Page 1 STATE OF NEW MEXICO ENERGY, MINERALS AND NATURAL RESOURCES DEPARTMENT OIL CONSERVATION DIVISION IN THE MATTER OF THE HEARING CALLED BY THE OIL CONSERVATION DIVISION FOR THE PURPOSE OF CONSIDERING: APPLICATION OF DELAWARE ENERGY, LLC CASE NO. 16258 FOR AUTHORIZATION TO INJECT SALT WATER FOR PURPOSES OF DISPOSAL THROUGH ITS PROPOSED BEAR TRAP SWD #1 WELL, EDDY COUNTY, NEW MEXICO. Consolidated with APPLICATION OF DELAWARE ENERGY, LLC CASE NO. 16259 FOR AUTHORIZATION TO INJECT SALT WATER FOR PURPOSES OF DISPOSAL THROUGH ITS PROPOSED GIANT PANDA SWD #1 WELL, EDDY COUNTY, NEW MEXICO. Consolidate with APPLICATION OF DELAWARE ENERGY, LLC CASE NO. 16260 FOR AUTHORIZATION TO INJECT SALT WATER FOR PURPOSES OF DISPOSAL THROUGH ITS PROPOSED GRIZZLY SWD #1 WELL, EDDY COUNTY, NEW MEXICO. REPORTER'S TRANSCRIPT OF PROCEEDINGS EXAMINER HEARING November 13, 2018 Santa Fe, New Mexico BEFORE: PHILLIP GOETZE, CHIEF EXAMINER DAVID K. BROOKS, LEGAL EXAMINER This matter came on for hearing before the New Mexico Oil Conservation Division, Phillip Goetze, Chief Examiner, and David K. Brooks, Legal Examiner, on Tuesday, November 13, 2018, at the New Mexico Energy, Minerals and Natural Resources Department, Wendell Chino Building, 1220 South St. Francis Drive, Porter Hall, Room 102, Santa Fe, New Mexico. Mary C. Hankins, CCR, RPR REPORTED BY: New Mexico CCR #20 Paul Baca Professional Court Reporters

Albuquerque, New Mexico 87102

500 4th Street, Northwest, Suite 105

```
Page 2
 1
                            APPEARANCES
 2
     FOR APPLICANT DELAWARE ENERGY, LLC:
 3
          ADAM G. RANKIN, ESO.
          HOLLAND & HART, LLC
          110 North Guadalupe, Suite 1
 4
          Santa Fe, New Mexico 87501
 5
          (505) 988-4421
          agrankin@hollandhart.com
 6
     FOR PROTESTANTS JAMES DAVIS AND ALISA OGDEN:
 7
          MARION J. "JIMMY" CRAIG III, ESQ.
 8
          601 West Second Street, Suite 8
          Roswell, New Mexico 88201
          (575) 622-1106
 9
          jimmy@craiglawllc.com
10
     FOR PROTESTANTS FOUNDATION MINERALS, LLC; MAVROS
11
     MINERALS, LLC; and OAK VALLEY MINERAL AND LAND, LP:
     (Foundation Group or Minerals Group or Mineral
12
     Companies):
13
          SETH C. McMILLAN, ESQ.
          MONTGOMERY & ANDREWS LAW FIRM
14
          325 Paseo de Peralta
          Santa Fe, New Mexico 87501
15
          (505) 982-3873
          smcmillan@montand.com
16
     FOR PROTESTANT 3BEAR DELAWARE OPERATING NM, LLC:
17
          CANDACE CALLAHAN, ESQ.
18
          BEATTY & WOZNIAK, P.C.
          500 Don Gaspar Avenue
          Santa Fe, New Mexico 87505
19
          (505) 983-8764
          ccallahan@bwenergylaw.com
20
21
     FOR INTERESTED PARTY NEW MEXICO STATE LAND OFFICE:
22
          KATHRYN MOSS, ESQ.
          NEW MEXICO STATE LAND OFFICE
          OFFICE OF GENERAL COUNSEL
23
          310 Old Santa Fe Trail
24
          Santa Fe, New Mexico 87501
          (505) 827-5702
25
          kmoss@slo.state.nm.us
```

Page 3 1 INDEX 2 PAGE 3 Case Numbers 16258, 16259 and 16260 Called б 4 Motion for Continuance of Case Number 16261 6 5 Motion to Dismiss Case Number 16261 12 6 Motion for Dismissal of 3Bear Energy, LLC 21 7 8 Delaware Energy, LLC's Case-in-Chief: 9 Witnesses: 10 Sarah Presley: 11 Direct Examination by Mr. Rankin 32 Cross-Examination by Mr. McMillan 62, 71 Cross-Examination by Mr. Craig 12 69 Redirect Examination by Mr. Rankin 78 13 Jason S. Goss: 14 Direct Examination by Mr. Rankin 80 Cross-Examination by Mr. Craig 15 110 Cross-Examination by Mr. McMillan 135 16 Cross-Examination by Examiner Goetze 138 Redirect Examination by Mr. Rankin 145 17 Kevin J. Schepel: 18 Direct Examination by Mr. Rankin 147 19 Cross-Examination by Mr. Craig 161 Cross-Examination by Examiner Goetze 165 20 21 James "Jim" Davis' and Alisa Ogden's Case-in-Chief: 22 Witnesses: 23 Matthew Ramey: 24 Direct Examination by Mr. Craig 169 Cross-Examination by Mr. Rankin 184 25 Redirect Examination by Mr. Craig 190

