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3	IN THE MATTER OF THE HEARING CALLED BY THE OIL CONSERVATION DIVISION FOR ENVEDOCD
4	THE PURPOSE OF CONSIDERING: 2014 FEB 13 P 1: 35
5	APPLICATION OF OWL OIL AND GAS, LLC CASE NO. 15060
6	EDDY COUNTY, NEW MEXICO. ORIGINAL
7	
8	REPORTER'S TRANSCRIPT OF PROCEEDINGS
9	EXAMINER HEARING
10	January 23, 2014
11	Santa Fe, New Mexico
12	
13	
14	BEFORE: RICHARD EZEANYIM, CHIEF EXAMINER
15	GABRIEL WADE, LEGAL EXAMINER
16	
17	
18	This matter came on for hearing before the
19	New Mexico Oil Conservation Division, Richard Ezeanyim, Chief Examiner, and Gabriel Wade, Legal Examiner, on
20	Thursday, January 23, 2014, at the New Mexico Energy, Minerals and Natural Resources Department, 1220 South
21	St. Francis Drive, Porter Hall, Room 102, Santa Fe, New Mexico.
22	
23	REPORTED BY: Mary C. Hankins, CCR, RPR
24	New Mexico CCR #20 Paul Baca Professional Court Reporters
25	500 4th Street, Northwest, Suite 105 Albuquerque, New Mexico 87102

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- (1:06 p.m.)
- 2 EXAMINER EZEANYIM: At this point I call
- 3 Case Number 15060. This case was continued from January
- 4 9th, 2014 to today's hearing. This is the application
- 5 of Owl Oil and Gas, LLC for approval of a water disposal
- 6 well, Eddy County, New Mexico.
- 7 Call for appearances.
- 8 MR. BRUCE: Mr. Examiner, Jim Bruce of
- 9 Santa Fe representing the Applicant. I have one
- 10 witness.
- 11 EXAMINER EZEANYIM: Any other appearances?
- MR. PADILLA: Mr. Examiner, Ernest L.
- 13 Padilla for Endurance Resources, LLC, and I have two
- 14 witnesses.
- 15 EXAMINER EZEANYIM: Any other appearances?
- 16 MR. FELDEWERT: Mr. Examiner, Michael
- 17 Feldewert, with the Santa Fe office of Holland & Hart,
- 18 appearing on behalf of Yates Petroleum, Abo Petroleum
- 19 and MYCO Industries, and I have two witnesses.
- 20 EXAMINER EZEANYIM: Any other appearances?
- Okay. Now, first of all, we have to have
- 22 all the witnesses stand up to state your name and be
- 23 sworn into the record before we know how to proceed.
- 24 Everybody state your name to be sworn together.
- DR. HAVENOR: Kay Havenor.

- 1 Q. And were your credentials as an expert
- 2 petroleum geologist accepted as a matter of record?
- 3 A. Yes, they were.
- 4 Q. And are you familiar with the matters relating
- 5 to this SWD application?
- 6 A. Yes.
- 7 MR. BRUCE: Mr. Examiner, I tender
- 8 Dr. Havenor as an expert petroleum geologist.
- 9 EXAMINER EZEANYIM: So qualified.
- 10 Q. (BY MR. BRUCE) Dr. Havenor, if you could first
- 11 refer to Exhibit 1 and identify the location of Owl's
- 12 proposed SWD well and then maybe comment briefly on this
- 13 Exxon State SWD well.
- 14 A. Well, the Owl well is located -- the proposed
- Owl SWD is in Section 9 of 21 South, 27 East, Eddy
- 16 County, New Mexico.
- 17 Q. And there is marked on there a Peyote Exxon
- 18 State #8 well. What type of well is that?
- 19 A. Was it before -- I don't understand your
- 20 question.
- 21 Q. Is that an SWD well?
- 22 A. Yes, that is an SWD well.
- 23 EXAMINER EZEANYIM: Which well?
- THE WITNESS: In Section 15.
- 25 EXAMINER EZEANYIM: Are you looking at this

- 1 map (indicating)?
- MR. BRUCE: Yes.
- 3 EXAMINER EZEANYIM: It looks like a Midland
- 4 map. To find sections here, it's very difficult.
- 5 MR. BRUCE: You have to look to the right
- 6 where it says "Section 14."
- 7 Q. (BY MR. BRUCE) Anyway, the Exxon State Well #8
- 8 is an existing SWD well; is that correct, Dr. Havenor?
- 9 A. Yes.
- 10 Q. Were you the person who testified to obtain
- 11 saltwater disposal authority for that well?
- 12 A. Yes, I did.
- Q. At the time, who was the operator of the well?
- 14 A. Mesquite SWD, Inc.
- 15 O. And is that well still an SWD well?
- 16 A. Yes, it is.
- 17 Q. And is it injecting into the same zone that Owl
- 18 proposed to inject into?
- 19 A. Yes, sir, it is.
- 20 Q. How long approximately has that well been
- 21 injecting into the Yates?
- 22 A. Approximately five years.
- 23 Q. Are the volumes that are injected into that
- 24 well fairly high?
- 25 A. Yes, sir.

- 1 Q. And is injection on that well in a vacuum?
- A. Yes. It started and is still.
- Q. And would you refer to Exhibit 2 and just
- 4 identify briefly what that is?
- 5 A. This is a generalized cross section of the back
- 6 reef area, the reef and the four reefs Delaware Basin
- 7 area.
- 8 Q. And from the Exxon State well, will Owl's
- 9 proposed well, in essence, be just slightly to the left
- 10 of that Exxon State well?
- 11 A. Yes, sir.
- 12 Q. So it will be more of a back reef well than the
- 13 Exxon State well? Is that correct to say?
- A. More back reef, yes.
- 15 Q. Further back --
- 16 A. Further back.
- 17 Q. -- maybe is a better way to put it.
- 18 EXAMINER EZEANYIM: When I look at that,
- 19 you have 8. Where is O in relation to this well on
- 20 this --
- MR. BRUCE: It would be to the left,
- 22 Mr. Examiner.
- 23 EXAMINER EZEANYIM: Is it indicated there?
- MR. BRUCE: It's not indicated, but it
- 25 would be, you know --

- 1 EXAMINER EZEANYIM: It would be what?
- 2 MR. BRUCE: You know, it's about a mile and
- 3 a half over to the left of the Exxon --
- THE WITNESS: Northwest.
- 5 MR. BRUCE: Northwest.
- 6 EXAMINER EZEANYIM: So it's within the
- 7 two-mile area of review, but not within a half mile?
- 8 MR. BRUCE: Mr. Examiner, we're seeking
- 9 approval for Owl's Myrtle Myra well, which is
- 10 three-quarters of a mile -- I mean, a mile and a half
- 11 northwest of the Exxon State. The reason we were
- 12 discussing the Exxon State is because it is virtually a
- 13 mirror well to what we are seeking to propose to inject
- 14 into.
- 15 EXAMINER EZEANYIM: Yes. And that's why
- 16 I'm asking questions. Okay.
- 17 Q. (BY MR. BRUCE) And, Dr. Havenor, Exhibit 3 was
- an exhibit taken from your hearing on the Exxon State #8
- 19 showing the injection history, at least from 2005
- 20 forward, for a few years. This well, the Exxon State 10
- 21 can accept large volumes of water, can't it?
- 22 A. Yes, sir, it can.
- Q. And, again, it takes water on a vacuum?
- 24 A. Yes, that is correct.
- Q. And Exhibit 4, is that simply the original well

- 1 completion report for the Exxon State #8?
- 2 A. Yes, it is.
- Q. And 1977 [sic]. On page 2, does it show that
- 4 the well has always been taking water under vacuum?
- 5 A. Yes, sir. That is correct.
- 6 Q. Now, also, on Exhibit 1, there is a Mewbourne
- 7 Esperanza State Comm Well #1 in Section 15 noted.
- What is Exhibit 5, Dr. Havenor?
- 9 A. Exhibit 5 is an OCD well completion report.
- 10 Q. And that is a producing well; is it not?
- 11 A. Yes, sir.
- 12 Q. And that looks to me like it's less than a
- 13 quarter mile from the Exxon State well.
- 14 A. That is correct.
- Q. And this well was successfully drilled and
- 16 completed even though it was very near the injection
- 17 well; is that correct?
- 18 A. Yes, sir.
- 19 EXAMINER EZEANYIM: Again, before we leave
- 20 Exhibit Number 5, I see "Confidential" stamped here.
- 21 Did Mewbourne Oil Company want this production
- 22 information to be confidential?
- MR. BRUCE: Mr. Examiner, you know, the
- 24 well was completed over a decade ago, so any
- 25 confidentiality has expired according to the regs.

