to  
23 look at the map to confirm that.  
24 Q. And then you're also including I think it's  
25 called Johns Field, that area that's lower than the Romano  
CAPITOL REPORTERS (775) 882-5322

435

1 Field; is that correct?  
2 A. Yes.  
3 Q. And that was 120 acres?  
4 A. Approximately, yes.  
5 Q. So about 480 acres?  
6 A. Yes.  
7 Q. What's the priority date that you're claiming for  
8 that property for a vested right?  
9 A. Prior to 1870.  
10 Q. And did you provide any tax records for the  
11 Romano property?  
12 A. The tax records that were included as an exhibit  
13 in this identify numerous parties that had possessory claims  
14 that were in that area of what we call today the Sadler  
15 Ranch. The Sadler Ranch as we know it today is actually a  
16 combination of several smaller places that had possessory  
17 claims and that accumulation of smaller places is what we  
18 call today the Sadler Ranch. So in the tax records in 1870,  
19 1871 and later, there would be multiple names that would be  
20 associated with that property.  
21 Q. So Sadler Ranch as you know it today?  
22 A. As we know it today, correct.  
23 Q. So what were those names?  
24 A. I don't have a list of those names.  
25 Q. Okay. Well, I think that's kind of important for  
CAPITOL REPORTERS (775) 882-5322

436

1 the State Engineer to know.  
2 MR. TAGGART: Objection. Argumentative.  
3 HEARING OFFICER JOSEPH-TAYLOR: Sustained.  
4 THE WITNESS: Umm --  
5 HEARING OFFICER JOSEPH-TAYLOR: No question is  
6 pending.  
7 THE WITNESS: Okay. What --  
8 MR. TAGGART: No. There's no question pending.  
9 THE WITNESS: Oh, there's no question. Sorry.  
10 Thank you.  
11 Q. (By Ms. Peterson) So you don't have a list with  
12 you here today of the names of all the possessory interests  
13 associated with your claim to the Sadler Ranch?  
14 A. No.  
15 Q. The other thing I wanted to clarify was your  
16 understanding of the Romano stipulation, which was Exhibit  
17 138, and you might want to take that out and look at that.  
18 And is it your understanding that the Romano portion of water  
19 and infrastructure that had been used as stated in the  
20 stipulation was for a period of 20 years prior to the  
21 stipulation?  
22 A. The comment is, is that the water had been  
23 entering the property in the same manner that they were  
24 proposing for 20 years or more prior to that time.  
25 Q. So if you could go to I guess it's the first page  
CAPITOL REPORTERS (775) 882-5322

437

1 of the transcript of that exhibit, of the stipulation. And  
2 it's on the left-hand side it starts with, the paragraph I'm  
3 looking at starts with page 528 continued.  
4 A. I see it.  
5 Q. And it goes three lines down.  
6 A. Yes, I see that.  
7 Q. And then if you go to the third page of the  
8 transcript.  
9 HEARING OFFICER JOSEPH-TAYLOR: Okay. I just got  
10 lost here. Was there a question that was pending that didn't  
11 get answered?  
12 MS. PETERSON: He just needed to read that so  
13 that he could answer the next question.  
14 HEARING OFFICER JOSEPH-TAYLOR: Thank you.  
15 Q. (By Ms. Peterson) The paragraph that ends or  
16 starts with "now therefore," towards the bottom of the page.  
17 A. I believe I'm in the right spot. Now, therefore  
18 it is hereby agreed.  
19 Q. Okay. So if you go up one line, one or two  
20 lines.  
21 A. Yes.  
22 Q. It states that the custom had been for the  
23 defendant corporation and its predecessors and interest to  
24 open said ditches each year during the more than 20 years for  
25 the benefit of the defendant's lands?  
CAPITOL REPORTERS (775) 882-5322

438

1 A. I see that, yes.  
2 Q. Is -- Well, is there a conflict between 20 and 30  
3 for the plaintiff and the defendant?  
4 MR. TAGGART: Objection. Vague as to 20 and 30.  
5 MS. PETERSON: Years.  
6 HEARING OFFICER JOSEPH-TAYLOR: I don't think  
7 it's vague. I'm just not understanding what you're trying to  
8 get at, Ms. Peterson.  
9 Q. (By Ms. Peterson) Well, it was my understanding  
10 from reading this document that the water had been placed on  
11 the Romano property for 20 years and that the water had been  
12 used by the defendant corporation for 30 years. Was that  
13 your understanding?  
14 A. To me it just speaks to the fact that it says  
15 more than 20 years, not just 20. And it was more than 30  
16 when it talks about the defendants and the ownership of the  
17 spring. I think the practice may have been of allowing it to  
18 flow on to Romano's land was going on for at least a 20-year  
19 period of time or more, but it doesn't necessarily mean that  
20 it is, in my mind, it was happening prior to the 1905, which  
21 was the creation of the statute so it's a vested right. It  
22 doesn't necessarily speak to the fact that the water wasn't  
23 used there 30 years before either.  
24 Q. Okay. That's fair. And then the other question  
25 I had about this stipulation is that the defendant  
CAPITOL REPORTERS (775) 882-5322

439

1 corporation, if you look at the second page of the transcript  
2 in the bolded, the bolded.  
3 A. Sorry. Again where are you?  
4 Q. The second page of the transcript, the first full  
5 paragraph, there's a line that says "and has been  
6 continuously maintained at the eastern edge of said Shipley  
7 Spring by the defendant corporation herein and its  
8 predecessors and grantors." Do you see that?  
9 A. I'm still trying to catch up with you.  
10 Q. Oh, okay. If you look at the bolded portion.  
11 A. Yes. On the first paragraph?  
12 Q. Yes. End of the first paragraph.  
13 A. Okay.  
14 Q. And do you see the language "and has been  
15 continuously maintained at the eastern edge of said Big  
16 Shipley Spring by the defendant corporation herein and its  
17 predecessors and grantors"?  
18 A. I see that sentence, yes.  
19 Q. Okay. Did you do any research as to the  
20 defendant corporation and what lands were owned by the  
21 defendant corporation in your priority research?  
22 A. No.  
23 Q. And earlier in your testimony with regard to this  
24 exhibit, you testified that you thought because these parties  
25 were so precise and water was so important that there must  
CAPITOL REPORTERS (775) 882-5322

440

1 have been a measurement of some sort of that five CFS. Do  
2 you recall that testimony?

3 A. Yes.

4 Q. Do you have any knowledge that there was any  
5 measurement used to calculate or what was used to calculate  
6 the five CFS number that was part of this stipulated  
7 agreement?

8 A. No.

9 Q. And then turning to Exhibit 137, this was the  
10 document where you had testimony regarding you thought that  
11 there had been an adjudication of Big Shipley Springs or Old  
12 Shipley Springs, Shipley Springs. Do you recall that  
13 testimony?

14 A. I do.

15 Q. And it was based on the letters that are in the  
16 file. Do you recall that?

17 A. I remember that I had spoke to this document or  
18 letter, but I don't remember any other letter.

19 Q. Did -- In this file or this exhibit was there any  
20 priority date set other than pre-1905 or any priority date  
21 stated?

22 A. No, there is no priority date stated.

23 Q. And the only mention of the CFS of Big Shipley  
24 Spring in this letter is seven to eight CFS; is that correct?

25 A. That's correct.  
CAPITOL REPORTERS (775) 882-5322

441

1 Q. You had some testimony, I believe it was probably  
2 yesterday, that this summer, this past summer the flow in  
3 Shipley Springs had decreased to below one CFS. Do you  
4 recall that?

5 A. Yes.

6 Q. Was your -- You have a permit for -- a temporary  
7 permit for an induction well, is that correct, Sadler Ranch?

8 A. Yes.

9 Q. And was the induction well operating this past  
10 summer?

11 A. I don't know that answer.

12 Q. If the induction well had been operating could it  
13 have affected the flow to Shipley Spring?

14 A. I don't know that answer.

15 Q. Well, your application for your induction well, I  
16 think it's Exhibit 28, states in the remarks that you had  
17 done some testing and that your induction well would  
18 intercept the flow at Big Shipley Spring?

19 A. I have not done any testing.

20 MR. TAGGART: Is there a question pending?

21 MS. PETERSON: I'm asking him if that's what his  
22 application says that he signed for Application 82268.

23 THE WITNESS: It states under item 15, which  
24 is -- provides additional detail and description is that a  
25 well designed to intercept the Big Shipley Springs complex  
CAPITOL REPORTERS (775) 882-5322

442

1 has been completed and test pumped. This well is a direct  
2 communication with the geologic features that provide water  
3 to the Big Shipley Springs complex.

4 Q. (By Ms. Peterson) As shown by -- Keep on  
5 reading.

6 A. As shown by the reduction in flows from the  
7 spring when the well is pumping and the recovery of the  
8 spring flows when the well is shut off.

9 Q. Thank you. You had some testimony yesterday  
10 about your applications, the three applications that are the  
11 subject of this proceeding, 81719, 81720 and 82268. Do you  
12 recall your testimony yesterday?

13 A. I do.

14 Q. You indicated that 81719 and 81720 would be  
15 supplemental to Application 82268. Was that your testimony  
16 yesterday?

17 A. I believe I said mitigate.

18 Q. I didn't really understand your testimony then.  
19 Can you just tell me what the plan is for these three  
20 applications?

21 A. To supply water that is not supplied by this  
22 spring. If the spring is not capable of flowing at the flows  
23 that we can historically show, then these wells are to  
24 provide a separate source of water to make up for that  
25 difference.

CAPITOL REPORTERS (775) 882-5322

443

1 Q. Okay. So 81719 and 81720 are supplemental to  
2 your induction well?

3 A. In -- They're supplemental to the proof of  
4 appropriation.

5 Q. Your vested claim?

6 A. Right.

7 Q. Okay. I had a couple questions about your -- the  
8 Relation Back Doctrine that you testified to yesterday.

9 A. Yes.

10 Q. Could you just briefly explain that document  
11 again.

12 A. In very simple terms that priority is established  
13 when there is an attempt to divert water or utilize water  
14 from a source. The date of priority is on that date. So in  
15 the case of Big Shipley Springs as an example, if water is  
16 utilized from the Big Shipley Springs prior to 1870 to -- I  
17 mean, even if a diversion structure is just put in the stream  
18 for the intent to diversion and use it, that becomes the  
19 date. So the next few days or weeks afterwards you put in a  
20 ditch, establish a small field. Then the next year you're  
21 able to enlarge that field. And as time continues, you're  
22 able to put more and more and more land in to production.

23 The doctrine of relation, as I understand it,  
24 relates back even though successive years in time were taken  
25 to put more and more land in to production, the date of each  
CAPITOL REPORTERS (775) 882-5322

444

1 of those years still reverts back to the date that the  
2 structure -- that the diversion structure or the use of that  
3 water began prior to 1879.

4 Q. And is there any end to the Relation Back  
5 Doctrine?

6 A. There is. I mean, if for some reason there was a  
7 conflict of some kind where someone came in and challenged  
8 the diversion of that water by that person, then at that  
9 point there would be the need to -- the challenge being,  
10 well, I'm diverting water from that same source. They just  
11 can't walk up and say, hey, that's my water. They actually  
12 have to go in and do the same process. They have to put in  
13 either a structure to divert the water or begin using the  
14 water in some fashion. At that point you have a conflict  
15 between people and at that point the doctrine of relation  
16 would then cease and you would not be able to continue that  
17 relation back to that priority.

18 Q. Would an adjudication cut off the Relation Back  
19 Doctrine?

20 A. Not necessarily. I mean, in this case that party  
21 that -- an adjudication, if you bought that party or that  
22 parcel or that person's interest, you would absorb that  
23 interest in to your own. Then there is no conflict and your  
24 relation continues.

25 Q. But when I was talking about an adjudication, I  
CAPITOL REPORTERS (775) 882-5322

445

1 was talking about meeting the statutory adjudication or the  
2 court adjudication. Are you familiar with those procedures?

3 A. Well, we've had a bit of a debate on what  
4 adjudication means earlier, so I'm a little leery of what you  
5 mean by that now.

6 Q. I mean the court adjudication procedure or the  
7 State Engineer's adjudication procedure.

8 MR. TAGGART: Objection. Vague. Obviously we  
9 all know there's a statutory adjudication procedure. There's  
10 also been civil decrees entered in Nevada that act as, I  
11 won't use the word, but they act as some judgment on water  
12 rights. So if we're talking about the difference between  
13 statutory adjudication that's outlined in the statute or a  
14 civil decree and that's the question, then I think the  
15 witness might understand it.

16 HEARING OFFICER JOSEPH-TAYLOR: I'm struggling  
17 with it too because of the time frame, Ms. Peterson.

18 Mr. Buschelman, is there a concept in the  
19 doctrine of relation back that also must take in to account  
20 good faith, reasonable diligence, steady application of  
21 effort?

22 THE WITNESS: Yes.

23 HEARING OFFICER JOSEPH-TAYLOR: And if there's a  
24 break in that effort of doctrine of relation would it apply?

25 THE WITNESS: It would have to be proven that  
CAPITOL REPORTERS (775) 882-5322

446

1 those gaps existed, but yes.

2 HEARING OFFICER JOSEPH-TAYLOR: Doesn't it cut  
3 off being able to use the doctrine and go back, that steady  
4 effort isn't continuing?

5 THE WITNESS: It depends on what you define as  
6 steady effort.

7 HEARING OFFICER JOSEPH-TAYLOR: And I think the  
8 struggle with your question, Ms. Peterson, if we're in 1875  
9 and we have a civil decree and all the water is not  
10 appropriated, I can see Mr. Buschelman saying, well, the  
11 doctrine may still apply. But if we're in 1905 and the water  
12 law now applies, are you making a distinction between those  
13 times and I think that's part of the vagueness. So I'm going  
14 to sustain the objection on vagueness. I think you need to  
15 kind of reference the times and resources and water  
16 availability. There's a lot of questions, factors that I  
17 think go in to that.

18 MS. PETERSON: Would a court adjudication cut off  
19 amending a claim?

20 MR. TAGGART: Objection. Court adjudication  
21 could be either a state adjudication through the statutes or  
22 a civil decree entered before the statutes were adopted. So  
23 a court adjudication is vague.

24 Q. (By Ms. Peterson) Would an adjudication started  
25 in a court and ended in a court entering a final decree,  
CAPITOL REPORTERS (775) 882-5322

447

1 would that cut off amending the claim?

2 A. I don't know.

3 Q. Exhibit 26 is the proof of appropriation claim  
4 for the 1,657.23 acres. Do you have that in front of you?

5 A. I do.

6 HEARING OFFICER JOSEPH-TAYLOR: Proof 03289 for  
7 the record.

8 MS. PETERSON: Thank you.

9 HEARING OFFICER JOSEPH-TAYLOR: You're welcome.

10 Q. (By Ms. Peterson) In response to question 13,  
11 there's specific acreage that's listed with a priority date  
12 of 1879. Do you see all of that?

13 A. I do.

14 Q. And then in question 14 it says the maximum  
15 acreage irrigated in any year was 1,657.23 acres. Do you see  
16 that?

17 A. I do.

18 Q. Is -- I read the claim to be that all the work  
19 necessary to put 1,657 acres water or 1,657 acres, all that  
20 work as having been completed by 1879. Is that your  
21 understanding of how this is filled out?

22 A. No.

23 Q. What's your understanding?

24 A. My understanding is that Allen Boyack in 1978  
25 conducted a field investigation of the survey. And based on  
CAPITOL REPORTERS (775) 882-5322

448

1 his observations in the field and his ability to map those  
2 acreages, he came up with a total of 1,657.42 acres that were  
3 at that time to be included under this claim or proof of  
4 appropriation.

5 Q. Right. But the claim says, if you look at page  
6 one under number four, it states that all the works were  
7 completed by 1879.

8 MR. TAGGART: Objection. That's not a fair  
9 characterization of the statement of what it says in number  
10 four.

11 Q. (By Ms. Peterson) Could you read number four in  
12 to the record?

13 A. A construction of the ditch and other works was  
14 begun prior to 1879 and completed by 1879.

15 Q. And then all the acreage that's listed and the  
16 priority for the acreage under 13 and on the attachment to 13  
17 total the 1,657 acres; is that correct?

18 A. That's correct.

19 Q. And all the acreages in number 13 have the  
20 priority date of 1879; is that correct?

21 A. That's correct.

22 Q. Have you seen any claims, proof of claim forms  
23 where there are different dates listed under number 13 for  
24 different acreages?

25 A. I'm sorry. I don't understand the question.  
CAPITOL REPORTERS (775) 882-5322

449

1 Q. Have you seen any proof of appropriation claim  
2 forms that show different priority dates for the different  
3 acreages in your response to, like, question 13?

4 A. Yes.

5 Q. And is it your understanding that when the State  
6 Engineer might grant a vested claim under such proof with  
7 different priorities that he relates all the acreage back to  
8 the first priority?

9 A. Can you ask that again, please?

10 Q. Sorry.

11 HEARING OFFICER JOSEPH-TAYLOR: It's actually a  
12 pretty simple question. If a proof has five priorities, does  
13 the decree give one priority or five priorities?

14 THE WITNESS: The proof is a different document  
15 than the decree. So I wouldn't know that answer.

16 HEARING OFFICER JOSEPH-TAYLOR: Have you seen  
17 decree proofs that have different priorities in them?

18 THE WITNESS: I have seen different decrees, yes,  
19 with different priorities, yes.

20 HEARING OFFICER JOSEPH-TAYLOR: No. One proof.  
21 Have you seen different land for different priorities under  
22 one proof?

23 THE WITNESS: Yes.

24 HEARING OFFICER JOSEPH-TAYLOR: Is that your  
25 question, Ms. Peterson?

CAPITOL REPORTERS (775) 882-5322

450

1 MS. PETERSON: Yes. Thank you.

2 HEARING OFFICER JOSEPH-TAYLOR: Sometimes it's a  
3 lot simpler up here.

4 MS. PETERSON: I know that. You know what, I  
5 think I wanted to go to Exhibit 129. And those are some  
6 field notes that are admitted. Do you have those?

7 THE WITNESS: I do not.

8 MS. PETERSON: Do you happen to have a copy?

9 HEARING OFFICER JOSEPH-TAYLOR: 129 you need for  
10 the witness?

11 MS. PETERSON: Yes.

12 MR. TAGGART: I only have my copy.

13 HEARING OFFICER JOSEPH-TAYLOR: We'll get one.

14 MS. PETERSON: Thank you.

15 HEARING OFFICER JOSEPH-TAYLOR: And while Mac is  
16 pulling that, can I take care of a little housekeeping?  
17 Sadler Ranch Exhibit 101 and 102, which are the exhibit list  
18 and the witness summary, I'd like to move them in to the  
19 record. Any objection? Mr. Taggart, any objection?

20 MR. TAGGART: No.

21 HEARING OFFICER JOSEPH-TAYLOR: 101 and 102 will  
22 be admitted.

23 MR. TAGGART: We also have the rebuttal witness  
24 list and rebuttal exhibit list if you want to put those in at  
25 this time.

CAPITOL REPORTERS (775) 882-5322

451

1 HEARING OFFICER JOSEPH-TAYLOR: Sure. Where are  
2 they?

3 MR. TAGGART: 185 and 186.

4 HEARING OFFICER JOSEPH-TAYLOR: Thank you. Any  
5 objection?

6 MS. PETERSON: No objection.

7 HEARING OFFICER JOSEPH-TAYLOR: 185 and 186 will  
8 be admitted.

9 Now you can proceed.

10 MS. PETERSON: Thank you.

11 HEARING OFFICER JOSEPH-TAYLOR: Do you have the  
12 exhibit, Mr. Buschelman?

13 THE WITNESS: I do.

14 Q. (By Ms. Peterson) Thank you. And those are the  
15 1972 surveyor notes. Are you familiar with those?

16 A. No.

17 Q. You didn't look at these in any of your research?

18 A. No.

19 Q. I'm going to ask you to look at page 68. It's  
20 bate stamped 68 on the upper left.

21 MR. TAGGART: I'm sorry. Which page?

22 MS. PETERSON: 068 on the upper left. It looks  
23 like a bate stamp.

24 THE WITNESS: On the upper left; correct?

25 MS. PETERSON: Yes, upper left.  
CAPITOL REPORTERS (775) 882-5322

452

1 THE WITNESS: Thank you. I'm there.  
2 Q. (By Ms. Peterson) And then it says page 24 in  
3 the middle?  
4 A. Yes.  
5 Q. Top middle?  
6 A. Yes.  
7 Q. Okay. Would you look at that general  
8 description?  
9 HEARING OFFICER JOSEPH-TAYLOR: You mean at the  
10 top?  
11 MS. PETERSON: On the bottom. Bottom half.  
12 THE WITNESS: General description, yes, I'm  
13 looking at it.  
14 Q. (By Ms. Peterson) And does that general  
15 description note any cultivation in Township 24 north, Range  
16 52 east?  
17 A. No, it does not mention an irrigation.  
18 Q. And then there's an entry about the Sadler Ranch  
19 on that page. Do you see that?  
20 A. Yes.  
21 Q. Could you read that in to the record?  
22 A. It's the third paragraph in the general  
23 description box. It says the Sadler Ranch is located in  
24 Section 23 and the Bailey Ranch is located in Section 36.  
25 The principal users of the area are cattlemen, no minimal  
CAPITOL REPORTERS (775) 882-5322

453

1 formations of consequence are noted.  
2 Q. And then if you could go three pages back further  
3 in the exhibit, there's a map.  
4 HEARING OFFICER JOSEPH-TAYLOR: Back meaning back  
5 that way?  
6 MS. PETERSON: Towards the end of the exhibit.  
7 HEARING OFFICER JOSEPH-TAYLOR: What page,  
8 Ms. Peterson?  
9 MS. PETERSON: There's no bate stamp on this  
10 page. It's a map. Township 24 north, Range 52 east.  
11 THE WITNESS: Yes, I have it.  
12 Q. (By Ms. Peterson) Do you see that? Do you see  
13 where Sadler Ranch is located on the map?  
14 A. Yes, I do.  
15 Q. And is it fair to say there's only one ditch  
16 located in that area on this survey map?  
17 A. There is one flow line indicated that has ditch  
18 next to it.  
19 Q. Near the Sadler Ranch property; is that correct?  
20 A. Yes.  
21 Q. And then if you turn to the next page, it's a  
22 map, Township 24 north, Range 53 east. Do you see that map?  
23 A. I do.  
24 Q. Do you see any ditches depicted on this map?  
25 A. Well, on the line between Sections 18 and 17, I  
CAPITOL REPORTERS (775) 882-5322

454

1 see a flow line with an arrow pointing to the east or a line  
2 with an arrow pointing to the east. I don't know if that's a  
3 ditch or a drainage or what that may be.  
4 Q. There's no wording that says it's a ditch?  
5 A. No, no wording.  
6 Q. Okay.  
7 HEARING OFFICER JOSEPH-TAYLOR: What are you  
8 calling a flow line, Mr. Buschelman?  
9 THE WITNESS: It's common to indicate a -- I  
10 don't know if it would be a drainage or a line with an arrow  
11 on it indicating that if you see something like that, that  
12 it's usually indicative of a flow in a direction of a  
13 drainage or something like that. That's what -- the best  
14 magnification --  
15 HEARING OFFICER JOSEPH-TAYLOR: Okay. Hold on a  
16 second. Are you talking about below where it says Section  
17 18, Section 17, the arrow pointing east?  
18 THE WITNESS: Yes.  
19 HEARING OFFICER JOSEPH-TAYLOR: Okay.  
20 Q. (By Ms. Peterson) These are field survey notes.  
21 They're not hydrologic study, are they?  
22 A. That's correct.  
23 Q. Okay. Thanks. And then just generally on the  
24 1879 field notes, your recollection -- Well, in the 1870  
25 field notes also, surveyor notes.  
CAPITOL REPORTERS (775) 882-5322

455

1 A. Yes.  
2 Q. Are there dams -- Are there dams mentioned in any  
3 of the notes?  
4 A. I don't recall.  
5 Q. Exhibit 127 you had testimony regarding the  
6 notations on certain pages under the general description.  
7 A. What exhibit again, please?  
8 Q. It's 127. It's the surveyor notes.  
9 A. Okay.  
10 Q. And do you remember references to settlers?  
11 A. Yes.  
12 Q. Do you know which settlers those were by the  
13 notes?  
14 A. No, no.  
15 Q. And there also was a reference to hay?  
16 A. Yes.  
17 Q. And do you know whose hay that was?  
18 A. No.  
19 Q. Would it be fair to say that the Bailey Ranch and  
20 the Brown Ranch are also included in that -- in this section  
21 of the field notes that reference Sadlers and hay?  
22 A. I would have to look at the map to see if they  
23 were along the township line. The 1870 survey was a township  
24 line between township, or I should say Range 52 east and  
25 Range 53 east. And I'm not sure if that line includes the  
CAPITOL REPORTERS (775) 882-5322

456

1 Bailey Ranch or other ranches.  
2 Q. And then Exhibit 617, slide 99 was the slide, and  
3 we can put it up if you want, that showed all of the ditches,  
4 various ditches. I think --  
5 HEARING OFFICER JOSEPH-TAYLOR: It's the  
6 infrastructure one?  
7 Q. (By Ms. Peterson) Yeah, the infrastructure one.  
8 Do you recall that?  
9 A. If I'm thinking of the correct one, it had the  
10 blue lines that indicated the ditch systems.  
11 Q. Yeah. And I think it had red lines that were the  
12 dams.  
13 A. Yes.  
14 Q. Thank you, Mr. Taggart.  
15 Were all of those ditches or -- And I think you  
16 already answered this part about the dams. But were they  
17 noted in the 1870 or the 1879 field notes?  
18 A. Not to my knowledge.  
19 Q. Were any of the dams referenced in the Eureka  
20 County or the Lander County tax records?  
21 A. Not that I know of.  
22 Q. And then are you familiar with the Sadler Ranch  
23 property and there is a certain little section that's cut out  
24 that's not actually owned by Sadlers. Are you familiar with  
25 that section?  
CAPITOL REPORTERS (775) 882-5322

457

1 A. Yes.  
2 Q. And I can put it up, slide five, it's shown on  
3 slide five.  
4 A. I'm familiar. I can see it here.  
5 Q. Is it true that some of the dams that were shown  
6 in slide 98 are included in that ground that's not owned by  
7 the Sadlers?  
8 A. Say that again, please.  
9 Q. Is it true that some of the dams that you  
10 testified to in slide 98 are located in that area of land  
11 not -- that square area of land not owned by the Sadlers?  
12 A. I don't know for sure if the dams extend on to  
13 that parcel, but I know they're around it, so yes, I'm  
14 familiar with the area and familiar with the dams.  
15 Q. Okay. Did you read Harrill's 1968 report in  
16 preparing for this hearing or any of your work that you did?  
17 A. No.  
18 Q. And then Exhibit 123 was the study about -- Well,  
19 I call it the study about the duty for the ditches. Do you  
20 recall Exhibit 123?  
21 HEARING OFFICER JOSEPH-TAYLOR: The irrigation  
22 ditches. The web printout.  
23 THE WITNESS: Thank you. Yes, I recall that.  
24 Q. (By Ms. Peterson) Was that exhibit or any  
25 information contained in that exhibit specific to the Sadler  
CAPITOL REPORTERS (775) 882-5322

458

1 Ranch ditches?  
2 A. No.  
3 Q. Exhibit 145 were the field notes. Do you have  
4 Exhibit 145 in front of you?  
5 A. 145?  
6 Q. Yes.  
7 A. Yes, I do.  
8 Q. And during your testimony with regard to Exhibit  
9 145, I wrote that you stated the full flow could be used year  
10 round was your statement based on your reading of Exhibit  
11 145. Do you recall that testimony?  
12 A. I do.  
13 Q. What is the full flow that you were referring to  
14 there?  
15 A. The full flow of?  
16 Q. Shipley.  
17 A. Shipley Springs.  
18 Q. Springs. But what is it? What number were you  
19 referring to?  
20 MR. TAGGART: Objection. That's beyond the  
21 scope. This witness hasn't testified about the flow in  
22 Shipley Springs. Another witness will be testifying and  
23 that's his main subject.  
24 MS. PETERSON: Well, he made a statement that the  
25 full flow of Shipley Springs could be used year round and I  
CAPITOL REPORTERS (775) 882-5322

459

1 would like to know his understanding of and the basis for his  
2 statement of the full flow.  
3 HEARING OFFICER JOSEPH-TAYLOR: That's different  
4 than asking him a number. Your question is fine. So your  
5 objection is overruled. But it's different than asking him a  
6 number. I hear it as two different questions.  
7 MS. PETERSON: I have to regroup here.  
8 MR. TAGGART: You're asking, so I'm clear here --  
9 HEARING OFFICER JOSEPH-TAYLOR: She's regrouping.  
10 She's going to reformulate the question.  
11 Q. (By Ms. Peterson) Do you recall your testimony  
12 that the -- with regard to Exhibit 145 that the full flow  
13 could be used year round?  
14 A. Yes.  
15 Q. Do you recall that?  
16 A. I do.  
17 Q. What was the full flow in volume that you were  
18 referring to?  
19 A. 15 CFS.  
20 Q. Exhibit 297.  
21 HEARING OFFICER JOSEPH-TAYLOR: Which one?  
22 Q. (By Ms. Peterson) 297. Do you have that exhibit  
23 in front of you?  
24 A. I do.  
25 Q. And that was one of your examples of when a  
CAPITOL REPORTERS (775) 882-5322

460

1 mitigation right was granted for a vested claim. Is that  
2 fair to say?

3 A. Yes.

4 Q. Did you read the vested claim referenced in that  
5 permit?

6 A. I glanced at it. I don't necessarily know that I  
7 read it in depth, but I did look at it.

8 Q. And do you note in the permit that the State  
9 Engineer notes that Certificates 140 and 147 had been issued  
10 for that vested claim?

11 A. It cites Certificates 140 and 147 in permit  
12 terms.

13 Q. Do you know what those certificates are?

14 A. No.

15 Q. You didn't look at those?

16 A. No.

17 Q. So you don't know if they were certificates that  
18 were issued after the adjudication process by the State  
19 Engineer in 19 -- 1913?

20 A. This point of diversion was not included in that  
21 stipulation agreement. It wasn't even cited as a -- I don't  
22 see the relationship between the 1913 stipulation and this  
23 Permit 63497.

24 Q. So Permit 63497 was the mitigation right for the  
25 vested claim; is that correct?  
CAPITOL REPORTERS (775) 882-5322

461

1 MR. TAGGART: Objection. Did you hear the  
2 question?

3 THE WITNESS: I didn't. I'm sorry.

4 HEARING OFFICER JOSEPH-TAYLOR: I didn't either.  
5 I'm sorry. What was the question?

6 (Question was read back)

7 HEARING OFFICER JOSEPH-TAYLOR: And what's your  
8 objection?

9 MR. TAGGART: They talked over each other and he  
10 wasn't able to hear it.

11 THE WITNESS: Yes. 63497 is approved to replace  
12 the water historically placed to beneficial use under Proof  
13 01104, Certificate 140 and Certificate 147.

14 MS. PETERSON: And did you -- Do you know what  
15 the procedures were before the State Engineer in the 1910 to  
16 the 1913 time frame for proving up vested claims and  
17 obtaining a certificate for those claims?

18 THE WITNESS: I do not.

19 HEARING OFFICER JOSEPH-TAYLOR: While you're  
20 thinking, Mr. Buschelman, are you familiar that early on in  
21 the statutes that there were certificates issued that were  
22 not part of the permitting process?

23 THE WITNESS: Yes.

24 HEARING OFFICER JOSEPH-TAYLOR: Do you want to  
25 explain those a little? I think we're confusing the term  
CAPITOL REPORTERS (775) 882-5322

462

1 "certificate" here.

2 THE WITNESS: I have seen certificates issued on  
3 a number of different rights. Claims I think is one of them.  
4 It's rare. I have seen it maybe once or twice in all of my  
5 years of research. So it's not something I know to be  
6 common.

7 HEARING OFFICER JOSEPH-TAYLOR: Are you familiar  
8 with the statutes changed earlier on after the adjudication  
9 statutes were initiated or put in to law?

10 THE WITNESS: No.

11 HEARING OFFICER JOSEPH-TAYLOR: Okay. I'll quit  
12 explaining. Yes, I am. When you live here a long time you  
13 find a lot of stuff.

14 MS. PETERSON: No further questions.

15 HEARING OFFICER JOSEPH-TAYLOR: Thank you.

16 Any redirect, Mr. Taggart?

17 MR. TAGGART: Yes.

18 HEARING OFFICER JOSEPH-TAYLOR: Really? You're  
19 running out of time.

20 MR. TAGGART: Well.

21 HEARING OFFICER JOSEPH-TAYLOR: Your choice.

22 MR. TAGGART: Well, I have to do my case. I  
23 don't know how we're going to make the time. I really don't.

24 HEARING OFFICER JOSEPH-TAYLOR: Keep going. We  
25 already argued.  
CAPITOL REPORTERS (775) 882-5322

463

1 REDIRECT EXAMINATION

2 By Mr. Taggart:

3 Q. Okay. Let's go to Exhibit 127. I'll give you a  
4 copy of that. And you were asked about the survey notes and  
5 whether any of them talked about ditches. And I'd like to  
6 point to two locations and ask you if -- Well, maybe I can  
7 just ask it this way. As you indicated earlier that when  
8 they did these surveys they would walk the line of the  
9 township?

10 A. Correct.

11 Q. So if a ditch was not on that line, would it be  
12 in their notes?

13 A. No.

14 Q. So there could be many ditches out in the field  
15 that are not in the field notes; correct?

16 A. Yes.

17 Q. What if they're on the map but they're not on the  
18 field notes, does that mean there was a ditch there or there  
19 wasn't a ditch there?

20 A. I don't know that answer.

21 Q. Well, if they're on the map but they weren't on  
22 the field notes, is it possible there was a ditch in between  
23 the lines of the township?

24 A. It is possible, yes.

25 Q. You were asked about the tax rolls and the  
CAPITOL REPORTERS (775) 882-5322

464

1 acreages that were listed in the tax rolls. Was it your  
2 intent to describe every possessory interest in the area  
3 that's now the Sadler Ranch when you described those tax  
4 rolls?

5 A. No.

6 Q. What was your intent?

7 A. Basically to establish that there was activity,  
8 that Shipley who, the namesake of the spring was actually  
9 there and constructed improvements and was paying taxes to  
10 show that he had done so.

11 Q. And with respect to the deeds that were put in to  
12 evidence, is that all the deeds that exist or was that a  
13 representative group or what was that intention?

14 A. That was a representative group. Not intended to  
15 be a full accounting for all of the deeds.

16 Q. You were asked about adjudications and the  
17 meaning of the word. Do you understand -- Do you have an  
18 understanding of what has been referred to as a civil decree  
19 in water rights?

20 A. Yes.

21 Q. And is that a court decree between two private  
22 parties that decide water allocations between the two?

23 A. Yes.

24 Q. And in your understanding of water rights does  
25 that become a final decision with respect to those water  
CAPITOL REPORTERS (775) 882-5322

465

1 rights?

2 A. Yes.

3 Q. You were asked about some -- a lot of historic  
4 documents. In your conclusions, did you rely upon all of the  
5 information that Dr. Yednock prepared and presented at this  
6 hearing?

7 A. I did.

8 Q. And did you also rely upon the information that  
9 Mr. Frazer provided?

10 A. Yes.

11 Q. You were asked about Exhibit 602 and were any of  
12 those permits -- Remember, those were the inductional  
13 permits. You were asked whether any of those permits  
14 involved an unadjudicated vested claim. Do you recall that  
15 question?

16 A. Yes.

17 Q. Isn't it true that the Bailey well permit did  
18 grant a groundwater right for an unadjudicated vested claim?

19 A. Yes.

20 Q. You were asked about relation back. I want to  
21 read you a statement and ask you if this is consistent with  
22 your understanding of relation back. This is from State  
23 Engineer Ruling 4825. It's a citation to a case called  
24 Gopher Silver Mining Company versus Carpenter, 4 Nevada 524,  
25 pages 533 through 544 from 1869. And the case said, the law  
CAPITOL REPORTERS (775) 882-5322

466

1 gives the claimant a reasonable time within which to do it  
2 and although the appropriation is not deemed complete until  
3 the actual diversion in use of the water, still it's such  
4 work be prosecuted with reasonable diligence the right  
5 relates to the time when the first step was taken to secure.  
6 Is that your understanding of relation back?

7 A. Yes.

8 Q. You were asked about whether the two  
9 applications, 81719 and 20 are mitigation rights with  
10 supplemental rights. Do you have an understanding of what a  
11 supplemental right is in the State of Nevada when that term  
12 is used in groundwater or surface water?

13 A. Yes.

14 Q. And would you agree with me that it's when you  
15 have one right that can be used when the other right is not  
16 available?

17 A. Correct.

18 Q. And in this case is the intent to have mitigation  
19 water for the vested claim?

20 A. Mitigation defined in what way?

21 Q. As replacement water.

22 A. Yes.

23 Q. You were asked about whether you've seen decrees  
24 that have multiple priorities within the same claim. What  
25 decree were you referring to, if you can recall?  
CAPITOL REPORTERS (775) 882-5322

467

1 A. One that comes to mind is the Humboldt River  
2 decree. And in that decree there are multiple priorities  
3 under one proof. And they do call them proofs in that  
4 decree. So yes, under that Humboldt River decree I've seen  
5 that.

6 Q. You were asked about Exhibit 129, which is the  
7 1970 survey notes. Do you have that?

8 A. I do.

9 Q. Could you go to the page, the last page there's a  
10 map there. And there's a statement in that map I'd like you  
11 to read.

12 A. The history of surveys is contained in the field  
13 notes. A dependent resurvey of the west boundary was  
14 executed concurrently under Township 24 north, Range 52 east  
15 of this group. This plat represents a dependent resurvey of  
16 the south boundary, a portion of the north boundary and a  
17 portion of the subdivisional lines of Township 24 north,  
18 Range 53 east designed to restore the corners of their true  
19 original locations according to the best available evidence.  
20 Lotting and areas are as shown on the plat approved October  
21 22nd, 1879. Survey executed by James R. Munson, Cadastral,  
22 surveyor, September 17th to November 5th 1973 under special  
23 instructions dated October 13th 1972 for group number 493,  
24 Nevada.

25 Q. So from your reading of that, is this a resurvey  
CAPITOL REPORTERS (775) 882-5322

468

1 for the location of a corner?  
2 A. Yes.  
3 Q. And do you have an understanding of why resurveys  
4 are done?  
5 A. Yes.  
6 Q. And is the intent of a resurvey to replicate the  
7 way the original survey was done or is it to address the  
8 concern that that resurvey is focused on?  
9 A. The intent is to follow the footsteps of the  
10 original surveyor and locate the original monument set by  
11 that original surveyor.  
12 Q. And if you saw aerial photographs that showed  
13 ditches in Sadler Ranch at the same time as the date of that  
14 survey, would you believe the aerial photographs or what was  
15 stated in that survey?  
16 A. Ask the question again, please.  
17 MR. TAGGART: That's all right. I don't think  
18 it's necessary. I don't have any further questions.  
19 HEARING OFFICER JOSEPH-TAYLOR: Recross, Ms. Ure?  
20 MS. URE: Yes.  
21 RECCROSS-EXAMINATION  
22 By Ms. Ure:  
23 Q. Mr. Buschelman, if you look at Exhibit 111, are  
24 there any ditches on the map that do not cross a township or  
25 section line?  
CAPITOL REPORTERS (775) 882-5322

469

1 A. I'm having a bit of difficulty seeing in the more  
2 densely noted areas if there is one or not. I can't tell by  
3 this at this level of magnification.  
4 Q. Okay. We can let the document speak for itself.  
5 And then if you turn to Exhibit 617, slide 99, that's the  
6 exhibit with the slide of the blue lines of ditches. Do you  
7 recall that?  
8 A. I do.  
9 Q. Do any of these ditches cross section lines and  
10 township lines?  
11 A. They do.  
12 MS. URE: I have no further questions.  
13 HEARING OFFICER JOSEPH-TAYLOR: Any questions,  
14 Ms. Peterson?  
15 MS. PETERSON: No questions.  
16 HEARING OFFICER JOSEPH-TAYLOR: Thank you. We're  
17 going to be in recess for about 15 minutes. Let's be off the  
18 record.  
19 (Recess was taken)  
20 HEARING OFFICER JOSEPH-TAYLOR: Questions of  
21 staff. Where do we want to start? Mr. Felling, do you want  
22 to start?  
23 MR. FELLING: I can, yeah.  
24 ///  
25 ///  
CAPITOL REPORTERS (775) 882-5322

470

1 EXAMINATION  
2 By Mr. Felling:  
3 Q. Good afternoon, Mr. Buschelman. I have maybe  
4 half a dozen questions. For the Boyack map, as I understand  
5 it, you initially used the 1870 survey notes; is that  
6 correct?  
7 A. I believe in his proof he cited the 1879.  
8 Q. The '79?  
9 A. Various notes.  
10 Q. And then in your evaluation of the 1870 survey  
11 notes, you noted that there were lands mentioned as irrigated  
12 that were not noted by Boyack; is that correct?  
13 A. Yes.  
14 Q. And then you added those acreages to the Boyack  
15 map to get a new total; is that right?  
16 A. We haven't included that total in the application  
17 to change. But we are doing an assessment of the lands  
18 irrigated that Mr. Boyack showed on his culture map. And  
19 then we went out there to ground proof his map essentially is  
20 what we did. As part of that we found that there was  
21 additional acreage outside of his map and even inside of his  
22 map that we felt warranted noting as a cultural acreage. But  
23 I want to be clear that it's the number that is on the  
24 application. Sorry. I don't have that number in front of  
25 me. 82268 is the number that's stated on the proof of  
CAPITOL REPORTERS (775) 882-5322

471

1 appropriation filed by Allen Boyack.  
2 Q. Okay. But you add -- Those acreages did add up  
3 to some 2244 acres; is that correct?  
4 A. Yes.  
5 Q. And through this proceeding enough water is being  
6 sought to irrigate that 2244 acres?  
7 A. No. The 1657.  
8 Q. That's the total?  
9 A. That we're seeking under the application to  
10 change, yes.  
11 Q. All applications being heard at this hearing  
12 total 1600 and -- total duty is 1657. So that's what you're  
13 saying?  
14 A. That's correct.  
15 Q. Okay. Is there any information that demonstrates  
16 that all of those acres were irrigated at the same time in  
17 given years?  
18 A. No. May I ask a question?  
19 HEARING OFFICER JOSEPH-TAYLOR: No.  
20 THE WITNESS: Sorry.  
21 HEARING OFFICER JOSEPH-TAYLOR: You knew the  
22 answer to that. Nice try.  
23 MR. TAGGART: It would be helpful to clarify if  
24 there's confusion.  
25 HEARING OFFICER JOSEPH-TAYLOR: Well, he can talk  
CAPITOL REPORTERS (775) 882-5322

472

1 to his lawyer.  
2 Q. (By Mr. Felling) I'll give you an opportunity to  
3 expand on that answer if you'd like.  
4 A. I would.  
5 Q. Go ahead.  
6 A. I understood your question to be was the full  
7 1,657 acres irrigated during one time, meaning one year.  
8 That answer I don't know. I do --  
9 Q. That was my question.  
10 A. Okay. Then my answer is no, I don't know if all  
11 of it was irrigated on one year.  
12 Q. Okay. You discussed duties based on some  
13 references that you had. And in one of your exhibits,  
14 Exhibit 114, you derived the number 4.79. But again, you're  
15 just asking for 4.5 acre-feet per acre for these lands. Are  
16 there return flows included in those duties or do all -- does  
17 that full amount need to come from Shipley Spring spread out  
18 over the entire acreage?  
19 A. Exhibit -- Which exhibit?  
20 Q. I'll rephrase that. Are you asking for 4.5  
21 acre-feet per acre by the entire 1600-some acres or is there  
22 an opportunity for return flow to make up some of those  
23 flows?  
24 A. I believe that when I looked at the range of  
25 efficiencies based on information I received from the food  
CAPITOL REPORTERS (775) 882-5322

473

1 and -- you know, the source, the NRCS Department of  
2 Agriculture source that the range was from 40 percent  
3 efficiency to 60 percent efficiency. And in that efficiency  
4 range there were duties that went as high as 6.25 acre-feet  
5 per acre and duties that went as low as 3.33 acre-feet per  
6 acre based on my calculation. I believe that the average is  
7 4.5 or close enough to 4.5 that we can utilize that. I think  
8 that in that number there is some reuse of the water as it  
9 comes down the system. Because the closer you are to the  
10 spring source, there is going to be some reuse of that water  
11 once it flows past that field and on to another field and on  
12 to another field.  
13 Q. And you calculated in one of your exhibits, and I  
14 believe it's -- I don't recall the number of the exhibit  
15 offhand. You calculated the duty required based on various  
16 efficiencies as you just mentioned, the 40, 50 and 60  
17 percent. That's to irrigate a crop year round; is that  
18 correct?  
19 A. No. That is to irrigate a crop during what would  
20 be considered the irrigation season.  
21 Q. Okay. And then the lower parts of the ranch,  
22 were those areas irrigated through the entire irrigation  
23 season?  
24 A. I don't know if irrigated is the right word.  
25 Water was stored on those lands during the non-irrigation  
CAPITOL REPORTERS (775) 882-5322

474

1 season.  
2 Q. You missed my question. My question was, was  
3 water supplied for irrigation on those lands during the  
4 entire growing season?  
5 A. During the entire growing season?  
6 Q. Yeah.  
7 A. Yes.  
8 Q. So in all of those documents where they noted  
9 that really this whole source of water was January, February  
10 and March, and that was when they received their water, do  
11 you consider that water available for the entire growing  
12 season?  
13 A. Under that permit that was issued would have only  
14 been limited to those three months.  
15 Q. We'll get to that too. But in terms of the  
16 documented evidence of when water was supplied to those lower  
17 acreages, and I'm talking about the lower lands in the  
18 southeast, the Eccles property and Romano fields. Do you  
19 recall the evidence that indicated that those fields were dry  
20 in July, August?  
21 A. I don't recall any mention in there that -- In  
22 the stipulation agreement I don't recall any mention of it  
23 being dry.  
24 Q. One second. Can you point me to an exhibit that  
25 shows that these lower fields actually receive water during  
CAPITOL REPORTERS (775) 882-5322

475

1 the summer months?  
2 A. I believe we can if we review the aerial  
3 photography, the 1946 and fifties aerial photographs. I  
4 would have to look at them, but I believe that they were  
5 taken in the summer irrigation season months and there is  
6 water shown on those properties during that time.  
7 Q. Okay. We'll have to look in to the record then.  
8 For the Eccles --  
9 HEARING OFFICER JOSEPH-TAYLOR: Excuse me. For  
10 this court reporter, E-c-c-e-l-e-s; correct?  
11 MR. FELLING: E-c-c-l-e-s.  
12 Q. (By Mr. Felling) And that's Exhibit 141. Could  
13 we pull that?  
14 A. I have it.  
15 Q. I want to talk about what these numbers really  
16 total. So on the first page, and I'll just read off what I  
17 think is pertinent here, 234.2 acres at a diversion rate of  
18 2.342 cubic feet per second from January 1st to April 1st.  
19 Is that accurate?  
20 A. Yes.  
21 Q. Any idea how many acre-feet that would actually  
22 amount to?  
23 A. I could calculate it up. I'm not sure.  
24 Q. Would you do that, please.  
25 A. My calculation is 418 acre-feet.  
CAPITOL REPORTERS (775) 882-5322

476

1 Q. Do you also see where the amount of appropriation  
2 is 702 acre-feet?

3 A. I do.

4 Q. So if this certificate was limited to 2.34 CFS  
5 for that three-month period, they could never reach that 702  
6 acre-feet; is that accurate?

7 A. If it was limited to 2.32 -- 342 acre-feet, I  
8 would say that's accurate. But if you read that, it says  
9 amount of appropriation 2.342 cubic feet per second or 702.6  
10 acre-feet. So I don't necessarily see a limitation -- the  
11 "or" helps me see that maybe they could deliver 702.6 at a  
12 different rate.

13 Q. Is the season defined on this page?

14 A. It is.

15 Q. And what is the season?

16 A. Approximately 90 days.

17 Q. So the numbers don't seem to work; is that right?

18 A. They don't.

19 Q. Okay. And the point of diversion, do you know  
20 where that point of diversion is?

21 A. Yes.

22 Q. And where is that?

23 A. Approximately three and a half miles west of this  
24 location.

25 Q. At Big Shipley Spring?  
CAPITOL REPORTERS (775) 882-5322

477

1 A. Yes.

2 Q. So the 418 acre-feet being diverted from a .3  
3 miles west, what did the State Engineer at this time think  
4 that the water rights were on these acreages? I mean -- I'll  
5 ask you a question. Is this a representative of what the  
6 State Engineer thought were the appropriate duties for that  
7 land?

8 A. I would -- That was the duties they assigned to  
9 the land, so I would assume they would have felt they were  
10 appropriate.

11 Q. Okay. For your estimates of consumptive use, are  
12 you familiar with the -- our definition that for net  
13 consumptive use it's for a crop that is in a near pristine  
14 condition and is not water limited?

15 A. I'm familiar with the term of net consumptive  
16 use. The pristine part I'm not familiar with.

17 Q. And that in our consumptive use net irrigation  
18 water requirements in Nevada, those numbers apply for the  
19 various crops only for those crops that receive water and are  
20 not in any way limited by a water supply?

21 A. Yes.

22 Q. Did you use our net consumptive use numbers in  
23 your table?

24 A. I did.

25 Q. Do you feel that all of the acres on this -- on  
CAPITOL REPORTERS (775) 882-5322

478

1 the entire ranch have a whole supply of water and are never  
2 water limited?

3 A. The exercise that I went through was to calculate  
4 a range of duty based on efficiencies. I utilized the net  
5 irrigation water requirement or the net consumptive use  
6 figures out of the report as a component of that duty  
7 calculation. It is a part of it but not the total amount.

8 Q. Well, if the net consumptive use were different  
9 because there wasn't an unlimited supply of water, would your  
10 calculations have been different?

11 A. I'd like to go to the sheet where I did my  
12 calculations.

13 MR. TAGGART: It's Exhibit 106.

14 THE WITNESS: Thank you. When I provided the  
15 range of 3.33 acre-feet per acre to 6.25 acre-feet per acre,  
16 the lower range of 3.33 was based on 60 percent efficiency of  
17 low-managed pasture grass. Low-managed pasture grass has a  
18 duty of two acre-feet per acre under the net irrigation water  
19 requirement. So that is the number I plugged in to that  
20 calculation to get 3.33. When I calculated the higher end,  
21 the maximum end of duty, I used a 40 percent efficiency with  
22 alfalfa, which has a duty of 2.5 acre-feet per acre. So in  
23 those calculations I did consider different cultures  
24 requiring different net irrigation water requirements.

25 Q. (By Mr. Felling) So for the low-managed pasture  
CAPITOL REPORTERS (775) 882-5322

479

1 you used two acre-feet per acre as the net irrigation water  
2 requirement. But that's only for low-managed pasture that is  
3 never water deficient. If that pasture was water deficient,  
4 would you agree that net consumptive use would be less than  
5 two acre-feet per acre?

6 A. Yes.

7 Q. And then would that difference propagate through  
8 your entire calculation?

9 A. Yes.

10 Q. Was the full flow of Shipley Springs in your  
11 opinion put to beneficial use?

12 A. Yes.

13 Q. No waste at all?

14 A. Again, I have a need to define waste. Waste is  
15 used in many different ways in agriculture. Waste water can  
16 be reused over and over again. Waste in a sense of leaching  
17 soils, when you apply water to the soils to leach out the  
18 soluble salts and you discharge that highly salt-laden water  
19 at the end of your field is it considered waste. I mean,  
20 there's a lot of ways to define waste. High salt solubles  
21 are no longer usable for agriculture, but they could be used.

22 Q. Okay. I notice on the land map for the north  
23 meadow and the south meadow too that the lands owned by  
24 Sadler Ranch don't include the entire north meadow. Do you  
25 know if there are other private lands up there?  
CAPITOL REPORTERS (775) 882-5322

480

1 A. I know of one.  
2 Q. If that land owner made a claim for water from  
3 Shipley Spring, the vested claim or the replacement water,  
4 where would that water then come from?  
5 A. Shipley Springs.  
6 Q. So in other words, Sadler Ranch since they didn't  
7 use the full flow of Shipley because someone else used part  
8 of it, they wouldn't get the full flow of Shipley Springs  
9 under these proceedings; is that correct?  
10 A. No. Just because the land is owned by someone  
11 else doesn't mean that they are using the water or applying  
12 the water. If I'm applying water to public or private land,  
13 I am the water right applicator, therefore the water right  
14 owner under a vested right, not the land owner.  
15 Q. Well, do you know if those other private lands on  
16 that north meadow are irrigated by Shipley Spring water?  
17 A. They are.  
18 Q. Are they controlled by someone other than Sadler  
19 Ranches?  
20 A. Is what controlled?  
21 Q. Those other private lands.  
22 A. I need to know what you mean by controlled.  
23 Q. I'll go back. There are private lands irrigated  
24 by Shipley Spring water currently or historically that may  
25 have a claim to Shipley Spring and are not owned by Sadler  
CAPITOL REPORTERS (775) 882-5322

481

1 Ranches. Would you -- Is that accurate?  
2 A. Using the word "may," yes, that's accurate.  
3 MR. FELLING: Actually I'll just stop right here.  
4 I don't have any more questions.  
5 HEARING OFFICER JOSEPH-TAYLOR: Thank you.  
6 Mr. Buschelman, if I filed a proof of  
7 appropriation and I only had an 80 or 90 -- and I had an 80  
8 or 90 percent ditch loss, is that considered a beneficial use  
9 of water?  
10 THE WITNESS: In some cases I would believe yes.  
11 HEARING OFFICER JOSEPH-TAYLOR: Really? You  
12 wouldn't consider that waste?  
13 THE WITNESS: No. It depends on the soil types,  
14 the conditions in which you're trying to transport that  
15 ditch. There are many cases where the -- Well, even if the  
16 publication that I utilized as a basis for my calculations  
17 indicates in there that a 48 or 50 percent efficiency is  
18 reasonable.  
19 HEARING OFFICER JOSEPH-TAYLOR: I said 80 or 90  
20 percent loss.  
21 THE WITNESS: Even in a situation where there may  
22 be 80 or 90 percent ditch loss, it depends, again, on the  
23 history of the use and how the soil types are set up. I  
24 would not say that is not beneficial if you're still getting  
25 the water to where you needed to go.  
CAPITOL REPORTERS (775) 882-5322

482

1 HEARING OFFICER JOSEPH-TAYLOR: Any questions,  
2 Mr. Walmsley?  
3 MR. WALMSLEY: Yes, a few basic questions.  
4 EXAMINATION  
5 By Mr. Walmsley:  
6 Q. Good afternoon, Mr. Buschelman. Is it true that  
7 your testimony relied heavily on GLO surveyor notes and the  
8 associated maps that were generated?  
9 A. It was one component. But I did rely on those.  
10 Q. You did rely on them. In those notes, they make  
11 comments such as rich soil and grasses; is that true?  
12 A. Yes.  
13 Q. Do you know whether or not a GLO land surveyor  
14 was trained in soil science or in plant science prior to them  
15 doing their survey?  
16 A. Yes. Actually as part of the instructions that  
17 were given to the GLO, general land office, surveyors at the  
18 time, they actually had to demonstrate their knowledge of  
19 soils and plants in order to be selected and awarded  
20 contracts under the surveyor general. So they did have to  
21 have knowledge of those things, yes.  
22 Q. And based on that training on soils, did they go  
23 as far as having an understanding of soil chemistry? Or  
24 should I ask that question to Mr. Frazer?  
25 A. I do know that as part of their qualifications to  
CAPITOL REPORTERS (775) 882-5322

483

1 be a contract surveyor they had to identify whether or not  
2 soils were salty. And you'll see, in some notes you'll even  
3 say that they tasted the soil and it was salty. And you'll  
4 see them refer to water sources as either salty tasting or  
5 not salty. Good water. It was not uncommon to see  
6 references in actually tasting things.  
7 Q. Okay. Well, that's a good answer to that  
8 question.  
9 When we're talking about grass meadows and hay  
10 production, anywhere in the notes did they actually identify  
11 the actual grass type?  
12 A. There's references to natural or native hay. So  
13 I'm assuming on my part that those are grasses that would  
14 grow there naturally without being planted artificially, such  
15 as a Timothy or clover. They were native or natural grasses  
16 that grew out there.  
17 Q. Would -- Well, this would probably not be a good  
18 question. I'll ask it anyhow. Would they have been able to  
19 differentiate between the grass and the sedge?  
20 A. I don't know that answer.  
21 Q. Okay. Thank you. You said you relied heavily on  
22 the information produced and provided by Mr. Yednock and  
23 Mr. Frazer and the figures associated with that; is that  
24 correct?  
25 A. They played a big part in the assembly of  
CAPITOL REPORTERS (775) 882-5322

484

1 information to make my conclusion, yes.

2 Q. And do you agree that it's been stated by you and  
3 also the others in this hearing that it would be necessary to  
4 spend large sums of money to bring production back to the  
5 Sadler Ranch?

6 A. I didn't say that, but I agree with that  
7 statement.

8 Q. And based on that, if the large sums of money are  
9 spent and the land and the ranch is brought back to be a  
10 viable economical unit, has anybody or have you looked at how  
11 many acres would be necessary under modern irrigation  
12 practices to recreate the tons of hay that were produced  
13 historically?

14 A. I have not gone in to those calculations, no.

15 Q. I only have one other question. You talked about  
16 a water right being established essentially in trespass on  
17 government land. Is that true?

18 A. Yes.

19 Q. And you stated that that water right would be  
20 owned by the appropriator of the water?

21 A. Yes.

22 Q. When we do assignments of water rights, we make a  
23 determination whether water is appurtenant to the land.

24 Based on that do you believe that since the right is on BLM  
25 land that they could have an actual claim to that water since  
CAPITOL REPORTERS (775) 882-5322

485

1 it is an appurtenance?

2 A. There's a couple of things that I consider when  
3 I'm going down that path. One, at 1870 to 1879 all the way  
4 up in to the sixties and even demonstrated in Diamond Valley,  
5 the federal government was encouraging privatization of their  
6 public lands through desert land entry, homestead entry,  
7 carry act, those programs. As a function of you getting  
8 title, you had to trespass, if that's the right word, on  
9 their land, irrigate and actually establish residency all in  
10 what you might call trespass before you could gain patent.

11 So my answer is based on that understanding as  
12 well as the understanding that I don't have to own the land  
13 in order to gain a water right on that land.

14 MR. WALMSLEY: I don't believe I have any further  
15 questions. Thank you very much.

16 HEARING OFFICER JOSEPH-TAYLOR: Ms. Geddes, any  
17 questions?

18 MS. GEDDES: No.

19 HEARING OFFICER JOSEPH-TAYLOR: Mr. Wilson?

20 MR. WILSON: No.

21 HEARING OFFICER JOSEPH-TAYLOR: Okay.

22 EXAMINATION

23 By the State Engineer:

24 Q. You've been qualified as an expert in Nevada  
25 water rights in these proceedings. We've heard a lot of  
CAPITOL REPORTERS (775) 882-5322

486

1 testimony about potential beneficial use pre-1905. We've  
2 heard the twenties, thirties and through the forties but that  
3 was about it. I'd like to hear your opinion on whether or  
4 not you think the vested claim that we've been talking about  
5 is subject to abandonment.

6 A. I think what encourages me to have the opinion  
7 that it has not been abandoned is the intensity of  
8 documentation throughout time. Even the aerial photographs  
9 that we see in the sixties, seventies, eighties, nineties,  
10 show a purposeful intent to push water on the properties  
11 known as the Sadler Ranch. We've seen improvements such as  
12 the dams where they appear to be really bright white-ish  
13 color where that means that they've been freshly made during  
14 that time frame or a little before. And those are there to  
15 help back that water up and store it in the lower reaches of  
16 the ranch. We see continued payment of taxes by predecessors  
17 to the owners today.

18 I mean, in the seventies they hired Allen Boyack  
19 to come out and actually survey the property and illustrate  
20 the limits of their cultural boundaries as he illustrated it  
21 on his map and filed a proof. That was in the late  
22 seventies, early eighties.

23 There's been the USGS, US Geological Survey has  
24 come out and actually monitored flows at the spring in an  
25 effort to get an idea of how much water is there and with  
CAPITOL REPORTERS (775) 882-5322

487

1 respect to the ranch's ability and right to use the water. I  
2 just see an abundance of information in the records that do  
3 not foretell any abandonment.

4 Q. Thank you. Is Allen Noyack --

5 A. It's Boyack.

6 Q. Boyack.

7 A. It's B-o-y-a-c-k.

8 Q. I knew that. I've heard it a thousand times. Is  
9 he still alive?

10 A. I don't know that?

11 Q. And I don't know if Mr. Frazer or Dr. Yednock had  
12 testified to that or not. I'm just curious. You don't know  
13 if he is or not?

14 A. No, I don't.

15 Q. Okay. And we're beating to death the Boyack map.  
16 But to me it's a real important piece of this puzzle and I'm  
17 sorry to make you testify about it again. We can kind of  
18 keep it short. But I want to try to understand the kind of  
19 weight we're going to give this map. As we discussed, you  
20 took 1879 field notes and then went out to the field. How  
21 did he incorporate these 1879 field notes in to the map that  
22 we see that he prepared in 1978?

23 A. Well, one of the things that's in the notes in  
24 1879 there was much more detail about crossing irrigation  
25 ditches as the original surveyors crossed -- I mean followed  
CAPITOL REPORTERS (775) 882-5322

488

1 section lines and township lines. I think, again, if I was  
2 doing the map as Allen was doing the map, to me that would be  
3 important because I could actually in some ways see those  
4 lines as I was drafting them. And he had the benefit of the  
5 early '72, 1972 aerial photography as well at his disposal  
6 that he could use. And we see a real agreement between that  
7 photo and the boundaries that he created on his map.

8 The 1879 notes were far more descriptive of the  
9 improvements that were out there. They provided a real base  
10 for him to strike as a priority. Because he said prior to  
11 1879, knowing that those facilities actually were constructed  
12 at that time so he knew it had to happen before then. So in  
13 that case that's why they played a big part in his analysis.

14 Q. Okay. I believe it was Exhibit 114. You don't  
15 need to pull it up. But I think you had a corrected Boyack  
16 map. Do you remember that?

17 A. Yes.

18 Q. And you went through your findings and you  
19 discussed acreage that were added and some acreage that were  
20 removed from the Boyack map. In round numbers is it fair to  
21 say that it looks like through your corrected Boyack map  
22 you've added about 600 acres and you subtracted out about 90?

23 A. Yes.

24 Q. Does that sound right?

25 A. That's about right.  
CAPITOL REPORTERS (775) 882-5322

489

1 Q. Proof 03289 we talked about the acreages and  
2 there were questions asked of you about the 1879 priority.  
3 Is it your testimony that that acreage was put to -- was  
4 cultivated or water was put to beneficial use on that acreage  
5 in 1879 or are you saying that through the doctrine of  
6 relation back that through the course of perhaps decades, and  
7 again this wasn't until '78, that all of that acreage was  
8 assigned that 1879 priority?

9 A. Logic tells me that in order to construct those  
10 ditches and put in facilities, especially in the fields that  
11 were the furthest west on the ranch that were closest to the  
12 ranch headquarters that were the highly managed areas that it  
13 would take time. Time based on the machinery or lack of  
14 machinery they had in that time -- at that time. They had  
15 horses. They had plows. They had manual labor. It would  
16 take years. I wouldn't necessarily say decades. But it  
17 would take years in order to construct those ditches and put  
18 in and plant those fields as well as construct ditches and  
19 facilities to move water through more of the meadow area  
20 that is irrigated. So yes, it did take time. It didn't all  
21 happen on January 1st 1879, but it did take a reasonable  
22 amount of time to go forward.

23 The historical accounts tell us that prior to  
24 1905 there was a lot going on in that ranch. People were  
25 hired. The Sadler family consolidated many small possessory  
CAPITOL REPORTERS (775) 882-5322

490

1 claims in to their ranch. So not only did the Sadler family,  
2 the Shipley family have people working on the land, so did  
3 the Hills and the Whites and the many other claimants that we  
4 saw illustrated on that map. So it took time, yes. It  
5 didn't happen all in one day.

6 Q. I think I know the answer to this question before  
7 I ask it. Do you understand that the Diamond Valley  
8 hydrographic basin is over appropriated?

9 A. I do.

10 Q. Significantly would you say?

11 A. Significantly, yes.

12 Q. If a groundwater permit were to be issued as a  
13 result of these proceedings and it were to be an additional  
14 withdrawal of ground water on the basin -- And I understand  
15 the arguments about priority. Again, do you as an expert in  
16 Nevada water rights sitting in the State Engineer's office  
17 chair faced with incorporating more groundwater on the basin  
18 that sits as Diamond Valley sits, and we've had discussion of  
19 critical management area, it's a long-winded question, how  
20 would you view the approval or denial of that replacement  
21 water?

22 A. I think one of the key foundations that we work  
23 with in the State of Nevada is prior appropriation. To me  
24 that is a cornerstone of why we're here. Also, proof of  
25 beneficial use. Those two are two guiding lights that we  
CAPITOL REPORTERS (775) 882-5322

491

1 focus on when we get in to a situation like this. I think in  
2 many ways we can't ignore that set of guidelines to work  
3 with. There may be ways to help soften the blow, so to  
4 speak, in a sense by administering these consents. However,  
5 I think that we have to protect the senior rights. Junior  
6 right holders that come along have essentially an opportunity  
7 to do things as they've been granted under the applications.  
8 However, if we find underlying circumstances like the  
9 lowering or drastically lowering of the water source we're  
10 all pumping from, unfortunately it takes action not only to  
11 protect senior rights but other more junior rights that are  
12 in the valley as well.

13 I believe there's an opportunity for everybody to  
14 get together and come up with a solution. It may not be  
15 palatable for everyone. But I think there's an opportunity  
16 to make some things happen in this valley. We yet don't know  
17 the impacts of approving a well or a series of wells in the  
18 area of the Sadler Ranch on how they may impact the ground  
19 water table to the south. We do know that there has been  
20 influenced to the spring.

21 But I really do think that we have to keep the  
22 prior appropriation in the mix no matter where we do and we  
23 have to keep it as a guiding element for where we go.

24 Q. Thank you.

25 A. Long answer.  
CAPITOL REPORTERS (775) 882-5322

492

1 HEARING OFFICER JOSEPH-TAYLOR: Thank  
2 you, Mr. Buschelman. You may be excused.  
3 What are we going to do, Gentlemen? Your time is  
4 up, Mr. Taggart. Did you have any discussion with  
5 Mr. Kolvet?  
6 MR. TAGGART: Yes, we've talked. And we'll put  
7 another witness on.  
8 HEARING OFFICER JOSEPH-TAYLOR: Are you agreeable  
9 to that, Mr. Kolvet?  
10 MR. KOLVET: Yes. The witness he's intending to  
11 put on kind of dovetails on my first witness. It works.  
12 HEARING OFFICER JOSEPH-TAYLOR: If he agrees with  
13 it, I'll allow it to happen.  
14 THE STATE ENGINEER: Again, do you have two more  
15 witnesses?  
16 MR. TAGGART: Maybe. But I only have one that's  
17 of substantial time. The other I think will be relatively  
18 short.  
19 THE STATE ENGINEER: I've heard that a couple  
20 times too.  
21 HEARING OFFICER JOSEPH-TAYLOR: You also said he  
22 was two hours and here we are nine hours later.  
23 MR. TAGGART: Well, I mean, I hope it's  
24 beneficial. I mean, if you think we're giving you  
25 information that you don't want, we'll cut it short. I think  
CAPITOL REPORTERS (775) 882-5322

493

1 you want to hear what we've come to present.  
2 THE STATE ENGINEER: We do want to hear it. It's  
3 just that we have a schedule.  
4 MR. TAGGART: I mean, our next witness I'm very  
5 concerned that he won't be able to present what we have  
6 prepared him to present in the time allowed. And so that  
7 means we will speed up and that's unfortunate, but I  
8 understand we have a time constraint. But I mean, he's going  
9 to talk about drawdown. He's going to talk about conflict,  
10 what the drawdown cone is, you know, the hydrologic concerns  
11 that we all have. And I think it's really important.  
12 HEARING OFFICER JOSEPH-TAYLOR: Let's be off the  
13 record.  
14 (Discussion was held off the record)  
15 HEARING OFFICER JOSEPH-TAYLOR: Call your next  
16 witness, Mr. Taggart.  
17 MR. TAGGART: Sadler Ranch calls Dwight Smith.  
18 We're off the record; right?  
19 HEARING OFFICER JOSEPH-TAYLOR: No, we're on the  
20 record.  
21 MR. TAGGART: Can we go off?  
22 HEARING OFFICER JOSEPH-TAYLOR: Yes.  
23 (Recess was taken)  
24 HEARING OFFICER JOSEPH-TAYLOR: Please call your  
25 next witness, Mr. Taggart.  
CAPITOL REPORTERS (775) 882-5322

494

1 MR. TAGGART: Sadler Ranch calls Mr. Dwight  
2 Smith.  
3 MR. KOLVET: And Daniel Venturacci calls Terry  
4 Katzer.  
5 HEARING OFFICER JOSEPH-TAYLOR: For the record,  
6 we are trying to expedite time and accommodate both  
7 applicants, Sadler Ranch and Venturacci, and the parties have  
8 agreed to allow Mr. Smith and Mr. Katzer and the State  
9 Engineer has agreed to testify as a panel. Mr. Taggart will  
10 be questioning Mr. Smith and Mr. Kolvet will be questioning  
11 Mr. Katzer.  
12 MR. TAGGART: Thank you.  
13 HEARING OFFICER JOSEPH-TAYLOR: Gentlemen, please  
14 stand and be sworn.  
15 (Witnesses were sworn in)  
16 MR. TAGGART: First we'll go through  
17 qualifications.  
18 HEARING OFFICER JOSEPH-TAYLOR: You're going to  
19 qualify these gentlemen as experts?  
20 MR. TAGGART: Yes. And for the record, in  
21 Mr. Smith's CV he has a section called testimony as a  
22 qualified witness as to all the times he's been qualified.  
23 HEARING OFFICER JOSEPH-TAYLOR: I can stop you  
24 right there. Mr. Smith has been qualified here one, two,  
25 three, four, five, six times as an expert in hydrogeology. I  
CAPITOL REPORTERS (775) 882-5322

495

1 would appreciate if that's what you're going to qualify him  
2 in, having the protestants stipulate to that.  
3 MR. TAGGART: That is the subject we would ask  
4 him to be qualified in.  
5 MS. PETERSON: No objection.  
6 MS. URE: No objection.  
7 HEARING OFFICER JOSEPH-TAYLOR: Mr. Smith will  
8 be qualified as an expert in hydrogeology.  
9 And moving on to Mr. Katzer. Mr. Katzer --  
10 MR. KOLVET: His CV is also an exhibit. I  
11 believe it's 221.  
12 HEARING OFFICER JOSEPH-TAYLOR: Mr. Katzer has  
13 been qualified here as far as I know at least five times as  
14 an expert in hydrogeology. Is that what you were going to  
15 qualify him in?  
16 MR. KOLVET: Yes.  
17 HEARING OFFICER JOSEPH-TAYLOR: Any objection to  
18 Mr. Katzer being qualified as an expert in hydrogeology?  
19 MS. PETERSON: No objection.  
20 MS. URE: No objection.  
21 HEARING OFFICER JOSEPH-TAYLOR: Thank you. That  
22 saves two hours.  
23 MR. KOLVET: I would offer Mr. Katzer's CV, which  
24 I believe is 221.  
25 HEARING OFFICER JOSEPH-TAYLOR: Let me get that  
CAPITOL REPORTERS (775) 882-5322

496

1 one. Any objection to the admission of Exhibit 221,  
2 Mr. Katzer's CV?  
3 MS. PETERSON: No objection.  
4 HEARING OFFICER JOSEPH-TAYLOR: And I bet you  
5 want to do the same for Mr. Smith?  
6 MR. TAGGART: 107.  
7 HEARING OFFICER JOSEPH-TAYLOR: Thank you.  
8 Any objection to the admission of 107?  
9 MS. PETERSON: No objection.  
10 HEARING OFFICER JOSEPH-TAYLOR: Thank you,  
11 Ms. Peterson. I appreciate your cooperation. And Ms. Ure.  
12 MS. URE: Thank you.

13  
14 DWIGHT SMITH

15 Called as a witness on behalf of the  
16 Applicant, having been first duly sworn,  
17 Was examined and testified as follows:

18  
19 DIRECT EXAMINATION

20 By Mr. Taggart:  
21 Q. Mr. Smith, good afternoon. Have you prepared an  
22 expert report for this proceeding?  
23 A. Yes.  
24 Q. And I believe that's been identified as Exhibit  
25 108?  
CAPITOL REPORTERS (775) 882-5322

497

1 A. Correct.  
2 Q. And have you also prepared a rebuttal report?  
3 A. That's correct.  
4 Q. I believe that's been identified as Exhibit 189.  
5 I want to ask you initially what your main conclusions are  
6 and then we'll talk through how you reached those conclusions  
7 through your testimony.  
8 A. Okay.  
9 Q. And then at the end of that I will ask for  
10 admission of those experts reports in to evidence. So my  
11 first questions are about Shipley Springs. Did you review  
12 the historic record of flows at the springs and the current  
13 flows of water at Shipley Springs?  
14 A. I have reviewed all of the available parts of  
15 flow.

16 (The court reporter interrupts)

17 THE WITNESS: Yes, I have. I have reviewed the  
18 available reports and records of flow that we have been able  
19 to find.

20 Q. (By Mr. Taggart) And what did you conclude that  
21 the natural discharge of Shipley Spring was before  
22 development of wells in southern Diamond Valley?

23 A. Probably the main impression I would like to make  
24 on the State Engineer and the staff is that the -- when we  
25 talk about pre-development spring flow on Shipley Hot  
CAPITOL REPORTERS (775) 882-5322

498

1 Springs, it's not pre-1960s. It's actually pre-1940s.  
2 There's a history of well and groundwater development on the  
3 west side of the valley that goes back to about 1943. So I  
4 think it's important to recognize that.

5 So there's also a number of reports, some of  
6 which have been -- there's been some evidence presented by  
7 Dr. Yednock and others. But there's also some additional  
8 reports of flow that predate this time period that I also  
9 want to make sure that you're aware of.

10 The reports of flow from your office we know that  
11 there is an eight CFS visual estimate. There's notes. We  
12 have information on what the conditions were when that visual  
13 estimate was made. It wasn't a condition where there was a  
14 confined channel of flow. And we'll go through those  
15 conditions. That's the low end. Then we have reports of 15  
16 CFS. We have reports of 12 CFS, 13 CFS, 11 CFS, 12 and a  
17 half CFS. All of these reports discharge from Shipley Hot  
18 Springs, the early ones.