Page 4 INDEX (Cont'd) 1 2 PAGE James Davis' and Alisa Ogden's Case-in-Chief (Cont'd): 3 4 Witnesses (Cont'd): 5 James "Jim" Davis: 6 Direct Examination by Mr. Craig 194 Cross-Examination by Mr. Rankin 216 7 Cross-Examination by Examiner Brooks 223 Cross-Examination by Examiner Goetze 224 8 Alisa Ogden: 9 Direct Examination by Mr. Craig 226 Cross-Examination by Mr. Rankin 236 10 11 12 Foundation Minerals, LLC; Mavros Minerals, LLC; and Oak Valley Mineral and Land, LP's Case-in-Chief: 13 Witnesses: 14 Brian Arnold, Jr.: 15 Direct Examination by Mr. McMillan 238 16 Cross-Examination by Mr. Rankin 244 17 Oral Motions to Intervene 252 18 Delaware Energy, LLC's Rebuttal Case: 19 Witnesses: 20 Jason S. Goss (Re-called): 21 Direct Examination by Mr. Rankin 254 Voir Dire Examination by Mr. Craig 265 22 Cross-Examination by Mr. Craig 268 Cross-Examination by Mr. McMillan 271 23 24 Proceedings Conclude 280 25 Certificate of Court Reporter 281

		Page 5
1	EXHIBITS OFFERED AND ADMITTED	
2		PAGE
3	Delaware Energy, LLC Exhibit Numbers 2 and 3	60
4	Delaware Energy, LLC Exhibit Numbers 1A through 1	E 108
5	Delaware Energy, LLC Exhibit Number 1F	160
6	Delaware Energy, LLC Exhibit Number 4	168
7	Delaware Energy, LLC Exhibit Numbers 5, 6 and 7	267
8		
9	Davis Exhibit Numbers 1 through 7	215/216
10	Ramey Exhibit Number 1	175
11	Ramey Exhibit Number 2	196
12		
13	Featherstone Exhibit Number 9	247
14		
15		
16		
17		
18		
19		
20		
21		
22		
23		
24		
25		

Page 6 1 (9:17 a.m.) 2 EXAMINER GOETZE: Good morning, ladies and gentlemen. This is Docket Number 46-18, special 3 examiner hearing, Tuesday, November 13th, 2018, in 4 Porter Hall. Today we are here to consider four cases, 5 Cases 16258, Case 16259, Case 16260, Case 16261. 6 7 I am your examiner for today. My name is 8 Philip Goetze, and legal counsel is Mr. David Brooks. 9 With that, this was set up as a special hearing to accommodate all parties concerned, but on 10 11 Friday, I believe we had a series of motions filed at 4:45. So let's see, first of all, what motions have 12 been filed and what we'll discuss right now before we go 13 any further. 14 Mr. Goetze, would you like to 15 MR. RANKIN: 16 call for appearances first or --17 EXAMINER GOETZE: Well, let's get to the -let's get to the legal ramifications and then we'll get 18 19 to who is going to show up. 20 MR. RANKIN: Very well. Good morning, Mr. Goetze and Mr. Brooks. 21 22 Adam Rankin appearing on behalf of Delaware 23 Energy, LLC. We did file two motions on Friday 24 afternoon. One was a motion for continuance, and the 25 other was a motion to dismiss 3Bear from the

proceedings. Taking up the first, I think, that makes 1 sense logically would be the motion for continuance. 2 We filed that motion on Friday after we had confirmed with 3 my client, with Delaware, after conferring with the 4 5 other parties -- rather, not parties but other objectors and protestants about the subject of the continuance. 6 7 When I received word they were opposed to continuing one 8 of the cases, I filed a motion.

9 The genesis of the request for continuance was that on -- I believe it was on Tuesday, I got a call 10 11 from the State Land Office indicating that they were --12 that the Commissioner had questions or concerns about the proposed location for the Kodiak well in Case Number 13 16261, which had received tentative approval for 14 staking -- or, actually, received approval for staking 15 16 from the State Land Office, and we had understood that to be an approved location. So at that point, then I 17 18 had to confer with my client how to proceed on that 19 case, and we decided that it made sense, since the 20 location was no longer approved by the Land Commission, that we would need to continue it to rework the 21 22 location. So at that point, I approached the other 23 parties. 24 And then I was out of town in Los Angeles 25 for depositions on Wednesday and Thursday, and when I --

## Page 7

Page 8 on Thursday, when I confirmed with my client that they 1 were going to continue the case, I reached out to other 2 counsel and asked for their approval as well. 3 Now, in response, they've raised -- the 4 5 protestants have raised concerns about the timing of the б request for continuance suggesting that it's late. In 7 fact, the rules expressly provide that motions for continuance shall be filed 48 hours in advance of the 8 time of the hearing, and my motion was filed on Friday, 9 which was, you know, well in advance of the 48-hour 10 11 requirement, at least by the close of business on 12 Friday. So it wasn't by any stretch late. It was close to being the end of the time frame reasonably because it 13 was the start of the weekend, but it was not late. 14 So with that -- another couple points I'd 15 16 like to make real quick about the request for continuance. Basically, it should be approved. 17 We 18 don't have an approval location. The State Land Office 19 is not protesting any other aspect of that case but for 20 the location. They have identified an alternative proposed location which Delaware is reviewing at this 21 22 We believe that we can, you know, potentially time. 23 come to agreement on the location and hear that case in January. So without a location, there is really no 24 We can review 25 point in going forward with that case.

the technical aspects, the well design and so forth, but we haven't provided notice to any party that is due notice, may want to object, and so it makes no sense to us to proceed with that case today.