- 1 EXAMINER EZEANYIM: Yeah, I can see. Okay.
- 2 So it doesn't apply?
- 3 MR. BRUCE: Correct.
- 4 EXAMINER EZEANYIM: Okay. You may proceed.
- 5 Q. (BY MR. BRUCE) Next, Dr. Havenor, what is
- 6 Exhibit 6?
- 7 A. This is a copy of the log that was run in the
- 8 Mesquite SWD State #8 in Section 15.
- 9 Q. And this was used in that prior hearing, also,
- 10 was it not, your log?
- 11 A. Yes.
- 12 Q. And over to the left, there is another log on
- 13 the well for the Owl Oil and Gas proposed SWD well.
- 14 Will the Owl well be injecting into the equivalent zones
- that are being injected into in the Exxon State?
- 16 A. The log on the left? Oh, I'm sorry.
- 17 Q. Yes.
- 18 A. I don't follow you.
- 19 Q. Is the Owl --
- 20 A. The Owl horizon?
- 21 Q. Will the injection horizon --.
- 22 A. Yes, sir.
- 23 Q. -- be equivalent to that in the Exxon State?
- 24 A. Yes, it will be.
- Q. Now, can you comment about the reservoir? Is

- 1 this a complicated reservoir?
- 2 A. Well, apparently it is more complicated than a
- 3 lot of people think. It's relatively simple, really.
- 4 Its back reef faces the Yates Formation on top of the
- 5 Seven Rivers, and oil production was attained much
- 6 earlier and is still being produced today. But there is
- 7 a very definite water zone below it, high-porosity water
- 8 zone below it, and that is what has been used in the
- 9 Mesquite Exxon 8; and this is the correlative injection
- 10 interval for the proposed well here.
- 11 Q. Now, people here say something about the
- 12 Capitan Reef. Are these protected waters?
- 13 A. No, they are not. Definitely not.
- Q. When you testified on the Exxon State well, you
- 15 checked about water quality in the area; did you not?
- 16 A. Yes, sir.
- 17 Q. And roughly, what is the TDS of the water in
- 18 this injection zone?
- 19 A. All over two -- all over 2,000 -- excuse me --
- 20 two -- whew. Two and three zeros, 2,000.
- EXAMINER EZEANYIM: 2,000?
- 22 Q. (BY MR. BRUCE) Is it over 25,000 or --
- 23 A. Oh, excuse me. 20,000. I'm sorry.
- 24 Q. 20,000?
- 25 A. I have the decimal points misplaced in my head.

- 1 Q. Okay. So on the record in Case 14178, there is
- 2 testimony showing that in this area, the TDS of the
- 3 water is in excess of 20,000?
- 4 A. That is correct.
- 5 O. Total dissolved solvents?
- 6 A. Yes, sir.
- 7 Q. Therefore, that water is not protectable?
- 8 A. Yes, sir.
- 9 Q. And you see no problem in injecting into that
- 10 zone?
- 11 A. None at all.
- 12 EXAMINER EZEANYIM: Now, let's clear the
- 13 confusion here, because I can drink 2,000 TDS. I can
- 14 drink that water.
- MR. BRUCE: 20,000.
- 16 EXAMINER EZEANYIM: Okay. But that's not
- 17 the point. The point is -- first of all, we want to
- 18 look -- you are looking at the quality of water being
- 19 injected into that native water. What is the TDS of the
- 20 native water in the Capitan water? What is the TDS?
- 21 THE WITNESS: This is not in the reef, sir.
- 22 EXAMINER EZEANYIM: It is not in the reef.
- Okay. But the water we are talking about that is going
- 24 to be injected into, what is the total dissolved solid
- 25 there?

- 1 THE WITNESS: It will be in excess of
- 2 20,000.
- 3 EXAMINER EZEANYIM: That is the native
- 4 water -- what is the nature of the one we're injecting?
- 5 THE WITNESS: Up through the Bone Spring
- 6 water to a 100,000.
- 7 EXAMINER EZEANYIM: They are going to be
- 8 injecting into that 20,000?
- 9 THE WITNESS: Yes.
- 10 EXAMINER EZEANYIM: Okay.
- 11 Q. (BY MR. BRUCE) Now, you mentioned that it's not
- 12 protectable, in the Mesquite hearing, on the Exxon State
- 13 well. At one point, the Bureau of Land Management
- 14 wasn't sure if they would object to injecting salt water
- 15 into that zone; is that correct?
- 16 A. Yes.
- 17 Q. And did you provide information that caused
- 18 them to withdraw any objection to the SWD application?
- 19 A. I didn't provide any direct information to the
- 20 BLM, but there were communications through the OCD and
- 21 the operator that all showed that these were not
- 22 protectable waters, and that was the primary concern.
- 23 The BLM appeared to have had some misunderstandings as
- 24 to the direction of flow of waters in the subsurface in
- 25 this area.

- 1 Q. And this injection zone, is it hydrologically
- 2 connected to any protected water?
- 3 A. No.
- 4 Q. Now, when we discussed this just between
- 5 ourselves, Dr. Havenor, you referred to this as -- I
- 6 don't know how you called it -- high-circulation zone,
- 7 or is this a zone where lost circulation occurs?
- 8 A. Yes, it definitely does.
- 9 Q. But have a number of wells been successfully
- 10 drilled in this area through this zone?
- 11 A. Yes, sir. It appears that with adequate
- 12 density of mud and drilling through it, there are no
- 13 problems.
- Q. Now, the zone that's being injected into is no
- more than, I believe, 700 feet deep?
- 16 A. That is correct.
- 17 Q. So, really, adequate casing should take care of
- 18 any issue regarding drilling in this area?
- 19 A. I would say yes.
- Q. And let's go to Exhibit 7, which is the C-108
- 21 itself. Now, this C-108 is not signed by you, but did
- 22 you review the C-108 and the data that went into it?
- 23 A. Yes, I did. Yes, I have.
- Q. Did you agree with the data that is within the
- 25 C-108?

- 1 A. Yes, sir.
- Q. Again, what is the proposed injection zone, the
- 3 formation name?
- 4 A. The formation?
- 5 Q. Yes.
- 6 A. The lower -- the lower portion of the Yates and
- 7 the top edge of the Seven Rivers.
- Q. And if you look at pages 5 and 6 of the C-108,
- 9 what do those wellbore diagrams show?
- 10 A. The case -- the Westall well.
- 11 Q. This is the reproposed injection well?
- 12 A. Yes.
- 13 Q. It is an existing well that will be re-entered,
- 14 I believe?
- 15 A. Yes, that is correct.
- O. And does Exhibit 6 show how it will be
- 17 completed after re-entry?
- 18 A. Page 5?
- 19 Q. Page 6.
- 20 A. Page 6? Yes. That's the proposed completion.
- Q. Will the well be recompleted such as to prevent
- the movement of fluid between zones?
- 23 A. Yes, it will.
- Q. Pages 7 and 8 are the area of review, and the
- 25 subsequent pages contain P&A diagrams for any wells that

- 1 are PA'd. The wells in the area of review that are
- 2 PA'd, have they been properly plugged and abandoned
- 3 pursuant to Division regulations?
- 4 A. Pursuant at the time of plugging, yes.
- 5 Q. And I believe you said that the injection --
- 6 the water that will be injected through the well will
- 7 come from zones found to the Bone Spring?
- 8 A. That's my understanding.
- 9 Q. And will Owl comply with any -- the .2 psi
- 10 per-foot depth as to the injection pressure?
- 11 A. Yes; .2 will be applicable.
- 12 Q. And in your review of the area, is there any
- 13 evidence of open faults or any other hydrologic
- 14 connection between the disposal zone and any underground
- 15 sources of drinking water?
- 16 A. None.
- 17 Q. I believe that in this area there do not appear
- 18 to be, within the two miles, any sources of fresh
- 19 water -- any freshwater wells?
- 20 A. That's correct.
- 21 Q. In your opinion, can water -- produced water be
- 22 safely injected through the Myrtle Myra well into the
- 23 disposal zone?
- A. Yes, that's my opinion.
- Q. And it won't affect any freshwater source

- 1 nearby?
- 2 A. Correct.
- 3 Q. Now, you worked for Mesquite when they got the
- 4 Exxon State #8 well. Do you know of any problems that
- 5 that well has ever caused with injection?
- 6 A. No.
- Q. And do you believe that if this application is
- 8 approved, producers in the area can safely drill and
- 9 complete wells to other zones in this area?
- 10 A. Yes, sir.
- 11 Q. Were Exhibits 1 through 6 either prepared by
- 12 you or compiled from company business records?
- 13 A. Company business records, yes.
- Q. And you said you have reviewed Exhibit 7 and
- 15 agree with the contents of that exhibit?
- 16 A. Yes.
- 17 Q. In your opinion, is the granting of this
- 18 application in the interest of conservation and the
- 19 prevention of waste?
- 20 A. Yes.
- 21 MR. BRUCE: Mr. Examiner, Exhibit 8 is the
- 22 Affidavit of Notice to the offset operators. The names
- 23 were provided by my client. In addition, we notified
- 24 the Bureau of Land Management and the Division's Artesia
- 25 office.