19 We don't have any evidence that there are  
20 actually measurements made. So you can treat them all  
21 equally in my viewpoint. Assume they're all visual  
22 estimates. What would you do as a scientist? I think we  
23 know the answer. You all make visual estimates so you're  
24 plus or minus. There you go.

25 That leads me to my conclusion that the  
CAPITOL REPORTERS (775) 882-5322

499

1 pre-development, pre-1940 discharge in Shipley Hot Springs  
2 was somewhere in the neighborhood of 11 to 12 CFS and that's  
3 the range.

4 And then I'll go on to further present some  
5 evidence that there was development of groundwater via  
6 flowing artesian wells. Not small. Substantial flowing  
7 artesian wells starting in 1943 and progressing all the way  
8 through 1960 within the proximity of Shipley within anywhere  
9 from two to five miles. So I think that all had a cumulative  
10 effect, leading up to the time frame where we actually have  
11 measurements.

12 Q. And what did you conclude is the discharge from  
13 Shipley Springs today?

14 A. Today I've been out, most recently I was out with  
15 my colleague, Mr. Katzer, in August. There have been other  
16 hydrologists out there to measure the flow in the summer.  
17 All of the flows that we measured have been less than two  
18 CFS.

19 MR. TAGGART: Thank you, Mr. Smith.

20  
21 TERRY KATZER

22 Called as a witness on behalf of the  
23 Applicant, having been first duly sworn,  
24 Was examined and testified as follows:

25 CAPITOL REPORTERS (775) 882-5322

500

DIRECT EXAMINATION

1  
2 By Mr. Kolvet:  
3 Q. Mr. Katzer, basically the same question, have you  
4 had an opportunity to examine the spring flows in the  
5 Thompson Ranch area as well as on the other side of the  
6 valley, the Sadler Ranch area?  
7 A. I have. I've looked at both sets of data. The  
8 data that Dwight and I and another hydrologist, Robert  
9 Squires, collected for General Moly between '08 and '13, is  
10 really good data. And that means that we walked the entire  
11 perimeter because there are four separate points of potential  
12 diversion. We scraped out moss and made sections wherever we  
13 had to. And we made sure that we did not have any change in  
14 storage in the pond and that's really critical.  
15 Q. Now, you're talking about the Shipley?  
16 A. I'm talking about Shipley right now, yeah.  
17 Q. And --  
18 A. And I don't know. I wouldn't say the same for  
19 the measurements that were made previous all of those years  
20 because I didn't have anything to do with them. But on these  
21 measurements that we made for General Moly, and they give me  
22 permission to publish that, I feel very confident.  
23 And the critical thing about that is that Dwight  
24 and I were at those springs back in '08 and we measured  
25 three-point-something CFS. The measurement that Bob Squires  
CAPITOL REPORTERS (775) 882-5322

501

1 made this last August was one-point-something. So there's  
2 been a two CFS decline in those few short years.  
3 On the other side of the valley, on Thompson  
4 Springs, it's been unfortunate. There's really a poor  
5 record. Jim Harrill had three measurements back in '65 and  
6 '66 and they were made by a well known hydrologist at the  
7 time. And again, it's like Shipley. There were three  
8 different orifices. It all ran in to one big pond, measured  
9 the outflow from the pond. The problem was there were  
10 diversions out of the pond. And so the measurements that  
11 were made after -- after '66, I would have very little faith  
12 in. They're probable a minimal number when you start looking  
13 at that data and trying to evaluate it. I'm sure they were  
14 all light. I'm 100 percent sure of that, but I can't prove  
15 it.  
16 HEARING OFFICER JOSEPH-TAYLOR: They were all  
17 what?  
18 THE WITNESS: Light. Thin. Low.  
19 HEARING OFFICER JOSEPH-TAYLOR: I thought you  
20 said like.  
21 THE WITNESS: Well, I did. They were light in  
22 water.  
23 HEARING OFFICER JOSEPH-TAYLOR: No. L-i-k-e is  
24 what I heard.  
25 THE WITNESS: So that's really a problem when you  
CAPITOL REPORTERS (775) 882-5322

502

1 measure these springs. I mean, it's just not a simple thing  
2 to do.  
3 Q. (By Mr. Kolvet) Would you also agree with what  
4 Mr. Smith said about the pre-development time frame?  
5 A. Absolutely.  
6 Q. Why is that?  
7 A. Well, I think estimates of flow are one thing and  
8 they're great for Recon type work when you're trying to get  
9 some idea of what's there. But the only way to really  
10 measure it is with some volumetric technique. And I think  
11 many of those measurements that Dwight talked about were just  
12 kind of eyeball measurements. I mean, there wasn't any  
13 critical thing for them to do with that at that time.  
14 Q. Okay. My question more went to when do you think  
15 there were effects being seen at Thompson Springs? What was  
16 the earlier time frame?  
17 A. I think the measurements that Bob Lamke made in  
18 '64 -- '65 and '66 already had the top taken off of the  
19 springs. When you look at some of the hydrographs in the  
20 valley, and there's a lot of them to look at, you can see  
21 '64, '65 there's just the start of the decline in the slope.  
22 And I think the head was coming off of the springs at that  
23 time.  
24 Jim Harrill published in his bulletin 35 that by  
25 1965 there was 50,000 acre-feet had been taken out of the  
CAPITOL REPORTERS (775) 882-5322

503

1 basin, cumulative amount taken out. That's a significant  
2 number to me. And there was, what, probably a couple hundred  
3 wells in that time. Most of them in the sixties, a lot of  
4 them in the sixties. And I just feel that the valley was  
5 starting to be mined at that time, over mined.  
6 Q. (By Mr. Taggart) All right. Mr. Smith, I want  
7 to start asking you specific questions about Shipley Spring.  
8 In your opinion is Shipley Spring a local spring or a  
9 regional spring?  
10 A. Shipley Spring I would call a regional spring.  
11 Q. Why is that?  
12 A. It's a thermal spring. It discharges water at  
13 about 104 degrees Fahrenheit. Also water flow today is only  
14 two CFS. In its recent past it was discharging much greater  
15 and much greater than one can support from just the local  
16 water shed that feeds it from the Sulphur Spring Ranch. So  
17 we had to have a source of water coming from some other  
18 regional source than just the tributary watershed.  
19 Q. Thank you. I want to --  
20 HEARING OFFICER JOSEPH-TAYLOR: I'm sorry, but  
21 try to talk right to her. And we've got to get you a  
22 microphone.  
23 MR. TAGGART: I'm going to ask you about Exhibit  
24 108 and what's on page two. And I'm going to hang this up on  
25 the wall behind you so every one can look at it while you're  
CAPITOL REPORTERS (775) 882-5322

504

1 talking.  
2 HEARING OFFICER JOSEPH-TAYLOR: Take it off the  
3 board.  
4 Q. (By Mr. Taggart) All right. So what is figure  
5 one?  
6 A. Figure one is a compilation of the reported  
7 discharge from Shipley Hot Spring, both reports of discharge  
8 and later measurements of discharge.  
9 Q. And in testimony so far, and I'm going to ask you  
10 about each one of the readings that are on this graph, and  
11 I'm going to move through this quickly since some of these  
12 things have already been discussed. But your first item that  
13 is listed in your legend is Romano v. Sadler, 1913. And is  
14 that based upon that information that Dr. Yednock discussed?  
15 A. That's correct. A third of the flow being five  
16 CFS, it imputes out to 15 CFS.  
17 Q. And then there's also in Exhibit 142 there's  
18 something called Eccles v. Sadler. I'm sorry. Let me  
19 restate that. On your legend you list Eccles v. Sadler,  
20 1917. And is that from Exhibit 142?  
21 A. That's Dr. Yednock's?  
22 Q. Yes.  
23 A. Yes, that's correct.  
24 HEARING OFFICER JOSEPH-TAYLOR: Doctor who?  
25 THE WITNESS: Dr. Yednock.  
CAPITOL REPORTERS (775) 882-5322

505

1 HEARING OFFICER JOSEPH-TAYLOR: Okay. I couldn't  
2 hear. Sorry.  
3 Q. (By Mr. Taggart) So that's what's shown as  
4 Eccles v. Sadler on your figure one; right?  
5 A. That's correct.  
6 Q. Then you have Payne 1912. And for that let's  
7 look at Exhibit 145. We've looked at this a number of times.  
8 What's the estimate of flow there that you placed on figure  
9 one?  
10 A. Yes. On the field notes from H.M. Payne November  
11 18th 1912, at the bottom of the first page that was  
12 exchanged, I intended to take an accurate measurement of the  
13 source but was unable to do so on account of there being a  
14 break in the dam at the reservoir.  
15 Continuing on the next page -- Excuse me. And  
16 the water not confined to any one channel. By an estimate I  
17 should place the flow of this spring at about eight  
18 second-feet or a little more.  
19 Q. All right. So that's where you got that Payne  
20 1912 on your figure one; correct?  
21 A. Correct.  
22 Q. Now, Exhibit 146 is an exhibit we have not talked  
23 about yet. Can you describe what that is?  
24 A. This exhibit has copies of water supply cards on  
25 file here at the State Engineer's office. Several of these  
CAPITOL REPORTERS (775) 882-5322

506

1 are reporting applied for diversion rates from Big Shipley  
2 Hot Spring. And there's also a copy of a card that refers  
3 back to the field notes that I just read. Again, it  
4 documents, it has recorded the measurement of the observation  
5 of Payne of eight CFS on November 18, 1912.  
6 MR. TAGGART: We would like to move admission of  
7 Exhibit 146 at this time.  
8 HEARING OFFICER JOSEPH-TAYLOR: Any objection?  
9 MS. PETERSON: 146?  
10 HEARING OFFICER JOSEPH-TAYLOR: Yes.  
11 MS. PETERSON: I just have a question about the  
12 second page of that exhibit. I didn't know who K.W. Corkill  
13 was.  
14 MR. TAGGART: Actually if I could for the record.  
15 I believe that that is not -- We asked for records from the  
16 State Engineer's office. This was on the copy that we  
17 received. This is a different water source. This is Corkill  
18 is the name there and I think it's -- I can't explain what  
19 the water source is. But I think that's a different water --  
20 a different location altogether in the state.  
21 HEARING OFFICER JOSEPH-TAYLOR: Corkill,  
22 C-o-r-k-i-l-l?  
23 MR. TAGGART: Yes. I say that partly because I  
24 know the name and it's usually associated with the Newlands  
25 Project in the Fallon area.  
CAPITOL REPORTERS (775) 882-5322

507

1 MS. PETERSON: It says Shipley or Pete Hansen.  
2 So I think the Pete Hansen is over there.  
3 MR. TAGGART: Other than that, I don't have any  
4 other -- I can't explain what that means.  
5 HEARING OFFICER JOSEPH-TAYLOR: I'm not intending  
6 to rely on page two of this exhibit?  
7 MR. TAGGART: No.  
8 HEARING OFFICER JOSEPH-TAYLOR: Then can we just  
9 pull it out if you're not going to rely on it?  
10 MR. TAGGART: Yes, we can.  
11 HEARING OFFICER JOSEPH-TAYLOR: If we pull out  
12 page two, Ms. Peterson, any objection to the admission of  
13 Exhibit 146?  
14 MS. PETERSON: No objection.  
15 HEARING OFFICER JOSEPH-TAYLOR: Mac, get rid of  
16 that page. Exhibit 146 will be admitted.  
17 MR. TAGGART: Thank you.  
18 Q. (By Mr. Taggart) Now, Mr. Smith, let's turn to  
19 Exhibit 137. This too has been discussed at length on the  
20 third page of that exhibit. This is a letter from the State  
21 Engineer. It involves Application 2679. Mr. Buschelman  
22 referred to this and this is a denial letter for that 429,  
23 2679. And in the third paragraph there's a statement, the  
24 water amount to go approximately seven or eight cubic feet  
25 per second is ditched to several parts of the ranch. This is  
CAPITOL REPORTERS (775) 882-5322

508

1 not listed separately on your chart. Can you please explain  
2 that?

3 A. My interpretation upon reading this is this  
4 letter was authored approximately ten months after Payne made  
5 his inspection of the ranch and his visual estimate. I did  
6 not find any other record of flow on the water supply card.  
7 So my interpretation was is this was referring back to the  
8 observations that had been made ten months prior.

9 Q. And is there a separate indication of an estimate  
10 of flow on that water card?

11 A. There's not.

12 Q. So again, Exhibit 146 there's a water card, the  
13 only estimate there is the one done by Payne on November  
14 18th, 1912; right?

15 A. Correct.

16 Q. So now let's move on to the next item on your  
17 figure, which is A. Sadler, 1931. Exhibit 139 has been  
18 previously admitted in to evidence. There's a page there  
19 that's marked page 319. Is that the source of this symbol?

20 A. That's correct. This was a letter that, a  
21 document that was entered in to evidence. It is a letter  
22 from 1931 that goes through and describes the characteristics  
23 and the assets, I believe, of the Sadler Ranch. And it lists  
24 spring supply 13 second-feet of water from which runs in to  
25 reservoir and ditches.

CAPITOL REPORTERS (775) 882-5322

509

1 Q. Now let's move to Exhibit 121. And you've  
2 identified on your figure USGS WSP-679-B. Was that value  
3 obtained from a document that's been marked as Exhibit 121?

4 A. That's correct. This is a publication by the US  
5 Geological Survey water supply paper 679-B entitled thermal  
6 springs in the United States.

7 Q. What year was it published?

8 A. The publication on the inside cover is 1937.

9 Q. Does it have a reported discharge for Shipley  
10 Springs?

11 A. Yes, it does. On page 162 listed as map number  
12 91-B, it's called in the first -- in the name column Sadler  
13 Springs. There's a notation in the remarks formerly Big  
14 Shipley Springs. And it's reported discharge in the column,  
15 approximate discharge gallons per minute is 5,000 gallons a  
16 minute. There are three references for data that's presented  
17 in the table.

18 Q. And how many CFS is 5,000 gallons per minute?

19 A. It's approximately 11.1 CFS.

20 Q. And what is the use of that spring as noted in  
21 the table?

22 A. It's noted as irrigation.

23 Q. In the protestant's report or expert report they  
24 state that Mifflin in a later document that we're going to  
25 get to used this value and it's actually derived from a  
CAPITOL REPORTERS (775) 882-5322

510

1 reported discharge in the late 1800s. Are you familiar with  
2 the protestant's statement like that?

3 A. Yeah. That statement is in error.

4 Q. Why is that?

5 A. The Mifflin document, Mifflin 1968 document  
6 references a source as Eakin 1962. Eakin being  
7 Reconnaissance report number six, I believe, for Diamond  
8 Valley.

9 HEARING OFFICER JOSEPH-TAYLOR: E-a-k-i-n.

10 Q. (By Mr. Taggart) And you also have in Exhibit  
11 122 -- And do you have a copy of that? I just wanted to ask  
12 you is this another publication that reports that same value  
13 that we just had on the thermal waters?

14 A. The thermal waters of the US, the 1937  
15 publication there are three references. Two of the  
16 references are from US Geological Survey's publications in  
17 the 1800s. Both of these documents acknowledge Shipley  
18 Spring as a thermal resource. But neither of those two  
19 publications that are referenced actually cite a discharge  
20 amount.

21 Q. Let's move on to the Slagowski 1937 through 1940  
22 value that you have on your figure. Is that information  
23 coming from what's been marked as Exhibit 132?

24 A. That's correct.

25 Q. Please describe that.  
CAPITOL REPORTERS (775) 882-5322

511

1 A. Dr. Yednock went through the Eureka Memories  
2 publication. And Mr. Slagowski, S-l-a-g-o-w-s-k-i, his  
3 report, and he worked on the ranch from 1937 to 1940. And  
4 his report is they have big ditches up from this huge spring.  
5 It's a big spring, about 12 second-feet of water.

6 Q. Okay. So that's where the 12 second-foot value  
7 comes from in your figure?

8 HEARING OFFICER JOSEPH-TAYLOR: In your what?

9 MR. TAGGART: In your figure, figure one of  
10 Exhibit 108.

11 THE WITNESS: That's correct.

12 Q. (By Mr. Taggart) All right. Now, if you turn to  
13 what's been marked as Exhibit 151, and this is a new exhibit  
14 that we haven't talked about yet, what is that?

15 A. This is a well schedule. It's a field card that  
16 the staff of the US Geological Survey recorded field notes on  
17 when they're out making inspections. And in this case this  
18 is the September 1961 notes by Tom Eakin and H. Winchester.  
19 They were on the Sadler Ranch at the time. They documented a  
20 well which we call the middle well on the ranch. And on the  
21 back of his note card he has also made notes on both Indian  
22 Camp Spring and Shipley Hot Spring.

23 Q. So on the back page it's a little hard to read.  
24 It looks like the letters from the front page are bleeding  
25 through on that copy. But at the bottom of that page what  
CAPITOL REPORTERS (775) 882-5322

512

1 does it say?

2 A. At the bottom it has report Shipley Hot Spring  
3 discharge about 12 and a half CFS.

4 Q. And what does it say about Indian Camp Spring?

5 A. For Indian Camp it says report discharge about  
6 two and a half CFS, present estimate discharge one and a half  
7 to two CFS. And there's also some notes on how Indian Camp  
8 Spring had been developed via some trenches both north/south  
9 and a trench east/west to collect and convey the spring  
10 water.

11 MR. TAGGART: All right. We would ask to admit  
12 Exhibit 151 at this time.

13 HEARING OFFICER JOSEPH-TAYLOR: Any objection to  
14 151?

15 MS. PETERSON: No objection.

16 HEARING OFFICER JOSEPH-TAYLOR: While we're doing  
17 that, Mr. Taggart, 121 and 122?

18 MR. TAGGART: Yes. Thank you. 121 and 122.

19 MS. PETERSON: Was the thermal?

20 HEARING OFFICER JOSEPH-TAYLOR: Yes.

21 MS. PETERSON: No objection.

22 HEARING OFFICER JOSEPH-TAYLOR: Thank you. 121  
23 and 122 will be admitted.

24 Q. (By Mr. Taggart) Now we get to Eakin 1962 on the  
25 figure. And the exhibits are marked as 276. It's also  
CAPITOL REPORTERS (775) 882-5322

513

1 Eureka County Exhibit 303. Both sides offered the same  
2 exhibit. I think we'll be using the Eureka County 303 number  
3 as we ask questions because that's the exhibit where the  
4 document actually exists. We just intended to resubmit it in  
5 an attempt to use single page to save space. So this is  
6 Eureka County 303. And if you could turn to the inside cover  
7 of the front page and please describe what that's a picture  
8 of.

9 A. There's a picture of Shipley Hot Spring. And the  
10 caption beneath the photo reads "discharge is reported to be  
11 about 15 CFS."

12 Q. And this is the publication that Eakin prepared  
13 that is in the Reconnaissance report for Diamond Valley?

14 A. That's correct.

15 MR. TAGGART: We would offer Exhibit 303.

16 HEARING OFFICER JOSEPH-TAYLOR: Any objection?

17 MS. PETERSON: No objection. I think it will be  
18 a big help.

19 HEARING OFFICER JOSEPH-TAYLOR: 303 will be  
20 admitted.

21 Q. (By Mr. Taggart) All right. Now let's skip to  
22 Exhibit 304, again Eureka County 304. And please turn in  
23 that document to page 30 through 31. And this is a report by  
24 Harrill, correct?

25 A. That's correct.  
CAPITOL REPORTERS (775) 882-5322

514

1 Q. Does he provide measurements of flow at Shipley  
2 Hot Springs?

3 A. Yes. So this is water resources bulletin number  
4 35 by Harrill and Lamke published in 1968. The section on  
5 spring discharge, page 30 in the bottom paragraph, slight  
6 discharges in spring -- slight decreases in spring discharge  
7 have occurred in both Shipley Hot Spring and Thompson Ranch  
8 Spring. These changes are interpreted as adjustments to  
9 local development or as natural fluctuations, which may  
10 represent below average precipitation in the 1950s. And the  
11 sentence continues on, but I'll end there.

12 Q. All right. And those flow readings are provided  
13 on your figure?

14 A. They are. As listed in table nine on page 31.

15 Q. And on your table you have USGS measurements and  
16 there's quite a few. But the ones between 1960 and 1970,  
17 those come from this report?

18 A. No. Only the three measurements of 1965 and  
19 1966, they're the first -- the left most red points, squares  
20 on my figure one.

21 Q. Okay. Did those come from this report?

22 A. That's correct.

23 Q. All right. Now, Exhibit 289 is the next one I  
24 want to ask you about. Do you have an indication of Mifflin  
25 1968, and does that come from what's been marked as Exhibit  
CAPITOL REPORTERS (775) 882-5322

515

1 289?

2 A. That's correct.

3 Q. And please describe that.

4 A. A publication by the Desert Research Institute at  
5 the University of Nevada, July 1968 delineation of  
6 groundwater flow systems in Nevada by M.D. Mifflin. In this  
7 document they do acknowledge Shipley Hot Spring as a regional  
8 carbonate rock source spring. In it they do refer to  
9 discharge of 6,750 gallons a minute. It's difficult to find  
10 in the documentation. But they do cite Eakin in 1962 as a  
11 data source. And so that is -- 6,750 gallons a minute is  
12 approximately 15 CFS. So I believe this document is simply  
13 sighting Eakin's 1962 report.

14 MR. TAGGART: Okay. Thank you. We offer in to  
15 evidence Exhibit 304 and 289.

16 HEARING OFFICER JOSEPH-TAYLOR: Any objection?

17 MS. PETERSON: No objection.

18 HEARING OFFICER JOSEPH-TAYLOR: Thank you.  
19 They'll be admitted.

20 Q. (By Mr. Taggart) Okay. Now let's talk about  
21 Exhibit 119. What is this report?

22 A. This report is publication bulletin number 91 by  
23 the Nevada Bureau of Mining and Geology, thermal waters of  
24 Nevada by Garside and Schilling, 1979. In it, Shipley Hot  
25 Springs is site number 103. Reported range discharge 3,000  
CAPITOL REPORTERS (775) 882-5322

516

1 to 6,750 gallons per minute. And on page 79 tabulation it  
2 cites those ranges of discharge and their sources. You'll  
3 recognize the sources, Eakin '62, Harrill 1968. There's also  
4 an additional source, Warning 1965. The Warning 1965  
5 document, however, is referring to the thermal springs in the  
6 US 1937 information.

7 MR. TAGGART: Okay. And let's move on now to --  
8 Well, let me offer Exhibit 119 in to evidence.

9 HEARING OFFICER JOSEPH-TAYLOR: Any objection?

10 MS. PETERSON: No objection.

11 HEARING OFFICER JOSEPH-TAYLOR: 119 will be  
12 admitted.

13 Q. (By Mr. Taggart) Now, where did you get the  
14 values that have been entered as USGS measurements from the  
15 late 1970s to the mid 1990s?

16 A. Uh-huh. Two sources. Measurements through 1990  
17 are reported in the USGS publication of 1995 by Arteaga and  
18 others. But all of these data, including the 1965 and '66  
19 measurements through 1994, are available on the USGS National  
20 Water Information System database, NWIS.

21 Q. Now, let me ask you about what's been marked --  
22 what is identified as GMI measurements. What are those?

23 A. These are measurements that have been made on  
24 behalf of General Moly, the Eureka Moly project, by a number  
25 of hydrologists, including Mr. Katzer, Mr. Squires, myself on  
CAPITOL REPORTERS (775) 882-5322

517

1 occasion. This is a compilation of 47 discharge measurements  
2 made between the time frame of May 7th 2008 through June  
3 12th, 2013.

4 Q. Okay. And is that -- that's identified as  
5 Exhibit 147; is that correct?

6 A. That's correct.

7 Q. And then you also have on your figure DS/TK  
8 August 2013. What is that?

9 A. Mr. Katzer and I made a site inspection and a  
10 measurement of spring discharge in August of this year. We  
11 made two different measurements. Mr. Katzer mentioned that  
12 there are four different outflow diversions out of the main  
13 pond at the time the main diversion was acted. And we made  
14 measurements of flow from the diversion out of the Shipley  
15 Hot Spring.

16 Q. All right. Now, Eureka County put in an Exhibit  
17 306 that I'm going to show you. Again, this is the only time  
18 I'll be able to ask you about this exhibit. They haven't had  
19 a chance to describe why they put it in -- why they've  
20 offered it. But I want to ask you do you recognize it?

21 A. I do.

22 Q. What is it?

23 A. This is the cover for the July 2010 report,  
24 hydrogeology numeric flow model, roundhill project, Eureka  
25 County, Nevada, and it was prepared by Montgomery  
CAPITOL REPORTERS (775) 882-5322

518

1 Associates --

2 (The court reporter interrupts)

3 THE WITNESS: Montgomery and Associates interflow  
4 hydrology and Barranca, B-a-r-r-a-n-c-a.

5 Q. (By Mr. Taggart) Now, they provided one page  
6 from that document. And what page number is that or does it  
7 have it on there?

8 A. I'm not seeing the page number.

9 Q. Is it a figure?

10 A. It is a figure.

11 Q. And this figure reports discharge at Shipley  
12 Spring; correct?

13 A. This figure reports model simulations of  
14 discharge at Shipley Hot Spring and several other springs in  
15 Diamond Valley.

16 Q. Is this -- Is this model simulation consistent  
17 with your understanding of the flow estimates at Shipley  
18 Spring that we just described?

19 A. The numeric flow model for this particular  
20 project and client does not agree very well with current  
21 Shipley Spring discharge. The spring discharge in the --

22 HEARING OFFICER JOSEPH-TAYLOR: Speak up. I lost  
23 you.

24 THE WITNESS: The simulated discharge by the  
25 model over predicts what we actually observe today and what  
CAPITOL REPORTERS (775) 882-5322

519

1 we have observed in the past several years.

2 Q. (By Mr. Taggart) What do you believe a better  
3 record of actual flow at Shipley Spring is of this model  
4 simulation or the record of measurements that we just  
5 reviewed?

6 A. Now, obviously the physical measurements dictate,  
7 when we develop a numeric model we're striving to try to  
8 match that data. So the physical measurements are the data  
9 for the spring discharge.

10 HEARING OFFICER JOSEPH-TAYLOR: Spring discharge  
11 or stream?

12 THE WITNESS: Spring discharge.

13 HEARING OFFICER JOSEPH-TAYLOR: Sorry to  
14 interrupt you, but I've got to make sure the record is made.

15 Q. (By Mr. Taggart) All right. Let's go to Exhibit  
16 108, page five, figure three. And please -- Well, have you  
17 made a prediction about what the future flows will be at  
18 Shipley Spring?

19 A. Yes, I have.

20 Q. And is that included in this figure?

21 A. Yes. Figure three in Exhibit 108 is the plot of  
22 the measurements of Shipley Hot Spring discharge from May of  
23 2008 through our field observation in August of 2013. You  
24 can see there's been a fairly rapidly decline in trend in  
25 discharge. There's variability. We can talk about that if  
CAPITOL REPORTERS (775) 882-5322

520

1 needed. But you project that trend downward and Shipley Hot  
2 Spring will have ceased the flow by about 2019.

3 Q. All right. And the measurements that you base  
4 that on are the same ones we saw on the prior figure, figure  
5 one, identified as the GMI measurements and the DS/TK August  
6 2013 measurements?

7 A. Yes. That's correct. And I should note on the  
8 right-hand column there are three measurements,  
9 September/October time frame where it's noted that well is  
10 on. We'll be entering some evidence on that. But there was  
11 a production, a production well drilled and there was pumping  
12 tests ongoing in that September/October time frame of last  
13 year.

14 Q. And so in Exhibit 147 there is a list of flow  
15 measurements, correct?

16 A. That's correct.

17 Q. And on that figure in the right-hand column  
18 there's an indication of well?

19 A. Correct.

20 Q. And those three measurements were not included in  
21 your figure three?

22 A. That's correct, they are not on the plot.

23 Q. Now I want to ask you specifically about the  
24 reliability of the historic flow estimates at Shipley Spring.  
25 And you already talked about this a bit. Obviously you're  
CAPITOL REPORTERS (775) 882-5322

521

1 familiar with the method of making measurements of flow at  
2 Shipley Spring?

3 A. Yes.

4 Q. And I have up on the screen page two of Exhibit  
5 109. This is figure one. Before I ask you any questions,  
6 what is Exhibit 109?

7 A. Exhibit 109 is entitled summary of exploration  
8 drilling and pumping test at Shipley Hot Spring, Eureka  
9 County, Nevada. It was prepared by my company, Interflow  
10 Hydrology, March of 2013. And it's a summary of the efforts  
11 that were undertaken last year by the Sadler Ranch to  
12 identify the spring discharge flow system, fault system and  
13 to complete a test production well in to that flow conduit  
14 for the spring.

15 Q. Now, using the figure that's on the screen, which  
16 is again page two from Exhibit 109, please describe for the  
17 State Engineer how measurements are taken at the spring. Do  
18 you need a pointer?

19 A. Please.

20 Q. Oh, there it is?

21 UNIDENTIFIED SPEAKER: I've got all kinds of  
22 pointers.

23 THE WITNESS: Okay. So this is a picture that  
24 Mr. Frazer took by mounting a camera on to a balloon and  
25 floating it over the Shipley Hot Spring pond, so that's why  
CAPITOL REPORTERS (775) 882-5322

522

1 the orientation is a little awkward. North you can see is  
2 oriented up to the top right corner of this figure. So on  
3 the west-hand side is where there's actually a spring seat in  
4 the bank of this pool. The pool is approximately three acres  
5 in size. And you can observe some discharge here, but it's  
6 fairly small.

7 MR. TAGGART: And here is the --

8 THE WITNESS: On the west -- the upper -- the  
9 northwest corner of the pond, the top left. What we also  
10 observe in the pool here is the western, lightly-colored  
11 areas is observe a number of orifices, they're submerged in  
12 the bottom of the pool area. So this western side is where  
13 the majority of the inflow that we understand sources the  
14 pond has derived on the west-hand side.

15 There are, as was mentioned, four diversions out  
16 of the pond. There's the southern diversion at the bottom of  
17 the photo. That's called out at the label. There is what  
18 you'll call the main channel where the primary diversion is  
19 out the eastern direction from the pond. And then there are  
20 two northern diversion channels out of the pond.

21 Q. (By Mr. Taggart) Now, when you make measurements  
22 of flow at this spring you can't actually measure the amount  
23 of flow that comes out of the ground directly, right?

24 A. That's correct. You have to measure the  
25 discharge at the time that you're out at all four of these  
CAPITOL REPORTERS (775) 882-5322

523

1 outfalls. So the combined discharges at that point in time,  
2 the discharge of pond. If the pond stage is not equivalent,  
3 this is an active source of irrigation. If the pond is  
4 filling or lowering, that's going to affect your discharge  
5 measurement.

6 Also, one thing that's important to know is the  
7 inverts for these are not all the same. The northern  
8 discharge requires a higher pond level to get a volume of  
9 irrigation water out. And in fact today they can no longer  
10 get irrigation water out of these northern channels. And  
11 part of the reason -- I believe we may discuss this later --  
12 is there's only about one foot, one to one and a half foot of  
13 artesian head on the spring source as of this summer.  
14 There's very little head driving spring discharge presently  
15 at Shipley Hot Spring. So they have lost the ability to  
16 raise the pond level high enough. But again, this is  
17 submerged or for this spring system.

18 So also this is important for all to put this in  
19 context on all the historic measurements. They have to raise  
20 the pond level to get water out the northern diversion or to  
21 some degree out of the southern diversion. That puts more  
22 pressure, back pressure on the spring system. It affects the  
23 spring discharge. So if you're diverting out of the main  
24 channel out to the east, that can operate at a little lower  
25 stage. There's less pressure than you would expect and  
CAPITOL REPORTERS (775) 882-5322

524

1 hydraulically more spring discharge if you're diverting out  
2 of that. And it's assuming that the pond is all  
3 equilibrated. That's the other thing too.

4 So it is complicated and the actual discharge is  
5 dependant upon how the spring water is being diverted out at  
6 a time.

7 Q. Are you aware of whether water escapes underneath  
8 the dam or gets around where water is measured?

9 A. Well, you do observe the dam is on the southern  
10 edge and wraps around a pond here, actually southeastern, but  
11 on the bottom of the figure. And there is, as with a lot of  
12 dams, there's seepage out the toe. Normally we don't assign  
13 any outflow to that source of seepage.

14 Q. If there is seepage in that location, it would  
15 not be included in an estimate, right?

16 A. I have not and I don't believe hydrologists for  
17 General Moly have included that as an additional component.

18 Q. In reviewing the documents that Harrill prepared  
19 that we have in evidence, did he ever remark about the  
20 difficulty of making measurements or the reservoir operations  
21 at this spring?

22 A. Yes. And I believe, Mr. Taggart, you're  
23 referring to the 1982 testimony by Mr. Harrill?

24 Q. The 1982 memo.

25 A. Oh, I'm sorry. The 1982 memo.  
CAPITOL REPORTERS (775) 882-5322

525

1 Q. If you don't recall that, that's fine. I can --

2 A. I can skip to that if you'd like.

3 Q. It's okay. We'll get to it in a minute. The  
4 factors you just described, what the irrigation practice is,  
5 whether the water is going underneath the dam, the head, do  
6 all of these factors influence the ability to make a visual  
7 estimate of the actual flow at the spring?

8 A. It would be very -- It would be very difficult.  
9 You know, we all make visual estimates at times. In fact, a  
10 lot of times we'll make them before we make the real estimate  
11 and see how accurate we are. But having to look at multiple  
12 sources, sometimes you might make a visual estimate if  
13 there's only a small amount of flow, a tenth or two-tenths of  
14 CFS flowing north, we'll make a visual estimate on that. But  
15 visual estimates are there.

16 Q. (By Mr. Kolvet) Mr. Katzer, you just heard the  
17 testimony regarding measuring spring flows. Do you concur or  
18 disagree with the fact that they're difficult to make?

19 A. Dwight just wrote the manual. They're very  
20 difficult to make, they are.

21 Q. Did you in fact do some of the measurements that  
22 have been referenced here today?

23 A. I did.

24 Q. Which ones did you do?

25 A. My initials are there on the sheet scattered  
CAPITOL REPORTERS (775) 882-5322

526

1 throughout. I was there many times with Bob Squires and with  
2 Dwight a couple times.

3 Q. And the time frame?

4 A. Between '08 and '13.

5 Q. And did you have difficulty making accurate  
6 measurements during that time?

7 A. No, I didn't have difficulty.

8 Q. You weren't making them?

9 A. I was making them. They're really difficult to  
10 make. Sometimes you get caught with moss and you start all  
11 over. It's not a simple thing to do.

12 Q. (By Mr. Taggart) Okay. Mr. Smith, you indicated  
13 before that you concluded that the flow at Shipley was  
14 between 11 and 12 CFS prior to the 1940s?

15 A. Correct.

16 Q. How did you factor the reliability of the flow  
17 estimates in to that conclusion?

18 A. Well, again, in my initial statement, we don't  
19 know for certain that any of these are actually measurements.  
20 We know for certain that the initial, the lowest estimate  
21 from 1912 was a visual estimate. We don't know the source.  
22 I would like to believe that the USGS publication. I  
23 mentioned there were three sources. The other source is data  
24 on file with the USGS. They're not on file in Carson City  
25 because I looked. And the problem is Carson City records  
CAPITOL REPORTERS (775) 882-5322

527

1 here only go back to about 1940. This publication is 1937.

2 So again, but we have no direct evidence that any  
3 of these measurements between eight and 15 CFS were actually  
4 measurements. I like to believe that some of those were  
5 measurement-based. But taken all equally, if you have half a  
6 dozen estimates of flow, say they're all estimates, what's  
7 the most accurate estimate? And this is kind of a basic  
8 principle of statistics. You take a group of kids and you  
9 ask them how many marbles in a jar and you take the average  
10 of them all and almost every time they are almost exactly on.  
11 When you have a bunch of estimated numbers, the best  
12 available scientific estimate is the average. And I think  
13 that -- I feel better, but that turns out to be exactly where  
14 the 1937 USGS publication puts the spring discharge at  
15 approximately 11 to 12 CFS.

16 Now, there's some physical basis to my  
17 interpretation too, because then you would ask, well, why  
18 were measurements begun in the mid-sixties and not  
19 documenting that much flow. I think there's a good physical  
20 basis for that also.

21 Q. Right. And we'll get in to that. All right.  
22 Now I want to ask you about Indian Camp Spring real quickly.  
23 Is there a reported flow at Indian Camp Spring? I'll show  
24 you --

25 A. Yes. Harrill -- Again, we mentioned that Eakin's  
CAPITOL REPORTERS (775) 882-5322

528

1 1961 visual estimate of the discharge one and a half to two  
2 CFS. Harrill also visited Indian Camp Spring and made  
3 measurements.

4 Q. I'm going to show you Exhibit 304 on page 31,  
5 table nine from Harrill, 1968.

6 A. So basically in table nine, Indian Camp Spring is  
7 not labeled Indian Camp Spring. It's labeled an unnamed.  
8 But that is the correct township, range and the section and  
9 quarter section. So Township 24 north, Range 52 east,  
10 Section 26 D. That is Indian Camp Spring. So Mr. Harrill  
11 reports two discharge measurements, one in 1965, one in 1966  
12 of 0.66 and 0.82 CFS.

13 Q. Do you recall what Eakin noted the flow at Indian  
14 Camp Spring was?

15 A. Again, his, on the back of his field card was one  
16 and a half to two CFS as a visual estimate.

17 Q. Do you know when Indian Camp Spring went dry?

18 A. We can make an approximation based on the aerial  
19 photography, which places cessation of flow at Indian Camp  
20 Spring between the mid eighties to perhaps the early nineties  
21 time frame.

22 Q. Do you know if Indian Camp Spring was ever  
23 improved? In the protestant's reports they've made  
24 statements indicating that Indian Camp Spring was improved.

25 Do you recall those statements?  
CAPITOL REPORTERS (775) 882-5322

529

1 A. Yes.

2 Q. And do you have any knowledge of whether that's  
3 true?

4 A. You can also bracket the time frame on the  
5 improvement. If you look at the 1950s aerial photography and  
6 1940s, you'll see that Indian Camp Spring was a spring line  
7 of about a dozen seeps along a probable fault. So somewhere  
8 between early fifties photography and when Mr. Eakin visited  
9 in 1961 there had been a trenching effort to where they had  
10 trenched along the spring line to better collect that flow  
11 and then also trenched out east, I presume, to then convey  
12 that flow out towards the irrigated lands.

13 Q. And were there other springs between Shipley  
14 Spring and Indian Camp Spring?

15 A. There were. And Mr. Frazer, we presented some of  
16 his photography on that. There was actually about a quarter  
17 mile to the south what appears to be a fairly substantial  
18 spring pool there. It was actually labeled on the  
19 topographic map and still is labeled as Big Shipley Hot  
20 Spring. It's not, but there was a spring source there also.  
21 And there's pipes in evidence that it was also somehow  
22 utilized for -- on the ranch.

23 Q. I'm going to show you what's slide 62 from  
24 Exhibit 617. And that's that time series that you just  
25 described. Is that the time series you just described?  
CAPITOL REPORTERS (775) 882-5322

530

1 A. Yes. That shows the -- As Mr. Frazer pointed  
2 out, there were other springs also. A spring seep line to  
3 the south. Another spring out to the east a little further.  
4 So there were a number of springs in this area.

5 Q. All right. And are those two water located --  
6 those springs or seeps or whatever you call them, are they  
7 dry today?

8 A. They are dry with the exception of, I believe I  
9 recall visiting the eastern -- the eastern most seep. And I  
10 believe there is still a very small amount of pooled water --

11 HEARING OFFICER JOSEPH-TAYLOR: I couldn't hear  
12 the end. A very small amount of pooled water?

13 THE WITNESS: Of pooled water and a little bit of  
14 riparian vegetation.

15 MR. TAGGART: And at this time I'm going to turn  
16 it over to Mr. Kolvet who's going to ask some questions about  
17 the other side of that.

18 MR. KOLVET: Mr. Katzer, have you prepared a  
19 summary of your testimony in this matter? And I would refer  
20 to you Exhibit 201.

21 HEARING OFFICER JOSEPH-TAYLOR: I'm going to hold  
22 you up two seconds, Mr. Kolvet.

23 Mr. Taggart, let's get your exhibits in.

24 MR. TAGGART: Thank you.

25 HEARING OFFICER JOSEPH-TAYLOR: Let's start with  
CAPITOL REPORTERS (775) 882-5322

531

1 147.

2 I'm sorry, Mr. Kolvet.

3 MR. TAGGART: Yes, we'd like to offer 147 in to  
4 evidence.

5 HEARING OFFICER JOSEPH-TAYLOR: Any objection?

6 MS. PETERSON: No objection.

7 HEARING OFFICER JOSEPH-TAYLOR: 147 will be  
8 admitted. 108 and 109.

9 MR. TAGGART: That we'll wait until he's done.  
10 And 109 we have more work on. 108 is his expert report.

11 HEARING OFFICER JOSEPH-TAYLOR: 306.

12 MR. TAGGART: 306 I'll wait and see if Eureka  
13 County uses it.

14 HEARING OFFICER JOSEPH-TAYLOR: Thank you.

15 Go ahead, Mr. Kolvet.

16 Q. (By Mr. Kolvet) Mr. Katzer, my question to start  
17 was had you prepared a summary of your testimony?

18 A. Yes, I have.

19 Q. And that would be Exhibit 201; is that correct?

20 A. 201, that's correct.

21 Q. And you also prepared a rebuttal report, is that  
22 also correct?

23 A. That's correct.

24 Q. And if I can find that. 263, would that be your  
25 rebuttal report?

CAPITOL REPORTERS (775) 882-5322

532

1 A. I don't know the number. That sounds right.  
2 HEARING OFFICER JOSEPH-TAYLOR: Yes, 263.  
3 THE WITNESS: Yes.  
4 MR. KOLVET: I would offer both of those.  
5 HEARING OFFICER JOSEPH-TAYLOR: Any objection?  
6 MS. PETERSON: No objection.  
7 HEARING OFFICER JOSEPH-TAYLOR: Thank you. 263  
8 and 201 will be admitted.

9 Q. (By Mr. Kolvet) Mr. Katzer, in preparing that  
10 report, did you analyze various spring flows in the Diamond  
11 Valley area?

12 A. I did.

13 Q. What did you analyze?

14 A. Well, I looked -- I looked mostly at Thompson  
15 Spring, but I also looked at Shipley because you have to look  
16 at both of the springs in the valley because they both have  
17 been severely impacted by over pumping.

18 Q. When you say they've been impacted by over  
19 pumping, what do you base that on?

20 A. Well, just on the amount of water that's been  
21 taken out of the valley that greatly exceeds the perennial  
22 yield. I think it's a pretty well known fact that Diamond  
23 Valley is over pumped. And the irrigators in the south  
24 subarea are responsible for taking all of that water. And  
25 the cone of depression has spread to Shipley Hot Springs and  
CAPITOL REPORTERS (775) 882-5322

533

1 also to Thompson Springs.

2 Q. And does that cone of depression being spread in  
3 those directions affect the spring flows in this location?

4 A. Yes, it does. And this started a long time ago.  
5 And this is kind of like déjà vu because it's like the  
6 carbonate aquifer memo. Pete Morros called me one day when I  
7 was acting district chief with the GS and he wanted to send  
8 Jim Harrill out to Diamond Valley because Jim was the most  
9 knowledgeable person in the office to do a field  
10 investigation. So Jim went out and spent a couple days out  
11 there. Came back and wrote a memo. And that's Exhibit 202.

12 I put a letter on -- letter to it, sent it to --  
13 sent it back to Pete with Jim Harrill's remarks. And I'd  
14 like to read the -- read the part of my letter. This is  
15 Exhibit 202. And it's not in the present exhibits, the  
16 exhibit list for the board, but it's in the hard copy. The  
17 conclusions we have reached are essentially the same --

18 HEARING OFFICER JOSEPH-TAYLOR: Slow down.

19 THE WITNESS: -- as those discussed in water  
20 resources bulletin 35, page 30 and 50, 52. Sustained pumping  
21 from the south diamond subarea is probably responsible for  
22 the general decrease in water levels and spring discharge.  
23 Accelerating this condition is the combined effect of the  
24 discharge from the shot holes in the 1976-77 drought.

25 Fast forward 31 years later, I would write that  
CAPITOL REPORTERS (775) 882-5322

534

1 differently. I wouldn't say that the pumping in the south  
2 has probably impacted the springs. I would say it has  
3 impacted the springs. I don't think there's any doubt that  
4 that's happened.

5 HEARING OFFICER JOSEPH-TAYLOR: What's the date  
6 on that letter, Mr. Katzer?

7 THE WITNESS: April 5th 1982.

8 HEARING OFFICER JOSEPH-TAYLOR: That is Exhibit  
9 203?

10 THE WITNESS: Correct.

11 MR. KOLVET: I would offer 203 at this point.

12 HEARING OFFICER JOSEPH-TAYLOR: Any objection?

13 MS. PETERSON: No objection.

14 HEARING OFFICER JOSEPH-TAYLOR: It's admitted.

15 MR. KOLVET: And Exhibit 202 as well.

16 HEARING OFFICER JOSEPH-TAYLOR: 203 will be  
17 admitted. Any objection to Exhibit 202?

18 MS. PETERSON: No objection.

19 HEARING OFFICER JOSEPH-TAYLOR: 202 will be  
20 admitted.

21 Q. (By Mr. Kolvet) With respect to the impacts on  
22 spring flow as you've kind of summarized that, what did you  
23 do to determine if that was in fact the current at Thompson  
24 Springs?

25 A. Well, Thompson Springs is a real difficult one  
CAPITOL REPORTERS (775) 882-5322

535

1 because there's very little data. There was never a recorder  
2 in the spring to measure the flow on a continuing basis.  
3 There are just a series of miscellaneous measurements that  
4 were made. And I talked a few minutes ago about the  
5 measurements made in '65 and '66 by Robert Lamke.

6 And then there's a big, big blank area. And the  
7 measurements don't start again until the early eighties. And  
8 then they start making several measurements out there.

9 Q. Before we get too far, 204 is up on the screen  
10 right now. That's a map of the Diamond Valley; is that  
11 right?

12 A. Right.

13 Q. And Thompson Spring, Thompson Ranch Spring is  
14 designated; is that correct?

15 A. Right here. Shipley is over here. And then  
16 there are a couple wells that I want to talk about. And then  
17 of course there's the plays.

18 Q. Okay. Now, Exhibit 205, let's skip to that.  
19 205. Where is 205?

20 A. That was that second one you had up there.

21 Q. Seven. We don't have 205?

22 A. Oh, you don't. 204 and 205 are listing of  
23 discharge measurements for Shipley and for Thompson Springs.

24 Q. And what was the source of those exhibits?

25 A. Well, the one for Shipley Hot Springs are the  
CAPITOL REPORTERS (775) 882-5322

536

1 measurements that Dwight and I and Bob Squires made for GMO.  
2 The measurements for Thompson Springs come out of the USGS  
3 database, NWIS.

4 Q. Do you have that exhibit in front of you, 205?

5 A. I do.

6 Q. I didn't tell --

7 (The court reporter interrupted)

8 MR. KOLVET: I misspoke on the exhibit number. I  
9 meant to refer him to Exhibit 206.

10 Q. (By Mr. Kolvet) What does 206 show us?

11 A. What this shows you is a series of measurements  
12 that were made and it shows what the spring flow is  
13 responding to a pretty good series of water years in the  
14 early eighties, '82, '83, '84. And so the measurements that  
15 Thompson show, I think, a high of about I think it's four CFS  
16 and then they taper back off. And these are in response to  
17 the big water years.

18 Q. Prior to the eighties what were the measurements  
19 if you're aware of the spring flow from Thompson?

20 A. None. There were none -- no measurements that I  
21 know of, at least made by the GS.

22 Q. Any others that you've been able to locate?

23 A. No.

24 Q. By 1982, which is the first year on Exhibit 206,  
25 had there been pumping in the valley?  
CAPITOL REPORTERS (775) 882-5322

537

1 A. 1982?

2 Q. Yes.

3 A. Considerable. Could we -- One more.

4 Q. Okay. What is 208?

5 A. 208, Dwight prepared this for me. A series of  
6 three narrowly parallel lines. And they show the amount of  
7 water that was used, the amount of groundwater that was used  
8 in the whole south diamond subarea. There's three curves  
9 there. And the first one, the red one, represents a four  
10 foot duty of water. The green one represents 2.5 ET plus ten  
11 percent. And the third one is just 2.5.

12 And the only reason I show these is I wanted to  
13 show what was happening to the groundwater system in the  
14 19 -- as time goes by. But the very first -- first thing you  
15 can look at is like 1965. And you can see that they had  
16 10,000 that year. By 1970 they were up to -- they were  
17 probably nearly a little over 30,000. And then ten years  
18 later, another decade, they had increased by another 30,000.  
19 And this is actual pumpage.

20 And rather, and I don't know if the ET is 2.5 or  
21 2.5 plus ten percent, but what I do know is that the volumes  
22 of water are massive that were taken out of storage. They  
23 were all taken out of storage. And at the same time, the  
24 same time I have this pumpage you also have ET going on. So  
25 not only do you have, say, 30,000 acre-feet going out in any  
CAPITOL REPORTERS (775) 882-5322

538

1 one given year from pumpage, but you also have another, I  
2 don't know, another 30,000 for a while until the cone of  
3 depression finally started to capture some of that  
4 groundwater. So it was a massive amount of water. And this,  
5 I believe, is what caused the decline in spring flow and the  
6 drying up of the springs.

7 Q. In the case of Thompson Springs, do you see the  
8 gradual decline in spring flows in Exhibit 206?

9 A. Well, it's really hard to see.

10 Q. 206 is the spring flows?

11 A. Next one. Whoa, right there. Here's two wells  
12 that I pointed out on the map. The upper one is about two  
13 and a half to three miles north of the Thompson Ranch on the  
14 east side of the valley. The lower one is about two and a  
15 half to three miles south of the ranch. And this is the  
16 available record. And that comes out of a variety of the  
17 data bases. But the upper one has a decline of about, it's  
18 about six to eight feet over that period of time. But during  
19 the early sixties it was just barely starting to decline.

20 The one that has the really steep slope, the  
21 southern one, has a decline of around, I think it's around 54  
22 or 55 feet through time.

23 So in between then, we have Thompson Springs  
24 sitting there. And the water level is still going down. Not  
25 only have the springs dried up, but when Dwight and I were  
CAPITOL REPORTERS (775) 882-5322

539

1 there in '08, we measured, at Thompson's main spring by the  
2 house we measured a little over six feet to the water table.  
3 You can still see the water table.

4 When we went back this last August, you couldn't  
5 see any water was gone. But there was a little pond out away  
6 from the house about 150 feet or so where he had -- where  
7 Milton had dug down to the groundwater table. And that  
8 had -- We ran a level between him and it told us that the  
9 groundwater level had dropped an additional two feet.

10 So, I mean, I think these lines relatively tell  
11 the whole story that the springs have dried up because the  
12 head was taken off of them. I mean, that water even though  
13 it's geothermal is part of the basin's groundwater supply.  
14 You've got to have the recharge in the mountain block to get  
15 that water in there. The circuitous route that it takes will  
16 drive you crazy trying to figure it out. I mean, it's got to  
17 go down at -- Geochemists have told me that if you have 72,  
18 75 degree water it's got to go down two to 3,000 feet. And  
19 of course, it depends on what is supplying that water,  
20 whether it's coming out of some volcanic magma or if it's  
21 just the general heat, and I can't speak to anything like  
22 that.

23 I think conceivably that water might be coming  
24 off of Diamond Peak. It wouldn't surprise me a bit to see it  
25 come -- if you could track it down through the bedrock, down  
CAPITOL REPORTERS (775) 882-5322

540

1 through fractures and faults in to the -- almost to the  
2 valley fill and it hits the mountain front fall and flows to  
3 the north. Now, it's probably losing water all the time  
4 and/or gaining basin water because it's not very hot. I  
5 mean, it's warm water. And as I think all the wells, all the  
6 water on the east side have an elevated temperature; right?

7 MR. SMITH: Just the springs.

8 THE WITNESS: I mean just the springs. So I  
9 think that's pretty common out there. How it gets there, I  
10 don't know. But it is basin groundwater. It is basin  
11 groundwater.

12 And back to that '82, '83 bit, '84, I looked just  
13 very briefly at the discharge of Lamoille Creek near  
14 Lamoille, and that's not too far north of Diamond Valley.  
15 And '82, '83 and '84 are the three back-to-back years of  
16 record for that stream. I mean, it was a big stream, all  
17 across Nevada. Storms, I mean. And that's why those streams  
18 have come back briefly. And then the flow died off in -- I  
19 think they were dry by the early nineties, I would have to  
20 look at the record.

21 Q. (By Mr. Kolvet) Currently Thompson Springs is no  
22 longer flowing; is that correct?

23 A. That's true.

24 Q. And have you examined any other springs in the  
25 vicinity of Thompson Springs?  
CAPITOL REPORTERS (775) 882-5322

541

1 A. I have. Cox Ranch Spring. There used to be a  
2 big spring there. You can see the big spring depression.  
3 And that's north of -- north of Thompson Spring a little bit.  
4 And the next one. This is a shot of the Cox  
5 Ranch house that burned down. But back in 1957 I lived there  
6 for about a month. And I was with geology summer camp at the  
7 time. And we used to take baths in Shipley Hot Springs. But  
8 anyway, that's just moot. I couldn't resist taking that  
9 picture.

10 Q. You're referring to Exhibit 214?

11 A. Yes.

12 Q. Exhibit 215 is labeled Box Spring. Where is that  
13 located?

14 A. North of Cox Ranch Springs, still on the east  
15 side. And this is -- I think this one -- Yeah, ten to 15  
16 feet water table below land surface. And that was just an  
17 estimate. So there's still water there but it's -- and the  
18 springs, the springs even though they've dried up at the  
19 surface, the only reason they've done that is because the  
20 composite head that drives them is gone. The spring water is  
21 still coming in to the valley. No question about that. I  
22 mean, where is it going to go? It's not backing up in to the  
23 mountain range and spilling over. And it's still discharging  
24 in to the valley. Whatever was coming in back those days is  
25 still coming in today. It's still flowing. It's just that  
CAPITOL REPORTERS (775) 882-5322

542

1 it's not flowing to the surface because the head has been  
2 taken off the springs.

3 Q. And so the applications that are pending for  
4 Mr. Venturacci, to mitigate the loss of the spring source  
5 would be tapping in to that same source of recharge?

6 A. Yes, it would be the same source, that's correct.

7 Q. 216?

8 HEARING OFFICER JOSEPH-TAYLOR: 216.

9 MR. KOLVET: 216, what is this?

10 THE WITNESS: This is the last half of our day  
11 there Dwight and I drove down the west side of the valley in  
12 company with the owners of the Sadler Ranch. This is Siri  
13 Ranch Springs. And you can see it's sort of like the Cox  
14 Ranch Springs. There's a big depression there where the  
15 spring flow used to be. It's gone now. Indian Camp Springs  
16 the same.

17 And in all of these springs, the ones we're  
18 looking at now and the ones on the other side on the Thompson  
19 side of the valley, they're all really dark, dark soils,  
20 really organic. And Doug talked about that yesterday about  
21 how it's really rich stuff. I mean, you can put that in your  
22 garden and grow a great garden, I'm sure. But clearly  
23 there's no water there.

24 MR. KOLVET: I'll save some additional questions  
25 for later and let Mr. Taggart take over.  
CAPITOL REPORTERS (775) 882-5322

543

1 HEARING OFFICER JOSEPH-TAYLOR: Do you want to  
2 take care of any of your exhibits?

3 MR. KOLVET: Oh, yeah. Thank you. I think we've  
4 got 202 and 203 in the record.

5 HEARING OFFICER JOSEPH-TAYLOR: Yes.

6 MR. KOLVET: 204 is just a map. 205 and 206 even  
7 though he hasn't testified about 205 it's part of the  
8 exhibits that are in his report, which is 201.

9 HEARING OFFICER JOSEPH-TAYLOR: Any objection to  
10 the admission of 204, 205 and 206?

11 MS. PETERSON: None.

12 HEARING OFFICER JOSEPH-TAYLOR: They'll be  
13 admitted.

14 208.

15 MR. KOLVET: 208 I'd offer.

16 HEARING OFFICER JOSEPH-TAYLOR: Any objection to  
17 208?

18 MS. PETERSON: No objection.

19 HEARING OFFICER JOSEPH-TAYLOR: It will be  
20 admitted.

21 MR. KOLVET: And the 209, the graph of the well  
22 declines.

23 HEARING OFFICER JOSEPH-TAYLOR: Any objection to  
24 209?

25 MS. PETERSON: I'm sorry. Which one is 209?  
CAPITOL REPORTERS (775) 882-5322

544

1 MR. KOLVET: It's the graph showing the wells  
2 below and above north and south.  
3 MS. PETERSON: No objection.  
4 HEARING OFFICER JOSEPH-TAYLOR: 209 will be  
5 admitted. 14 and 16.  
6 MR. KOLVET: 14 and 16, thank you.  
7 MS. PETERSON: No objection.  
8 HEARING OFFICER JOSEPH-TAYLOR: 214 and 216 will  
9 be admitted.  
10 MR. KOLVET: And I think we offered -- I'd offer  
11 215 too. That was the Box Spring photograph.  
12 MS. PETERSON: No objection.  
13 HEARING OFFICER JOSEPH-TAYLOR: Thank you. 215  
14 will be admitted.  
15 MR. KOLVET: And 217.  
16 HEARING OFFICER JOSEPH-TAYLOR: Any objection?  
17 MS. PETERSON: No.  
18 HEARING OFFICER JOSEPH-TAYLOR: 217 will be  
19 admitted.  
20 Mr. Taggart.  
21 MR. TAGGART: Thank you.  
22 Q. (By Mr. Taggart) Again, I'm going to endeavor to  
23 go through this next section quickly, so I might describe a  
24 little bit more than I normally would of what's in an exhibit  
25 and just ask you to confirm that.  
CAPITOL REPORTERS (775) 882-5322

545

1 A. Okay.  
2 Q. And so the next section I'm going to ask you  
3 about is the over appropriation in Diamond Valley. First of  
4 all, Exhibit 287 is the power point that we had put in to  
5 evidence earlier from the State Engineer. On page 17 of that  
6 document there is an indication of the perennial yield of  
7 Diamond Valley being 30,000 acre-feet. Do you see that?  
8 A. Yes.  
9 Q. And I want to turn you to Exhibit 303. We're  
10 going to talk about just the origin of that perennial yield  
11 estimate briefly. In Exhibit 303, this is the 1962  
12 Reconnaissance report, number six, by Tom Eakin. This had a  
13 perennial yield estimate in it; is that correct?  
14 A. That's correct. 23,000 acre-feet annually.  
15 Q. All right. And then in Exhibit 277, which is the  
16 1968 Harrill water resources bulletin 35 for the USGS, does  
17 he have also perennial yield estimate?  
18 A. He does. And that is the currently utilized  
19 estimate of 30,000 acre-feet annually.  
20 Q. What is the reason for the difference in the --  
21 the main reason for the difference between the two estimates?  
22 A. The main reason is Harrill quantified what he  
23 felt was an inflow, an interbasin flow from the Pine Valley  
24 hydrographic area and specifically the Garden Valley subarea  
25 in to northern Diamond Valley. And he -- his estimate of  
CAPITOL REPORTERS (775) 882-5322

546

1 that inflow was 9,000 acre-feet annually. And that is the  
2 largest difference between the two estimates.  
3 Q. And now I want to ask you about the permitted  
4 rights in Diamond Valley. And again, referring to that State  
5 Engineer power point, Exhibit 287, this time at page 17.  
6 They indicate there that 133,000 acre-feet, 133,248 acre-feet  
7 of committed groundwater resources exist in Diamond Valley;  
8 is that right?  
9 A. That's correct, as of the March 2009 date of that  
10 presentation.  
11 Q. And do you know if that value is supplementally  
12 adjusted?  
13 A. It indicates that it is.  
14 Q. And what does that mean?  
15 A. In this context it's not referring to adjustments  
16 of water rights. It had varying sources. Sometimes we have  
17 groundwater being supplemental to surface water, for example.  
18 In this case it's basically considering the combined duties  
19 that have been issued for groundwater. So if you have  
20 multiple wells, providing a source of water to an irrigated  
21 area, sometimes those permits are combined for a total  
22 combined duty. And so I believe this number reflects that  
23 adjustment.  
24 Q. Now, in your Exhibit 108 in your report, there's  
25 a Figure 4 on page ten. And does that figure demonstrate the  
CAPITOL REPORTERS (775) 882-5322

547

1 permitted rights in Diamond Valley?  
2 A. Yes. And of course I made this plot as of this  
3 year, 2013. And the total number is as of the time of this  
4 compilation is 131,000 plus some change acre-feet annually.  
5 Q. Okay. And this indicates a large increase in  
6 early 1960's. Do you know what caused that increase in  
7 permits?  
8 A. Yes. There has been a little bit of testimony  
9 about the desert land entry efforts to cultivate public lands  
10 and convert them to private ownership. So there is a large  
11 scale movement and a large scale submittals or attempts to  
12 perfect desert land entries.  
13 Q. And what's your understanding of why so many  
14 permits ended up being granted in Diamond Valley?  
15 A. Right. There normally -- And this is described  
16 in some detail by Hugh A. Shamberger, Memoirs of a Nevada  
17 Engineer and Conservationist. Basically my understanding is  
18 a lot of these applications and attempts to develop lands,  
19 patent lands under the desert land entry have failed. It  
20 took substantial effort to develop groundwater and start an  
21 agricultural effort to cultivate lands. Most of the time  
22 these were not successful in Nevada.  
23 Mr. Shamberger indicated that about nine out of  
24 ten failed, but that did not happen in Diamond Valley. So  
25 the state -- My understanding is at the time, late fifties,  
CAPITOL REPORTERS (775) 882-5322

548

1 early 1960s, the state was issuing permits to applications  
2 because that was part of the process of the desert land  
3 entries, but probably with the expectation that a lot of  
4 these were never actually purchased.

5 Q. And I'd like to ask you, there's an Exhibit 294,  
6 is that that Shamberger history that you talked about?

7 A. That's correct.

8 Q. All right. Now I want to ask you about pumpage  
9 in Diamond Valley and again starting with that power point  
10 the State Engineer had, Exhibit 287, this time page 35. It  
11 indicates that in 1990 there was 64,400 acre-feet pumped in  
12 Diamond Valley; correct?

13 A. Yes. And I believe that's citing work by Arteaga  
14 1995.

15 Q. And then on page 37 of that report. I'm sorry.  
16 That power point, it indicates that in 2008, 72,568 acre-feet  
17 was pumped; right?

18 A. That's correct. I should note that in the  
19 state's presentation they had been through a number of  
20 different ways to try to assess what's the actual pumped  
21 quantity. In the plot of pumpage and consumptive use that  
22 Mr. Katzer testified to just briefly for me, I assumed that  
23 there's the water right duty of four acre-feet per acre in  
24 that total pumpage.

25 In actuality, I think what we see in a more  
CAPITOL REPORTERS (775) 882-5322

549

1 detailed investigation is the real quantity pumped is  
2 probably more like three feet. It looks like the numbers  
3 range from 2.9 to maybe 3.2 as far as physical quantities of  
4 water pumped. And that needs to be differentiated from the  
5 groundwater consumed by agriculture, which is a number below  
6 that.

7 Q. And you referred to your report, Exhibit 108,  
8 page 11, here's this chart again that Mr. Katzer talked  
9 about. This is your representation of pumpage in the valley;  
10 right?

11 A. That's correct. So the states would use an  
12 estimate of three feet of groundwater pumped. It would fall  
13 between the upper red four feet water right duty and the  
14 intermediate green line for quantities of the best available  
15 estimate of the quantities physically pumped.

16 Q. And in what's been marked as Exhibit 290, it's  
17 their USGS report by an author Arteaga. Did he also estimate  
18 pumpage in Diamond Valley?

19 A. He did. And I should note that a basis for a lot  
20 of these estimates is actually the crop inventories conducted  
21 by the state.

22 HEARING OFFICER JOSEPH-TAYLOR: Spell Arteaga for  
23 the court reporter. I know she's going to ask.

24 THE WITNESS: A-r-t-e-a-g-a.

25 HEARING OFFICER JOSEPH-TAYLOR: Thank you.  
CAPITOL REPORTERS (775) 882-5322

550

1 THE WITNESS: So the basis for a lot of this  
2 comes from the state's own crop inventory data. So they in  
3 many years starting in the early sixties went out and  
4 assessed estimated acreages actually being cultivated in that  
5 year.

6 Q. (By Mr. Taggart) So is it your understanding  
7 that all of these estimates of pumping are based upon the  
8 starting factor of acreage that was irrigated?

9 A. That's correct.

10 Q. And that's been determined from field  
11 investigations of acres irrigated in a given year?

12 A. Crop inventories. And again, I believe in recent  
13 work the state has possibly looked at some land sat imagery  
14 in their other basis for proving up their field estimates.

15 Q. Do you know if well logs -- or not well logs. Do  
16 you know if information is available of the actual pumpage  
17 from the meters from the wells in southern Diamond Valley?

18 A. Yeah. To my knowledge most of the wells do not  
19 have flow meters. There's been estimates by Arteaga based on  
20 power consumption. But to my knowledge there is not actual  
21 metered, comprehensive meter pumping cumulative totals out in  
22 the valley.

23 Q. All right. So according to your Exhibit 108,  
24 page 11, there's at least 60,000 acre-feet of consumptive use  
25 occurring?

CAPITOL REPORTERS (775) 882-5322

551

1 A. Yes.

2 Q. In Diamond Valley?

3 A. Yes. So if we look at a portion of the applied  
4 irrigation, water infiltrates past the zones and returns back  
5 to the aquifer. So the portion that is estimated to actually  
6 be physically consumed by agriculture in southern Diamond  
7 Valley is approximately 60 to 65,000 acre-feet annually and  
8 under current conditions.

9 MR. TAGGART: We offer Exhibit 290 in to  
10 evidence.

11 HEARING OFFICER JOSEPH-TAYLOR: Any objection?

12 MS. PETERSON: No objection.

13 MR. TAGGART: And we offer Exhibit 294 in to  
14 evidence.

15 HEARING OFFICER JOSEPH-TAYLOR: Any objection,  
16 Shamberger memoirs?

17 MS. PETERSON: That's fine, yes.

18 HEARING OFFICER JOSEPH-TAYLOR: 294 will be  
19 admitted.

20 There's a bunch more, Mr. Taggart, that you  
21 referenced. I have a bunch more that you referenced. 277,  
22 287.

23 MR. TAGGART: We offer 287 in to evidence. I  
24 thought I already had.

25 HEARING OFFICER JOSEPH-TAYLOR: Any objection to  
CAPITOL REPORTERS (775) 882-5322

552

1 287, State Engineer's power point?  
2 MS. PETERSON: No objection.  
3 HEARING OFFICER JOSEPH-TAYLOR: 287 will be  
4 admitted.  
5 MR. KOLVET: And just for the record, these are  
6 joint exhibits between Venturacci and Sadler. And so I would  
7 join in the offer of these exhibits.  
8 HEARING OFFICER JOSEPH-TAYLOR: Thank you. So  
9 why don't we move 275, which was your joint exhibit list.  
10 MR. TAGGART: Thank you.  
11 HEARING OFFICER JOSEPH-TAYLOR: What about 277?  
12 MR. TAGGART: We offer 277 in to evidence. It's  
13 a duplicate to Eureka County Exhibit 304.  
14 HEARING OFFICER JOSEPH-TAYLOR: Do we need them  
15 both?  
16 MR. TAGGART: No.  
17 HEARING OFFICER JOSEPH-TAYLOR: So we're not  
18 going to do 277.  
19 MR. TAGGART: That's fine.  
20 HEARING OFFICER JOSEPH-TAYLOR: Okay. And then I  
21 also show 108, 109 and 306.  
22 MR. TAGGART: Yes. All of those I'm waiting.  
23 HEARING OFFICER JOSEPH-TAYLOR: Waiting still,  
24 okay.  
25 Q. (By Mr. Taggart) All right. You understand the  
CAPITOL REPORTERS (775) 882-5322

553

1 perennial yield concept and how it's applied in Nevada?  
2 A. Yes.  
3 Q. How has the State Engineer used the perennial  
4 yield estimate to manage groundwater in Nevada in your  
5 understanding?  
6 A. Yeah. Well, we strive for sustainability, so  
7 that is meant to be an upper limit on long term consumptive  
8 use of groundwater.  
9 Q. And are there -- What are the dangers you  
10 understand exist from over appropriating of the groundwater  
11 basin?  
12 A. Well, there's always the issue of conflicting  
13 issues between water right holders junior and senior. But  
14 there's also physical dangers to increasing drawdowns and  
15 depth to water in the basin, degradation of water quality,  
16 land subsidence. It's just not a -- not a path that the  
17 state wants to go down.  
18 Q. All right. In your opinion is Diamond Valley  
19 over appropriated?  
20 A. Severely.  
21 Q. And I have a series of orders from the State  
22 Engineer that are identified as Exhibit 279 through 284. Do  
23 these represent efforts by the State Engineer to address the  
24 issue of over appropriation in Diamond Valley?  
25 A. That's my understanding.  
CAPITOL REPORTERS (775) 882-5322

554

1 MR. TAGGART: I'm not going to go through each  
2 one of these and what they each do, but I offer them in to  
3 evidence at this time.  
4 HEARING OFFICER JOSEPH-TAYLOR: Any objection?  
5 MS. PETERSON: No objection.  
6 HEARING OFFICER JOSEPH-TAYLOR: You said 284,  
7 Mr. Taggart. Did you mean 285?  
8 MR. TAGGART: Yes. Thank you.  
9 HEARING OFFICER JOSEPH-TAYLOR: Exhibits 279  
10 through 285 will be admitted.  
11 MR. KOLVET: And I would offer them as well for  
12 Venturacci.  
13 Q. (By Mr. Taggart) Mr. Smith, are water rights  
14 that exist from spring sources part of the groundwater  
15 perennial yield?  
16 A. In my view, yes, they're part of the groundwater  
17 budget. The spring discharge is normally to support  
18 discharge by phreatophyte vegetation or evaporation. So you  
19 have to be careful not to -- to treat them appropriately and  
20 accounting the water budgets. But yes, they are a discharge  
21 of groundwater, part of the water budget part of the  
22 perennial yield.  
23 Q. And does that include all springs or does that  
24 include non-block springs, springs on the valley floor, all  
25 springs or particular springs?  
CAPITOL REPORTERS (775) 882-5322

555

1 A. Well, from my perspective, it's really most  
2 critical for springs on the valley floor, especially springs  
3 that have been appropriated and are being used. They need to  
4 be accounted for in the perennial groundwater yield in the  
5 basin. They are treated in the water budget. If you have a  
6 basin like Diamond Valley that has significant spring  
7 resource that is a discharge of groundwater, that needs to be  
8 factored in to that perennial yield budget.  
9 Q. So if there are water rights for Sadler  
10 Springs -- I'm sorry -- Shipley Spring, should those be  
11 deducted from the perennial yield for Diamond Valley?  
12 A. I believe the consumptive use associated with  
13 those spring discharges should be deducted.  
14 Q. So what would be necessary in your opinion to  
15 bring the Diamond Valley water usage within the perennial  
16 yield of that basin?  
17 A. Well, there's probably only two practical avenues  
18 here. One of them is to curtail the pumping. The other one  
19 is to bring an additional water source in to the valley.  
20 You've got to either increase the recharge to the valley or  
21 decrease the pumping discharge. One of the two is needed to  
22 bring it back.  
23 Q. And if the consumptive use is 60,000 acre-feet  
24 like you said earlier and the perennial yield is 30,000  
25 acre-feet, in your opinion does that mean that pumping has to  
CAPITOL REPORTERS (775) 882-5322

556

1 decrease by half?  
2 A. Actually it would have to decrease by greater  
3 than that, because, again, in that 30,000 we need to allocate  
4 some portion of that to the springs that we're having this  
5 hearing about and possibly some other springs in the basin  
6 that need to be acknowledged. So we've got to fit all of  
7 this in to that 30,000, both the consumptive use of  
8 groundwater pumped and the consumptive use of spring  
9 groundwater that's put to beneficial use.

10 MR. TAGGART: All right. Thank you.

11 HEARING OFFICER JOSEPH-TAYLOR: Let's be off the  
12 record.

13 (Recess was taken)

14 HEARING OFFICER JOSEPH-TAYLOR: Please continue,  
15 Mr. Taggart.

16 MR. KOLVET: Before he continues and we get too  
17 far off, just a couple of questions of Mr. Katzer related to  
18 some of Mr. Smith's testimony.

19 Q. (By Mr. Kolvet) Mr. Katzer, do you recall the  
20 area of testimony just before we took the break concerning  
21 the inclusion of spring discharge in to the water budgets?

22 A. Yes.

23 Q. Would you agree with Mr. Smith on the fact that  
24 you have to include the spring discharge in the groundwater  
25 budget?

CAPITOL REPORTERS (775) 882-5322

557

1 A. Yes, I would agree.

2 HEARING OFFICER JOSEPH-TAYLOR: Let him finish  
3 the question, please.

4 Q. (By Mr. Kolvet) With respect to Thompson Spring  
5 then, the testimony to this point has been that the high  
6 measurement in the eighties of the spring discharge from  
7 Thompson Spring was around four CFS and then it fell back to  
8 around two CFS. Do you remember that?

9 A. Yes.

10 Q. In the case of Thompson Spring in the Thompson  
11 Spring complex, would two CFS be the amount of water  
12 discharged from those spring that you would have to account  
13 for in this water budget?

14 A. No. I think it would be somewhere around five.  
15 And I don't have any data to support that. But I know there  
16 were several spring orifices in that whole spring complex  
17 just west of the ranch, west and to the north a little bit.

18 Q. And what about the springs to the north of Cox  
19 Springs that you referenced, were there ever any discharge  
20 measurements made on that spring?

21 A. Not that I know of.

22 Q. And how about even further up where the Willow  
23 Ranch is that's part of these applications?

24 A. I've never seen any measurements made.

25 Q. But there were springs discharging those  
CAPITOL REPORTERS (775) 882-5322

558

1 locations?

2 A. There were springs. You can look at the soils.  
3 Clearly they've had water for a long period of time. They  
4 were irrigated. There were fields there. Yes, I think the  
5 flow from the Thompson Spring complex was a lot higher than  
6 what was measured in '65, '66, which was about the first time  
7 the GS measured.

8 Q. In looking at information that would support  
9 that, would you also look at the amount of acreage that  
10 historically may have been irrigated from those springs?