Second, each of these cases is a separate 5 They were filed separately. They have a separate 6 case. 7 case number. They are not consolidated by any stretch. 8 They are subject to different facts, different factors 9 that relate to their approval, different distances from the protestants, and so there is no basis or 10 11 justification for requiring them to be heard all 12 together. We ask that they be consolidated for hearing purposes simply so that we can present them -- it made 13 sense to present them together since they were 14 relatively close together, but they are all subject to, 15 16 you know, different facts and location issues. 17 So with that -- and thirdly, based on the 18 potentially new location for the Kodiak, it's very 19 likely and maybe even probable that the location may 20 resolve any objections that the protestants may have. The State Land Office has identified a location a mile 21 22 and a half or so north from the existing updated 23 location, and that distance may end up, you know, 24 resolving the protests -- if that's the final location, 25 may end up resolving the objections that the parties

PAUL BACA PROFESSIONAL COURT REPORTERS 500 FOURTH STREET NW - SUITE 105, ALBUQUERQUE, NM 87102

## Page 9

Page 10

have about the locations. And so for the protestants now to be objecting to a continuance, ultimately that may resolve their objections. So it doesn't make any sense.

5 Their concern about coming back up here ought to be considered in the same light. You know, 6 7 they're the parties protesting, and if they want to 8 maintain the protest, then that's just something they'll 9 have to do. It's a separate case, and if they want to maintain their protest, that's a burden they'll have to 10 11 bear. However, whether they have to come back, you 12 know, again is dependent upon whether the new location is going to, you know, resolve their objections. 13 Seems to me we ought to have the opportunity to try to resolve 14 and identify an updated location and see if that will 15 16 resolve the protestants' concerns.

17 So with that, Mr. Examiner, we ask that 18 this motion for continuance in Case 16261 for the Kodiak 19 well be granted and that we identify a date in January 20 that works for the parties so that we can hear that case 21 in its entirety and that the parties who are entitled to 22 notice within the one-mile area of review are given the 23 opportunity to appear.

24EXAMINER GOETZE: Okay. So I have just two25motions at this point, the motion for dismissal and the

Page 11 motion for continuance; is that correct? 1 2 MR. RANKIN: That's correct. EXAMINER GOETZE: Okay. With that, we will 3 4 ask for appearances. Who is appearing? 5 MR. CRAIG: Yes, sir. I'm Jimmy Craig, 6 Mr. Goetze. I represent two of the protestants, 7 Mr. Davis and Ms. Oqden. And appreciate it, but we'll talk when we're ready. 8 9 MR. McMILLAN: Mr. Examiner, Seth McMillan, Montgomery & Andrews, here on behalf of Foundation 10 11 Minerals, LLC, Marvos Minerals, LLC and Oak Valley 12 Mineral and Land, LP. That's a lot of words, so I'll refer to my clients collectively as the Mineral 13 Companies. Thanks. 14 15 EXAMINER BROOKS: Does either of you 16 wish to present any argument in response to --17 EXAMINER GOETZE: We've still got one more. 18 EXAMINER BROOKS: Another one? 19 EXAMINER GOETZE: We've still got more. 20 We've got a fourth and fifth. 21 EXAMINER BROOKS: Oh, there are lawyers all over the place. 22 23 But anyone who wants to argue in response 24 to Mr. Rankin. 25 MS. MOSS: In the event -- I have to say

Page 12 something, Kathryn Moss representing the New Mexico 1 State Land Office. 2 EXAMINER GOETZE: Ms. Callahan, please. 3 4 MS. CALLAHAN: Thank you. 5 Mr. Examiner, Candace Callahan appearing on behalf of 3Bear Delaware Operating NM, LLC. 6 7 EXAMINER GOETZE: Okay. Let's do this one 8 motion at a time. Motion for continuance: We have one 9 well that has been proposed to be pushed onto the January schedule. Any of those making appearances wish 10 to counter that or oppose it or have a statement? 11 MR. CRAIG: Well, based upon what was said, 12 13 I mean, it appears to me that from that one, there is no -- we don't even have a proposed location at this 14 point. And rather than continue, it just seems like --15 16 rather than keep continuing this case and continuing moving it around -- this will be the second, I think, 17 18 time this one's been moved. And my understanding is 19 it's not going to be even in the same section -- that 20 probably the best course of action would be to dismiss this particular application and let them refile it as a 21 22 new application at the new location once they've figured out where that is. 23 24 EXAMINER GOETZE: Very good. 25 Mr. McMillan.

Page 13 MR. McMILLAN: The Mineral Companies would 1 concur with that approach. This location has moved 2 multiple occasions already, and without a confirmed 3 location, it seems like what's really happening here is 4 5 Delaware is playing hop-scotch with their original б application and that there has to be -- this can't just 7 continue bouncing around from location to location and 8 continuing under the original filed application date, 9 particularly where the changes are not -- these aren't minor changes to surface location. This is a mile and a 10 11 half north. It might implicate additional parties in the area of review. It could be a very different 12 13 situation. We just don't know because we don't have a location yet. It seems to me that that should be 14 packaged together in a new application and that this 15 16 application should be dismissed for the time being. 17 EXAMINER GOETZE: Ms. Callahan? 18 MS. CALLAHAN: 3Bear would concur with what 19 the other two gentlemen have just said. 20 MR. McMILLAN: And I would also add -- I'm sorry -- with respect to the 48-hour rule that 21 22 Mr. Rankin cited, you know, in the district courts when 23 we look at Rule 6, where there is a tight, tight 24 timeline like less than ten days -- here we're talking 25 about 48 hours -- we're not talking about weekends and