- 1 And I would move the admission of all the
- 2 exhibits, Exhibits 1 through 8.
- 3 EXAMINER EZEANYIM: Any objections?
- 4 MR. FELDEWERT: No objection.
- 5 MR. PADILLA: No objection.
- 6 EXAMINER EZEANYIM: No objections;
- 7 therefore, 1 through 8 will be admitted.
- 8 (Owl Oil and Gas, LLC Exhibit Numbers 1
- 9 through 8 were offered and admitted into
- 10 evidence.)
- MR. BRUCE: I pass the witness.
- 12 EXAMINER EZEANYIM: Who wants to go first?
- 13 CROSS-EXAMINATION
- 14 BY MR. PADILLA:
- 15 Q. Dr. Havenor, did I understand your testimony to
- 16 be that the injected water of the Myrtle Myra #3 would
- 17 have in excess of 100,000 TDS?
- 18 A. That would be my estimate.
- 19 Q. So when you say in excess of 100,000, how much
- 20 higher than 100,000 are we talking about?
- 21 A. Going from memory on the Bone Spring, about
- 22 120,000.
- 23 Q. And what's the -- and I also understood your
- 24 testimony to be that the ambient TDS in the Yates
- 25 Formation is -- or the zone of the injection is 20,000

- 1 TDS; is that right?
- 2 A. Over 20,000.
- 3 Q. And how much over 20,000?
- A. I believe in the range of 22,000.
- 5 Q. So it would be fair to say that you would be
- 6 injecting water that is five times -- that has five
- 7 times TDS content of what's in the reservoir now?
- 8 A. Yes, that would be correct.
- 9 Q. You mentioned, in a question by Mr. Bruce, that
- 10 all of the wells that you examined had adequate casing
- 11 to protect against migration of water into the wellbore.
- 12 Is that what you meant?
- 13 A. Well, yes, adequate casing that is cemented or
- 14 can be cemented.
- 15 Q. So if there is no cementing in the segment of a
- 16 well, would 100,000 TDS and above have a greater
- 17 corrosion propensity on a bare casing?
- 18 A. I don't completely follow your question. What
- 19 part of the -- what part of the well are you talking
- 20 about?
- 21 Q. Well, I'm talking about a well that is not
- 22 cemented in the portion of the injection zone and what
- 23 the corrosive factor would be by the injected water.
- 24 A. Well, over -- it boils down, in my opinion, to
- 25 the fact that waters that are in excess of 20,000, or

- 1 10,000, are not protectable. And there is the
- 2 possibility that these waters -- there is the
- 3 possibility, but doubtful, that these waters would
- 4 migrate into zones of 22,000. That's -- I don't really
- 5 understand your question. I'm sorry.
- 6 Q. Well, I'm not talking about waters that should
- 7 be protected. I'm talking about the corrosive factor of
- 8 injecting water and damaging wells by having injected
- 9 water that is highly -- that is above 100,000 TDS.
- 10 A. I'm having difficulty following exactly what
- 11 you mean. Other than drilling through a zone that has
- 12 that disposal water in it? Is that what you're saying?
- Q. No, I'm not talking about that. You've
- 14 testified about the drilling of the Mewbourne well, that
- 15 you had adequate circulation, and you also said that you
- 16 had -- through the proper mud program, that you could
- 17 escape any damage from injecting waters.
- 18 What I'm talking about is when you inject
- 19 water that's five times as toxic, if you want to call it
- 20 that, as what's in the reservoir now, what happens to
- 21 exposed wellbores? And my question is if that would
- 22 have a propensity to have a greater corrosive factor on
- 23 exposed wellbores in the zone of injection?
- A. Well, that condition does not exist presently
- 25 within the -- within the area of review. And what might

- 1 happen naturally or through disposal outside of that
- 2 area of review is something I can't answer.
- MR. PADILLA: I'll pass the witness.
- 4 EXAMINER EZEANYIM: Mr. Feldewert?
- 5 CROSS-EXAMINATION
- 6 BY MR. FELDEWERT:
- 7 Q. Dr. Havenor, looking at Exhibit 5 -- do you
- 8 have that in front of you?
- 9 A. Yes, sir.
- 10 Q. So that's the well completion report for the
- 11 Esperanza 15 State Com well, Exhibit Number 5?
- 12 A. Exhibit Number 5?
- 13 Q. Yeah. I'm not on page 5 of anything. I'm on
- 14 Exhibit Number 5.
- 15 A. Exhibit Number 5. Oh, excuse me.
- Q. What was the purpose of this exhibit?
- 17 A. I think it was primarily to demonstrate that
- 18 the existing disposal interval could be drilled through
- 19 without significant problems.
- 20 Q. When was this particular well drilled,
- 21 Mr. Havenor?
- 22 A. This well was drilled in approximately 2002.
- 23 Q. Have you looked at the injection records for
- 24 the Exxon Well #8 down in Section 15?
- 25 A. I know approximately what their total injection

- 1 has been.
- 2 Q. Do you remember when they started injecting
- 3 substantially large volumes of water into that well?
- A. I believe that's shown in one of the diagrams.
- 5 Q. It was after approval by the Division --
- 6 reapproval by the Division in 2008; isn't that correct?
- 7 A. Yes.
- 8 Q. So this well was drilled prior to the disposal
- 9 of water into the Exxon 8 as approved by the Division in
- 10 2008; is that correct?
- 11 A. Yes. "This well" meaning the Mesquite well?
- 12 Q. This well shown on Exhibit Number 5 --
- 13 A. Okay. Yes.
- 14 Q. -- was drilled --
- 15 A. Yes. This was drilled in 2002.
- 16 Q. So almost six years before they started
- injecting substantial amounts of water through the
- 18 Exxon #8 after approval by the Division?
- 19 A. No, it wasn't that long. The more significant
- 20 disposal times as it's shown on --
- MR. BRUCE: Exhibit 3.
- 22 A. -- approximately the beginning of 2007.
- 23 O. (BY MR. FELDEWERT) 2007?
- 24 A. Yes.
- Q. Okay. So, again, well after this well was

- 1 drilled?
- 2 A. (No response.)
- 3 Q. I want to make sure I understand your -- what
- 4 do you call this thing (indicating)?
- 5 A. Well log.
- 6 Q. Well log, which is Exhibit Number --
- 7 MR. FELDEWERT: Which one is this, Jim?
- 8 MR. BRUCE: 6.
- 9 MR. FELDEWERT: 6.
- 10 Q. (BY MR. FELDEWERT) Could you look at Exhibit
- 11 Number 6 for me, please? I kind of skimmed through
- 12 this, and I want to make sure I understand it. You have
- 13 the area shaded in blue, and then you have -- somebody's
- 14 written in there "A, B and C." Do you see that?
- 15 A. Yes.
- 16 Q. Did you write that?
- 17 A. No.
- 18 Q. Do you know what it represents?
- 19 A. No, I don't.
- 20 Q. Somebody on here wrote -- drew a blue line and
- 21 put "marker" on it. Do you see that --
- 22 A. Yes.
- 23 O. -- towards the bottom?
- 24 What does that represent?
- 25 A. It's a correlation marker.

- 1 Q. For what?
- 2 A. For the -- for that particular zone within
- 3 the -- within the Yates.
- 4 Q. And what zone does that marker represent?
- 5 A. Someone else's correlation marker. I don't
- 6 know. I did not prepare this.
- 7 Q. You can't tell me what zone is identified by
- 8 that marker?
- 9 A. No, sir, I can't.
- 10 Q. Now, this has written on it -- handwritten in
- 11 blue the disposal -- what is marked as "Disposal Zone"
- 12 both for the Exxon #8 and then the water -- and then the
- 13 disposal well proposed by Owl, correct?
- 14 A. Yes.
- 15 Q. Did you write those?
- 16 A. No.
- 17 Q. You did not?
- 18 A. No.
- 19 Q. Do you know how they identified their proposal
- 20 zone -- or the disposal zone?
- 21 A. How they identified the one on the -- on the
- 22 E [sic] log?
- Q. On these logs.
- 24 A. By looking at the records.
- Q. But you don't know what they're representing in

- 1. here, then, as the disposal zone other than what's
- 2 marked on here?
- 3 A. The top of the disposal zone in this well,
- 4 which is the Mesquite #8 --
- 5 Q. Okay. Where is that on this particular
- 6 exhibit?
- 7 A. The top of the injection zone is marked as the
- 8 bottom of the casing because the injection zone is open
- 9 hole.
- 10 Q. So if I'm looking at this particular Exhibit
- 11 Number 6, you're looking at the wellbore in the middle,
- 12 correct? I'm trying to orient myself on your exhibit.
- 13 A. Oh, okay.
- Q. Or this exhibit. I quess it's not your
- 15 exhibit. On Exhibit Number 6, there is a disposal zone
- 16 marked in the middle well, correct? And what well is
- 17 that associated with?
- 18 A. This is a log from one well.
- 19 O. Which well?
- 20 A. The Mesquite SWD #8.
- 21 Q. And that has "Disposal Zone" written right
- 22 below the bottom of casing?
- 23 A. Correct. That is the top of the disposal zone.
- Q. And then if I move to the left of this exhibit,
- 25 I see a proposed zone of disposal that's handwritten in