11 A. That's a good way to do it, yes.

12 Q. With respect to a couple of points, and if I get  
13 to them now I may not have to ask any further questions, so  
14 shortening up his appearance up there, I would like to go  
15 with a couple of other questions. With respect to the  
16 information that was provided by Eureka County and the other  
17 protestants, have you had a chance to review those?

18 A. Yes, I did.

19 Q. In those documents they refer to other possible  
20 reasons for the decline in spring discharge in Thompson and  
21 the Thompson Spring complex.

22 A. They do.

23 Q. Do you agree with that assessment?

24 A. No, I don't agree. I think that when you start  
25 talking about climate change, I don't think the data is there  
CAPITOL REPORTERS (775) 882-5322

559

1 to make any judgment on climate change and what its impacts  
2 are.

3 I mean, when you look at Nevada weather history  
4 throughout time, there's been big years and average years and  
5 droughts. And the neat thing about that alluvial basin is  
6 that even though there are droughts, the only thing the  
7 droughts impact are the recharge areas. And it doesn't  
8 matter to the alluvial pumpers what happened in any given  
9 year. They're living off of transitional storage. They can  
10 keep pumping and nothing has happened. And they've had it  
11 great over, a big advantage over the spring flow users whose  
12 springs dried up because of the water levels going down.

13 So I think that trying to tie any sort of drought  
14 or climate change to the spring discharge cannot be done. I  
15 don't think it can be done.

16 Q. How about the shot holes that were referenced?

17 A. The shot holes -- There's a shot hole. But we  
18 visited with the Sadlers, Dwight and I did. And I know  
19 there's a couple of those. There's one on the north end.  
20 And a lot of the holes have dried up. A lot have been  
21 plugged, I guess. I'm not sure. I know there was a whole  
22 bunch over by the Thompson Ranch. And if I remember  
23 correctly, he told me that most of those have been plugged up  
24 or ceased flowing.

25 But sure, they add to it, they add to the  
CAPITOL REPORTERS (775) 882-5322

560

1 discharge, but they didn't really impact the alluvial system.  
2 I don't believe they did. Because they're in those really,  
3 really fine grain silts that make up the deposit clays and  
4 they're really tight. But yeah, that's water that's leaving  
5 the system.

6 Q. Would it account though for the decline and the  
7 eventual drying up of Thompson Springs?

8 A. No, not at all.

9 Q. And when you refer to Thompson Spring I'm not  
10 just referring to the one spring but that whole complex --

11 A. That whole complex, yes.

12 HEARING OFFICER JOSEPH-TAYLOR: Mr. Katzer,  
13 you've got to let him finish. You're kind of jumping over  
14 him.

15 MR. KOLVET: You would agree to that terminology?

16 THE WITNESS: Yes.

17 MR. KOLVET: Thompson Spring. I talked over him  
18 that time and I apologize.

19 HEARING OFFICER JOSEPH-TAYLOR: You're both doing  
20 it. You're jumping in awful fast too, Mr. Kolvet.

21 MR. KOLVET: I tend to do that. I apologize.

22 That's all I have for now.

23 HEARING OFFICER JOSEPH-TAYLOR: Any additional  
24 questions, Mr. Taggart?

25 MR. TAGGART: Yes.  
CAPITOL REPORTERS (775) 882-5322

561

1 Q. (By Mr. Taggart) I want to ask some questions  
2 about what's shown on plate one to Exhibit 108, which is  
3 Mr. Smith's expert report. And Mr. Smith, I'm going to again  
4 try to talk through this a little quicker. In your plate  
5 one, you picked the drawdown in Diamond Valley; is that  
6 correct?

7 A. That's correct. There's hydrographs for a number  
8 of the wells we have in this record. There's actually every  
9 pink point on this map is a well with historic records of  
10 water levels from 1960s through current.

11 Q. All right. And I want to ask you about the two  
12 largest drawdowns in the southern part of the valley. And  
13 they are identified with hydrographs on the left side of the  
14 plate at the bottom, the second and third to the bottom, two  
15 hydrographs, one points to a 97 in the center of the valley.  
16 One points to a 100 in the middle of the valley. Do you see  
17 those two hydrographs?

18 A. Yes.

19 Q. Would you agree those two hydrographs show the  
20 largest drawdown of any of the hydrographs on this plate?

21 A. That's correct. Approximately 100 feet of  
22 drawdown over the 50 plus or minus year time span.

23 Q. Would you consider this to be the center of the  
24 cone of depression?

25 A. Generally, yes.  
CAPITOL REPORTERS (775) 882-5322

562

1 Q. Okay. And describe, if you could, how as a  
2 hydrologist you would expect that cone of depression to  
3 propagate?

4 A. Okay. So the cone of depression, you can see  
5 from the two hydrographs just referenced, started almost  
6 immediately, in fact started immediately with the start of  
7 pumping. As the cone both goes down but also spreads out  
8 laterally, it spreads out to the east and west until it gets  
9 up roughly to the amount in front and it's spread down to the  
10 south again to approximately the amount of front and then  
11 continues to both get deeper and to spread to the north. To  
12 the north is the direction now laterally that the cone of  
13 depression has available to move.

14 HEARING OFFICER JOSEPH-TAYLOR: Has what?

15 THE WITNESS: Has available to move.

16 Q. (By Mr. Taggart) And explain what happens with  
17 that cone reaches a barrier and if it has reached a barrier  
18 in the southeast and west sides of the cone of depression?

19 A. Yeah. Effectively, yes. The cone of depression  
20 has extended out to the edge of the mountain, the edge of the  
21 valley in the mountain front. Consider that a barrier.  
22 There's a lower transmissivity amount of blocks with a higher  
23 transmissivity basin. So that's where the drawdown is  
24 concentrated is in the basin fill.

25 To the south, although there is a fault barrier  
CAPITOL REPORTERS (775) 882-5322

563

1 that we're aware of to the south it's near the amount in  
2 front, the cone of depression spreads out laterally to that  
3 point and then starts to actually exasperates the drawdown in  
4 depth once it hits those barriers.

5 Q. So when it hits those barriers it tends to go  
6 deeper?

7 A. Deeper. But at the same time it's going to focus  
8 the spread laterally to the north.

9 Q. So it will then spread more in the direction of  
10 more transmissivity --

11 A. It is --

12 HEARING OFFICER JOSEPH-TAYLOR: Hold on. You're  
13 talking over him.

14 Q. (By Mr. Taggart) So it will tend to spread north  
15 in the direction of the transmissive material?

16 A. The cone is basically chasing the water in  
17 storage. Where is the water in storage? It's in the basin  
18 fill. You continue to go down in depth. We're effectively  
19 mining here. Every well and every pumping center has a  
20 drawdown. You've got to remove storage until you reestablish  
21 gradients. And then the cone of depression stabilizes. In  
22 this case it's not able to stabilize because we're pumping in  
23 excess of a water balance here. There's not enough discharge  
24 physically in the valley for this pumping center to capture.  
25 It's going to continue to go down and continue to spread to  
CAPITOL REPORTERS (775) 882-5322

564

1 the north in an effort to try to achieve balance. But in  
2 reality until pumping is curtailed dramatically, it's not  
3 going to achieve a balance.

4 Q. Now, there's a hydrograph on the left side, the  
5 fourth one from the bottom. It points to a point 51. And is  
6 that point where the 51, is that a well?

7 A. That's correct. That's the well where the water  
8 loads have been measured and the drawdown is about half that,  
9 about 51 feet, so about half that of the deepest part of the  
10 cone of depression.

11 Q. And north of that, two hydrographs up, there's a  
12 hydrograph that points to the number 35. Do you see that?

13 A. Yes.

14 Q. Okay. And that indicates a 35-foot drawdown at  
15 that location?

16 A. That's correct.

17 Q. And each one of the numbers we're talking about  
18 indicates the quantity of drawdown at that location; correct?

19 A. It's the drawdown in feet. And 35 feet we're  
20 referring to is a well at what was formerly Sulphur Spring.

21 Q. So has the cone propagated to that well that it  
22 has a number 51 on it and to the well that has the 35 on it.  
23 Has it propagated to those locations?

24 A. Yes. And you continue to see the declining trend  
25 in water levels over time as this cone continues to expand  
CAPITOL REPORTERS (775) 882-5322

565

1 laterally and become deeper.

2 Q. Can you tell from the dates of drawdown in the  
3 hydrograph how the timeline of the drawdown looks in terms of  
4 progress north? Do you understand my question?

5 A. Yeah. For along the western edge, the four upper  
6 hydrographs for not the very top but the three below that,  
7 you'll see there is a pretty big time gap. The state and in  
8 conjunction with the USGS for seven years have been  
9 collecting water level data for the past decade or so. And  
10 so we do have those trends for the past decade pretty clearly  
11 defined. It did -- It would take some period of time for  
12 that drawdown to have started to occur up to the north, but  
13 we don't have data in that gap.

14 Q. There is a hydrograph that points to a three,  
15 three-foot drawdown more in the direction of the center of  
16 the valley from that number 35. Do you see that?

17 A. Yes.

18 Q. Why in your opinion is that hydrograph only  
19 indicating a three-foot drawdown?

20 A. There are a number of wells along the Pony  
21 Express Road. These were installed by the USGS in 1964.  
22 They're shallow. The two you see with three feet of drawdown  
23 are 22 feet in depth. And my interpretation is that the cone  
24 of depression as it extended northward started to run in to  
25 finer grain clay sediments associated with the playa. But  
CAPITOL REPORTERS (775) 882-5322

566

1 where we do not have fine grain sediment is along the edges  
2 of the playa up to the mountain block. So while the cone of  
3 depression spreads to the north and you count this tighter,  
4 hydraulically tighter area, it's been a mild encroachment of  
5 drawdown in to that area. Where the drawdown is concentrated  
6 is along the more hydraulically transmissive materials along  
7 the edge of the valley. And that's also coincidentally where  
8 all the springs are located.

9 Q. And in Exhibit 304, which is Harrill's 1968  
10 report, on page 30 he says, logs of wells drilled near the  
11 center of the valley indicate that there the valley fill is  
12 predominantly silt, clay and fine sand and is less capable of  
13 transmitting water. Is that in support of what you just  
14 described the materials in the center valley to be?

15 A. That's correct.

16 Q. So in your view the drawdowns hit that tighter  
17 area in the center of the valley and then move more  
18 dramatically up the ranges of the mountain front, valley  
19 interface?

20 A. That's correct.

21 Q. And that happens on both sides of the valley?

22 A. It's a mirror image on both sides of the valley.

23 Q. Now, in 1964 Harrill said this about Diamond  
24 Valley, eventually a gradual decrease of spring discharge in  
25 north Diamond Valley subarea should occur in response to  
CAPITOL REPORTERS (775) 882-5322

567

1 pumping in the southern diamond or the south diamond subarea  
2 as sufficient water is removed from storage to induce  
3 subsurface flow from the spring areas towards the well.

4 A. Yes.

5 Q. Was he right?

6 A. That's correct.

7 Q. So he predicted that in 1968 and is that what we  
8 see today?

9 A. It is.

10 Q. And then he says on page 60 of his report,  
11 there's two paragraphs, number five says, pumping in the  
12 south diamond subarea eventually should decrease the natural  
13 discharge from springs in northern diamond subarea which  
14 during the summer of 1965 was largely being used  
15 beneficially. Again, was he correct in his prediction?

16 A. Yes.

17 Q. All right. Now I want to look at some specific  
18 springs. First I'm going to ask you about an area in the  
19 southern playa. And there is a -- did you go out in to the  
20 field and look at the springs in the southern playa in  
21 Diamond Valley?

22 A. Yes, I have. The blue spring points are from the  
23 USGS topographic maps. They're over 60 map springs on the  
24 topographic quads that occur on the southern end of the playa  
25 in Diamond Valley. I've went out to a number of these kind  
CAPITOL REPORTERS (775) 882-5322

568

1 of spring groupings and have observed all of these to be dry.

2 Q. All right. So you saw that they were all dry?

3 A. That's correct.

4 Q. And you saw Mr. Frazer's presentation earlier?

5 A. Yes.

6 Q. And the photographs that he showed?

7 A. Yes.

8 Q. And those are consistent with your experience in  
9 the area?

10 A. Yes.

11 Q. And do you believe those were dry because of  
12 pumping in southern Diamond Valley?

13 A. Yes.

14 Q. Now, Sulphur Spring is the next item north of the  
15 last point I asked you about on your plate. Is that dry?

16 A. Sulphur Spring is dry. It was observed to have  
17 ceased flow in 1982 by Harrill.

18 Q. All right. And then the next spring to the north  
19 of that is Tule Spring. And have you visited that spring?

20 A. I have.

21 Q. And is that spring dry?

22 A. Tule Spring is also dry. You'll see the level of  
23 the water level drawdowns predicted in this area. Also it  
24 was dry in 1982 during Harrill's site inspections. That  
25 area -- Both of these areas while the reported discharges  
CAPITOL REPORTERS (775) 882-5322

569

1 were fairly small, they actually, there was a large area of  
2 tule marshes, so it wasn't exactly a point source. It was a  
3 large spring area, spring and seep area all in these, Tule  
4 Spring, Sulphur Spring area and they're all dry.

5 Q. And you recall the 1946 aerial that Mr. Frazer  
6 showed where there was actually spring flow from those  
7 locations?

8 A. Yes.

9 Q. And so when you visited them there was no longer  
10 spring flow?

11 A. Absolutely dry.

12 Q. And you believe that was caused by pumping in  
13 southern Diamond Valley?

14 A. Yes, that's correct.

15 Q. And is that -- Strike that. I want to ask you  
16 about other factors that might be considered by you in  
17 determining what causes a decline of flow. You heard about  
18 the shot holes. Mr. Katzer testified about that. What's  
19 your opinion about whether shot holes are responsible for the  
20 decline in flow at Shipley Springs?

21 A. I don't think it has anything to do with the  
22 decline that's observed.

23 Q. And climate change, there has been testimony  
24 about climate change by Mr. Katzer and also indications in  
25 the record from the protestants that climate change is a  
CAPITOL REPORTERS (775) 882-5322

570

1 factor or is responsible for decline in flow at Shipley Hot  
2 Springs. Did you do an analysis of whether there's a  
3 correlation between precipitation and flow records at Shipley  
4 Spring?

5 A. Yes. What I examined was whether there possibly  
6 might be an observed increase in spring discharge during wet  
7 years. I found no relationship I was able to address in  
8 around 11 years where I took the water year total with the  
9 January through April time frame average spring discharge.  
10 Again, I do not see -- And this is I think somewhat typical  
11 of a regional spring. I don't see the flashiness, I don't  
12 see the correlation with wet year spring discharge increase  
13 and decreasing. It doesn't show that association.

14 Q. There's some information rebuttal reports talking  
15 about freezing levels and changes in freezing levels. Do you  
16 think that has any impact on declining flow in Shipley  
17 Spring?

18 A. Absolutely not. There's no evidence of that. We  
19 know that temperatures may be rising. But what does that do  
20 to water levels and water budgets throughout the great basin  
21 in Nevada? We basically see outside of the Diamond Valley  
22 pumping center we see stability. We see water levels that on  
23 average are stable. There's always some up and down. We see  
24 spring -- Again, what's exhibited is stability. This is not  
25 anything to do with climate. That's rather absurd, quite  
CAPITOL REPORTERS (775) 882-5322

571

1 frankly.

2 Q. Have you looked at the precipitation record for  
3 the State of Nevada?

4 A. Yes.

5 Q. And I believe that that is in Exhibit 195. Can  
6 you tell from that, and I think it's on page A2-17 of that  
7 exhibit. Is there any -- Let me make sure.

8 MS. PETERSON: I'm going to object to this  
9 because that exhibit hasn't been admitted and the author of  
10 that exhibit is not here and would not be able to be  
11 cross-examined. So I am going to object to any evidence with  
12 regard to Exhibit 195.

13 MR. TAGGART: All right. I'll ask about Exhibit  
14 310, which is a Eureka County exhibit that has the same  
15 hydrograph. I'll come back to that.

16 Okay. Go to page 310. I'm sorry. Exhibit 310,  
17 page 33.

18 HEARING OFFICER JOSEPH-TAYLOR: You can just look  
19 at it on the screen.

20 Q. (By Mr. Taggart) Okay. Do you see any decline  
21 in precipitation from the evidence of the hundred-year  
22 record?

23 A. No, I do not.

24 Q. And did you look at the Eureka gauge, the full  
25 record, the hundred-year record of the Eureka gauge?  
CAPITOL REPORTERS (775) 882-5322

572

1 A. Yes, I did.  
2 Q. And did you see any indication of a decline in  
3 trend of precipitation over that hundred-year period?  
4 A. When you take the whole period of record, you do  
5 not see a decline in trend. There's been a -- the last  
6 couple decades have been a little drier than average. The  
7 couple decades before then were wetter. But if you look back  
8 through the period of record, we've had dry periods in the  
9 1920s and the 1950s. We had wet periods in the early part of  
10 the century. What we're observing in the past four decades  
11 is certainly basically more of the same that's been  
12 documented over the period of record.

13 Q. All right. You testified earlier that in your  
14 view Shipley Springs is a regional spring. How do you  
15 reconcile the notion that it's a regional spring fed by a  
16 regional source but being impacted by local pumping? Is it  
17 possible and did you analyze whether the declines in Shipley  
18 are really because of declines in the recharge source for  
19 that spring?

20 A. Well, it's interpreted that the water that's  
21 flowing in from the west from Garden Valley, that would be  
22 recharged mostly in the Roberts Mountains is then flowing  
23 through the Sulphur Spring range, probably some local  
24 recharge mixed in. But that is -- We believe that's the  
25 probable source of water to Shipley Hot Spring and it's  
CAPITOL REPORTERS (775) 882-5322

573

1 circulating deep obviously.

2 If there was some type of gross regional change  
3 in our precipitation, in our recharge, that would have to be  
4 something that's reflected regionally. And you wouldn't be  
5 able to see in Diamond Valley. There's too large of a stress  
6 to try to overcome. But you can look through basins all  
7 around central Nevada and look at water level trends and  
8 spring discharge trends, and I have seen nobody make the case  
9 that there's any type of climate-related, long-term climate  
10 change related to impact to our water resources.

11 Q. All right. What I'd like to do is ask you to  
12 summarize your opinion regarding the impact of the decline --  
13 I'm sorry -- the reason for the decline of the flow at  
14 Shipley Springs and to do that I want to you reach to your  
15 hydrograph that's on the wall behind you. And I'm going to  
16 ask you to draw on that the actual hydrograph, your best  
17 opinion on what the hydrograph would look like through the  
18 points of data that you have depicted there. And while we do  
19 this, I'll ask you to describe your understanding of what was  
20 probably occurring during certain time periods.

21 A. Okay.

22 Q. So what I'd like you to do, and I'm going to ask  
23 you to do it in a way that we can fold up this exhibit and  
24 make it a part of the record. So starting in 1910, if you  
25 could put an A in 1910 on the map and then draw what you  
CAPITOL REPORTERS (775) 882-5322

574

1 believe the hydrograph would be from 1910 to 1945 and then  
2 put a B at 1945.

3 A. I've already offered testimony about what I  
4 believe the most accurate estimate for spring discharge to  
5 have been prior to any development, so prior to the 1940s,  
6 the mid-1940s. I believe that to be around 11 to 12 CFS.

7 Q. Now, from 1945 to 1960, I didn't ask you about  
8 this yet, but could you describe for the State Engineer the  
9 wells that were utilized on the Romano Ranch at that time and  
10 how you believe they affected the flow at Shipley Spring if  
11 at all?

12 A. Right. One thing that's not very well documented  
13 is the existence of flowing artesian wells that we use for  
14 agriculture. So there are not flowing, small flowing  
15 artesian wells for stock water sources. These are large  
16 sources of water. So we have the report of three artesian  
17 wells being drilled on the Romano Ranch approximately four to  
18 five miles south of Shipley Hot Springs in 1943. These were  
19 measured later in the 1940s by the USGS. And if we get the  
20 exact number of discharge, I believe it's 250 gallons a  
21 minute at that time. It's in my document.

22 Then in the late forties, '48 and '49, we have  
23 actually -- we have no well logs, no other records of those  
24 other than the USGS is out I believe in 1946 and measured the  
25 document and they do show up on the topo map.  
CAPITOL REPORTERS (775) 882-5322

575

1 And then we have five well logs submitted in '48  
2 and '49 that we put discharge on the order of a half to one  
3 to one and a half CFS from the five wells, additional wells  
4 from the Romano Ranch.

5 Then we don't have information in the 1950s. But  
6 all of a sudden you go back out to the USGS being on the  
7 ground measuring spring discharge in the mid-sixties. And  
8 this is work by Harrill and he's talking 13 flowing artesian  
9 wells on the Romano Ranch.

10 So between 1943 and somewhere in early to  
11 mid-sixties, we had 13 artesian wells flowing on the Romano  
12 Ranch used for irrigation.

13 Likewise, and skip forward to the middle well,  
14 there's also a couple other artesian wells that we are aware  
15 of. In 1960 there's what we call the middle well. It's on  
16 plate one. The northern part of Sadler Ranch was drilled,  
17 had an initial discharge report at 400 gallons a minute. And  
18 then as is the case with every one of these artesian wells.  
19 The initial reported flow is higher. When there's  
20 observation a couple years later, their flows are half or a  
21 third. It's kind of what we as hydrologists would expect  
22 from the flowing artesian well. Initially drilled down,  
23 you've got strong potentiometric head. The potentiometric  
24 head is going to decline and going to decrease around that  
25 well until it strikes and reaches equilibrium. A pump well  
CAPITOL REPORTERS (775) 882-5322

576

1 we're pumping. An artesian well is trying to find that new  
2 balance.

3 So over the course of several years you see  
4 decline flows from all of these wells. But there was  
5 additionally in 1960 a well, a flowing well on the Brown  
6 Ranch, similar high capacity of about 400 gallons a minute.  
7 This all occurred, those occurred in 1960.

8 There was a small stock well on the lower end of  
9 Sadler Ranch that flowed around ten gallons a minute. That  
10 was the only one out of 16 wells in the vicinity that was  
11 actually a small well that probably didn't have a great deal  
12 of effect.

13 But all of these wells reduced the pressure head  
14 in the aquifer system that we now know has an association  
15 with the spring discharge. So that's the physical reality.  
16 These wells are present and documented and they discharge  
17 significant amounts of water. There's a response. It didn't  
18 happen that they are all drilled instantaneously. They're  
19 spread out over time. Mr. Taggart, can I proceed to 1960 or  
20 '65?

21 MR. TAGGART: Yes.

22 HEARING OFFICER JOSEPH-TAYLOR: We've got about  
23 ten minutes, folks.

24 THE WITNESS: I'm going to put C down here in the  
25 early sixties. So again, this is the time frame when the  
CAPITOL REPORTERS (775) 882-5322

577

1 artesian wells have been drilled. They're starting to affect  
2 and reduce the artesian head along the west edge of Diamond  
3 Valley.

4 Q. (By Mr. Taggart) Are you still seeing the impact  
5 of those artesian wells on Shipley Spring today?

6 A. No, I don't believe so. I think these  
7 incorporated, generally probably a majority of these  
8 incorporated took place in the first couple years and you can  
9 run some basic analytical methods to look at that trend.  
10 We've done so. I estimated that possibly, depending on the  
11 hydraulic ground parameters, it might have taken three to  
12 five years. It might have happened much sooner. But  
13 certainly it's not something that takes decades. The  
14 artesian flow wells are going to reduce. They're going to  
15 decline and find that equilibrium with the reduced pressure  
16 head and then that's what they're going to, if nothing else  
17 takes place, would sustain the reduced flow.

18 Q. All right. And then if you can draw a C at that  
19 end of the line. And then now describe what you think  
20 occurred from 1960 to 1985.

21 A. Okay. By the mid-sixties, again the history of  
22 artesian wells being drilled, the last one we know that was  
23 drilled in this time frame was 1960. I believe that  
24 equilibrating effect was in place by the mid-sixties. And  
25 really I think at that point the system was in equilibrium to  
CAPITOL REPORTERS (775) 882-5322

578

1 that new stress on the system through the sixties, seventies  
2 and eighties. We see a range of flow that we describe what's  
3 going on with the regulation pond, surge orifices, height,  
4 width, diversion ditches. There's just a lot of reasons why  
5 there's this whole scatter of point. But I've drawn a line  
6 about seven CFS, even longer, for several decades from  
7 Shipley Hot Springs.

8 Q. And what about from 1985 to 2010?

9 A. Well, somewhere, and I'll put D in the early  
10 nineties, around say 1990 or so, all of a sudden you start to  
11 see this new trend of declining spring discharge from Shipley  
12 Hot Spring. And that carries all the way through to current.  
13 And that is my interpretation of the regional cone of  
14 depression. As we know in the early eighties it was southern  
15 springs that dried, it's progressing north. It's finally  
16 reached northern -- up to the north to Shipley Hot Springs.  
17 So now we're experiencing water level drawdown from this new  
18 and very dominant stress on the system now in the valley.  
19 And that's progressed all the way through here and we see  
20 that today.

21 Q. Are the wells at the Romano Ranch, are they owned  
22 by or were they owned by the same individuals who owned the  
23 Sadler Ranch?

24 A. On the Romano Ranch?

25 Q. Right.  
CAPITOL REPORTERS (775) 882-5322

579

1 A. Not to my knowledge.

2 Q. Let's -- If you could then please summarize the  
3 reasons why you concluded that pumping in southern Diamond  
4 Valley has caused the declined flow of Shipley and will cause  
5 it to cease to flow in the future?

6 A. That cone of depression is going to continue to  
7 expand in both depth and expand up to the north as pumping  
8 continues. So, you know, just there's a direct relationship  
9 pressure head versus spring discharge. That pressure head  
10 has progressively been reduced over the past two decades and  
11 is going to continue to -- pumping continues in the valleys  
12 so that decline is going to continue.

13 Q. And does part of the reason for your answer  
14 involve the other springs that have gone dry between Shipley  
15 Spring and the cone of depression?

16 A. We have a lot of points on plate one. That's  
17 right. Indian Camp has ceased the flow. Again, the time  
18 frame I described earlier was late eighties, early nineties.  
19 That fits right in to this picture. It's that progression of  
20 cessation of flow from springs. We're able to go and observe  
21 water levels. There's some artesian well points. So that's,  
22 measurements this summer allowed me to make some estimates on  
23 the degree and extent of the drawdown up to the north.

24 Q. Is your opinion consistent with the hydrologic  
25 concepts about propagation of a cone of depression?  
CAPITOL REPORTERS (775) 882-5322

580

1 A. Yeah. I mean, this is fundamental in my science.  
2 This is cone of depression expanding out as the basin strives  
3 to try to reach equilibrium. It's going to continue to  
4 remove water for storage until the discharge equals the  
5 recharge. But that is never going to be reached at the  
6 present state in Diamond Valley.

7 Q. We haven't talked about the Bailey Spring. But  
8 did the Bailey Spring go dry?

9 A. It went dry also.

10 Q. Is that part of -- Does that help in forming your  
11 opinion?

12 A. Yeah. It's all very systematic. If you look at  
13 the degree of drawdown, as you work from deepest up to the  
14 north, it gets shallower and shallower until you get to  
15 Shipley Hot Spring. It's very systematic. Bailey Spring is  
16 south of -- north of Romano and south of Shipley and it has  
17 ceased the flow.

18 HEARING OFFICER JOSEPH-TAYLOR: Five minutes.

19 Q. (By Mr. Taggart) There's a point on your map I  
20 guess referred to as artesian well B.

21 A. Yes.

22 Q. Any information from that that supports your  
23 opinion?

24 A. Yeah. That's the stock well I referred to on the  
25 lower end of the Sadler Ranch from the 1959 reporting,  
CAPITOL REPORTERS (775) 882-5322

581

1 discharge ten gallons a minute. It has a note on the log of  
2 six feet of head. I put at least two feet of drawdown water  
3 levels right near the ground surface now. It doesn't produce  
4 flow. There's probably been closer to six feet of drawdown  
5 there. I've been conservative.

6 Q. Did you look at the drawdown at the Brown well  
7 and how does that influence your opinion?

8 A. The Brown well is monitored. We have water level  
9 data since 1997 that's monitored by the state primarily.  
10 Initially that well flowed artesian so we know there's been  
11 some equilibration to that well that was drilled in 1960 on  
12 the Brown Ranch. That well and Siri Spring up there ceased  
13 to flow and other sources are pumped. But the water levels  
14 interestingly are fairly level. You do not see that  
15 declining trend in the past 15 years of record at the Brown  
16 Ranch.

17 So my interpretation is the various changes on  
18 the Brown Ranch over time since that artesian well was  
19 drilled in the sixties, it's been a fairly equilibrated  
20 condition. There is additional stress on the aquifer. It  
21 was realized back in that time frame in the sixties and from  
22 that time frame forward as demonstrated by the water levels.  
23 It's been in a dynamic equilibrium.

24 Q. Did you do an analysis of whether there was a  
25 correlation between drawdown to the Brown well and flow at  
CAPITOL REPORTERS (775) 882-5322

582

1 Shipley Spring?

2 A. There is no correlation between discharges at the  
3 Shipley Hot Springs and water levels at the Brown Ranch.  
4 There is, however, a correlation between water declines to  
5 the south and Shipley Hot Spring declining discharge.

6 Q. Now, I want to ask you, Bailey -- I'm sorry.  
7 Harrill in his report in 1968 indicated that in item five on  
8 page 60, in time the discharge from springs may have to be  
9 supplemented or replaced by pumping from wells. Have you  
10 done an analysis of whether or not there's a well, an  
11 induction well that can be drilled near Shipley Spring that  
12 can capture water that was a recharge for the source of  
13 discharge from Shipley Spring?

14 A. Yeah, that's correct. We've submitted in to  
15 evidence the document I referred to from the Interflow March  
16 2013 report on exploration drilling and testing. We have  
17 conclusively built a production well in to a source of  
18 Shipley Hot Spring. And we can pump that well. It's been  
19 tested only, but we can pump it and immediately see the  
20 cessation of flow from Shipley Hot Spring. We can produce  
21 identical quality water, identical temperature water from  
22 that well.

23 Q. And can you be certain though that that well can  
24 produce the amount of water that's requested in these  
25 applications?

CAPITOL REPORTERS (775) 882-5322

583

1 A. That's another question. We're trying to  
2 duplicate mother nature. We know it's very transmissive. We  
3 know we can get a large volume of water out of that  
4 individual well. Only time will tell whether we could  
5 sustain high volumes of water like we're desiring from wells.

6 Q. And if you could not capture from that induction  
7 well near the spring, are there other locations on the ranch  
8 where wells could be drilled?

9 A. Yeah, absolutely. There's a well that was  
10 drilled this summer in the alluvium under temporary transfer  
11 to try to establish some cultivation on the ranch. It is a  
12 reasonably successful irrigation well.

13 HEARING OFFICER JOSEPH-TAYLOR: We've got to  
14 stop.

15 MR. TAGGART: I have no further questions.

16 HEARING OFFICER JOSEPH-TAYLOR: Exhibit,  
17 Mr. Taggart, 218, 219 to start with. Or, Mr. Kolvet, I think  
18 these are yours actually.

19 MR. KOLVET: They are and I'd offer them.

20 HEARING OFFICER JOSEPH-TAYLOR: Any objection to  
21 Exhibits 218 and 219?

22 MS. PETERSON: No objection.

23 HEARING OFFICER JOSEPH-TAYLOR: Thank you.  
24 They'll be admitted.

25 Mr. Taggart, you have 108, 109.  
CAPITOL REPORTERS (775) 882-5322

584

1 MR. TAGGART: Yes. We offer 108 at this time.  
2 HEARING OFFICER JOSEPH-TAYLOR: Any objection to  
3 108?  
4 MS. PETERSON: No.  
5 MR. TAGGART: And 109.  
6 HEARING OFFICER JOSEPH-TAYLOR: Any objection to  
7 109?  
8 MS. PETERSON: No.  
9 HEARING OFFICER JOSEPH-TAYLOR: 108 and 109 will  
10 be admitted. 306 and 310.  
11 MR. TAGGART: We're not going to offer 306, but  
12 we will offer 310.  
13 MS. PETERSON: No. 310 was the power point  
14 presentation I objected --  
15 (The court reporter interrupts)  
16 HEARING OFFICER JOSEPH-TAYLOR: Folks, please,  
17 we're still on the record. Gentlemen in the back, we're  
18 still on record, please.  
19 MR. TAGGART: 310 is an exhibit from Eureka  
20 County.  
21 MS. PETERSON: Okay. Thank you. No objection.  
22 HEARING OFFICER JOSEPH-TAYLOR: 310 will be  
23 admitted. 306 you said you're not offering, Mr. Taggart?  
24 MR. TAGGART: No.  
25 HEARING OFFICER JOSEPH-TAYLOR: Okay. I think  
CAPITOL REPORTERS (775) 882-5322

585

1 that takes care of your exhibits. Thank you, everyone.  
2 Christy, we're off the record until 8:00 o'clock  
3 tomorrow morning.  
4 (Hearing concluded at 6:00 p.m.)  
5  
6  
7  
8  
9  
10  
11  
12  
13  
14  
15  
16  
17  
18  
19  
20  
21  
22  
23  
24  
25 CAPITOL REPORTERS (775) 882-5322

586

1 STATE OF NEVADA )  
2 ) ss.  
3 COUNTY OF WASHOE )  
4  
5 I, CHRISTY Y. JOYCE, Official Certified Court  
6 Reporter for the State of Nevada, Department of Conservation  
7 and Natural Resources, Division of Water Resources, do hereby  
8 certify:  
9 That on Tuesday, the 19th day of November,  
10 2013, I was present at the Division of Water Resources,  
11 Carson City, Nevada, for the purpose of reporting in verbatim  
12 stenotype notes the within-entitled public hearing;  
13 That the foregoing transcript, consisting of  
14 pages 301 through 583, inclusive, includes a full, true and  
15 correct transcription of my stenotype notes of said public  
16 hearing.  
17 Dated at Reno, Nevada, this 13th day of  
18 December, 2013.  
19  
20  
21  
22 CHRISTY Y. JOYCE, CCR #625  
23  
24  
25 CAPITOL REPORTERS (775) 882-5322

587

1 STATE OF NEVADA  
2 DEPARTMENT OF CONSERVATION AND NATURAL RESOURCES  
3 DIVISION OF WATER RESOURCES  
4 BEFORE SUSAN JOSEPH-TAYLOR, HEARING OFFICER  
5  
6  
7 IN THE MATTER OF APPLICATIONS  
8 81719, 81720, 81825, 82268,  
9 82570, 82571, 82572 and 82573 /  
10  
11 TRANSCRIPT OF PROCEEDINGS  
12 PUBLIC HEARING  
13 VOLUME III  
14 WEDNESDAY, NOVEMBER 20, 2013  
15  
16  
17  
18  
19  
20  
21  
22  
23 Reported by: CAPITOL REPORTERS  
24 Certified Court Reporters  
25 BY: MICHEL LOOMIS, NV CCR #228  
208 North Curry Street  
Carson City, Nevada 89703  
(775) 882-5322  
CAPITOL REPORTERS (775) 882-5322

588

1 APPEARANCES:

2 Jason King, State Engineer

3 Susan Joseph-Taylor, Deputy Administrator

4 Malcolm Wilson, Assistant Hearing Officer

5 Rick Felling, Chief Hydrologist

6 Kristen Geddes, Hearing Officer  
Section of the Division of Water Resources

7

8 Steve Walmsley, Water Resource Specialist

9

10 For Sadler Ranch, LLC: Taggart & Taggart, Ltd.  
By: Paul G. Taggart, Esq.

11

12 For Daniel Venturacci: Thorndal, Armstrong, Delk,  
Balckenbush & Eisinger  
By: Brent Kolvet, Esq.

13

14 For Kenneth Benson,  
Diamond Cattle Company  
and Etcheverry Family  
Limited Partnership: Schroeder Law Offices P. C.  
By: Therese A. Ure, Esq.

15

16

17 For Diamond Natural  
Resources Protection and  
Conservation Association: Bob Burnham

18

19 For James Gallagher: James Gallagher

20

21 For Mark Moyle Farms: Mark Moyle

22

23 For Eureka County: Allison MacKenzie, et al.  
By: Karen A. Peterson, Esq.

24

25 Also present: Theodore Beutel, Esq.  
Chairman Ithurralde  
Vice Chairman Goicoechea  
Dale Bugenig  
Jake Tibbitts  
CAPITOL REPORTERS (775) 882-5322

589

1 INDEX

2

3 WITNESSES: DIRECT CROSS REDIRECT RECROSS

4 Terry Katzer 599, 605, 592  
608, 622,  
628, 640

5

6 Dwight Smith 630

7

8 George Thiel 650 833, 865,  
878, 884

9

10 EXHIBITS MARKED RECEIVED

11 339 624

12 120 643

13 152 and 153 643

14 154 643

15 189 644

16 606 644

17 608 645

18 610, 611, 612, 613 645

19 207 646

20 210 647

21 211 647

22 212 647

23 220 648

24 339 649

25 CAPITOL REPORTERS (775) 882-5322

590

1 EXHIBITS MARKED RECEIVED

2 231 655

3 229 663

4 424, 425, 430, 431 682

5 236 780

6 229 823

7 232 823

8 233 823

9 238, 239, 240 824

10 241 and 242 825

11 243 826

12 245, 246, 247 826

13 248, 249, 250 827

14 252 827

15 253, 254, 255, 256, 257 827

16 258 828

17 259 828

18 260 829

19 261 829

20 262 829

21 265, 266 830

22 278 831

23 288 831

24 286 833

25 438 850  
CAPITOL REPORTERS (775) 882-5322

591

1 CARSON CITY, NEVADA, WEDNESDAY, NOVEMBER 20, 2013, 8:00 A.M.

2 -o0o-

3

4 HEARING OFFICER JOSEPH-TAYLOR: Okay. Let's be

5 on the record. Mr. Kolvet?

6 MR. KOLVET: Thank you.

7 HEARING OFFICER JOSEPH-TAYLOR: Your turn.

8 MR. KOLVET: I just have a few more or less

9 follow-up questions of the testimony yesterday of Mr. Katzer.

10 RECROSS-EXAMINATION

11 BY MR. KOLVET:

12 Q. Mr. Katzer, you recall the testimony that

13 Mr. Smith gave regarding the cone of depression and the

14 assessment of that and the effects of that as having on the

15 springs?

16 A. I do.

17 Q. And his focus was primarily on Sadler. Have you

18 had an occasion to examine those same issues with respect to

19 Thompson Springs?

20 A. Yes, I have.

21 Q. What conclusions, if any, have you reached on

22 that?

23 A. When the cone of depression started to move north

24 and it hit the fine grain sediments of the playa, it broke

25 into two separate arms that work their way on the west side  
CAPITOL REPORTERS (775) 882-5322

592

1 towards Shipley and on the east side towards Thompson Springs  
2 and have been working their way all -- the groundwater decline  
3 has been working its way all the way to the north.

4 Q. On the Thompson Spring side, when do you believe  
5 that those effects first became evident in Thompson Springs?

6 A. I think you can start to see the decline in the  
7 mid-'60s.

8 Q. And what would account for the decline in head?

9 A. Over-pumping in the south. But on the Thompson  
10 side, on the east side of the valley there's a -- there are a  
11 series of pivots much closer to the springs than anything on  
12 the west side of the valley. And I think those have really  
13 contributed to the decline.

14 There's also the mountain front fault that runs  
15 along there. And I think somehow the fault is acting as a  
16 partial barrier but also as a conduit. And I think the  
17 decline in head probably got to that part of the fault that is  
18 further to the south than the Thompson Ranch and was  
19 transmitted north very quickly. And I can't prove that, but I  
20 think that's what happened.

21 Q. There is -- you do have information about the  
22 location of that fault though; is that correct?

23 A. It's mapped, yes.

24 Q. And that's the mountain front fault?

25 A. Yes.  
CAPITOL REPORTERS (775) 882-5322

593

1 Q. With respect to the ability of the system to  
2 recover, you heard some testimony again by Mr. Smith that  
3 related to that.

4 Do you have any opinion as to the ability of the  
5 system to recover in the springs of Thompson Ranch and the Cox  
6 Ranch and other springs on the west side -- or east side of  
7 the valley being able to recover?

8 A. I've not made the calculations, but I'm sure  
9 you're looking at tens of decades. If all the -- if all the  
10 pumping ceased immediately, which is not going to happen, but  
11 if it did, it would take -- the ET is still going on, it would  
12 take a very, very long time to recover to a balance and to  
13 bring back the water level that would force the springs to  
14 flow. A long time.

15 Q. In your opinion then is there an alternative to  
16 obtain the water at Thompson Ranch and Cox Ranch and the  
17 Willow Ranch other than by allowing drilling in those  
18 locations?

19 A. By allowing drilling for --

20 Q. A well?

21 A. I think that's the only option to provide -- to  
22 provide that water in the immediacy, and the immediacy is our  
23 lifetimes, I guess. Well, not mine, but perhaps some of the  
24 kids. And there's a big advantage in doing that that we  
25 haven't really talked about.

CAPITOL REPORTERS (775) 882-5322

594

1 Q. Advantage of doing what?

2 A. Advantage in drilling and replacing the spring  
3 flow with wells.

4 Q. What's the advantage?

5 A. The advantage is that water right now is -- the  
6 spring flow is still coming in even though the springs do not  
7 reach the surface, that water is all headed for the ET areas.

8 Q. Where are they located?

9 A. Downgradient and to the -- to the west. Or so --

10 Q. Towards the playa?

11 A. Towards the playa.

12 HEARING OFFICER JOSEPH-TAYLOR: You're talking  
13 over each other.

14 MR. KOLVET: Trying.

15 THE WITNESS: My turn.

16 HEARING OFFICER JOSEPH-TAYLOR: He's just bad.

17 THE WITNESS: The water is all -- the groundwater  
18 flow is to the west from Thompson's to the line of springs  
19 that he used to have. And that water is still coming into the  
20 valley and it's going to the west, but it's -- it's all being  
21 consumed by ET.

22 So by pumping that, by pumping that water you  
23 capture the ET in the immediacy. And I don't know how long  
24 that would take, but it wouldn't take long I bet before --  
25 depending on the volumes of course, but you would start to see  
CAPITOL REPORTERS (775) 882-5322

595

1 some impact on the -- on the near phreatophytes, which as I  
2 remember, it's mostly rabbit brush right in there. There must  
3 be some greasewood somewhere, but I don't remember seeing it,  
4 the rabbit brush is out competing it.

5 But that would capture the ET in the immediacy.

6 And so what that means is then there would be drawdowns at the  
7 well obviously, but those drawdowns would not be propagated to  
8 the west and they would not add to the -- to the total  
9 groundwater decline that's there now. That's what I'm  
10 thinking.

11 Q. So in effect the allowance of wells in the  
12 location of those springs would not affect the overall  
13 situation with the over-pumping in the south?

14 A. I do not believe so.

15 Q. Are there any other conclusions that you've  
16 reached in this case that we haven't discussed yet?

17 A. No, that's about it. I said it all. It seems to  
18 me though, I'd like to say one more thing about the perennial  
19 yield. And we've talked about that ad nauseam, I know, but  
20 there's -- it's taken 50, 60 years to get where we are today.  
21 And groundwater levels I know have dropped as much as a  
22 hundred feet in some areas. And all that water that's been  
23 removed is transitional storage.

24 So I think the opportunity is there, I'm sure  
25 there are several decades left when the basin could be brought  
CAPITOL REPORTERS (775) 882-5322

596

1 into -- into balance. And there's -- there's a multitude of  
2 things that could be done. And of course none of them are  
3 cheap. And I think that's what needs to be thought about  
4 rather than going in and start chopping off pumping, I would  
5 think that with the transitional storage will support that  
6 basin for a long time. I mean, it has, it's done it for  
7 60 years. And I think with some proper -- proper programs you  
8 could begin to see some effect very quickly.

9 MR. KOLVET: Thank you, Mr. Katzer.

10 HEARING OFFICER JOSEPH-TAYLOR: What do you mean  
11 by some effect?

12 THE WITNESS: Well, I think -- I think you could  
13 start to bring that water table back and -- I would be talking  
14 about things like artificial recharge, bringing water in from  
15 different basins, phreatophyte control. I mean, know in some  
16 areas where all of the greasewood and rabbit brush have been  
17 decimated. And -- and that reduces the ET and the immediacy.  
18 I mean, that's a quick thing that happens, but it happened in  
19 Las Vegas Valley, for instance. I mean, they put subdivisions  
20 in, but they took out all of the ET. I mean, there's hardly  
21 any ET left down there. It's all -- it's all managed water  
22 now.

23 But -- and the water table would come back in  
24 the -- if you started doing things like that.

25 HEARING OFFICER JOSEPH-TAYLOR: Is most of the ET  
CAPITOL REPORTERS (775) 882-5322

597

1 in the northern part of the valley?

2 THE WITNESS: Yes, yes. Most of the ET, there's  
3 like -- something like 20-some-odd thousand, 29,000 ET in the  
4 north, there was 1400 in the south and that's Jim Harrill's  
5 numbers from bulletin 35.

6 HEARING OFFICER JOSEPH-TAYLOR: How would getting  
7 rid of the ET in the north part of the valley stop the drop in  
8 groundwater levels in the southern part of the valley?

9 THE WITNESS: Well, they wouldn't be used, you  
10 would change the gradients. Gradients right now have been  
11 reversed and all of that water in the north is going to the  
12 south to fill up the big void.

13 Well, if you cut -- you cut off what is being  
14 used in the north, which is -- it's probably -- I don't know  
15 what the actual number is, but I would imagine the cone of  
16 depression has captured maybe somewhere around 10- to  
17 15,000-acre-feet of ET already, maybe almost half of it. But  
18 you could stop the other -- you could -- you could slow it  
19 down, you can't stop it, you can slow it down. And you'd  
20 never do anything to the 4 or 5,000 that goes off the playa.

21 HEARING OFFICER JOSEPH-TAYLOR: Thank you.

22 THE STATE ENGINEER: While we're on this topic,  
23 if you don't mind, the first thing that comes to mind is so  
24 you take up that ET, aren't there concerns about what moves  
25 in, I mean -- or is it just you're going to have to manage  
CAPITOL REPORTERS (775) 882-5322

598

1 that significant -- are you worried about invasive species  
2 moving in if you take out that ET?

3 THE WITNESS: There's a great example in Owens  
4 Valley where it dropped -- the water table went down, the  
5 phreatophytes, everything died that lived off of the  
6 groundwater. But the plants that lived off of the soil  
7 moisture zone did fine. And that's what you have to depend  
8 on.

9 You have to -- whatever those -- and Steve was  
10 talking about some of that stuff yesterday about the types --  
11 different types of grasses that you could probably plant in  
12 there. But I know it's -- I know it could be done.

13 HEARING OFFICER JOSEPH-TAYLOR: I'm just thinking  
14 critical management area.

15 THE WITNESS: Right.

16 HEARING OFFICER JOSEPH-TAYLOR: These are the  
17 kind of things that people need to be talking about.

18 Cross-examination? Who's first, Ms. Ure?

19 MS. URE: Sure. I'm going to try to start with  
20 Mr. Smith first and then --

21 HEARING OFFICER JOSEPH-TAYLOR: Sure.

22 MS. URE: -- Mr. Katzer.

23 CROSS-EXAMINATION

24 BY MS. URE:

25 Q. Good morning, Mr. Smith, my name is Therese Ure  
CAPITOL REPORTERS (775) 882-5322

599

1 and I'm representing the Etcheverry Family Trust and Cattle  
2 Company and Mr. Benson. How are you today?

3 ANSWERS BY MR. SMITH:

4 A. Great. Thank you.

5 Q. Did you develop a regional groundwater model for  
6 the Mount Hope project?

7 A. That's correct.

8 Q. Did the model incorporate Diamond Valley?

9 A. It did.

10 Q. And then did you calibrate the model to a steady  
11 state predevelopment condition?

12 A. I did. And what I defined as predevelopment  
13 conditions was the late '50s into the early '60s time frame,  
14 that those are the data I used to define my steady state.

15 Q. Did you utilize any of the information provided  
16 by Mr. Harrill's reconnaissance series report as input into  
17 the model?

18 A. Yes.

19 Q. Did that information incorporate the annual  
20 discharge from Big Shipley and Thompson Springs?

21 A. It included the discharge as of the time frame  
22 that I was calibrating to, so that would be the -- that the  
23 1965 measurements I assumed were steady state. And I have to  
24 be clear in Diamond Valley, that's not absolutely  
25 predevelopment. I assumed it's a steady coded rated state,  
CAPITOL REPORTERS (775) 882-5322

600

1 steady state.  
2 Q. So, for Big Shipley was that number -- I guess  
3 what number did you use for Big Shipley?  
4 A. For Big Shipley Spring it was approximately the  
5 values that -- that Harrill presented from the 1965-66  
6 measurements, which would be somewhere in the neighborhood of  
7 67 CFS.  
8 Q. Okay. And then which did you use for -- or what  
9 measurement did you use for Thompson?  
10 A. I honestly can't recall.  
11 HEARING OFFICER JOSEPH-TAYLOR: And I want to  
12 know how the general modeling model is relevant here.  
13 MS. URE: I'm just questioning him on what he  
14 believed was the steady state and what time period.  
15 HEARING OFFICER JOSEPH-TAYLOR: Okay. I'm not  
16 going to let you go a lot further on another case.  
17 MS. URE: Oh, yeah, I'm done with that line of  
18 questioning.  
19 BY MS. URE:  
20 Q. In Exhibit 303 there's a picture of Big Shipley  
21 and under that picture is a measurement and I believe you  
22 testified to that yesterday?  
23 A. Exhibit 303, is that Mr. Eakin's 1962 report?  
24 HEARING OFFICER JOSEPH-TAYLOR: Yes.  
25 THE WITNESS: Right there is a photo caption, a  
CAPITOL REPORTERS (775) 882-5322

601

1 reported discharge 15 CFS.  
2 BY MS. URE:  
3 Q. Do you know where that 15 CFS number came from?  
4 A. I do not.  
5 Q. Have you ever expressed in writing that climate  
6 change has a potential to affect the flow of springs?  
7 A. Climate change. I -- I -- I believe that climate  
8 affects springs to varying degrees, every spring is an  
9 individual, you know, has its individual characteristics.  
10 Q. Okay. So in your inner flow hydrology 2012  
11 report, didn't you state that long-term climate change and  
12 variability including lag and response time effects are a  
13 potential for discharge decline?  
14 A. I believe -- can you point me to the right  
15 document?  
16 Q. I believe it's -- I have it quoted in  
17 Exhibit 302, but it's from your inner flow hydrology 2012  
18 report.  
19 HEARING OFFICER JOSEPH-TAYLOR: Is that  
20 Exhibit 108, his expert report?  
21 MS. URE: Our experts actually quoted it in 302  
22 and I didn't cross-reference it, I'm sorry.  
23 HEARING OFFICER JOSEPH-TAYLOR: I don't think she  
24 can point you to your document, Mr. Smith.  
25 THE WITNESS: I think I can, if you'd like I  
CAPITOL REPORTERS (775) 882-5322

602

1 think I can clarify it, but I want to make sure I'm reciting  
2 the same document.  
3 MS. PETERSON: Do you want a copy of Exhibit 302?  
4 He can have my copy.  
5 MS. URE: No, I think I am corrected.  
6 MR. TAGGART: Objection. If she can't find the  
7 document she can't ask the question.  
8 HEARING OFFICER JOSEPH-TAYLOR: Sustained.  
9 BY MS. URE:  
10 Q. In your -- did you write a journal report for  
11 NWRA?  
12 A. I have coauthored a report.  
13 Q. In that report did you make reference to the  
14 climate change as a potential effect?  
15 MR. TAGGART: Objection, vague. A report, I  
16 mean, I'm not sure what report we're talking about. The  
17 witness has written many things for NWRA.  
18 HEARING OFFICER JOSEPH-TAYLOR: I still don't  
19 know what document you're talking about either so I'll  
20 sustain.  
21 THE WITNESS: I'm a little confused too, so.  
22 BY MS. URE:  
23 Q. Okay. So am I correct in saying that your NWRA  
24 report is in 2004 and it was entitled Climate and Barometric  
25 Pressure Influences on Peterson's Spring Discharge in the  
CAPITOL REPORTERS (775) 882-5322

603

1 Carbonate Aquifer Near Muddy Springs, Southern Nevada, and it  
2 was in the Journal of the Nevada Water Resources Association,  
3 volume 1, number 1, pages 76 through 103?  
4 A. I'm familiar with that journal article.  
5 Q. And did that journal article -- in that journal  
6 article did you make a statement that the long-term climate  
7 change and variability are a potential cause or explanation  
8 for long-term water level trends?  
9 A. Long-term water level trends. I would have to  
10 look at the article, but I -- that is very possible that's  
11 related to the southern carbonate aquifer in the Muddy River  
12 Springs area. And we have spent quite a bit of time looking  
13 at climate variability. I do not recall seeing any long-term  
14 climate change associated with water levels of spring  
15 discharge, but we do see shorter climate cycle influences on  
16 water levels in the spring discharges.  
17 Q. Okay. You testified as to the different sources  
18 of measurements that were on your figure 1, I believe, and  
19 figure 2?  
20 A. Yeah.  
21 Q. The estimates prior to 1966, did you testify that  
22 you did not know about the quality of those estimates, am I  
23 recalling that correctly?  
24 A. The only estimate that we -- we know for certain  
25 was only a visual estimate. Did not have a physical basis of  
CAPITOL REPORTERS (775) 882-5322

604

1 measurement is the measurement by Paine -- or the visual  
2 observation, visual estimate of Paine in 1912.  
3 The other reported discharges from Shipley Hot  
4 Spring I was not able to find the precise basis for those  
5 reports.  
6 Q. Okay.  
7 MS. URE: Okay. Good morning, Mr. Katzer, I'm  
8 going to move on to you.  
9 MR. KATZER: Good morning.  
10 CROSS-EXAMINATION  
11 BY MS. URE:  
12 Q. Do you have personal knowledge of this spring  
13 flow other than Thompson Springs prior to 2008 did you go out?  
14 ANSWERS BY MR. KATZER:  
15 A. Yes, yes.  
16 Q. Okay. Can you explain that for me?  
17 A. I was out there for the -- for the USGS back in  
18 the early '80s. Prior to the onset of wet -- the wet years  
19 '82, '83 and '84 when the springs were dry.  
20 Q. And when you say the springs, which springs are  
21 you --  
22 A. Thompson Springs. And all of the other springs  
23 along the 5800 contour line.  
24 Q. Did you do any measurements prior to 2008 on  
25 Shipley?  
CAPITOL REPORTERS (775) 882-5322

605

1 A. No.  
2 Q. Okay. Do you believe that -- or do you know  
3 Robert Lansky?  
4 A. Yes.  
5 Q. Have you worked with him before?  
6 A. Yes.  
7 Q. Do you believe that he is competent to take water  
8 measurements?  
9 A. Yes, I do.  
10 Q. I believe in your testimony you stated that the  
11 best way to determine spring water discharge is irrigated  
12 acres; is that correct?  
13 A. I think that's one of the better ways, yes.  
14 Q. Did you estimate how many acres were irrigated at  
15 the Cox Ranch?  
16 A. I did not.  
17 Q. How about Willow?  
18 A. No.  
19 Q. Thompson?  
20 A. No.  
21 Q. Shipley -- or Sadler Ranch?  
22 MR. TAGGART: Objection, he wasn't offered to  
23 give testimony about irrigation at Shipley Spring.  
24 MS. PETERSON: That's not his witness.  
25 MR. TAGGART: That's --  
CAPITOL REPORTERS (775) 882-5322

606

1 HEARING OFFICER JOSEPH-TAYLOR: Well, we're doing  
2 it as a panel and one, you're answering too fast. Overruled.  
3 Overruled.  
4 MR. TAGGART: Can I make my objection for the  
5 record?  
6 HEARING OFFICER JOSEPH-TAYLOR: Yes.  
7 MR. TAGGART: This witness was not put on by us  
8 to present evidence about irrigated acreage at Shipley Spring  
9 and he did not offer testimony in his -- in his direct on  
10 irrigated acreage at Shipley Spring. So in our view it's  
11 beyond the scope of his direct.  
12 HEARING OFFICER JOSEPH-TAYLOR: So noted.  
13 Proceed.  
14 BY MS. URE:  
15 Q. Okay. Mr. Katzer, I believe in your testimony  
16 yesterday you discussed that spring discharge was part of the  
17 water budget; is that correct?  
18 A. Yes.  
19 Q. And then I believe you stated that, and I'm  
20 trying to clarify because you guys were going really fast for  
21 me yesterday. But, I have in my notes that you stated that  
22 Thompson was four CFS and then it fell to two CFS; is that  
23 correct?  
24 A. I thought I said five.  
25 Q. Okay. Now, what are you basing your five CFS on?  
CAPITOL REPORTERS (775) 882-5322

607

1 A. I was raised on a farm. I have done a lot of  
2 irrigation, I've moved a lot of water in ditches and it would  
3 seem to me that -- that just -- and I don't know the acreage,  
4 but just looking at what -- what Milt Thompson had in front of  
5 him on all of those fields that it would take somewhere around  
6 five CFS, and that's just thinking back to my -- to my  
7 upbringing thinking about those -- the amount of water in a  
8 ditch and how far you could spread it.  
9 Q. Okay.  
10 MS. URE: Okay. I have no further questions.  
11 HEARING OFFICER JOSEPH-TAYLOR: Thank you.  
12 Ms. Peterson?  
13 MS. PETERSON: Thank you. I was going to start  
14 with Mr. Smith.  
15 CROSS-EXAMINATION  
16 BY MS. PETERSON:  
17 Q. Mr. Smith, I'm Karen Peterson representing Eureka  
18 County and one of the questions I have for you was do you have  
19 any other opinions based on your work that you've done in this  
20 case for your client that have not -- you didn't testify to  
21 yesterday or are not contained in your reports?  
22 MR. TAGGART: I'm going to just object, we're  
23 not -- we're not allowed to offer an opinion that's not  
24 included in a report, so I think it's inappropriate to ask him  
25 if he has any conclusions, if I'm not -- if I'm not allowed to  
CAPITOL REPORTERS (775) 882-5322

608

1 ask him questions about conclusions that he made that aren't  
2 in his report.

3 HEARING OFFICER JOSEPH-TAYLOR: You can stop,  
4 it's so broad. Ms. Peterson, opinions about what?

5 MS. PETERSON: I said about his work that he's  
6 done on this project for his client.

7 HEARING OFFICER JOSEPH-TAYLOR: I apologize, I  
8 missed that. I have a problem with that. Sustained.

9 BY MS. PETERSON:

10 Q. Mr. Smith, do you know how far the Brown wells  
11 are from Shipley Hot Spring?

12 ANSWERS BY MR. SMITH:

13 A. Approximately.

14 Q. How far?

15 A. The -- approximately three miles.

16 Q. And do you -- there's wells that are on the Brown  
17 property; is that correct, the Brown Ranch?

18 A. There are two wells that I'm aware of.

19 Q. And what's the pumping at those wells, the  
20 pumping rate?

21 A. I don't know precisely today. I believe only one  
22 well has been active in the recent years and it supports one  
23 pivot. So I would have to estimate that possibly in the  
24 neighborhood of 800 gallons a minute to support a pivot.

25 Q. And I -- your report indicated that there was a  
CAPITOL REPORTERS (775) 882-5322

609

1 well in 1977 on -- installed on the Brown Ranch?

2 A. Yes.

3 Q. Is that the well you're talking about when you  
4 just gave me that rate?

5 A. I believe that the well, I'm not a hundred  
6 percent sure, but I believe that the well that's being  
7 utilized today is actually the older 1960 well, but I could be  
8 incorrect on that. It's one or the other.

9 Q. Okay. And to your knowledge, there's only one  
10 well pumping, is that what you stated?

11 A. Just in the last year. If -- there have been  
12 periods where both wells were pumped and to support two  
13 pivots, but not this last year.

14 Q. And do you know what the maximum -- because I'm  
15 assuming you've looked at records regarding those wells, have  
16 you looked at records regarding those wells?

17 A. At some point in the past I've looked at the well  
18 logs.

19 Q. And how about any -- I think there's  
20 measurements, aren't there USGS measurements on those wells?

21 MR. TAGGART: Objection, that's a compound  
22 question.

23 HEARING OFFICER JOSEPH-TAYLOR: Aren't there  
24 USGS --

25 MR. TAGGART: Well, she asked a question before  
CAPITOL REPORTERS (775) 882-5322

610

1 that and then she asked about USGS measurements.

2 HEARING OFFICER JOSEPH-TAYLOR: Read it back to  
3 me, please, Michel.

4 (Record read.)

5 HEARING OFFICER JOSEPH-TAYLOR: Overruled.

6 THE WITNESS: I believe you're referring to water  
7 level measurements, depth of water measurements.

8 BY MS. PETERSON:

9 Q. Sure.

10 A. I am aware of the water level measurements and I  
11 believe that the majority of the measurements are made by the  
12 State, not the USGS, they're made in generally in the March  
13 time frame before the start of the irrigation season. And  
14 they're made at the lower well that was drilled in 1960 is the  
15 point of current water level monitoring.

16 Q. And then how about -- I think your report  
17 mentions how much water has been pumped from those wells,  
18 historical records?

19 A. Oh, yes. I have made a review of the aerial  
20 photography that Mr. Frazer testified to and compiled. So we  
21 have a series of -- of photos on -- that cover the Brown Ranch  
22 area.

23 So what we see on the Brown Ranch area and to my  
24 credit I believe I offered some, an estimate that over the  
25 long term, over the past four and a half decades, plus or  
CAPITOL REPORTERS (775) 882-5322

611

1 minus, the long-term average irrigated area on the Brown Ranch  
2 has been approximately 250 acres.

3 Now, it's varied back and forth, but the average  
4 has been about 250 acres. And that goes all the way back to  
5 the late 1960s time frame with the drilling of that first  
6 flowing artesian well.

7 So prior to the drilling of that well in 1960 the  
8 main source -- the only source of water on the ranch was  
9 primarily Siri or Eva Spring, it goes back all different ways,  
10 and then there's also a smaller spring, I believe James White  
11 Spring to the south of that. And there may have been some  
12 smaller springs, but those were the primary sources.

13 So in 1960 there was the drilling of a well on  
14 the ranch. It was initially reported the flow 400 gallons a  
15 minute. So there was an additional source of water. By the  
16 time we get to the aerial photography, the irrigated acreage  
17 was if I recall correctly maybe around 80 acres, something on  
18 that order of magnitude prior to the drilling of the well.  
19 Photographs after the drilling of that well indicate  
20 approximately 200 up to 250 being sustained throughout time.

21 There's a period of time, 1977, an additional  
22 well was drilled. And what has happened is Siri Spring has  
23 ceased to flow. So there's been kind of an offsetting stress  
24 on the aquifer system there. You now have -- you originally  
25 had Siri Spring and the flowing artesian well. Now you have  
CAPITOL REPORTERS (775) 882-5322

612

1 two pumped wells.  
2 In the 1980s, late 1980s the photography  
3 suggested the irrigated area increased up to the neighborhood  
4 of 500 acres. In the 1990s it looks like it shrunk all the  
5 way back down to about a hundred acres.

6 The State has been including this area in the  
7 crop inventory since 2006. And the irrigated acreage has if I  
8 recall it's been between 100 and 300 approximate acres on the  
9 Bell Ranch. You take all of the information on the irrigated  
10 acreage and it's approximately 250. And it was up at that  
11 level in the late '60s and early '70s. It was --

12 So from my perspective as a hydrologist the --  
13 there was an increase in groundwater development at the ranch,  
14 but it occurred in the 1960s, with the drilling of that  
15 artesian well. From that time forward there's been some ups  
16 and downs in the amount of stress in the aquifer system, but  
17 the average has been pretty constant over -- over five  
18 decades.

19 Q. Thank you. You heard Mr. Katzer's testimony  
20 yesterday?

21 A. Yes.

22 Q. And do you agree with Mr. Katzer's opinion that  
23 ET is another factor that's affecting the water level declines  
24 in Diamond Valley?

25 A. I don't know if I heard Mr. Katzer say that. It  
CAPITOL REPORTERS (775) 882-5322

613

1 is -- ET discharge is still consuming groundwater out there.  
2 I do recall him expressing that. So, I think, you know, we as  
3 technical people understand that we have the pumping  
4 consumption of water, but we still have ET consuming part of  
5 the water budget also, and that's where Mr. Katzer referred to  
6 transitional storage. You'll continue to withdraw  
7 transitional storage even in a balanced system until -- until  
8 you captured enough discharge to balance out.

9 In Diamond Valley we can never reach that point  
10 in the present level of pumping, but there's ET still  
11 consuming groundwater also in Nevada.

12 Q. Do you have -- turning to Harrill's, it's  
13 Exhibit 304, do you have that in front of you?

14 A. I don't have a complete report.

15 Q. You don't have the complete report?

16 A. No.

17 MS. PETERSON: Do you have one?

18 HEARING OFFICER JOSEPH-TAYLOR: We'll get one,  
19 Ms. Peterson. 304.

20 MS. PETERSON: And we should keep it up there  
21 because I do have a question for Mr. Katzer, too.

22 HEARING OFFICER JOSEPH-TAYLOR: Okay.

23 THE WITNESS: Okay.

24 BY MS. PETERSON:

25 Q. Have you read this report before?  
CAPITOL REPORTERS (775) 882-5322

614

1 A. Yes.

2 Q. Could you turn to page 56?

3 A. (Complies.) I'm on page 56.

4 Q. Could you read the two paragraphs under natural  
5 groundwater yield?

6 A. Sure. In the middle of the page, page 56.

7 Q. Oh, you don't have to read them out loud, you  
8 just want to read --

9 A. Oh.

10 Q. -- well, go ahead, read it out loud, that's  
11 great.

12 HEARING OFFICER JOSEPH-TAYLOR: Slowly.

13 THE WITNESS: "The large springs principally in  
14 northern -- in the northern Diamond sub area (plate 2) provide  
15 a natural groundwater supply of about 80 -- 8,400-acre-feet  
16 per year (table 9). For many years most of the discharge has  
17 been used to irrigate hay, natural pasture, alfalfa and native  
18 grasses. Because of the relatively uniform flow throughout  
19 the year and because of the short growing season, only about a  
20 third of the total spring discharge is put to beneficial use.

21 "The bulk of the flow is consumed largely by  
22 non-beneficial evaporation in areas of phreatophytes  
23 downstream from the spring outlets."

24 BY MS. PETERSON:

25 Q. And the table 9 that's referred to is the table  
CAPITOL REPORTERS (775) 882-5322

615

1 on page 55 of that -- wait, is the table on page 31 of that  
2 report?

3 A. Correct.

4 Q. And then flows for Shipley Spring on table 9, the  
5 average that I guess Mr. Harrill put there was 4,900-acre-feet  
6 per year?

7 A. Correct. Based on his three measurements of 1965  
8 and 1966.

9 Q. And my -- do -- is it fair to say that that  
10 paragraph on page 56 of the report is indicating that only  
11 one-third of the 4,900 gallons per minute -- or acre-feet per  
12 year is put to beneficial use?

13 A. Well --

14 Q. Based on Harrill's observation?

15 A. I don't agree with that. Number one, it doesn't  
16 point to a specific spring in that statement, that's a very  
17 broad statement, but I also just don't agree with that  
18 statement.

19 Q. That's fair.

20 MS. PETERSON: Could we -- could we have from  
21 Exhibit 108 plate 1 put up on the screen?

22 HEARING OFFICER JOSEPH-TAYLOR: Let's be off the  
23 record.

24 (Short off the record.)

25 HEARING OFFICER JOSEPH-TAYLOR: Let's be on the  
CAPITOL REPORTERS (775) 882-5322

616

1 record. So, Ms. Peterson, we've got plate 1 on Exhibit 108  
2 did you say?

3 MS. PETERSON: Yes. I'm wondering if you could  
4 possibly get that a little larger on the screen?

5 TECHNICAL ASSISTANT: Where do you want it?

6 MR. KOLVET: All of it.

7 MS. PETERSON: Yeah, that's great. Thank you.  
8 And maybe even a little bit more north to see a little bit  
9 more north. Thank you.

10 BY MS. PETERSON:

11 Q. Mr. Smith, what do the dash lines on plate 1  
12 represent?

13 A. The dash line is my interpretation of a drawdown  
14 contour. I've dashed it where approximate. And the solid  
15 lines are where I can be more precise or exact.

16 Q. And would it be fair to say that for your  
17 interpretations related to the dash lines you don't have data  
18 to support that?

19 A. Absolutely not. I think I have quite a bit of  
20 data to support those lines.

21 HEARING OFFICER JOSEPH-TAYLOR: You've all seen  
22 the light.

23 BY MS. PETERSON:

24 Q. So what -- so what date are you referring on for  
25 your dashed lines?  
CAPITOL REPORTERS (775) 882-5322

617

1 A. The -- as in the title, it's Predicted Drawdown  
2 Between 1960 to this Year, 2013.

3 Q. So what data is that based on?

4 A. As of data collected through this summer, as all  
5 the historic data available up to the 1960 time frame.

6 Q. Okay. Thank you. Do you know if any shot holes  
7 are still flowing near the Sadler Ranch?

8 A. I wouldn't say near the Sadler Ranch, but I have  
9 observed some shot holes up to the north of the Brown Ranch.  
10 Out on the -- actually out into the edge of the playa, they're  
11 on the playa.

12 Q. Are you familiar with the 1982 curtailment  
13 proceedings before the State Engineer in Diamond Valley?

14 A. I'm aware that that occurred, but I have limited  
15 knowledge on the details.

16 Q. Are you aware of anyone or have come across any  
17 information of anybody from the Sadler Ranch complaining to  
18 the State Engineer about declining water flows in 1982?

19 A. I'm not aware as part of those proceedings, no.

20 Q. Did you perform any analysis of what the impacts  
21 would be from pumping 6,924-acre-feet from the Sadler wells --  
22 the Sadler proposed wells in the Sadler Ranch application at  
23 issue in this proceeding?

24 A. No, I have not made any analysis.

25 Q. Did you make an analysis of the impacts from  
CAPITOL REPORTERS (775) 882-5322

618

1 pumping 7,457-acre-feet from the proposed Sadler application  
2 at issue in this proceeding?

3 A. I have not made any analysis of the effects of  
4 pumping, but I would offer that we're trying to reestablish  
5 what I feel strongly was the natural flow of the spring. So,  
6 I believe the source is there and we're basically trying to  
7 reestablish what was a preexisting discharge to land surface.

8 Q. And are you -- have you looked at -- they have  
9 these township cards in the records of the State Engineer's  
10 Office, have you looked at any of the township cards related  
11 to the Sadler Ranch area to determine if there's any other  
12 water rights?

13 A. No, I have not.

14 Q. Are you aware that there is an 1880 vested claim  
15 at the Bailey Ranch? Certificated vested claim at the Bailey  
16 Ranch?

17 A. I -- I have some general knowledge on the Bailey  
18 Ranch that that was a spring fed ranch also. Harrill measured  
19 the -- what he called the Bailey Spring at I believe 1.1 CFS  
20 in his 1965-66 fieldwork. I am aware that that spring ceases  
21 to flow and in the 1990s was granted a permit to pump  
22 groundwater to replace that lost source of spring flow. I am  
23 aware that they likewise had the vested claim on that spring.

24 Q. And are you aware that there were two  
25 certificates issued by the State Engineer in 1913 --  
CAPITOL REPORTERS (775) 882-5322

619

1 MR. TAGGART: Objection.

2 BY MS. PETERSON:

3 Q. -- for those vested --

4 HEARING OFFICER JOSEPH-TAYLOR: Grounds?

5 MR. TAGGART: It's vague as to certificate.

6 HEARING OFFICER JOSEPH-TAYLOR: Overruled.

7 MR. TAGGART: Well, may I make a record then? My  
8 understanding is that there's certificates that are issued for  
9 water rights that are filed under the statutory procedure.  
10 And I think there's -- there's vagueness in the question of  
11 whether she's referring to those types of certificates or a  
12 different type of certificate that existed in the history of  
13 Nevada water law.

14 HEARING OFFICER JOSEPH-TAYLOR: Okay. Overruled.

15 THE WITNESS: I have not made a detailed review  
16 of the water rights on the Bailey Ranch. I just have the  
17 general knowledge that I just presented.