Page 14 This is 48 hours that the clock began ticking 1 holidays. at the end of a Friday, knowing that Veterans Day was 2 coming up on a Monday, there is no way this motion was 3 in any way timely. That's not a reasonable reading of 4 the 48-hour rule. 5 6 EXAMINER GOETZE: Ms. Moss? MS. MOSS: I think it would be unfortunate 7 8 if you dismiss the case because in all other respects, these wells have been considered together. I don't 9 think a second or even a third change in location 10 11 warrants the dismissal. But in any case, the State Land 12 Office will not approve the current location, and so hearing it here now wouldn't make any sense. So either 13 the continuance or the dismissal would achieve the same 14 thing as far as the State Land Office is concerned. 15 16 Thank you. 17 EXAMINER GOETZE: Thank you. 18 If I may just make a brief MR. RANKIN: 19 response to these arguments. Delaware is greatly 20 concerned about timing issues and delay and have worked diligently to identify approval locations with the State 21 22 Land Office, and we thought we had that. And so the 23 change in location is not at Delaware's request or 24 preference. It's due solely to the, you know, request 25 from the State Land Office. And so, you know, if it

Page 15 were up to us, we would prefer to proceed with all four 1 cases today at the locations we've identified. 2 However, we can't do that in light of the State Land Office's 3 concerns on the one. 4 5 Our concerns are that were the case to be б dismissed, the protestants, who have known about our 7 applications for six months, have indicated they would 8 like to file a competing disposal well. So by dismissing our case, they are seeking to hop-scotch in 9 front of us where we have done so much work in advance. 10 11 So it would be prejudicial and grossly unfair to dismiss a case due to no -- no fault of our own. 12 13 So with that, Mr. Goetze, Mr. Brooks, we ask that Case Number 16261, you know, be continued, not 14 be dismissed so that we can identify an approved 15 16 location from the State Land Office. 17 EXAMINER GOETZE: Well? 18 EXAMINER BROOKS: Well, my view is that if 19 it relates to a different location, it's a different 20 application, so it should be -- the present application should be dismissed. I don't know whether the 21 22 connection between these cases is so intimate that we 23 can't proceed to hear the other three without this one, 24 but nobody's really suggested that that's the situation. 25 EXAMINER GOETZE: And then with regards to

Page 16 the 48 hours, that seems to be a legal --1 2 EXAMINER BROOKS: Well, it is. And I don't have the statute in front of me, and it's not good to --3 4 You don't happen to have the statute with 5 you? 6 MR. RANKIN: The statute? I have the rule 7 that cites the continuance. EXAMINER BROOKS: Well, isn't there a 8 9 statute on the subject on how you count time? If the 10 statute says any period of time less than ten days -- or ten days or less, excludes weekends and holidays, then 11 12 it's absolutely right that this was filed late. Now, we 13 often grant continuances that were filed late, so that wouldn't be a shock to anybody if we did that. But that 14 would give us -- we would know what the situation is. 15 16 If it says any period of days, ten or less, excludes weekends and holidays, then it doesn't necessarily mean 17 18 the same thing. 19 MR. McMILLAN: And to be clear, 20 Mr. Examiner, my reference was to the Rules of Civil 21 Procedure 6. I wasn't trying to put my finger on the statutory provision, but I know that in the district 22 23 courts, when you look at a time period that's less than 24 11 days, we're counting real days, court days. 25 EXAMINER BROOKS: Yes. You're in

Page 17 accordance with the statute which does cover that 1 2 matter. 3 Well --MR. RANKIN: Even if we were to follow 4 5 that, the event that gave rise to the request for continuance would have fallen after the deadline. 6 Ι 7 mean --8 EXAMINER BROOKS: Well, I think that this 9 Case Number 16261 that relates to the well that you're 10 not going to proceed with because the State Land Office 11 will not grant the location, I think that case should be 12 dismissed. And I think that would be my advice to the examiner because it seems to me like it's a different 13 case. If it's -- a right to drill a well at one 14 location is not a right to drill at some other location. 15 16 So I don't see how that the issue can be resolved in this present case. You've got to get a location and 17 give notice to the appropriate parties before you can 18 19 proceed on that one. 20 So the question then is: Do you want to go ahead with -- are we going to go ahead with the other 21 three, or are we going to dismiss all four? 22 23 MR. RANKIN: Mr. Examiner, we intend to 24 proceed with all three other cases because there is 25 no --

Page 18 1 EXAMINER BROOKS: Are you requesting to 2 continue the other three? 3 MR. RANKIN: No. No, sir. 4 EXAMINER GOETZE: Is anybody else 5 requesting to continue? 6 Mr. Craig? 7 MR. CRAIG: We would have liked to continue 8 it last week so we didn't have to drive up here, but since we're up here, we'd just as soon go ahead. 9 10 EXAMINER GOETZE: Very good. 11 EXAMINER BROOKS: Well, that seems to me as 12 the appropriate course of action. If indeed the motion for continuance is filed late, that just reinforces that 13 view. 14 But the motion is actually only in 16261, 15 16 and I think that has to be dismissed because we can't hold a hearing when we have not had notice to the 17 parties, and we don't even know who the parties should 18 19 be because we don't know what the location is going to 20 be. 21 MR. McMILLAN: I would also note, Mr. Examiner, that in Delaware's pre-hearing statements, 22 23 they are asking that these be heard -- that Cases 16258 24 through 16261 be presented together for purposes of 25 hearing.