- 1 a log. And is that for Owl's proposed well?
- 2 A. Correct.
- 3 Q. But you don't know what those markings indicate
- 4 in terms of whether they're planning to dispose?
- 5 A. Well, they're planning to dispose at the top of
- 6 the proposed zone to the bottom, to the perforations.
- 7 Q. And what is the proposed zone?
- 8 A. Geologically or numerically?
- 9 Q. What have they asked for as their disposal
- 10 zone?
- 11 A. I have to go back to the C-108 application
- 12 (reading).
- 13 And they're asking for an interval from
- 14 approximately 670 to 785.
- 15 Q. And what do they represent as the disposal zone
- 16 in which they seek to dispose their water? What is that
- 17 zone called?
- 18 A. Geologically?
- 19 Q. Perhaps. What would it be called geologically?
- 20 A. The base of the Yates and the top of the Seven
- 21 Rivers.
- Q. Because when I look at their application filed
- 23 with the Division, it says they seek to dispose of
- 24 produced water through the Yates-Seven Rivers Formation.
- 25 Is that what you're talking about here?

- 1 A. Yes.
- 2 Q. That's what this disposal zone would represent
- 3 on this Exhibit Number 6?
- 4 A. Yes.
- 5 Q. Would you agree with me that the Yates-Seven
- 6 Rivers Formation is a different formation from the Yates
- 7 Formation?
- 8 A. In technicality, the two of them are separate
- 9 geological formations. And that line at the base of the
- 10 blue on the right-hand side is the base of the Yates,
- 11 and that's marked in the well column at about 505 feet.
- 12 Excuse me. That's the marker zone. The base of the
- 13 Yates is, in my opinion, going to be down approximately
- 14 617 feet on this log.
- 15 O. The base of the Yates Formation?
- 16 A. The base of the Yates Formation, the top of the
- 17 Seven Rivers. Apparently, in the preparation of that
- 18 diagram, they did not differentiate between the Yates
- 19 Formation and the Seven Rivers Formation.
- 20 Q. So then the Yates Formation itself would be
- 21 above 617 [sic] feet?
- 22 A. Yes.
- Q. On this particular Exxon #8 log?
- 24 A. Yes.
- 25 Q. Are you aware of the injection authority

- 1 approved by the Division for the Exxon #8?
- 2 A. I don't recall the bottom depth.
- 3 MR. FELDEWERT: May I approach the witness?
- 4 EXAMINER EZEANYIM: Sure.
- 5 Do you wish this to be admitted into
- 6 evidence?
- 7 MR. FELDEWERT: At this point,
- 8 Mr. Examiner, I don't think we need to because it's a
- 9 Division order.
- 10 EXAMINER EZEANYIM: Okay.
- 11 Q. (BY MR. FELDEWERT) Mr. Havenor, I've just
- 12 handed you what's been marked as -- I'm sorry. I just
- 13 handed you Division Order R-13043. Are you familiar
- 14 with this order?
- 15 A. Vaquely.
- 16 Q. This was approved in 2008, the injection
- 17 authorized by the Division for the Exxon #8 well, which
- 18 is the wellbore we were just talking about, correct?
- 19 A. Correct.
- 20 Q. Now, if you turn to page 4 of this order, this
- 21 order, in paragraph B, authorized the disposal of water
- 22 by vacuum for disposal purposes into the Yates
- 23 Formation?
- 24 A. Yes, sir.
- 25 Q. It doesn't authorize disposal into the

- 1 Yates-Seven Rivers. At this point in time, they are
- 2 authorizing into the Yates Formation, correct?
- 3 A. That is correct.
- Q. And they authorize it by vacuum into the Yates
- 5 Formation, correct?
- 6 A. Yes.
- 7 Q. In Owl's application, it seeks to authorize
- 8 injection into the Yates-Seven Rivers, which is a
- 9 different formation below the Yates Formation, correct?
- 10 A. No.
- 11 Q. Isn't that what you just testified to?
- 12 A. The Yates-Seven Rivers Formation is an
- inappropriate designation of overlapping the basal Yates
- 14 Formation and the Upper Seven Rivers. It's improperly
- 15 noted.
- Q. Look at your Exhibit Number 4.
- 17 A. Exhibit Number 4.
- Q. And now look at page 2. You indicate formation
- 19 tops. There is an entry there for the Yates Formation
- 20 at 694. Do you see that? Or 644.
- 21 A. Yes, I do. Yes.
- 22 Q. 644.
- 23 And there is a number for the Seven Rivers
- 24 at 694. At least the Division recognizes these as two
- 25 separate formations; do they not?

- 1 EXAMINER EZEANYIM: Counselor, what exhibit
- 2 are you looking at?
- 3 MR. FELDEWERT: I'm looking at Exhibit
- 4 Number 4, page 2.
- 5 EXAMINER EZEANYIM: Let me get it.
- 6 Q. (BY MR. FELDEWERT) And then even if I look,
- 7 Mr. Havenor, at your Exhibit Number 2 -- would you turn
- 8 to that, please?
- 9 A. Yes.
- 10 Q. I think you indicated that the Owl well is
- 11 going to be injecting about a mile left of what you show
- 12 as the Exxon State #8?
- 13 A. Yes.
- 14 O. And as I look at the formations that are listed
- on your exhibit, you've got the Tansill, you've got the
- 16 Yates, and you've got the Seven Rivers listed as
- 17 separate formations; are they not?
- 18 A. Yes, they are.
- 19 Q. Now, Owl seeks authority, then, to inject into
- 20 the Yates-Seven Rivers Formation, which at least the
- 21 Division and your exhibits recognize as a separate
- 22 formation than that authorized by the Exxon 8, correct?
- 23 A. Yes, sir.
- Q. And they seek to inject under pressure, not by
- 25 vacuum?

- 1 A. By maximum pressure.
- Q. Okay. Under pressure. They want to inject
- 3 using pressure, not by vacuum?
- A. Well, that would be an operational thing, and I
- 5 can't -- I can't answer that.
- 6 Q. Their C-108 seeks authorization to inject under
- 7 pressure?
- 8 A. I don't interpret it that way, but I accept
- 9 your --
- 10 Q. We'll let somebody else interpret the C-108,
- 11 then.
- So we have a different application here.
- Now, you indicated that you thought the TDS
- 14 in the injection zone was -- to inject into the
- 15 Yates-Seven Rivers. I think you testified it had a TDS
- of over 20,000 parts per million?
- 17 A. Yes.
- 18 Q. Now, where does that evidence come from? And
- 19 the reason I ask, Mr. Havenor, is because I thought you
- 20 testified in the Exxon 8 case that you could not
- 21 ascertain the TDS of the quality of the water in the
- 22 injection zone. Do you recall that?
- 23 A. No.
- Q. You don't. Okay.
- You don't recall testifying there was no

- 1 standing water for you to test in the injection zone?
- 2 A. No, I don't recall that.
- 3 Q. Now, in the Exxon #8 case, they sought the
- 4 authority to inject down to 694 feet. Do you recall
- 5 that?
- 6 A. Yes.
- 7 MR. FELDEWERT: May I approach the witness?
- 8 EXAMINER EZEANYIM: Sure, you may.
- 9 Q. (BY MR. FELDEWERT) Mr. Havenor, I'm going to
- 10 hand you the transcript from that hearing. It was back
- in 2008. And I'm going to have you look at page 131,
- 12 line 14. And I think the question was asked of you, and
- 13 I'm going to read it. Okay?
- 14 A. All right.
- 15 Q. "But the fact of the matter is the depth that
- 16 we're injecting, at 694, there is no water that we are
- aware of; is that correct?" And your answer was what?
- 18 I read here (indicating). What is your answer? Can you
- 19 read it out loud, please?
- 20 A. Yes. I said that we can't find any water. "We
- 21 have no standing water."
- Q. You say: "We can't measure it. We can't find
- 23 any water. We have no standing water"?
- 24 A. Yes.
- 25 Q. Then if I turn over to page 175, this is,

- 1 again, your testimony. And I'm on line two, and it
- 2 says: "That's essentially what I said. There is no way
- 3 to get a sample of the native waters because all of the
- 4 waters in that zone disappear on vacuum. It disappears
- 5 from this location, at least."
- 6 A. Yes, that's correct.
- 7 Q. So you testified at the time that you could not
- 8 test the native waters in the zone in which you were
- 9 injecting, correct?
- 10 A. From that well, correct.
- 11 Q. Have you been able to -- or do you have any
- 12 test here today of the native waters in the zone, the
- 13 Yates-Seven Rivers zone, in which Owl seeks authority to
- 14 inject?
- 15 A. I can't recall the source from which I got the
- 16 greater-than-2,000 parts per million, but I believe it
- 17 was on subsequent investigations.
- 18 Q. Well, we don't have any of that information?
- 19 A. No, you don't have that on record.
- 20 O. And it's not in the C-108?
- 21 A. No, it's not.
- 22 Q. I think you also testified at the hearing that
- 23 whatever the salinity is, that the salinities in the
- 24 reef are being cleaned up by Mother Nature, the Pecos
- 25 River and rainfall. Do you remember that?