18 BY MS. PETERSON:

19 Q. Okay. And then there's another certificate to  
20 the Bailey's 147 on their vested right?

21 HEARING OFFICER JOSEPH-TAYLOR: I'm sorry, say  
22 that again, Ms. Peterson.

23 BY MS. PETERSON:

24 Q. There's another certificate 147 on the Bailey's  
25 vested right issued again by the State Engineer in early March  
CAPITOL REPORTERS (775) 882-5322

620

1 1913?  
2 MR. TAGGART: Same objection.  
3 HEARING OFFICER JOSEPH-TAYLOR: Overruled.  
4 THE WITNESS: Again, I did not review that  
5 document.  
6 BY MS. PETERSON:  
7 Q. And the reason I'm asking is that my  
8 understanding of order 1226 requires that Applicants for these  
9 mitigation replacement groundwater rights need to comply with  
10 the provisions of NRS 533 and 534 when making their  
11 applications. Are you aware of that?  
12 MR. TAGGART: Objection, that's outside the scope  
13 of his direct and calls for a legal conclusion.  
14 HEARING OFFICER JOSEPH-TAYLOR: Sustained.  
15 You're on hydrology, he's not here as people who filed the  
16 applications.  
17 MS. PETERSON: Well, one of the grounds of  
18 granting an application under 533370 is whether the proposed  
19 pumping is going to impact existing rights, conflict with  
20 existing rights.  
21 HEARING OFFICER JOSEPH-TAYLOR: He's here as a  
22 hydrologist.  
23 MS. PETERSON: I'm asking if he's performed that  
24 analysis.  
25 HEARING OFFICER JOSEPH-TAYLOR: Ask your question  
CAPITOL REPORTERS (775) 882-5322

621

1 again.  
2 BY MS. PETERSON:  
3 Q. Have you performed any analysis to determine  
4 whether the pumping of -- the pumping of water applied for  
5 under Sadler Ranch's application will conflict with existing  
6 rights?  
7 A. I have not.  
8 Q. Okay. Thank you. And have you had any  
9 conversations with Tom Gallagher about these water rights?  
10 A. I have not.  
11 MS. PETERSON: Okay. Thank you. I was going to  
12 move on to Mr. Katzer.  
13 HEARING OFFICER JOSEPH-TAYLOR: Okay.  
14 CROSS-EXAMINATION  
15 BY MS. PETERSON:  
16 Q. Mr. Katzer, you -- oh, I'm Karen Peterson  
17 representing Eureka County. And you testified yesterday that  
18 you were aware of certain water level measurements for  
19 Thompson Springs, Taft Springs; do you recall that testimony?  
20 ANSWERS BY MR. KATZER:  
21 A. Water level measurements?  
22 Q. Yes.  
23 A. Water discharge.  
24 Q. You -- okay. You were talking about that you  
25 were aware of the measurements or discharged measurements that  
CAPITOL REPORTERS (775) 882-5322

622

1 were made by yourself for General Molly; do you recall that?  
2 A. We didn't make any discharge measurements on  
3 Thompson Spring for General Molly. We made them on Shipley.  
4 Q. Oh, on Shipley. Okay.  
5 A. Yes.  
6 Q. You were talking about there were some  
7 measurements made in the 1960s on Thompson Spring, USGS  
8 measurements; is that correct?  
9 A. Yes, there were three made.  
10 Q. And are you aware that there were measurements  
11 made by the State Engineer's Office in October 1912 by  
12 Mr. Paine on Horse Canyon and Taft Springs?  
13 A. I've heard that, but I don't know what they are.  
14 I haven't seen that data.  
15 MS. PETERSON: And this is part of the  
16 information that I only have one page related to this from the  
17 book in the State Engineer's Office, and so I'd like to show  
18 these.  
19 HEARING OFFICER JOSEPH-TAYLOR: I know what it  
20 is, Ms. Peterson. Go ahead.  
21 MS. PETERSON: Did you need copies?  
22 HEARING OFFICER JOSEPH-TAYLOR: Got it right  
23 here.  
24 MS. PETERSON: Okay.  
25 HEARING OFFICER JOSEPH-TAYLOR: Well, let me make  
CAPITOL REPORTERS (775) 882-5322

623

1 sure I'm looking at the same thing, please. Karen, let me  
2 make sure I'm looking at the same thing, please. Thank you.  
3 Go ahead.  
4 MS. PETERSON: Is that the same thing?  
5 HEARING OFFICER JOSEPH-TAYLOR: Yes, except my  
6 copies are better.  
7 THE WITNESS: Okay.  
8 BY MS. PETERSON:  
9 Q. Have you had a chance to read that, Mr. Katzer?  
10 A. Yes.  
11 Q. And would you agree that at least stated in this  
12 document, which I guess we should mark as an exhibit.  
13 HEARING OFFICER JOSEPH-TAYLOR: Let's mark it as  
14 339. It's 1912, I don't recall -- NDWR field book pages, Nels  
15 Toft, N-E-L-S, T-O-F-T.  
16 (Exhibit 339 marked for identification.)  
17 BY MS. PETERSON:  
18 Q. And is it fair to say, Mr. Katzer, that  
19 Exhibit 339 indicates that there was a measurement of Horse  
20 Canyon with a meter at .25 of a second-foot?  
21 A. Yes, I see that.  
22 Q. And that the larger source, which I believe he's  
23 referring to is Taft Springs had a measurement again by a  
24 current meter as 1.29-second-feet?  
25 A. Yes.  
CAPITOL REPORTERS (775) 882-5322

624

1 Q. And then this Exhibit 339 also describes the --  
2 the improvements and irrigation and portions of the property  
3 that were being used at that time; is that correct?  
4 A. Yes, that's correct.  
5 Q. Exhibit 219 was one of your photos, I'm turning  
6 now from this exhibit?  
7 A. Yes, yes.  
8 Q. Was one of your photos and it was the shot hole  
9 photo; do you remember that?  
10 A. Yes.  
11 Q. Do you know how many shot holes are still flowing  
12 in Diamond Valley?  
13 A. No.  
14 Q. And then directing your attention to Harrill  
15 Exhibit 304, I was going to direct your attention to page 56.  
16 A. To page?  
17 Q. 56.  
18 MR. TAGGART: What was the number on the Taft?  
19 MS. PETERSON: 339.  
20 HEARING OFFICER JOSEPH-TAYLOR: I'm sorry, I was  
21 marking exhibits, Ms. Peterson, I missed your question.  
22 MS. PETERSON: I was just asking Mr. Katzer if he  
23 could go to page 56 of Exhibit 304.  
24 THE WITNESS: Okay.  
25 ///  
CAPITOL REPORTERS (775) 882-5322

625

1 BY MS. PETERSON:  
2 Q. And you heard Mr. Smith read into the record that  
3 first paragraph under natural groundwater yield on page 56?  
4 A. I did.  
5 Q. And Harrill's observations about beneficial use?  
6 A. Yes.  
7 Q. And would you have any reason to dispute  
8 Mr. Harrill's observations about beneficial use of the springs  
9 in the north Diamond sub area?  
10 A. I guess I'm not sure about the volume. I know  
11 what he's saying, but I don't know if that's exactly right.  
12 Q. I'm going to again ask you couple of questions  
13 similar to those that I asked of Mr. Smith.  
14 Did you happen to look at the section cards?  
15 A. Oh, I know nothing about the water rights.  
16 Q. In that area?  
17 A. Any area.  
18 Q. Did you perform any analysis of pumping impacts  
19 of the five CFS or the eight CFS or the 2.5 CFS --  
20 A. No.  
21 HEARING OFFICER JOSEPH-TAYLOR: Let her finish  
22 her question.  
23 THE WITNESS: I'm trying to save some time.  
24 BY MS. PETERSON:  
25 Q. That are applied for in the applications pending  
CAPITOL REPORTERS (775) 882-5322

626

1 in these proceedings?  
2 A. No.  
3 Q. I believe you testified yesterday that you lived  
4 at the Cox Ranch, was it the Cox Ranch --  
5 A. Yes.  
6 Q. -- for a while?  
7 A. Yes.  
8 Q. And when was that?  
9 A. That was about 1957, summer of '57.  
10 Q. And do you know how much acreage was irrigated  
11 when you were there?  
12 A. 2005 -- oh, just kidding. All I know is that at  
13 that time there was nothing but green to the west and there  
14 cows everywhere literally.  
15 Q. Did you have any conversations with Tom Gallagher  
16 about these water rights?  
17 A. No.  
18 Q. The Thompson Springs water rights?  
19 A. (Shakes head.)  
20 MS. PETERSON: Thank you. I don't have any other  
21 questions.  
22 HEARING OFFICER JOSEPH-TAYLOR: Thank you. Do  
23 you need Exhibit 304 for redirect?  
24 THE WITNESS: Is there any chance I could make a  
25 statement about this?  
CAPITOL REPORTERS (775) 882-5322

627

1 HEARING OFFICER JOSEPH-TAYLOR: No.  
2 THE WITNESS: No chance at all.  
3 HEARING OFFICER JOSEPH-TAYLOR: Let me get  
4 Exhibit 304 back together. Nice try. He's never liked the  
5 hearing process, he's complained about it for 20 years.  
6 Redirect?  
7 MR. TAGGART: No questions.  
8 HEARING OFFICER JOSEPH-TAYLOR: No? Mr. Kolvet?  
9 CROSS-EXAMINATION  
10 BY MR. KOLVET:  
11 Q. Exhibit 339, which was introduced and you were  
12 asked about, do you have any response to put in that report?  
13 ANSWERS BY MR. KATZER:  
14 A. Well, I'd really be concerned. This is a  
15 snapshot in time, it's one measurement. And it doesn't tell  
16 you anything about the diurnal flow or the annual variability.  
17 I would not draw any conclusions on this at all. And it would  
18 help -- it would not help -- if I was doing an analyses like  
19 this again, this wouldn't be of any -- any use. I mean,  
20 that's just a number, it's a minimum flow. I don't even know  
21 what the precip was in two or three years preceding that,  
22 which is what it might take to bring the spring flow water  
23 into the valley. I'm not sure.  
24 Q. With respect to the measurements recorded on  
25 Thompson Springs in this report, which was 339, there are  
CAPITOL REPORTERS (775) 882-5322

628

1 later measurements in the '60s which exceed these numbers?  
2 A. Which are about twice that many.  
3 Q. Does that also raise concerns about the accuracy  
4 of these numbers --  
5 A. Yes.  
6 HEARING OFFICER JOSEPH-TAYLOR: Let him finish,  
7 Mr. Katzer. I'm not even hearing your questions.  
8 THE WITNESS: Sorry.  
9 BY MR. KOLVET:  
10 Q. The later measurements in the '60s, do those  
11 cause you some reason to question the numbers in Exhibit 339?  
12 A. Yes.  
13 MR. KOLVET: That's all I have.  
14 HEARING OFFICER JOSEPH-TAYLOR: Thank you. Any  
15 recross?  
16 MS. URE: No.  
17 MS. PETERSON: No.  
18 HEARING OFFICER JOSEPH-TAYLOR: Thank you.  
19 Questions of staff? Do you want to take a quick break or do  
20 you want to --  
21 MR. FELLING: I don't need a break.  
22 HEARING OFFICER JOSEPH-TAYLOR: Okay.  
23 Mr. Felling?  
24 ///  
25 ///  
CAPITOL REPORTERS (775) 882-5322

629

1 CROSS-EXAMINATION  
2 BY MR. FELLING:  
3 Q. For Mr. Smith. Good morning.  
4 MR. FELLING: That hydrograph that we drew on  
5 yesterday, we're going to need that eventually.  
6 HEARING OFFICER JOSEPH-TAYLOR: Thank you.  
7 BY MR. FELLING:  
8 Q. The Exhibit 137 is the -- is the letter by the  
9 State Engineer from 1913, it's an estimate -- or it's in  
10 that -- in that letter he, the State Engineer says he made an  
11 examination of the premises and estimated the flow of Shipley  
12 to be seven or eight CFS.  
13 And you said you discounted that and did not  
14 include that on this graph. Can you tell me why you  
15 discounted that?  
16 ANSWERS BY MR. SMITH:  
17 A. Well, I didn't include it on the graph because I  
18 believe that that's referring to -- to Mr. Paine, his staff's  
19 observations ten months prior that I didn't find any other  
20 records of measurements by the State Engineer's Office that I  
21 could relate that statement to. So I felt that that was  
22 basically citing the same information.  
23 Q. That -- that information you're referring to was  
24 eight CFS or a little more; is that correct?  
25 A. That was the field note; correct.  
CAPITOL REPORTERS (775) 882-5322

630

1 Q. And this is seven or eight CFS and in this letter  
2 does if not say that, quote, I have made an examination on the  
3 premises and estimated the water available from Big Shipley?  
4 A. That's what it says.  
5 Q. All right. And I'll just leave that as that.  
6 I want to talk a little bit about predevelopment  
7 flow of Shipley. And -- and I understand that there's not a  
8 lot of solid measurements that we can use to estimate that  
9 flow.  
10 So, what is -- what do you estimate to be the  
11 decline in flow from an average predevelopment flow to we'll  
12 say 19 -- 1980, and for that I'm referring to figure 1 from  
13 your Exhibit 108?  
14 A. Right. My interpretation is, and I believe this  
15 kind of converges from two different perspectives or angles.  
16 Number one, we went through the history of reported discharges  
17 from the spring. I've offered my opinion that assuming that  
18 all of these are visual, that the best available estimate is  
19 the average in there, that would be our most accurate estimate  
20 if they were all treated equally.  
21 But then going into that time frame that you  
22 mentioned, I actually placed it into the mid-'60s, but that  
23 whole mid-'60s through mid-'80s going into the possible 1990  
24 time frame, it looks to me like there's about a one-third  
25 reduction.  
CAPITOL REPORTERS (775) 882-5322

631

1 Q. And how many CFS would that be?  
2 A. On my chart that's about four CFS.  
3 Q. And you attribute that to artesian wells; is that  
4 correct?  
5 A. That is my physical explanation for that  
6 response.  
7 Q. So, would that mean that those artesian wells  
8 would have to flow an average of four CFS or more during that  
9 period of time?  
10 A. Not necessarily, not necessarily, because it's  
11 pressure head related.  
12 HEARING OFFICER JOSEPH-TAYLOR: Make sure she can  
13 hear you.  
14 THE WITNESS: I'm sorry. It's right. And it's a  
15 pressure-related phenomenon. So, what we have to think about  
16 is what was the initial pressure on the spring, we don't know  
17 that. I've offered that it could be as high -- it could have  
18 been as high as maybe 16 or 18 feet, but it could have been  
19 lower.  
20 Because we look at today there's only about -- we  
21 can measure it today because we have a well constructed in the  
22 fracture system. And we have used a survey level to measure  
23 the differentials. There's only about a foot, about 1.5 feet  
24 between the head and the fracture system on the elevation of  
25 the ditch. So you can kind of back compute from that. We  
CAPITOL REPORTERS (775) 882-5322

632

1 have two CFS today, maybe one-sixth of the flow that would  
2 back project to maybe ten feet of it.

3 But the reality is if you take -- it's not flow,  
4 it's head-related response. So if we take two or three feet  
5 of head off of say a ten-foot head just for round numbers, you  
6 take two -- say we take a quarter of the head or three, we  
7 take three feet of head off, that's a third of the flow. But  
8 it's not that you have to pump a one to one.

9 In fact, for the pumping center you're pumping  
10 much, much greater but that's -- that's the physical head  
11 response that you're receiving is much smaller.

12 You could also come in next to a spring and a  
13 spring that's regulated by a submerged orifice that's  
14 discharging out and -- and reduce that head possibly by a  
15 smaller discharge rate, but you messed up the head down there  
16 and now it's not able to daylight.

17 So that's -- that's my interpretation, you don't  
18 have to have a one for one pumping, but you do have -- it's  
19 the relationship and tension metric head that's driving the  
20 discharge, the daylighting of the source of the surface.

21 BY MR. FELLING:

22 Q. Okay. So I'd like to explore that a little  
23 further. And you've explained your point. How does that fit  
24 the water budget scenario where there's a certain amount of  
25 flow that is entering the valley and you have captured a small  
CAPITOL REPORTERS (775) 882-5322

633

1 part of it and then -- and then caused an increased amount of  
2 discharge from another spring, so you've turned -- in your  
3 scenario, you've turned what maybe we'll call it  
4 9,000-acre-feet of discharge into 6,000-acre-feet of discharge  
5 just by changing the location of the discharge.

6 How does that work on a water budget?

7 A. The other adjustment is the phreatophytes. We  
8 have affected the phreatophytes to some degree also. So it's  
9 not just that that artesian well affected absolutely only the  
10 spring discharge, there's going to be some phreatophyte  
11 response in the equation also.

12 Q. And what would that be?

13 A. That would probably be the differential.

14 Q. And would it be a decrease or an increase in  
15 phreatophyte discharge?

16 A. I would expect a decrease, but think about -- it  
17 gets complicated, Mr. Felling, because that spring discharge  
18 under natural conditions, before anything was there, that  
19 spring discharge was feeding and sourcing a lot of the  
20 phreatophyte water also. But somewhere in there you want --  
21 it's going to want to re-establish an equilibrium when you've  
22 created a drawdown the water's not daylighting, it's taking  
23 water from phreatophytes, there's also a phreatophyte  
24 adjustment locally to the declining water level.

25 And then you've also -- what happens though is  
CAPITOL REPORTERS (775) 882-5322

634

1 when that water is not discharging to phreatophytes it's  
2 probably still there as a resource, it's just not daylighting.  
3 So where is it going, it's going towards -- it's helping  
4 moving supply some of the pumping discharge.

5 Q. If you reduce the spring flow and reduce the  
6 phreatophyte ET you've cut the discharge even more and you  
7 violated the water budget even more than your previous  
8 scenario.

9 So instead of having 10,000-acre-feet we're just  
10 using a number of discharge that comes from springs, wetlands,  
11 the works.

12 A. Um-hum.

13 Q. You have some amount of artesian flow and at one  
14 point it was -- well, according to Harrill and your  
15 documentation, it was -- was it 500, 500 gallons a minute in  
16 the 1960s?

17 You've taken a discharge, a basin of  
18 10,000-acre-feet, taken 500-acre-feet a year of artesian  
19 spring flow and then reduced the Shipley's flow by four CFS,  
20 plus reduced the associated groundwater ET from phreatophytes,  
21 those numbers don't -- they don't add up?

22 A. I think they do, Mr. Felling, because if you look  
23 at the -- well, let's add these up.

24 The Brown Ranch artesian well was almost one CFS  
25 when it was drilled. So was the middle well, one CFS. The  
CAPITOL REPORTERS (775) 882-5322

635

1 Romano Ranch well, I mean, just for the five well logs we have  
2 was over four CFS when they were drilled.

3 Now, by the time Harrill was out and the system  
4 was in my opinion relatively equilibrated, it was down to only  
5 maybe one-quarter CFS at that point from the Romano Ranch  
6 wells, but those other wells are still discharging water also.

7 So if you add all this up and it was above that  
8 four CFS initially and then it subsided back down to some  
9 equilibrated flow rate, but again, you have to add all these  
10 flowing wells together.

11 Q. I -- I -- I don't -- I don't disagree with that.  
12 What was the average flow of all those flowing wells for that  
13 time period when they were drilled until your first seven CFS  
14 measurement in 1965?

15 A. I suspect the average flow was very close to that  
16 CFS -- or four CFS, I suspect. Because I know it was greater  
17 than that initially. And substantially possible at the Romano  
18 Ranch. And it equilibrated back to some level by the  
19 mid-'60s.

20 Q. Even though Harrill estimated a significantly --  
21 well, he didn't estimate, he reported a significant lower  
22 amount from those flowing wells in the 1960 --

23 A. If you add those flow measurements up from the  
24 Brown Ranch middle well to the Romano Ranch I believe you're  
25 going to get close to three CFS. I think you're in the  
CAPITOL REPORTERS (775) 882-5322

636

1 ballpark. Now you have all these other complicated dynamics  
2 that you've got to consider too about where is the water going  
3 that I started off my response on. It wasn't just the Romano  
4 Ranch in the picture there --

5 HEARING OFFICER JOSEPH-TAYLOR: Speak up, please.

6 THE WITNESS: It was not only the Romano Ranch  
7 wells, but it was the other wells, artesian wells to the north  
8 also, the middle well on the Sadler Ranch and the Brown Ranch.

9 I should add in there, Mr. Felling, and I don't  
10 know when the Brown Ranch started to pump their well either.  
11 We know it was drilled as a full artesian well in 1960, but at  
12 some point in time that started to be a pumped well too.

13 BY MR. FELLING:

14 Q. So, I want this -- I want this clear and on the  
15 record. You're stating for the record that the average flow  
16 of the artesian wells, that that average flow could reduce the  
17 discharge of the springs by an amount greater than those --  
18 the flow of those wells, is that what you're saying?

19 A. I don't -- I don't think that's -- that's really  
20 correct. I think that average flow matches pretty well first  
21 off.

22 Q. So now you think they're equal?

23 A. I don't know if they're absolutely equal, I think  
24 they match pretty well.

25 Q. Okay. I'd like to go up -- oh, I want to address  
CAPITOL REPORTERS (775) 882-5322

637

1 one other thing.

2 On -- on your figure 2, that's your comparison of  
3 precipitation to spring discharge at Shipley --

4 HEARING OFFICER JOSEPH-TAYLOR: Figure 2 of what  
5 exhibit?

6 MR. FELLING: Of Exhibit 108.

7 HEARING OFFICER JOSEPH-TAYLOR: Thank you.

8 BY MR. FELLING:

9 Q. In this case you compared Shipley Spring  
10 discharge to water year precipitation for I guess that year or  
11 the previous year; is that correct?

12 A. For 11 years.

13 Q. You characterize Shipley as a regional spring; is  
14 that right?

15 A. Yes.

16 Q. Would you expect a regional spring to respond  
17 directly to that year's precipitation?

18 A. I wanted to check for it. I thought there was a  
19 possibility that there -- we might see some response, but I  
20 would expect that regional spring to be buffered to some  
21 degree from the variability we see year to year.

22 Q. So did you compare Shipley Spring discharge to  
23 regional -- or trends in precipitation, cyclical  
24 precipitation?

25 A. No, I didn't do any long-term-type analysis. I  
CAPITOL REPORTERS (775) 882-5322

638

1 wanted to basically check to see if I could correlate that  
2 year's discharge with a water year high or low in  
3 precipitation.

4 Q. Would you expect that Shipley Spring discharge  
5 could -- could vary depending on weather cycles?

6 A. It's possible. It's certainly possible that  
7 there's some degree of variability that is climate cycle  
8 related. A climate cycle would be, you know, a larger drought  
9 or larger width period of a multiple year. That's possible,  
10 but we have so much other influence and effect on the spring  
11 here that I don't really know that one could define that.

12 Q. In your hydrograph, figure 1, behind you, that's  
13 your hydrograph for Shipley Spring flows.

14 A. Um-hum.

15 Q. Do you -- do you -- those -- the brown squares,  
16 the USGS measurements.

17 A. Um-hum.

18 Q. Do you notice how they increased since the 1980s  
19 from a level of six CFS to eight CFS?

20 A. Yes, by the late '80s you are -- you are --  
21 you're up to about 8.2 CFS.

22 Q. And you're aware of the early to mid-'80s wet  
23 period in Nevada?

24 A. Yes.

25 Q. Do you think that might have had something to do  
CAPITOL REPORTERS (775) 882-5322

639

1 with that change in Shipley Spring flow?

2 A. It could, but it's fairly speculative. Because I  
3 know that there are larger on the ground influences as far as  
4 what's happened with the stage on the spring flow, raising the  
5 water to try to divert out to the north, you know, I know that  
6 that has a physical effect also.

7 But, yeah, it's possible, it's just not something  
8 I can de -- you know, I can define in this circumstance,  
9 there's too many other variables and factors.

10 MR. FELLING: Thanks. No more questions.

11 HEARING OFFICER JOSEPH-TAYLOR: Any questions of  
12 staff? Mr. Walmsley?

13 CROSS-EXAMINATION

14 BY MR. WALMSLEY:

15 Q. Yes. Good morning, Terry -- Mr. Katzer.

16 ANSWERS BY MR. KATZER:

17 A. Good morning.

18 Q. I think it's a simple question. You discounted  
19 the 1912 Paine measurement as a snapshot in time; is that  
20 correct?

21 A. I did.

22 Q. From what I've heard through this hearing, many  
23 of the measurements on either springs from what I've seen  
24 constitute a snapshot in time; is that true?

25 A. That's correct.  
CAPITOL REPORTERS (775) 882-5322

640

1 Q. So in the absence of a well-maintained continuous  
2 measuring device on either Shipley Springs or Thompson  
3 Springs, there really isn't a way to analyze the diurnal  
4 effects on flow from either of these springs; is that true?

5 A. It becomes very difficult. On Shipley Hot  
6 Springs, for example, we had 40-some-odd measurements over  
7 four years. Finally, we put a recorder in the pond, but we  
8 didn't do that until 2011. And there was no opportunity to do  
9 anything like that for Thompson.

10 So, what the -- what the scientists did at the  
11 time was to take and make miscellaneous measurements and then  
12 connect the dots. And that's probably about the best they  
13 could do.

14 Q. Okay. Well, I -- I can agree with that because  
15 if you have a -- in the case of a working ranch and utilizing  
16 the water I believe that that is the best he could do. So I  
17 can agree with that type of measurement.

18 MR. WALMSLEY: So, that's pretty much all I have.  
19 Thank you, Terry.

20 HEARING OFFICER JOSEPH-TAYLOR: Any questions,  
21 Mr. King?

22 THE STATE ENGINEER: Nope.

23 HEARING OFFICER JOSEPH-TAYLOR: Thank you,  
24 gentlemen. You may be excused. I want to make sure on  
25 exhibits --

CAPITOL REPORTERS (775) 882-5322

641

1 MR. TAGGART: I have a list I wanted to ask you  
2 about if I may.

3 HEARING OFFICER JOSEPH-TAYLOR: Yeah, I wanted to  
4 go through with you too.

5 MR. TAGGART: I went over with Ms. Geddes this  
6 morning but --

7 HEARING OFFICER JOSEPH-TAYLOR: I think there's a  
8 few of yours that are not in.

9 MR. TAGGART: What about -- do you want to  
10 start --

11 HEARING OFFICER JOSEPH-TAYLOR: Folks, folks,  
12 we're on the record, please.

13 MR. TAGGART: You want to start or would you like  
14 me to?

15 HEARING OFFICER JOSEPH-TAYLOR: You can go ahead.

16 MR. TAGGART: Okay. 120.

17 HEARING OFFICER JOSEPH-TAYLOR: Any objection to  
18 the admission of Exhibit 120?

19 MS. PETERSON: Let me -- I just need to look at  
20 it.

21 HEARING OFFICER JOSEPH-TAYLOR: It's USGS  
22 bulletin.

23 MS. PETERSON: That's fine.

24 HEARING OFFICER JOSEPH-TAYLOR: Exhibit 120 will  
25 be admitted.

CAPITOL REPORTERS (775) 882-5322

642

1 (Exhibit 120 admitted into evidence.)

2 MR. TAGGART: 146.

3 HEARING OFFICER JOSEPH-TAYLOR: Is in.

4 MR. TAGGART: All right. 152 and 153.

5 HEARING OFFICER JOSEPH-TAYLOR: Have not been  
6 offered.

7 MR. TAGGART: Okay. We offer those into  
8 evidence, that's the '82 Harrill memo and the '82 capture  
9 letter.

10 MS. PETERSON: No objection.

11 HEARING OFFICER JOSEPH-TAYLOR: Thank you. 152  
12 and 153 will be admitted.

13 (Exhibits 152 and 153 admitted into  
14 evidence.)

15 MR. TAGGART: 154 are well logs for the Romano  
16 wells and for wells on Sadler Ranch. And -- and so they  
17 weren't talked about specifically, but they were utilized in  
18 Mr. Smith's analysis. So, I think they'd be helpful, but --  
19 and so we offer them into evidence.

20 HEARING OFFICER JOSEPH-TAYLOR: Any objection to  
21 154?

22 MS. PETERSON: No objection.

23 HEARING OFFICER JOSEPH-TAYLOR: It will be  
24 admitted.

25 (Exhibit 154 admitted into evidence.)  
CAPITOL REPORTERS (775) 882-5322

643

1 MR. TAGGART: 189 is Dwight Smith's rebuttal  
2 report, we offer that into evidence.

3 HEARING OFFICER JOSEPH-TAYLOR: Any objection?

4 MS. PETERSON: No objection.

5 HEARING OFFICER JOSEPH-TAYLOR: 189 will be  
6 admitted.

7 (Exhibit 189 admitted into evidence.)

8 MR. TAGGART: All right. Then do you have -- and  
9 then I have a series at the end in the 600s that were all soil  
10 documents that Mr. Frazer relied upon in his testimony. He  
11 didn't mention them in his testimony, but they're -- they're  
12 the sources of -- of the statements he was making and I -- I  
13 asked opposing counsel two days ago, I said I'd be offering  
14 these in and they could take a look at them and see if they  
15 had any objection.

16 HEARING OFFICER JOSEPH-TAYLOR: Who relied on  
17 these, Mr. Taggart?

18 MR. TAGGART: Mr. Frazer.

19 HEARING OFFICER JOSEPH-TAYLOR: Frazer.

20 MR. TAGGART: They're soils reports and it would  
21 be 606.

22 HEARING OFFICER JOSEPH-TAYLOR: Let's go through  
23 them one at a time.

24 MR. TAGGART: All right.

25 HEARING OFFICER JOSEPH-TAYLOR: Any objection to  
CAPITOL REPORTERS (775) 882-5322

644

1 606?  
2 MS. PETERSON: No objection.  
3 HEARING OFFICER JOSEPH-TAYLOR: It will be  
4 admitted.  
5 (Exhibit 606 admitted into evidence.)  
6 MR. TAGGART: 608.  
7 HEARING OFFICER JOSEPH-TAYLOR: Any objection?  
8 MS. PETERSON: No objection.  
9 HEARING OFFICER JOSEPH-TAYLOR: 608 will be  
10 admitted.  
11 (Exhibit 608 admitted into evidence.)  
12 MR. TAGGART: And then 610 through 613.  
13 HEARING OFFICER JOSEPH-TAYLOR: Any objection?  
14 MS. PETERSON: No objection.  
15 HEARING OFFICER JOSEPH-TAYLOR: 610 through 613  
16 will be admitted.  
17 (Exhibits 610 through 613 admitted into  
18 evidence.)  
19 MR. TAGGART: And then is 614 in evidence?  
20 HEARING OFFICER JOSEPH-TAYLOR: It's in.  
21 MR. TAGGART: Thank you. That is the list that I  
22 see I want to have in evidence.  
23 HEARING OFFICER JOSEPH-TAYLOR: Mr. Kolvet, any  
24 housekeeping we need to take care of for you?  
25 MR. TAGGART: He's not done with his case.  
CAPITOL REPORTERS (775) 882-5322

645

1 HEARING OFFICER JOSEPH-TAYLOR: I know, but he  
2 nods to me too. Go ahead.  
3 MR. KOLVET: I do. Thank you. Yes, with respect  
4 to Mr. Katzer's testimony and report, the report's already in  
5 evidence, but he references several exhibits. One is 207, I  
6 don't believe is in yet.  
7 HEARING OFFICER JOSEPH-TAYLOR: It is not.  
8 MR. KOLVET: I would offer 207.  
9 MS. PETERSON: I actually had a question for  
10 Mr. Katzer on 207, but it was never offered during his  
11 testimony, so I don't --  
12 HEARING OFFICER JOSEPH-TAYLOR: That didn't stop  
13 you from asking about it, they've been picking up your  
14 exhibits and asking about it. So things in your exhibits.  
15 MS. PETERSON: Well, he had moved for most of the  
16 admission of Mr. Katzer's exhibits yesterday.  
17 MR. KOLVET: I did do that, but this exhibit was  
18 relied on by Mr. Katzer in preparing his report, it's  
19 referenced in his report specifically.  
20 HEARING OFFICER JOSEPH-TAYLOR: Is there going to  
21 be an objection to the admission?  
22 MS. PETERSON: I'm going to object.  
23 HEARING OFFICER JOSEPH-TAYLOR: I'm going to  
24 overrule it and admit it.  
25 MR. KOLVET: Thank you.  
CAPITOL REPORTERS (775) 882-5322

646

1 (Exhibit 207 admitted into evidence.)  
2 MR. KOLVET: 210 likewise was relied on by  
3 Mr. Katzer in his report and it based -- it was the basis of  
4 some of his testimony out on the ledge.  
5 HEARING OFFICER JOSEPH-TAYLOR: Any objection to  
6 210?  
7 MS. PETERSON: No objection.  
8 HEARING OFFICER JOSEPH-TAYLOR: It will be  
9 admitted.  
10 (Exhibit 210 admitted into evidence.)  
11 MR. KOLVET: 211 wasn't referenced, it's another  
12 photograph that was submitted as part of his report. I'll  
13 offer it.  
14 HEARING OFFICER JOSEPH-TAYLOR: Any objection to  
15 211?  
16 MS. PETERSON: I don't have an objection.  
17 HEARING OFFICER JOSEPH-TAYLOR: Thank you. 211  
18 will be admitted.  
19 (Exhibit 211 admitted into evidence.)  
20 MR. KOLVET: Same for 212.  
21 HEARING OFFICER JOSEPH-TAYLOR: Any objection?  
22 MS. PETERSON: No objection.  
23 HEARING OFFICER JOSEPH-TAYLOR: 212 will be  
24 admitted.  
25 (Exhibit 212 admitted into evidence.)  
CAPITOL REPORTERS (775) 882-5322

647

1 MR. KOLVET: 220 I believe is the last photograph  
2 that --  
3 HEARING OFFICER JOSEPH-TAYLOR: Any objection to  
4 220?  
5 MS. PETERSON: No objection.  
6 HEARING OFFICER JOSEPH-TAYLOR: 220.  
7 (Exhibit 220 admitted into evidence.)  
8 HEARING OFFICER JOSEPH-TAYLOR: Does that take  
9 care of yours for right now, Mr. Kolvet?  
10 MR. KOLVET: It does.  
11 HEARING OFFICER JOSEPH-TAYLOR: Let's be off the  
12 record and --  
13 MS. PETERSON: I have a question.  
14 HEARING OFFICER JOSEPH-TAYLOR: Sure.  
15 MS. PETERSON: Is the graph up there going to be  
16 admitted as an exhibit?  
17 HEARING OFFICER JOSEPH-TAYLOR: It hasn't been  
18 offered.  
19 MR. TAGGART: No.  
20 HEARING OFFICER JOSEPH-TAYLOR: Okay. We'll be  
21 off the record.  
22 MS. PETERSON: I -- I do have one more.  
23 HEARING OFFICER JOSEPH-TAYLOR: One more what?  
24 MS. PETERSON: We'd move to admit Exhibit 339.  
25 HEARING OFFICER JOSEPH-TAYLOR: Oh. 339, any  
CAPITOL REPORTERS (775) 882-5322

648

1 objection?  
2 MR. TAGGART: One second, please.  
3 HEARING OFFICER JOSEPH-TAYLOR: That's our field  
4 book, 1912 field book.  
5 MR. TAGGART: Of course, yes, I'm not involved in  
6 that.  
7 MR. KOLVET: No objection.  
8 HEARING OFFICER JOSEPH-TAYLOR: Thank you. 339  
9 will be admitted.  
10 (Exhibit 339 admitted into evidence.)  
11 HEARING OFFICER JOSEPH-TAYLOR: Now we'll be off  
12 the record. Ten-, 15-minute recess.  
13 (Recess taken.)  
14 HEARING OFFICER JOSEPH-TAYLOR: Let's be on the  
15 record. Mr. Taggart indicated that he wanted us to go ahead  
16 since this is your case, Mr. Kolvet. Call your next witness,  
17 please.  
18 MR. KOLVET: That makes me feel badly. I had to  
19 sit through all of his stuff.  
20 HEARING OFFICER JOSEPH-TAYLOR: Had to?  
21 MR. KOLVET: I call George Thiel.  
22 HEARING OFFICER JOSEPH-TAYLOR: Mr. Thiel, please  
23 stand and be sworn.  
24 ///  
25 ///

CAPITOL REPORTERS (775) 882-5322

649

1 GEORGE THIEL,  
2 called as a witness in this matter,  
3 having been first duly sworn,  
4 testified as follows:  
5  
6 DIRECT EXAMINATION  
7 MR. KOLVET: I would prior to Mr. Thiel's  
8 testimony offer him as an expert in water rights and  
9 hydrobiology. I believe he's qualified several times before  
10 this body.  
11 HEARING OFFICER JOSEPH-TAYLOR: He has been  
12 qualified here in my records twice in water rights and  
13 hydrology, I'm a little concerned about hydrology, Mr. Thiel,  
14 what's your background in hydrology? Water rights I don't  
15 have a problem with.  
16 THE WITNESS: Okay. Through my coursework at the  
17 University of Washington I had courses in hydrology. When I  
18 went to the -- came to the State Engineer's Office in -- I  
19 think it was 1981 I worked extensively in various sections  
20 within the State Engineer's Office working on hydrology and  
21 geohydrology issues. Some of the stuff I worked on had to do  
22 with Eureka Valley, Steptoe Valley on doing analysis using the  
23 Maxey-Eakin method and looking at sub-basins as far as flow  
24 with White Pine power applications.  
25 I worked with the -- this basin I would say in  
CAPITOL REPORTERS (775) 882-5322

650

1 '81, '82, use and landsat imagery going through the various  
2 USGS reports that existed at the time working on certain  
3 analysis for Mr. Morros, who was the State Engineer with  
4 regard to basin flow and using landsat imagery with regard to  
5 pumping within the valley, built truthing, et cetera.  
6 HEARING OFFICER JOSEPH-TAYLOR: I do a lot of  
7 that kind of stuff too, Mr. Thiel, but I'm not a hydrologist,  
8 I need the hydrology.  
9 THE WITNESS: I worked with the Yucca Mountain  
10 project on doing groundwater modeling with the USGS. I  
11 coauthored the USGS model with Ival Shoe and Greg Billeau  
12 which were published on.  
13 That had to do with 26 different basins in the  
14 basin interflows on the discharge to Ash Meadows and Amargosa  
15 Desert, it was quite extensive.  
16 I worked on modeling and issues associated with  
17 water projects up at Hualapai Flat and San Emidio including  
18 pump testing and hydrology up there. Let me think, where  
19 else?  
20 HEARING OFFICER JOSEPH-TAYLOR: Tell me about  
21 your coursework in hydrology.  
22 THE WITNESS: Court work?  
23 HEARING OFFICER JOSEPH-TAYLOR: Course, education  
24 in hydrology.  
25 THE WITNESS: It's been so long ago.  
CAPITOL REPORTERS (775) 882-5322

651

1 HEARING OFFICER JOSEPH-TAYLOR: Yeah, but you're  
2 trying to qualify as an expert in this.  
3 THE WITNESS: I've been qualified before, it's  
4 just not showing up here.  
5 HEARING OFFICER JOSEPH-TAYLOR: I'm questioning  
6 it.  
7 THE WITNESS: But anyhow, I -- my coursework had  
8 to do with surface water with regard to flow measurements,  
9 general stuff for civil engineering with regard to that.  
10 I took courses with regard to pump testing and  
11 the results associated with pump testing on looking at  
12 transmissivity, storativity, constants. I've done quite a bit  
13 of work in that area.  
14 I've done work up on Clear Creek, for example, in  
15 locating the fault, Genoa fault and looking at fracture flow  
16 within that area. Yucca Mountain project I participated on  
17 the nests that were associated with -- up near the Yucca  
18 Mountain lock.  
19 HEARING OFFICER JOSEPH-TAYLOR: That what?  
20 THE WITNESS: There was a series of nests of  
21 wells.  
22 HEARING OFFICER JOSEPH-TAYLOR: Nests. Okay.  
23 THE WITNESS: Yeah, that were small zometers put  
24 in. And we worked on radioactive tracing through the mountain  
25 walk.  
CAPITOL REPORTERS (775) 882-5322

652

1 HEARING OFFICER JOSEPH-TAYLOR: Worked on  
2 radioactive tracing through the mountain walk.  
3 THE WITNESS: Yeah, in other words, there was  
4 some chemical and radioactive tracing, but my role was fairly  
5 minor in that, but I participated in the pump test on the  
6 Yucca Mountain project that was ongoing at that time.  
7 HEARING OFFICER JOSEPH-TAYLOR: I have no problem  
8 with water rights, Mr. Kolvet. Why do we need him as  
9 hydrogeology? I have some issues with hydrogeology.  
10 MR. KOLVET: Well, there are going to be and  
11 there have been testimony in this case about the flows and the  
12 impacts of pumping on certain flows and spring sources and  
13 things of that nature. Although Mr. Katzer's testified and  
14 touched on some of that. Mr. Thiel's testimony will also  
15 touch on those areas and will in part rely on that but also  
16 rely on USGS reports regarding those areas.  
17 Mr. Thiel's interpretation of that is also part  
18 of his report. His CV by the way is Exhibit 231, I would  
19 offer that to support his expertise in these areas. That's  
20 why.  
21 HEARING OFFICER JOSEPH-TAYLOR: Let's be off the  
22 record.  
23 (Short off the record.)  
24 HEARING OFFICER JOSEPH-TAYLOR: Let's be on the  
25 record. Mr. Kolvet, we are very uncomfortable with qualifying  
CAPITOL REPORTERS (775) 882-5322

653

1 Mr. Thiel as an expert in hydrogeology or hydrology and we  
2 think it was a mistake to have done so previously. We have no  
3 problem qualifying him as an expert in Nevada water rights and  
4 he'll be so qualified in that.  
5 MR. KOLVET: Just for the record, I am aware of  
6 two hearings in which he was qualified as a hydrologist and  
7 hydrogeologist. One was the Amargosa hearings which were held  
8 before Mr. Turnipseed. The other one was the Yucca Mountain  
9 project which I was the attorney for both of those cases and  
10 he qualified.  
11 HEARING OFFICER JOSEPH-TAYLOR: It's so noted,  
12 but we're questioning it.  
13 MR. KOLVET: I understand you're questioning it,  
14 but there will be questions related to the area of testimony  
15 and I believe that you can take it -- his testimony for what  
16 you want to give it, but he's going to be doing that  
17 testimony. I don't know how you deal with that, but.  
18 THE STATE ENGINEER: Mr. Kolvet, I would also add  
19 we certainly understand based on the CV he's a registered  
20 professional engineer, he's got some background in some  
21 hydrology so he is an expert in Nevada water rights, we don't  
22 need to qualify him as a registered professional engineer.  
23 But we certainly understand that he is that and that should  
24 get some deference as well.  
25 MR. KOLVET: Thank you. I would though offer  
CAPITOL REPORTERS (775) 882-5322

654

1 before we go too much further 231, which is Mr. Thiel's CV.  
2 HEARING OFFICER JOSEPH-TAYLOR: Any objection to  
3 the admission of Exhibit 231?  
4 MS. PETERSON: No, no objection.  
5 HEARING OFFICER JOSEPH-TAYLOR: Thank you.  
6 MR. KOLVET: Before we get into --  
7 HEARING OFFICER JOSEPH-TAYLOR: 231 will be  
8 admitted. I'm sorry.  
9 MR. KOLVET: I'm sorry.  
10 HEARING OFFICER JOSEPH-TAYLOR: Trying to do  
11 three things at once.  
12 (Exhibit 231 admitted into evidence.)  
13 BY MR. KOLVET:  
14 Q. Mr. Thiel, could you state for the record your  
15 educational background?  
16 A. I have a bachelor of science of civil engineering  
17 from the University of Washington. I graduated there in 1976.  
18 Q. As part of your civil engineering coursework did  
19 you take any classes or courses specifically related to the  
20 issues of water, flow readings, that type of thing?  
21 A. I did.  
22 Q. What were those?  
23 A. I had classes associated with general hydrology  
24 regarding pump testing, determination of transmissivity,  
25 storativity, those issues related to that. I had classes  
CAPITOL REPORTERS (775) 882-5322

655

1 associated with it in general by -- or geology and groundwater  
2 movement.  
3 Q. Are you licensed as a civil engineer in any  
4 states?  
5 A. I'm licensed in five states.  
6 Q. What are those states?  
7 A. Arizona, Nevada, Idaho, California and I think I  
8 have one more, Utah.  
9 Q. When did you receive your license in Nevada?  
10 A. 1983.  
11 Q. As part of your employment background did you  
12 have occasion to work for the State Engineer's Office?  
13 A. I did.  
14 Q. When were you employed at the State Engineer's  
15 Office?  
16 A. I believe it was 1981 through 1984.  
17 Q. And what type of work did you do for the State  
18 Engineer?  
19 A. I basically worked in every section under the --  
20 Pete Morros, who was State Engineer at the time. I worked in  
21 the adjudication section for a while. I worked in the office  
22 engineering section for a while and I worked with the  
23 groundwater section for a while.  
24 Basically, Pete appointed me as a special  
25 projects engineer, anything that came up I would handle. I  
CAPITOL REPORTERS (775) 882-5322

656

1 wrote rulings for the State Engineer, I reviewed permits, I  
2 did field investigations, did basin budgets, did various  
3 investigations with regard to recharging the basin,  
4 formulating technical results for the State Engineer for  
5 hearings and reviewing USGS publications in preparation for  
6 hearings and rulings, if you will.

7 Q. Did any of your special project work involve  
8 Diamond Valley?

9 A. It did.

10 Q. When was that?

11 A. That was in '81, '82. And basically what that  
12 work was in preparation I believe for the hearing that was  
13 held by Mr. Morros in 1982. And what my work involved was  
14 doing some investigation with regard to bulletin 35,  
15 reconnaissance report number 6 and looking at the issues  
16 regarding older pumpage. And the other aspect of it was to  
17 look at landsat imagery and working with USGS on the network  
18 that they had established on trying to set a remote station  
19 for the State Engineer's Office to further analyze that.

20 That work included going out and doing field  
21 measurements on the discharge of the wells and calibrating  
22 instrumentation with the University of Nevada. And with that  
23 I was working with USGS taking landsat imagery and doing the  
24 field calibrations necessary to look at the application of  
25 Diamond Valley for determining water consumption in the basin  
CAPITOL REPORTERS (775) 882-5322

657

1 and using another method to assess through landsat imagery  
2 system natural consumptive use programs for the future.

3 Q. Subsequent to your employment with the State  
4 Engineer what have you been doing?

5 A. Prior to that I worked for Washoe County Health  
6 Department. I was with them for a year and mostly that was  
7 having to do with sanitary engineering with wastewater  
8 treatment plants. And I also had -- worked on wells as far as  
9 going out and evaluating the wells for health standards  
10 primarily.

11 Q. After your employment with the State Engineer --

12 A. I'm sorry.

13 Q. -- what were you doing?

14 A. After my employment with the State of Nevada I  
15 left public work and went into working with CES in Reno,  
16 Nevada.

17 Q. What is CES?

18 A. Consulting Engineering Services. It was an  
19 environmental firm -- or actually it was a consulting firm.  
20 And I was running an office, a branch office out of Douglas  
21 County working with Bill Marshall. My tasks included doing a  
22 lot of water rights work for that firm and doing some water  
23 resource work.

24 Q. How long were you at CES?

25 A. I believe I was there about two and a half years  
CAPITOL REPORTERS (775) 882-5322

658

1 to my recollection.

2 Q. After CES what was your employment?

3 A. I went to work for a short period with Bentley, a  
4 Nevada corporation in Douglas County. And I was there for a  
5 short period working on the new science park that they were  
6 putting in.

7 I left there and went into private consulting on  
8 my own and formed a company with my partner, which was  
9 David Winchell at the time.

10 Q. And what kind of work did you do in that time  
11 frame?

12 A. Most of my work was isolated to the water rights  
13 and water resources that -- that was kind of my specialty  
14 after leaving the State Engineer's Office.

15 I handled some hearings, I think my first hearing  
16 that I had had to do with Goshute Valley with regard to  
17 protested applications on the Big Springs Ranch. And we were  
18 handling -- we were on the side of the Applicant and we  
19 were -- our advocate was the City of Wendover.

20 Q. What kind of work did you do in that regard?

21 A. I did work associated with investigations of the  
22 Big Springs Ranch discharge, looking at the discharge not only  
23 from the springs but what was occurring downgradient from the  
24 ranch. We looked at conveyance infrastructure delivered to  
25 the city of Wendover. And there was work that we were doing  
CAPITOL REPORTERS (775) 882-5322

659

1 based upon the dispute of what Wendover was doing with the  
2 development of the well field on the northern portion of  
3 Goshute Valley.

4 Basically, I was involved with analyzing the  
5 effects of drawdown in relation to the spring discharge area.

6 Q. Did you testify in any hearings related to that  
7 project?

8 A. I did.

9 Q. What hearings did you testify at?

10 A. That had to be probably in 1985 I would  
11 speculate, maybe a little later. And it was the hearings  
12 before the State Engineer that was held in the town of West  
13 Wendover.

14 Q. What was the nature of your testimony in that  
15 hearing?

16 A. The nature of my testimony was to provide --  
17 there was a two-step issue here, I think. We had protested  
18 the City of Wendover applications and we had to show the  
19 relationship of their impact of pumping within the groundwater  
20 aquifer on what would happen to the springs.

21 And we had looked at the -- we being myself  
22 because there was only two of us at the time looked at that  
23 impact occurring with regard to withdrawal within that  
24 groundwater basin.

25 Q. Were you qualified as an expert in this area?  
CAPITOL REPORTERS (775) 882-5322

660

1 A. I believe I was and -- it's been a long time ago,  
2 this was unexpected, but I believe I was qualified as an  
3 expert in water rights and water resources.

4 Q. Okay. In your consulting capacity generally  
5 since leaving the State Engineer's Office, how many projects  
6 do you estimate you've been involved in that deal with water  
7 rights and various aspects of water rights?

8 HEARING OFFICER JOSEPH-TAYLOR: And various  
9 aspects of what?

10 MR. KOLVET: Water rights.

11 THE WITNESS: Over the years probably hundreds.

12 BY MR. KOLVET:

13 Q. And in those hundreds have you been asked to  
14 provide opinions relating to the effects on an aquifer from  
15 pumping?

16 A. Yes.

17 Q. Have you been asked to testify regarding the  
18 approximate usage from various sources?

19 A. Yes.

20 Q. Historically?

21 A. Yes.

22 Q. Have you qualified before the State Engineer in  
23 those areas in previous hearings?

24 A. I have.

25 Q. How many times would you say?  
CAPITOL REPORTERS (775) 882-5322

661

1 A. I don't recall exactly the specific hearings, but  
2 multiple times, many times.

3 Q. And currently you are a licensed engineer in this  
4 state; is that correct?

5 A. I'm a licensed engineer in this state and I'm  
6 also a state water rights surveyor.

7 Q. How long have you held status as a water rights  
8 surveyor?

9 A. About 30 years.

10 MR. KOLVET: Just for the record I'd offer him  
11 again in those areas. I understand the ruling and the intent  
12 of the State Engineer to take his testimony in regards to his  
13 licensure and previous testimony.

14 HEARING OFFICER JOSEPH-TAYLOR: So noted. Will  
15 be qualified as an expert in Nevada water rights and water  
16 resources.

17 MR. KOLVET: Okay. Before I begin there's a  
18 couple of housekeeping matters. Mr. Thiel has prepared as  
19 what is Exhibit 234, which would be gone through in his  
20 testimony. There is a corrected version of 234 which I've  
21 provided to counsel and I have a couple copies here for the  
22 State Engineer.

23 HEARING OFFICER JOSEPH-TAYLOR: Thank you. So  
24 are we substituting these --

25 MR. KOLVET: I just added it as another exhibit,  
CAPITOL REPORTERS (775) 882-5322

662

1 that's probably the easiest housekeeping way to handle it.

2 HEARING OFFICER JOSEPH-TAYLOR: So we are going  
3 to mark these as -- do it 229, it will be right above his CV  
4 in the exhibit list.

5 MR. KOLVET: Thank you.

6 HEARING OFFICER JOSEPH-TAYLOR: We're going to  
7 call this corrected Thiel report?

8 MR. KOLVET: That's correct. I have extra  
9 copies.

10 MS. PETERSON: I think it's the PowerPoint.

11 MR. KOLVET: It is, it will be the PowerPoint  
12 presentation as it relates to his report. I'm sorry.

13 HEARING OFFICER JOSEPH-TAYLOR: Let's be off the  
14 record.

15 (Short off the record.)

16 HEARING OFFICER JOSEPH-TAYLOR: Let's be on the  
17 record. I am marking as Exhibit 229 the corrected Thiel  
18 expert presentation report.

19 (Exhibit 229 marked for identification.)

20 MR. KOLVET: Thank you. One other additional  
21 matter, I'm trying to find what the current number is on this.

22 HEARING OFFICER JOSEPH-TAYLOR: I'm sorry, I was  
23 marking exhibits, what did you say, Mr. Kolvet?

24 MR. KOLVET: There is one other matter and I need  
25 Mr. Thiel to tell me which specific one, Exhibit 250 or 251.  
CAPITOL REPORTERS (775) 882-5322

663

1 THE WITNESS: I think it's 250.

2 MR. KOLVET: The '79 survey exhibit?

3 THE WITNESS: It is.

4 HEARING OFFICER JOSEPH-TAYLOR: We're actually on  
5 the record, so --

6 MR. KOLVET: I understand.

7 HEARING OFFICER JOSEPH-TAYLOR: -- your mumblings  
8 are being taken down.

9 MR. KOLVET: I understand that, I'm just trying  
10 to clarify which exhibit this would go to. And for the  
11 record, what I'm providing is a transcription of the survey  
12 notes from 19 -- or 1879, which has previously been marked as  
13 Exhibit 250, which are the handwritten notes. This is a  
14 transcription of those notes.

15 HEARING OFFICER JOSEPH-TAYLOR: Can we attach it  
16 without objection to 251?

17 MS. PETERSON: 250.

18 MR. KOLVET: 250, I believe.

19 HEARING OFFICER JOSEPH-TAYLOR: Okay. They're  
20 both field survey notes. To 250, any objection to attaching  
21 it?

22 MS. PETERSON: No.

23 HEARING OFFICER JOSEPH-TAYLOR: Okay. Thank you.  
24 These are just going to be stapled to Exhibit 250. Okay. Any  
25 other housekeeping? We're on the record.  
CAPITOL REPORTERS (775) 882-5322

664

1 MR. KOLVET: I don't believe at this time.  
2 HEARING OFFICER JOSEPH-TAYLOR: Thank you.  
3 BY MR. KOLVET:  
4 Q. Mr. Thiel, were you retained by Daniel Venturacci  
5 to prepare and submit to the State Engineer certain proofs of  
6 beneficial use on vested rights?  
7 A. I was.  
8 Q. And did you in that effort compile a submittal to  
9 the State Engineer supporting vested rights claim related to  
10 the Thompson Ranch, Cox Ranch and Willow Field?  
11 A. Yes. In fact, that submittal also covered two  
12 other properties to the north on the original submittal, which  
13 I believe is -- that would be I believe --  
14 Q. If I direct your attention to Exhibit 23, is that  
15 proof one of the ones you prepared?  
16 A. Yes, it is.  
17 Q. And that would be for vested claim 01115; is that  
18 correct?  
19 A. That's correct.  
20 Q. And Exhibit 26 that related to vested claim  
21 03289?  
22 A. Let's see, I believe 3289 is for Shipley Springs.  
23 HEARING OFFICER JOSEPH-TAYLOR: It is, it's  
24 Saddler.  
25 MR. KOLVET: Oh, okay. I'm sorry.  
CAPITOL REPORTERS (775) 882-5322

665

1 BY MR. KOLVET:  
2 Q. What I'm referencing I guess, I can't read my own  
3 stuff here. Did you amend the proof filed in support of the  
4 vested claim 0115?  
5 A. I did.  
6 Q. 1115. And is that Exhibit 24?  
7 A. It is.  
8 Q. And with respect to vested claim 01115 what does  
9 that encompass?  
10 A. The -- there was three proofs including my second  
11 amended proof. With Exhibit 24 I believe that was the amended  
12 proof that was done by a firm out of Elko. Bill Nisbet. I  
13 did the second amended proof and there was a filing back in  
14 1912 on Exhibit 23 that was the original proof filing.  
15 So what I did was the second amended proof.  
16 Q. And what specifically are the differences between  
17 the original vested claim filing and what you prepared?  
18 A. Well, then I would go into this in more detail  
19 with regard to what was filed in 1912 and what was filed in  
20 1975. But, the major difference in that I was involved with  
21 on the second amended proof under Exhibit Number 26 involved  
22 taking all of the data and all the research that I compiled  
23 over the period of time.  
24 What I found lacking within the original proofs  
25 was any evidence going back prior to the 1905 vesting.  
CAPITOL REPORTERS (775) 882-5322

666

1 For example, on the original proof filed under  
2 0115 in 1912 by -- I believe it's Mrs. Taft, I often get Taft  
3 and Toft confused because they're close owners.  
4 But anyhow, there was different reasons for the  
5 original filing of the original proof. When the survey was  
6 done in 1975 that survey was predicated upon what existed in  
7 the field at the time and recognized by the survey. It did  
8 not go into any historic documentation or any data that  
9 existed in order to determine the vesting of those water  
10 rights.  
11 The issue I found with that was is that there's  
12 sufficient data and evidence that supports the new filings to  
13 support what I came up with after reviewing the 1879 survey  
14 map, which I didn't find that was done by either of the  
15 persons on the previous proofs.  
16 Looking at aerial photos for evidence of water  
17 use on the property and doing historical research on the land  
18 itself by reviewing any oral histories, reviewing some of the  
19 diaries that were out there. Reviewing what the records were.  
20 Unfortunately, what we have here is we have a  
21 situation where the best evidence has to be relied on the 1879  
22 survey based upon a guy being out in the field and his being  
23 there to support the physical land decrees and the process of  
24 going through the federal government to gain land, that was  
25 the only purpose for them being there.  
CAPITOL REPORTERS (775) 882-5322

667

1 You could not get a desert land entry or curiak  
2 (ph.) without first survey on the property. And part of his  
3 task was to witness any evidence of culture and activity that  
4 existed on the property. So, from that standpoint I had to  
5 look at that and what currently exists out there. And then I  
6 had to look at when that activity changed.  
7 So from my standpoint I did not weight one  
8 document greater than the other. You know, part of the effort  
9 we had to do is see what records existed in the county, you  
10 know, we had the water records book, for example, that was  
11 basically established by the 1866 legislature under chapter  
12 100 where at the time the legislature wanted to see what was  
13 necessary to go through and establish a water right and see  
14 what people were out there. What activity was occurring in  
15 the state.  
16 So the legislature talked to chapter 100 and they  
17 went through and said okay, here's what we have and we're  
18 going to require -- if you want to dig a ditch we want you to  
19 record it in the county recorder's office. So when you review  
20 the water books it's an intent on what you're going to do. It  
21 wasn't what you accomplished over a period of time.  
22 So then of course it went through various statute  
23 changes up through March 1st 1905 amendments and 1907  
24 amendments and 1909. And finally the framework for Nevada  
25 water law concerning surface water sources adjudication  
CAPITOL REPORTERS (775) 882-5322

668

1 procedures that was adopted March 22nd, 1913.

2 So anyhow, there's associated changes that I had  
3 to look at. So my task was to give evidence that existed  
4 prior to 1905 and trying to do a relations back to what I  
5 could find of the evidence that existed after that.

6 And fortunately, there's no person alive today  
7 that was around during that period of time and we can only  
8 speak to current history which it's helpful but not exacting.

9 Q. In your review of the vested claims submitted did  
10 you rely on the records of the local jurisdiction in Lander  
11 County at one point or Eureka County?

12 A. Yes, I did. I directed Mr. Venturacci to pull  
13 some of those records. And what I was looking for was, you  
14 know, periods prior to 1905. In other words, we looked at tax  
15 records in Eureka County from 1888 which would have been for  
16 the tax year of 1887 and went over it based upon certain  
17 periods of time randomly to find, you know, if we could be  
18 supportive from those records on what sort of activities was  
19 occurring and what interests were held by the people in that  
20 area. And at that time they were called -- it was a  
21 possessory interest. The patents didn't occur until later.

22 Q. And will your report later on go into more detail  
23 about some of these areas?

24 A. It will.

25 Q. Could I now direct your attention, I believe it's  
CAPITOL REPORTERS (775) 882-5322

669

1 to Exhibit 15, which is in evidence which is application  
2 81825?

3 A. Yes.

4 Q. Did you prepare this particular application?

5 A. I did not.

6 Q. Who did?

7 A. It was Bill Nisbet or William Nisbet.

8 HEARING OFFICER JOSEPH-TAYLOR: N-I-S-B-E-T.

9 THE WITNESS: Yeah, I'm sorry, I should have.

10 BY MR. KOLVET:

11 Q. Looking at the detailed description of the  
12 proposed project that you were just at, go back, which is  
13 number 12, what does it say?

14 A. It says, "Lands described to be irrigated under  
15 this application are identical to those described the map  
16 under amended claim 01115. It is presumed that the completion  
17 of spring water subject of that claim has occurred by reason  
18 of excessive pumping of underground water nearby.

19 "This application seeks to restore irrigation by  
20 diverting from underground that water which formerly  
21 discharged at the surface as Taft Springs and applied to said  
22 land in a supplemental manner."

23 Q. Okay. What was the nature of the application,  
24 was it for a new right, supplemental right, how was it  
25 described?

CAPITOL REPORTERS (775) 882-5322

670

1 A. It was requesting supplemental right, but by  
2 the -- what's discussed in section 12 of this application was  
3 basically using the supplemental right as a mitigation right  
4 to be able to withdraw water from an underground source where  
5 a spring existed previously.

6 Q. From paragraph 12 and the explanation there, is  
7 it safe to assume that while it's designated as supplemental  
8 this is an attempt to mitigate loss of what prior -- excuse  
9 me, prior appropriated water right?

10 A. Obviously, yes.

11 Q. Can I get you to go to Exhibit 28, which is  
12 application 82268?

13 A. I have it.

14 Q. Okay. Wrong ranch, I'm sorry.

15 A. I think we would be on application 82570,  
16 Exhibit 37.

17 Q. That's what I was looking for, I'm sorry. 82570  
18 would be Exhibit 37. Are you there?

19 A. I am.

20 Q. Did you prepare this application?

21 A. I did.

22 Q. Under the reasons for the application scroll on  
23 down, number 12, what's it say?

24 A. "This appropriation seeks to replace the vested  
25 rights existing on the property. From springs and seeps that  
CAPITOL REPORTERS (775) 882-5322

671

1 were used historically as a ranch within the place of use.  
2 Wells will be drilled to convey the water within the place of  
3 use for crop reduction, primarily for the production of  
4 alfalfa and other hay crops. This appropriation is sought to  
5 replace the historical use that occurred on or before 1858."

6 Q. And in paragraph 13, miscellaneous remarks, would  
7 you read those into the record, please?

8 A. Yes. "This application is being filed to  
9 mitigate impacts to existing vested rights on the Cox Ranch.  
10 This application seeks to supplement existing water --  
11 existing right for mitigation purpose only -- and is limited  
12 to the extent of historic senior water diversions associated  
13 with the Cox Ranch. This water is to be used in conjunction  
14 with the simultaneously filed application for Cox well number  
15 1.

16 Q. What is well number 1?

17 A. On the Cox Ranch, which is located just north of  
18 the Thompson/home ranch/Taft Ranch is the Cox Ranch. North of  
19 that is the Willow Ranch.

20 Q. Well 1 is referenced there, what does that mean?

21 A. There are two wells that are being proposed on  
22 the Cox Ranch for irrigation of 349 acres. Those wells were  
23 spaced apart so we're not having a huge drawdown effect on  
24 other wells within the area.

25 Q. What is the total diversion rate and duty asked  
CAPITOL REPORTERS (775) 882-5322

672

1 for in this particular application?

2 A. The total diversion rate under Cox well number 2  
3 under this application is 2.5 CFS. The total number of acres  
4 is 344.89 acres.

5 Q. Where was the amount of acreage derived from?

6 A. It was based upon the research that was done that  
7 described earlier looking at what existed prior to 1905, what  
8 existed after 1905 with the -- with regard to water usage that  
9 I could evidence and relying on some tax records and the  
10 conglomeration of information I put together.

11 Q. And the diversion rate, what do you base that on?

12 A. I base that on the ability between this well and  
13 the other well to occur. The issue we have here is that we  
14 had spring water rights that discharge year round. And  
15 basically wetted the ground, provided consumptive use to the  
16 crops. And what we're trying to do is replace these spring  
17 rights with a groundwater source.

18 So how do you simulate saturated soil when  
19 irrigation season starts in a different type of irrigation  
20 method?

21 So from my standpoint I had to look at it from a  
22 constant -- taking a constant discharge that occurred through  
23 springs and seeps and then rolling that over to an underground  
24 diversion to try and effectively produce a crop that would  
25 have been there for a -- and based upon a natural consumption  
CAPITOL REPORTERS (775) 882-5322

673

1 of discharge that occurred.

2 So typically these diversion rates are a lot  
3 higher than what occurred on the property because now the  
4 groundwater doesn't exist, I'm going to have to apply the  
5 water typical of normal from water irrigation methods just to  
6 replace what we have.

7 So to compare a crop type or spring right to a  
8 transition to an underground water right doesn't work it, it's  
9 a different character, it's a different type of utilization.  
10 So unless we were able to drill wells and get a constant flow  
11 rate commensurate with what occurred in the springs and pumped  
12 it, you know, 24 hours a day, seven days a week, every minute  
13 of every day, that's the only way we could simulate what those  
14 springs did.

15 MR. KOLVET: What -- what application number, I  
16 lost myself here?

17 HEARING OFFICER JOSEPH-TAYLOR: 82570.

18 BY MR. KOLVET:

19 Q. Okay. Let's go to Exhibit 44, which is  
20 application 82571. Did you again prepare this?

21 A. I did.

22 Q. And what is the diversion rate under this  
23 application?

24 A. This is also for 2.5 CFS that would be  
25 supplemental to 82570.

CAPITOL REPORTERS (775) 882-5322

674

1 Q. So what you're basically asking for in these two  
2 permits and this relates again to the Cox Ranch; is that  
3 correct?

4 A. That's correct.

5 Q. Is a total diversion rate for both sources of 2.5  
6 CFS?

7 A. No. The total diversion rate would have been for  
8 five CFS for 344.89 acres.

9 Q. So the duty would be not to exceed the duty  
10 necessary to irrigate that amount of land?

11 A. Well, the reason I have the high diversion rate  
12 on is because you're going to be applying the water, a large  
13 volume of water over a short period of time. And there's got  
14 to be resting associated with the wells. So it's not a  
15 constant diversion rate.

16 So, if I was going to apply a constant diversion  
17 rate of course that diversion rate would be lower in order to  
18 supply that duty.

19 Q. Okay. And what is the duty you're seeking under  
20 these two applications?

21 A. Well, from the issue that we're trying to  
22 transition from an ET that was relatively low to a different  
23 type of method of irrigation and simulate the same type of  
24 crop we wanted to get off that property. I think that the  
25 four-acre-feet per acre is what should be issued. Why should  
CAPITOL REPORTERS (775) 882-5322

675

1 we be different as a senior water right holder than what the  
2 junior water rights were given.

3 Frankly, depending on the method of irrigation  
4 three-acre-feet per acre might be acceptable, but at this time  
5 it appears to be four-acre-feet based upon the facts that I  
6 presented before you.

7 Q. Let's go to application then -- or before we go  
8 there, I'm sorry, could you drop down to the explanation of  
9 the application? Could you read into the record what's there?

10 A. For item number 12 or 13?

11 Q. 12?

12 A. Yes. "This appropriation seeks to replace the  
13 vested water rights existing on the property from springs and  
14 seeps. There were historically used or used historically as a  
15 ranch within the place of use.

16 "Wells will be drilled to convey the water within  
17 the place of use for crop production primarily for the  
18 production of alfalfa and other hay crops. The appropriation  
19 is sought to replace the historical use that occurred on or  
20 before 1858."

21 Q. That is the identical language to the other  
22 permit for the Cox Ranch that we've already discussed; is that  
23 right?

24 A. Yes, it is.

25 Q. And so both of these applications for the Cox  
CAPITOL REPORTERS (775) 882-5322

676

1 Ranch seek to mitigate lost water from the spring sources?  
2 A. Yes.  
3 THE STATE ENGINEER: Mr. Kolvet, may I interrupt  
4 real fast?  
5 MR. KOLVET: Sure.  
6 THE STATE ENGINEER: Mr. Thiel, I just want to be  
7 clear. So you're talking about mitigating vested claims on  
8 the Cox Ranch, are we talking about the same deed, 01115?  
9 THE WITNESS: No.  
10 THE STATE ENGINEER: It's a different one?  
11 THE WITNESS: That's a different one. And those  
12 according to the State's exhibits aren't on here that I could  
13 find.  
14 THE STATE ENGINEER: So those vested claims are  
15 not exhibits, is that --  
16 THE WITNESS: They are under I think  
17 Etcheverry's, but not -- not on the State's exhibits or under  
18 mine. I assume that we were talking all about the same  
19 filings and the same vested rights.  
20 THE STATE ENGINEER: Do you know the vested claim  
21 number for the Cox Ranch?  
22 THE WITNESS: I knew you were going to ask that.  
23 I don't recall exactly what the number is.  
24 THE STATE ENGINEER: And that's fine, I just  
25 wanted to be clear, I go to Etcheverry's exhibits and I see  
CAPITOL REPORTERS (775) 882-5322

677

1 there's a number of vested claims. So we'll tie them  
2 together, I just wanted to be clear that we're talking about  
3 other vested claims.  
4 THE WITNESS: Yes, this has nothing to do with  
5 01115 or 01114.  
6 THE STATE ENGINEER: Thank you.  
7 HEARING OFFICER JOSEPH-TAYLOR: Boy, I'd sure  
8 like to try to make the clearer that what vested claim numbers  
9 these two applications tie to. Are you able to do that, go  
10 down to about 424, Mr. Thiel -- or actually about -- yeah,  
11 about 424. Let's be off the record.  
12 (Short off the record.)  
13 HEARING OFFICER JOSEPH-TAYLOR: Let's be on the  
14 record. Mr. Thiel, did we ask you to look at exhibits in the  
15 400 series to see if you could figure out which proofs these  
16 applications are tied to?  
17 THE WITNESS: I believe that the filings that we  
18 just discussed refer to proofs 425 -- or Exhibit 425, which  
19 would be the amended proof that I filed.  
20 HEARING OFFICER JOSEPH-TAYLOR: What was the date  
21 the application was filed?  
22 THE WITNESS: I believe April of --  
23 HEARING OFFICER JOSEPH-TAYLOR: There we go, 44.  
24 THE WITNESS: They were originally filed on  
25 March 28th, 2013. And that would have been --  
CAPITOL REPORTERS (775) 882-5322

678

1 HEARING OFFICER JOSEPH-TAYLOR: So you filed  
2 applications and amended proofs on the same day it looks like.  
3 THE WITNESS: Yeah, I had the date of the filing  
4 as February 25th, 2013, and the map was filed March 28th, 2013  
5 under 82570. And I'm looking at Exhibit 44, application  
6 number 82571.  
7 HEARING OFFICER JOSEPH-TAYLOR: The reason I'm  
8 questioning is I don't think you can file an application in  
9 May and tie it to a proof that's amended in June if the  
10 application says proof on file in May.  
11 THE WITNESS: Would you run that through me  
12 again?  
13 HEARING OFFICER JOSEPH-TAYLOR: Well, I don't  
14 think you can file an application and say I'm filing this  
15 application on proof X and that's the proof that's on file,  
16 the date the application is filed, not an amendment that comes  
17 in six months later. You're referencing the proof that was on  
18 file at the time, that's why I'm looking at the dates.  
19 It looks like you amended the proof on the day  
20 you filed the application.  
21 THE WITNESS: I believe.  
22 HEARING OFFICER JOSEPH-TAYLOR: 424. Where's  
23 your exhibits?  
24 THE WITNESS: There it is.  
25 HEARING OFFICER JOSEPH-TAYLOR: That's the  
CAPITOL REPORTERS (775) 882-5322

679

1 original.  
2 THE WITNESS: Yep. I believe that was received,  
3 I don't quite understand what you're saying because the  
4 application was received February 25th, 2013.  
5 HEARING OFFICER JOSEPH-TAYLOR: That's why I'm  
6 looking at the dates, Mr. Thiel. The amended proof came in on  
7 the same day you filed the application. If an application  
8 came in and said I'm filing on proof 123 that was on file the  
9 date you filed the application, I don't think you can come in  
10 with an amended proof three months later and say the  
11 application relates to that amended proof.  
12 THE WITNESS: Except for the fact that I think  
13 the amended application had to do with corrections that had to  
14 be resolved according to review by the State Engineer's  
15 Office.  
16 HEARING OFFICER JOSEPH-TAYLOR: You're not  
17 tracking me. Go ahead, Mr. Kolvet.  
18 MR. KOLVET: Well, I'm not totally tracking  
19 either because the date of the amended proof is the same date  
20 that the new application -- or the application was filed.  
21 HEARING OFFICER JOSEPH-TAYLOR: That's why I was  
22 asking about the dates.  
23 MR. KOLVET: Right. So it's not like --  
24 HEARING OFFICER JOSEPH-TAYLOR: So I don't have a  
25 problem, that's why I was clearing up the dates.  
CAPITOL REPORTERS (775) 882-5322

680

1 MR. KOLVET: I'm sorry, I misunderstood where you  
2 were going.  
3 HEARING OFFICER JOSEPH-TAYLOR: If an amended  
4 proof came in three months after the application I would not  
5 look at the amended proof.  
6 MR. KOLVET: Okay.  
7 HEARING OFFICER JOSEPH-TAYLOR: Because that's  
8 not what the application said.  
9 THE WITNESS: Understood.  
10 HEARING OFFICER JOSEPH-TAYLOR: Okay.  
11 THE WITNESS: Thank you.  
12 BY MR. KOLVET:  
13 Q. And then if you go to 430, please, that's -- or  
14 431 is the amended proof for vested claim 02847?  
15 A. And your Exhibit 431?  
16 Q. Yes. What does this amended proof relate to,  
17 what property?  
18 A. This has to -- relates back to a surface water  
19 source on the Cox Ranch. In other words, from Cox scan.  
20 Q. Okay.  
21 MR. KOLVET: I would offer at this time 424, 425,  
22 430 and 431.  
23 HEARING OFFICER JOSEPH-TAYLOR: Any objection to  
24 the admission of 424, 425, 430 and 431?  
25 MS. PETERSON: No objection.  
CAPITOL REPORTERS (775) 882-5322

681

1 HEARING OFFICER JOSEPH-TAYLOR: Thank you.  
2 They'll be admitted.  
3 (Exhibits 424, 425, 430 and 431  
4 admitted into evidence.)  
5 BY MR. KOLVET:  
6 Q. Would you turn to Exhibit 52?  
7 A. (Complies.) Exhibit 52?  
8 Q. Yes.  
9 A. I have it.  
10 Q. What is Exhibit 52?  
11 A. This is the application on the -- for simplicity  
12 I'll just call it the home ranch, which would have been the  
13 Thompson Ranch/Taft Ranch.  
14 Q. And what does this application seek?  
15 A. This application is filed in conjunction -- or in  
16 conjunction with 81825. It's for another point of diversion  
17 on the ranch for five CFS for 1,636.36 acres.  
18 Q. From where did you derive the acreage figure?  
19 A. This was based upon the compilation of the data  
20 and information I put together based upon historical and  
21 current records of -- from all sources I could think of.  
22 Q. And again, we'll go into that in more detail in  
23 your presentation.  
24 A. I will.  
25 Q. And the diversion rate?  
CAPITOL REPORTERS (775) 882-5322

682

1 A. Is 5.0 cubic feet per second.  
2 Q. And again, the reason for this filing?  
3 A. The reason for this filing was based upon order  
4 number 1226 issued by the State Engineer allowing mitigation  
5 for impacted surface water rights within the basin number 153.  
6 Q. Let's go to Exhibit 60, please.  
7 A. I'm sorry?  
8 Q. 60.  
9 A. I have it.  
10 Q. What is Exhibit 60?  
11 A. This is an application filed on the northerly  
12 part of Mr. Venturacci's holdings which is referred to as  
13 Willow Field or also referred to as Willow Creek Field.  
14 Q. And what is the diversion rate?  
15 A. 2.0 CFS.  
16 Q. And on what did you base that?  
17 A. That was based upon the water necessary to be  
18 able to apply groundwater on the subject property that was  
19 vested.  
20 Q. And the amount of acreage that you seek to  
21 irrigate?  
22 A. 190.59.  
23 Q. And again, we'll get into more specifics how you  
24 arrived at that number.  
25 A. We will.  
CAPITOL REPORTERS (775) 882-5322

683

1 Q. And that's based on what you determined to be  
2 historic use on this property?  
3 A. Yes.  
4 Q. And again, the purpose for which this is filed?  
5 A. It's for mitigation of the -- what we'll refer to  
6 as the Thompson Spring complex which is along the contour  
7 interval 5800 that's been well documented.  
8 Q. At this point then, Mr. Thiel, could I get you to  
9 go to your presentation, your PowerPoint presentation?  
10 A. (Complies.)  
11 Q. Which is the amended one which is Exhibit --  
12 HEARING OFFICER JOSEPH-TAYLOR: 229.  
13 MR. KOLVET: 229. Thank you.  
14 BY MR. KOLVET:  
15 Q. And have you for purposes of this hearing  
16 prepared some testimony and slides, some PowerPoint slides  
17 related to your testimony?  
18 A. I have.  
19 Q. Okay. Why don't you proceed through that  
20 presentation, please?  
21 A. Okay. The first six pages we'll omit because we  
22 already went through that, which is my experience in the past  
23 and start on slide number 7, which is the general overview.  
24 So referring to slide number 7 everything here is  
25 predicated upon the State Engineer issuing order 1226, which  
CAPITOL REPORTERS (775) 882-5322

684

1 is Exhibit 2 within the Diamond Valley hydrographic basin.  
2 As we went through previously, Mr. Venturacci has  
3 filed for applications to mitigate the senior priority water  
4 rights in accordance with this order. And of course we all  
5 know what the purpose of this hearing is. And this is to  
6 refer back to exception number 4, which those applications  
7 filed to mitigate senior surface water rights that have been  
8 impacted by groundwater pumping under junior water rights.  
9 And that is one of those items under the consideration for  
10 applications in the future within Diamond Valley.