Page 19 1 EXAMINER BROOKS: Yeah. 2 Are you requesting a continuance as to other three cases? 3 4 MR. McMILLAN: I'm not sure I have a strong 5 opinion. My witness is here. He drove out here from б Midland. 7 However, there is an issue with respect to 8 the motion to dismiss that may impact this 9 determination, but I think that's for Ms. Callahan to address. 10 11 EXAMINER BROOKS: Ms. Callahan. 12 MS. CALLAHAN: We have requested time to respond to the motion to dismiss, and if that wanted to 13 be in conjunction with a continuance, then that would be 14 fine as well. 15 16 EXAMINER BROOKS: Well, I'm going to recommend that we go ahead with the three cases that we 17 18 have. 19 And we have a motion for continuance in 20 this case, and if at any time that you're prepared to respond to it during the course of this hearing, we'll 21 22 be glad to hear your response, but, otherwise, it's 23 going to be granted at the conclusion of this hearing. 24 MS. CALLAHAN: The motion to dismiss will 25 be granted?

Page 20 EXAMINER BROOKS: The motion to dismiss. 1 2 MS. CALLAHAN: Okay. Well, I guess if I'm being required to, at the last minute, respond to a 3 motion to dismiss that was untimely filed, in my 4 5 opinion, we can certainly do that. EXAMINER BROOKS: Well, are you saying the 6 7 Applicant can't dismiss their own case? 8 MS. CALLAHAN: No. I'm speaking -- no. 9 I'm speaking to the three other cases. MR. CRAIG: I think what she's confused 10 11 about is there are two -- well, we've kind of made an 12 oral motion to dismiss the application, but then there is a motion to dismiss 3Bear, which is a separate 13 motion --14 EXAMINER GOETZE: Yeah. There is a 15 16 motion --17 MR. CRAIG: -- from all four matters. 18 EXAMINER BROOKS: I was just addressing --19 I was just addressing --20 MR. CRAIG: I think that was the confusion. 21 MS. CALLAHAN: Yes. 22 EXAMINER BROOKS: -- Delaware's application 23 to dismiss as to the -- as to the one well where the 24 land office has disapproved. I'm not saying anything 25 about the other motion because I haven't really in mind

Page 21

1 what it's about.

2	EXAMINER GOETZE: So in the case the	
3	single case of 16261, at this point I will make	
4	recommendations for it to be dismissed, that the	
5	Applicant re-apply once we have an agreed location.	
б	This application has lingered on for some time, and with	
7	he way things are happening down there, us carrying	
8	ver has become quite a burden. We have over 50	
9	protests. And if there is no resolution, if you don't	
10	have a stake in the ground, then we don't really want	
11	you to be here to discuss it because it doesn't help us.	
12	With that, we have three remaining cases,	
13	and there was a motion filed by the Applicant, Delaware	
14	Energy, with regards to the standing of 3Bear, in these	
15	three cases for which they are appearing in opposition;	
16	is that correct?	
17	MS. CALLAHAN: Yes, that's correct.	
18	EXAMINER BROOKS: Okay. And you're moving	
19	to continue the case so you can respond to that motion?	
20	MS. CALLAHAN: Well, I don't I don't	
21	believe that it's necessary to continue the three cases.	
22	I think the hearing on the motion to dismiss could be	
23	neard after you go through the hearing of these cases.	
24	I think it could be addressed afterwards.	
25	EXAMINER BROOKS: Well, the question is:	

Page 22

Then what would be economy of time to dismiss -- and
 that depends on -- well, it creates a confusing
 situation.

My belief is that these cases have been 4 5 around for a long time and we ought to go ahead and get a hearing on them even if we end up, on some standing 6 7 issues, dismissing them because that might -- that 8 would -- it could kick to the Commission, and the Commission could decide the standing issue first, which 9 would be the more efficient way to do it than deciding 10 11 it on this record, if I understand what you're proposing 12 correctly.

MS. CALLAHAN: I guess that's an accuratedescription.

EXAMINER BROOKS: What you have proposed is that we hear the motion to dismiss, along with the merits in this case?

18 I can speak to that today. MS. CALLAHAN: 19 I feel kind of blindsided because it was a late-filed 20 motion. I did request that it be not granted on the basis of having been late filed. And as Delaware 21 22 pointed out, these cases have been going on for months, 23 and they just wait for the last minute to file a motion 24 to dismiss a party who has entered an appearance in 25 July. They're well aware of the agreement between 3Bear

Page 23 and the Foundation Group that creates the interest that 1 3Bear has in these cases, and they've been aware of that 2 for months. So it really seems an ill-timed motion, and 3 I don't think it should be considered, frankly. 4 EXAMINER BROOKS: Well, I will recommend 5 that we continue -- we proceed with the hearing and that 6 7 we take -- we hear evidence on that matter, along with the other matters that are in the record -- that may be 8 9 developed in the record without -- reserving judgment on it until the conclusion of the case. 10 11 MS. CALLAHAN: All right. 12 MR. RANKIN: No objection to that, 13 Mr. Brooks. However, if I might just take a moment to 14 respond to the timing issue --15 16 EXAMINER BROOKS: Yes. 17 MR. RANKIN: -- on the motion to dismiss 18 because I think it would help clarify. 19 I think with respect to how this all came 20 out -- and I just want to point out that Delaware has been eager to proceed with these cases in the hearing. 21 22 And while we did have to move the wells once due to, 23 again, the State Land Office's request to change 24 locations, after we thought we had approved locations, 25 we have been eager to proceed to hearing. And as