- 1 A. That's a pretty broad statement. I probably
- 2 said it.
- 3 O. So over time, the salinity in the reef is
- 4 actually being cleaned up by Mother Nature; is it not?
- 5 A. In the reef, yes, that's correct. We're not in
- 6 the reef.
- 7 Q. Now, I believe you describe the zone in which
- 8 the Exxon 8 was injected as having -- and I hope I
- 9 pronounce this right -- Bugular [phonetic] dolomite?
- 10 A. Bugular dolomite.
- 11 Q. Bugular dolomite. Okay. Do you recall that?
- 12 A. Yes.
- Q. Do you expect the Bugular dolomite in the
- 14 injection zone in which Owl is proposing to inject?
- 15 A. Yes, I do.
- 16 Q. And I think you said the porosity of that type
- of material is 25 to 30 percent in that carbonate?
- 18 A. That's a general statement, yes, but that's
- 19 probable.
- Q. You think that will apply to Owl's well as
- 21 well?
- 22 A. I think it will.
- Q. You described that permeability as very, very
- 24 high and out of the decimal range?
- 25 A. Yes.

- 1 .Q. Same for Owl's?
- 2 A. Yes.
- Q. Is it normal to see such high porosity or
- 4 permeability in an oil and gas reservoir like the Yates
- 5 Formation?
- 6 A. It depends on what part of the Yates you're
- 7 working with.
- 8 Q. Have you examined the production records from
- 9 the Yates Formation, the oil and gas production records?
- 10 A. Yes, over the years.
- 11 Q. And have you done any kind of study to
- 12 determine what the permeability would be for that zone?
- 13 A. No. I couldn't quote permeability for that
- 14 zone, but we have a geological change in the lower part
- 15 that enables the high -- high disposal rate or
- 16 absorption rate of water from that porous sub-oil
- 17 horizon.
- 18 Q. If you anticipate that type of porosity or
- 19 permeability in the Yates -- or in Owl's proposed
- 20 injection interval, then why do they seek authority to
- 21 inject under pressure? Doesn't it just flow by vacuum?
- 22 A. I can't speak for that particular clause in the
- 23 application. My estimation is that they were not
- 24 talking about pressure to inject into the formation and
- 25 set that as an upper limit in the event that they did

- 1 put some pressure on it.
- Q. Well, they certainly haven't asked for
- 3 authority just to inject on vacuum, have they?
- 4 A. I'm not familiar with any applications that
- 5 normally submit an application to do it on vacuum only.
- 6 Q. On the Exxon 8, the Division only approved
- 7 injection authority by vacuum?
- 8 A. Because that's what was happening.
- 9 Q. Do you know what the area -- what the
- 10 circumference was or is of the area of review for Owl's
- 11 proposed application?
- 12 A. The area of review is half a mile.
- 13 Q. They didn't go beyond a half mile?
- 14 A. Not for the area of review.
- Q. When you testified for the Exxon #8, didn't
- 16 your area of review -- you had a normal area of review
- 17 but also an extensive bordering area?
- 18 A. The two-mile area?
- 19 Q. I don't know what you were talking about. Is
- 20 that what you were talking about?
- 21 A. The extended one is the two-mile area. You're
- 22 required to file much more detailed information for the
- 23 area of review, which is a half mile around the proposed
- 24 SWD.
- Q. If we're talking about a disposal in this type

- 1 of what you consider to be a highly permeable zone,
- 2 would it perhaps be prudent to expand the area of review
- 3 beyond a half mile in anticipation of the influence of
- 4 the water that may extend beyond a half mile?
- 5 A. That's a regulatory problem, not mine.
- 6 Q. I think you testified that there was no -- that
- 7 there was no freshwater well within the area of review.
- 8 A. Yes.
- 9 MR. FELDEWERT: May I approach the witness?
- 10 EXAMINER EZEANYIM: Sure.
- 11 Q. (BY MR. FELDEWERT) Mr. Havenor, I've handed you
- 12 what's been marked as Yates Exhibit Number 10.
- MR. FELDEWERT: And the reason I've done
- 14 that, Mr. Examiner, is because I'm going to be
- 15 introducing Yates 1 through 9.
- 16 EXAMINER EZEANYIM: Okay.
- 17 (Yates, Abo, MYCO Exhibit Number 10
- 18 marked.)
- 19 Q. (BY MR. FELDEWERT) And I'm going to represent
- 20 to you, Mr. Havenor, that this was pulled out of the
- 21 Division's files. It's in connection with the C-108
- 22 application and that the SWD Order, the location of the
- 23 well and the injection interval, which in this case was
- 24 the Cherry Canyon, is identified on this exhibit in the
- 25 middle. What I found of interest, perhaps, is that this

- 1 indicates, at least with this filing, that there is one
- 2 inactive freshwater well located in ULM of Section 9,
- 3 Township 21 South, Range 27 East, that in this case, it
- 4 was within one mile of the proposed disposal well. Have
- 5 you come across that, or do you know if anyone's come
- 6 across that well -- first off, let me back up.
- 7 Section 9, Township 21 South, Range 27 East
- 8 is the same section in which Owl is seeking to dispose
- 9 in the Yates-Seven Rivers, correct?
- 10 A. Yes.
- 11 Q. And so at least somebody found an inactive
- 12 freshwater disposal well in this section, same section,
- 13 correct?
- 14 A. That's what they reported.
- 15 Q. But you didn't find anything like that?
- 16 A. No, I didn't.
- 17 Q. To your knowledge, is this Owl's first
- 18 saltwater disposal application?
- 19 A. I believe so.
- 20 Q. In fact, they don't operate any wells in the
- 21 state of New Mexico, do they?
- 22 A. Not to my knowledge.
- Q. And to your knowledge, are they seeking to have
- 24 this permitted as a commercial disposal well?
- 25 A. I believe so.

- 1 Q. So we really don't know where the waters that
- 2 they seek to inject are going to come from?
- 3 A. That is -- that is correct.
- Q. And, therefore, we don't really know what the
- 5 water quality is going to be that's injected above the
- 6 Capitan Reef in this particular proposed injection well?
- 7 A. It's not being injected into the upper part of
- 8 the Capitan Reef.
- 9 Q. This particular well, as I understand it,
- 10 was -- in which they seek to utilize was drilled when?
- 11 Do you recall?
- 12 A. I don't, no.
- 13 Q. Were you aware that it produced oil from the
- 14 Delaware Formation in the early 1990s?
- 15 A. I have not looked at that well in detail.
- 16 Q. Are you aware that this wellbore goes down to
- 17 the Bone Spring Sand --
- 18 A. Yes.
- 19 Q. -- at least 5,300 feet?
- 20 A. Yes.
- 21 Q. And I guess you're the only one here from the
- 22 company here today. Do you know why the company hasn't
- 23 considered disposing -- utilizing this wellbore to
- 24 dispose into the Delaware Formation to avoid the
- 25 proximity to the Capitan Reef?

- A. Number one, it's not in proximity to the
- 2 Capitan Reef. Number two, this zone is known to take
- B significant amounts of water presently under vacuum, and
- 4 it's shallow.
- 5 Q. But you're aware, are you not, that there are a
- 6 number of disposal wells into the Delaware Formation?
- 7 A. Yes, but they don't take the volumes of water
- 8 that are available here.
- 9 Q. And we know that the depth of the Delaware is
- 10 below the Capitan Reef, right?
- 11 A. The Delaware Basin is in front of the Capitan
- 12 Reef.
- 13 Q. In terms of depth, it's below it? You're not
- 14 going to be putting water on top of the Capitan Reef?
- 15 You'll be injecting below the Capitan Reef?
- 16 A. In which well?
- 17 Q. In any well.
- 18 A. In any well?
- 19 Q. Well, in this particular well, in this well.
- 20 A. No, it won't be -- it's not -- it's not in
- 21 contact with the Capitan Reef.
- Q. But if I was going to use this wellbore and
- 23 change my injection zone from the Yates-Seven Rivers to
- 24 the Delaware Formation, I would be injecting produced
- 25 water below the Capitan Reef area?