11 Going on to slide number 8, we've already  
12 discussed 81825 which was filed to mitigate home ranch vested  
13 right application or vested right V-01115, which is Exhibits  
14 15 in the record. It's an application for supplemental  
15 irrigation use filed prior to order 1226 with the intent as a  
16 replacement well for the lost spring rights.

17 We've already gone through the diversion rate.  
18 There's another application, I want to make this clear because  
19 I've seen some reports from Eureka County that question the  
20 Horse Canyon diversion and the other ephemeral streams in the  
21 area. Keep in mind that the primary use in most of these  
22 discharge areas from spring sources, the cultivation probably  
23 occurred first based upon the spring discharges and the growth  
24 of acreage of pasture or crop within those areas.

25 The surface water discharges from the canyons are  
CAPITOL REPORTERS (775) 882-5322

685

1 intermittent at best, I mean, they're ephemeral springs which  
2 means of short duration and they don't provide much water to  
3 the area.

4 So basically you have your primary right which is  
5 on the springs and seeps. You have your secondary right which  
6 would flow from the canyons and supplement what's ever use on  
7 those properties from the spring source.

8 So in my opinion you have the primary source of  
9 water which was the discharge along that fault and along the  
10 Thompson Spring complex. And we have the secondary source is  
11 from perennial waters from snow melt discharging through the  
12 canyons.

13 Q. Before you go past that is the application under  
14 consideration here, 81828 and the associated applications in  
15 any way related to the ephemeral stream source that's been  
16 mentioned?

17 A. Well, 81825 is the -- is not related to the  
18 creeks flowing out of the mountains. It's related to the  
19 spring sources; in other words, it replaces the spring  
20 sources.

21 I think you'll see amendments and -- where I've  
22 amended for Horse Canyon Creek, for example, is that water  
23 that flowed down from the property if we got a large amount of  
24 water it's used more than 50 acres within the place of use of  
25 the -- of the Taft Ranch or Thompson Ranch. And same with all  
CAPITOL REPORTERS (775) 882-5322

686

1 the other areas.

2 So from that example whatever water came from  
3 those creeks or those canyon discharges were used wherever  
4 they could on the ranch. So we're not saying we have  
5 four-acre-feet per acre from the springs and we're adding  
6 another four-acre-feet per acre, if we only got  
7 three-acre-feet and we get a quarter acre that was used.

8 So in other words, it's all supplemental and  
9 mixed resources that we use to supply irrigation to these  
10 properties.

11 Q. Go ahead.

12 A. Okay. I believe we went through 81825 that  
13 described the third bullet down here which is regard to  
14 V-01114, which is from the Horse Canyon diversion. And  
15 basically that supplements whatever water is available from  
16 the spring source.

17 It was for eight CFS like we discussed  
18 previously. And my opinion is a little bit optimistic and  
19 that may have to be adjusted down, but that's what was applied  
20 for. And the filing was to mitigate the loss of the springs.

21 Moving on to slide number 9, we talked about  
22 82570, Exhibit 37, which is Cox well number 2, which is the  
23 first amended under V-02846. The use -- here's the problem we  
24 have. These applications, obviously my intent when I wanted  
25 to file them was to file for irrigation use, stock use and  
CAPITOL REPORTERS (775) 882-5322

687

1 domestic use as a mitigation right within the sources.

2 When I requested or asked if that was acceptable  
3 I was told well no, because you can only file for one  
4 beneficial use at a time.

5 So what I did was change all that and said okay,  
6 I'll come in and comply with the State. The issue I have was  
7 stock use is still current and there's domestic use still  
8 current. And that was all part of the vested use within that  
9 property. So, if I'm asked if I'm going to bring in  
10 additional filings, yes, I am because I'm going to replace  
11 what water existed under the historical use -- historical  
12 beneficial use on the property.

13 In a mitigation right we should have been allowed  
14 it put in all those uses because it's to replace the historic  
15 uses that occurred on the ranch.

16 THE STATE ENGINEER: Mr. Thiel, just again so I'm  
17 clear as we move forward through your testimony, the evidence  
18 you're going to present is because you're limited by  
19 irrigation domestic, it's going to be limited to how much the  
20 water's beneficial use for those two or are you also going to  
21 include stock --

22 THE WITNESS: No --

23 THE STATE ENGINEER: -- in your testimony?

24 THE WITNESS: -- it's not. I mean, we may  
25 overlap a little bit because it appears that when we go back  
CAPITOL REPORTERS (775) 882-5322

688

1 to historical use, stock, this was used for grazing.  
2 THE STATE ENGINEER: Right.  
3 THE WITNESS: Okay. So stock had to drink water,  
4 not just eat crops. So at some point in the future I'll  
5 either have to change one of the mitigation rights or have to  
6 file additional appropriation for the stock water rights that  
7 we need to irrigate the stock on the property.

8 Obviously when water is flowing on the ground the  
9 stock drank out of the springs or the ditches that existed.  
10 So, to answer your question, we have a little gap in where we  
11 are versus where we should be.

12 THE STATE ENGINEER: Thank you.

13 THE WITNESS: And we also refer to 82571, which  
14 is Exhibit 44, which is for Cox well number 1 and as for  
15 V-02846. And then we have Telegraph Canyon, which is V-02845  
16 and V-02847, which are all supplemental.

17 BY MR. KOLVET:

18 Q. Supplemental to what?

19 A. To 82570.

20 Q. Okay.

21 A. And I'm trying to move quickly through this. So  
22 under 82572, it's the Exhibit 52 which is the home ranch filed  
23 under V-01115, it's for five CFS, 1,636.36 acres. And Horse  
24 Canyon would be supplemental in nature to that place of use  
25 wherever it could get to.

CAPITOL REPORTERS (775) 882-5322

689

1 HEARING OFFICER JOSEPH-TAYLOR: Mr. Thiel, why  
2 was the first application kept on file if 82572 appears to  
3 cover more -- does it cover the same ground? I guess I'm  
4 asking why wasn't the first one withdrawn and replaced with  
5 this one? Or are they stacking on the same ground?

6 THE WITNESS: Well, there's a number of reasons  
7 for that. First of all, if you look at the protested  
8 application on 81825, Eureka County doesn't request denial.  
9 They basically ask for certain terms to be addressed through  
10 the protest.

11 At that time they seemed to be somewhat  
12 reasonable to work with based upon that protest. So I felt  
13 we'll just allow that to go because it has the date of filing  
14 and I didn't want to file an additional application on that  
15 property since the work had already gone forward, the fees  
16 paid and everything else taken care of. So from my line of  
17 thinking, right, wrong or indifferent, I filed for an  
18 additional water right for the 1636.

19 HEARING OFFICER JOSEPH-TAYLOR: Which are on top  
20 of 81825.

21 THE WITNESS: Yeah. Basically think of a donut  
22 with a hole in it where the void is filled by 81825.

23 HEARING OFFICER JOSEPH-TAYLOR: Okay. Thank you.

24 THE WITNESS: Under 825 Exhibit 60 covers the  
25 Willow Ranch, which is for 190.59 acres. Judd Canyon under  
CAPITOL REPORTERS (775) 882-5322

690

1 V-10368 is supplemental to the place of use. The Willow Ranch  
2 vested right filing is V-010368, which is the only one out of  
3 the ranches that it was not amended. It's a new filing on the  
4 property and that was filed based upon historical research  
5 that occurred and my investigations going through this.

6 BY MR. KOLVET:

7 Q. Just for sake of orientation, where is the Willow  
8 Ranch in relation to the home ranch, Thompson Ranch/Taft  
9 Ranch?

10 A. I've brought an exhibit board that I've used in  
11 the past that it might make it easier for a visual. I don't  
12 think it's necessary to put it into evidence, but.

13 Q. Why don't you go ahead and produce that?

14 HEARING OFFICER JOSEPH-TAYLOR: Go ahead and  
15 what?

16 MR. KOLVET: Produce that.

17 HEARING OFFICER JOSEPH-TAYLOR: She's got to hear  
18 you.

19 THE WITNESS: This is the map I exhibit from  
20 January 23rd, 2013 hearing when Mrs. Taylor asked me what are  
21 the names of the ranches I basically failed to answer  
22 adequately.

23 The ranch to the south, and I'm pointing to the  
24 south end of the picture, but since it's not offered for an  
25 exhibit I don't I'll just refer to. This area outlined is the  
CAPITOL REPORTERS (775) 882-5322

691

1 Thompson/Taft Ranch. The area to the north, this rectangle  
2 that's in here is the Cox Ranch. The -- going to the north  
3 which is the section 22 is the Willow Ranch. And further  
4 north of that is the Rock Ranch. Further north is the Mau  
5 Ranch.

6 HEARING OFFICER JOSEPH-TAYLOR: The what?

7 THE WITNESS: Further north is the Mau, M-A-U.

8 HEARING OFFICER JOSEPH-TAYLOR: Oh.

9 THE WITNESS: Okay. The two more northerly  
10 ranches are not part of this hearing.

11 BY MR. KOLVET:

12 Q. Okay. What is the basis of the photograph, it  
13 appears to be an aerial photograph?

14 A. This is an aerial photograph taken from 1973.

15 Q. Unless you need to keep referring to it, we'll  
16 just put it down for now but we can put it up later if you'd  
17 like.

18 HEARING OFFICER JOSEPH-TAYLOR: We've got it.

19 MR. KOLVET: Okay.

20 THE WITNESS: Thank you.

21 HEARING OFFICER JOSEPH-TAYLOR: Thank you.

22 BY MR. KOLVET:

23 Q. I'm sorry, Mr. Thiel, continue.

24 A. I think we went through Exhibit 52, Exhibit 60.

25 So, in summary of the three springs subject of this hearing is  
CAPITOL REPORTERS (775) 882-5322

692

1 the Taft Ranch and I'll probably be intermixing Thompson and  
2 home ranch all the time, just hopefully everyone bears with me  
3 that way. The Cox Ranch and the Willow Ranch and of course as  
4 I described earlier with Mr. King the vested use is irrigation  
5 stock water and domestic. And all vested filings are for  
6 springs, seeps and intermittent stream flows.

7 So the issue we have here is on all these ranches  
8 there was more than -- it was a spring complex, if you will.  
9 We had multiple spring sources that I found through  
10 investigation out in the field through research and aerial  
11 photographs. And based upon some -- looking at the property  
12 back in '81, '82.

13 The best thing I did was say well, we have these  
14 points where the spring sources are fully identified, but we  
15 all know that there was more discharges that occurred within  
16 that area of the basin.

17 So when you look at the maps I didn't identify  
18 200 seeps and spring sources, I identified the two major  
19 springs which were probably affecting the discharge to the  
20 west.

21 MR. KOLVET: We're going to now go into more of  
22 the historical usage. Is this a good time to take a short  
23 break?

24 HEARING OFFICER JOSEPH-TAYLOR: Sure. Let's be  
25 off the record until 11 o'clock.  
CAPITOL REPORTERS (775) 882-5322

693

1 (Recess taken.)

2 HEARING OFFICER JOSEPH-TAYLOR: Let's be on the  
3 record. I'm going to get started. I don't know what the boss  
4 has been pulled aside to so we'll fill him in. Please  
5 continue, Mr. Kolvet.

6 MR. KOLVET: Thank you.

7 BY MR. KOLVET:

8 Q. Mr. Thiel, would you continue please with your  
9 presentation?

10 A. I will. Referring to slide number 12, there was  
11 a little quote from a document I researched on the internet  
12 which is Exhibit 247 that I have on the screen before you.  
13 And it basically has some interesting quotes down through here  
14 that I thought it was good to give some sort of perspective  
15 back on the historic nature of the use of these springs out  
16 here.

17 Rather than going through this in detail I have a  
18 couple quotes that I would like to provide and one was from  
19 Sir Richard Burton that was written down on October 9th, 1860.  
20 And he describes Diamond Springs, which is a warm but sweet  
21 beautifully clear water bubbling up from the earth.

22 And this is basically -- if you go into where  
23 this is located it is -- as it comes out of I believe  
24 Telegraph Canyon is the old immigrant path or the Simpson  
25 route. And this talks about coming out of the canyon and  
CAPITOL REPORTERS (775) 882-5322

694

1 finding this lush area.

2 And then Jim Simpson who was out there talks  
3 about the station folks, which were basically the people that  
4 lived at the pony express station and that they occupied it  
5 and there was an Indian uprising at the time and I guess they  
6 weren't very nice people so they fled before the Indian  
7 uprising as basically left four other people to come forward  
8 at that point.

9 Other things that are researched on is this was  
10 part of the lower route of the Emigrant Trail, then we also  
11 had a map that I just recently saw that showed this was the  
12 route that the Donner party used in 1846-1847. And these  
13 springs were used as a layover area that was used by the  
14 immigrants come to pass so they could rest their livestock,  
15 gather food or whatever for them on the journey west.

16 Moving forward the -- I think there's something  
17 that is worth talking about, I know Mrs. Taylor was interested  
18 in it when we talked about the filing by -- on the Taft Ranch  
19 on 6/26/1912. And that was filed by Nels Toft for Taft  
20 Springs. Now, there's -- originally Taft was the earliest  
21 holder on the springs in this conversation at least and Nels  
22 Toft came after. The earlier holder was George Taft.

23 So what we have is a filing under V-01115, I  
24 think I left out one, V-01115 for 204.3 acres of which  
25 50 acres was from Horse Canyon and then the balance of it was  
CAPITOL REPORTERS (775) 882-5322

695

1 204 acres.

2 Now, if you -- from the springs, if you read the  
3 actual filing it appears that it's 50 acres from Horse Canyon  
4 Creek and 150 acres from Taft Spring. In actuality what it  
5 says is is that you have -- when Horse Canyon is not available  
6 then Taft Springs have replaced that area being irrigated.

7 So, anyhow, what's important on all these proof  
8 maps is the surveyor at the time goes in and says well, here's  
9 what I surveyed and here's what I found and it's an  
10 investigation as what his task was at the time.

11 So, let's go through and rather than spend a lot  
12 of time on this, is we had the first filing which was done by  
13 Nels Toft on 1912. We have the second filing that was done in  
14 1975. And then we have my filings that were done in 2013.

15 So moving on to slide 14. What we have is a --  
16 the supporting map that illustrates the place of use of the  
17 water rights, which by the way happens to deal with the 1890  
18 Dewey patent which is over in this area. And then we have to  
19 do with some filings that Taft was going for in 1912. There's  
20 also other properties that were acquired on the ranch that  
21 exist today that go outside of these areas where no proofs  
22 have been filed.

23 As far as physical features what you have on this  
24 is what was referred to as going through from the east side of  
25 the map which is related to Thompson -- I'm sorry, Taft  
CAPITOL REPORTERS (775) 882-5322

696

1 Springs on the right-hand side middle part of the map. And it  
2 flows to the northwest and discharges towards the plays.

3           Going to the south out of the confluence of the  
4 springs is a ditch which is by the way shown pretty much in  
5 that same location on the 1879 map from the government land  
6 office that we haven't gone through.

7           So -- and I'll just summarize the issues that I  
8 have with this map and we'll go through it past this point and  
9 I'll try and support that. The issue I have is if you read  
10 the -- the survey plat or the jurat on the map it basically  
11 says I'm going to show where the works of diversion are. It  
12 doesn't say I'm illustrating the culture tabulation on this.  
13 And frankly, this over on this right-hand side which is the  
14 cultural tabulation was done after the filing date and there's  
15 initials on who did it. And it was done in a later period of  
16 time.

17           Now, maybe the State Engineer knows who it is,  
18 but I don't know who it is. And I also know that the place of  
19 use that's written in here is somewhat dissimilar from the  
20 rest of the writing. So a jurat is a testing of what effort  
21 he went through on this map and what it's supposed to exhibit.

22           So moving on if you look at the jurat, which was  
23 signed by George Nickerson, and I can't tell what the middle  
24 initial is, it says, "By George S. Nickerson of Sacramento,  
25 California hereby certify that the above map is a true and  
CAPITOL REPORTERS (775) 882-5322

697

1 accurate plot of the Horse Canyon, Taft Springs" --

2           HEARING OFFICER JOSEPH-TAYLOR: Slow down.

3           THE WITNESS: Too fast?

4           HEARING OFFICER JOSEPH-TAYLOR: For her.

5           THE WITNESS: Sorry. "Horse Canyon and Taft  
6 Springs irrigation works as taken from the field notes of the  
7 survey made by me on May 29th, 30th and 31st, 1912. At the  
8 instance of Nels Toft that represents the words described in  
9 the competent proof of appropriation together with the  
10 location of streams and ditches in the immediate vicinity."

11           Now, from that jurat it doesn't really say I'm  
12 showing a cultural tabulation based upon the field  
13 investigation I did. It doesn't say what it was done for  
14 other than to locate streams and ditches in the immediate  
15 vicinity of the spring discharge area. And I wouldn't  
16 necessarily make a big deal out of it if it wasn't for the  
17 fact that the cultural tabulation that is shown on the map is  
18 done sometimes afterwards.

19           Let's see, I need to get to a different slide.  
20 Get out of this for a second. What I'm trying to look at is  
21 State Engineer's Exhibit Number 23, which is the original  
22 filing. And I'm trying to get through this where I can.  
23 There's -- and remark number 10 on the filing itself. I may  
24 need a copy of that if it helps.

25           HEARING OFFICER JOSEPH-TAYLOR: We're looking at  
CAPITOL REPORTERS (775) 882-5322

698

1 it, Mr. Thiel.

2           THE WITNESS: Okay. It might help if I had a  
3 copy of it is the only thing I'm thinking.

4           HEARING OFFICER JOSEPH-TAYLOR: You want our  
5 copy?

6           THE WITNESS: Yes, it's not showing up on mine.

7           MR. KOLVET: Is this Exhibit 23?

8           THE WITNESS: Yes.

9           Mr. Taggart has graciously volunteered his copy.

10           HEARING OFFICER JOSEPH-TAYLOR: I got it.

11           THE WITNESS: Thanks.

12           HEARING OFFICER JOSEPH-TAYLOR: You're welcome.

13           THE WITNESS: Looking at the proof that was filed  
14 you have -- and I'm referring to Exhibit Number 23, if you  
15 review the map you'll notice that the table was inserted by HR  
16 Huckle is my best guess, which occurred I think in 6/27/13,  
17 which would have been after the date of filing.

18           Also, remark number 10 on the application  
19 indicates that the nature of title for which the water rights  
20 is claimed which is United States patent, and under that it  
21 says south half of the northeast of section 9 --

22           HEARING OFFICER JOSEPH-TAYLOR: Hold on,

23 Mr. Thiel, I'm sorry, we're --

24           THE WITNESS: Trying to bring it up?

25           HEARING OFFICER JOSEPH-TAYLOR: No, I apologize.  
CAPITOL REPORTERS (775) 882-5322

699

1 I'm noticing the exhibit that we scanned, we downloaded from  
2 the website and we're looking at the amended, the original, so  
3 I want to wait and get to it so I'm following you.

4           THE WITNESS: Okay.

5           HEARING OFFICER JOSEPH-TAYLOR: Okay. Now I'm  
6 with you. I'm sorry. Go ahead. Or go back so we're with  
7 you.

8           THE WITNESS: Okay. So, anyhow, what I'm  
9 referring to is Exhibit Number 23 and the supporting map tied  
10 to that. So what I said with regard to the supporting map  
11 under Exhibit 23, there -- the application or the map itself  
12 has some issues in my mind.

13           First of all, we have a map where the surveyor is  
14 attesting to the fact that it shows the works of diversion and  
15 those diversion structures that are on there. It doesn't  
16 really say I provided information as to the place of use. Or  
17 I did a cultural tabulation associated with it.

18           I have a cultural tabulation that occurs sometime  
19 after the date of filing, which is about a year later, which  
20 is a cultural tabulation by HR Huckle. I have no clue where  
21 that cultural tabulation came from other than that's the  
22 initials underneath that cultural tabulation.

23           So I do not know whether this person put the  
24 numbers for the cultural on the map since he did the cultural  
25 tabulation or how that got there.  
CAPITOL REPORTERS (775) 882-5322

700

1 Now, the other issue we have is this is about the  
2 time that I taught this going through getting some desert land  
3 entries or in some cases curiaks resolved. During that time  
4 you had to provide evidence as part of your claim to be  
5 submitted to the agency that you were dealing with. And it  
6 could have been filed on that basis. So, what I'm saying is  
7 that there's probably some issues associated with that  
8 supporting map itself.

9 Going to the application under item number 10 it  
10 says that the title for which land water is claimed, it says  
11 United States patents, which I assume is the patent that was  
12 obtained by Dewey in 1890. And the rest of it has to do with  
13 the patent she's claiming during the same period of time which  
14 is the south half of the northeast quarter, section 9 is the  
15 State contract with which I would assume would have been the  
16 curiak.

17 BY MR. KOLVET:

18 Q. Would you also look at paragraph 13 and the  
19 comments there?

20 A. Yes, I was getting to that. Thank you. Also  
21 under 13 water was first used for irrigation by a claimant of  
22 his grantors in the year 1880 when 150 acres were irrigated in  
23 sections 3, 9 and 10, township 23 north, 54 east by George  
24 Taft. The above statement of acreage is only an estimate as  
25 there is no actual evidence at hand.

CAPITOL REPORTERS (775) 882-5322

701

1 So, you go to section 14. It says additional  
2 number of acres first irrigated in subsequent years was as  
3 follows. And you basically have about six acres -- excuse me,  
4 with some handwriting off to the left that says 6.1 acres that  
5 probably would have come from the supporting map. Whoever  
6 wrote that in.

7 So, you keep on going down and you have different  
8 descriptions with regard to the amount of acres, et cetera.  
9 So we have an application that basically says it's a vested  
10 right supporting 6.18 acres in addition to what was filed on  
11 here as being vested prior to this time.

12 Okay. So it may be that the map was being used  
13 as someone in the State Engineer's Office tabulating what it  
14 was. It may have been used as a support in the desert land  
15 entry or in this case a curiak, even though the curiak process  
16 really wasn't established in the state until 1909 in Southern  
17 Nevada and Pahrump.

18 But basically from these applications and  
19 supporting maps it's hard to tell what it is. It would have  
20 required amendment no matter what was to happen. There's  
21 nothing conclusive on it.

22 It says that some of the waters, looking in  
23 section 21, that some of the waters -- some of the lands in  
24 sections 9 and 10 are irrigated by water from both Taft  
25 Springs and Horse Canyon as a ditch is joined and as the flow  
CAPITOL REPORTERS (775) 882-5322

702

1 from Horse Canyon fails it become -- it being only from  
2 melting snows in the spring more water is turned on to some of  
3 the land mentioned from Taft Springs. And combined irrigated  
4 acres for both sources supplies 206 acres.

5 So, anyhow, what we have is a proof that's coming  
6 in for only that portion of land that was under possessory  
7 control of Toft at the time, Nels Toft. And we have all this  
8 other property that was under possessory interest that the  
9 springs and the creek went through that there was no filings  
10 on.

11 So, we have an application that's incomplete. We  
12 have a supporting map that has some discrepancies on it from  
13 whoever did the cultural tabulation, it wasn't there in the  
14 beginning. And I'm suspect that the culture part of it that's  
15 shown on the map wasn't there either. As the surveyor says  
16 I'm showing you where the works of diversion and the ditches  
17 are located. And that's what he states.

18 HEARING OFFICER JOSEPH-TAYLOR: Here, I'll take  
19 that, Mr. Thiel, so I can keep track of my exhibits.

20 THE WITNESS: Okay. Thank you.

21 HEARING OFFICER JOSEPH-TAYLOR: Um-hum.

22 THE WITNESS: So, we've gone through this exhibit  
23 and through slide number 15. And in my opinion, the vested  
24 application is good for whatever they intended -- whatever was  
25 for the intent of the Applicant. Obviously this -- there was  
CAPITOL REPORTERS (775) 882-5322

703

1 no determination made upon what was being irrigated at the  
2 time. What we have is a claim of vested right and subsequent  
3 claims of vested rights.

4 Up until the day of the hearing we had the right  
5 to amend it based upon the historical knowledge we gained  
6 going through the process. And we had no instance to stop on  
7 it other than the fact that I think we very well exhausted  
8 everything that could possibly have been owned on these  
9 springs and those sources from this point.

10 So, we come to the first amended proof, which was  
11 Exhibit 24, which is V-01114 and V-01115. And this was done  
12 on the Thompson or home ranch and was prepared in 1975 by I  
13 believe a survey done in 1974.

14 This map is greatly detailed with regard to what  
15 the surveyor found on the ground at the time. And going to  
16 slide 16 on Exhibit 23 we have the proof of appropriation that  
17 was filed I believe by Richard Forman, if I'm correct. Oh,  
18 that's by me. Here we go. Here's where we are.

19 This application which I'm referring to here is  
20 the first amended proof was filed by Richard Forman and it  
21 basically says hey, I went out there and surveyed this, it's  
22 607.93 acres of land and these are the conditions that exist  
23 there at the time.

24 He said that there's 3.12 cubic feet of water per  
25 second flowing from the springs to provide irrigation of the  
CAPITOL REPORTERS (775) 882-5322

704

1 property. There is stock water for 100 head of horses and 500  
2 head of cattle.

3 So at the time this is a snapshot on what was  
4 occurring at the date or the days of the survey. And if you  
5 look at section 13 it talks about the -- what he saw within  
6 the area that was being irrigated. And that's how he comes up  
7 with the 607.3 acres or 607 acres.

8 So going back to the map, going back to the map  
9 on page 16, we looked at what was provided there with regard  
10 to the jurat. And what the jurat says and it's attesting, "I,  
11 Richard W. Forman, being first duly sworn says that this map  
12 consisting of one sheet has been correctly drawn to the  
13 designated scale from field notes of a survey made by me  
14 between the 14th day of November and the 18th day of  
15 November 1974.

16 "That truly and correctly represents the location  
17 and extent of the works used to divert water from Horse Canyon  
18 to Taft Springs in Eureka County by Theodore M. Thompson and  
19 Olive M. Thompson for irrigation and stock watering purposes.  
20 That the point of diversion, the location, size of the  
21 diverting channel and place of manner of use, the location and  
22 names of all other works or streams which are crossed and  
23 connected with said works and the boundary area of kind of  
24 culture of lands irrigated are correctly shown and designated  
25 thereon."

CAPITOL REPORTERS (775) 882-5322

705

1 So in this instance we have the 1912 map that  
2 doesn't have the same language on it saying well, I was out  
3 there and I was able to verify what culture existed at the  
4 time to a map that was done by Richard Forman that says well,  
5 I surveyed it during the 18th day of November -- or 14th day  
6 of November and the 18th day of November and here's what I  
7 found at that point in time.

8 It doesn't say I found anything that historically  
9 was there or anything that occurred prior to the old draft of  
10 the groundwater pumping.

11 So by this time we know from previous testimony  
12 and from work that I've looked at is that there was already  
13 impacts occurring to the springs at this time. So, we were  
14 looking at 1974, the springs were starting to decline and so  
15 we have large area of discharge going down to a narrow area of  
16 discharge and this is what he found.

17 So, going on to page 18 or slide 18. I pretty  
18 well hit that it, I jumped ahead of myself. So we get into my  
19 jurat that I prepared on February 25th, 2013 for  
20 Daniel Venturacci for springs and seeps. And basically what I  
21 said was, and here is my supporting map which was Exhibit 25  
22 which is the second amended proof for V-01115 and V-01114  
23 referenced as Exhibit 25.

24 So, the difference between the maps are that  
25 basically in the first map for whatever purpose it was filed,  
CAPITOL REPORTERS (775) 882-5322

706

1 it was filed. So we have a small area of culture tabulation  
2 that may have been a snapshot of what existed at the time or  
3 may not have been a snapshot and that map in my opinion is  
4 suspect. We have Richard Forman's map that comes along in  
5 1975 that says I surveyed this between November 14th and  
6 November 18th and this is what I found.

7 Then I have my map that basically has to rely on  
8 previous work, record research, field investigations, aerial  
9 photogrammetry and historical documents that I had to come up  
10 with this cultural tabulation. And this is what I put  
11 together in the jurat.

12 So, rather than going through it all I'll kind of  
13 go through the bottom and about -- oh, I'll go ahead and read  
14 it. "I, George M. Thiel, being first duly sworn and deposed  
15 and say that the site inspections have been made by me or  
16 under my supervision and direction on or before February 13th,  
17 2013. That the location of each reference monument has been  
18 verified by site inspection, that the place of use sites have  
19 been inspected, that this map consisting of one sheet has been  
20 correctly drawn to the designated scale from surveying  
21 calculation notes prepared by me or under my supervision and  
22 direction.

23 "Relying upon analysis of recorded survey maps,  
24 other recorded surveying documents on file and in the office  
25 of the State Engineer and the Eureka County Recorder's Office  
CAPITOL REPORTERS (775) 882-5322

707

1 as verified by aerial photograph, oral histories and other  
2 documents. That this map truly and correctly represents the  
3 location and extent of works used to divert water from Horse  
4 Canyon, Taft Springs and upper springs in Eureka County,  
5 Nevada by Daniel S. Venturacci." And that's blah, blah, blah,  
6 no use going on from there.

7 HEARING OFFICER JOSEPH-TAYLOR: But go back,  
8 Mr. Thiel.

9 THE WITNESS: Yeah.

10 HEARING OFFICER JOSEPH-TAYLOR: Because you say  
11 water diverted by Daniel Venturacci. I thought there was no  
12 water there for him to divert.

13 THE WITNESS: There was a little bit. And I'll  
14 show that in a later picture.

15 HEARING OFFICER JOSEPH-TAYLOR: Okay.

16 THE WITNESS: So obviously that if there was more  
17 water available it would have been a lot more. So I had to  
18 rely on cultural tabulations, everything else that was out  
19 there on the history. Obviously that ground is nothing but  
20 rabbit brush as a predominant crop right now and greasewood,  
21 that's all that's left. So it's a little bit hard to go out  
22 there and do a cultural tabulation unless you look at pre-1992  
23 documents. Okay?

24 So with regard to the vested right that I filed,  
25 I filed for 1636.36 acres which is just shy of the area within  
CAPITOL REPORTERS (775) 882-5322

708

1 the boundary owned by Mr. Venturacci. There was also evidence  
2 in this case that the irrigation went way past what I've  
3 designated on this map.

4 Now, I've heard some discussions yesterday with  
5 regard to trespassing on federal land. At the time of the  
6 Desert Land and Tree Act, the Homestead Act or the Carry Act,  
7 trespass is the only way you can get the land and you have to  
8 prove that by getting the water rights. The issue is is that  
9 if it flowed across federal lands would that water be  
10 available to the federal government.

11 Well, only to be available if I was diverting  
12 water, even if I used it on federal lands I would be the  
13 primary water right holder. The federal government cannot  
14 acquire that water rights by appurtenancy.

15 For example, the federal government owned the  
16 land and conveyed the land -- owned the land and the water and  
17 they were the persons that diverted the water and I got the  
18 land through a patent, then I could acquire the water right  
19 through appurtenancy. It doesn't work that way.

20 So we know from historical record that this land  
21 outside of this ranch area was extensively cultivated grazed.  
22 The patents didn't limit where the place of use was. But for  
23 the purpose of these filings we're saying here's what we're  
24 limited to. The discharge area by evidence of the photographs  
25 which I'll go through further shows that the area of  
CAPITOL REPORTERS (775) 882-5322

709

1 discharge, the area of the Thompson Spring complex flowed  
2 further north and even further south of where this property  
3 is.

4 So going on to slide 22. Now, the issue we get  
5 into is first of all, you have to occupy the land. You have  
6 to divert water, show ownership of the water and place water  
7 to beneficial use.

8 Now, there are limitations to the amount of water  
9 that you need to prove up in order to get a patent. So you  
10 don't have to show -- if you get a patent or apply for a  
11 desert land entry for 320 acres you don't have to prove up the  
12 full 320 acres, you can prove up 40 acres and that would be  
13 acceptable to the federal government at that time.

14 When I worked at the State Engineer's Office in  
15 '80, '81, I forget which period it was, desert land entries  
16 were still going very strong in the state of Nevada. The rule  
17 with the State Engineer's Office was is you basically set the  
18 on the statutes for a year and read what was in files and then  
19 they may allow you to answer phone calls.

20 Well, for some reason after I got there after a  
21 short period of time everybody left, I don't know why. But,  
22 at that time we had people lined up in the old Nye building  
23 lined up at the counter filing water rights applications with  
24 their desert land entries going way out the door. So they had  
25 no choice, it was either the State Engineer was going to  
CAPITOL REPORTERS (775) 882-5322

710

1 handle all these people or I got stuck with them. So I  
2 handled hundreds of filings a day for desert land entries all  
3 around the state. And we'd have to process them and half of  
4 them didn't have the forms filled out right.

5 At that time when the people came in we would  
6 assist in filling out the forms and fill it out and get the  
7 money and go file the thing. And -- and basically they had a  
8 map but no supporting with it. We did probably hundreds of  
9 desert land entry filings in a short period of time and then  
10 we'd get 30 or 40 phone calls a day asking when they're going  
11 to get their permit.

12 So we were spending a lot of time at that period  
13 on sorting through what the requirements were with desert land  
14 entries and Carry Acts with state lands and trying to resolve  
15 all these applications to go to denial because some of the  
16 basins were so over-appropriated and they had no way to get  
17 water rights so we would tell state lands they couldn't get a  
18 water right and they'd cancel a bunch of them through BLM.

19 But that's where my history goes. That's a  
20 little sidebar. Anyhow, I've gone through 1912, 1975 and my  
21 filing in 2013.

22 HEARING OFFICER JOSEPH-TAYLOR: Plenty of chairs,  
23 folks.

24 THE WITNESS: Okay. Going into the further  
25 references on this property we know that the pony express came  
CAPITOL REPORTERS (775) 882-5322

711

1 in at the end of this area in 1859 and it was actually a pony  
2 express station. The pony express was -- started construction  
3 in 1859 and basically occupied the property in 1859 and 1860.

4 So we know that there was existing use out there,  
5 that they had livestock and there was other users on the  
6 subject property.

7 In 1861 the telegraph came in and the neighbor to  
8 the north, which was Mr. Cox, became the telegraph operator.  
9 And the pony express station drifted away.

10 So, from this standpoint, up through this period  
11 of time, we've had irrigation stock water and domestic use has  
12 been continued to the extent of what water was available. So  
13 whatever flowed out of those springs historically over the  
14 period of time was used.

15 So, and I do have some proof of that. This is  
16 what is left of the springs when I was out there in January of  
17 this year. You see a little bulge under the tarp, that was a  
18 submersible pump I was taking water out of the springs for  
19 Milton Thompson's house. Okay.

20 This is the area under slide 27 that was taken  
21 where you can see the same discharge within that area that  
22 flows out of the most southerly spring that flow down to the  
23 ponds that were out there.

24 Now, you can tell that the spring discharged here  
25 above the pond level. Okay? That has been some issues in the  
CAPITOL REPORTERS (775) 882-5322

712

1 past and, in fact, the flow was so great you can see the  
2 ripples coming out of the discharge within the pond itself.  
3  
4 Now, for reference, the building to the far right  
5 would have been the old pony express station. The building to  
6 the left I think is the residence where Milton Thompson lives  
7 now. And there's quite a bit of difference between this  
8 picture and what exists out there at the present time.

9 So I basically described to you that there's some  
10 history associated with this property and it talks about the  
11 overland telegraph being tapped and ending the pony express.  
12 So we have Mr. Cox becomes an operator and his wife is being  
13 talked to, read messages, do that type of thing. And it  
14 basically comes from the same exhibit that I provided before,  
15 which was a three-page summary found on the internet.

16 Okay. So now we're on the Cox Ranch. We finally  
17 moved on to that. The proof was filed January 30th, 1975 for  
18 Theodore and Olive Thompson. This again was done by  
19 Richard Forman and it was for 80.66 acres. And it basically  
20 says this is what we have on the property. And the survey is  
21 predicated upon field survey performed in November 1974.  
22 Again, the same issues apply, it's based upon what existed at  
23 the time and here -- and the jurat says the same thing as he  
24 did in 1974 that it's based upon the survey he did  
25 November 14th to November 18th of that year.

So it's a snapshot of one existed in that window.  
CAPITOL REPORTERS (775) 882-5322

713

1 Now, one thing I want to bring up here is we refer to Diamond  
2 Springs and Diamond Springs is often referred to as the Taft  
3 Springs. I've noticed in later years when you go through the  
4 literature research you have Diamond Springs being talked  
5 about about the Diamond Springs Ranch, which is located on the  
6 Taft Ranch. And I know that's how Milton Thompson talks about  
7 it and I've seen it in some of the other references. But  
8 actually Diamond Springs was located one mile north of the  
9 Taft Springs. And that places it on the Thompson Ranch.

10 Now, when I was out there in January and May I  
11 didn't see any remnants of that spring. By a memo that I'll  
12 introduce -- or I'll go through later, we have Jim Harrill  
13 talking about a field research that they did in 1982. The  
14 other remarks Jerry Brownfield, who was the head of the  
15 groundwater section at the time went out also at that point  
16 and he was looking for Diamond Springs.

17 So, at that point in time in 1982 all that  
18 existed were some willows and a minor surface discharge. When  
19 we look back at the historical record by Sir Richard Burton  
20 and some other people that talked about it there was a big  
21 change on the flow from that period of time from what it was  
22 in 1982.

23 So we go in here then to the vested right filing  
24 by Mr. Forman on the Cox Ranch. And let me see if I can find  
25 the plat number or the proof. I don't have an exhibit for  
CAPITOL REPORTERS (775) 882-5322

714

1 them, I apologize. So we have a -- that this map on the Cox  
2 Ranch was based upon the priority date of 1901, that's what he  
3 signed it at. Ignored priority date based upon actual vesting  
4 of use. Ignores pasture areas, for example. Ignores the 1879  
5 survey, the original settlement that was established on the  
6 property.

7 Lists -- the map lists cultures as exist in 1974  
8 when it was hayed within the fenced areas. Actual diversion  
9 was plus or minus 1859. Based upon the Crofut analysis and  
10 some other historical research that was prepared.

11 Again, the same thing is happening here. We go  
12 through the analysis that we've been doing for almost two  
13 years on the property. And based upon the historical  
14 documents, aerial pictures, oral histories, the records of  
15 Eureka County and the State Engineer we tabulated this acreage  
16 that's listed here. It's basically 272 acres of diversified  
17 pasture and 72.82 acres of hay which totals 344.89 acres.

18 Cox Ranch illustrated in the 1879 survey and  
19 added stock use and domestic use.

20 So under slide number 34 I exhibit the map that  
21 we drafted in support of V-002845, 2846 and 2847, which  
22 includes again discharges from Cox Canyon and Telegraph  
23 Canyon.

24 Again, whatever water comes out of those springs  
25 based upon snow melt has historically been used on the  
CAPITOL REPORTERS (775) 882-5322

715

1 property, but it's not the primary use of water.

2 And again, it's the same jurat that I discussed  
3 previously. We also looked at the patents on these  
4 properties. We have the patents that were filed in 1901 and  
5 1907, 1908 on the Cox Ranch. And we provided the patent  
6 numbers and we also provided the associated water rights with  
7 those patents.

8 We have the -- moving on to the Willow Ranch the  
9 proof was originally filed February 25th, 2013, that group  
10 number is V-010368. And we also named Judd Canyon Creek and  
11 unnamed springs and seeps within the filing of the proof.

12 This one's a little bit different because we have  
13 the Willow Field and in this case I used the fence boundary  
14 rather than the property under ownership. And it appears that  
15 someone got a little lost on their surveys out there because  
16 it doesn't follow what the patents are, even though everything  
17 shown within that fence line has been changed to incorporate  
18 the uses that I described in the jurat.

19 So again, same jurat, I'm attesting to that. We  
20 have the patents that occurred in 1901 and 1902. And I have  
21 Cox in there because we have WF Cox and we have George Cox.  
22 And I believe WF Cox was on the Willow Ranch and George Cox  
23 was on the Cox Ranch.

24 The place of use is 490.59 acres and we have  
25 segregated into these areas as far as what the various uses  
CAPITOL REPORTERS (775) 882-5322

716

1 are. And we put the use in as prior to 1879.

2 So, here's what we have, we have the filings on  
3 Thompson Ranch in 1912. It's only a portion of the patented  
4 lands that was done by Dewey in 1890. We have Horse Canyon  
5 that has limited discharge.

6 Taft Springs themselves was the only thing  
7 indicated within the patented filings. And it's based upon  
8 field findings of the surveyor and I'm adding to this that it  
9 was only based upon illustrating the works of diversion and  
10 did not have any evidence of a cultural tabulation by the  
11 surveyor that was the matter of record.

12 So, in 1975 we have the Richard Forman filing  
13 which is based upon existing conditions as he found in 1974,  
14 limited the fence areas only, does not illustrate lands and  
15 possession outside of fenced areas. And the purpose of the  
16 filing was to show pasture lands not shown in the original  
17 filing, only reference was to pasture and grain was expanded  
18 to an annual use, but the filing is not based upon historical  
19 research.

20 Now, from time to time I will go through and show  
21 some charts that I've used that I haven't really gotten  
22 through yet and I may wait until later, but these charts are  
23 further down in the tabulation. I'll wait till then to go  
24 through these.

25 What I've said is is we have all these -- the  
CAPITOL REPORTERS (775) 882-5322

717

1 research that I looked at, and I've listed it here and I don't  
2 know if we need to go through because I think we're getting  
3 close on time, but I had aerial photographs. Now, I've done a  
4 lot of aerial photograph work, I've done landsat imagery and  
5 I've done interpretation of infrared photographs. And I've  
6 been qualified in the State Engineer's Office to interpret  
7 those photographs.

8 We did them on the Amargosa Valley case and I was  
9 allowed to come in with an expert at that. And anyhow, what I  
10 find is is that when you look at the aerial photographs you'll  
11 have dark areas and light areas. And when you look at the  
12 photographs it's a little hard to say well, here's a grain or  
13 a stick of alfalfa and here's a stick of grass and I think  
14 this is pasture and this is grazing or this is hay and  
15 grazing.

16 What you have to do is kind of look at what the  
17 other data gives you support on and not rely solely on this.  
18 Now, when you look at the aerial contrasts you have to look  
19 between the photograph on where you know it's undisturbed and  
20 areas that you know it's disturbed.

21 Generally, the wetter areas are not suitable for  
22 alfalfa. They may only be suitable for grazing cattle. They  
23 may not be suitable for cutting grass on or they may be based  
24 upon the ditching that exists in the area because you can  
25 identify ditching from the aerial photographs.  
CAPITOL REPORTERS (775) 882-5322

718

1 So when you look on my map that I prepared in  
2 support of these applications in 2013, I was able to identify  
3 the ditches. And when I cross-referenced that with the work  
4 that was done by Richard Forman there's a lot of comparable  
5 data that says here's the ditches that were out there that we  
6 could find.

7 So anyhow, when I look at those aerial  
8 photographs I'm accounting for the types of crop based upon  
9 what I'm seeing on the aerial photographs by contrasting those  
10 aerial photographs by looking at the areas which may be wetter  
11 or dryer and determine what the use is based upon the oldest  
12 person I could find to give me some historical data on it.

13 Then I get into record research which I said  
14 relies on Eureka County, Battle Mountain Recorder's Office,  
15 assessor and archival records, office of the State Engineer,  
16 GLO records, maps and field notes. And I've listed here oral  
17 history, literature, historical records and interviews.

18 Now, keep in mind the that the items that I've  
19 listed here does not limit it that I've spent a lot of time  
20 looking for oral histories. I've looked for the work that was  
21 done by Jackson son family owns the ranch and he talks in the  
22 precursor of his book about the bound full springs that  
23 existed on this property.

24 So basically all the references we have as to the  
25 mountain water flowing out and the lush property that existed  
CAPITOL REPORTERS (775) 882-5322

719

1 at the time prior to the pumping that occurred. I did the  
2 patent research and I looked at the USGS reports and most  
3 importantly I did ground truthing without the ground truthing  
4 everything I desire did was use live less in my mind. You  
5 can't recall solely on the aerial photographs. You cannot  
6 rely solely upon the 1879 survey without going out and trying  
7 to find what was in those documents.

8 Now, the way I approach ground truthing is, you  
9 know, I go out and look for features, physical features on the  
10 land. And then if I find something I'll make a note of it and  
11 plot the GPS coordinates. Then I know what that feature is,  
12 I'll go back and see and compare it to what I have in my  
13 notes.

14 I don't like the aspect of going out there and  
15 saying well, I've got this ditch in 1879, I need to go track  
16 it down. I would rather find it physically in the fields and  
17 go back and see if it does depict what's there.

18 So I think I've exhausted slide 43. The other  
19 thing we need to look at here is the timing in these  
20 photographs. Now, when I went to DRI to try and get the  
21 aerial photographs I went through everything I could find.  
22 And all I could find in this area was 1950 with no date given.

23 I have 1953 with a composite of 1954, which is  
24 similar type of -- in other words, they were put together  
25 which was taken on September 29th, 1953. The only one I have  
CAPITOL REPORTERS (775) 882-5322

720

1 that is truly representative of a discharge part of the season  
2 is May 20th, 1967. And again, I have 1973 of September 27th.

3 Now, we worked together with some of the folks at  
4 the Shipley Springs effort and, you know, they have -- they  
5 have earlier photographs than I could find. And I looked at  
6 the same databases that they had and I could not find them.  
7 So, basically what I have is what I could find.

8 Now, there could be more out there, but it wasn't  
9 that I was trying to be specific on what I found. What I  
10 found is what you have.

11 Okay. Moving on to slide number 45. This is a  
12 composite photo taken in 1950 of the spring discharge areas  
13 which are basically the Thompson Ranch and the Cox Ranch.

14 So, that exhibit is a composite of these photos.  
15 So, what we had to do is I had to take this work and fit it  
16 into an AutoCAD program and find points that would match to be  
17 able to come up with a graphical representation what was out  
18 there.

19 Now, what I had available to me were some very  
20 good high resolution photos that every time you make a copy of  
21 it it steps down quality. So, what you have here is a step  
22 down from what I have, but when I'm going through this thing  
23 and you heard a lot of talk about haystacks, haystack corrals.

24 Well, at the time I know from after going out  
25 there I found some of the haystack areas, but the things you  
CAPITOL REPORTERS (775) 882-5322

721

1 look for in this aerial photograph is you can blow it up at a  
2 fairly high resolution by getting into it but not under these  
3 photos because you have pixilation occurring.

4 So I was able to go through and pick out ditches,  
5 historical features, evidence of working on the ground, for  
6 example, and I was able to pick up haystacks. I didn't think  
7 it was important at the time, otherwise I would have put it on  
8 here, but I do reference it later in the exhibits.

9 So, if we look at the -- what occurred at this  
10 time which is about 1950, we look at the precipitation chart,  
11 you'll see that there's not any data in there.

12 We know from the early '50s that there was a  
13 drought period that's been testified previously that between  
14 this period of time where we have the lack of data, that that  
15 was a drought period and it's probably likely that some of the  
16 culture we're evidencing may be not based upon the best year  
17 of record for what would be nice to show. So it is what it  
18 is.

19 Moving on to slide number 46. This is  
20 Exhibit 254, which is a 9/29/53 aerial. And again, this is a  
21 composite of what we found on the Thompson Ranch and the Cox  
22 Ranch. If you look at the -- this area within here, this  
23 linear feature I believe is representative of the -- what was  
24 found on the GLO plat in 1879 or pretty close to it. And then  
25 we have a ditch going this way and then we have some ditching  
CAPITOL REPORTERS (775) 882-5322

722

1 heading to the north of here.

2 HEARING OFFICER JOSEPH-TAYLOR: Got to be careful  
3 saying "this here," "this way."

4 THE WITNESS: Oh, I'm sorry. Yeah. Within --  
5 within I believe it's section 14 and the middle part of that I  
6 would say in the westerly edge of that section there's a  
7 linear ditch feature that shows a ditch.

8 Transecting that ditch from the east to the  
9 southwest is what I believe is the old pony express road. And  
10 further south of that is the ditch that follows a parallel  
11 line that comes from other areas.

12 You'll find within this photograph on the  
13 left-hand -- left-hand center of the exhibit where it says  
14 Thompson Ranch you'll see some areas that are spring  
15 discharges that are probably created from the spring discharge  
16 associated with the Thompson Spring which is in the right-hand  
17 edge of the easterly edge of this photo.

18 You'll also find the linear feature on the --  
19 towards the middle of the photograph to the right of the  
20 center portion that flows further to the north that follows  
21 off the BLM land which pretty well follows the linear  
22 relationship found in the 1879 survey map that we'll get to in  
23 the future.

24 HEARING OFFICER JOSEPH-TAYLOR: You find yourself  
25 at a breaking point for lunch?  
CAPITOL REPORTERS (775) 882-5322

723

1 THE WITNESS: That would be good.

2 HEARING OFFICER JOSEPH-TAYLOR: I was thinking  
3 earlier are you at a good breaking point here, Mr. Thiel?

4 THE WITNESS: I think so.

5 HEARING OFFICER JOSEPH-TAYLOR: Okay.

6 Mr. Kolvet, how are you doing on time?

7 MR. KOLVET: Doing great.

8 HEARING OFFICER JOSEPH-TAYLOR: Can we take an  
9 hour and 15 minutes today as opposed to bringing me a bag of  
10 fruit?

11 MR. KOLVET: I think we can.

12 HEARING OFFICER JOSEPH-TAYLOR: Thank you. We'll  
13 be in recess till 1:15.

14 (Lunch recess at 12:00.)

15  
16  
17  
18  
19  
20  
21  
22  
23  
24  
25  
CAPITOL REPORTERS (775) 882-5322

724

2 -o0o-

3  
4 HEARING OFFICER JOSEPH-TAYLOR: Let's be on the  
5 record. Please continue.

6 BY MR. KOLVET:

7 Q. Mr. Thiel, when we left off I think you were on  
8 plate 45, you started talking about plate 45?

9 HEARING OFFICER JOSEPH-TAYLOR: No, we're past  
10 that.

11 MR. KOLVET: 47. Sorry.

12 THE WITNESS: What we're discussing before is the  
13 composite aerial photographs we put together as exhibits. And  
14 we have attachment aerials that were provided within that.  
15 That shows the base data that we went with. Because of the  
16 time I'm not going to spend a lot of time on this, the time  
17 constraints, I don't want to spend a lot of time on it.

18 Other than this is part of the material I went  
19 through to see evidence of water flowing on the property and  
20 evidence of in culture or beneficial use that may have existed  
21 at the time including any work that was done on the property  
22 which you can see by referrals or equipment, for example, or  
23 ditching on the property. And all of these photos that I've  
24 gone through thus far have been representative of this.

25 On slide number 47, which is Exhibit 254, I  
CAPITOL REPORTERS (775) 882-5322

725

1 believe, show Rock Field on this map and Rock Field is not a  
2 part of this hearing.

3 Going down through slide number 48, it's the 1967  
4 Cox and home ranch composite aerial. This photo you can see  
5 work occurring on the ranch where you can see fields being  
6 reestablished, ditches being put back in and water being  
7 diverted on the property. Like I said earlier, this is the  
8 only photo that was done early in the discharge season as I'll  
9 call it. And you can see evidence of springs and discharge in  
10 the Cox Ranch and the home ranch.

11 Again, Exhibit -- or slide number 49, Exhibit 256  
12 I show Willow and Rock Field. Willow in this aerial shows  
13 some significant amount of discharge around the contour 5800  
14 interval, and that was used as one of the bases for the  
15 description that I have on water use on the property.

16 Then we have the 1973 photo which unfortunately  
17 is labeled Exhibit 257, I think 257 is right, but it was  
18 labeled September 27th, 1967. So in actuality it's 257, 1973  
19 aerial. Same -- same format procedure with that.

20 Going on to Willow, same type of procedure. You  
21 see a difference, but again, this was an aerial -- aerial  
22 taken in September of the year.

23 Going to number 52, I think this is fairly  
24 important that we have the information from the GLO 1879  
25 survey plats and notes. The thing I want to reiterate here is  
CAPITOL REPORTERS (775) 882-5322

726

1 that the map itself is the record document. The field notes  
2 and the survey notes tell you how you got there on the map.  
3 Generally when we're doing surveying or whatever in the field  
4 we use the map and not necessarily the notes unless there's  
5 some issue on re-establishing a corner or whatever.

6 This photo taken here shows the -- on the  
7 right-hand side of the photo just to the back end of the wagon  
8 you'll see the old house that's out there which is part of the  
9 pony express station. And you'll see the haystack on the  
10 wagon in this area with a team of horses taken from the  
11 Thompson Ranch.

12 What's important to note here is that the --  
13 there's hay bales on the wagon. During the ground truthing  
14 that we did at the time we found I think it was a called Price  
15 Simpson baler that existed with remnants from it. And it was  
16 actually patented in 1863, but we know it was used in that  
17 time frame and when the hay storage yards that was onsite.

18 And I was able to find that equipment that was  
19 left over and the remnants of it.

20 Moving on to slide number 53 we have Exhibit 248,  
21 which is the Cadastral survey map for 23 north, 54 east. And  
22 what I'm going to illustrate on this map is first of all,  
23 this -- the reason that this map was done in the first place  
24 was because of the DLEs and patents and everything else that  
25 was going into the area. You had to do the survey before you  
CAPITOL REPORTERS (775) 882-5322

727

1 could go on in getting your land grant, whatever it was.

2 Interesting about this is we see looking at the  
3 map, and I might have to stand up and look at it if I can.

4 HEARING OFFICER JOSEPH-TAYLOR: Oh, of course.

5 THE WITNESS: Okay. Within the map itself it  
6 describes a ditch. And I would say it starts somewhere in  
7 section 3, and I can't see it too well, and traverses the  
8 property to the southwest to section -- appears to be section  
9 17. And in the records we found that this was mentioned in  
10 the book -- or the water books within Eureka County that that  
11 such ditch was a certain dimension and went for about two  
12 miles in that general direction.

13 If you look at the note or the record document in  
14 the Eureka County Recorder's Office that basically says the --  
15 that this was going to be commencing work in this time frame,  
16 whereas the survey map shows it existing.

17 And I believe the top width of the ditch was four  
18 feet wide and the dimensions of the ditch was four feet wide  
19 on the top, three feet deep and two feet on the bottom. And  
20 the flow from the Taft Springs to -- down to section 17 at  
21 this point in time.

22 Also of note here if you're looking at the  
23 southern portion of the plat you'll see this streamline coming  
24 down through that area which I believe is section 20 -- looks  
25 like section -- I'd say section 20, I can't tell for sure.  
CAPITOL REPORTERS (775) 882-5322

728

1 But what I'm doing is looking in the west or east  
2 half of that GLO plot and there's a stream that comes down  
3 through there, they call it a creek, that was the original  
4 discharge from Horse Creek Canyon, which to me indicates that  
5 the priority was probably different on Horse Creek Canyon than  
6 it was from the priority associated with the Taft Springs.

7 At some point this water was diverted to the  
8 north and commingled with the discharge from the springs and  
9 the discharge from the large green area that's shown on this  
10 map.

11 Now, within the map itself you'll see that  
12 there's a boundary that surrounds the subject property which  
13 is called the home ranch within this document. And basically  
14 that green area depicts a meadow.

15 Another feature within here is you'll see coming  
16 from the Taft house, which is in section 3, and it flows to  
17 the west and then flows up to the northwest and discharges off  
18 into township 24 north, 54 east.

19 Off of that this Taft Creek as they called it,  
20 there's a diversion that comes around and goes back in. And  
21 basically that diversion if you look at the aerial photographs  
22 there's two arms that come out similar to the Shipley Ranch.  
23 And that diversion was able to be provided to irrigate that.

24 And you have some other points that I think are  
25 of interest on this, this is right along going north of the  
CAPITOL REPORTERS (775) 882-5322

729

1 Taft house which is in section 3, you'll see a ditch that  
2 heads that direction which we refer to as the upper ditch and  
3 there's a diversion that comes off of that ditch that runs to  
4 the Cox property to the north.

5 So what I found with this is this all well and  
6 good, but you can't rely on the paths on this with certainty  
7 of the evidence of culture. So what we had to do was go to  
8 the survey notes and then to the field notes to determine  
9 whether this was actually observed or whether it was just a  
10 sketch that was put in there.

11 Sometimes you'll find these GLO plats are pretty  
12 inaccurate. You won't find that they're very supportive  
13 unless the survey notes support them or the field notes.

14 So moving on to slide number 54. In order to get  
15 this in context, what I was able to do is to go in a plat, the  
16 existing place of use for Mr. Venturacci on this map. And  
17 what's telling about this is if you look at it you'll see the  
18 boundary coming around in a darker red which is -- it starts  
19 up in section -- well, these are actually lots in the northern  
20 part on the boundary between township 24 north and township 23  
21 north.

22 And then you come down to section 5 which is the  
23 west -- I would say the easterly boundary and they head  
24 directly south to the northeast corner of section 8, then we  
25 have east and then drop down to section 9 which will be  
CAPITOL REPORTERS (775) 882-5322

730

1 probably the center quarter corner. Then you head east and  
2 you follow this, you trace this line across this area.

3 Now, for reference purposes I took the -- the map  
4 that we had submitted to the State Engineer's Office under  
5 second amended proof V-01115 and platted that in here just for  
6 reference associated with the GLO plats.

7 So the thing that strikes me is is if you look at  
8 the area of discharge from the Thompson Springs complex as  
9 we'll call it, you can see that the land where the discharge  
10 occurred was substantially larger in 1879 than the place of  
11 use for the subject land.

12 From that we know that there was irrigation or  
13 there was discharge or there was some evidence of culture  
14 existing at this point in time.

15 Moving to slide number 55 we have --

16 HEARING OFFICER JOSEPH-TAYLOR: Mr. Thiel, can  
17 you go back a slide, please?

18 THE WITNESS: Yes.

19 HEARING OFFICER JOSEPH-TAYLOR: You said there's  
20 some evidence of culture from that point in time. What's your  
21 evidence of culture?

22 THE WITNESS: Well, what we have is a map. When  
23 you first look at it you see this green area --

24 HEARING OFFICER JOSEPH-TAYLOR: Right.

25 THE WITNESS: -- that exists. Okay. When I look  
CAPITOL REPORTERS (775) 882-5322

731

1 at the map just by itself it doesn't tell me much until I move  
2 to the next slide that gets into the field notes. The field  
3 notes are telling because that green area could be whatever,  
4 no one knows what it is and without reference standing on the  
5 plat map itself isn't evidence that's sufficient for culture.

6 HEARING OFFICER JOSEPH-TAYLOR: Okay.

7 THE WITNESS: What I was trying to relate is  
8 going to the next slide and leading into that.

9 HEARING OFFICER JOSEPH-TAYLOR: Thank you.

10 THE WITNESS: So what we have are the field notes  
11 from pages 146 to 150. And what we have here is we have  
12 survey notes and field notes that are talked about  
13 interactively. The survey notes are basically the cleaned up  
14 copy of the field notes. All right?

15 So in the conclusion of both of these documents  
16 you'll find that the field notes may have more information or  
17 less information than the survey notes.

18 So I'll make this to the survey notes. Now, this  
19 is very enjoyable to read, but for everybody here I prepared a  
20 summary, a cheat sheet, if you will, with regard to the  
21 Exhibit DB250, which is book 176, 1879 survey notes dated  
22 August 16th, 1879.

23 Does everybody have that? Do you have a --

24 MR. KOLVET: I handed that out earlier, that was  
25 the addition to Exhibit 250.

CAPITOL REPORTERS (775) 882-5322

732

1 HEARING OFFICER JOSEPH-TAYLOR: Oh, okay. We  
2 attached it to Exhibit 250. Okay.

3 THE WITNESS: So I'm going to try and go through  
4 this quickly because I'm running out of time, but what I have  
5 is I've gone through here and kind of picked areas out where  
6 it talks about ditches, first rate meadows, second rate  
7 meadows. And what you'll find is is that you go across the  
8 bearing that the surveyor says he's tracking. So some will  
9 say a random bearing and most of them will say that they're  
10 going along with the 16th line or a section line. So  
11 obviously a lot of information can be missing, but there's a  
12 lot of information here that I think is very valuable.

13 So, if you go down to -- and just for references  
14 I put on here that one chain is equal to 100 links or 66 feet  
15 and 1 link is equal to .66 feet.

16 So what I'm going to do is rather than go through  
17 and try to direct where this is written I'm going to just go  
18 through my notes and say that, you know, for example, on the  
19 first page that I have is we have a boundary survey between  
20 sections 25 and 30 which is on page 125. In there on the  
21 left-hand side it will say 68. So let's go down to 125.

22 Okay. So you look off to the left side of the  
23 margin and you'll see 68 and it says spring, 12 change -- 12  
24 change -- 12 chains, and I have a hard time figuring out  
25 whether this is west or north. And to me this is saying north  
CAPITOL REPORTERS (775) 882-5322

733

1 and runs north. So we have a spring identified within that  
2 area which is in 23 north, 53 east.

3 So we're working our way further over towards the  
4 township we're in.

5 So, again, you go the first few pages and it  
6 tells some other springs that are in the discharge area  
7 surrounding this property, which gives some merit to the map  
8 that I showed previously to the slide -- I'm having a hard  
9 time talking, shouldn't have had soup. Shows a slide with  
10 this area that's further to the west that indicates that there  
11 was a fairly large discharge area out there, which is more  
12 than just the Taft Springs.

13 So, now we get into 23 north, 54 east, which is  
14 the middle of the second page. And it's begin August 22nd,  
15 1879, page 175. We're on page 175. So this is township 23  
16 north, range 54 east.

17 So what we have are between sections 22 and 23  
18 which identifies on the left-hand column 26.30. And we have  
19 the creek is ten links wide and it runs southwest. Okay.

20 Then what I'm getting to this will be so  
21 redundant to go through this whole thing, but as you go  
22 through this and it traces out where these points on the map  
23 it becomes evident that this was not just an arbitrary guy  
24 sitting on a hillside and tracing a map in. Yes, he traced it  
25 based upon survey data that he had.  
CAPITOL REPORTERS (775) 882-5322

734

1 So you go through this and you'll find that  
2 further down sections -- it's basically sections 14, 15, 22  
3 and 23. And from that point Crofut's house bears north 47 and  
4 a quarter degrees west, 36 chains, 60 links distance.

5 So he's identifying houses out there of the  
6 people that have possessory interest in the property.

7 HEARING OFFICER JOSEPH-TAYLOR: For the court  
8 reporter, what was the name of that person?

9 THE WITNESS: Crofut. It's C-R-O-F-U-T. Then  
10 between sections 2 and 3 you'll find that you have Taft's  
11 house, which from that point it bears south 22 degrees west,  
12 the southeast corner of Taft and blank desert land claim bears  
13 north three and a half degrees east, seven chains, ten links  
14 distance.

15 So from there he's saying okay, we got desert  
16 land claim from Taft that bears in this direction to try and  
17 find out where that is. So he's doing a survey to identify  
18 where the desert land claim is. And he's doing that from  
19 here, so we know it wasn't just done arbitrarily, normally  
20 these surveys like I stated earlier were done to find out and  
21 allow entries within these townships.

22 So one example is you'll have page 178 between  
23 sections 27 and 28. And again, if you look at the left-hand  
24 column it says 14 and you enter the meadow north of east and  
25 south of west.

CAPITOL REPORTERS (775) 882-5322

735

1 So, basically you're entering the meadow  
2 northeast and southwest. So, in some of these areas, so say  
3 sagebrush/meadow, which means I went from sagebrush to meadow.  
4 And some of these it says meadow/sagebrush. So based upon  
5 whatever bearing that he's going or whatever direction he's  
6 going, he's identifying what he's seeing.

7 And then in here he'll say well, this is first  
8 class meadow or it's second class meadow. And rating the  
9 difference between first and second class I would assume would  
10 be based upon the quality of the meadow, the evidence of  
11 culture that existed out there. The -- and that would be  
12 dependent upon water within that area being there.

13 Again, going through here, you go between  
14 sections 15 and 16, it says inter meadow -- inter meadow  
15 northeast and southwest. And this is left-hand column 80,  
16 sections 9, 10, 15 and 16 he observed meadow.

17 Go to the next section, page 184, he says well,  
18 on sections 9 and 10 on this part of it where his distance I  
19 measured was 59.80 chains. There's an irrigating ditch ten  
20 links wide going to the southwest.

21 So it this goes through and tells you where he's  
22 found irrigation ditches, where he's found springs. And what  
23 I notice about going through this he found more springs than  
24 just what was located on the Taft -- discharge with the Taft  
25 Springs.

CAPITOL REPORTERS (775) 882-5322

736

1 Continuing on, again, he finds another irrigation  
2 ditch which is on sections 3 and 10. He set a temporary  
3 quarter section corner at the left-hand side which is 40. And  
4 at 40.8 he found irrigating ditch ten links wide flowing  
5 southwest, which was 6.6 feet. That was the ditch width.

6 So again, you go through here and it says well,  
7 meadow again. And then page 186 he says -- top rate -- well,  
8 basically this says soil, but it's top rate soil, first rate  
9 meadow. And that's sections 3 and 4 which is a random line.  
10 Normally what he says he does, he takes off a bearing of  
11 15 degrees northwest. Or he'll take off a bearing of  
12 16 degrees, you know, southeast, whatever it is, whatever  
13 random line he chooses, that's where he goes.

14 So, again, looking at page 28 -- 188 between  
15 sections 28 and 29 it leaves the meadow northeast and  
16 southwest. And on page 189 he calls it again first rate soil,  
17 first rate meadow. And it goes on down further. In this  
18 case, page 190 it says well, I entered the meadow east and  
19 west and it's a first rate meadow and then sagebrush based  
20 upon the bearings going.

21 And it keeps going this way through this whole  
22 thing. And I don't know if it's necessary to do that for the  
23 record, but he identifies Taft's Creek on page 194, which is  
24 20 links wide running in the southwest and it's sandy and  
25 level and it's first rate meadow.

CAPITOL REPORTERS (775) 882-5322

737

1 He gets into page 195, that's north on the random  
2 line between sections 4 and 5 hitting 16 degrees, 45 minutes  
3 east. And he has Taft's Creek at this station and it's 20  
4 links wide and it's running in this direction.

5 And then he gets further into these other parts,  
6 he's at the corner comment of 4, 5, 8 and 9, the sandy soils,  
7 level, first rate meadow.

8 So then he gets into 29, 30, 31 and 32, it's  
9 sand, level soil, first rate meadow and it's sagebrush. So  
10 now it's transitioning out from first rate meadow to  
11 sagebrush. So you keep on going through these lines and  
12 typically what you find is the map will correlate to what he's  
13 got. And rather than belabor this and bore everybody to death  
14 with his stationing, typically it says that area with the  
15 green is either first or second rate meadow, anything out of  
16 the green area is sagebrush.

17 And then his general description, he says the  
18 subdivided portion of this township is level land, a large  
19 portion of which is fine meadow and the balance covers --  
20 covers with sagebrush and grass. It all can be irrigated from  
21 creeks and springs in different parts.

22 The soil is all above average in that -- in the  
23 meadow is very rich. Considerable hay is cut from the  
24 meadowland and a portion under cultivation. Then a subdivided  
25 portion which is to the east is mostly mountainous, unfit for  
CAPITOL REPORTERS (775) 882-5322

738

1 cultivation.

2 Unless I have some questions I'm going to move  
3 away from this.

4 BY MR. KOLVET:

5 Q. Going back to your slide 54.

6 A. Yes.

7 Q. Is it my understanding from your testimony then  
8 that the coloration that's on this map you put there?

9 A. No.

10 Q. That was originally put there; is that right?

11 A. Yes. Within the green area on the map and  
12 unfortunately what happens is it looks more yellow on the map  
13 that's on the projector, but what that indicates is that was  
14 on the map and that's what I pulled off the BLM website when I  
15 pulled the plat.

16 Q. And do those --

17 HEARING OFFICER JOSEPH-TAYLOR: Hold on,  
18 Mr. Kolvet, I want to make sure I understand that. I thought,  
19 Mr. Thiel, that you had taken the GLO map and then put the  
20 culture on it yourself.

21 THE WITNESS: I'm going to back up one slide to  
22 answer that question. Okay. Here on page 58 is Exhibit 248.  
23 This is the map as pulled off of the government land office  
24 site. So this map itself shows the extent of the meadow area  
25 and area where grass was being grown; in other words, it was a  
CAPITOL REPORTERS (775) 882-5322

739

1 meadow. Okay. Working towards slide number 54.

2 HEARING OFFICER JOSEPH-TAYLOR: Okay.

3 THE WITNESS: What we did was is take our proof  
4 map, the one I did and overlaid that onto the GLO plat that  
5 was blown up for illustrative purposes.

6 HEARING OFFICER JOSEPH-TAYLOR: Okay. I  
7 understood it correctly, you added that to this map.

8 THE WITNESS: I added the -- what I added is this  
9 portion in here.

10 HEARING OFFICER JOSEPH-TAYLOR: That's what I  
11 understood.

12 THE WITNESS: Yeah. And that's the place of use  
13 on what I filed for Mr. Venturacci.

14 HEARING OFFICER JOSEPH-TAYLOR: Okay. Thank you.

15 THE WITNESS: Okay.

16 BY MR. KOLVET:

17 Q. But just to go back to clarify for the record,  
18 the outlines of various cultural zones, for lack of a better  
19 word, the hashed green, the yellow and then the speckled  
20 white, where do those come from?

21 A. Those come from -- those areas that I show on  
22 here and are referring to the side that looks like a whole  
23 bunch of pluses in it. That came from my review of what was  
24 on the site and my estimate of what culture existed on the  
25 property. Not during that time frame but ultimately what  
CAPITOL REPORTERS (775) 882-5322

740

1 existed.  
2 So, basically what existed during this time  
3 frame --  
4 Q. This time frame being?  
5 A. 1879. In 1879 what existed was this meadow area  
6 and that was being extensively harvested. And unfortunately  
7 not shown on here is the portion that he refers to as being  
8 cultivated.  
9 HEARING OFFICER JOSEPH-TAYLOR: Is our record  
10 clear on this?  
11 BY MR. KOLVET:  
12 Q. So hashed green --  
13 HEARING OFFICER JOSEPH-TAYLOR: Hold on,  
14 Mr. Kolvet, because I'm getting heads shaking no. I -- I want  
15 to make sure I know this. Mr. Thiel, you added to the GLO map  
16 the green hashed section, the yellow section and the speckled  
17 section; is that correct?  
18 THE WITNESS: I did.  
19 HEARING OFFICER JOSEPH-TAYLOR: Thank you.  
20 BY MR. KOLVET:  
21 Q. And the basis for the additions that you made to  
22 this map were what?  
23 A. The basis for the additions was to outline the  
24 place of use of the claim V-001115.  
25 Q. Misunderstanding you. What information did you  
CAPITOL REPORTERS (775) 882-5322

741

1 rely on to come to the conclusion that certain areas at the  
2 green hash, the yellow and the plus sign?  
3 A. That was based on all the aerial maps I have and  
4 improvements made to that property since 1879. And it was  
5 based upon my interpretation of what I could find out from  
6 historical references and what I could find out by looking at  
7 the aerial photograph topography.  
8 Q. Ground truthing play a part?  
9 A. Big part.  
10 THE STATE ENGINEER: And if I may, Mr. Kolvet?  
11 MR. KOLVET: Sure.  
12 THE STATE ENGINEER: We just spent a lot of  
13 talking about field notes.  
14 THE WITNESS: Yes.  
15 THE STATE ENGINEER: And you talked about first  
16 class and second class growth, how did you incorporate those  
17 kinds of statements into your layer here?  
18 THE WITNESS: What --  
19 THE STATE ENGINEER: It was just one piece of the  
20 information?  
21 THE WITNESS: Here's how I interpreted that piece  
22 of data is I would assume where we had first class meadows is  
23 probably wetter than where we had second class meadows. And  
24 that's how I think is -- if I was out in the field at the time  
25 I probably would have rated that.  
CAPITOL REPORTERS (775) 882-5322

742

1 So I knew from the standpoint if we had first  
2 class meadow that based upon the conditions that existed in  
3 1879 it may not be conducive to alfalfa, but it may be  
4 conducive to haying. Whereas second class meadow or vice  
5 versa; in other words, second class meadow might be good for  
6 haying, first class meadow may be good for pasture because it  
7 is so wet.  
8 So what I tried to do is take that information  
9 plus the other information I have and come up with some sort  
10 of correlation to pick what ground may be suitable for  
11 different types of crops and then reference to what was in  
12 being cultivated after 1905, for example.  
13 So what we have prior to 1905 is the information  
14 that existed that this is wild grass, meadow grass that was  
15 being grown based upon the Crofut history that it was a  
16 typical practice within this valley to plant Timothy and red  
17 top, fescue, for example, out in that area and some other  
18 grasses that they didn't have any success with and that they  
19 experimented with alfalfa in certain areas.  
20 So knowing that alfalfa does not grow well where  
21 there's high seasonal groundwater, I would assume where we  
22 have high seasonal groundwater that would not have been an  
23 appropriate use in that area.  
24 THE STATE ENGINEER: Thank you.  
25 ///  
CAPITOL REPORTERS (775) 882-5322

743

1 BY MR. KOLVET:  
2 Q. Sorry, go ahead.  
3 A. We just finished slide 55. And again, I  
4 condensed my presentation for time purposes. Then we get in  
5 the general description which is 23 north, 54 east. And this  
6 basically -- are the general description under the survey  
7 notes which is very similar to what was under the field notes.  
8 It says the southeast portion of this township is high  
9 sagebrush land that cannot be irrigated for any creeks or  
10 springs in the valley and the eastern portion is hilly and  
11 mountainous.  
12 So if you remember what I showed you under GLO  
13 plot, we had areas within township 23 north, 54 east, areas to  
14 the west that were sagebrush, more out in the flat.  
15 Areas to the east, the eastern portion is where  
16 it starts climbing up into the Diamond Mountains. Anything  
17 between that, the remainder is good agricultural land, well  
18 water and a considerable portion natural meadow. A part of  
19 this township is now occupied and under cultivation.  
20 Now we get into township 24 north, 54 east. And  
21 features on this plat that I have, if you look in the -- I  
22 would say in section 34 I believe it is on -- this would be in  
23 the southeast quarter of section 34, you'll see a -- in that  
24 area you'll see a creek coming up as they call it, but it's  
25 off a diversion ditch that went to the Cox Ranch and headed  
CAPITOL REPORTERS (775) 882-5322

744

1 north.