Page 24 Mr. Goetze may remember, we had a difficult time 1 identifying dates for all the parties to appear. 2 3 EXAMINER BROOKS: Yeah. So it was really not due to 4 MR. RANKIN: 5 our delay that these cases have been on the docket for so long. It's really because we've been getting change 6 7 locations from the State Land Office, and we've been 8 trying to identify dates that work for all the 9 protestants in this case. Now, on the motion to dismiss, you know, I 10 11 had been reviewing the applications for C-108s to 12 identify what had been represented to be 3Bear's pending application for a C-108, a competing disposal well. 13 In their pre-hearing statement, which they filed in July, 14 they identified the Carlsbad 960 SWD well in the -- as 15 16 the injection well that was in offsetting acreage that they said was being -- was the competing location and 17 18 the basis for their objection. And when I looked to try 19 to identify the location of that well, it was in a 20 separate township, at least a township or two over. And 21 so when we filed pre-hearing statements last week, I 22 was -- let me back up. I had asked finally for 3Bear to provide a copy of their C-108, and when I heard back 23 24 that they had not yet filed one in the offsetting 25 acreage, I assumed by the time the pre-hearing

statements were due, they were going to file a C-108 and 1 2 update and amend their pre-hearing statement to reflect they had filed a C-108 in the offsetting acreage to 3 substantiate the basis for their objections. 4 5 When last Tuesday came and went and they б hadn't done so and then so there was still no offsetting 7 C-108 of record filed with the Division, I then 8 determined that they had no -- they shouldn't be 9 permitted to proceed in the case because they had no -no competing application, they were not a notice party, 10 11 and they had no other basis to object to the well. 12 And so at that time, I -- that was --

Tuesday, the pre-hearing statements were due. They 13 should have filed a notice to intervene the day before 14 and they didn't. I was in Los Angeles in depositions 15 16 until Friday morning. So I filed a motion to dismiss at the earliest time I could based on the sequence of 17 18 events, that they had not filed a pre-hearing statement 19 to amend or update their -- what their location was for 20 their competing well. And so it shouldn't have been a surprise at all that I filed a motion to dismiss based 21 22 on the fact that I brought to their attention that they had no competing C-108 and, you know -- so really it 23 24 shouldn't have been a surprise because they had no basis 25 to object. They may have had an agreement with the

## Page 25

Page 26 interest owners, but there was nothing pending 1 2 reflecting that they actually had an intention to drill or were likely to be harmed in any way adversely, the 3 fact that 3Bear long filed applications which were filed 4 5 back in May of this year. So with that, Mr. Examiner, you know, I am 6 7 comfortable proceeding with the presentation of the 8 case. However, I would urge the examiners to dismiss 9 3Bear from being able to participate. They have known about these applications for six months and they've 10 11 known that we had these applications to drill, and yet 12 all this time, they have not filed a C-108 to establish 13 any basis to object. EXAMINER BROOKS: Well, I think we'll 14 understand the landscape a lot better after we hear the 15 16 evidence, and I don't think we're going to get out of hearing the evidence. So I would prefer to go ahead and 17 18 hear it now because appointments for special settings 19 for Division examiner hearings are becoming scarce. The 20 scarcity has value, as any economist will tell you. 21 EXAMINER GOETZE: And on that note, you 22 (indicating) had a witness, Mr. Burns? 23 EXAMINER BROOKS: Well, let's call the 24 cases for the record and then have you go through the 25 swearing of the witnesses.

Page 27 1 EXAMINER GOETZE: Right. 2 Is he available? 3 MS. CALLAHAN: He is not available today. EXAMINER GOETZE: All right. And with the 4 5 result of that discussion, we will proceed with Case б 16258, application of Delaware Energy, LLC for 7 authorization to inject salt water for purposes of 8 disposal through its proposed Bear Trap SWD #1 well, Eddy County, New Mexico. 9 10 Call for appearances. 11 MR. RANKIN: Mr. Examiner, Adam Rankin on 12 behalf of the Applicant, Delaware Energy, LLC. I have asked that Case Number 16258 be presented together with 13 cases 16259 and 16260. In all three cases, I have three 14 15 witnesses to present. 16 EXAMINER GOETZE: Any other appearances? 17 We'll go back through this process again. 18 MR. CRAIG: I don't think we protested that 19 one. After it moved, we did away with ours. 20 EXAMINER GOETZE: Okay. Mr. McMillan? 21 MR. McMILLAN: Sorry. I was commiserating 22 with co-counsel. Which well --23 EXAMINER GOETZE: 16258, which is the Bear 24 Trap. 25 Okay. Well, sure. MR. McMILLAN: Seth

Page 28 McMillan on behalf of the Mineral Companies. 1 2 EXAMINER GOETZE: And do you have any witnesses? 3 MR. McMILLAN: Yeah. I have one witness 4 5 who I may call, Mr. Brian Arnold, Jr. EXAMINER GOETZE: Ms. Callahan? 6 7 MS. CALLAHAN: Are we hearing these 8 separately? 9 EXAMINER GOETZE: Yes, ma'am. 10 MS. CALLAHAN: Candace Callahan for 3Bear 11 Delaware, LLC. 12 EXAMINER GOETZE: And the witnesses? 13 MS. CALLAHAN: No witnesses today. 14 EXAMINER GOETZE: Thank you. Would the witnesses who are going to appear 15 16 in this case please stand and be sworn in by the court 17 reporter? 18 (Ms. Presley, Mr. Goss, Mr. Schepel and 19 Mr. Arnold sworn.) 20 EXAMINER GOETZE: We'll let you start with opening statements, if you wish, or proceed into 21 22 hearing. 23 MR. RANKIN: Mr. Examiner, we'll just go 24 right into the hearing with witnesses, if that's okay 25 with you.