- 1 A. Not necessarily.
- Q. Wouldn't I be injecting at 2,600 feet?
- A. No. The Capitan Reef and the Delaware Basin is
- 4 a very complicated arrangement, because the Capitan Reef
- 5 grew, basinward, over deeper sands in the Delaware --
- 6 what we call the Delaware Basin Sands now. And we're
- 7 talking about back reef, essentially, opposed to
- 8 anything that you're talking about.
- 9 Q. Okay. Let me change my phraseology. I don't
- 10 want to get hung up on the phraseology.
- If I am injecting in this particular
- 12 wellbore, instead of the Yates-Seven Rivers, I go down
- 13 to the Delaware and I put my injection perforations into
- 14 the Delaware Formation, I would be below either the
- 15 Capitan Reef or the back reef or whatever else you want
- 16 to call it, correct?
- 17 A. Yes, you would be.
- 18 MR. FELDEWERT: That's all the questions I
- 19 have. Thank you.
- 20 EXAMINER EZEANYIM: Thank you very much.
- 21 Any redirect?
- MR. BRUCE: Just a couple, Mr. Examiner.
- 23 REDIRECT EXAMINATION
- 24 BY MR. BRUCE:
- 25 Q. Dr. Havenor, Mr. Feldewert here is suggesting

- 1 maybe Owl should change its plans and inject into the
- 2 Cherry Canyon. And Mr. Feldewert, representing Yates --
- 3 we were here a couple of weeks ago for a Mesquite SWD,
- 4 and Yates objected to injecting into the Delaware; did
- 5 it not?
- 6 A. Yes.
- 7 Q. So we'll be fighting over some type of
- 8 injection based on past history?
- 9 A. It's possible.
- 10 Q. But you see no need to inject into the Cherry
- 11 Canyon like this Ray Westall well?
- 12 A. No, I wouldn't.
- Q. And, again, this is not the Capitan Reef?
- 14 A. Correct.
- 15 Q. It is not connected to the Capitan Reef, where
- 16 the Owl well is located?
- 17 A. That is correct.
- 18 Q. And finally, Owl is seeking to inject into a
- 19 correlative zone -- into a zone correlative with that of
- 20 the Exxon State well?
- 21 A. Yes.
- MR. BRUCE: That's all I have,
- 23 Mr. Examiner.
- 24 EXAMINER EZEANYIM: Thank you very much.
- 25 Anything further of this witness?

- 1 MR. PADILLA: I don't have any questions.
- 2 EXAMINER EZEANYIM: Okay. I have some
- 3 questions for you.
- 4 CROSS-EXAMINATION
- 5 BY EXAMINER EZEANYIM:
- 6 O. And we start with the fact that in
- 7 cross-examining you, we accepted those exhibits into the
- 8 record. But it appears to me that you didn't prepare
- 9 those exhibits.
- 10 A. I'm sorry?
- 11 Q. Did you prepare Exhibits 1 through 7? Did you
- 12 prepare those exhibits, Exhibits 1, 2, 3, 4, 5, 6 and 7,
- 13 that were presented?
- 14 A. No.
- 15 Q. You didn't. Okay.
- So that's where we have the problem,
- 17 because as it is now, Exhibit Number 7 has to be redone
- 18 because I can't find any information there. If you
- 19 looked at it before you came before the Division, you
- 20 would have told them to redo it, because I don't know
- 21 what which is the current well; I don't know which is
- 22 the proposed well. There are some plugged and abandoned
- 23 wells. I don't see the plugged and abandonment.
- I see a lot of things that are left to be
- 25 desired. If you did it, the information -- I know you

- 1 appeared before us; you would do it right. But they
- 2 gave you what they -- what they did, and then you came
- 3 before us to present this. And that's why you're having
- 4 a little problem trying to answer the questions of what
- 5 you didn't do. So that's my impression. If I'm wrong,
- 6 correct me, because what I'm trying to say -- of course,
- 7 you answered correctly.
- 8 Was this prepared by you or by company
- 9 business records? You say company business records.
- 10 Somebody else did it. Unfortunately, that person is not
- 11 here to answer those questions. So you see where I'm
- 12 going to? There are a lot of things that I really need,
- 13 especially on this Form C-108.
- 14 As you know, you've been dealing with Form
- 15 C-108. Form C-108 wasn't done by you. And now, when
- 16 we're looking at this and counsel was asking you who
- 17 wrote those things -- you didn't write them?
- 18 A. Correct.
- 19 Q. So why would I blame you? You didn't write it.
- 20 Somebody else did, but they are not here to tell me why
- 21 that was the case. Okay? See where I'm going?
- You know, I'm not going to fault you
- 23 because you didn't do it. You're here to tell us what
- 24 happened, and you did an excellent job because you said
- 25 what you understood it to be. If you did it, then I

- 1 could have asked you more questions, but I understand
- 2 you didn't prepare all those exhibits yourself. So it
- 3 makes a whole lot of difference. If I did something, I
- 4 know what I did. If somebody did something and gave it
- 5 to me, well, I just answer to my knowledge, you know.
- 6 See what I mean?
- 7 A. Yes, sir.
- 8 Q. Okay. Good. I just want you to understand
- 9 where I'm going.
- 10 A. I understand.
- 11 Q. You did a good job by answering to the best of
- 12 your ability, but because you didn't do the work
- 13 yourself.
- 14 And then this is a commercial -- this is a
- 15 commercial water disposal, right?
- 16 A. Yes.
- 17 Q. Okay. That's what your understanding is.
- 18 So it appears from everything that I've
- 19 heard that we don't really know where the water is
- 20 coming from. When I look here, I don't see anything
- 21 concerning water that is going to be -- and, again, even
- 22 though we issued this -- I know we did it on a vacuum.
- 23 I don't think this is a commercial well. I think this
- 24 is just maybe a leased well, saltwater -- saltwater
- 25 disposal, so we may have approved it based on those

- 1 facts.
- 2 But when you are talking about commercial
- 3 disposal, a well that we don't know where the water will
- 4 come in, we have to look at it more critically. So I
- 5 could have appreciated it if you had taken the depth
- 6 [sic] and then allowed it -- and presented it before us.
- 7 So one of the questions we ask counsel is
- 8 to provide -- they're not giving you the information --
- 9 you provide us with a new Form C-108, because I'm not
- 10 going to -- let me point out some deficiencies here, so
- 11 we know where you want to go when you want to prepare
- 12 it, because those things are what we need. Okay?
- This is an old well that you're going to
- 14 convert from plugged and abandoned to a water disposal
- 15 at shallow -- here, I didn't know which one is current.
- 16 I didn't know which one is initial. I don't know where
- 17 the packer is at. I don't know what is happening. I
- don't know whether you're going to be on a perf [sic].
- 19 If you look -- take a look at the Form C-108 that I
- 20 have. You see what I'm saying?
- 21 A. Yes, sir.
- 22 Q. If you did it -- we review your applications
- 23 and the Form C-108, and how you did your packer, where
- 24 the perforations would be, if it's going to be open hole
- 25 or -- I can't see them in here. So I don't know how to

- 1 evaluate it.
- Then I go to the area of review. I can see
- 3 most or some of the wells are plugged and abandoned. I
- 4 don't see those plugged and abandoned wells to see
- 5 whether they were properly plugged and abandoned or
- 6 whether we are going to require the middle walk [sic].
- 7 I only saw one. And I don't see the rest. So how am I
- 8 supposed to know whether they are plugged and abandoned?
- 9 I want you to talk to your client to
- 10 provide that, so I know what's going on here. They
- 11 haven't come before us, so they don't know what we
- 12 require.
- Each of those plugged and abandoned wells
- 14 need to be diagramed to show us, first of all, when were
- 15 they plugged and abandoned, how were they plugged and
- 16 then the schematic showing the plugged and abandonment.
- 17 Even if it's a very, very shallow disposal well, we need
- 18 to know that everything is protected. I don't have
- 19 them, and I can't operate in a vacuum. That's on my own
- 20 part. I'm not talking about your content. But on my
- 21 own part, for me to look at this, I don't see all those
- 22 plugged and abandoned wellbores as were indicated. I
- 23 think I have -- one, two, three, four -- about four of
- 24 them. The other two are producing. So that's okay.
- 25 The four plugged and abandoned wells, we need to have

- 1 them. You see what I mean?
- MR. BRUCE: We will do that, Mr. Examiner.
- 3 EXAMINER EZEANYIM: Okay. Very good.
- 4 Q. (BY EXAMINER EZEANYIM) Then, again, take the
- 5 schematic of that injection well, tell me what it looks
- 6 like right now and then what it will look like after you
- 7 convert them.
- 8 A. Yes, sir, I understand.
- 9 Q. You know what I'm talking about. What I have
- 10 now, I can't make any examination. There is no way I
- 11 can look at it. So as I said here, this C-108, that's
- 12 my concern, so I can understand what's going on.
- MR. BRUCE: We will do that, Mr. Examiner.
- 14 EXAMINER EZEANYIM: Okay. Very good.
- 15 Q. (BY EXAMINER EZEANYIM) Let's go right from the
- 16 beginning. I want us to establish what type of waters
- 17 are related to the use of this formation, because it
- 18 appears we don't know.
- 19 A. I'm sorry?
- 20 O. The window -- the nature of the water. You
- 21 said they are not protectable. How do we know they are
- 22 not protectable?
- 23 A. By salinity.
- Q. But according to the cross-examination, it
- 25 appears we don't know?