2 And you'll see that this creek kind of follows  
3 the boundary and then discharges just north of the Cox Ranch  
4 in section -- it looks like -- I can't tell from the exhibits  
5 I have. But it looks like it discharges in the section just  
6 above section 34.

7 THE STATE ENGINEER: 27.

8 THE WITNESS: Thank you. So at that point we  
9 have a diversion that flows from this higher ditch that goes  
10 into Cox Ranch that diverts towards the east and flows north.  
11 And this is what they found.

12 Now, you'll see a small outline and you can't see  
13 it very well in section 34, which is the Cox residence.  
14 Basically what we find in the -- the narrative regarding this  
15 mostly by Crofut is we know that around the Cox house they  
16 grew crops for transport to Eureka.

17 In other words, it might be vegetables grown or a  
18 garden that was in that area or cultivated for that. The  
19 balance of the area was used for hay and what they describe  
20 within the field notes is they describe an area of spring  
21 discharge which is typical in that area and not isolated to  
22 one source.

23 What is missing within this is what everybody  
24 refers to as Diamond Springs. For whatever reason it doesn't  
25 follow out or fall out on the township line except for the  
CAPITOL REPORTERS (775) 882-5322

745

1 very north portion of the Cox place there's a spring depicted  
2 with a flow line going to the north. And I really can't  
3 depict -- I think it's right here, which is the top of section  
4 34 which flows to the north in that area. And that's what  
5 they reference into spring discharge.

6 But looking at the aerials and ground truthing in  
7 that I was able to find for example Birch Spring that was out  
8 there and other springs that were evident on the property and  
9 evidence of discharge within those areas that aren't on the  
10 1879 survey.

11 So, anyhow, we go through the same issue -- same  
12 issue with Willow, we find on the Willow Field, which I think  
13 is section 22, and it shows a spring discharge which occurs  
14 right in this area which I'm looking at section 22. And  
15 there -- this would be in the northeast corner or -- east  
16 quarter of section 22. There's a spring discharge line that  
17 heads in a southwesterly direction and there's some green area  
18 around that, that would be the Willow Field area.

19 Now, what I did when I did the ground truthing up  
20 there, I looked at what was onsite and I didn't find the  
21 remnants of that springs, but I found remnants of other  
22 springs and that's what I used in my survey basically to  
23 locate where those springs were.

24 So the point is that on the Cox, the Willow and  
25 the Thompson Ranch to isolate the entire discharge to one or  
CAPITOL REPORTERS (775) 882-5322

746

1 two springs was impossible based upon the discharge along the  
2 5800-foot contour line that followed -- trended to the north  
3 and to the south along this boundary where the carb --  
4 basically where the carbonates are exposed to the eastern part  
5 of this township.

6 So, if I was going define a point of discharge I  
7 probably have a hundred points along those lines and it says  
8 here's where it discharged. Then if I went west I'd probably  
9 have another hundred points that were out there which were  
10 seeps or minor springs.

11 So from our purposes what we did is we came in  
12 and said these are the major sources on here, this is what we  
13 pulled up and this is what we had evidence of. So we said  
14 these are the springs we picked.

15 And it's pretty typical that you can't pull every  
16 spring and seep, especially when you're doing the lookback  
17 scenario on this even though I could find evidence on the  
18 aerial photographs and in truthing.

19 This is a detail of the same thing I did with  
20 regard to the Thompson Ranch on the Cox Ranch is I overlaid  
21 this blue crosshatching for the area of culture that I  
22 estimated on the Cox Ranch. What you'll see from a reference  
23 on this photo is south of section 34, which I believe which  
24 would be within the lots to the north of township 24 north, 54  
25 east. You'll find the overlay on the road that is illustrated  
CAPITOL REPORTERS (775) 882-5322

747

1 within there within section 34 there's an area that's  
2 highlighted that basically follows this boundary which would  
3 have been the garden map the Cox father, George or WF Cox or  
4 William Cox grew at this time.

5 And other than that you don't find a major, major  
6 spring other than what's located right along the -- this is  
7 between sections 22 and 34 you'll see a spring discharge  
8 heading to the north.

9 Now --

10 HEARING OFFICER JOSEPH-TAYLOR: I think you want  
11 to say 27.

12 THE WITNESS: Is it 27?

13 THE STATE ENGINEER: Um-hum.

14 HEARING OFFICER JOSEPH-TAYLOR: And 34.

15 THE WITNESS: Yes, I'm sorry. Thank you for the  
16 correction. Between 27 and 34.

17 What you'll -- what's dependent on this -- this  
18 information is the time of the year that the survey is made.  
19 On 23 north, 54 east, the survey was done in August. And this  
20 time frame to the north the survey was done in October.

21 So it's pretty hard to identify features that  
22 existed at the time based upon the climactic conditions that  
23 may exist out there.

24 So, I have no doubt that there's some points of  
25 the year or times of the year where you're getting discharge  
CAPITOL REPORTERS (775) 882-5322

748

1 from the spring areas where you normally won't get it towards  
2 the -- any part of the year.

3 In other words, the discharge is being consumed  
4 during the time when the plants are actually consuming water.  
5 In the balance of the year when they're dormant you won't see  
6 that as much but you should see some more runoff.

7 And the other feature which I don't think -- I  
8 think I pointed out is this -- the edge of this meadow, the  
9 edge of the meadow, there's a ditch that runs along the edge  
10 of the meadow that goes into section 34. And that basically  
11 is water discharged from the Taft Spring complex or the  
12 Thompson Spring complex. This ditch that comes out which he  
13 identifies as a creek flows to the northwest --

14 HEARING OFFICER JOSEPH-TAYLOR: Northeast?

15 THE WITNESS: -- across the -- northeast. Thank  
16 you. Across the -- it has a northeast trend, flows due north  
17 on the southeast portion of section 34, goes -- flows up north  
18 on the northeast portion of section 34 and continues on to the  
19 southeast corner of 27 and then heads off in a northwesterly  
20 direction with an arrow of discharge.

21 So from that standpoint it does not show that  
22 this is being a creek necessarily, it shows it as being  
23 derived from a ditch that exists that goes from the upper Cox  
24 ditch.

25 Moving on to slide number 60, this is what I told  
CAPITOL REPORTERS (775) 882-5322

749

1 you about here. This again is taking the GLO plot and pulling  
2 up the -- blowing it up that shows the boundary of what's held  
3 by Mr. Venturacci. And this shows the evidence of culture  
4 that we overlaid by our proof map of what we found by the  
5 aerial photographs and other evidence of where the property --  
6 where the water was being used beneficially.

7 In section 22 in the northeast portion of that  
8 section you'll see a spring discharge that flows to the  
9 southwest. And at that point there's a dashed line coming  
10 from the right hand of the photo going north and that's a road  
11 that existed there at the time.

12 Oh, I might point out one other thing. This --  
13 this squiggly line coming along the bottom portion of section  
14 22 and flowing to the west in section 21 is the canyon  
15 discharge in the channel that existed at the time of the  
16 survey.

17 So what we have here is we have observed features  
18 on the plats. We -- flow channels derive from spring flows  
19 shown on survey notes and shown on the plats.

20 We have Diamond Springs which in all historical  
21 reference to Diamond Springs is in the area of the Cox Ranch.  
22 And we also have later references to being on the Taft Ranch.  
23 So what we found is the modern documents they referred to  
24 Diamond Springs as being on the Thompson property, Taft Ranch  
25 and on the earlier references we find Diamond Springs on the  
CAPITOL REPORTERS (775) 882-5322

750

1 Cox Ranch. And that's further validated later for example on  
2 Harrill's memo to file from 1982.

3 So we have locations of ditches and geographical  
4 references. And again, this is one of the historical  
5 references we need to refer to. Some of these names that were  
6 on here I looked up their original information. This is more  
7 or less a summary of what they did. And I did some research  
8 as to the other information, but I felt that the survey or  
9 this reference would be substantial enough.

10 With regard to 24 north, 54 east I more or less  
11 summarized what was there. It doesn't go into great detail.  
12 I think the time of year had some bearing on it and perhaps  
13 the total limit extent of the water right hadn't been  
14 discovered yet.

15 So I'm on page 63, which is the survey notes.  
16 They're very short, I'm not going to spend a lot of time with  
17 those, I'm going to go through those. You can read them  
18 probably at your leisure, it's been offered.

19 So I'm going to switch quickly to slide number  
20 65, which is the summary. And this is the describe --  
21 transcribed general description. These are part of this  
22 township as high rough mountains to the east with little  
23 timber and no mines open. The western part is level and  
24 covered with sagebrush and grass with considerable land also  
25 for cultivation with numerous springs and small creeks.  
CAPITOL REPORTERS (775) 882-5322

751

1 Slide number 66 is the patent information. And  
2 what I have on this map is -- it's a little hard to see, but  
3 in purple I'll call it is the boundary of the 1912 claim of  
4 vested right. And what I'm doing is I'm starting just north  
5 of Taft Springs heading through the 40-acre subdivided portion  
6 on the east portion. But anyhow, self-descriptive. The  
7 boundary of the 1912 survey is shown on here. And if you  
8 notice in the middle of it there's a green area that was owned  
9 basically by Jacobson; in other words, he filed for the patent  
10 on it, later received it in 1941 I think ultimately.

11 And you'll see other properties surrounding this  
12 area. You'll see where the springs and ditching went through  
13 that. This other property was acquired ultimately by -- not  
14 necessarily by Toft but probably by Jacobson and then  
15 ultimately by Thompson.

16 And in there I provided to the State the patents.  
17 We have several patents that are provided within here that  
18 basically go through what was patented. Generally to get  
19 these patents you had to show water use associated with it or  
20 at least ownership of the right to divert the water.

21 Again, I do the same thing for the Cox Ranch. We  
22 find that there was -- William Cox that originally patented  
23 the areas shown in blue, dark blue, which would be in section  
24 34, would probably be the -- it appears to be the west half of  
25 the northwest -- the east half of the northwest corner.  
CAPITOL REPORTERS (775) 882-5322

752

1 Then we have the portions by George Cox coming up  
2 here that were patented at various times, 1907, 1908 and 1903,  
3 I believe, 1901. And again, I've included the patents  
4 associated with that.

5 Then Willow Field I do the same thing where again  
6 we have the Cox family acquiring those ranches over different  
7 periods of time. I provided the backup to those patents.  
8 Primarily the water was beneficially used by parties that  
9 were -- that had possessory interest and then continued to use  
10 by the people that come up with patents. And that's generally  
11 how it works.

12 This is a picture of the telegraph station, the  
13 Cox house that was provided. The documentation I had that  
14 this was a picture taken a long time ago. The only issue I  
15 had with that is basically taken in the 1850s what was  
16 described, but based upon the movement of the people in there,  
17 there's no way that that could have been taken that far back.  
18 Generally people didn't move much in these photos. So to me  
19 it looks like it was taken at the turn of the century.

20 Then we have the tax records. This was a lot of  
21 fun trying to go through. Basically this tax roll that you'll  
22 see in here was not every tax record that exists within Eureka  
23 County. Basically what happened was is that when  
24 Mr. Venturacci went up there to pull the tax records per my  
25 instructions, it took about 45 minutes to go through each page  
CAPITOL REPORTERS (775) 882-5322

753

1 to get the information. And at this point in time I wasn't  
2 that concerned about pulling tax records but only a  
3 representation of a sequence in time from 1887 forward about  
4 every ten years. And that's what I asked him to pull.

5 So there are a lot more tax records that I didn't  
6 provide into evidence, but basically it was arbitrarily how we  
7 picked the time and what tax records I needed. So again,  
8 these are snapshots.

9 So in 1887 it shows that George Taft had filed  
10 for taxes and we had another gentleman by the name of Millett  
11 that was also assessed based upon possessory interest.

12 Now, rather than strain everybody's eyes I'm  
13 going to go to the next exhibit which is transcribed into  
14 that. That is nonetheless easier to read.

15 So what I have is we have the same information  
16 that's on the cursive written part of this, the tax records.  
17 And we did the best we could to try and go through and  
18 transcribe what was there.

19 I struggled a little while on trying to read what  
20 possessory and I had about six different machinations for that  
21 and I finally discovered it was possessory interest. So what  
22 we have is the tax base for George W. Taft within these  
23 certain portions.

24 Of interest here is he had personal property,  
25 furniture with dollars added to it, 15 milk cows, 20 stead  
CAPITOL REPORTERS (775) 882-5322

754

1 cattle, two wagons, mowers, rakes, possessory interest and to  
2 attract farming land situated on the east side of Diamond  
3 Valley at Diamond Springs in Eureka County, State of Nevada  
4 known as the Taft Ranch is described as follows. To unit  
5 being the described property below.

6 So we go into all these areas and we have an  
7 accumulation of acreage which is a possessory claimed  
8 interest. And you go all the way through all these numbers  
9 and you keep going down and you'll find Henry Millett on  
10 there, which appears to have the same possessory interest and  
11 it has a lot of the same claim to the property.

12 The only difference is is you'll find that if you  
13 add up the numbers and look at the overlaying land that you  
14 wind up with enough property of about 1120 acres that they had  
15 possessory interest in.

16 What's interesting about this is George Taft paid  
17 the taxes for Henry Millett. Then this period of time --  
18 BY MR. KOLVET:

19 Q. Just so the record's clear, the first transcribed  
20 tax records were for what year?

21 A. This is for 1887. Now, as you'll see a lot of  
22 other names on the written tax records in Eureka County. And  
23 when I go to the transcribed descriptions I left out the  
24 parties that don't have any interest within 23 north, 54 east.

25 Then we have Nels Toft and this was in the taxes  
CAPITOL REPORTERS (775) 882-5322

755

1 that were probably assessed in 2000 -- I'm sorry, 1911. It  
2 shows the taxes paid in November 29th, 1912. Previous column  
3 is paid May 24th, 1913. So I have various assessments that  
4 were provided within this.

5 So again we go through the personal property what  
6 was out there. We have parcel improvements. We have fee  
7 simple and, you know, to the property associated that's  
8 described within this right-hand column which is a number of  
9 acres of real estate.

10 And you go down to WF Cox. You have the same fee  
11 simple and divide the land and the fee assessment associated  
12 with that. And it continues on so forth where you came up.  
13 You determine that they were actually working on improving  
14 that land. And most of these, especially with the Cox  
15 brothers, most of that land was held as a patent at that point  
16 in time.

17 And by that time Nels Toft had probably received  
18 at least the Dewey patent, some of the patents they didn't  
19 receive until 1912 and later on that property, some in 1908.  
20 So it would no longer be a possessory interest.

21 Jacobson and Nels Toft go through the same  
22 iterations. But the main thing here is is if you look at  
23 George Cox you'll find that he had 40 acres of grazing and  
24 200 acres of grazing. And this would have be in the  
25 property -- this would have been what I refer to as the Cox  
CAPITOL REPORTERS (775) 882-5322

756

1 Ranch.  
2 Then you go into WF Cox, which is the Willow  
3 Ranch and you'll find that he had 40 acres of hay and he had  
4 280 acres of grazing, plus all the other cattle and all the  
5 other interests.

6 And you keep going through the tax records. And  
7 I don't want to belabor a lot this, but you'll find that the  
8 descriptions keep going along, we go from farming to grazing  
9 and definition of pasture. And you'll look at wild hay as  
10 being part of this, for example.

11 Then by this period of time, which would have  
12 been 1955, '56, this is when Thompson had the property. And  
13 it goes in through the property that they were -- they had  
14 meadow grazing and additional grazing. Then they have  
15 descriptions associated with the amount of acreage within  
16 their holdings.

17 The amount of cattle that they had on the  
18 property, number of sheep and equipment they had to work on  
19 the property. And again, this talks about at this point the  
20 Cox Ranches and the -- we have the Cox, the Willow, the Rock  
21 and the Mau Ranches were all consolidated I believe at this  
22 point in time into one ownership.

23 So I've gone through that pretty fast. On slide  
24 number 72 we talk about Henry Millett taxes paid by Nels Toft,  
25 Nels Toft was overlapping the land interest in this area. The  
CAPITOL REPORTERS (775) 882-5322

757

1 total was about 1120 acres if you plot out the acreages.

2 Cox Ranch we had 240 acres grazing. Willow Ranch  
3 we had 40 acres of hay, 280 acres of grazing. And it shows  
4 each the interest associated with each. I've attached to this  
5 exhibits for the Cox patent map which we already looked at and  
6 also the Willow patent map. And if you compare those  
7 descriptions I provided it's on the same properties in which  
8 they had patents.

9 So, this I just left open based upon the  
10 discussion I already provided for the various years on what  
11 the comparisons were from historic to present. And it  
12 basically shows interest associated with farming, interest  
13 associated with cultivation that was occurring and how the  
14 transition occurred through the process.

15 I already discussed slide 75. Now, impact of  
16 pumping groundwater discharge. I was going to spend a lot of  
17 time on this, but I could get bogged down in this forever.

18 My review of what's out there, we have a wealth  
19 of information that's been provided through the USGS. The  
20 State Engineer in past issues has already recognized that  
21 there's issues occurring due to over-pumping in the valley.

22 We're asserting on behalf of the client that his  
23 senior rights are being impacted by the pumping within the  
24 basin. And I think that's been well discussed by Dwight Smith  
25 and others as far as what's occurring within this basin.  
CAPITOL REPORTERS (775) 882-5322

758

1 So I'm going to skip through some of this stuff  
2 because most of it's been discussed.

3 The issue that I had on all of this, if you look  
4 at bulletin 35, for example, or look at recon report number 6,  
5 there's various consumptive use measurements used in the  
6 basin. If you look at bulletin 35 we have an ET of some areas  
7 within non-meadow area where it's been estimated this is what  
8 the ET is and there's harvest hay occurring in there or haying  
9 occurring in there, different uses within there. And then you  
10 have the meadow area described as a thousand acres which  
11 assigned three-acre-feet per acre.

12 But looking at bulletin 35 it also gave a  
13 consumptive use of 1.9, say an ET rate for alfalfa at  
14 1.9-acre-feet per acre.

15 So, from the issue that I have getting into this,  
16 the ET rates or the pumping diversion rates or whatever it is,  
17 I don't think you can quantify by duty necessarily. I think  
18 what you have to do is quantify the area of discharge by the  
19 number of acres that existed out there. Like I told you, it's  
20 very difficult to identify every seep, every spring and  
21 everything that existed within that basin and use that to  
22 correlate spring discharge to consumption within those  
23 properties themselves.

24 So, for example, when I use this from Diamond  
25 Valley and there's been a lot of discussion on this, we  
CAPITOL REPORTERS (775) 882-5322

759

1 probably were in the range of grass hay, for example, or low  
2 managed pasture grass and some alfalfa. So there's different  
3 duties ascribed to that part of it.

4 Q. When you say "this," reference the exhibit number  
5 you're referring to, please, and the document?

6 A. Yeah, I'm referring to Exhibit 261, which is  
7 the -- what we submitted from the ET website and that's  
8 basically the consumptive use associated with crop. The type  
9 of crop.

10 And there's been a lot of discussion associated  
11 with that and I agree with it. The problem we have going into  
12 this if you look at Harrill's report he said there was  
13 basically 6500 acres of discharge in the northern part of the  
14 basin. If you take what we're requesting, what is on Shipley  
15 and you take all the other minor springs out there, it's  
16 pretty close to 6500 acres. Okay?

17 So from that standpoint, we're going from a  
18 spring use that says our ET was X and now we're switching over  
19 to an underground diversion to replace those lost senior water  
20 rights. Those water rights that were impacted by June end  
21 users.

22 So basically what I had to do is my evidence is  
23 based upon the discharge areas because number one, I don't  
24 have data in my mind that correlates anything on the Taft  
25 Springs. I have snapshots in time over long period of record  
CAPITOL REPORTERS (775) 882-5322

760



1 unfortunately, but you'll see that there's gaps within the  
2 purple areas along this graph.

3 This is where I didn't have the complete data set  
4 or where there was missing data and I did not try to guess any  
5 of this. But the wiggly line going from the left side of the  
6 slide to the right side of the slide is a trend line. It's  
7 nothing more than indicating the difference in precipitation  
8 occurring over this period of time and it doesn't really show  
9 you much other than this is the trend of what was occurring at  
10 the time.

11 So from that slide from precipitation I added --  
12 let's add our spring flow data. So I come in here, I have a  
13 report that indicates spring flow I think in 1912 so I added  
14 that. And then the blue line, the lighter blue line on the  
15 bottom shows the relative discharges. So I'm going okay,  
16 well, there is a lead in lag time associated with  
17 precipitation with the spring discharges that did occur.

18 So I kind of get somewhat a correlation or a  
19 trend that is occurring that's similar to the trend line for  
20 precipitation.

21 Then I add pumping. Now, this -- the red area is  
22 based upon taking the agricultural area times the  
23 four-acre-feet per acre and coming up with a simplistic  
24 diagram that shows here's what our pumping levels are based  
25 upon that information.

CAPITOL REPORTERS (775) 882-5322

765

1 So what I'm seeing from this standpoint, I come  
2 in here and I have areas that we've had high yearly flows  
3 based upon abnormal discharges. So I have a discharge or a  
4 precipitation event that occurs in about '83, '84. And of  
5 course I see the trend line coming up because it skews  
6 everything to the upper part of the graph. So then I see a  
7 response coming in the springs where the spring discharge  
8 comes up and then you see the pumping level that's very high.  
9 So we still continue up with some of this spring discharge  
10 coming in from Thompson Springs to Taft Springs based upon the  
11 point when that's occurring.

12 So what I have is I have the amount of acreage  
13 that's being pumped drop down in the latter years and then I  
14 see precipitation is still occurring, but as the precipitation  
15 starts coming up within the right-hand side of the graph, this  
16 spring continues to decline, which shows a correlation in my  
17 mind to the effects of pumping on the springs.

18 In other words, we've continued to decline until  
19 about 1991, '92 and basically the ending results associated  
20 with spring discharge disappear.

21 So, what I've got to try to correlate and get  
22 away from this, you know, 3.1 net irrigation or whatever the  
23 factor used for the -- the amount of water pumped out of the  
24 groundwater basin, I plotted the green line that shows that  
25 even though our precipitation is going up, which is on the  
CAPITOL REPORTERS (775) 882-5322

766

1 right-hand side of the graph and it's kind of hidden within  
2 those red lines, but if you look very closely you can find it,  
3 we see that the spring line for the discharge within Thompson  
4 Springs still disappears. So in my mind this correlates the  
5 spring discharge disappearing even in relationship to  
6 precipitation increasing and the predominant feature on this  
7 is the amount of irrigation, the amount of property and  
8 cultivation is increasing and basically we've exceeded the  
9 limit of what's available in that basin, we're mining at that  
10 point in time. And what we have left is nothing for the  
11 senior water right holder.

12 So, one of the issues that I looked at is, you  
13 know, I've attended seminars, I've attended classes on global  
14 warming and I've looked at all these issues associated with  
15 it. But from -- that's on the macro scale, I mean, long term  
16 from what I've seen on the classes I've been to is that in the  
17 future and this is forecasted by models, Eureka -- or Diamond  
18 Valley is supposed to get warmer and wetter. So maybe that  
19 will solve everything.

20 But from the initial scale there's been some talk  
21 about the -- the precipitation affecting or there being some  
22 sort of traumatic change in weather within the basin.

23 So even with increased precipitation and all this  
24 being done, the springs have continued to decline. And from  
25 my perspective, from a water rights perspective when you have  
CAPITOL REPORTERS (775) 882-5322

767

1 a senior water right holder, it doesn't matter if the weather  
2 declines or not. What matters is that the pumping has to  
3 cease that's affecting that discharge. We still have a senior  
4 water right holder. We are the senior water right holder.

5 What happens is is that maybe if we have a  
6 dramatic climate change the only thing that's left to pump is  
7 Shipley and Taft Springs. But from a water rights standpoint  
8 and from the perspective of the senior water right holder  
9 that's what has to be satisfied first from a priority  
10 standpoint regardless of what's occurred on this other part of  
11 the basin. Is it fair? No. But that's what the water law  
12 calls for.

13 Now, what we did is we looked at from a water  
14 resources standpoint the discharge line and the place of use  
15 of the Thompson holdings and -- or of the Venturacci holdings  
16 within this area. This dark line in the middle is based upon  
17 a lack of having a quality printer. So this green area shows  
18 a picture from 2006 of the discharge that was occurring within  
19 that area. By 2006 I'm pretty sure that was mostly  
20 phreatophytic plants that was occurring.

21 I'll keep going down. And this a blowup on it.  
22 What I did was isolate what was shown in the Camilleri report  
23 of the Thoseberg (ph.) Fault that's been identified. It was a  
24 clipping that's within that area. Basically everything to the  
25 right-hand side of that purple boundary has been identified as  
CAPITOL REPORTERS (775) 882-5322

768

1 carbonate rock.

2 In fact, Harrill in his report and even with  
3 Eakin in his report, normally you get the valley floor, the  
4 hydrologist that does that work will not include the lower  
5 elevations for recharge. They included this because of the  
6 carbonate exposures that occur on the valley floor in that  
7 area. So that was included as a recharge component.

8 So again, what we look at is the generalized  
9 picture of the pumping within the southern part of the basin  
10 and the green area which is the area located at Thompson  
11 Springs.

12 What you look at within that area, probably the  
13 most dramatic impact to those springs would have been of  
14 course the fields that are being pumped directly south of the  
15 ranch within that area and what the concentration development  
16 with the drawdowns occurring and the complex of center pivots  
17 towards the southern part, that exacerbated the problem. But  
18 I would think that the normal area of influence would be those  
19 portions closest to the Thompson Springs.

20 Again, I put faulting on there just for whatever  
21 it's worth. If you notice that this happens to follow under  
22 the bulletin 35. We have this boundary which they identified  
23 as the Blokesberg Fault, they being Camarilli. And they have  
24 also the Basin Range Fault that more or less parallels this.

25 This area just of the -- west of that is where  
CAPITOL REPORTERS (775) 882-5322

769

1 it's shown as higher transmissivities and higher storativity  
2 constants. And this is the plate I'm talking about, which  
3 came out of bulletin 35.

4 So what's interesting about this is you see that  
5 the corresponding leakage within this area that basically says  
6 well, we have an area that may show a direct influence to  
7 those springs based upon pumping within the southern part of  
8 the valley.

9 HEARING OFFICER JOSEPH-TAYLOR: Mr. Thiel, how do  
10 you reconcile that with your previous statement that the  
11 pumping just south of Thompson you think has more influence?

12 THE WITNESS: Well, what you have is you have  
13 this area within here (indicating) that you have a range of  
14 storativity constants in this graphic that are probably in  
15 this area. So you're coming from an area of free charge, this  
16 is intercepting flow going to the north.

17 I would think that from this standpoint that the  
18 closer the distance between the discharge and these areas that  
19 are shown in the upper center part of the photograph or the  
20 diagram, we're probably seeing the drawdowns related to  
21 discharge in this area. And I'm pointing to again the lighter  
22 shaded gray area than the effects that were occurring here  
23 because it would take longer for this to reach that portion.  
24 Okay.

25 Then we've all seen this a few times, I've used  
CAPITOL REPORTERS (775) 882-5322

770

1 it a few times and it basically shows the effect of some of  
2 the pumping that's going on, I think this came from the 2006  
3 report.

4 HEARING OFFICER JOSEPH-TAYLOR: All you said is  
5 "this," we don't know what you're identifying.

6 THE WITNESS: What I'm identifying is an exhibit  
7 which is on page 90 of the slide and it's the joint exhibit  
8 under 292.

9 HEARING OFFICER JOSEPH-TAYLOR: Thank you.

10 THE WITNESS: Okay. And I'm going through this  
11 rapidly because I've got other stuff I want to talk about.  
12 I'll save some time for everybody else. This is the same  
13 graphic that I blew up with the correlation between the area  
14 towards the southern part of the basin to show what I believe  
15 has an impact directly impeding the flow out of Thompson  
16 Spring and I'm referring to slide number 91.

17 HEARING OFFICER JOSEPH-TAYLOR: And let's find a  
18 breaking point here pretty quick and give everybody a chance  
19 to stretch their legs, including my court reporter, she's been  
20 going for an hour and 20 minutes.

21 THE WITNESS: Okay. I'm fine.

22 HEARING OFFICER JOSEPH-TAYLOR: No, find a good  
23 breaking point for you.

24 THE WITNESS: Okay. Let me just speed through  
25 this because this shows nothing more on page 92 than the same  
CAPITOL REPORTERS (775) 882-5322

771

1 exhibit out of bulletin 35 that is referenced in this diagram.

2 And again, the layer of exhibits. So what I have  
3 is what I talked to you about previously which is plate 2 on  
4 bulletin 35 which is the groundwater contour that existed when  
5 Harrill looked at this.

6 BY MR. KOLVET:

7 Q. And your reference is to slide 94?

8 A. Yes, it is. Thank you. And this is referring to  
9 bulletin 35, plate 2, Exhibit Number 277. And it shows the  
10 groundwater contours within the area and there is a discharge  
11 as it existed in '65 after pumping had already potentially had  
12 impact of those springs. And as Mr. Katzer said it did have  
13 an impact to those springs.

14 This is the same exhibit that I provided before  
15 which I believe is Exhibit Number 292 which would have been a  
16 depiction or a diagram of what existed in 1947. This comes  
17 out of the scientific investigation report of 2006-5249.  
18 That's a generalized flow path.

19 The issue I've always had with this is towards  
20 the center part of the basin you see two dots out there and I  
21 can't read them of course from here. And those two points are  
22 very shallow wells with high TDS and high conductivity which  
23 is an indication of playa flows coming out of there. And I  
24 don't necessarily concur with the gradient that's been shown  
25 there after revealing Dwight Smith's gradient profile I more  
CAPITOL REPORTERS (775) 882-5322

772

1 or less concur with that from the standpoint I think that's  
2 more accurate than what we're shown here post pumping.

3 Q. And again, that reference that you're just  
4 talking about is slide 95 of your slide?

5 A. Slide 95, Exhibit 292. This comes from the --  
6 let's see, this comes from the scientific report number  
7 2006-5249. And this would be Exhibit 291, which shows the  
8 post pumping condition which shows the -- illustrates the  
9 reverse gradient.

10 Again, this is under the philosophy that there's  
11 two sub-basins in the area in the north and the south. If  
12 that was truly the case I don't think our springs would have  
13 declined to the extent they have, but from that standpoint it  
14 shows reverse in gradient.

15 Q. And that would be slide 96?

16 A. Thank you. Slide 96. And I think this is a good  
17 breaking point.

18 HEARING OFFICER JOSEPH-TAYLOR: Great. Let's be  
19 off the record for ten minutes.

20 (Recess taken.)

21 HEARING OFFICER JOSEPH-TAYLOR: Continue, please.

22 BY MR. KOLVET:

23 Q. Mr. Thiel, at the break we were just about to get  
24 into your ground truthing slide presentation; is that correct?

25 A. That's correct.  
CAPITOL REPORTERS (775) 882-5322

773

1 Q. We begin on slide 97?

2 A. Yes.

3 Q. What is ground truthing to begin with?

4 A. Well, ground truthing is site verification. And  
5 what that means is or implies you can look at all the aerial  
6 photographs you want and all the proofs you want and do all  
7 the paperwork necessary, but unless you get in the field and  
8 actually see the conditions and try to ascertain whether what  
9 you have reviewed as factual, I think it's required to go out  
10 and do the site visits to determine ultimately if what you've  
11 perceived is correct or what you find in the field.

12 Q. When did you do the ground truthing on this case?

13 A. I had two opportunities. I did one in January of  
14 2013, I did one in May of 2013. I also visited the site in  
15 '81 or '82, I can't remember what time frame, but it was  
16 during that period that I looked at the site to verify what I  
17 found at that entry.

18 Q. What was the purpose of your '81, '82 visit?

19 A. That was based upon the instructions given to me  
20 from Pete Morros to go investigate that site and obtain  
21 pumping records, anything I could in that area with regard to  
22 verifying what was on the satellite imagery. And I might  
23 point out that Terry Katzer was the person I was dealing with  
24 at USGS at the time in order to calibrate water use with what  
25 I'm visually referencing on the imagery.  
CAPITOL REPORTERS (775) 882-5322

774

1 Q. With that background why don't you proceed  
2 through your slide presentation?

3 A. I will. I'm referring to on slide 97,  
4 Exhibit 236, which was taken January of 2013.

5 Q. And Exhibit 236 contains several photographs; is  
6 that correct?

7 A. Yes, it does.

8 Q. Okay. Why don't you go through quickly the  
9 various photos in 236, please?

10 A. I will. Unfortunately, there was snow out there  
11 so it was a little hard to see everything. The primary  
12 purpose of my site visit was to observe what was going on on  
13 the property, what type of shape the fields were in, if there  
14 were any, and to identify where the sources were, the old  
15 spring sources were.

16 The major purpose of going out to the site was to  
17 identify section corners that I could use in the survey in  
18 preparation of the maps that I presented with regard to  
19 V-01115 and the subsequent applications that I filed with the  
20 office of the State Engineer for mitigation of water.

21 Q. And the photos that are up on the slide, what are  
22 those?

23 A. The photos were taken out during that period of  
24 time and what it references is a visual of the -- looking  
25 towards the southeast of what I refer to as the pony express  
CAPITOL REPORTERS (775) 882-5322

775

1 building. And in reality the only thing that's remnant of the  
2 pony express building is the north side of the building is  
3 what was original.

4 Q. Okay. Where is that in relation to the property  
5 we're here about today?

6 A. That is on the easterly edge of section 3,  
7 township 23 north, 20 -- or 54 east.

8 Q. Is that on the Thompson Ranch, Cox Ranch, Willow  
9 Ranch?

10 A. Thompson Ranch.

11 Q. Thank you. The bottom photo on that page?

12 A. Bottom photo is where the property owner had dug  
13 out the spring. And with reference to that I was able to get  
14 some information of a strata that existed around that open  
15 pit. And I was kind of surprised to see that area under the  
16 tarp. There is a submersible pump and heading off to the left  
17 side of the spring -- or the tarp is a poly line that runs to  
18 the house for use in the house.

19 Q. That would be page 1 of Exhibit 236; is that  
20 correct?

21 A. That's correct.

22 Q. Go to page 2, what are we shown here?

23 A. Page 2 are the survey monuments that I use as the  
24 basis for the survey. And that was taken up on the hillside  
25 to the east, which would have been 23 north, 55 east, I  
CAPITOL REPORTERS (775) 882-5322

776

1 believe.

2 Q. The next page, page 3?

3 A. Page 3. This is a picture taken on the hillside.  
4 It was necessary to get up on the hill a little bit with a  
5 look towards the north and look at what's existing on that  
6 ground as it exists today or existed in that time.

7 Q. There are some trees approximately in the middle  
8 of those two photographers, where are those located?

9 A. Those are located at the ranch site itself around  
10 the buildings that were shown on the previous picture.

11 Q. And that again would be the Thompson Ranch?

12 A. Yes.

13 Q. Next page?

14 A. Next page looks like a duplicate of the first  
15 one.

16 Q. Okay. Just another view of the overall ranch  
17 area?

18 A. It was.

19 Q. And the next one I'm assuming is another  
20 overview?

21 A. Yes. What I tried to do within the third page I  
22 believe it is -- fourth page of the exhibit is my obvious  
23 intent was to link these pictures to get an overview of the  
24 ranch. Based upon what I've seen on the site you've got  
25 sagebrush in the foreground, off towards the northwest you see  
CAPITOL REPORTERS (775) 882-5322

777

1 a lot of rabbit brush and greasewood.

2 Q. Page 5?

3 A. That appears to be a duplicate on the next photo.  
4 Page 5 is transitioning more towards the west. The idea was  
5 to take the pictures from the north towards the south to get  
6 an overview of what's occurring out in that area.

7 Q. Can -- page 6 is a continuance of that overview?

8 A. It is. It keeps on going down.

9 Q. Okay. Page 7, what is that?

10 A. Page 7 is the monument that's out there  
11 memorializing the pony express station and describing the  
12 Diamond Springs station. And the memorial's from 1860 to  
13 1861. Obviously it was built later, but it was memorialized  
14 in that period of time.

15 Q. And where is this located?

16 A. This is located right across the house in which  
17 Milt Thompson lives in, it's across the road on the east side  
18 of the county road that goes parallel towards the north.

19 Q. Next two pictures on page 8?

20 A. This is my idea to get an idea of the geology  
21 surrounding the area and taking some pictures of looking  
22 towards the east.

23 Q. Page 9?

24 A. Page 9. It was intimated to me that the  
25 buildings behind the truck looking further into the picture  
CAPITOL REPORTERS (775) 882-5322

778

1 was the remnant of what's left of the telegraph station. You  
2 could see the old telegraph poles that was in the foreground.

3 Q. Would that have been on the Cox portion of the  
4 property?

5 A. Actually, it was -- I think the building was  
6 moved from the Cox to here, this was on the northerly boundary  
7 of the Thompson Ranch.

8 Q. What's the lower picture on there?

9 A. The lower picture with the truck?

10 Q. No, page 9?

11 A. Page 9.

12 Q. Page 9?

13 A. That is a perforated well casing that was placed  
14 in the spring trying -- attempting to get water out of one of  
15 the spring discharges.

16 Q. Where in relation to the main spring would that  
17 pipe have been put?

18 A. This would be north of the main spring  
19 approximately 5 or 600 feet north.

20 Q. Any evidence that it flowed water?

21 A. None that I could find. I didn't see any water  
22 in the casing.

23 Q. Page 10?

24 A. Page 10. In the top photo looking at the  
25 right-hand side of the picture you can see that same casing,  
CAPITOL REPORTERS (775) 882-5322

779

1 which is in one of the spring discharge areas. And this would  
2 be the most northerly spring on the Thompson Ranch.

3 The next photo is looking towards the southwest  
4 more which indicates the berm or the dike that was used as the  
5 impoundment structure for the pond that existed on the  
6 discharge of those springs.

7 HEARING OFFICER JOSEPH-TAYLOR: Can you point  
8 that out with your laser for me, please?

9 THE WITNESS: I sure will. This area in here  
10 which I'm pointing to there's a cottonwood tree standing in  
11 the center of the photo, off to the right of it you see a  
12 water trough. And just to the right of the water trough  
13 you'll see like a roadway going around on the right-hand side  
14 of the picture in the foreground and continuing off towards  
15 the southwest and going to the right-hand side of the tree.  
16 And the left-hand side of the tree where impoundment  
17 structures associated with the springs that were there. And  
18 you'll see that in future photos.

19 Q. And the last picture in the series, page 11?

20 A. Page 11, that shows a picture of the remnant of  
21 the -- what I refer to as the telegraph shack.

22 Q. And are those the photos then that were taken  
23 during the January site visit?

24 A. Yes.

25 MR. TAGGART: And that was 236. I would offer  
CAPITOL REPORTERS (775) 882-5322

780

1 236 at this point.  
2 HEARING OFFICER JOSEPH-TAYLOR: Any objection to  
3 the offer of Exhibit 236?  
4 MS. PETERSON: No objection.  
5 HEARING OFFICER JOSEPH-TAYLOR: Thank you. It  
6 will be admitted.  
7 (Exhibit 236 admitted into evidence.)  
8 HEARING OFFICER JOSEPH-TAYLOR: Mr. Kolvet, while  
9 you're doing that you want to offer 247 and 261?  
10 MR. KOLVET: At some point I'm going to offer all  
11 of these in the series.  
12 HEARING OFFICER JOSEPH-TAYLOR: Okay.  
13 MR. KOLVET: So everything from 221 forward.  
14 HEARING OFFICER JOSEPH-TAYLOR: Okay.  
15 BY MR. KOLVET:  
16 Q. Can I go to 237, please, that's part of your  
17 ground truthing photographs?  
18 A. Yes. The first slide is identifying this series  
19 as ground truthing conducted May 2013. Going to slide 2 of  
20 that series of 94. Again, I'm showing the hay wagon in the  
21 foreground, that was about the turn of the century with the  
22 bales of haystack on it. I've already identified that  
23 previously.  
24 Number 3 on the bottom right of that slide  
25 indicates an overview that was taken from about 1982. And  
CAPITOL REPORTERS (775) 882-5322

781

1 that was pretty well how I observed that area during my visit  
2 there in '81, '82, I don't remember exactly the date. But it  
3 shows the Thompson Ranch in the center part of the screen and  
4 I'll refer to on the screen itself.  
5 Q. Okay. Before we go past that let's just get  
6 clear what we're referring to, you're referring to slide  
7 numbers, those are parts of Exhibit 237, so this would be  
8 slide 3 of 237; is that right?  
9 A. That's correct. What I've depicted in the  
10 January photo was the branch headquarters, if you will, on the  
11 Thompson Ranch. Some of the trees that exist out in that area  
12 where shown in some of the photos I showed previously.  
13 And this is in the center of the photo looking  
14 west and you can see the spring discharge area and grass  
15 growing within that area. Everything surrounding I think  
16 above to the area between let's say the large discharge area  
17 on the right-hand -- right center of the photo to the left  
18 side of the photo, that was another area that appeared that he  
19 was trying to get into cultivation.  
20 THE STATE ENGINEER: Mr. Thiel, do you know what  
21 time of year that picture was taken?  
22 THE WITNESS: I don't exactly know. I probably  
23 have it referenced in another photo probably on the -- what I  
24 submitted with the proof.  
25 THE STATE ENGINEER: Thank you.  
CAPITOL REPORTERS (775) 882-5322

782

1 THE WITNESS: But if nothing else I'm pretty sure  
2 it's mentioned in Milton's report that I included as an  
3 exhibit.  
4 THE STATE ENGINEER: Thank you.  
5 BY MR. KOLVET:  
6 Q. Let's go to slide 4.  
7 A. Slide 4 was taken in 1982 and this appears to be  
8 early 1982 at this time based upon what I discussed with  
9 Milton Thompson. There was extensive work being done on the  
10 ranch trying to increase production by leveling the property.  
11 What you will see is the areas of impoundment of  
12 those various structures. The upper pond which is to the  
13 right of the center of this photo shows the impoundment  
14 basically where I was at. The tree that was in the foreground  
15 where I said there was a dike built around it, you can see  
16 that -- the dam structure within that area.  
17 The rest of it shows the -- to the left-hand side  
18 of the picture shows the pony express station down to the  
19 south there. And it shows the major spring discharge in the  
20 left center side of the photo. And then -- then there's  
21 another impoundment that goes further west and you'll see a  
22 ditch going towards the north or the right-hand side of the  
23 photo and a ditch going towards the south on the left-hand  
24 side of the photo. And you'll see a series of other ditches  
25 coming off of this area including there's a ditch that used to  
CAPITOL REPORTERS (775) 882-5322

783

1 head or heads off this direction which is just to the left  
2 side of the pony express station heading towards the top of  
3 the picture on the left-hand side.  
4 HEARING OFFICER JOSEPH-TAYLOR: Mr. Thiel, is  
5 that -- can you kind of outline how far the proposed place or  
6 the place of use under the vested claim goes?  
7 THE WITNESS: It's got -- it's going to be  
8 difficult. The -- if you look north of the pond on the right  
9 side of the picture there's a line that goes across from the  
10 right middle heading towards the west makes a curve. That  
11 area in there I think is a separation of the property.  
12 It just so happens that some of this area that  
13 was cultivated I believe was BLM land. And between the Cox  
14 Ranch and the Thompson Ranch. And one thing you might see  
15 over in the -- if you trace down to the line on the right side  
16 of the photo you'll see a small discharge area that is  
17 occurring from some other springs within that portion.  
18 HEARING OFFICER JOSEPH-TAYLOR: What I'm trying  
19 to get is is there sub -- are you claiming sub-irrigated  
20 meadow in these vested right claims?  
21 THE WITNESS: Not really, because the way the  
22 general hydrology works within there, I mean, even Harrill in  
23 his report said the major discharge along the 5800 line that's  
24 in that area is the source of water that's occurring on this  
25 ranch.  
CAPITOL REPORTERS (775) 882-5322

784

1 So what happens is you'll find some hardpan in  
2 certain areas out here. So you'll have discharge that is  
3 subbing and then daylighting further in the ranch. And I  
4 don't necessarily believe based upon what I know of that area  
5 that you'll find new springs popping up from other sources. I  
6 think it's all derived from this complex that we talked about  
7 previously that it daylight because it hits hardpan and comes  
8 to the surface in forms of other springs or seeps.

9 HEARING OFFICER JOSEPH-TAYLOR: I'm trying to get  
10 to a bigger question and you're qualified as an expert in  
11 Nevada water rights. Are you familiar with the Blue Lakes  
12 case?

13 THE WITNESS: I am somewhat.

14 HEARING OFFICER JOSEPH-TAYLOR: And that case  
15 said prior to that case, correct me if I'm wrong, you have a  
16 physical diversion for a vested right in Nevada.

17 THE WITNESS: Correct.

18 HEARING OFFICER JOSEPH-TAYLOR: So to me that  
19 says a sub-irrigated meadow without physical diversion doesn't  
20 qualify for a water right; would you agree with that?

21 THE WITNESS: I would agree with that except  
22 through my field investigation I saw this whole meadow  
23 crosshatch with ditches that weren't recent, that were  
24 ancient, in my opinion. So from that aspect if there was a  
25 discharge it was diverted and routed to other areas of the  
CAPITOL REPORTERS (775) 882-5322

785

1 property for consumption. Otherwise, we would have a meadow  
2 and this ranch would have extended far into the playa and the  
3 playa would have been a lot wetter.

4 HEARING OFFICER JOSEPH-TAYLOR: So in your  
5 amended claims you're not putting sub-irrigated meadow?

6 THE WITNESS: No, in my mind I'm not.

7 HEARING OFFICER JOSEPH-TAYLOR: Okay.

8 THE WITNESS: I would think during the 1879  
9 process that the water was being diverted from the springs and  
10 this land was being developed prior to that and over a long  
11 period of time based upon the methods that they had back then  
12 until they finally got it to the stage it was, you know, in  
13 the 1900s, 1940s, maybe even later.

14 HEARING OFFICER JOSEPH-TAYLOR: Okay.

15 THE WITNESS: Okay.

16 HEARING OFFICER JOSEPH-TAYLOR: Thank you.

17 BY MR. KOLVET:

18 Q. Okay. Let's go to the next slide unless there's  
19 more questions about this one.

20 HEARING OFFICER JOSEPH-TAYLOR: No.

21 THE WITNESS: Yes, slide 5 is a panoramic view I  
22 took of the ranch in May. And what this is is what I tried to  
23 do in January, it's a series of composite photos that I've  
24 taken individually. I used a piece of software to put them  
25 all together.

CAPITOL REPORTERS (775) 882-5322

786

1 So this is the ranch as it existed in May of  
2 2013.

3 Q. And are we basically looking towards the same  
4 area generally it looks like as slide 4?

5 A. We are.

6 Q. Just from different elevation?

7 A. Yeah, I mean, it's different elevation. So it's  
8 nice to get a perspective of the layout of the property.

9 Q. Okay. Slide 6?

10 A. Slide 6 was a Google Earth underlayment of this  
11 photo with the place of use of the water rights overlaying the  
12 Google Earth image.

13 On that you'll see a number of pins that range  
14 from one to 21. And what I did is I took a lot of photos on  
15 this property, but this is this first section of photos. And  
16 from here I -- I list in the next photo the GPS coordinates,  
17 but it identifies certain features I found as I left the  
18 spring discharge area and went west and south and then  
19 eventually north on the property.

20 Q. And slide 7 identifies those photos and where  
21 they're taken?

22 A. It does. And it gives you some identification of  
23 what was -- what I found on the site and plus the GPS  
24 coordinates of those areas.

25 Q. Slide 8?  
CAPITOL REPORTERS (775) 882-5322

787

1 A. Slide 8 are points 1 through 5 of the upper  
2 springs pond area. Slide number 1.

3 Q. You're getting mixed up here. Slide number 1,  
4 are you referring to --

5 A. Well, what I was getting to is you have slides 1  
6 through 5.

7 HEARING OFFICER JOSEPH-TAYLOR: Photographs,  
8 you're mixing --

9 THE WITNESS: I'm sorry, it's photographs 1  
10 through 5, which illustrate the next series of slides where  
11 they were taken and in relation to the plan view, I was  
12 looking at the top from an airplane down on the property  
13 itself.

14 BY MR. KOLVET:

15 Q. Go to 9.

16 A. 9 is the northerly reservoir. Up in this area in  
17 my review, for example, on -- I believe it was bulletin 35 it  
18 shows a tractor or a pump being set in this pond area that was  
19 out on the discharge in one of the springs on the north side  
20 of the property. This is the remnants of the concrete  
21 structure that exists.

22 And what these two photos show is the area of the  
23 pond that was in that area from the spring discharge.

24 Q. 10?

25 A. 10 is another view looking back towards the  
CAPITOL REPORTERS (775) 882-5322

788

1 ranch. The slide on the photo on the left shows you or  
2 illustrates to you the -- the house on the left-hand side and  
3 the pony express station on the right-hand side. And that's  
4 towards the upper middle.

5 The slide on the right-hand side illustrates a  
6 check dam that was shown previously and the photos referencing  
7 the historical view.

8 Q. And that check dam was the main pond impoundment?

9 A. Yes, it was.

10 Q. Slide 11?

11 A. Slide 11 is a picture of Milt Thompson pointing  
12 to another structure that was built. And off in the distance  
13 you'll see some either tamaris or willows, I couldn't tell at  
14 this point in time and I didn't investigate it very well. On  
15 an impoundment that occurred in that area where if you look on  
16 the left and right of the photos where a ditch ran that was  
17 due to that impoundment that spread the water levels there.

18 The photo on the right is part of the impoundment  
19 that existed within that area.

20 Q. Slide 12 is kind of setting us up for the next  
21 set of slides?

22 A. It does.

23 Q. Slide 13?

24 A. Slide 13 was taken in 1946 and it's an area of  
25 one of the ponds that were out on the property. And this was  
CAPITOL REPORTERS (775) 882-5322

789

1 further I think to the west than the ponds that we're talking  
2 about after reviewing it.

3 Slide 19 is a pond that was closer --

4 Q. Slide 14?

5 A. I'm sorry, slide 14 is a slide that was closer to  
6 the residences that shows part of the impoundment that was out  
7 onsite in 1967.

8 Q. The trees in the upper right portion of that, are  
9 those the trees we see in some of the other photos --

10 A. It is.

11 Q. -- at this time?

12 A. It is. It's from a different perspective; in  
13 other words, this is looking more towards the northwest, I  
14 believe. And in the -- in the back of the picture you're  
15 seeing those dots in the picture are cows grazing on the land.

16 Q. The next slide, slide 15?

17 A. The next slide is in the upper pond looking north  
18 towards the Cox Ranch. That's where they stuck a grader or a  
19 Cat in the side wall of the dam when he was trying to  
20 construct the pumping structure to pump water towards the  
21 north.

22 Q. And then slide?

23 A. This is a slide taken in 1982, it's just a  
24 different perspective of the north discharge of the spring in  
25 that area. There's a series of about four springs that goes  
CAPITOL REPORTERS (775) 882-5322

790

1 from the top of section 3, the north portion of Thompson's  
2 Ranch and heads south.

3 So this would be like spring 1 or the first  
4 spring.

5 Q. First spring to the north?

6 A. Yes.

7 Q. And again, that's that road that divides between  
8 the Cox property and the Thompson property?

9 A. It is. And of importance I thought in this photo  
10 too, if you look just to the upper center of the photo there's  
11 a yellow speck just to the top of that. You'll see a spring  
12 discharge that heads north towards the Cox Ranch and the  
13 outflow of that spring.

14 Q. That's the dark area to the north of that road?

15 A. Yeah, the dark area to the north of the road to  
16 the right of the photo you'll see a green area which is  
17 representative of that spring discharge that occurred within  
18 the Cox boundary.

19 Q. The next photo, slide 17?

20 A. Slide 17 shows basically the most upper spring  
21 area that was shown in previous photographs of being wet. In  
22 the foreground where all the brush is is what's left of one of  
23 the remnant ponds, but just to the left of the cottonwood and  
24 center of the photo is where there was an impoundment  
25 structure. Towards the east which would be looking towards  
CAPITOL REPORTERS (775) 882-5322

791

1 the top of the photo, that was where the main lake or main  
2 spring discharge area was in that spring number 1.

3 Q. And this photo was taken in 1992?

4 A. It was.

5 Q. Slide 18?

6 A. Slide 18 is the same photograph I've included  
7 previously which was the abutment that basically held the area  
8 where the pump was that discharged water into the ditches.

9 Q. Slide 19?

10 A. Slide 19 is the illustrations on points 6 through  
11 7, which is the Taft Springs area, which is the lower  
12 reservoir. From my inspection of this and the history behind  
13 here this is one of the main spring discharge areas.

14 Where it says 6, slide 6-7, with that yellow pin  
15 in the center.

16 HEARING OFFICER JOSEPH-TAYLOR: Photograph 6-7?

17 THE WITNESS: I'm sorry, photograph 6-7. To the  
18 right of photograph 6-7 that's labeled with the pin is the  
19 pony express station.

20 BY MR. KOLVET:

21 Q. Go to slide 20.

22 A. On slide 20 this shows an area that was dug out  
23 within the spring area. And you've seen different  
24 perspectives of this in previous photos. And during this time  
25 you can see that they've improved the line coming out towards  
CAPITOL REPORTERS (775) 882-5322

792

1 Milton's house, but this is all that's left of that main  
2 spring.

3 Q. 21?

4 A. 21, this is just a different view of the same  
5 area. Unfortunately, I wasn't -- I wanted to get a close-up  
6 on this because I think some of the soils outlined in this  
7 would be important for future discussion.

8 Q. Slide 22, same area?

9 A. Same area just looking at a different  
10 perspective, this is looking more west.

11 Q. There was enough water for a dog to drink?

12 A. Barely.

13 Q. Slide 23 -- or yeah, slide 23?

14 A. Slide 23 is in an area where Milton had discussed  
15 with me that it looked like another discharge area around the  
16 spring that was in the previous slide. It's just to the north  
17 of where the spring was actually located and discharged  
18 further on the abutment.

19 Q. Slide 24?

20 A. Slide 24 is an old spring box that was used where  
21 they pump water out of the spring by various methods to  
22 deliver it to the house and the outbuildings that were on the  
23 ranch.

24 Q. In parentheses says it was dry?

25 A. I'm sorry?  
CAPITOL REPORTERS (775) 882-5322

793

1 Q. It's dry at this point?

2 A. Yes.

3 Q. Slide 25?

4 A. Slide 25 is me in my field clothes. And --

5 Q. I like those shorts.

6 A. Thanks. That's in case I get lost they can find  
7 me. To the left side of my arm is some rock outcropping that  
8 existed that I thought were important to why that discharged  
9 from I would say the lower Taft Spring existed. What's  
10 interesting about this is the spring line trends to the  
11 north/south where this rock outcropping trends to the  
12 east/west.

13 And to the left of the right photograph is where  
14 the main spring discharge area was. And -- and based upon the  
15 conversation with Milt Thompson there was a large opening  
16 within there that the water flowed out of.

17 Q. Did you see any remnant of that?

18 A. Just the rock.

19 Q. Slide 26?

20 A. This is a close-up of it. Like I said, I was  
21 interested with this and from this I wanted to see what was  
22 further east and west of this line. What I did was put in a  
23 piece of paper I was writing my notes in just to get some  
24 perspective of what I was seeing out in the field. Often  
25 photos it's hard to get a relationship to what you're  
CAPITOL REPORTERS (775) 882-5322

794

1 observing.

2 Q. 27, besides your red shorts what are we looking  
3 at?

4 A. Yeah, anyhow, this photo was looking back towards  
5 the east and this would be south of the pony express building  
6 towards the lower Taft Springs. And again, I asked the  
7 photographer not to take pictures of me, but somehow I was put  
8 in there, but it gives you a good perspective on the out  
9 dropping.

10 Q. Slide 28?

11 A. 28, the idea was to follow this further to the  
12 east and see what was occurring within this area. I see some  
13 different formations intruding in the area. I didn't spend  
14 the time to identify the material that's in there, but I  
15 notice the fractures were generally trending east and west.

16 Q. There were springs located in this area?

17 A. This was just above the spring discharge. What I  
18 mean above is it was vertically higher and to the east of the  
19 spring discharge.

20 Q. Okay. 29?

21 A. 29, this is further east. Again, this is looking  
22 towards the east with cracks or fissures, whatever you want to  
23 call it within the rock that was exposed further up.

24 Q. Let's go to 30.

25 A. 30, this .6-7 that we referenced earlier. And  
CAPITOL REPORTERS (775) 882-5322

795

1 this would have been the area of the lower pond of the main  
2 discharge of Taft Spring.

3 Q. Okay. And again, why don't you just set up the  
4 next series of photos being the historic photos?

5 A. Yes.

6 Q. 32?

7 A. Okay. So 32 is a slide that I've used previously  
8 that depicts the pond and the rock outcropping from the --  
9 what I perceive is the main discharge from Taft Springs. And  
10 it's in the same approximate area that I showed in the  
11 previous photos.

12 Q. Where your red shorts were evident?

13 A. Yes, and my dog.

14 Q. And you've already commented on this?

15 A. Yes, I have.

16 HEARING OFFICER JOSEPH-TAYLOR: Nice dog.

17 BY MR. KOLVET:

18 Q. Okay. Go to 33.

19 A. The 1992 photo?

20 Q. '82.

21 A. '82?

22 Q. You skipped one.

23 A. The '82 photo shows -- I'm trying to get a  
24 perspective on a lookback from what existed at the time. I'm  
25 trying to get snapshots of the decreasing flow of the springs.  
CAPITOL REPORTERS (775) 882-5322

796

1 So what we're seeing in this photograph in 1982  
2 is the discharge flowing from where Mr. Thompson opened up a  
3 ditch to Craig water pond.

4 Q. The next photo, 34?

5 A. This is the photo looking back at approximately  
6 the same perspective in the foreground. It's completely dry  
7 with weeds growing in -- in the pond itself.

8 Q. And this was taken ten years later in '92?

9 A. Yes, it was.

10 Q. And the next photograph, slide 35?

11 A. This is the lower pond that was looking towards  
12 the northwest. I don't know if you could see it very well,  
13 but I'll try to indicate the portion of it. This photo that  
14 I'm circling which is in the upper right-hand side of the  
15 photo shows two girls standing there next to the pond. And it  
16 gives you an indication of the relative size of that pond.

17 MS. PETERSON: Excuse me, I just have a question.  
18 Where was the 1920 photo from?

19 THE WITNESS: It was provided through  
20 Milton Thompson.

21 MS. PETERSON: Okay.

22 BY MR. KOLVET:

23 Q. Slide 36?

24 A. This is about the -- looking back towards where  
25 that pond would have been. And in the foreground you see some  
CAPITOL REPORTERS (775) 882-5322

797

1 remnants of the willows that were growing around that area.

2 Q. Slide 37?

3 A. 37 is a different perspective of the discharge  
4 area around the springs that occurred.

5 Q. That was taken in 1971?

6 A. It was.

7 Q. 38?

8 A. This was a photo looking in the same area in 1992  
9 which illustrates it as being dry.

10 Q. 39?

11 A. This is a photo looking approximately the same  
12 angle back in 1971.

13 Q. Slide 40 illustrates points 8 through 10?

14 A. That's correct.

15 Q. And now we're moving further out into the  
16 discharge area?

17 A. We are. I might point out that when you're  
18 driving around the property with the rabbit brush and  
19 greasewood out there it's a little hard to identify where you  
20 are in perspective.

21 So by chance we were able to find the physical  
22 features on the ground within those areas, it wasn't  
23 necessarily by following the ditch. We were kind of  
24 traversing here from north to south.

25 Q. Slide 41?  
CAPITOL REPORTERS (775) 882-5322

798

1 A. Slide 41 is the area showing the south diversion  
2 of the old original ditch. And what I mean by the old  
3 original ditch is what was there in 1879.

4 Q. That's on both of these photos?

5 A. Yes, it is. Looking on the point to the left I  
6 showed you where the tam whisker willows were located. And  
7 that's where there was a dam built, structure built that  
8 hopefully we've identified before. In the right-hand photo it  
9 shows the alignment of that ditch which starts to make the  
10 bend heading towards the south.

11 Q. 42?

12 A. 42 is a photo taken in 2013 which is the -- on  
13 that corner above the ditch on the right-hand side is a photo  
14 taken in August 1982 of Ralph Gamboa who was from the Elko  
15 office. In the immediate upper right of the picture is the  
16 truck that was assigned to him and he's trying to take a flow  
17 measurement of water going through the two culverts underneath  
18 his legs.

19 Q. Slide 43?

20 A. Slide 43 is the check dam and ditch that I've  
21 identified as the old ditch, the 1879 ditch. And that check  
22 dam has been there quite a while. I couldn't see any remnants  
23 of recent activity on it anyhow.

24 Q. And the photo to the right shows the ditch again?

25 A. It does.  
CAPITOL REPORTERS (775) 882-5322

799

1 Q. 44?

2 A. 44 is another ditch that's located out there  
3 called a deep ditch, it's a fairly large ditch that conduit  
4 and water cross the property.

5 Q. Which direction does this ditch run?

6 A. This is heading towards the southeast at this  
7 point. And the right photo is a different perspective looking  
8 in a different direction, which should have been more towards  
9 the -- I believe the northeast.

10 There's a remnant ditch on the upper right-hand  
11 corner that you can't see very well, right center. Again,  
12 you're losing perspective because of the photos.

13 Q. Okay. 45?

14 A. 45. I just so happened to find the old Parshall  
15 flume that existed on the property. According to Milton this  
16 is where most of the flow measurements were taken. And it's  
17 actually located quite a ways out from some of these  
18 diversions that we talked about.

19 Q. Parshall for the record is P-A-R-S-H-A-L-L. 46?

20 A. 46. Looking at the Parshall flume this is the  
21 water flow in 1983. In 1992 in the upper left-hand side of  
22 the photo, which is up towards the left of 1992 in the photo  
23 referenced on slide 46 you can see the Parshall flume that  
24 existed. The left-hand side shows the same Parshall flume at  
25 the discharge in 1983.

CAPITOL REPORTERS (775) 882-5322

800

1 Q. 47?  
2 A. 47 is another picture of the Parshall flume and  
3 this is looking back towards the east. You can barely see a  
4 little bit of water that stops just before the Parshall flume.  
5 Q. 48?  
6 A. 48 is walking through the property. And I didn't  
7 take every picture of every fissure I saw, but there is  
8 cracking that has occurred within the earth out of that area  
9 which is indicative of ground subsidence.  
10 Q. 49?  
11 A. 49 is the same reference or index, if you will,  
12 looking further out on the property.  
13 Q. This is for points 11 through 18?  
14 A. I'm sorry?  
15 Q. For points 11 through 18?  
16 A. Yes.  
17 Q. Where on the property is this, to the south of  
18 the property did you say?  
19 A. It's south and west.  
20 Q. 50?  
21 A. What we're looking at in this area is -- found  
22 some of that wire grass that's out in the area. What I'm  
23 finding is that there is some groundwater discharge occurring  
24 and consumption occurring through the rabbit brush and some of  
25 the brushes you see in the foreground. So there is evidence  
CAPITOL REPORTERS (775) 882-5322

801

1 that there's still discharge occurring, although not to the  
2 benefit of the property.  
3 Q. Slide 51?  
4 A. Slide 51 is looking towards the west, which in  
5 this picture you'll see an area that's elevated which was a  
6 berm that was constructed some time ago.  
7 Q. Can you point to that on the photo, please?  
8 A. Yes, I will. In the center bottom of the photo  
9 running from left to right is a berm that's been built. And  
10 as you head further towards the center right of the photo and  
11 heading west towards the left again you'll see that berm  
12 that's been excavated. This would be further west of the  
13 springs, the spring discharge area.  
14 Q. Do you have an opinion as to the purpose of the  
15 berm?  
16 A. The purpose of that berm was to capture any water  
17 that was discharged and to be able to apply property to the  
18 west of the Thompson Ranch. It was more or less a control  
19 structure.  
20 Q. With respect to this photo there's some fence  
21 posts in the --  
22 A. That's correct.  
23 Q. -- left -- or right-hand side?  
24 A. They're on the right-hand side and there's  
25 fencing all through this property for to control the cattle  
CAPITOL REPORTERS (775) 882-5322

802

1 that were on it. But you can see the photos which is the  
2 right center of the photo which is in this area. And you'll  
3 see the fencing which is not very visual on the exhibit you  
4 have on the screen, but it's heading towards the west edge of  
5 the property.  
6 Q. Photograph 52?  
7 A. 52 we came across the edge of the hay area. In  
8 other words, we found an area that from the photographs that  
9 we had before where we said basically upon the phreatophytic  
10 discharge that's occurring that this area heading towards the  
11 south would have been more or less the area that may have been  
12 conducive to grazing, mainly because the elevation of the  
13 property and probably the extent of water that existed there  
14 at one time.  
15 Q. Did you in this area see any evidence of  
16 controlled structures?  
17 A. We did. I mean, we found them all through the  
18 property. I didn't take photographs of every single one. My  
19 purpose on this analysis was to see if there's ditching and  
20 evidence of diversion of the water occurring on the ranch.  
21 By this time I was feeling that my indication was  
22 based upon what I saw, I was pretty well satisfied that to see  
23 that the ditch structures around the property and the  
24 impoundments that were created that the water was diverted to  
25 areas of different use.  
CAPITOL REPORTERS (775) 882-5322

803

1 Q. Slide 53?  
2 A. Slide 53 is looking towards the south and the  
3 west, which again shows an area of what I perceive as  
4 discharge still occurring.  
5 Q. And that's due to what?  
6 A. Due to the type of plant that was in the -- in  
7 the photograph itself.  
8 Q. Again, was this an area that had been or appeared  
9 to have been irrigated or water used on in the past?  
10 A. It has, I mean, through this you'll find small  
11 ditches that were routed around through this property that  
12 diverted water. And the photo to the left in the right lower  
13 corner, you'll see a small ditch that goes out there in the  
14 berm that it intersects and the water was distributed to the  
15 left and the right of the photo.  
16 Q. 54?  
17 A. 54, this is looking back towards the -- the left  
18 slide is another continuation of the photos that were provided  
19 previously that shows generally the same direction that  
20 occurred looking towards the west. The right photograph is to  
21 give you a perspective of where we are and this is looking  
22 towards the ranch to the east.  
23 Q. 55?  
24 A. 55 is a ditch remnant that you can find on the  
25 property. Again, by perspective it's not showing up too well,  
CAPITOL REPORTERS (775) 882-5322

804

1 but it's a fairly deep ditch that runs I would say east and  
2 west. And then you have another ditch and impoundment that's  
3 in the foreground that help divert the water towards the south  
4 further on the bow (sic.).

5 Q. 56?

6 A. 56. That is a remnant of a baling machine that  
7 was built or that existed out on the property. You can see  
8 the patent was in 1863 and this was a -- I believe called a  
9 Price Simpson press that occurred on the site. The photo of  
10 the -- that I've showed previously of the team of horses with  
11 the baled hays on it -- baled hay on it in my opinion came  
12 from this baling press that was located in a hay impoundment  
13 area where there was hay storage on the property. We found  
14 about five hay storage areas that were surrounding the  
15 property in this area.

16 Q. Where on the property is this?

17 A. This would be in the southwest edge of the  
18 property.

19 Q. The next slide is?

20 A. Yeah, what this, this would be slide number 57.  
21 And what it indicates is is that there's -- all of those are  
22 the remnants of the baling press that existed on the site,  
23 it's all part of the operating machinery.

24 Q. All in that same hay baler?

25 A. Yes, I mean, they're relatively feet apart.  
CAPITOL REPORTERS (775) 882-5322

805

1 Q. 58?

2 A. 58 is just a different perspective of a pulley  
3 system that was used on the press and the same photo. The  
4 photo on the right would have been the hub to a wooden wheel  
5 that helped drive the press.

6 Q. 59?

7 A. 59 is what the -- where I found the baling press,  
8 it's within the haystack area that's fenced off separately  
9 from the rest of the land. I've gone -- I've gone back and I  
10 didn't think it was essential at the time, but in some aerial  
11 photos you can see some remnants of the haystack areas in the  
12 fields.

13 Q. 60?

14 A. 60 is looking at the western area hay fields and  
15 where Milton is pointing to the right-hand side would have  
16 been in close proximity to where one of the haystack areas  
17 were. And this again, on the photo on the right on slide 60  
18 we're looking back towards the ranch to the east.

19 Q. 61?

20 A. 61. This is another ditch that exists and I  
21 believe was heading towards the -- I think it was looking  
22 towards the northeast if I recall correctly. The photo on the  
23 right shows remnants of the peat bog area that existed out  
24 there and you'll find this throughout the property in that  
25 westerly portion.

CAPITOL REPORTERS (775) 882-5322

806

1 Q. What's significant about peat bogs?

2 A. Well, peat bogs is where you have a high amount  
3 of organics and not much soil within it. And it's extremely  
4 wet area that develops because of saturated water on the  
5 ground.

6 Q. 62?

7 A. Again, another picture of the peat in that same  
8 area.

9 Q. Okay. 63 is introducing the next series, I  
10 assume?

11 A. Yes.

12 Q. Historic photos?

13 A. Yes. In some of the previous photos I showed you  
14 what the perspective was looking back towards the ranch to the  
15 east, and this is looking at the remnant of hay that was being  
16 grown by Milton Thompson in that time in 1983. And this I  
17 assume was taken in probably the early spring of '83.

18 Q. You base that on what?

19 A. Pardon me?

20 Q. And you base that on what?

21 A. Based upon the snow in the mountains and based  
22 upon the trees starting to come out.

23 Q. 65?

24 A. 65. This is kind of looking back at the same  
25 area in 2013. I tried to get some perspective looking back.  
CAPITOL REPORTERS (775) 882-5322

807

1 It just -- let me point out one thing on these photos. Like I  
2 said earlier, my perspective was not to identify what features  
3 I wanted to investigate ahead of time. The idea was to go out  
4 and see what the ground told me and then see how it correlated  
5 to the past as sorted photos that I already had in my box.

6 So ideally what happens is I go out to do the  
7 ground truthing, I let the structures that I find say here's  
8 where I found it, then I relate it back to the evidence I've  
9 already created on the paper.

10 Q. 66?

11 A. 66, this is an area on the westerly portion of  
12 the property. What I felt was interesting about this is  
13 Mr. Venturacci's been quite creative by taking some of the  
14 wire that existed on the property and reconstructing the  
15 fences. Along this fence line is some of the old wire that  
16 was first patented in 1863 and used at the time. And also  
17 there was some old fencing that became available in 1885 in  
18 that area that's along the fence line and that came from the  
19 property onsite.

20 Now, it doesn't mean that the fence was built in  
21 1863 but the wire came from that era which would have been  
22 prior to 1900.

23 Q. 67?

24 A. 67 is looking towards the west. What's  
25 interesting about this is you can see the continued -- it's  
CAPITOL REPORTERS (775) 882-5322

808

1 flatter land and you can see it's relatively level and it's  
2 the extent of the discharge area from the detached springs  
3 complex.

4 So this is looking towards the west and you can  
5 see remnants of -- of irrigation occurring out in that area.  
6 And in the foreground, you know, back looking towards me there  
7 would have been dikes that existed within that area where they  
8 impound water and controlled it for discharge to the west.

9 Q. 68?

10 A. 68. This is what I indicated to you previously  
11 in that discussion I had with Mr. Kolvet. This indicates the  
12 west levy area. So what you have is a series of channels and  
13 ditches that head to the west that acted as a conduit water --  
14 conduit water.

15 Water's impounded behind the levy area and you  
16 can see where the water was allowed to control flow out of the  
17 levy area towards the property to the west.

18 So basically what happens is is that you irrigate  
19 property from the point of discharge. There's a tail water  
20 component of irrigation that occurs, that tail water was  
21 captured and redirected towards the property on the west.

22 Q. And slide 69?

23 A. 69 is the index for the next series of photos.  
24 This would have been on the -- I believe on the northerly edge  
25 of the property towards the Cox Ranch.

CAPITOL REPORTERS (775) 882-5322

809

1 Q. Slide 70?

2 A. Slide 70, here's the water that I was talking  
3 about -- the wire I was talking about. The upper wire would  
4 have been 1885, lower wire would have been somewhere around  
5 1863 or later. And you'll find this periodically around the  
6 entire property.

7 Those little ovals within that wire on the top  
8 section of the photo.

9 HEARING OFFICER JOSEPH-TAYLOR: We can see it,  
10 Mr. Thiel.

11 THE WITNESS: Okay. Those areas had little cedar  
12 stakes in them that separated the wire.

13 BY MR. KOLVET:

14 Q. Go to slide 71.

15 A. Slide 71 is -- again, I have a photo looking --  
16 this is looking back I believe to the south somewhat from the  
17 basin. The photo on the right would be a perspective looking  
18 back towards Thompson Ranch.

19 Q. And it's titled Hay Storage Area?

20 A. Yeah, in other words, there's another hay storage  
21 area, this would have been looking towards -- what I'm --  
22 where I'm at is on the northerly boundary of the Thompson  
23 Ranch between Thompson and Cox. This is another hay storage  
24 area that I found that's barricaded off out there.

25 And again, it shows depictions of the hay storage  
CAPITOL REPORTERS (775) 882-5322

810

1 area. The one on the right would have been another hay  
2 storage area that I believe was further to the east of the --  
3 this one indicated on the left-hand side.

4 Q. And again, how do you determine they're hay  
5 storage areas?

6 A. They're small areas that are fenced. And  
7 fortunately what gave me the perspective on this is that we  
8 had the baling press in the one area with the same type of  
9 feature laid out where hay storage occurred. And when I asked  
10 Mr. Thompson about it he said those were hay storage areas.

11 Q. Photo -- or slide 72?

12 A. This is the north field which would have been one  
13 of the ditches that flow from -- that's shown on the 1879  
14 survey. This would be the southerly -- I'm sorry, the most  
15 easterly ditch going from south to north on the 1879 survey.

16 Q. 73?

17 A. 73 is the old ditch which is further I think  
18 towards the east that I believe shows the upper diversion  
19 ditch that went onto Cox Ranch.

20 Q. 74?

21 A. 74 is the boneyard that every ranch I've gone to  
22 seems to have with some of the old hay rakes and equipment  
23 that was out there onsite. I think some of the balers that  
24 are out there that are shown on the 1968 photo on the Cox  
25 Ranch are still laying out there.

CAPITOL REPORTERS (775) 882-5322

811

1 Q. 75, more equipment?

2 A. More equipment.

3 Q. 76?

4 A. 76 was a photo taken in 1968 that shows baling  
5 the hay on the Cox Ranch. What's important for a perspective  
6 here are the cottonwood trees, and I believe they're called  
7 black cottonwoods that are in the upper part of the picture  
8 that are quite prolific in growth. You can see hay that's  
9 been baled just below those pictures and you can see the  
10 extent of culture that's occurring on the right-hand side.

11 Q. And this is grass hay?

12 A. Yes.

13 Q. 77?

14 A. 77, slide 77 is a perspective taken along the  
15 roadway looking back towards the Cox Ranch. What I thought  
16 was interesting in the photo was the green area around the Cox  
17 Ranch and then you can see those same cottonwoods in the left  
18 center.

19 Q. And this photo was from '68?

20 A. Yes, it was.

21 Q. Slide -- whatever it is, my eyes are giving out,  
22 78?

23 A. 78. This is looking back from the same  
24 perspective on the Cox Ranch. The cottonwoods are still doing  
25 pretty well but the ground's been overtaken predominantly with  
CAPITOL REPORTERS (775) 882-5322

812

1 sagebrush.  
2 Q. This is 14 years from the prior picture in 1982?  
3 A. Correct.  
4 Q. 79?  
5 A. 79 is looking at those same cottonwoods in the  
6 foreground on the Cox Ranch looking towards the northeast --  
7 I'm sorry, northwest.  
8 THE STATE ENGINEER: North.  
9 MR. KOLVET: Mrs. Taylor.  
10 HEARING OFFICER JOSEPH-TAYLOR: I did miss it,  
11 sorry, this is getting long. Let's get through it, Mr. Thiel.  
12 THE WITNESS: I'm trying.  
13 BY MR. KOLVET:  
14 Q. Number 80?  
15 A. Number 80 is a picture taken in 2013 which is  
16 looking towards the same cottonwood trees to the northwest.  
17 Q. 81?  
18 A. 81 is on the Cox Ranch looking in that area for  
19 ditches, evidence of culture, that type of thing. In the  
20 right-hand center of the photo is the remnants of the Cox  
21 house. To the right of it is where Birch Spring used to  
22 discharge.  
23 Q. 82? We've only got 12 more to go.  
24 A. 82 is the diagram for the photos that were taken  
25 on the ground truthing experience.  
CAPITOL REPORTERS (775) 882-5322

813

1 Q. And 83?  
2 A. 83 is the legend with the GPS coordinates as far  
3 as what we found.  
4 Q. And 84?  
5 A. 84 is remnants of the ditches from Thompson to  
6 Cox that's further out on the property. That's what's left of  
7 it.  
8 Q. And which direction are we --  
9 A. This would be looking towards -- one's looking --  
10 the right-hand photo is looking towards the southeast or  
11 towards -- more towards the south of where I'm standing. The  
12 photo on the left-hand side is looking towards the trending  
13 north.  
14 Q. 85?  
15 A. 85 is again a photo of 1870s ditch from Thompson  
16 and Cox. And this would be the 1879 ditch that was shown in  
17 the GLO plat.  
18 Q. 86?  
19 A. 86 is another ditch that existed. This is the  
20 one I talked about earlier, this should be the most easterly  
21 ditch. This again was looking south on the left photo and  
22 north on the right photo.  
23 Q. And this again was on the Cox property?  
24 A. It is.  
25 Q. 87?  
CAPITOL REPORTERS (775) 882-5322

814

1 A. 87 is the part of the old springs discharge area.  
2 What I saw out here was a series of depressions in the ground  
3 and ditches leading there from where I was able to identify  
4 that these were spring discharge areas.  
5 Q. 88?  
6 A. 88 is the left-hand photos looking toward what  
7 was referred to as the Birch Spring discharge area. The photo  
8 on the right is looking back towards the Cox house and a  
9 remnant of one of the cottonwoods that were shown in the  
10 previous photos and the Cox house.  
11 Q. 89?  
12 A. 89 is the -- the same photo looking at the  
13 cultivation that exists in 1968 around the cottonwoods.  
14 Q. 90?  
15 A. 90 is the Birch Spring discharge area. And the  
16 outfall from that trends to the east. And I'm standing in a  
17 depression which would have been one of the spring discharge  
18 areas looking back towards Birch Springs.  
19 Q. 91?  
20 A. 91 is a different perspective of the 1968 photo.  
21 Q. 92?  
22 THE STATE ENGINEER: I'm sorry, Mr. Thiel, can  
23 you go back to 91?  
24 THE WITNESS: Yes.  
25 THE STATE ENGINEER: What is that in the green --  
CAPITOL REPORTERS (775) 882-5322

815

1 THE WITNESS: The green piece of pump?  
2 THE STATE ENGINEER: The pump; right.  
3 THE WITNESS: That is a swamp, if you will.  
4 THE STATE ENGINEER: That's a swamp. Thank you.  
5 THE WITNESS: It's -- the photo's been switched.  
6 My photo shopping isn't great.  
7 BY MR. KOLVET:  
8 Q. 92?  
9 A. 92 is -- previously I referenced that. This is  
10 the discharge from Birch Spring and there's a ditch that comes  
11 out that is flowing towards the west -- I'm sorry, towards the  
12 east. This is looking towards -- let me back up. This photo  
13 is a perspective looking east with the channel discharging to  
14 the west.  
15 Q. Okay. 93?  
16 A. 93 is looking back on the Willow Ranch. What I  
17 found out there was more of the same stuff, evidence of  
18 ditches and some spring depressions that occurred. By this  
19 time it's getting late in the day, I did an investigation on  
20 finding basically the same thing on all three ranches. And I  
21 didn't spend a lot of time on it other than satisfying myself  
22 that what I discovered was representative of what my  
23 investigation was.  
24 Q. And 94?  
25 A. 94 is within the Willow Spring area. There is  
CAPITOL REPORTERS (775) 882-5322

816

1 depressions out there which is more or less a reservoir.  
2 There's a spring discharge area in close proximity looking off  
3 towards the north more there's a serious of ditches I found on  
4 the property.

5 I did not find the remnants of the spring that  
6 was shown on the 1879 map, but I didn't spend much time  
7 looking.

8 MR. KOLVET: Thank you. I would move the  
9 admission of 237.

10 HEARING OFFICER JOSEPH-TAYLOR: Any objection?

11 MS. URE: Yes, I'm objecting on authentication  
12 grounds. That exhibit is entitled 2013 Ground -- Ground  
13 Truthing. And there's several photos in here from 1940s, '60s  
14 and '80s and we have no idea who took them or the date of the  
15 photos other than what we're told.

16 HEARING OFFICER JOSEPH-TAYLOR: Response,  
17 Mr. Kolvet?

18 MR. KOLVET: Yeah, the ground truthing has to  
19 have some point of reference in the photographs that was  
20 depicting prior years for those same areas gives him some  
21 perspective on his truthing of what he was doing, which is  
22 essential to that and it is part of the ground truth.

23 MS. PETERSON: I join in the objection.

24 HEARING OFFICER JOSEPH-TAYLOR: Yeah, I was  
25 having some problems as I went through it going where did you  
CAPITOL REPORTERS (775) 882-5322

817

1 get these 1968 photos, who took them, how do we know they're  
2 '68? So I don't know how much weight they will be given, but  
3 he's on the ground fieldwork just trying to orient himself I  
4 have no problem.

5 THE WITNESS: I could help on that if I may.

6 HEARING OFFICER JOSEPH-TAYLOR: Nope.

7 THE WITNESS: I'm sorry, I thought you were  
8 talking to me.

9 THE STATE ENGINEER: Well.

10 HEARING OFFICER JOSEPH-TAYLOR: I'm looking at  
11 the boss because he's getting ready to speak.

12 THE STATE ENGINEER: Well, just in your expert  
13 report.

14 THE WITNESS: Yes.

15 THE STATE ENGINEER: Is there a discussion in the  
16 expert report about where you got some of these photos?

17 THE WITNESS: There is. And in fact, it refers  
18 to the -- I'll refer to it as the malfeasance report that  
19 Milton Thompson did in 1993. And further photo references are  
20 provided in that report as well as my report as well where  
21 those photos came from.

22 THE STATE ENGINEER: So you believe there's a  
23 link in what you've already submitted to these photos we've  
24 seen here, where you got them from?

25 THE WITNESS: Yes, I do, obviously I wouldn't use  
CAPITOL REPORTERS (775) 882-5322

818

1 them if I didn't figure there was a link. Those older photos,  
2 I wasn't around at that time to get them from Milton Thompson,  
3 but they were supplied to me through Daniel Venturacci who got  
4 them from Milt Thompson. And that book is part of the  
5 exhibits.

6 HEARING OFFICER JOSEPH-TAYLOR: Go with your  
7 objection?

8 MS. PETERSON: No.

9 HEARING OFFICER JOSEPH-TAYLOR: Go ahead,  
10 Ms. Peterson.

11 MS. PETERSON: So to get a photo into evidence  
12 you have to show that the person that took it has personal  
13 knowledge that it's an accurate and true depiction of the  
14 scene on the date of the photo. We have no knowledge of the  
15 dates of a lot of those photos or Mr. Thiel doesn't have  
16 information that is true and accurate depiction of the scene  
17 on that date and year. We only get a year. And he's getting  
18 that information from Mr. Thompson.

19 I was going to -- oh, through Mr. Venturacci. I  
20 was going to object to Milton Thompson's report, the  
21 malfeasance report because --

22 HEARING OFFICER JOSEPH-TAYLOR: Why?

23 MS. PETERSON: There is an exception under the  
24 evidence rule for documents that are older than 20 years.

25 HEARING OFFICER JOSEPH-TAYLOR: Well, first of  
CAPITOL REPORTERS (775) 882-5322

819

1 all, the rules of evidence don't apply in our hearing.

2 MS. PETERSON: Well, I'm making my record.

3 HEARING OFFICER JOSEPH-TAYLOR: Go ahead.

4 MS. PETERSON: Because you wanted to know the  
5 basis of the objection.

6 HEARING OFFICER JOSEPH-TAYLOR: Go ahead.

7 MS. PETERSON: So I haven't objected to any of  
8 the diaries or anything like that because they could  
9 authenticate where they were coming from and they were older  
10 than 20 years old.

11 Unfortunately, we're in 2013 and Mr. Thompson's  
12 malfeasance report I think is dated 1993 per your exhibit  
13 list, which puts us right at 20 years.

14 THE WITNESS: If I can add something, most of  
15 these photos were used in the 1982 unit, if not all.

16 MS. PETERSON: Some -- some of the photos were.  
17 Some of photos were. And actually we have an exhibit that has  
18 those.

19 THE WITNESS: Um-hum.

20 MS. PETERSON: So that's why we put them in  
21 because it is part of the State Engineer's file.

22 THE WITNESS: Right. If I may add to that  
23 that's -- a lot of those photos Milt Thompson has --

24 HEARING OFFICER JOSEPH-TAYLOR: When do you get  
25 to start arguing with the lawyer? You can stop right there.  
CAPITOL REPORTERS (775) 882-5322

820

1 THE WITNESS: She's looking at me.  
2 HEARING OFFICER JOSEPH-TAYLOR: I will stop you  
3 right there. I'm going to note your objection. I don't know  
4 how much weight will be given to those that are not  
5 authenticated. If you can tell they're kind of looking from  
6 the same perspective, was trying to orient himself, so I don't  
7 have that much problem with that, but there is a problem with  
8 authenticating where those photos came from.  
9 So noting your objection I'm going to admit  
10 Exhibit 237 and we will consider the weight we'll give those  
11 photos. Mr. Kolvet, how much more time do you have --  
12 MR. KOLVET: If I can have five minutes with this  
13 witness I think I'm about done.  
14 HEARING OFFICER JOSEPH-TAYLOR: Fantastic.  
15 Because we need a break.  
16 MR. KOLVET: Oh, you mean to break?  
17 HEARING OFFICER JOSEPH-TAYLOR: Oh, you want a  
18 five-minute break right now, I thought you meant five minutes  
19 you'll finish.  
20 MR. KOLVET: No, if I can just discuss something  
21 real briefly to him we can keep going.  
22 HEARING OFFICER JOSEPH-TAYLOR: Yes. Okay.  
23 We'll be in recess till 4:15.  
24 (Recess taken.)  
25 HEARING OFFICER JOSEPH-TAYLOR: Let's be on the  
CAPITOL REPORTERS (775) 882-5322

821

1 record. Please continue, Mr. Kolvet.  
2 MR. KOLVET: In the interest of trying to save  
3 time, most of the information that he was going to testify to  
4 from his remainder of his PowerPoint has already -- it's  
5 either in evidence as part of the reports from USGS or prior  
6 testimony from other witnesses, but with that I would offer  
7 his PowerPoint which is whatever you said that was.  
8 THE STATE ENGINEER: 234. Oh, no.  
9 HEARING OFFICER JOSEPH-TAYLOR: 229. Any  
10 objection to the corrected PowerPoint, Exhibit 229?  
11 MS. PETERSON: Just our objection that we had  
12 before.  
13 HEARING OFFICER JOSEPH-TAYLOR: Okay. So noted.  
14 229 will be admitted.  
15 (Exhibit 229 admitted into evidence.)  
16 HEARING OFFICER JOSEPH-TAYLOR: And --  
17 MR. KOLVET: And with that housekeeping thing I  
18 think we've got 231 is already in.  
19 HEARING OFFICER JOSEPH-TAYLOR: Nope. Oh, yes,  
20 it is. Sorry.  
21 MR. KOLVET: The expert report from Mr. Thiel of  
22 232.  
23 HEARING OFFICER JOSEPH-TAYLOR: Any objection to  
24 232?  
25 MS. PETERSON: No.  
CAPITOL REPORTERS (775) 882-5322

822

1 HEARING OFFICER JOSEPH-TAYLOR: 232 will be  
2 admitted.  
3 (Exhibit 232 admitted into evidence.)  
4 MR. KOLVET: 233.  
5 HEARING OFFICER JOSEPH-TAYLOR: Any objection to  
6 Exhibit 233? This is in the record already.  
7 MR. KOLVET: It is.  
8 MS. PETERSON: No objection.  
9 HEARING OFFICER JOSEPH-TAYLOR: 233 will be  
10 admitted.  
11 (Exhibit 233 admitted into evidence.)  
12 MR. KOLVET: 234 was the original presentation, I  
13 think we've substituted 229 for that, so I will offer 234.  
14 HEARING OFFICER JOSEPH-TAYLOR: Okay.  
15 MR. KOLVET: 235.  
16 MS. PETERSON: You think that's the malfeasance  
17 report?  
18 MR. KOLVET: It is.  
19 MS. PETERSON: So we would object to that.  
20 HEARING OFFICER JOSEPH-TAYLOR: I don't even know  
21 what it is, I haven't seen it, so.  
22 MR. KOLVET: It was part of Mr. Thiel's original  
23 report, it forms the basis of some of the opinions in that  
24 report. It was submitted to the State Engineer in whatever  
25 year it was.  
CAPITOL REPORTERS (775) 882-5322

823

1 MS. PETERSON: The malfeasance report?  
2 MR. KOLVET: Yes.  
3 MS. PETERSON: Okay. I haven't seen that.  
4 You're talking about part of the curtailment hearings?  
5 MR. KOLVET: Let me just look at 235.  
6 HEARING OFFICER JOSEPH-TAYLOR: Let's be off the  
7 record.  
8 (Short off the record.)  
9 HEARING OFFICER JOSEPH-TAYLOR: So back on the  
10 record. Your objection is sustained. Exhibit 235 will not be  
11 admitted.  
12 MR. KOLVET: Although it makes interesting  
13 reading.  
14 HEARING OFFICER JOSEPH-TAYLOR: I bet it does.  
15 MR. KOLVET: 236 is admitted already. 237 is  
16 admitted. 238 was testified to, the patents for the Thompson  
17 Ranch, I'd offer those.  
18 HEARING OFFICER JOSEPH-TAYLOR: Let's do 239,  
19 240. Any objection to the patents?  
20 MS. PETERSON: No.  
21 HEARING OFFICER JOSEPH-TAYLOR: 238, 239 and 240  
22 will be admitted.  
23 (Exhibits 238, 239 and 240 admitted into  
24 evidence.)  
25 MS. URE: I have a quick comment. Before the  
CAPITOL REPORTERS (775) 882-5322

824

1 patents on their presentation there was a -- a mapping of  
2 where the patents were and I don't think that was in the  
3 actual exhibit. So if we can get that produced to us.

4 Because the information on it I couldn't read off the screen.

5 MR. KOLVET: It is a part of what you had there.  
6 If you can't read it I can get you a better --

7 MS. URE: Do you have an electronic copy of it?

8 MR. KOLVET: I can get you one.

9 MS. URE: That would be great. Thank you.

10 HEARING OFFICER JOSEPH-TAYLOR: Okay.

11 MR. KOLVET: 241 and 242 are the Eureka tax  
12 records.

13 HEARING OFFICER JOSEPH-TAYLOR: Any objection?

14 MS. PETERSON: No objection.

15 HEARING OFFICER JOSEPH-TAYLOR: 241, 242 will be  
16 admitted.

17 (Exhibits 241 and 242 admitted into  
18 evidence.)

19 MR. KOLVET: 243, 244, 245, 246 and 247 are the  
20 historical documents referenced by Mr. Thiel that he relied on  
21 in forming some of his opinions about water use. We'd offer  
22 those.

23 HEARING OFFICER JOSEPH-TAYLOR: I was thinking  
24 they're already in evidence.

25 THE STATE ENGINEER: They are.  
CAPITOL REPORTERS (775) 882-5322

825

1 MR. KOLVET: They may be, I'm not sure.

2 HEARING OFFICER JOSEPH-TAYLOR: Yes. Exhibit --  
3 I don't know about the -- I don't think the Camilleri,  
4 C-A-M-I-L-L-E-R-I, is. So any objection to 243?

5 MS. PETERSON: No.

6 HEARING OFFICER JOSEPH-TAYLOR: That will be  
7 admitted.

8 (Exhibit 243 admitted into evidence.)

9 HEARING OFFICER JOSEPH-TAYLOR: I'm going to  
10 do 244 because Exhibit 130 is only excerpts. Any objection to  
11 234?

12 MS. PETERSON: No.

13 HEARING OFFICER JOSEPH-TAYLOR: You know, I'm  
14 just going to admit them, Mr. Kolvet, because I don't know if  
15 the others are excerpts or not. So any objection to 245, 246  
16 and 247? You can take your time to look.

17 MS. PETERSON: No.

18 HEARING OFFICER JOSEPH-TAYLOR: Thank you.  
19 They'll be admitted.

20 (Exhibits 245, 246 and 247 admitted  
21 into evidence.)

22 MR. KOLVET: 248, 249 and 250 and 251 were  
23 testified to regarding the surveys.

24 HEARING OFFICER JOSEPH-TAYLOR: Any objection?

25 MS. PETERSON: No.  
CAPITOL REPORTERS (775) 882-5322

826

1 HEARING OFFICER JOSEPH-TAYLOR: 248 through 251  
2 will be admitted.

3 (Exhibits 248, 249, 250, 251 admitted  
4 into evidence.)

5 MR. KOLVET: And 252 is a topo of the Diamond  
6 Springs, I don't know if we had testimony on that  
7 specifically.

8 HEARING OFFICER JOSEPH-TAYLOR: I didn't write  
9 the number down. Are you offering 252?

10 MR. KOLVET: Yes.

11 MS. PETERSON: No objection.

12 HEARING OFFICER JOSEPH-TAYLOR: Thank you. 252  
13 will be admitted.

14 (Exhibit 252 admitted into evidence.)

15 MR. KOLVET: And then the aerials, 253, 254, 255,  
16 256 and 257.

17 HEARING OFFICER JOSEPH-TAYLOR: Any objection to  
18 253 through 257?

19 MS. PETERSON: No.

20 HEARING OFFICER JOSEPH-TAYLOR: They will be  
21 admitted.

22 (Exhibits 253, 254, 255, 256 and 257  
23 admitted into evidence.)

24 MR. KOLVET: 258 is the Bailey well logs, I  
25 believe. I think there's been testimony through this witness  
CAPITOL REPORTERS (775) 882-5322

827

1 about the Bailey well.

2 HEARING OFFICER JOSEPH-TAYLOR: Oh, with  
3 Mr. Katzer and Mr. Smith?

4 MR. KOLVET: Yes.

5 HEARING OFFICER JOSEPH-TAYLOR: Any objection to  
6 258?

7 MS. PETERSON: No.

8 HEARING OFFICER JOSEPH-TAYLOR: 258 will be  
9 admitted.

10 (Exhibit 258 admitted into evidence.)

11 MR. KOLVET: Same with 259.

12 HEARING OFFICER JOSEPH-TAYLOR: Any objection to  
13 259?

14 MS. PETERSON: No.

15 HEARING OFFICER JOSEPH-TAYLOR: It will be  
16 admitted.

17 (Exhibit 259 admitted into evidence.)

18 MR. KOLVET: 260 are flow measurements on  
19 Thompson Springs.

20 HEARING OFFICER JOSEPH-TAYLOR: Any objection?

21 MS. PETERSON: No.

22 HEARING OFFICER JOSEPH-TAYLOR: 260 will be  
23 admitted.

24 (Exhibit 260 admitted into evidence.)

25 MR. KOLVET: 261 is the consumptive use that  
CAPITOL REPORTERS (775) 882-5322

828

1 Mr. Thiel used.  
2 HEARING OFFICER JOSEPH-TAYLOR: Any objection?  
3 MS. PETERSON: No.  
4 HEARING OFFICER JOSEPH-TAYLOR: 261 will be  
5 admitted.  
6 (Exhibit 261 admitted into evidence.)  
7 MR. KOLVET: And 262 is a rebuttal report  
8 prepared by Mr. Thiel to evidence presented by the Protestants  
9 all though he's not testified about it I would offer it I  
10 don't think he needs to repeat what he's already put in.  
11 HEARING OFFICER JOSEPH-TAYLOR: Any objection?  
12 MS. PETERSON: No objection.  
13 HEARING OFFICER JOSEPH-TAYLOR: 262 will be  
14 admitted.  
15 (Exhibit 262 admitted into evidence.)  
16 MR. KOLVET: And 266 I think is a list of  
17 rebuttal witnesses.  
18 HEARING OFFICER JOSEPH-TAYLOR: I want 265 also,  
19 Mr. Kolvet.  
20 MR. KOLVET: Oh, I skipped it.  
21 HEARING OFFICER JOSEPH-TAYLOR: Yes.  
22 MR. KOLVET: Sorry.  
23 HEARING OFFICER JOSEPH-TAYLOR: Any objection to  
24 265, 266?  
25 MS. PETERSON: No.  
CAPITOL REPORTERS (775) 882-5322

829

1 HEARING OFFICER JOSEPH-TAYLOR: They will be  
2 admitted.  
3 (Exhibits 265 and 266 admitted into  
4 evidence.)  
5 MR. KOLVET: And I believe 263 -- or 264 was kind  
6 of discussed when Mr. Smith was testifying, so I don't need to  
7 offer it.  
8 HEARING OFFICER JOSEPH-TAYLOR: You don't need  
9 to?  
10 MR. KOLVET: I will, but I don't know that it's  
11 necessary.  
12 HEARING OFFICER JOSEPH-TAYLOR: Okay.  
13 MR. KOLVET: If I duplicate what's already in the  
14 record.  
15 HEARING OFFICER JOSEPH-TAYLOR: I was just trying  
16 to make sure I heard what you said. So you're not offering  
17 264?  
18 MR. KOLVET: Right.  
19 HEARING OFFICER JOSEPH-TAYLOR: I'll put not  
20 admitted.  
21 MR. KOLVET: That's the EIS on the mountain.  
22 HEARING OFFICER JOSEPH-TAYLOR: Right.  
23 MR. KOLVET: With that just one final question  
24 for Mr. Thiel, I think that's all of my -- although we haven't  
25 talked about the joint exhibits for some of them.  
CAPITOL REPORTERS (775) 882-5322

830

1 HEARING OFFICER JOSEPH-TAYLOR: I noted that you  
2 discussed 278 at some point.  
3 MR. KOLVET: We did. I thought it was marked in.  
4 I'm sorry, 278.  
5 HEARING OFFICER JOSEPH-TAYLOR: Any objection to  
6 278?  
7 MS. PETERSON: No.  
8 HEARING OFFICER JOSEPH-TAYLOR: It will be  
9 admitted.  
10 (Exhibit 278 admitted into evidence.)  
11 MR. KOLVET: While I'm at it I ought to do I  
12 guess 288 and 289.  
13 HEARING OFFICER JOSEPH-TAYLOR: 289 is in. 288  
14 is not. Any objection to 288?  
15 MS. PETERSON: No.  
16 HEARING OFFICER JOSEPH-TAYLOR: Be admitted.  
17 (Exhibit 288 admitted into evidence.)  
18 MR. KOLVET: And 286 are the hearing transcripts  
19 related to order 1226. They're probably part of your records  
20 anyway, but I'll offer them.  
21 HEARING OFFICER JOSEPH-TAYLOR: I haven't heard  
22 anybody testify about them.  
23 MS. PETERSON: Yeah, we had offered that too so  
24 however you want to do that. We'd like it in as an exhibit  
25 also.  
CAPITOL REPORTERS (775) 882-5322

831

1 HEARING OFFICER JOSEPH-TAYLOR: Okay. 286 will  
2 be admitted.  
3 (Exhibit 286 admitted into evidence.)  
4 MR. KOLVET: And if I can be allowed to at least  
5 go back and review some of these others that I'm just not that  
6 familiar with, they may have been testified, but I'll reserve  
7 offering those if that's okay.  
8 HEARING OFFICER JOSEPH-TAYLOR: Okay.  
9 MR. KOLVET: With that I think that's it, that  
10 completes the offer on the evidence. And then just one more  
11 question for Mr. Thiel.  
12 HEARING OFFICER JOSEPH-TAYLOR: Okay.  
13 BY MR. KOLVET:  
14 Q. Based on all that you have reviewed and testified  
15 that you reviewed, what are your conclusions regarding the  
16 water use at the Thompson, Cox and Willow property, historical  
17 use?  
18 A. Yes. Based upon the research that I performed  
19 looking over the records that I could find that exist, certain  
20 that what I've developed is an accurate depiction on the best  
21 rate claims as well as the applications to change to comply  
22 with order 1226 as far as mitigation, I think what I had to do  
23 was look at the USGS reports that were available to get an  
24 indication what occurred within the basin from a water  
25 resources standpoint.  
CAPITOL REPORTERS (775) 882-5322

832

1 And then I had to back up and look at what  
2 existed under the 1879 survey which led me to all the other  
3 items to see whether I could corroborate or dismiss that  
4 aspect of it.

5 Based upon my investigations the field truthing,  
6 the aerial photographs and everything else I did with respect  
7 to this hearing, I believe I developed a comprehensive  
8 analysis of what I believe is the historical use on the  
9 property.

10 Q. And is that historical use reflected in the  
11 amended proofs -- vested claims that you filed and the vested  
12 claim you filed on the Willow property?

13 A. It is.

14 MR. KOLVET: That's all I have.

15 HEARING OFFICER JOSEPH-TAYLOR: Thank you.

16 Cross-examination? Start with you, Ms. Peterson?

17 MS. PETERSON: Yeah.

18 CROSS-EXAMINATION

19 BY MS. PETERSON:

20 Q. Thank you. Hi, Mr. Thiel, I'm here representing  
21 Eureka County.

22 A. Hi, Ms. Peterson.

23 Q. Could you turn to Exhibit 242, which is the  
24 transcribed exhibit records document?

25 A. Would you -- what exhibit are you looking for?  
CAPITOL REPORTERS (775) 882-5322

833

1 Q. It's 242.

2 A. I have that.

3 Q. And the first entry there is George W. Taft; do  
4 you see that?

5 A. I do.

6 Q. And if you go to the extreme right-hand side this  
7 is from the 1887 assessment role; is that correct?

8 A. It is.

9 Q. And if you look at the entries in the second bis  
10 column that lists all the personal property, it lists all of  
11 the real property that was assessed in that texture; is that  
12 correct?

13 A. It does.

14 Q. And the -- there's one line that has improvements  
15 and it's about in the middle of that. It says improvements,  
16 adobe house, stable and corrals; do you see that?

17 A. I don't. I do, yes.

18 Q. Do you see in that column any other entries of  
19 improvements on any of the other properties that are listed  
20 under that entry for Mr. Taft?

21 A. I don't quite understand the question. What I  
22 find in this tax record is that there's improvements, which is  
23 an adobe house, stables and corrals in township 23, north 54  
24 east.

25 HEARING OFFICER JOSEPH-TAYLOR: She asked you are  
CAPITOL REPORTERS (775) 882-5322

834

1 there any other improvements.

2 THE WITNESS: Other than what's listed in the  
3 upper part of that column, which is the basically the personal  
4 property, that's it.

5 BY MS. PETERSON:

6 Q. Those are the two -- those are the two entries  
7 that show improvement for the personal property; is that  
8 correct?

9 A. Yes.

10 Q. Okay. And then going down to the next -- the  
11 entry for Mr. Millett?

12 A. Yes.

13 Q. And you see over on the right-hand side, the  
14 extreme right-hand side that the taxes were paid by Nels Toft;  
15 do you see that?

16 A. I do.

17 Q. And then if you look to see what year that was?

18 A. That would be -- actually it looks like

19 November 5th, the year 1900 tax book.

20 Q. Right.

21 A. Which is that's when it was paid.

22 Q. Okay.

23 A. But I don't know whether that was -- the issue I  
24 had with reviewing this is I looked in the 1887 assessment but  
25 it's marked here on the November 5th, 1900 tax year.

CAPITOL REPORTERS (775) 882-5322

835

1 Q. Right. So we don't really know if it's an 1887  
2 or a 1900 entry; is that right?

3 A. That's correct.

4 Q. And then would you look at the improvements that  
5 Mr. Millett had, there's personal property at the top; is that  
6 correct?

7 A. That's correct.

8 Q. And it does say a possessory interest in and to  
9 attract a farming and grazing land; correct?

10 A. Correct.

11 Q. And then there's other improvements listed down  
12 on the properties; you see that?

13 A. I do.

14 Q. All right. And again, the house stable, corrals  
15 and then other frame house at the very end of the page; is  
16 that correct?

17 A. Yes.

18 Q. And then going to the next page of your exhibit  
19 from Nels Toft.

20 A. Yes.

21 Q. And when were those taxes paid, again, looking at  
22 the extreme right-hand side for that entry?

23 A. It appears that they were paid May 24th, 1913 and  
24 there was some other payments made November 29th, 1912.

25 Q. And again, you don't know if these are 1887 or if  
CAPITOL REPORTERS (775) 882-5322

836

1 these are 1912 tax -- 1912, 1913 tax records; is that correct?  
2 A. Yes, except they were in the 1887 tax book.  
3 Q. I thought you said you didn't know whether these  
4 were in the 1887 tax book or --  
5 A. I'm sorry, these were actually -- the upper two  
6 on the first two we reviewed came out of the 1887 tax book.  
7 If you look at the -- in other words, the first two should  
8 come out the 1887 tax book.  
9 Q. On the first page?  
10 A. Yes.  
11 Q. And then what -- where are these from on the  
12 second page?  
13 A. That would be from later tax books, I believe.  
14 Q. Subsequent to 18 --  
15 A. About ten years' separation, more or less.  
16 Q. Okay. And I keep on saying tax book, but they  
17 were the assessor's records?  
18 A. That's correct.  
19 Q. Okay. So if I keep on saying tax we all  
20 understand that it's the assessor's records?  
21 A. That's correct.  
22 Q. Thank you. And then looking at the improvements  
23 that are listed there for Mr. Toft?  
24 A. Yes.  
25 Q. You see the personal property at the top;  
CAPITOL REPORTERS (775) 882-5322

837

1 correct?  
2 A. Well -- oh, you're looking at Burnell's top on  
3 page 2 I guess it is. Yes, I see that.  
4 Q. And then again, there is listed at the end his  
5 improvements are horses, stables, corrals?  
6 A. Correct.  
7 Q. And then pretty much the same information for the  
8 last entry on that page?  
9 A. Yes.  
10 Q. And then going to the third page of that  
11 document, what -- what tax record -- what assessment record  
12 year would this be?  
13 A. That appears to be 1918.  
14 Q. And then if you look at the entry for Mr.  
15 Jacobson and Mr. Toft; do you see that?  
16 A. Yes.  
17 Q. There's reference there to actually the acreage  
18 that's with hay, 80 acres grazing and 15 -- 1584 acres  
19 grazing; do you see that?  
20 A. I do.  
21 HEARING OFFICER JOSEPH-TAYLOR: He said yes.  
22 BY MS. PETERSON:  
23 Q. And would you agree that that would be the first  
24 notation in the assessment records showing actual use on the  
25 land?  
CAPITOL REPORTERS (775) 882-5322

838

1 A. Not necessarily. I mean, the aspect is that as  
2 you go further in time the tax records get more detailed. I  
3 mean, that's how I would characterize it.  
4 Q. Do you know if there were -- in the 1887  
5 assessment records do you know if there was a policy of them  
6 not to include --  
7 A. Well, I wouldn't know that.  
8 Q. You wouldn't know that. And then --  
9 HEARING OFFICER JOSEPH-TAYLOR: Finish your  
10 question. Not to include?  
11 MS. PETERSON: That information.  
12 HEARING OFFICER JOSEPH-TAYLOR: Thank you.  
13 BY MS. PETERSON:  
14 Q. And then just summarizing your proofs --  
15 A. Yes.  
16 Q. -- of appropriation, you're claiming priorities  
17 of 1858, 1879, 1880 and I think 1901; is that correct?  
18 A. I'm -- I've lost you, I don't know what you're  
19 asking.  
20 Q. Your proofs of appropriation.  
21 A. Um-hum.  
22 Q. That have been filed, V-01114, 1115 and all the  
23 other numbers, the proofs of appropriation?  
24 A. Um-hum.  
25 Q. Do you know what I'm talking about?  
CAPITOL REPORTERS (775) 882-5322

839

1 A. I do.  
2 Q. I looked at all those and I see on the various  
3 proofs that you're claiming priorities of 1858, 1879, 1880 and  
4 1901; is that correct?  
5 A. I don't recall, I'm sorry. I know that the  
6 original diversion of the water first occurred in 1858,  
7 approximately.  
8 Q. For all your claims?  
9 A. No, from Taft Springs.  
10 Q. And you haven't included any tax assessment  
11 records from 1858-year; is that correct?  
12 A. No. I believe we went back as far as we could at  
13 the time.  
14 Q. Okay. So there's no records prior to 1887?  
15 A. Not that we could find.  
16 Q. And you did your ground truthing in 2013; is that  
17 correct?  
18 A. Yes.  
19 Q. And can you say in 2013 you knew that there was  
20 water put to beneficial use on the lands you're claiming in  
21 your proofs as of 1858, 1879, 1880 or 1901?  
22 A. Not relying solely on the ground truthing, no.  
23 Q. And then if you would look at Harrill,  
24 Exhibit 304?  
25 HEARING OFFICER JOSEPH-TAYLOR: H-A-R-R-I-L-L,  
CAPITOL REPORTERS (775) 882-5322

840

1 two Ls?  
2 TECHNICAL ASSISTANT: Yes.  
3 HEARING OFFICER JOSEPH-TAYLOR: Thank you.  
4 MR. KOLVET: Exhibit 304?  
5 HEARING OFFICER JOSEPH-TAYLOR: Um-hum.  
6 BY MS. PETERSON:  
7 Q. Do you have that in front of you?  
8 A. I'm working on it. I don't have a copy, I can't  
9 open a copy in front of me.  
10 MR. KOLVET: I have the exhibit.  
11 MS. PETERSON: Thank you, Mr. Kolvet.  
12 THE WITNESS: It do have that.  
13 MS. PETERSON: Thank you.  
14 BY MS. PETERSON:  
15 Q. Would you look at page 56 of that exhibit?  
16 HEARING OFFICER JOSEPH-TAYLOR: These are going  
17 to be big exhibits, it may be faster if we hand them to you.  
18 THE WITNESS: Yes.  
19 HEARING OFFICER JOSEPH-TAYLOR: Computers aren't  
20 always better.  
21 THE STATE ENGINEER: They are if you know how to  
22 use them.  
23 MS. URE: I have a clean copy.  
24 HEARING OFFICER JOSEPH-TAYLOR: I got it. Now,  
25 see how fast that was.  
CAPITOL REPORTERS (775) 882-5322

841

1 THE WITNESS: I need some steam. I have that.  
2 BY MS. PETERSON:  
3 Q. Did you read the first paragraph under natural  
4 groundwater yield?  
5 A. I found it.  
6 Q. And I think you testified that you read Harrill's  
7 report?  
8 A. I did.  
9 Q. And do you have any reason to dispute  
10 Mr. Harrill's observations in 1968 that only one-third of the  
11 total screened discharge is put to beneficial use in the north  
12 Diamond sub area?  
13 A. Well, I don't agree with it and obviously the  
14 work I was involved with I'd have to disagree with that. I  
15 don't necessarily agree with his estimation of what was put to  
16 beneficial use and what wasn't.  
17 HEARING OFFICER JOSEPH-TAYLOR: Are you done with  
18 that exhibit?  
19 MS. PETERSON: Yes. May I?  
20 HEARING OFFICER JOSEPH-TAYLOR: I'm not that  
21 formal, I don't care.  
22 MS. PETERSON: This is Exhibit 323.  
23 HEARING OFFICER JOSEPH-TAYLOR: Thank you.  
24 BY MS. PETERSON:  
25 Q. Mr. Thiel, I'm showing you what's been marked --  
CAPITOL REPORTERS (775) 882-5322

842

1 well, what's been submitted as Exhibit 323 in this document  
2 exchange.  
3 A. Yes.  
4 Q. Do you see that?  
5 A. I do.  
6 Q. And this was a letter -- well, this was a letter  
7 written by your boss Peter Morros at that time, the State  
8 Engineer?  
9 A. Yes.  
10 Q. To Mr. Thompson. Are you familiar with this  
11 letter?  
12 A. Somewhat.  
13 Q. And in the second paragraph there Mr. Morros is  
14 explaining to Mr. Thompson the results of the March 10, 1982  
15 field investigation?  
16 A. Yes.  
17 Q. Do you have any reason to dispute the field  
18 investigation summary and preliminary findings stated in this  
19 letter by Mr. Morros?  
20 A. Somewhat I do. In other words, it's an  
21 observation of what he found to be some of the issues in  
22 responding to Mr. Thompson's complaints.  
23 Q. And were you involved in any of this work,  
24 because I know you were involved at this time in the State  
25 Engineer's Office on this other matter?  
CAPITOL REPORTERS (775) 882-5322

843

1 A. I was involved. I do remember this letter and  
2 some of the work that I was required to do came out of the  
3 hearings that were done in March and August of 1982. I do  
4 recall this letter and reviewing it at that time and I have  
5 seen it since.  
6 Q. And Mr. Katzer testified yesterday about the  
7 letter that he wrote to Mr. Morros --  
8 A. Yes.  
9 Q. -- around this same time frame; do you recall  
10 that testimony?  
11 A. I do.  
12 Q. Do you dispute the findings or the observations  
13 that Mr. Katzer had in his letter to Mr. Morros on the same  
14 subject?  
15 A. Not really.  
16 Q. Were you at the curtailment hearings in 1982 in  
17 Eureka County?  
18 A. No, I wasn't invited. I did not go to the  
19 hearings.  
20 Q. Were you aware -- were you aware that at the  
21 hearings the Diamond Valley irrigators offered Mr. Thompson to  
22 drill -- to drill a well so that he could obtain water for his  
23 ranch?  
24 MR. KOLVET: I'm going to object, it's not  
25 relevant to what we're here about.  
CAPITOL REPORTERS (775) 882-5322

844

1 HEARING OFFICER JOSEPH-TAYLOR: Overruled.  
2 MR. KOLVET: About what may or may not have been.  
3 HEARING OFFICER JOSEPH-TAYLOR: Overruled.  
4 Absolutely relevant.  
5 THE WITNESS: I -- I can respond to that. And  
6 basically reading through the transcript recently. It wasn't  
7 the irrigators that offered Mr. Thompson the wells, it was  
8 Mr. Morros that offered Thompson the well based upon use of  
9 the basin funds to drill him the well.  
10 BY MS. PETERSON:  
11 Q. And there was an offer even to pay for the  
12 electricity for that well?  
13 A. Not that I recall. And I know the reason why  
14 Mr. Thompson didn't take it, but.  
15 HEARING OFFICER JOSEPH-TAYLOR: That's not the  
16 question pending.  
17 BY MS. PETERSON:  
18 Q. But it's true that Mr. Thompson didn't take that  
19 offer; is that correct?  
20 A. That's correct.  
21 Q. And I am going to show you, I -- I just have one  
22 copy of this because I just found this, so I'll show it to you  
23 first.  
24 HEARING OFFICER JOSEPH-TAYLOR: Tell us what it  
25 is while he's looking at it.  
CAPITOL REPORTERS (775) 882-5322

845

1 MS. PETERSON: Okay. It is a letter from Boundy  
2 and Forman dated October 21st, 1975 to the State Engineer  
3 regarding permit --  
4 HEARING OFFICER JOSEPH-TAYLOR: I don't think the  
5 court reporter is going to hear you.  
6 MS. PETERSON: Regarding permit 26794. An  
7 application made by Mr. Ted Thompson that was withdrawn.  
8 HEARING OFFICER JOSEPH-TAYLOR: Application  
9 number?  
10 MS. PETERSON: 26794.  
11 HEARING OFFICER JOSEPH-TAYLOR: So it's an  
12 official record of this office?  
13 MS. PETERSON: It is, but I think it should be an  
14 exhibit. And I --  
15 HEARING OFFICER JOSEPH-TAYLOR: Go ahead.  
16 MS. PETERSON: -- provide further copies.  
17 HEARING OFFICER JOSEPH-TAYLOR: State Engineer  
18 has a question while you look at that, Mr. Thiel.  
19 THE STATE ENGINEER: Ms. Peterson you brought up  
20 the fact that Mr. Thompson was offered a well back in 1982 by  
21 the State Engineer's Office. What do you make of that?  
22 MS. PETERSON: Of -- well -- let me just clarify.  
23 I have some information, the reason I'm hesitating with your  
24 question is that I have some information from people that will  
25 testify tomorrow that that well was offered by the irrigators,  
CAPITOL REPORTERS (775) 882-5322

846

1 not necessarily the State Engineer, so that's why I'm  
2 having -- you know, a little issue with your question.  
3 So he was offered a well by somebody.  
4 THE STATE ENGINEER: The transcript I read  
5 certainly seemed to indicate that it was the State Engineer's  
6 Office that offered, that's why I asked.  
7 MS. PETERSON: Okay. What do I make of that?  
8 THE STATE ENGINEER: Yes. What was the State  
9 Engineer's Office trying to do 30 years ago for Mr. Thompson's  
10 right?  
11 MS. PETERSON: I think trying to -- to let him  
12 use his water and maybe even go so far as to say make him  
13 whole.  
14 THE STATE ENGINEER: Okay. Thank you.  
15 HEARING OFFICER JOSEPH-TAYLOR: Ready, Mr. Thiel?  
16 THE WITNESS: Yes. To get back to the issue at  
17 hand, I have seen this before.  
18 BY MS. PETERSON:  
19 Q. And is it fair to say that that is a copy of an  
20 application and permit applied for by Mr. Ted Thompson, which  
21 is Mr. -- Mr. Milton Thompson's father in 1974 --  
22 A. Um-hum.  
23 Q. -- to the State Engineer's Office for a well on  
24 the Cox Ranch?  
25 A. It appears to be. I looked at the description of  
CAPITOL REPORTERS (775) 882-5322

847

1 it and it's on the Cox Ranch.  
2 Q. And he was granted a permit from the State  
3 Engineer for use on the Cox Ranch; is that correct?  
4 A. He was granted a permit, yes.  
5 Q. And that that permit was subsequently withdrawn  
6 because Mr. Thompson could not complete the work of  
7 improvement?  
8 A. I don't have any indication that on the -- what  
9 the offer to me. It was withdrawn by his -- by the person  
10 that did the application and the supporting map.  
11 Q. And I think the cover letter says because he  
12 couldn't file a proof of completion?  
13 A. He said he was unable to complete the proof of  
14 completion at this time.  
15 Q. And then if you look at the notes in the State  
16 Engineer's Office on the bottom of the second page of the  
17 permit?  
18 A. Yes.  
19 Q. What does that say?  
20 A. That says -- what part are you requesting? Are  
21 you -- with regard to the withdrawal?  
22 Q. Yeah, the little stamp?  
23 A. Well, one has nothing to do with the other.  
24 Basically what it says is that it was cancelled by Roland  
25 Westergard because of failure of the Applicant to comply with  
CAPITOL REPORTERS (775) 882-5322

848

1 the provision of the permit.  
2 So the withdrawal -- if it was withdrawn it would  
3 say withdrawn and the date and the signature of the person in  
4 here. This indicates to me that the proof of completion  
5 wasn't completed therefore it was cancelled. Regardless, it's  
6 the same result.

7 Q. Okay. That's fair. Thank you.

8 MS. PETERSON: So I would like that marked as an  
9 exhibit.

10 HEARING OFFICER JOSEPH-TAYLOR: Let's hold off  
11 right now and get some copies made a little later and do it.

12 MS. PETERSON: Okay.

13 HEARING OFFICER JOSEPH-TAYLOR: Let me put it on  
14 the exhibit list though, Ms. Peterson, so we don't forget it.

15 MS. PETERSON: Okay.

16 HEARING OFFICER JOSEPH-TAYLOR: Your exhibits.

17 So -- so that is a copy of permit, what's the number,  
18 Mr. Thiel?

19 THE WITNESS: It is permit 26794.

20 HEARING OFFICER JOSEPH-TAYLOR: And I'm going to  
21 take those from you so we remember to get that. Thank you.  
22 So I've marked as Exhibit 438 a letter from Boundy,  
23 B-O-U-N-D-Y, and Forman, F-O-R-M-A-N, Inc. to the State  
24 Engineer dated October 21st, 1975, asking for the withdrawal  
25 of permit 26794 and a copy of the cancelled amended permit  
CAPITOL REPORTERS (775) 882-5322

849

1 26794.

2 Is there going to be any objection to the  
3 admission of that, Mr. Kolvet?

4 MR. KOLVET: Technically it's already in, so.

5 HEARING OFFICER JOSEPH-TAYLOR: We can  
6 administratively notice it.

7 MR. KOLVET: No objection.

8 HEARING OFFICER JOSEPH-TAYLOR: Thank you. Mac,  
9 will you get another copy made?

10 (Exhibit 438 admitted into evidence.)

11 BY MS. PETERSON:

12 Q. Exhibit 233, if you could turn to that,  
13 Mr. Thiel?

14 A. I have that.

15 Q. And it's Exhibit 3 to your letter to the State  
16 Engineer, it's book 1 of the water locations.

17 A. Yes.

18 Q. Do you have that?

19 A. I'm working hard to get there.

20 Q. Okay.

21 HEARING OFFICER JOSEPH-TAYLOR: 233?

22 MS. PETERSON: Yes.

23 HEARING OFFICER JOSEPH-TAYLOR: Stay on top of  
24 this. I got it, Mr. Thiel, I'm going to beat you to it.

25 THE WITNESS: I think you will.  
CAPITOL REPORTERS (775) 882-5322

850

1 HEARING OFFICER JOSEPH-TAYLOR: We're going to  
2 not lose time. Thank you.

3 THE WITNESS: Thank you. I have that.

4 BY MS. PETERSON:

5 Q. You included these as part of the information to  
6 the State Engineer in your April 12, 1913 -- 2013 letter; is  
7 that correct?

8 A. I did.

9 Q. And what are those documents?

10 A. What they are is they're excerpts from the  
11 so-called water book filed in the county recorder's office  
12 within Eureka County.

13 Q. And do you know why they were recorded in Eureka  
14 County? And do you know the -- do you know why they were  
15 recorded in Eureka County?

16 A. I do.

17 Q. Why?

18 A. Basically the legislature adopted chapter 100 in  
19 1866 that said the intent of the legislation was to create a  
20 method for the legislature to check or to track water filings  
21 throughout the state.

22 Under that provision any water user had to file  
23 with the county basically their intent to construct ditches.  
24 Legislature figured at that time that when they knew that  
25 ditches were being constructed there had to be water there.  
CAPITOL REPORTERS (775) 882-5322

851

1 And at the time it was the intent of the parties to say what  
2 property they intended to irrigate.

3 Q. And do you happen to have the folders for your  
4 vested claims 01114 and 01115?

5 MR. KOLVET: The folders?

6 HEARING OFFICER JOSEPH-TAYLOR: Does he have  
7 what?

8 BY MS. PETERSON:

9 Q. The inside -- the inside cover of the State  
10 Engineer's folder for those vested claims?

11 A. I do not.

12 Q. I happen to have copies. You've probably looked  
13 at the complete files of your vested -- the vested claims or  
14 at least those two vested claims in this proceeding; correct?

15 A. I did.

16 Q. And are you familiar with -- I call them the  
17 cover pages, you probably call them something else that are in  
18 the State Engineer's files?

19 A. Yes.

20 Q. And do you see on each one of those files where  
21 the State Engineer's Office issued a certificate on those  
22 claims?

23 A. I do and I will swear to that.

24 Q. And are these the recorded copies of those  
25 certificates here in your Exhibit 233?  
CAPITOL REPORTERS (775) 882-5322

852

1 A. No.  
2 Q. I think they may be.  
3 A. Well, the way you ask the question is this the  
4 recorded copy of the certificate and it's not.  
5 Q. Oh, I thought I said are the pages in Exhibit 233  
6 the recorded copies of those certificates that --  
7 HEARING OFFICER JOSEPH-TAYLOR: He's playing  
8 semantics with you. A copy of recorded.  
9 THE WITNESS: If you're saying that references a  
10 copy of a recorded certificate it does.  
11 BY MS. PETERSON:  
12 Q. In Exhibit 233?  
13 A. Yes.  
14 Q. And are those the certificates listed on those  
15 folders?  
16 A. They are, yes.  
17 Q. In your exhibit?  
18 A. In the exhibit I have in my hands, yes.  
19 HEARING OFFICER JOSEPH-TAYLOR: Okay. Okay.  
20 Hold it, hold it. I don't think you're understanding the  
21 question. What I'm hearing is is your -- does your  
22 Exhibit 232 contain a copy of the certificates referenced on  
23 the front of those vested right files.  
24 THE WITNESS: It does not.  
25 BY MS. PETERSON:  
CAPITOL REPORTERS (775) 882-5322

853

1 Q. These are different?  
2 A. I'm lost on the question, I'm sorry.  
3 HEARING OFFICER JOSEPH-TAYLOR: Let me try. Can  
4 I see what you're looking at Exhibit 232, Ms. Peterson?  
5 MR. KOLVET: 233.  
6 HEARING OFFICER JOSEPH-TAYLOR: 233. Thank you.  
7 I think we're talking about recordings in counties which are  
8 different than the certificates here.  
9 MR. KOLVET: That's -- I think you're correct.  
10 MS. PETERSON: I'm not sure about that.  
11 HEARING OFFICER JOSEPH-TAYLOR: Well, let's  
12 figure it out.  
13 MS. PETERSON: Oh, do you want a clean copy?  
14 HEARING OFFICER JOSEPH-TAYLOR: No. This is what  
15 she's looking at.  
16 MR. KOLVET: What are you showing her, what page  
17 of those?  
18 HEARING OFFICER JOSEPH-TAYLOR: What page are you  
19 on, Mr. Thiel, of your Exhibit 233?  
20 THE WITNESS: It appears to be 36.  
21 BY MS. PETERSON:  
22 Q. You have included pages, I think 36, 41, 69, 70  
23 and 71 and 72 in your exhibit.  
24 A. I'm sorry, with the commotion going on I didn't  
25 hear you.  
CAPITOL REPORTERS (775) 882-5322

854

1 MR. KOLVET: Just --  
2 THE WITNESS: I'm sorry, the question was -- kind  
3 of having a conversation at the time.  
4 BY MS. PETERSON:  
5 Q. So --  
6 HEARING OFFICER JOSEPH-TAYLOR: Mr. Thiel, here  
7 is your Exhibit 233.  
8 THE WITNESS: Okay.  
9 HEARING OFFICER JOSEPH-TAYLOR: Here is page 11  
10 of your exhibit. It's up to you.  
11 MS. PETERSON: Thank you.  
12 BY MS. PETERSON:  
13 Q. Do you have in your Exhibit 233 page 69 of the  
14 water locators in Eureka County?  
15 A. I don't see a reference to page 69 anywhere on  
16 here. Let me look back.  
17 MR. KOLVET: Look at page 13 of your exhibit.  
18 THE WITNESS: I'm getting there. Well, this one  
19 I'm missing page 69. Oh, there it is, I found it. I have  
20 that, yes. What was your question at this point?  
21 BY MS. PETERSON:  
22 Q. Is that certificate 38 issued by the State  
23 Engineer on November 23rd, 1912, recorded December 11th, 1912,  
24 in book A, water locations, page 69 of the Eureka County  
25 records?  
CAPITOL REPORTERS (775) 882-5322

855

1 A. Finally we got there, yes.  
2 Q. Thank you, George. Are you -- are you -- I know  
3 you referenced chapter 100, are you aware of -- and I'm -- I'm  
4 not trying to ask you legal questions of what the law was in  
5 effect in 1912 regarding the State Engineer's issue --  
6 regarding proofs of appropriation filed with the State  
7 Engineer, the issues of certificates and the recording of  
8 those certificates and the county where the water was located?  
9 A. I am. The -- there was a statute change on  
10 March 1st, 1905 that anything after 1905 was considered an  
11 appropriation to be filed for a claim of vested right. After  
12 1905 up until March 22nd, 1913 that the method to in which the  
13 certificate of appropriation was recorded or filed was we had  
14 to submit supporting map, that type thing, go through the  
15 process, was investigated and the State Engineer would issue a  
16 certificate of appropriation.  
17 Q. And there was some changes in the law in 1908,  
18 are you familiar with those changes?  
19 A. There was two changes I was somewhat aware of.  
20 There was one in 1907, 1909 that I'm vaguely familiar with but  
21 not to a lot of detail. I'm not aware of one in 1908.  
22 Q. Okay. And I guess maybe I should just ask my  
23 question. I think this is an issue we should brief what the  
24 effect of -- what the law was in 1908, what the effects of the  
25 proofs that were filed and certificates that were issued by  
CAPITOL REPORTERS (775) 882-5322

856

1 the State Engineer at that time and recorded with the county  
2 recorder's office?

3 HEARING OFFICER JOSEPH-TAYLOR: I don't have a  
4 problem with that, Ms. Peterson. It's an issue that a lot of  
5 people don't seem to be fully understanding of, so let's make  
6 it a record in this proceeding.

7 MS. PETERSON: Well, and I guess I'm offering  
8 this on behalf of Eureka County, because we did want to  
9 present all the information that we had to the State Engineer  
10 about the issue and what the status of those proofs actually  
11 might be at this point.

12 They may -- those two proofs may be vested claims  
13 already. I guess that's what I'm trying to get at. Vested  
14 rights, not claims, vested rights.

15 HEARING OFFICER JOSEPH-TAYLOR: You lost me when  
16 you said vested rights, I knew where were you going until you  
17 say that. So I'll put it on my list of things to talk about  
18 at the end of the hearing.

19 MS. PETERSON: Okay.

20 BY MS. PETERSON:

21 Q. And then, Mr. Thiel, your application 81825.

22 A. Yes.

23 Q. That was filed on April 26, 2012?

24 A. Yes, it wasn't my application, but it was filed  
25 for Mr. Venturacci.

CAPITOL REPORTERS (775) 882-5322

857

1 Q. Yes, I'm sorry, Mr. Venturacci's application.

2 And then your second amendment to proof V-01115 was filed on  
3 February 25th, 2013; is that correct?

4 A. I don't recall. I mean, at this point I'm sure  
5 those dates are accurate, I'm not sure.

6 Q. All right. And if your second amendment was  
7 filed after the date of your filing of your application 81825,  
8 would it relate back, the application to the claim that was on  
9 file at the time the application was filed?

10 A. My recollection to give you a short answer to a  
11 long question, is the second amendment was in preparation for  
12 a while. I filed the applications to change. I don't know  
13 what sequence they came in. I know I filed the proofs and  
14 they languished for a while before there was a review done. I  
15 got basically some questions asked to make some corrections to  
16 it. I did that. And responded to those.

17 So I don't know the sequence of dates or times,  
18 but I filed them at approximately the same time frame.

19 Q. And then I know you had some issues with the  
20 jurats, I'm not going to belabor that too much, but are you  
21 aware of any time frame in the early statutes of the State  
22 Engineer's Office when the State Engineer's Office actually  
23 prepared the map that went with the proof of appropriation?

24 A. I don't know. I don't know.

25 Q. Is it possible the map that you were questioning  
CAPITOL REPORTERS (775) 882-5322

858

1 that was prepared in 1912 was actually prepared by the State  
2 Engineer's Office?

3 MR. KOLVET: Been asked and answered, he doesn't  
4 know.

5 HEARING OFFICER JOSEPH-TAYLOR: No, she asked is  
6 it possible. Overruled.

7 MR. KOLVET: Well, anything is possible.

8 HEARING OFFICER JOSEPH-TAYLOR: Overruled,  
9 Mr. Kolvet, let's not argue, let's get done.

10 THE WITNESS: Can I have the question again?

11 BY MS. PETERSON:

12 Q. Is it possible that the map that you were  
13 questioning in -- that was prepared with the proof in 1912  
14 that didn't have the cultural map part of it, you were  
15 questioning it; do you recall that?

16 A. I do.

17 Q. Is it possible that that map could have been  
18 prepared by the State Engineer's Office under the statutory  
19 requirements at that time?

20 A. I don't believe it was that way, but I can't say  
21 for sure.

22 Q. Your jurat that you used in 2013.

23 A. Yes.

24 Q. Stated that you looked at records in the State  
25 Engineer's Office?

CAPITOL REPORTERS (775) 882-5322

859

1 A. Yes.

2 Q. Did you look at Exhibit 339, and that's the field  
3 notes from Paine relating to Taft in Horse Canyon prior --  
4 prior to -- I guess signing your jurat or preparing your map?

5 A. I was aware of it. I did look at it.

6 Q. Do you have any information or evidence that the  
7 information stated in Exhibit 339 that -- that Paine field  
8 investigation was not accurate?

9 A. I don't think you can take that at face value for  
10 the limit and extent of all the water rights on the ranch at  
11 the time. It was based upon what the application was and what  
12 it was for and what was issued thereafter.

13 There's an inaccuracy on the final certificate  
14 that was issued that was part of that field investigation that  
15 was done by the State Engineer that exists in comparison to  
16 the application.

17 So I don't think you can take it at face value  
18 and say that everything is there was based upon what was filed  
19 at the time it was responded to.

20 Q. Do you know if there's any flowing shot holes in  
21 the area around the Thompson Ranch, the Willow Ranch, the Cox  
22 Ranch?

23 A. The only ones I would be familiar with is  
24 anything around the Cox Ranch, the Willow or the Thompson.

25 And to my knowledge I didn't see any flowing wells out there  
CAPITOL REPORTERS (775) 882-5322

860

1 at the time of my field investigation at all.  
2 Q. Do you know if your client Daniel Venturacci uses  
3 any flowing shot holes currently to water his livestock?  
4 A. I know there are two wells on the property that  
5 are taking water out of that area and use them for stock  
6 water.  
7 Q. Do you know if they're shot holes or?  
8 A. I don't know.  
9 Q. Do you remember slide 54 of Exhibit --  
10 HEARING OFFICER JOSEPH-TAYLOR: 229?  
11 BY MS. PETERSON:  
12 Q. -- 229? We had a lot of discussion about it. It  
13 was the slide that you overlaid your work over the GLO map and  
14 there were -- there was green slashes on it and little plus --  
15 I call them little plus signs and other marking that you put  
16 on that map; do you recall that?  
17 A. I do.  
18 Q. What is the legend for like the green -- the  
19 green area that, you know, what you put on?  
20 A. What is the legend for what I put on?  
21 Q. Yes.  
22 A. There's nothing on this map for that.  
23 Q. But what is -- so like what is the green slashed  
24 area mean?  
25 A. The green area was the area that was used for --  
CAPITOL REPORTERS (775) 882-5322

861

1 basically slated for alfalfa on my exhibit or on my map. The  
2 area in yellow would have been the hay area. The aerial with  
3 the crosses on it would have been pasture.  
4 HEARING OFFICER JOSEPH-TAYLOR: Would have been  
5 what?  
6 THE WITNESS: Pasture.  
7 HEARING OFFICER JOSEPH-TAYLOR: Thank you.  
8 BY MS. PETERSON:  
9 Q. Were there any other areas that you put on your  
10 map?  
11 A. Not that I recall. In other words, you're asking  
12 on my map that I filed in support of vested claims?  
13 Q. Right.  
14 A. Not that I recall. There would have been blank  
15 areas which would have said that those areas weren't used for  
16 establishing culture.  
17 Q. And on page 57 of Exhibit 249.  
18 A. Is that --  
19 Q. Part of your field notes and they reference a  
20 part of the township is now occupied and under cultivation; do  
21 you recall that slide?  
22 A. I do.  
23 Q. Do you have any information from the field notes  
24 or the surveyor's notes who was occupying what portion of the  
25 township and what was under cultivation by whom?  
CAPITOL REPORTERS (775) 882-5322

862

1 A. What I have is in the survey notes, it discusses  
2 the -- what houses were found in the area. And on the general  
3 plat it shows what houses were in the area.  
4 Q. Right. But he -- he doesn't say in the field  
5 notes that the Taft house had cultivation around it?  
6 A. No, but the question was is there houses and they  
7 were referenced as the Taft house or the Crofut house or the  
8 Cox house.  
9 Q. But you couldn't tell what cultivation was  
10 associated with any properties based on surveyor's notes; is  
11 that correct?  
12 A. I don't remember -- in the surveyor's notes and  
13 the summaries it says it was under extensive cultivation. So  
14 did it depict cultivation areas? I'd be assuming to say that  
15 the meadow area that he said that was being cultivated or  
16 harvested for hay would have been the area of cultivation.  
17 HEARING OFFICER JOSEPH-TAYLOR: Listen to her  
18 questions more carefully, Mr. Thiel. Could you tell what  
19 house it was associated with?  
20 THE WITNESS: I'm sorry. No, I could not.  
21 OFFICER JOSEPH-TAYLOR: I know you're getting  
22 tired.  
23 THE WITNESS: I am.  
24 HEARING OFFICER JOSEPH-TAYLOR: Yeah. Just  
25 listen real carefully. A lot easier said when you don't sit  
CAPITOL REPORTERS (775) 882-5322

863

1 in that chair.  
2 THE WITNESS: Sorry?  
3 HEARING OFFICER JOSEPH-TAYLOR: I said it's a lot  
4 easier said when you don't sit in that chair.  
5 BY MS. PETERSON:  
6 Q. You talked about possessory interests?  
7 A. Yes.  
8 Q. How did you correlate any possessory interests to  
9 the Thompson Ranch, the Cox Ranch or the Willow Ranch?  
10 A. Possessory interest is what was in the tax rolls  
11 that I researched on the assessor's records that identified  
12 the Cox, WF or George Cox or Taft or Millett on those records  
13 and it says possessory interest. The other documents that  
14 were involved with it would have been, for example, the Crofut  
15 history of who occupied where within his excerpts that he  
16 wrote in his oral -- or was transcribed from his oral history.  
17 So I would say it would get a good feel of who  
18 was out in that area and settled in that area.  
19 Q. And how do you -- how do you connect all the  
20 possessory interests into one -- one ranch or in this case  
21 three ranches?  
22 A. That's difficult in that aspect that if you  
23 looked at who applied for the patents in the area you'll see  
24 some of the patents -- patents applied for under a certain  
25 name and based upon a proceeding with the agency that was  
CAPITOL REPORTERS (775) 882-5322

864

1 issuing the patent it would say Sorensen to Taft or to Toft by  
2 this action that occurred. In other words, the patent was  
3 assigned to Taft or Toft at the point in time.

4 So I assumed that there was a possessory interest  
5 by others up there out on that property other than Taft, and  
6 that would have been indicated also with that 1912 map that  
7 was filed in support of V-01115.

8 Q. And are all the documents in this record that  
9 would tie all the possessory interests together to show  
10 priority dates to the State Engineer?

11 A. No.

12 Q. Did you have any conversations with Tom Gallagher  
13 about these water rights?

14 A. Tom Gallagher with Water Resources, no.

15 MS. PETERSON: Thank you. I don't have any  
16 further questions.

17 HEARING OFFICER JOSEPH-TAYLOR: What is the  
18 Tom Gallagher issue? Ms. Ure?

19 MS. URE: Thank you.

20 CROSS-EXAMINATION

21 BY MS. URE:

22 Q. Mr. Thiel, my name is Therese Ure and I'm  
23 representing Etcheverry Family Trust, Diamond Cattle Company  
24 and Mr. Benson. So good evening and I will try and make this  
25 short.

CAPITOL REPORTERS (775) 882-5322

865

1 A. Same to you.

2 HEARING OFFICER JOSEPH-TAYLOR: You will make it  
3 short.

4 BY MS. URE:

5 Q. I will try. On your Exhibit 237, slide 67,  
6 it's --

7 HEARING OFFICER JOSEPH-TAYLOR: I'm sorry.

8 BY MS. URE:

9 Q. I'm at Exhibit 237, slide 67. And --

10 HEARING OFFICER JOSEPH-TAYLOR: We'll grab it for  
11 you, George.

12 THE WITNESS: Thank you. I'm having problems  
13 here.

14 HEARING OFFICER JOSEPH-TAYLOR: That's okay.

15 Slide 67, Ms. Ure?

16 MS. URE: Yes, ma'am.

17 MR. KOLVET: I've actually got an extra copy if  
18 that would speed things up.

19 HEARING OFFICER JOSEPH-TAYLOR: He's got one.

20 These guys are on it, I'm watching their screens.

21 BY MS. URE:

22 Q. I believe here you testified that the wire on  
23 these fences is from 1863; is that correct?

24 A. Some of the wire, yeah. It was patented in 1863.

25 Q. And how do you know that the wire was from 1863  
CAPITOL REPORTERS (775) 882-5322

866

1 or patented?

2 A. I was able to get on the website and trace the  
3 wire back to who patented what and then identified the wire in  
4 correspondence with what was on the internet from various  
5 sources.

6 Q. So then it's your testimony that the wire was  
7 patented in 1863, but you do not know when it was installed;  
8 is that correct?

9 A. I think I said that, yeah, that the wire -- I  
10 know when it was patented and when it was available on the  
11 market. I don't know when it was installed the first time.

12 Q. Is it your understanding that in the -- in that  
13 era that wire was often reused, taken off of one claim and  
14 moved to another, given the price and the accessibility of  
15 obtaining it?

16 A. That's possible. I know on the different ranches  
17 I worked with whatever is laying on the ground that fell off  
18 next to the fence is what we used.

19 Q. Okay. On Exhibit 242.

20 HEARING OFFICER JOSEPH-TAYLOR: Are you going to  
21 be going back to this one?

22 MS. URE: No.

23 HEARING OFFICER JOSEPH-TAYLOR: We're going to  
24 try and help you, Ms. Ure, with pulling exhibits.

25 MS. URE: Thank you.  
CAPITOL REPORTERS (775) 882-5322

867

1 HEARING OFFICER JOSEPH-TAYLOR: You're welcome.

2 BY MS. URE:

3 Q. And then the third page of your transcription  
4 where it discusses Jacobson and Nels Toft; do you see where  
5 I'm looking?

6 A. I'm there.

7 Q. Do you know if all of the land that's listed  
8 under this entry is part of the Thompson Ranch or the Cox  
9 Ranch or the Willow Field?

10 A. Well, I do from the description on the township  
11 and range. You look at the column where it says Mount Diablo  
12 basin radiant, look underneath that column -- column you get  
13 the section, the section number, township and range.  
14 Everything that was here is under the -- so the Thompson Ranch  
15 is what's called the home ranch, township 23 north, range 54  
16 east.

17 Q. Are all the areas listed as part of the place of  
18 use on the Thompson Ranch?

19 A. It appears that it is.

20 HEARING OFFICER JOSEPH-TAYLOR: Excuse me, place  
21 of use under what?

22 MS. URE: The vested claim file 1114, 1115 or the  
23 relating applications.

24 HEARING OFFICER JOSEPH-TAYLOR: Thank you.

25 THE WITNESS: I know section 3, 4 and 9 and 10  
CAPITOL REPORTERS (775) 882-5322

868

1 are. I'm not sure about 15, I'd have to look at my original  
2 map.

3 BY MS. URE:

4 Q. Do we know which acres were assigned to Toft  
5 versus Jacobson?

6 A. Not according to this you don't.

7 Q. Okay. Going to -- I'm going to ask about 248,  
8 249, 250 and 251.

9 HEARING OFFICER JOSEPH-TAYLOR: You get three  
10 choices so I'm just going to grab.

11 THE WITNESS: Thank you.

12 HEARING OFFICER JOSEPH-TAYLOR: You're welcome.

13 THE WITNESS: I have those in front of me.

14 MS. URE: Okay.

15 BY MS. URE:

16 Q. Okay. For 249, when you were talking about  
17 Exhibit 248 which is the map that relates to a portion of  
18 250 -- sorry, not 249, are you following me?

19 A. No.

20 Q. Okay. Sorry. I'm trying to hurry and I'm --

21 HEARING OFFICER JOSEPH-TAYLOR: No, take a  
22 breath, take a breath, I don't want to do that to you.

23 BY MS. URE:

24 Q. Okay. So looking at 248. This is the GLO map  
25 relating to township 23 north, range 54 east; is that correct?  
CAPITOL REPORTERS (775) 882-5322

869

1 A. That's correct.

2 Q. Now, the survey notes that go with that, are they  
3 in Exhibits 250 and perhaps in 251 as well, I'm just generally  
4 speaking?

5 A. I think I have them in Exhibit 250.

6 HEARING OFFICER JOSEPH-TAYLOR: You've got 251  
7 too, Mr. Thiel.

8 BY MS. URE:

9 Q. When you were testifying you mentioned that  
10 sometimes the maps are wrong and that you have to go back and  
11 look at the field notes; is that correct?

12 A. The maps typically -- the context when they're  
13 saying they're wrong is that sometimes the extent of culture,  
14 whatever that may be shown on the map may be not completely  
15 accurate. So if you have questions about that I generally  
16 refer back to the field notes and see what the field notes  
17 provide to see what to contemplate the accuracy of that map.

18 Q. Okay. And then when going through your  
19 transcription of Exhibit 250, you noted that several entries  
20 showed an irrigation ditch and then a later entry you said  
21 another irrigation ditch; is that correct?

22 A. It could have been the same irrigation ditch.

23 Q. Did you map the locations of those irrigation  
24 ditches with the GLO map?

25 A. I did it generally, you know, sitting in the  
CAPITOL REPORTERS (775) 882-5322

870

1 office I'd mark where those were on a map, but I don't have  
2 that in front of me. So sitting here I can't tell which was  
3 what.

4 What you'll find is under the GLO plats the  
5 notice will support where the location of those ditches that  
6 are shown on the plat.

7 Q. And then on Exhibit 248 how many irrigation  
8 ditches do you see?

9 A. Approximately three.

10 Q. And what are the locations of those irrigation  
11 ditches?

12 A. I believe we have one on the -- I would say  
13 within the west half of section 3 there's several indicated.

14 Q. Now, I -- the west half of section 3?

15 A. Yes.

16 Q. I see one squiggly line going through that, is  
17 that an irrigation ditch or is that Taft's Creek?

18 A. That's not Taft's Creek, to me it was an  
19 irrigation ditch that was identified as a creek coming out of  
20 the ditch that had headed towards Cox that went to the north,  
21 that's identified on the next record.

22 Q. Isn't that the line of the meadow, the boundary  
23 of meadow?

24 A. Yes, which generally was the -- in order to get  
25 to the boundary of the meadows it was generally diverted in  
CAPITOL REPORTERS (775) 882-5322

871

1 those areas.

2 Q. But you don't know for sure?

3 A. Looking at the map I don't know for sure.

4 Q. Now, I believe, and this is more of a  
5 clarification question, that when you were testifying as to  
6 this map you pointed to section 23 as a location of Horse  
7 Creek Canyon?

8 A. Yes.

9 Q. Is that correct or is it further north?

10 A. I believe I'm correct on that, but I could be  
11 wrong, that's what I plotted originally.

12 Q. On your application, your applications that go  
13 with the Thompson Ranch -- or on Venturacci's applications  
14 that go with Thompson Ranch is Horse Creek plotted in section  
15 23?

16 A. I don't have any creek shown on my application  
17 filings.

18 Q. How about in the vested claim filing?

19 A. On 30114, I'm not certain. I don't have that in  
20 front of me.

21 Q. Okay. I'm just confused because I have Horse  
22 Creek Canyon further north in section 10 -- or 11, so I was  
23 just confused as to the location.

24 A. It wasn't up that far. I know the point of  
25 diversion was further over, but I think basically it came  
CAPITOL REPORTERS (775) 882-5322

872

1 into -- it could be -- I don't -- I can't answer that, I don't  
2 know.

3 Q. Okay. If you look on Exhibit 254 at page 77 --  
4 oh, I think I have the wrong exhibit, sorry, don't grab that,  
5 I have the wrong one. I think I meant 250, sorry.

6 And then go to -- so Exhibit 250, page 177. And  
7 I don't believe this was on your transcription -- or I guess  
8 it is never mind; are you there?

9 A. I'm on page 177.

10 Q. Is it your understanding that this page is the  
11 survey of the section line between sections 2 and what appears  
12 to be 3?

13 A. You're on page 177?

14 Q. Yes.

15 A. And what part of the page are you on?

16 Q. The bottom half.

17 A. The bottom half would be north between sections  
18 28 and 29.

19 Q. I have it as 2 and 8.

20 A. Pardon me?

21 Q. I have it as 2 and 8.

22 A. Oh, probably the confusion here is these were  
23 renumbered. You see it stamped in as 188 and above it's  
24 written in as 177. So I'm perhaps on page 188.

25 Q. So, the two numbers that I have on the top of  
CAPITOL REPORTERS (775) 882-5322

873

1 this page is 166 and 177.

2 A. I have that.

3 Q. Okay. So the bottom half of that page do you see  
4 where it says the north boundaries, section 2 and 3?

5 A. I do.

6 Q. Is there any evidence in this entry of a stream  
7 or creek?

8 A. This would be between sections 2 and 8.

9 Q. 2 and 3?

10 A. I'm sorry, 2 and 3. There's no reference to Taft  
11 Creek in that part.

12 Q. Okay.

13 A. But there would not be because there's no -- Taft  
14 Creek doesn't originate in that area.

15 Q. Does it reference a canyon?

16 A. Well, section 2 and 3 is the break between -- on  
17 the west side it would be the Taft Creek and Taft Springs  
18 originate on the east side is the mountain block. So going  
19 along sections 2 and 3 there would not be a crossing that way.