- 1 A. Yes.
- Q. Okay. If we don't know, how do we think they
- 3 are not protectable? They might be 2,000, as you
- 4 mentioned before, and I told you I can drink that water.
- 5 So anyway, we have established that we don't know.
- 6 However, we know that the water can be
- 7 injected more than 100,000 or more because it's a
- 8 commercial water disposal. It can come from anywhere,
- 9 even from London. Anywhere they get water, they'll put
- 10 it in there. I'm just -- okay. Did we establish
- 11 that --
- 12 A. Yes, sir.
- 13 Q. -- that we don't know what the native water is?
- 14 A. I understand.
- 15 Q. Okay. Very good.
- And you mentioned several times that this
- 17 well is not located in the Capitan Reef.
- 18 A. It is not, yes, sir.
- 19 Q. Now, you say this is not in the Capitan Reef,
- 20 right?
- 21 A. Yes.
- 22 Q. It has no relation with the Capitan Reef?
- 23 A. Pardon?
- Q. There is no relation with the Capitan Reef? It
- 25 wouldn't have any influence on the Capitan Reef, right?

- 1 A. The only relationship is it's referred to as
- 2 the back reef. In other words, it's behind the reef.
- 3 Q. Behind. Is that why we call it the back reef?
- A. Yes. It's, essentially, in this case, north of
- 5 the reef.
- 6 Q. Okay. Now, when you do this C-108 log [sic],
- 7 it's information that will be very, very revealing
- 8 because we want to know is it within the two-mile area
- 9 of review or even, for that matter, in the one-mile area
- 10 of review or, for that matter, the half-mile area of
- 11 review. Are there any production in the years -- so
- 12 those are supposed to be included here, because we don't
- 13 want to use commercial water to produce [sic] and run
- 14 ground production. I mean, I'm not saying it's wrong.
- 15 But anyway, if we get the application really well done,
- 16 we can begin to determine what needs to happen.
- 17 I was talking about the wellbore diagrams.
- 18 The wellbore diagrams are very, very important, in the
- 19 area of review that I talked to you about the plugged
- 20 and abandoned well diagrams, well constructed. And then
- 21 I would like to know some sample of the water source.
- 22 Even though it's commercial, where those waters coming
- 23 from; you know, what formation those waters are coming
- 24 from. You will agree with me that's very important?
- 25 And so we need to compile the compatibility of the

- 1 native water with the injected water.
- 2 And you have already said that within the
- 3 injection zone, there are no faults -- no geologic
- 4 faults; there is nothing that you can find, right?
- 5 A. I'm sorry? I didn't --
- 6 Q. You don't find any geologic faults that might
- 7 conduct injected water upwards? No faults, right?
- 8 A. No. No. I'm just trying to think of any
- 9 possible connection. There is none.
- 10 Q. Okay. Now, are there any water wells in the
- 11 area?
- 12 A. Are there -- no, there are not.
- 13 Q. There are no water wells?
- 14 A. No.
- 15 Q. Okay. This one that was presented by counsel,
- 16 do you know if that's a nearby water well? Is this
- 17 near -- is this in the same section, township?
- 18 A. I understand that statement, but I'm very
- 19 familiar with that area physically, and there are no
- 20 water wells out there.
- 21 O. So when we talk about the water is not
- 22 protectable, we want to make sure we understand what we
- 23 are talking about. We want to make sure we have the
- 24 evidence to make sure the water is not protected. One
- of our functions is to protect any protectable water.

- 1 A. Yes.
- 2 Q. Now, tell me about the influx of lost
- 3 circulation zones you mentioned. Lost in the zone --
- 4 you had some lost circulation, right?
- 5 A. That term is used loosely, and it generally
- 6 refers to a zone that takes water. In this particular
- 7 case, it's a highly porous dolomite and sand in the
- 8 basal Yates. And it's not an absence of the rock. It
- 9 not a void that it goes into, but it's exceptionally
- 10 high porosity, and it takes tremendous amounts of water.
- 11 Q. Well, anyway, is that because it's so porous
- 12 it's low circulation, so it takes water, right? It
- 13 takes water?
- 14 A. If your -- if your mud is properly constructed,
- 15 they do drill through it.
- 16 Q. Oh, yeah, I know. I mean, we're not talking
- 17 about drilling through it. I'm talking about on your
- 18 application. I mean, you are telling me because it's
- 19 low circulation zone, so you can put water into that
- 20 zone.
- 21 A. Correct.
- Q. Would that affect whether you can do that or
- 23 not?
- 24 A. Yes.
- 25 Q. Okay. Let go back to SWD 8. Was that well

- 1 drilled initially for saltwater disposal?
- 2 A. No, sir. It was originally drilled as a
- 3 prospect well for the Magruder-Yates field.
- 4 O. To what zone? To what zone?
- 5 A. Through the -- through the Yates.
- 6 Q. Through the Yates.
- 7 And then did they find anything?
- 8 A. I believe they had some shows in the -- in the
- 9 area above where disposal is occurring at the present
- 10 time, but they had nothing below. It was lost
- 11 circulation. It wasn't -- it was a cable [sic] to a
- 12 drilled well.
- Q. Oh, okay. Now, do you know who owned the well
- 14 before?
- 15 A. Yes, A. H. Reins [phonetic]. He was a cable
- 16 tool drilling -- driller and small company out of
- 17 Carlsbad.
- Q. And then Mesquite, where are they?
- 19 A. Mesquite?
- Q. I don't know if it's Mesquite or who applied
- 21 [sic] before Mr. Reins.
- 22 A. No. This -- okay. I'm confused. Are we
- 23 talking about the Mesquite SWD well that was drilled or
- 24 this proposed one?
- Q. No, the one that was -- Mesquite SWD well.

- 1 A. Yes. That was drilled by Reins.
- 2 Q. In 2002?
- 3 A. No. 1977.
- 4 Q. Oh, a long time ago.
- 5 Since we're on that well, let me go back
- 6 to -- this is not asking a question. It's on something
- 7 that's just a reference. The Owl well was drilled when?
- 8 A. I believe I have that in here somewhere
- 9 (reading).
- 10 I'm sorry. The operator didn't put a date.
- 11 Q. Okay. No problem.
- 12 And that well was drilled for oil and gas;
- 13 do you know?
- 14 A. Yes, oil.
- 15 Q. Did it produce anything?
- 16 A. I'm sorry?
- 17 Q. Did it produce anything? Any hydrocarbons?
- 18 A. No. It was --
- 19 Q. Just plugged and abandoned it?
- 20 A. Yes.
- 21 Q. And now once you re-enter up to 780 feet, you
- 22 get produced water, right?
- 23 A. Correct.
- Q. So you see why it's important that you show
- 25 constructively what the wellbore diagram is --

- 1 A. Absolutely.
- 2 Q. -- and then what the injection well -- what the
- 3 packer is going to be set? All of that construction
- 4 should be on the diagram.
- 5 A. I understand.
- Q. And then since we are talking about that, I
- 7 know you said that this is low circulation; we can't
- 8 take water. And I don't know whether you are the person
- 9 who is going to be answering these questions, because
- 10 you are not -- you are just a hired client. Did your
- 11 client ever consider going back to somewhere that is not
- 12 as shallow as 600 feet? Do you know?
- 13 A. I don't have knowledge as to that.
- 14 Q. I think I thought as much.
- 15 I wanted to ask you, did you ever discuss
- 16 anything with who prepared these exhibits? Did that
- 17 person sit down with you and talk to you about it before
- 18 you came before the Division?
- 19 A. No, sir.
- 20 Q. They just prepared them and gave them to you?
- 21 A. Essentially.
- 22 Q. How does that work? I mean, if you don't
- 23 prepare something, did you ask questions? It makes my
- 24 work so tedious. If you had asked questions, you may
- 25 have answered some of the questions. I don't want to go

- 1 forward to ask. As you know, this Form C-108,
- 2 Dr. Havenor, is a very, very technical form.
- 3 A. Yes, sir.
- Q. And we need to get that information to see
- 5 where we're going.
- 6 A. Yes.
- Q. I mean, I think it's prudent for you to have
- 8 talked to somebody who prepared this, because the person
- 9 could not be here. I wish he had been here. Then he
- 10 could have answered all the questions.
- MR. BRUCE: Mr. Examiner, if I could
- 12 interject. Owl is kind of here under duress. This case
- 13 was first supposed to be heard about two months ago.
- 14 EXAMINER EZEANYIM: Yeah.
- MR. BRUCE: And Yates requested two
- 16 continuances, to which all agreed.
- 17 EXAMINER EZEANYIM: Yeah.
- 18 MR. BRUCE: And it was supposed to be heard
- 19 two weeks ago, and Yates' attorney had a conflict and
- 20 had to step aside. Plus, Endurance's witnesses couldn't
- 21 be here. And Examiner Goetze continued the case. And
- 22 we had another person here, another witness, who could
- 23 not be here today, but Mr. Goetze said the case would be
- 24 heard.
- 25 And you are requesting additional data, and