20 Q. Turning to Exhibit 249.

21 A. I have that.

22 Q. Is the spring channel that's located in section  
23 14 and 15, is that part of the Willow Field?

24 A. Between 14 and 15, is that part of what?

25 Q. Is that one of the springs that feeds into Willow  
CAPITOL REPORTERS (775) 882-5322

874

1 Field?

2 A. Yes.

3 Q. And where is --

4 A. No, I'm sorry, it doesn't Willow Field is in  
5 section 22, I believe.

6 Q. Okay. And so the -- the -- so if you go down to  
7 section 22, do you see evidence of a spring there?

8 A. I do.

9 Q. What is that spring called?

10 A. I don't recall.

11 Q. On the map in section 22 there's a line that  
12 squiggles from the west -- or from the east to the west that  
13 goes all the way across section 22 on the south half, what is  
14 that entitled on this map?

15 A. I see in the north half of section 22 is the  
16 spring and the south half of section 22 is a channel, I can't  
17 read the first word.

18 Q. Is it dry channel?

19 A. It appears to be, that's what it is, dry channel.

20 Q. Okay. If you go down to sections 27 and 31  
21 there's evidence of a creek running from the south to the  
22 north, is this a spring or a creek?

23 A. I don't see anything coming from section 31.

24 Q. Oh, I'm sorry, section 34 to 27?

25 A. I don't believe that's a creek even though it's  
CAPITOL REPORTERS (775) 882-5322

875

1 labeled such.

2 Q. Are there any fields depicted on this map?

3 A. There's one area of cultivation in section 34  
4 around the Cox house.

5 Q. Is there any other areas -- any other fields  
6 depicted on this map?

7 A. There is not. The only thing you have is the  
8 remnants of the meadow area that's been described previously  
9 by accepting the westerly half of section 34.

10 Q. Is the meadow a field?

11 A. To the extent if it's cultivated and harvested  
12 and everything is done to it it's semantics, it could be a  
13 field, it could be an extent of culture.

14 Q. Did the GLO field notes reference it as a field  
15 or a cultivated field?

16 A. Not to my recollection, no.

17 Q. In Exhibit 250 in the general description on page  
18 209.

19 A. For clarification, is that 198 with 209 stamped  
20 below it?

21 Q. Yes, are you there?

22 A. I have that before me.

23 Q. In that general description does it tell us which  
24 portions are under cultivation?

25 A. Yes.  
CAPITOL REPORTERS (775) 882-5322

876

1 Q. It does?  
2 A. Yes, it says that -- let me back up on that  
3 response. What it does say is that considerable hay is cut in  
4 a portion under cultivation. There's no physical description  
5 of whether cultivation is exactly occurring according to what  
6 the surveyor perceives as cultivation.  
7 Q. Okay. On the line above that -- or I guess the  
8 sentence above that, does it tell us that anything is  
9 currently being irrigated?  
10 A. It says it all can be irrigated from creeks and  
11 springs and different parts.  
12 Q. Okay. But it doesn't tell us that something  
13 already is being irrigated; is that correct?  
14 A. Not in the general description, no, but in the  
15 field notes it does.  
16 Q. In the field notes it describes what lands are  
17 being irrigated?  
18 A. I think you do because it says what ditches are  
19 out there and it says that all of that area is under  
20 considerable hay -- or considerable hay is being cut in that  
21 area. You typically don't have a ditch without harvesting a  
22 crop.  
23 Q. But isn't there only one irrigation ditch  
24 delineated at an irrigation ditch?  
25 A. I don't believe there is.  
CAPITOL REPORTERS (775) 882-5322

877

1 Q. Did you map the field notes to the GLO map?  
2 A. I went through all the field notes and mapped it  
3 on the GLO map, yes.  
4 Q. So the irrigation ditch that's referenced in the  
5 GLO match, isn't it true that that ditch is only one ditch?  
6 A. No, there's other methods of conveyance that are  
7 identified as creeks.  
8 Q. I'm asking you about a ditch?  
9 A. I know you're asking me about a ditch. But from  
10 that standpoint, there's more than one type of ditch. The one  
11 ditch that's described on there is pretty well depicted from  
12 1879 setting from Taft Springs to the southwest.  
13 MS. URE: I have no further questions.  
14 HEARING OFFICER JOSEPH-TAYLOR: Thank you,  
15 Ms. Ure. Any redirect?  
16 MR. KOLVET: No.  
17 HEARING OFFICER JOSEPH-TAYLOR: Thank you.  
18 Questions of staff? Deep sighs. Everyone's tired.  
19 MR. FELLING: I have a question.  
20 HEARING OFFICER JOSEPH-TAYLOR: Go right ahead,  
21 Mr. Felling.  
22 CROSS-EXAMINATION  
23 BY MR. FELLING:  
24 Q. Why -- why did Mr. Thompson accept the offer for  
25 the well in 1982?  
CAPITOL REPORTERS (775) 882-5322

878

1 A. I've had a number of conversations and dealings  
2 with Mr. Thompson over the years. And primarily the reason he  
3 did accept it is he felt that the southern irrigators have  
4 impacted the springs. He wanted the springs restored. He  
5 didn't want the second best as we're talking about today as to  
6 put wells in lieu of the springs that existed. He wanted the  
7 springs returned to their original use.  
8 MR. FELLING: That's all.  
9 HEARING OFFICER JOSEPH-TAYLOR: Any?  
10 STATE ENGINEER: Similar question to what I asked  
11 Mr. Buschelman in regard to Shipley Spring. Do you believe as  
12 an expert in the Nevada water rights that doesn't abandonment  
13 play into this case?  
14 THE WITNESS: I believe it doesn't. And explain  
15 my response is that under provisions of NRS 233, if a spring  
16 has been impaired --  
17 HEARING OFFICER JOSEPH-TAYLOR: 233?  
18 THE STATE ENGINEER: 533.  
19 THE WITNESS: I'm sorry, 533. If a -- if a water  
20 right's been impaired how can you ever be subject to  
21 forfeiture of abandonment if it's basically been taken -- in  
22 other testimony we've seen in this -- coming up -- the -- in  
23 the January 23rd, 2013 hearing we heard a discussion from  
24 Mr. Bugenig saying basically everybody in the southern half of  
25 the basin is using geothermal water which is from -- he  
CAPITOL REPORTERS (775) 882-5322

879

1 identifies Thompson Spring and Shipley Springs as geothermal  
2 waters. He says everything east, west and south of the playa  
3 is being used by the irrigators to the southern part, it makes  
4 no difference on where the water comes from.  
5 So I think there's -- without any fact that there  
6 is not an impact occurring from the pumping of the southern  
7 part of the basin. When you have a yield in the southern part  
8 of 12,000-acre-feet and you have 18, 19,000-acre-feet to the  
9 northern part then what's occurring is reverse gradient --  
10 HEARING OFFICER JOSEPH-TAYLOR: You're going way  
11 beyond the question.  
12 THE WITNESS: I'm getting to it.  
13 HEARING OFFICER JOSEPH-TAYLOR: Okay.  
14 THE WITNESS: Reverse gradient, they're taking  
15 the water, it's been impaired. And once the water rights have  
16 been impaired I don't believe it's subject to abandonment.  
17 And there's been no intent to abandon by anybody that's been  
18 out there.  
19 THE STATE ENGINEER: Thank you.  
20 HEARING OFFICER JOSEPH-TAYLOR: So how about  
21 you've done -- Mr. Thompson did nothing for decades?  
22 THE WITNESS: Oh, he's done everything he could.  
23 Mr. Thompson isn't a rich man and he's done everything he  
24 could. In 1992 he filed a protest against some proceedings  
25 with the State Engineer on another application that resulted  
CAPITOL REPORTERS (775) 882-5322

880

1 in a forfeiture of one-half of the water rights and the  
2 approval to go forth with the other half. He's done basically  
3 everything he could.

4 The hearings in -- I'm sorry, 1982 basically  
5 broke Mr. Thompson. And for him to pursue anything else  
6 legally he didn't have the resources to do so.

7 HEARING OFFICER JOSEPH-TAYLOR: Did he petition  
8 the State Engineer to regulate the basin?

9 THE WITNESS: He did in 1982. As far as I'm  
10 concerned he requested the State Engineer to curtail and  
11 regulate the basin and nothing came out of it other than well,  
12 let's continue to study it and move forward.

13 HEARING OFFICER JOSEPH-TAYLOR: Thank you. Any  
14 other questions?

15 THE STATE ENGINEER: I have some more.

16 HEARING OFFICER JOSEPH-TAYLOR: Oh, I'm sorry.

17 THE STATE ENGINEER: That's okay. That's fine.

18 Part of your testimony discussed the pivots that  
19 were closest to Thompson Ranch and I think you -- I think your  
20 testimony was that these could have had some of the greatest  
21 impact on the springs because of the proximity.

22 Do you know when those pivots went into  
23 cultivation when the water was used on?

24 THE WITNESS: I looked at some of those  
25 applications that existed and without verifying when they went  
CAPITOL REPORTERS (775) 882-5322

881

1 into actual production that some of those rights go back to  
2 the '60s. All it did was exacerbate the problem on what was  
3 occurring in the south.

4 THE STATE ENGINEER: On all the properties we've  
5 been talking about, the Thompson Ranch, Cox Ranch, Willow  
6 Ranch are there groundwater rights associated with any of  
7 those places of use?

8 THE WITNESS: Yes.

9 THE STATE ENGINEER: Do you know when those  
10 groundwater rights were issued and for what manner of use?

11 THE WITNESS: I know there was a stock water  
12 right that I requested a temporary application for on the home  
13 ranch as we call it, section 23 -- or township 23 north -- or  
14 range 54 east. And we were able to grow a well on that  
15 property for stock water use by using the temporary  
16 applications.

17 As far as I know that's the only groundwater  
18 right available on that property.

19 THE STATE ENGINEER: Thank you. In the fieldwork  
20 you did the ground truthing, et cetera, did you do any  
21 bathymetric surveys of any of the impounds just to get a feel  
22 for what you think they could actually store?

23 THE WITNESS: I did not. And the reason I didn't  
24 do so is they've been disturbed over the years.

25 THE STATE ENGINEER: And then I apologize, it's  
CAPITOL REPORTERS (775) 882-5322

882

1 late in the day, if you don't remember I understand.

2 Did you ever make or do you have an opinion on  
3 how much flow rate came from the various spring complexes that  
4 are the subject of these three areas, historical? Did you  
5 ever say I think it was eight-second-feet, ten-second-feet for  
6 all three of those?

7 THE WITNESS: Like I say, the problem I had was  
8 based upon the lack of data. I had to go back and say what  
9 was the area of the land that was being irrigated, for  
10 example. I had to look at the land surface area, I couldn't  
11 rely on the records that existed on some discharge.

12 I know from our standpoint when we trade from the  
13 spring discharge to the groundwater I came up with an estimate  
14 for that, but trying to get a diversion rate that came out of  
15 all those sources, no. I had to look at the -- like I said,  
16 the physical land area where the discharge was occurring, the  
17 culture was being grown.

18 THE STATE ENGINEER: Do you have an educated  
19 guess on what you think the total might have been flowing from  
20 those spring complex?

21 THE WITNESS: Let me back this up. I think it  
22 was somewhat variable based upon the discharge occurring. So  
23 I would think within those areas we probably -- and it's a  
24 guess at this point, probably around cumulatively ten CFS,  
25 just as a way.

CAPITOL REPORTERS (775) 882-5322

883

1 THE STATE ENGINEER: I understand. Thank you  
2 very much.

3 HEARING OFFICER JOSEPH-TAYLOR: Any other  
4 questions? Mr. Walmsley?

5 CROSS-EXAMINATION

6 BY MR. WALMSLEY:

7 Q. Earlier in your testimony -- going back to, let's  
8 see, Exhibit 229, the GLO plat with the overlay of the acreage  
9 on it --

10 A. Yes.

11 Q. -- of the different types of crops. Earlier in  
12 the day you stated that alfalfa could only be grown on certain  
13 soils and it wouldn't be able to be grown in the well  
14 saturated soils that were more in the central part of the  
15 discharge area, is that correct?

16 A. Yes. And alfalfa could be grown in saturated  
17 soil conditions, but it wouldn't last very long.

18 Q. So --

19 A. In the old days. They refined alfalfa over the  
20 years to where they do have certain types of alfalfa that grow  
21 well in saturated soils.

22 Q. Well, since we're looking at this from a  
23 historical point of view as a vested right, I would be asking  
24 the question whether prior to 1905 they grew alfalfa in that  
25 area?

CAPITOL REPORTERS (775) 882-5322

884

1 A. Based upon the Crofut report or Crofut oral  
2 history there was alfalfa growing in the area. The problem I  
3 had with all the oral histories it didn't say I have 40 acres  
4 within this township, range and section, it just said  
5 generally these were the crops that were used in the area or  
6 utilized as a matter of course by the irrigators in the  
7 valley.

8 Q. So based on the oral history it would be true  
9 that there wasn't any quantification?

10 A. That's correct.

11 Q. In all your research that you conducted, and I'm  
12 still going along the lines of soil, on the Sadler Ranch they  
13 relied on soil survey of Diamond Valley, which is Exhibit 605  
14 under Sadler, did you use any of that information based on  
15 soil science to determine crop type on the ground?

16 A. What I did was pull up the NRCS information on  
17 the soil survey for the area and found from that soil survey  
18 the soils were suitable for basically anything that we wanted  
19 to grow. We don't have the same conditions of alkali or other  
20 issues where you have to add more water to flush. I didn't  
21 see any restrictions in the soils analysis that I looked at  
22 that would prohibit any type of crop that we could grow under  
23 an underground right.

24 Q. So, what you're saying is that any -- any type of  
25 grass that they wanted to grow could be grown anywhere on the  
CAPITOL REPORTERS (775) 882-5322

885

1 acreage?

2 A. From my perspective looking at the soil survey  
3 short of bananas we could grow almost any sort of crop out  
4 there. What we have is areas that are suitable for  
5 cultivation, a high level of organics within the soils. I  
6 didn't see anything that would prohibit us from growing  
7 grasses or growing alfalfa or any other crop associated with a  
8 market product.

9 Q. So there -- there would be no difference in  
10 the -- in the -- in some of the Sadler testimony they -- they  
11 stated that there was a leaching requirement and -- and  
12 hummocky ground and a lot of the higher ground did not support  
13 grass but the lower ground did.

14 Is that consistent on the Thompson Ranch?

15 A. No, it's not. In other words, the soil types we  
16 have spread across the ranch for -- we don't have the hummocky  
17 ground, we don't have the channelization you saw on the  
18 Shipley Ranch. It's comparing apples and oranges. With  
19 regard to the Thompson Ranch I found different  
20 characteristics. I didn't investigate the Sadler Ranch or  
21 Shipley Springs or anything associated with it.

22 What I did investigate was what was on the  
23 Thompson Ranch and based upon the soils research and the field  
24 truthing data it looked like it was available to support  
25 almost anything we wanted to grow. We, Mr. Venturacci would  
CAPITOL REPORTERS (775) 882-5322

886

1 want to grow.

2 Q. Okay.

3 MR. WALMSLEY: I do not believe I have any  
4 further questions.

5 HEARING OFFICER JOSEPH-TAYLOR: Thank you very  
6 much. You may be excused, Mr. Thiel.

7 THE WITNESS: Thank you.

8 HEARING OFFICER JOSEPH-TAYLOR: I'm not going to  
9 try to check exhibits and things today. Let's do it when  
10 we're fresh, I think everything is in. And I thank all of you  
11 for pushing through today, Karen, Therese, I know that was a  
12 tough time.

13 With that, we'll be in recess until --  
14 Ms. Peterson and Ms. Ure, what time would you like to start  
15 tomorrow?

16 MS. PETERSON: 9:00 a.m. would be great.

17 THE STATE ENGINEER: It would be great.

18 HEARING OFFICER JOSEPH-TAYLOR: We'll be in  
19 recess until 9 o'clock tomorrow morning. Thank you, folks.

20 MR. KOLVET: I did have two other witnesses,  
21 they're not really critical, but at some point I would like to  
22 make an offer on it. One of them would have been  
23 Daniel Venturacci, the owner of the property saying this is my  
24 application and this is what I want.

25 The other is a Ned Robinson who's list as a  
CAPITOL REPORTERS (775) 882-5322

887

1 rebuttal witness to some of the abandonment issues that were  
2 raising in this case. He is with a lending institution that  
3 lent money on this property, foreclosed on it and took it  
4 back. And then eventually sold to Mr. Venturacci.

5 And part of their collateral was the water rights  
6 that are appurtenant to this property. So there was no -- I  
7 mean, that goes to the abandonment issue. So that's what I  
8 had. They will both be available first thing in the morning.

9 HEARING OFFICER JOSEPH-TAYLOR: She just took it  
10 down. With that, we'll be in recess until 9 o'clock tomorrow  
11 morning. Thanks, folks, I appreciate you going through.

12 (Proceedings concluded at 5:55 p.m.)

13  
14  
15  
16  
17  
18  
19  
20  
21  
22  
23  
24  
25  
CAPITOL REPORTERS (775) 882-5322

888

1 STATE OF NEVADA )  
2 CARSON CITY ) ss.

3  
4 I, MICHEL DOTY LOOMIS, a Certified Court  
5 Reporter, do hereby certify;  
6  
7 That on the 20th of November, 2013, in Carson  
8 City, Nevada, I was present and took stenotype notes of the  
9 hearing held before the Nevada Department of Conservation and  
10 Natural Resources, Division of Water in the within entitled  
11 matter, and thereafter transcribed the same into typewriting  
12 as herein appears;

13 That the foregoing transcript, consisting of  
14 pages 1 through 301 hereof, is a full, true and correct  
15 transcription of my stenotype notes of said hearing.

16  
17 Dated at Carson City, Nevada, this 13th day of  
18 December, 2013.

19  
20  
21 MICHEL LOOMIS, NV CCR #228

22  
23  
24  
25 CAPITOL REPORTERS (775) 882-5322

889

1 STATE OF NEVADA  
2 DEPARTMENT OF CONSERVATION AND NATURAL RESOURCES  
3 DIVISION OF WATER RESOURCES  
4 BEFORE SUSAN JOSEPH-TAYLOR, HEARING OFFICER

5  
6  
7 IN THE MATTER OF APPLICATIONS  
8 81719, 81720, 81825, 82268,  
9 82570, 82571, 82572 and 82573 /

10 TRANSCRIPT OF PROCEEDINGS  
11 PUBLIC HEARING  
12 VOLUME IV  
13 THURSDAY, NOVEMBER 21, 2013

14  
15  
16  
17  
18  
19  
20  
21 Reported by: CAPITOL REPORTERS  
22 Certified Court Reporters  
23 BY: CHRISTY JOYCE, NV CCR #625  
24 208 North Curry Street  
25 Carson City, Nevada 89703  
(775)882-5322

CAPITOL REPORTERS (775) 882-5322

890

1 APPEARANCES:

2 Jason King, State Engineer  
3 Susan Joseph-Taylor, Deputy Administrator  
4 Malcolm Wilson, Assistant Hearing Officer  
5 Rick Felling, Chief Hydrologist  
6 Kristen Geddes, Hearing Officer  
7 Section of the Division of Water Resources  
8 Steve Walmsley, Water Resource Specialist

9  
10 For Sadler Ranch, LLC: Taggart & Taggart, Ltd.  
11 By: Paul G. Taggart, Esq.  
12 For Daniel Venturacci: Thorndal, Armstrong, Delk  
13 Balkenbush & Eisinger  
14 By: Brent Kolvet, Esq.

15 For Kenneth Benson,  
16 Diamond Cattle Company  
17 And Etcheverry Family  
18 Limited Partnership:

Schroeder Law Offices P.C.  
By: Therese A. Ure, Esq.

19 For Diamond Natural  
20 Resources Protection and  
21 Conservation Association:

Bob Burnham

22 For James Gallagher: James Gallagher

23 For Mark Moyle Farms: Mark Moyle

24 For Eureka County: Allison MacKenzie, et al.  
25 By: Karen A. Peterson, Esq.

Also present: Theodore Beutel, Esq.  
Chairman Ithurrealde  
Vice Chairman Goicoechea  
Dale Bugenig  
Jake Tibbitts

CAPITOL REPORTERS (775) 882-5322

891

1 INDEX

2 WITNESS	PAGE
3 JED ROBINSON	
4 Direct Examination by Mr. Kolvet	896
5 Cross-Examination by Ms. Peterson	900
6 Cross-Examination by Ms. Ure	905
7 EILEEN PENROD	
8 Direct Examination by Ms. Peterson	907
9 Cross-Examination by Mr. Kolvet	934
10 Redirect Examination by Ms. Peterson	940
11 Examination by The State Engineer	941
12 Examination by Mr. Felling	945
13 Examination by Mr. Walmsley	946
14 WILFRED BAILEY	
15 Direct Examination by Ms. Peterson	950
16 Cross-Examination by Mr. Taggart	982
17 Redirect Examination by Ms. Peterson	1011
18 Examination by Mr. Felling	1014
19 Examination by The State Engineer	1016
20 Examination by Mr. Walmsley	1019
21 JJ GOICOECHEA	
22 Direct Examination by Ms. Peterson	1025
23 Cross-Examination by Mr. Taggart	1050
24 Cross-Examination by Mr. Kolvet	1080

CAPITOL REPORTERS (775) 882-5322

892

1	INDEX	
2	WITNESS	PAGE
3	JAMES GALLAGHER	
4	Direct Examination by Ms. Peterson	1099
5	Cross-Examination by Mr. Taggart	1102
6	ROBERT BURNHAM	
7	Direct Examination by Ms. Peterson	1109
8	Cross-Examination by Mr. Taggart	1115
9	Examination by The State Engineer	1118
10	MARK MOYLE	
11	Direct Examination by Ms. Peterson	1119
12	Cross-Examination by Mr. Kolvet	1124
13	Cross-Examination by Mr. Taggart	1126
14	JAMES MOYLE	
15	Direct Examination by Ms. Peterson	1129
16	Cross-Examination by Mr. Kolvet	1141
17	Cross-Examination by Mr. Taggart	1147
18		
19		
20		
21		
22		
23		
24		
25		

CAPITOL REPORTERS (775) 882-5322

1	EXHIBITS	
2	EXHIBIT NUMBER	RECEIVED
3	322	906
4	325 and 338	1023
5	439	1024
6		
7		
8		
9		
10		
11		
12		
13		
14		
15		
16		
17		
18		
19		
20		
21		
22		
23		
24		
25		

CAPITOL REPORTERS (775) 882-5322

1 Eureka County.

2 HEARING OFFICER JOSEPH-TAYLOR: Thank you. I

3 appreciate you being efficient.

4 Ms. Peterson.

5 MS. PETERSON: We would call Eileen Penrod.

6 HEARING OFFICER JOSEPH-TAYLOR: Good morning,

7 Ms. Penrod. You need to stand and be sworn in first, please.

8 (The witness was sworn in)

9 HEARING OFFICER JOSEPH-TAYLOR: Welcome to a

10 water right hearing. Don't look so excited. We're nice.

11

12 EILEEN PENROD

13 Called as a witness on behalf of the

14 Protestants, having been first duly sworn,

15 Was examined and testified as follows:

16

17 DIRECT EXAMINATION

18 By Ms. Peterson:

19 Q. Mrs. Penrod, would you please state your name for

20 the record.

21 A. It's Eileen Penrod.

22 (The court reporter interrupts)

23 THE WITNESS: It's E-i-l-e-e-n. Actually the

24 first name is legally Vivian, but nobody knows me by that.

25 HEARING OFFICER JOSEPH-TAYLOR: And spell your

CAPITOL REPORTERS (775) 882-5322

1 last name, please.

2 THE WITNESS: P-e-n-r-o-d.

3 Q. (By Ms. Peterson) And is Milton Thompson your

4 brother?

5 A. He is.

6 Q. Did you grow up on the Thompson Ranch?

7 A. We grew up on the Thompson Ranch. We moved there

8 in '46 and at that time I would have been just two.

9 Q. And that's 1946; is that correct?

10 A. Right.

11 Q. And who are your parents?

12 A. Theodore Milton Thompson and Olive Thompson.

13 Q. And did your father go by Ted?

14 A. He went by Ted.

15 Q. And your parents I think you said bought the

16 ranch in 1946?

17 A. Right.

18 Q. Your family moved there?

19 A. Right.

20 Q. And what did your family do there?

21 A. They were in ranching. The main thing was

22 running cattle. And dad did do -- they did farming too, but

23 dad's thing was cattle and he loved his horses, which is a

24 dirty name now.

25 Q. And I have given you a couple maps in front of

CAPITOL REPORTERS (775) 882-5322

1 you, they're in front of you. And one is entitled at the top  
2 1973 Cox and Home Ranch. Do you see that?  
3 A. I do.  
4 Q. And I would note for the record that that's  
5 Venturacci Exhibit 257, page 50, slide 50.  
6 HEARING OFFICER JOSEPH-TAYLOR: I think you've  
7 just confused it, Ms. Peterson. It's Exhibit 229, slide 50.  
8 THE WITNESS: No. 257.  
9 HEARING OFFICER JOSEPH-TAYLOR: Which references  
10 Exhibit 257.  
11 MS. PETERSON: Oh, okay. Thank you.  
12 HEARING OFFICER JOSEPH-TAYLOR: Let me make sure  
13 I got that right. Yeah.  
14 Q. (By Ms. Peterson) And do you have that map in  
15 front of you?  
16 A. I do.  
17 Q. And I'm going to ask you -- Well, does that map  
18 look familiar?  
19 A. Yes, it does. The outline is a little different  
20 than I remember the deeded property. But I mean, just  
21 thinking of fence wise. But yes, it's definitely familiar,  
22 yes.  
23 Q. And when you're talking about the line, you're  
24 talking about the red lines on the map?  
25 A. Yes. And I'm talking about where it's showing  
CAPITOL REPORTERS (775) 882-5322

909

1 that the Home Ranch is actually tied in to the Cox. And I  
2 don't ever remember the two properties joining. But maybe  
3 they did join. I always thought there was a piece of BLM  
4 property in between the two.  
5 Q. So I'm going to ask you on the map that you have  
6 in front of you, and we've given you a Sharpie, to label on  
7 that map the location, the general location of your home, you  
8 know, the Home Ranch.  
9 A. Okay. Let's see. So the pond would be --  
10 Q. Do you want to label the pond first?  
11 A. Yeah. Now, see, to me on this map it looks like  
12 the two water bodies --  
13 Q. Okay.  
14 A. -- are one.  
15 Q. Okay.  
16 A. And there's a pasture in between those two water  
17 bodies.  
18 Q. All right. Do you want -- What are the two water  
19 bodies?  
20 A. We always called it the large pond, the main  
21 pond, and the small pond.  
22 Q. Okay. Could you label with A the large pond?  
23 A. Okay.  
24 Q. Could you label with B the little pond?  
25 A. With what?  
CAPITOL REPORTERS (775) 882-5322

910

1 Q. B, the letter B.  
2 A. I put small. Okay.  
3 Q. And there was some pasture in between the two  
4 ponds?  
5 A. Yes.  
6 Q. Could you label that with a C.  
7 A. Yeah. See, to me, this map is -- I can show them  
8 to you on my cell phone.  
9 HEARING OFFICER JOSEPH-TAYLOR: We have a board  
10 behind that screen she can draw on.  
11 THE WITNESS: Well, I don't know.  
12 MS. PETERSON: That's true. We can do that.  
13 HEARING OFFICER JOSEPH-TAYLOR: Would that work  
14 better for you?  
15 MS. PETERSON: Sure.  
16 HEARING OFFICER JOSEPH-TAYLOR: Let's be off the  
17 record.  
18 (Discussion was held off the record)  
19 HEARING OFFICER JOSEPH-TAYLOR: She wants to try  
20 to do it on there. This scale is so small. And it looks  
21 like, just for the record, that the aerial is extra dark  
22 there that was brought together.  
23 THE WITNESS: The aerial, I guess the extra dark  
24 would be the water.  
25 Q. (By Ms. Peterson) Okay. And then were there  
CAPITOL REPORTERS (775) 882-5322

911

1 some tules on the property?  
2 A. Yes. And the tules would be all in the area  
3 coming from the two ponds.  
4 Q. Could you label that D?  
5 A. Label that what, D?  
6 Q. D.  
7 HEARING OFFICER JOSEPH-TAYLOR: What are we  
8 labeling as D?  
9 MS. PETERSON: The tules.  
10 HEARING OFFICER JOSEPH-TAYLOR: The State  
11 Engineer is wondering if we want to put this up on the screen  
12 and have her do it with a laser pointer also for everybody.  
13 MR. KOLVET: The problem is that we're having  
14 difficulty -- I'm having difficulty following what she's  
15 describing. She's pointing to points on a piece of paper.  
16 HEARING OFFICER JOSEPH-TAYLOR: Let's be off the  
17 record.  
18 (Discussion was held off the record)  
19 HEARING OFFICER JOSEPH-TAYLOR: So Mr. Felling,  
20 you've pulled up Exhibit 240?  
21 THE STATE ENGINEER: 234.  
22 HEARING OFFICER JOSEPH-TAYLOR: 234. Thank you,  
23 Mr. King. And that is slide 50? Yes, I can see that it is.  
24 Ms. Penrod, we're now going to turn you back over to  
25 Ms. Peterson. And let's first put where the -- or have  
CAPITOL REPORTERS (775) 882-5322

912

1 Mr. Felling or you show us where the large pond is, please.  
2 Rick, she wants the laser pointer. Is he pointing to where  
3 you drew the large pond?

4 THE WITNESS: Yes. Yeah. I guess it would be in  
5 that area.

6 HEARING OFFICER JOSEPH-TAYLOR: It looks like  
7 there's a white roof just to the right of that.

8 THE WITNESS: The large pond right above the  
9 large pond is the shop that's been there for ever. It's a  
10 rock shop. It's not going anywhere. It's solid rock. So I  
11 would guess it would be where he pointed, that white -- I  
12 would guess that's the -- right there I think would be the  
13 shop. The pond is right below there, the large pond.

14 HEARING OFFICER JOSEPH-TAYLOR: Where Mr. Felling  
15 is pointing?

16 THE WITNESS: Yes.

17 HEARING OFFICER JOSEPH-TAYLOR: Thank you.

18 THE WITNESS: And there was always -- It was warm  
19 water. It never froze. It is cold, but it was warm, but it  
20 never froze. And the small pond then -- I'm just kind of  
21 guessing. But the small pond --

22 MR. FELLING: Would you like to try the laser to  
23 point?

24 THE WITNESS: Yeah. I won't point it at anybody.  
25 I think -- Look at me shake. The small pond -- Let me see  
CAPITOL REPORTERS (775) 882-5322

913

1 where I marked as Exhibit C.

2 MS. PETERSON: C was the pasture. So the --

3 THE WITNESS: I know. I'm trying to see.

4 MS. PETERSON: Just generally is fine.

5 THE WITNESS: Well, okay. So that X is where the  
6 shop is; right? Okay. So the small pond would be over in  
7 this area.

8 HEARING OFFICER JOSEPH-TAYLOR: Okay.

9 THE WITNESS: Does that -- And then, see, I'm not  
10 really seeing a pasture area. But the pasture area --  
11 because to me this part down here would be the tules, I  
12 guess.

13 Q. (By Ms. Peterson) You know what, we're going to  
14 ask you, Ms. Penrod, don't look at the features on that map.

15 A. Okay.

16 Q. Just use that map to describe what was on --

17 A. Okay. I'm going to go right here as the pasture  
18 area, okay, between the two ponds.

19 Q. Okay.

20 A. There was in fact we always had a horse pasture.  
21 This would be tules. This would be tules. And it would run  
22 down in here as the main body of water.

23 HEARING OFFICER JOSEPH-TAYLOR: Okay. For the  
24 record, she has described to the west of the large pond a  
25 V-shaped area pointing to the east and is describing it as  
CAPITOL REPORTERS (775) 882-5322

914

1 tules; correct?

2 THE WITNESS: Yes. And this area I guess since  
3 this is water, that would have been the pasture area in  
4 between the two ponds, which we usually always had a rangle  
5 horse or something in there. And that was good pasture.

6 HEARING OFFICER JOSEPH-TAYLOR: So at the base of  
7 the V pointing to the east you say is pasture?

8 THE WITNESS: Yes. That's what -- So that's what  
9 I have marked as C; right?

10 HEARING OFFICER JOSEPH-TAYLOR: Correct.

11 THE WITNESS: Okay.

12 MS. PETERSON: And then --

13 MR. KOLVET: Before we go anymore, I just would  
14 like to put in context the time frame we're talking about  
15 with this. Because I do understand that she did not reside  
16 on the ranch past a certain date.

17 THE WITNESS: I was there until '63. But I went  
18 back to the ranch very regularly until mom died. And dad  
19 died in '73. Mom died in '75. After that I quit.

20 Q. (By Ms. Peterson) And the features that you were  
21 describing were on the property when your family purchased  
22 the property?

23 A. Right. And they were there -- they were there  
24 all the time I was there, because there was always tules and  
25 there was always the pasture area in between. Because  
CAPITOL REPORTERS (775) 882-5322

915

1 that's -- the animals were confined in that area because  
2 there would have been -- this I guess would be the levy. Is  
3 this what I had marked as the small pond, I guess. So there  
4 would have been a levy and there would have been a fence  
5 across that levy and they could not get out of that pasture  
6 area. The same on both ponds. There was a fence that  
7 prevented them from going out. And on those levies was a  
8 head gate where the water was controlled. In the small pond  
9 there was a head gate where you could -- it would come down  
10 here, the main slough. There was another ditch going out  
11 this area that kind of ran somewhere down -- I mean, to me  
12 this map -- but somewhere down in to here in to the fields.  
13 And that actually went clear on down and in to the water to  
14 be diverted that way down in to the lower part of the Cox  
15 field for haying. Because there was so much -- there was too  
16 much water so you had to dry the south side out.

17 So anyway, that water from the small pond, the  
18 big pond there was no way to get the water -- Well, yeah,  
19 there was too. Down here there was also a levy at the end of  
20 the tule area, which I assume is this. And there was a ditch  
21 that ran down and in to there. So this also had a way of  
22 shutting water down so it didn't run out in to both fields  
23 and flood the field area because they had to be dried out for  
24 hay.

25 Q. And --  
CAPITOL REPORTERS (775) 882-5322

916

1 A. Yeah.  
2 Q. Sorry.  
3 A. That's okay.  
4 Q. Could you write on your map in front of you with  
5 the letter E the -- I think you said the meadow area.  
6 A. See, didn't I put that for D? Oh, you mean the  
7 meadow area for the main meadow area?  
8 Q. Yes, the main meadow area.  
9 A. Of the ranch. Okay.  
10 HEARING OFFICER JOSEPH-TAYLOR: What was D?  
11 MS. PETERSON: D was the tules.  
12 THE WITNESS: I would say it would be this coming  
13 down through here on both areas. And a lot of this white,  
14 when you see the water that would be the slough areas because  
15 we hayed the slough areas where the water was. And this  
16 white part --  
17 MR. FELLING: I changed the scale of that  
18 photograph, ma'am.  
19 THE WITNESS: Okay. The white part would be  
20 areas that was just rabbit brush and really not good farm  
21 area anyway. So do you want me to label that as D?  
22 MS. PETERSON: E would be the main meadow, E as  
23 in Edward.  
24 THE WITNESS: So the south and the north meadows?  
25 Q. (By Ms. Peterson) Sure. The south meadows,  
CAPITOL REPORTERS (775) 882-5322

917

1 could you put an E and then a dash S.  
2 A. A dash F?  
3 Q. S.  
4 HEARING OFFICER JOSEPH-TAYLOR: S as in south.  
5 THE WITNESS: Oh, I see. And then E. Okay.  
6 Q. (By Ms. Peterson) And then could you explain  
7 that with the laser pointer on the map on the screen?  
8 A. Okay.  
9 Q. The north meadow and the south meadow.  
10 A. Again, I am assuming that -- I'm thinking I'm  
11 getting this right. This is where the cutoff would be here.  
12 So your meadow, your south meadow would be coming down this  
13 area, which it goes quite a bit further out here. And the  
14 north area the same way. Yeah, if you can -- In fact, you  
15 see where the area, the meadow area runs all the way down to  
16 the end of the red line where -- on the north side and on the  
17 south side both, the water ran out the west end of the  
18 meadow.  
19 Now, the north side always seemed to have more  
20 water than the south side down lower. Because I don't  
21 remember ever cutting hay in the lower south meadow. But we  
22 always did on the northwest corner.  
23 Q. And then turning to the extreme southern edge of  
24 the property.  
25 A. Okay.  
CAPITOL REPORTERS (775) 882-5322

918

1 Q. Do you see that on the map?  
2 A. Are you talking about here in spring southern?  
3 Q. Yes, down that way.  
4 A. Okay, yeah.  
5 Q. Was there any -- any activity down at that end of  
6 the ranch?  
7 A. No. And see there, this to me, the red marks  
8 just don't seem to coincide with what I remember. Because  
9 the seismograph roads used to come down and it went straight  
10 across. Maybe it was here. And there was a cattle guard on  
11 both sides of that.  
12 Q. Okay.  
13 A. And really all this was, was mainly always just  
14 rabbit brush. The cattle always watered up in the pond area,  
15 or horses. I don't -- Yeah. Would water up in the pond  
16 because this is all one area. We did do --  
17 Q. And just for the record maybe just before you get  
18 to that thought. You're looking at the extreme southern end  
19 of what's noted on that map as the Thompson Ranch and there's  
20 a square box that drops down and the number ten is in the  
21 lower left corner of the end of that box; is that correct?  
22 A. Right, right, right.  
23 Q. Go ahead.  
24 A. And the reason, because to me this looks like the  
25 road that goes across the valley. But the road -- I mean, as  
CAPITOL REPORTERS (775) 882-5322

919

1 I remember it as a child. Because this new road that they've  
2 put in I don't know where it is. It's off of the property  
3 line. But this road always branched, this road going here  
4 went to the McKinney Ranch. This road came down and it went  
5 straight across. It never angled out this way. It went  
6 straight, straight across the valley. I mean, it was  
7 perpendicular straight.  
8 Q. Okay.  
9 A. And then not far from that -- This is why I'm  
10 saying to me this looks more like where I would remember the  
11 road being. I don't know what this line is. And there was  
12 the Old Pony Express route, which was a little bit north of  
13 that area.  
14 Q. Okay. And then were there springs from the  
15 canyon behind the house?  
16 A. Not from the canyon, no.  
17 Q. Okay.  
18 A. No. The only -- There was water that came in to  
19 this field from what we call Horse Canyon. And it ran in, I  
20 don't know, probably about here. And it was never really an  
21 area that we ever farmed. I remember dad had -- they plowed  
22 this up and planted up in here closer to the ranch. In fact,  
23 I think Dan has his trailer setting on an area, that where  
24 Dan's trailer is sitting at one time used to be a nice meadow  
25 area. And then eventually below that -- See, this is just  
CAPITOL REPORTERS (775) 882-5322

920

1 so -- I mean, I'm talking about way down here, but I'm  
2 thinking way up here.

3 Q. Okay.

4 A. But the cow barn and everything was right in  
5 there and the corrals. And there was an area just below the  
6 log barn that is there and to the south where they  
7 eventually -- dad I remember it was plowed up and it was  
8 planted. But I don't ever remember us sprinkling or watering  
9 that area.

10 Q. Okay. And then directing your attention to the  
11 northern part of the property, was there any alfalfa ever  
12 planted?

13 A. Yes. Okay. This to me -- Okay. I think -- I  
14 think this would be what they called the boneyard or Milton  
15 has a whole bunch of junk in there. But see, I'm not sure if  
16 this is it or -- I mean, to me this is where the property  
17 lines differ. To me, this would go straight up. But anyway,  
18 up in here was always too rocky so that was never farmed.  
19 But down below, it was plowed up and it was actually alfalfa  
20 planted in there and we had hand-move sprinklers. And water  
21 was pumped from a little pond up to that area.

22 Q. And could you with the letter F on the map in  
23 front of you put that little area where alfalfa was planted,  
24 just generally.

25 A. Okay.  
CAPITOL REPORTERS (775) 882-5322

921

1 Q. And to your recollection what year was that when  
2 that alfalfa was planted?

3 A. Well, it was when I was haying, mowing hay, I  
4 remember it was there. And so I would say it was in the  
5 sixties, late fifties and sixties in there, yeah.

6 Q. Did your family actually have to prepare the  
7 ground --

8 A. Yes.

9 Q. -- to plant alfalfa?

10 A. In fact, dad, they even had a leveler. There's a  
11 large leveler there that they used to smooth some of it.  
12 Because they also had put down below there at one time I  
13 remember was playa and there was other fields in there down  
14 below that. And I can't remember really what. And we had a  
15 garden area kind of out in there. I remember that.

16 Q. A little south of the alfalfa area?

17 A. Yeah. The alfalfa area -- The garden area was  
18 before the alfalfa.

19 Q. Okay.

20 A. So, yeah.

21 Q. And then I wanted to direct your attention to the  
22 Cox Ranch.

23 A. Okay. Here we go. So this is where -- To me,  
24 this field has never been -- this always came straight. And  
25 there was always -- Well, there's a BLM fence dividing the  
CAPITOL REPORTERS (775) 882-5322

922

1 mountain area from the flat in there.

2 Q. And then just directing again your attention just  
3 to get some information quickly on the record for the State  
4 Engineer, did you have a well at your house, at the home?

5 A. Yes, there was a well. And that would have been  
6 below -- Let's see, the large pond. It would have been above  
7 the large pond and below -- it was right below what is the  
8 bunk house or -- Yeah, it was in that area in -- Yeah. And  
9 there was a small fish pond there that is rocked in. We  
10 always called it the fish pond. And it was a small area.  
11 And yeah, there was a lot of water that continuously ran out  
12 of that from underneath the well house. There was a  
13 continuous stream of water ran out there all the time even  
14 though there was the well house. The well house was -- it  
15 was concrete and I remember having to crawl back in, I don't  
16 know, and probably flip a switch or something. But the  
17 water -- I could always look down in it but also outside the  
18 water was constantly running.

19 Q. And then just before we get to the Cox Ranch,  
20 sorry, directing your attention to the alfalfa field, how did  
21 you get the water to the alfalfa field?

22 A. We pumped it from the small pond. It was pumped.  
23 There was probably a diesel pump in the corner of the small  
24 pond and we pumped it. And there was also -- See, that water  
25 was dammed up and that was kind of -- that was a fairly deep  
CAPITOL REPORTERS (775) 882-5322

923

1 pond. In fact, me and my sisters -- or my sister, we did  
2 chores. We always did the milk cows and we would swim the  
3 milk cows across that pond because there was kind of a narrow  
4 area in it. And we did it as fun. And after we were done  
5 with them, we would swim them back a couple of times and we  
6 would let them go, but yeah.

7 Q. And just so the record is clear, the reason that  
8 you had to pump it is because it was uphill?

9 A. Yeah. And it was on a hill. There was no way to  
10 get water up to that area except by a pump and that's where  
11 the sprinkler, the system was replaced.

12 Q. And then now getting up to the Cox Ranch.

13 A. Okay.

14 Q. There was a house at the Cox Ranch; is that  
15 correct?

16 A. Right. There was a house at the Cox. There's  
17 also the old telegraph station still sits at the Cox. The  
18 only thing, I think it's still standing, is one end of the  
19 rock building. And that was the original telegraph station.  
20 The other thing I think that is still there is their old  
21 cellar, underground cellar that's covered with dirt. But  
22 there was a, let's see, where are we at here? There would  
23 have been -- The house area would have been kind of in this  
24 area. And then right down in here there's a large, maybe --  
25 there was -- I'm sure the well -- I'm not sure, but I mean, I  
CAPITOL REPORTERS (775) 882-5322

924

1 know they had flowing water in there. My sister Rita and  
2 George Brown lived there for a few years. And grown in that  
3 there was two nice bunches of trees. And under the area  
4 where the house was in here there was asparagus that came up  
5 every year and there was rhubarb in this area.

6 But then there was also -- See, this field, if I  
7 remember, there's a -- I guess this would be the main field.  
8 There's a fence in here somewhere. In fact, there always was  
9 water also through this other area that when we mowed it --  
10 In fact, I even remember getting stuck in there one time.  
11 You had to go around those areas that were kind of boggy, I  
12 guess. And there was good hay in this area. This area also  
13 though was -- See, this just doesn't look right. But there's  
14 a -- This was divided -- Like the meadow part was up here,  
15 but there was a fence dividing the sage brush part from here.  
16 And like up in this area is the corrals that come out here, a  
17 fence would come down and it kind of went over this way, I  
18 guess. But there was always -- There was water mainly in the  
19 middle of it. But the main spring was up here where the well  
20 and stuff, and it was very good water.

21 Q. And then let's just stop right there. So could  
22 you put on the map, the big map you have in front of you,  
23 with the letter F the area where you said there was water  
24 on --

25 HEARING OFFICER JOSEPH-TAYLOR: We've already  
CAPITOL REPORTERS (775) 882-5322

925

1 used F.

2 MS. PETERSON: What?

3 HEARING OFFICER JOSEPH-TAYLOR: F was the  
4 alfalfa.

5 MS. PETERSON: Oh, okay. Sorry. G then.

6 THE WITNESS: Oh, yeah. G. Where the well is?

7 MS. PETERSON: No. Where the water was on the  
8 southern end of the Cox Ranch that you said where the hay  
9 was.

10 HEARING OFFICER JOSEPH-TAYLOR: Ms. Penrod, I  
11 need you to try to wait until she finishes talking. The  
12 court reporter is struggling to get you guys.

13 THE WITNESS: Okay. So G. And that's going to  
14 be where the point of the well -- Okay.

15 Q. (By Ms. Peterson) Was there any irrigation on  
16 the Cox Ranch?

17 A. No. Well, yes. In the spring, water ran in  
18 there from Telegraph Canyon, Road Canyon, and it could be  
19 diverted. It would come -- It would come in right by the  
20 corral area or it could be diverted and come in more down  
21 halfway in the field in those culverts. You'll see the  
22 culverts that are still in the county road there. And so you  
23 would flood irrigate, just in the spring though during runoff  
24 time.

25 And then this area here, there was no water in  
CAPITOL REPORTERS (775) 882-5322

926

1 this lower part of the field, which is -- was basically  
2 sagebrush. And out in here there was some meadow grass. But  
3 over here in this corner -- In fact, let's say that little  
4 white spot right there would be the -- I'm shaking -- would  
5 be the spring. There was a spring that the cattle watered on  
6 the outside of the fence as well as the inside of this field.  
7 But there was also water -- This is just --

8 Q. Just --

9 A. There's also springs. There was little like  
10 meadow -- It was actually pretty good meadow area up in here.  
11 But in the corner, which I'm assuming, this is not  
12 apportioned right. But I'm just going to go like this is the  
13 corner of the Cox place. Outside here would be BLM property.  
14 There was a large lot of water area right here. We would  
15 always hold cattle and separate and you could open this gate  
16 and they would come in here. And right in that area would be  
17 green meadow type area. And there was some water in there,  
18 not a lot of water but they could water in that area.

19 Q. And so there were wet spots there?

20 A. Wet, yes, yes.

21 Q. And you're talking the label Cox Ranch?

22 A. Cox Ranch and --

23 Q. And wait, wait, wait.

24 A. I'm talking this is -- You know what, see, if I  
25 draw a line across there though then to me there needs to be  
CAPITOL REPORTERS (775) 882-5322

927

1 like -- and then this is the sagebrush, it's not proportioned  
2 right. Because this area, you go in there and then you would  
3 be in the hay field part, yeah. So this is not quite right  
4 to scale. But yes, there was springs in there.

5 Q. And just to make this easier, I'm going to ask  
6 you some questions and then just ask you to respond to the  
7 question that I'm asking, okay. Because I think we're  
8 talking over each other and it's hard for the court reporter.

9 When you were talking about the spring area --  
10 When you were talking about the spring area, you were talking  
11 about an area that was under or near the label Cox Ranch  
12 that's on the map; is that correct?

13 A. Right. The spring within -- the natural flowing,  
14 God given springs that were on the ranch, there was one here  
15 and there was some in this area. But there was more of them  
16 in the area that we hayed. And what I'm saying somewhere  
17 there's a fence in there dividing like when you come down  
18 from the corral, yeah.

19 Q. And the area that you were pointing to for a  
20 spring in the northern portion of the Cox Ranch was the area  
21 close to the number 27 that's shown on the map; is that  
22 correct?

23 A. Well, yeah. But that's the north -- that would  
24 be the west north corner of the Cox, yes, yes.

25 Q. Thank you. And then turning to the willow, do  
CAPITOL REPORTERS (775) 882-5322

928

1 you have another page in front of you?  
2 A. Yes.  
3 MR. KOLVET: Slide 49.  
4 Q. (By Ms. Peterson) Do you see that, Mrs. Penrod?  
5 A. Yes. And I never really noticed this map. But  
6 this -- I never paid attention to the borders here. But as I  
7 remember, this field was always a square field. There was  
8 no -- Like this is showing -- I do not remember this part  
9 here. I mean, I don't know where that's coming from. So I'm  
10 just going to assume -- I'm going to bring these out here and  
11 square these off because that field was not shaped that way.  
12 It was a square field.  
13 Q. Okay.  
14 A. And so the water of this field would have been up  
15 in this area. There was several springs up here in this part  
16 of the field.  
17 Q. And you're talking about?  
18 A. Inside the field.  
19 Q. Inside the red?  
20 A. Yes, yes. And that -- We hayed. And there again  
21 it was, you mowed around those areas and left areas that  
22 were -- where you couldn't mow because they were too wet.  
23 Q. And you're talking about the southeastern portion  
24 of the lower boxed area depicted as the willow field on the  
25 exhibit; is that correct?  
CAPITOL REPORTERS (775) 882-5322

929

1 A. Right, right, right. So it would have been -- In  
2 fact, if we could just cut this off and use as one box, yeah.  
3 So it would be, yes, it would be the southwest area, yes.  
4 Q. Any other activity?  
5 A. Well --  
6 Q. Excuse me. Any other activity on the willow  
7 field?  
8 A. Yes. My dad -- We dry farmed that. This was  
9 plowed up and that was dry farmed. And then outside of this  
10 was a large spring.  
11 Q. And you're talking about the northern portion  
12 outside the red?  
13 A. The north end in the center basically of the  
14 field, yes.  
15 Q. Do you remember any shot holes near the Willow  
16 Field Ranch, the Cox Ranch or the Home Ranch?  
17 A. Are you talking seismograph?  
18 Q. Seismograph?  
19 A. Yes. Okay. Out in this area, out kind of down  
20 the center it would be between the rock field and the willow  
21 was a row of seismograph wells. And there was at least  
22 probably -- So it would have been more probably kind of right  
23 down in this area. And there was a main, one of the main  
24 places was right here. The cattle watered there a lot. And  
25 then on out was another -- there were two -- And it seems  
CAPITOL REPORTERS (775) 882-5322

930

1 like there was three, but I don't ever really remember a lot  
2 on the out. But those two were main, they were main water  
3 holes. Because otherwise those cattle had to go all the way  
4 to that Cox Spring behind the ranch. So when those  
5 seismograph wells were left open, it really made the range  
6 more beneficial for cattle.  
7 And then there was one on the Home Ranch -- Oh.  
8 Q. Go ahead. Well, wait, wait, wait, wait. Sorry.  
9 A. Are you ready?  
10 Q. No. The area that you were describing on page  
11 49 --  
12 A. Yes.  
13 Q. -- was basically a line toward the center between  
14 what's depicted --  
15 A. I would say -- If I remember right, the  
16 seismograph road went out more closer to the rock field than  
17 it was the willow. But it was right in this area. And those  
18 seismographs were straight out.  
19 Q. And you're pointing to basically a line going  
20 from the east part of the slide to the west part of the slide  
21 kind of in the middle between rock field and willow field?  
22 A. Yeah. But the wells were -- didn't -- they  
23 weren't up here. They were out in the flat part.  
24 Q. And you're talking about that area between rock  
25 field and willow field --  
CAPITOL REPORTERS (775) 882-5322

931

1 A. Right.  
2 Q. -- on the slide on the western portion of that  
3 area in between rock field and willow field?  
4 A. Not the -- Yeah, it would be the western, yes,  
5 yes.  
6 Q. And then you also described some shot holes that  
7 were even further west off the slide; is that correct?  
8 A. Right. They were out -- I just know they ran  
9 straight out towards the alkali.  
10 Q. And what was the time frame that those shot holes  
11 were put in?  
12 A. You know, I am not sure. But I'm sure it was in  
13 the fifties because they were there a long time. I mean, I  
14 can always remember riding those. I don't remember them not  
15 being there.  
16 Q. And then going back to the Thompson Ranch slide,  
17 slide 50.  
18 A. Yes. Okay.  
19 Q. Excuse me.  
20 A. This --  
21 HEARING OFFICER JOSEPH-TAYLOR: Whoa, whoa, whoa.  
22 Ms. Penrod, hold on. Let her ask a question.  
23 Q. (By Ms. Peterson) Were there shot holes around  
24 the Thompson Ranch property?  
25 A. Yes. Okay. I'm going to get my land marks here  
CAPITOL REPORTERS (775) 882-5322

932

1 because this, I would say this borderline should be here,  
2 this area in between the BLM. Okay. Right here at the west  
3 north corner was a large hole that the cattle watered a lot  
4 at. This area was all meadow. There was a lot of cattle in  
5 here.

6 Over there is a large hole where the cattle loved  
7 to -- I mean, they could lay there. I mean, there was lots  
8 of cattle. But there was water right here.

9 And then straight out from there -- This is  
10 between the two fields again, so it was coming straight out  
11 here. And then it went on out further west, I think there  
12 was at least two more on out.

13 Q. And you are talking about the area between the  
14 Cox Ranch depicted on the map and the Thompson Ranch and  
15 moving straight out west off the slide; is that correct?

16 A. Right, right. In fact, that area appears that  
17 Dan has some water, water tank, so some kind of tanks. I  
18 don't know if they're water tanks but they're tanks sitting  
19 out in that area a little further to the north than where I  
20 remember the water hole being. But it was in that area, yes.

21 Q. And then directing your attention off the slides,  
22 you left the property in 1963 because you graduated from high  
23 school; is that correct?

24 A. Right, yeah.

25 Q. And then you, I think, previously testified that  
CAPITOL REPORTERS (775) 882-5322

933

1 you frequently visited the ranch after 1963 until your  
2 parents died; is that correct?

3 A. Right.

4 Q. And to your knowledge, did your parents have any  
5 concerns about water level declines prior to the time that  
6 they died?

7 A. I personally don't remember hearing that. I just  
8 remember my mom in the early seventies her big concern was  
9 the wild horses because they were cutting her AUMs for two  
10 pounds for every horse. And mom was very stressed over that.  
11 I don't remember ever really speaking of water. But I was  
12 down there to ride. I mean, we never -- Yeah.

13 MS. PETERSON: Okay. Just one minute. I don't  
14 have any further questions.

15 HEARING OFFICER JOSEPH-TAYLOR:  
16 Cross-examination, Mr. Kolvet.

17 MR. KOLVET: If I may just have a moment.

18 HEARING OFFICER JOSEPH-TAYLOR: Okay.

19 CROSS-EXAMINATION

20 By Mr. Kolvet:

21 Q. Good morning, ma'am.

22 A. Good morning.

23 Q. My name is Brent Kolvet. I represent  
24 Mr. Venturacci in this proceeding. And I just have a few  
25 questions of you. When you were growing up on the property,  
CAPITOL REPORTERS (775) 882-5322

934

1 you mentioned that you did some haying; is that correct?

2 A. Yes. I ran the mower.

3 Q. So you cut the hay?

4 A. Yes.

5 Q. And on the slide that's up there on the screen  
6 right now, and I'm not going to ask to you do any pointing,  
7 just in general, just going to generally ask you some  
8 questions. You mentioned earlier that there were what you  
9 referred to as the north meadow and the south meadow; is that  
10 right?

11 A. Correct, yes.

12 Q. In the north meadow on this particular slide,  
13 again for the record slide 50 of Exhibit 234 -- You don't  
14 need to worry about that. That's me dealing with it.

15 A. I'm just checking.

16 Q. You don't trust me. With respect to the meadow  
17 to the north, you said there was a lot of water in that area?

18 A. There -- I think we put up more hay on the north  
19 side than we did the south side. Now, I don't know anything  
20 about the acreage or anything. I just remember it seemed  
21 like I mowed further down in the field than on the south  
22 side.

23 Q. And the water got there, as you said, from the  
24 main source, which was the two big, the big pond and the  
25 little pond?

CAPITOL REPORTERS (775) 882-5322

935

1 A. Right, right.

2 Q. And there were control devices like head gates  
3 and culverts to move that water where it needed to go?

4 A. Right, right. And there were ditches that went  
5 down through the field that also moved the water. There was  
6 ditches that ran, I remember, on the south side kind of down  
7 from the slough area where it came out of the tules. It ran  
8 quite a ways down in to the field. Now, I would imagine  
9 they're still there.

10 Q. And the ditches you recall also went north in to  
11 the Cox property to some extent?

12 A. There was one ditch that would -- that flowed out  
13 the north corner or -- yes, out the north corner. And it  
14 kind of -- it would have hit the lower part of the Cox field,  
15 which would have been the sagebrush part of the ranch, if I  
16 remember -- of that.

17 Q. Did you do any irrigating yourself?

18 A. No.

19 Q. You just did the cutting of the hay?

20 A. Yes.

21 Q. Now, on that map there's the red line which you  
22 have a little problem with. It's not exactly how you recall  
23 it; is that right?

24 A. I don't recall. No, because I don't ever  
25 remember the two ranches ever touching as far as deeded  
CAPITOL REPORTERS (775) 882-5322

936

1 property, I guess. But maybe they just didn't have all the  
2 deeded property fenced. I don't know.

3 Q. Now, to the west of the red line there appears to  
4 be meadow areas. Do you recall those?

5 A. There was meadow. That -- All that area out  
6 below the red line north was -- well, quite a large area,  
7 probably that --

8 HEARING OFFICER JOSEPH-TAYLOR: Ms. Penrod, take  
9 your pointer because I don't know which red line you're  
10 talking about, please.

11 MR. KOLVET: See, I didn't make you do it. She  
12 did.

13 THE WITNESS: I'm talking about this line right  
14 in here, which I -- to me this needs to come square. But  
15 anyway, there was, out in this area there was meadow grass  
16 growing.

17 HEARING OFFICER JOSEPH-TAYLOR: Off the north.

18 THE WITNESS: And there was some meadow grass out  
19 in this area that grew too.

20 Q. (By Mr. Kolvet) And just so the record is clear  
21 about the areas, you don't have to respond. The witness is  
22 pointing to an area that is a small, box-like indentation in  
23 the property line to the north as well as above the red line  
24 on the north delineation of the Thompson Ranch and also to  
25 the west of the red line, which shows the western border of  
CAPITOL REPORTERS (775) 882-5322

937

1 the Thompson Ranch on the slide?

2 Now, in those areas that you just were describing  
3 did you also mow hay?

4 A. No, not on the outside of the field, but on the  
5 inside we went pretty much all the way to the west north  
6 corner, yes. And then where it would flow over like this  
7 probably there would have been a slough in here that I cut  
8 hay. In fact, I know there was, yes, because I got my mower.

9 Q. And on the south meadow portion you also cut hay  
10 there?

11 A. Yes.

12 Q. And that was every year?

13 A. Yes.

14 HEARING OFFICER JOSEPH-TAYLOR: I want to inject  
15 here. Because I heard you say you cut no hay on the south  
16 meadow.

17 THE WITNESS: No. We cut hay on the south meadow  
18 but not as much as on the north meadow. But no, there was  
19 hay cut on the south meadow. But my mind recollects that  
20 there wasn't as much cut on the south side.

21 HEARING OFFICER JOSEPH-TAYLOR: Thank you.

22 THE WITNESS: But I think the north side is a  
23 larger area too, but I don't know.

24 HEARING OFFICER JOSEPH-TAYLOR: Thank you.

25 Q. (By Mr. Kolvet) And you already said you don't  
CAPITOL REPORTERS (775) 882-5322

938

1 know acreage --

2 A. No, I don't know nothing about acreage.

3 Q. And on the Cox Ranch did you also cut hay?

4 A. Yes, yes.

5 Q. Every year did you cut hay?

6 A. Yes, every year that I was there we put hay up,  
7 yes, and every year that I cut hay, yeah.

8 Q. And you also testified earlier that there were  
9 several springs on the Cox Ranch?

10 A. Right. And they were kind of more in the center  
11 of the hay field. In fact, yeah, I -- they were quite a bit  
12 of water in there, yeah. The main water though was up where  
13 the well area -- in fact, there was an actual pond of water  
14 in that area.

15 Q. And was that pond regulated too? I mean, were  
16 there head gates?

17 A. No, no, no. It was not that big. It's maybe the  
18 size of this room if it was that big. No. Maybe half the  
19 size of this room.

20 Q. But water was used from that area to the --

21 A. Well --

22 HEARING OFFICER JOSEPH-TAYLOR: Ms. Penrod,  
23 you've got to let him finish the question.

24 MR. KOLVET: To raise the hay; is that correct?

25 THE WITNESS: We didn't do any irrigating at the  
CAPITOL REPORTERS (775) 882-5322

939

1 Cox place.

2 MR. KOLVET: That's all I have.

3 HEARING OFFICER JOSEPH-TAYLOR: Redirect?

4 MS. PETERSON: Yes. Just briefly.

5 REDIRECT EXAMINATION

6 By Ms. Peterson:

7 Q. Mrs. Penrod, the hay at the Cox Ranch, was that  
8 meadow hay or grass hay?

9 A. That was grass hay. But it wasn't a -- it was a  
10 better quality of grass hay than if I remember right we put  
11 up at the Home Ranch. It had more -- It had more -- better  
12 grasses. I don't know. That doesn't sound good. But it  
13 wasn't as much of the real wiry wild hay stuff, I guess. It  
14 was a better quality of hay I would guess. In my mind I  
15 remember it that way.

16 Q. Thank you. And the pond area that you referenced  
17 on the Cox Ranch, that was actually from the well; is that  
18 correct?

19 A. That was in the well area, yes, yes. And I  
20 honestly don't know where the well -- I know where the  
21 well -- but to actually have a well house there, there was  
22 none. But it had to have been there because they had a house  
23 in there and people living there. So I don't actually know  
24 where, but it had been in that area, yes.

25 MS. PETERSON: I don't have any more questions.  
CAPITOL REPORTERS (775) 882-5322

940

1 And thank you very much, Mrs. Penrod. Thank you. But you  
2 will maybe have some questions from the State Engineer or --

3 HEARING OFFICER JOSEPH-TAYLOR: Recross?

4 MR. KOLVET: No.

5 HEARING OFFICER JOSEPH-TAYLOR: Questions of  
6 staff?

7 THE STATE ENGINEER: I have some questions.

8 HEARING OFFICER JOSEPH-TAYLOR: Go ahead.

9 THE STATE ENGINEER: Good morning, Ms. Penrod.

10 HEARING OFFICER JOSEPH-TAYLOR: Do you know who  
11 this is, Ms. Penrod? This is the State Engineer, Jason King.

12 THE WITNESS: Oh, hi.

13 THE STATE ENGINEER: Nice to meet you.

14 EXAMINATION

15 By The State Engineer:

16 Q. If you can remember these, do you remember as you  
17 were growing up on the ranch, do you remember whether or not  
18 the springs were highly variable in flow in terms of from  
19 year to year depending on what happened over the winter? If  
20 it was a really good snow winter, do you remember if you  
21 had --

22 A. Not the actual pond water, no. Because see,  
23 there really wasn't any runoff water that ever went in the  
24 pond area. Those were all individual springs. There was no  
25 runoff, actual runoff. Because the only two canyons that  
CAPITOL REPORTERS (775) 882-5322

941

1 would provide runoff would have been Horse Canyon and the  
2 Telegraph Canyon. Telegraph's waters mostly went to the Cox  
3 place. It could be diverted in to what I said was put in to  
4 the alfalfa well area, but that water mainly went to the Cox  
5 place. It did not come to the Home Ranch. So no.

6 Q. So I understand your testimony on the flows that  
7 may have come out of the canyons. But the springs  
8 themselves, do you remember any reduction in flow as a result  
9 of if it was a heavy winter or a dry winter?

10 A. No, I do not. I always remember lots of water at  
11 the ranch.

12 Q. Thank you. Do you have any idea of how many head  
13 of cattle may have been run out on any one of the ranches?

14 A. I have no idea. I don't know what the permit was  
15 for. But I know at one time dad ran the full, whatever the  
16 BLM was allowed they ran it. And I honestly don't know.

17 Q. Thank you. You had talked about there was a well  
18 at the house on the ranch that you grew up on.

19 A. Right.

20 Q. Can you tell me exactly what that well was used  
21 for? Was it just domestic purposes or was it used elsewhere?

22 A. It was domestic. It provided the house. I mean,  
23 it provided everything. There was water to the cow barn.  
24 There was water to the horse -- to all the -- in fact water  
25 was inside the cow barn because we washed out the cow barn  
CAPITOL REPORTERS (775) 882-5322

942

1 after milking. And then there wasn't actually water in the  
2 horse barn as I remember. But there was water in the corral.  
3 There was water every where, I mean, to the corrals to the  
4 north of the ranch or to north of the house there was water.  
5 There was the chicken house that sat there and the corrals.  
6 There was always water in there. And they were all pumped  
7 from the pump house because it was all uphill so it had to be  
8 pumped.

9 Q. Thank you. You already had been asked a question  
10 similar to the one I'm about to ask you, so excuse me if I'm  
11 asking this again. Part of the contention in this hearing is  
12 whether or not pumping in the southern part of Diamond Valley  
13 by the irrigators and all the pivots impact the springs that  
14 we're talking about here. Do you remember, and of course you  
15 can talk about your knowledge since then, but do you remember  
16 during those time periods where that was understood by your  
17 parents, by you, by your brother that all of that pumping is  
18 drying up our spring?

19 A. I do remember that, yes, yes.

20 Q. There was some testimony yesterday, and I don't  
21 believe you were here yesterday?

22 A. No, I was not.

23 Q. There was some testimony about the fact that the  
24 State Engineer's office offered your brother the opportunity  
25 perhaps to drill a supplemental groundwater well to make him  
CAPITOL REPORTERS (775) 882-5322

943

1 whole in 1982, a question was asked of a witness as to why  
2 did that witness believe that your brother didn't take that  
3 offer. And the response was because he wanted the spring, he  
4 wanted that free flowing water, did not want the groundwater.  
5 Can you corroborate that?

6 A. I have no idea what my brother thought or did or  
7 anything. I mean, my brother really kind of ostracized us  
8 and we -- Yeah. I mean, I don't know why he did not allow a  
9 well to be drilled or whatever.

10 Q. Thank you. And one last question. You've talked  
11 about the seismograph holes, the shot holes?

12 A. Right.

13 Q. Do you have any recollection of whether or not  
14 there was a reduction in spring flow after those shot holes  
15 were blasted?

16 A. Well, when I was there I don't remember that.  
17 And even -- And I specifically remember the north end there  
18 was another area of those wells. I mean, clear down below  
19 the, say, four, more like five-mile area there was wells.  
20 Now, that was very beneficial and they flowed -- I mean,  
21 there was -- that allowed the cattle to feed in the north end  
22 of the valley because -- And we -- There were two windmills  
23 down there. There was one at the four mile, which we never  
24 ever -- I can't remember in my later years using those  
25 windmills. I vaguely remember when I was smaller them using  
CAPITOL REPORTERS (775) 882-5322

944

1 the windmills. But then once the seismograph wells come in,  
2 they were no longer needed. But there was one at -- in  
3 the -- below the four mile, what we call four mile and  
4 there's one below Davis, which -- The windmills are still  
5 there.

6 Q. Thank you very much.

7 A. But we didn't use them because of the flowing  
8 wells, the seismograph.

9 THE STATE ENGINEER: Thank you very much.

10 HEARING OFFICER JOSEPH-TAYLOR: Mr. Felling,  
11 questions?

12 EXAMINATION

13 By Mr. Felling:

14 Q. Ms. Penrod, my name is Rick Felling and I work  
15 here. I just have a couple of questions. Do you recall how  
16 many tons of hay you were able to put up on either of the  
17 ranches?

18 A. I don't know tonnage. I was a kid. I could have  
19 cared less about tonnage. Yeah. I mean, I -- That's not --  
20 I'm not being smart. I'm sorry. But no, I don't know.

21 Q. So even if you don't know how many tons, do you  
22 know if it varied much from year to year?

23 A. Well, it was becoming less as I remember it my  
24 last years that I mowed hay, yes. And I think especially on  
25 the south side it seemed because we weren't haying it way  
CAPITOL REPORTERS (775) 882-5322

945

1 down like they had during the beginning. But -- So I would  
2 say yes to that.

3 MR. FELLING: All right. Thank you. No more  
4 questions.

5 HEARING OFFICER JOSEPH-TAYLOR: Any questions,  
6 Mr. Walmsley?

7 EXAMINATION

8 By Mr. Walmsley:

9 Q. Good morning, Ms. Penrod. My name is Steve  
10 Walmsley and I also work for the State Engineer. You said  
11 that up on the Cox Ranch you cut a better quality grass in  
12 general; is that correct?

13 A. I believe it was, yes, yes.

14 Q. And then you also stated I believe when you were  
15 in cross-examination that the grass harvested on the southern  
16 field you described it as a wire grass?

17 A. Well, it was just a typical -- What do I want to  
18 say? A typical wild hay or grass hay, yeah. And that's  
19 about all there was. There wasn't any clover or much of  
20 anything growing in it. It was just that as I remember.  
21 That's what I'm thinking, yes.

22 Q. I'm sorry. Do you recall if the hay harvested,  
23 the grass you call wild grass on the southern end of the  
24 property, did it have sharp like pointy tips on it?

25 A. Yes, they were pointy tips. And then when it  
CAPITOL REPORTERS (775) 882-5322

946

1 matured it was like a seed or something on the top of it once  
2 that it reached maturity, if I remember right.

3 Q. Were the --

4 A. Like a wild grass or I think it has a seed or  
5 something on the top of it. Not all of it but a lot of it  
6 does. Am I right or wrong, guys?

7 Q. No. I'm just --

8 A. I kind of remember something on some of the ends  
9 of some of it, yes, which probably would have been a seed.

10 Q. Yeah. I'm just asking of your recollection of it  
11 for us to be able to formulate an idea of the grass type and  
12 the nutritional value of the grass. And it's obvious that if  
13 you cut and baled it that it did have nutritional value for  
14 the cattle.

15 A. That's all they had, so we used it.

16 Q. I'm sure you used what you had.

17 A. Right.

18 Q. And then if I go up to the northwest corner of  
19 the Home Ranch where there's a little notch out of the ranch,  
20 it would be further described as, I believe, within the  
21 northwest quarter of the northwest quarter of Section 4 of  
22 Township 23 north, Range 54 east or where the pointer is,  
23 generally in that area was the grass type that you harvested  
24 up there the same?

25 A. That was also wild grass, yes.  
CAPITOL REPORTERS (775) 882-5322

947

1 Q. Wild?

2 A. Wild grass. I think that's what they called it,  
3 just wild grass.

4 Q. And was that also the pointy tips?

5 A. Yeah, right, right.

6 Q. Okay. And I think just last general question.  
7 You stated in the center part of the Home Ranch due west of  
8 the springs in the dark area in the photograph, you stated  
9 that the light-colored areas were primarily rabbit brush?

10 A. Well, see, I don't know what -- I mean, I'm just  
11 assuming the dark area is the areas that the -- I'm assuming  
12 this, that that's where the water was flowing. And so those  
13 other areas, some of them -- I mean, they're just land out in  
14 that area that really -- I mean, it had wild grass on it.  
15 Probably more like salt grass and rabbit brush. And I'm just  
16 assuming that's what those areas are. Because there is in  
17 those low fields in that area there was some alkali ground  
18 because it's got white in it. So -- And I just know that the  
19 water does wash this away because in the north end those  
20 seismographs there was lots -- there was grass that grew in  
21 those areas clear out in the alkali and even way out in  
22 the -- there's no land any have anywhere but I'm sure you'd  
23 have a large patch of grass because there was a seismograph  
24 well that had been flowing.

25 MR. WALMSLEY: Okay. Thank you. One last  
CAPITOL REPORTERS (775) 882-5322

948

1 question. You stated that in a lot of those whiter areas  
2 that you had rabbit brush and salt grass. Did the livestock  
3 eat any of this plant material?

4 A. Well, livestock -- rabbit brush is basically  
5 hazardous weed, I guess. Nothing eats rabbit brush. But  
6 they will eat -- I think they eat salt grass to a certain  
7 extent. I mean, they do eat that.

8 MR. WALMSLEY: Oh, okay. Well, I don't believe I  
9 have any further questions. Thank you very much Ms. Penrod.

10 HEARING OFFICER JOSEPH-TAYLOR: Ms. Penrod, we  
11 really appreciate you coming in and helping us with this.  
12 Thank you. You may be excused.

13 Let's be in recess for about five minutes. We'll  
14 be off the record.

15 (Recess was taken)

16 HEARING OFFICER JOSEPH-TAYLOR: Ms. Peterson,  
17 please continue.

18 MS. PETERSON: Yes. Eureka County would call  
19 Wilfred Bailey.

20 HEARING OFFICER JOSEPH-TAYLOR: W-i-l-f-r-e-d?

21 MS. PETERSON: Yes.

22 HEARING OFFICER JOSEPH-TAYLOR: B-a-i-l-e-y?

23 MS. PETERSON: B-a-i-l-e-y. And we have a  
24 similar map. And we never got that in the electronic  
25 version.

CAPITOL REPORTERS (775) 882-5322

949

1 STATE OF NEVADA )  
2 COUNTY OF WASHOE ) ss.  
3

4 I, CHRISTY Y. JOYCE, Official Certified Court  
5 Reporter for the State of Nevada, Department of Conservation  
6 and Natural Resources, Division of Water Resources, do hereby  
7 certify:

8 That on Thursday, the 21st day of November,  
9 2013, I was present at the Division of Water Resources,  
10 Carson City, Nevada, for the purpose of reporting in verbatim  
11 stenotype notes the within-entitled public hearing;

12 That the foregoing transcript, consisting of  
13 pages 890 through 1150, inclusive, includes a full, true and  
14 correct transcription of my stenotype notes of said public  
15 hearing.

16  
17 Dated at Reno, Nevada, this 16th day of  
18 December, 2013.

19  
20  
21 CHRISTY Y. JOYCE, CCR #625

22  
23  
24  
25  
CAPITOL REPORTERS (775) 882-5322

1151