- 1 Owl has no problem with providing that data. If we were
- 2 going to take a break, I was going to discuss that with
- 3 my opposing counsel to see if it might be best to
- 4 continue the case, provide new data and give Yates and
- 5 Endurance a chance to review the new data.
- 6 EXAMINER EZEANYIM: That might be -- that
- 7 might be a prudent thing to say, because I don't really
- 8 have enough information. I know maybe -- I don't know
- 9 if they are in New Mexico. Where are they, Owl?
- 10 MR. BRUCE: Yeah. The other witness -- you
- 11 know, Dr. Havenor is from Roswell. The other witness is
- 12 from Hope. He is a consultant, also, but he could not
- 13 be here today.
- 14 EXAMINER EZEANYIM: Did he prepare this
- 15 exhibit?
- MR. BRUCE: He prepared, in essence, the
- 17 C-108. And we would be glad to -- like I said, we will
- 18 provide you the additional data. That is not an issue.
- 19 EXAMINER EZEANYIM: You see why I'm asking
- 20 for the data?
- 21 MR. BRUCE: Yeah. Correct.
- 22 EXAMINER EZEANYIM: It might be prudent to
- 23 do that, because I know you have witnesses to present.
- 24 Is it okay if we take a break and all of you can confer
- 25 and let me know what you want to do, or do you want us

- . 1 to continue?
 - 2 MR. FELDEWERT: I have another suggestion.
 - 3 I mean, I was going to wait until the right time, but I
 - 4 think, Mr. Examiner, you touched on it. We have an
 - 5 application horribly incomplete, and this was what was
 - 6 noticed for hearing. This is what went out with the
 - 7 notice. So we have a circumstance where the application
 - 8 and the notice that went out was for an incomplete
 - 9 application.
- I don't know how you can proceed in this
- 11 case under this application and provide the proper
- 12 notice and provide the opportunity for parties to come
- in and object when they have not provided the basic
- 14 information that's necessary to have an administratively
- 15 complete application. So it seems to me that what
- 16 should happen is this case should be dismissed. They
- 17 should go back and do the homework, do the -- address
- 18 all the deficiencies that you pointed out here today,
- 19 file a complete application, provide notice of a
- 20 complete application so the parties know what they're
- 21 dealing with, and then move forward. That's what should
- 22 occur here.
- 23 EXAMINER EZEANYIM: Just a moment. Let me
- 24 get --
- Do you have anything to say?

- 1 MR. PADILLA: I was going to make the
- 2 motion to dismiss as well. I don't mind talking with
- 3 Mr. Bruce, trying to work something out, but I do think
- 4 that a lot of the information on the C-108 is
- 5 inaccurate, that there are at least two producing wells
- 6 that are listed as plugged wells. And I don't want to
- 7 put on my clients and then -- or my witnesses and then
- 8 have to come back again to address a new C-108. So I
- 9 would concur on the motion to dismiss, but I'm willing
- 10 to talk to Mr. Bruce, see if we can work something out.
- 11 EXAMINER EZEANYIM: Do you have any
- 12 comment?
- 13 MR. BRUCE: Yeah, Mr. Examiner. I disagree
- 14 with the characterization that the application is
- 15 horribly incomplete. It contains the basics. As a
- 16 matter of fact, I approached the Division originally to
- 17 have this administratively approved, and the Division
- 18 thought this could be administratively approved.
- 19 Now, as to a dismissal or a continuance,
- 20 that's six one or half a dozen another. The net effect
- 21 is that we will have to come back. And I think at this
- 22 point, whatever you decide, we will come back, and we
- 23 will submit the new C-108. But since there are
- 24 another -- just as a matter of fact, there are
- 25 two-and-a-half hours left, and there are four witnesses

- 1 to go. And I think, as Mr. Padilla stated, he doesn't
- 2 want his witnesses to testify and then have to come
- 3 back.
- 4 EXAMINER EZEANYIM: Anybody else, before I
- 5 make a statement?
- 6 Okay. Good.
- 7 I have heard everything counsel said. This
- 8 is what we're going to do, and I don't think it's
- 9 something legal. This case has been continued almost --
- 10 almost five times, but it's not the fault of one
- 11 operator. Sometimes Yates asked for a continuance,
- 12 Endurance or something. It's not Owl asking for --
- 13 asking for the continuance. And, again, since this is a
- 14 commercial -- in my mind, it's a commercial water
- 15 disposal. I don't think there is any haste here getting
- 16 this approved.
- Therefore, this is what we're going to do.
- 18 I will not dismiss the case because then we'd be going
- 19 back to square one. So what we're going to do, for the
- 20 benefit of the everybody -- I've said it before -- we
- 21 need to get a new Form C-108. I think the counsel,
- 22 Mr. Bruce, knows what I'm talking about. Maybe work
- 23 with your client and get that information. Then we all
- 24 agree on what date we're going to hear this case, and if
- 25 it's still going to take a long time, then we might even

- 1 do it off docket My suggestion would be not to dismiss
- 2 the case to go back to square one but, rather, to do a
- 3 complete application and then continue this case to a
- 4 different docket, and maybe at that point we might

fanish.

- 6 However, I know that the three of you will
- 7 talk. If you guys talk and you think the contest is
- 8 getting harder and harder, then we might have a
- 9 pre-hearing conference. And at the pre-hearing
- 10 conference, if I determine that it's going to take more
- 11 than three hours, like it's going to take today, then we
- 12 still need to do it off docket.
- So let's not dismiss it, but let's continue
- 14 the case. We will continue it as the same docket to
- 15 give the Applicant the opportunity to present -- so that
- 16 if anybody want to see a clear -- and I can point to
- 17 several of them. Well, I pointed to several of them
- 18 now.
- 19 MR. BRUCE: We will take care of it,
- 20 Mr. Examiner.
- 21 EXAMINER EZEANYIM: I don't want you to
- 22 have Mr. Havenor do it, but I think we can get the C-108
- 23 and continue this case.
- Now the question begomes: To what date do
- 25 we continue this case? And we have two weeks, the 20th

- of February. 6th of February? 20th of February?
- 2 March? What date do you think your clients can get the
- 3 complete application?
- 4 MR. BRUCE: I would think it would take six
- 5 weeks at least --
- 6 EXAMINER EZEANYIM: Okay. That's fair.
- 7 MR. BRUCE: -- in order to comply with the
- 8 notice deadlines, in order to amend the C-108 and comply
- 9 with the notice deadlines.
- 10 EXAMINER EZEANYIM: Okay. Because when you
- 11 provide a new C-108, you're going to put it in the
- 12 newspaper, right?
- MR. BRUCE: Yes.
- 14 EXAMINER EZEANYIM: That was one of my
- 15 questions.
- 16 MR. BRUCE: And I would say that your offer
- 17 of a special date may be necessary simply because --
- 18 representing that the witnesses for my client are both.
- 19 consultants, and so -- you know, they're not company
- 20 personnel that can be -- who do have other obligations.
- 21 EXAMINER EZEANYIM: Okay. I understand
- 22 that. So in that case, work among the three of you, and
- 23 I would like to continue this case on a separate docket.
- 24 Let's not mess up the normal docket, because I know
- 25 there are a lot of contests now.

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                   MR. BRUCE: Mr. Examiner, once a new C-108
1
2
     is prepared, then maybe we can all confer on a date for
     a hearing.
 3
                   EXAMINER EZEANYIM:
 4
                                       Okay.
 5
                   Is that okay with you?
                   MR. PADILLA: That's fine.
 6
 7
                   MR. FELDEWERT: Yes, that's fine.
8
                   EXAMINER EZEANYIM: And please look at the
     docket and put it on the docket. I would prefer a
    non-hearing week, Tuesday.
11
                   MR. BRUCE: Tuesday of a regular,
12
    non-hearing week.
13
                   EXAMINER EZEANYIM: See what I mean? Not a
    Tuesday where we have hearings because we have to get
14
     ready for the hearings. So like the last week, Tuesday.
15
16
                   MR. BRUCE: Yes, of a nonregular hearing
17
    week.
18
                   EXAMINER EZEANYIM:
                                       Yes, on a Tuesday,
19
    because I don't know what's going to happen on Monday.
20 -
     Look at Tuesday and see what you can come up with. That
21
    would be fine.
22
                   MR. BRUCE: In the interim, if it could be
23
     continued for six weeks, which would be, what, March 6,
24
     and with the understanding that long before then, we
25
     will -- just so it's continued to a date certain, and
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2	COUNTY OF BERNALILLO
3	
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