Page 29 EXAMINER BROOKS: And no party wants to 1 2 consolidate these cases for the purposes of hearing? MR. RANKIN: Mr. Examiner, I did make that 3 request. And when I say consolidated for hearing 4 5 purposes, to be clear, I'm not asking that they be issued a single order because we don't want any one case 6 7 to be hung up if there is an issue with any one of them, 8 but for purposes of economy and presentation of these 9 cases, we think it makes sense to allow us to present 10 them all together. That way, with one witness, we can 11 run through all the exhibits in an efficient manner. 12 EXAMINER BROOKS: And do the other parties object? 13 14 MR. CRAIG: We don't. MR. McMILLAN: No, no objection. 15 16 MS. CALLAHAN: No objection. 17 (Ms. Moss exits the room, 9:49 a.m.) 18 EXAMINER BROOKS: Same counsel appearing 19 for same parties in all cases? 20 MR. RANKIN: I believe, with the sole 21 exception that -- and Mr. Craig can correct me if I'm wrong. But Ms. Ogden and the Davises have not entered 22 23 an appearance and are no longer objecting to the Bear 24 Trap case in Case Number 16258. 25 EXAMINER BROOKS: Okay. Let's call all the

Page 30 cases and consolidate them for purposes of hearing 1 2 only -- for purposes of hearing evidence only, and then that way we'll know -- the record will be clear as to 3 4 what we're doing. 5 Now, in Case Number 16261, the motion to dismiss was granted, so that case will be dismissed when 6 7 we get an order prepared. EXAMINER GOETZE: With that, Case 16259, 8 application of Delaware Energy, LLC for authorization to 9 inject salt water for purposes of disposal through its 10 11 proposed Giant Panda SWD #1 well, Eddy County, New Mexico, along with Case 16260, application of Delaware 12 Energy, LLC for authorization to inject salt water for 13 purposes of disposal through its Grizzly SWD #1 well, 14 Eddy County, New Mexico will be consolidated for the 15 16 purpose of testimony. 17 Thank you, Mr. Examiner. MR. RANKIN: 18 I'd like to call my first witness, 19 Ms. Sarah Presley. 20 MR. CRAIG: Did you want to get our witnesses for those other cases, do them all at once? 21 22 EXAMINER BROOKS: Do you have additional 23 witnesses? 24 MR. CRAIG: Since we're protesting 59 and 25 60 --

Page 31 EXAMINER BROOKS: We should get them all 1 2 sworn. 3 EXAMINER GOETZE: Would those folks appearing in the two other cases, 16259 and 16260, 4 please stand and also identify yourself to the court 5 б reporter and be sworn in, please? 7 MR. CRAIG: This is Jim Davis, Matthew 8 Ramey and Alisa Ogden. 9 (Ms. Ogden, Mr. Davis and Mr. Ramey sworn.) 10 MR. McMILLAN: I'm sorry. Just a 11 clarification. To be clear, although we have 12 consolidated for purposes of hearing, we'll march 13 through these one case at a time --14 EXAMINER GOETZE: At a time. MR. McMILLAN: -- with a separate -- okay. 15 16 Great. Thank you. 17 MR. RANKIN: Well, just to be clear, I 18 think what I'm going to be doing is I'll be referencing 19 different exhibits for different cases, but with 20 each witness, I'll be --21 EXAMINER GOETZE: Now, I mean, we have 22 three unique applications here. 23 They are unique. MR. RANKIN: 24 EXAMINER GOETZE: And they are three UIC 25 permits.

Page 32 1 MR. RANKIN: They are. 2 EXAMINER GOETZE: So we may reference a 3 cross with the same geology, hydrology approach, but each of them will have the ability for and opportunity 4 5 for those wishing to depose. So we may reference back similarities and generalities which are common to all 6 7 three, but still one at a time, please. 8 SARAH PRESLEY, after having been previously sworn under oath, was 9 questioned and testified as follows: 10 11 DIRECT EXAMINATION 12 BY MR. RANKIN: 13 Ms. Presley, will you please state your name 0. 14 for the record? 15 Α. Sarah Presley. 16 By whom are you employed? Q. 17 Α. Delaware Energy. 18 And in what capacity? Q. 19 Α. Operations manager. 20 And what do your duties as operations manager Q. 21 entail? Α. 22 I do all the administrative and regulatory 23 work. I do the -- I oversee land and title, and I 24 prepare and submit C-108 applications and interface with 25 state and regulatory bodies.

Page 33 1 Okay. So you oversaw the coordination putting 0. 2 together each of these C-108 applications on behalf of 3 Delaware, correct? 4 Α. Yes. 5 And have you previously testified before the Q. Division? 6 7 No, I have not. Α. 8 Will you please briefly review for the Q. 9 examiners your educational background first? I graduated from the University of Texas at the 10 Α. Permian Basin in May 2018 with a Bachelor's of Business 11 12 Administration with a major in management. And prior to -- at the same time, you also have 13 0. 14 been working for some time? 15 Α. Yes. 16 Just review for the examiners what your work Q. experience has been in the oil and gas industry? 17 I worked with Nadel and Gussman Permian 18 Α. Yes. 19 for three years as a regulatory analyst, filing and 20 preparing regulatory paperwork for drilling permits and any filings that needed to be done for the wells. I 21 22 worked at BC Operating for two years as a regulatory analyst and a land coordinator. I did all the 23 24 regulatory filings for New Mexico, Lea and Eddy 25 Counties, and I helped prepare any saltwater disposal

Page 34 applications that they had there. And I'm currently 1 2 working at Delaware Energy. 3 Q. Now, you're familiar with the applications 4 filed in each of these cases; is that correct? 5 Α. Yes. 6 And have you prepared exhibits to help review Q. 7 with the examiners what Delaware is requesting in these 8 cases? 9 Α. Yes. Let's go ahead to proceed to review those now. 10 Q. 11 First, you have three exhibit packets before you; is 12 that correct? 13 Α. Yes. 14 All right. So each one is marked with a 0. 15 different case number. Ms. Presley, I'm going to be 16 reviewing each of these cases with you today and the exhibits that are contained inside. You're familiar 17 with each of the exhibits that are contained in these 18 19 packets; is that right? 20 Yes. Α. 21 So let's first turn to what's been marked as Q. Exhibit Number 2 in Case Number 16258. Let me know when 22 23 you get there. 24 Α. Okay. 25 Mr. Examiner, as much as it MR. McMILLAN:

Page 35 pains me to assist Mr. Rankin, I'm not sure the witness 1 2 was qualified. 3 EXAMINER GOETZE: No, she wasn't. MR. RANKIN: Mr. Examiner, I'm actually 4 5 just proceeding at this time to elicit testimony from Ms. Presley as a fact witness. 6 7 EXAMINER GOETZE: Okay. So you're just 8 presenting the C-108 through her so she can --9 MR. RANKIN: Ms. Presley will be giving an overview, as well as a factual account of notice and the 10 steps that Delaware has taken to prepare the 11 12 application. So at this time, I'm not qualifying her as 13 an expert in anything at this time. EXAMINER BROOKS: Well, you say "at this 14 time." Are you calling her only as a fact witness? 15 16 MR. RANKIN: That's correct. 17 EXAMINER BROOKS: Okay. Well, I just say 18 that because you put her credentials on the record, and 19 it just seems -- if you're going to use her as an expert 20 later, then go ahead and gualify her. If you're not or 21 if you don't know, we can proceed as you wish. 22 MR. RANKIN: Well, Mr. Examiner, I quess in light of that question, I mean, I would tender 23 24 Ms. Presley as an expert in regulatory matters, given 25 her experience dealing with regulatory agencies

Page 36 including the Oil Conservation Division, and the filing 1 of saltwater disposal. Well, with that, I may ask one 2 3 additional question. (BY MR. RANKIN) Ms. Presley, how many disposal 4 ο. wells have you been involved with in permitting? 5 Upwards of 30. 6 Α. 7 Those are applications that have been approved 0. 8 or are pending? 9 Probably about half have been approved and the Α. other half, I'm working getting prepared. 10 11 MR. RANKIN: With that, Mr. Examiner, I 12 would tender Ms. Presley as an expert witness in 13 regulatory matters. 14 EXAMINER GOETZE: Mr. McMillan? 15 MR. McMILLAN: No objection. EXAMINER GOETZE: Ms. Callahan? 16 17 MS. CALLAHAN: No objection. 18 EXAMINER GOETZE: Very good. She is so 19 qualified. 20 MR. RANKIN: And just to be clear, I'm 21 asking that she be qualified in that capacity for each 22 of the three cases now pending before the Division, so if Mr. Craig has an objection. 23 24 MR. CRAIG: We have no objection. 25 EXAMINER GOETZE: Okay. Very good.

Q. (BY MR. RANKIN) So, Ms. Presley, with that, turning to Exhibit 2 in your exhibit packet for Case Number 16258, first of all I'll ask you: Is this the same Exhibit 2 that appears in each of these exhibit packets for each of the cases?

Page 37

A. Yes.

6

Q. And just briefly for the examiners, is this an overview map just identifying the location of each of the four wells that are the subject -- let me see. I'll scrap four wells and just talk about the three wells, each of the three wells that are now pending before the Division, being the Bear Trap, the Grizzly and the Giant Panda?

14 A. Yes.

Q. Will you just review for the examiners what this map shows and then we'll talk about what it is that Delaware is asking for in each of these three applications?

A. Yes. The map is showing the GPS locations for
the Bear Trap SWD #1, the Grizzly SWD #1 and the Giant
Panda SWD #1 in relation to the Black River and the
Texas hornshell mussel CCAA boundaries.

Q. Ms. Presley, you mentioned the CCAA boundaries.
What is the CCAA, to your knowledge, to the best of your
understanding?

Page 38

1 A. It's a conservancy.

Q. Is it a conservation agreement of some kind?
A. Yeah, a conservation agreement for the Texas
hornshell mussel. And the red line on the map shows
Zone A, which is actually the river, the habitat, for
the Texas hornshell mussel, and the orange plume around
it is Zone B for the Texas hornshell mussel.

Q. And those -- those colored areas, the orange and red that you've indicated, are those the areas essentially where the different regulatory agencies and parties involved have agreed not to locate facilities for oil and gas development? Is that correct?

13 A. Yes, sir.

25

Q. And so now let's talk about what it is that Delaware is asking for in each of these three cases. Starting with Case Number 16258 for the Bear Trap SWD #1 well, what is it that Delaware is asking for with this application?

A. Delaware Energy is seeking authority to drill and operate the Bear Trap SWD #1 well with injection into the Devonian Formation, with a surface location at 326 feet from the south line and 2,564 feet from the east line in Section 34, Township 23 South, Range 27 East in Eddy County, New Mexico.

Q. And with respect to Case Number 16259, for the

Giant Panda SWD #1 well, what is it that Delaware is
 asking for in that case?

Page 39

A. We are seeking authority to drill and operate the Giant Panda SWD #1 well with injection into the Devonian Formation, with a surface location at 1,440 feet from the south line and 560 feet from the west line in Section 16, Township 24 South, Range 27 East in Eddy County, New Mexico.

9 Q. And finally, in Case Number 16260, with respect 10 to the Grizzly SWD #1 well, will you please relate for 11 the examiners in summary what it is that Delaware is 12 seeking in that case?

A. We are seeking authority to drill and operate the Grizzly SWD #1 well with injection into the Devonian Formation, with a surface location at 205 feet from the south line and 765 feet from the east line in Section 17 11, Township 24 South, Range 27 East in Eddy County, New Mexico.

Q. Since it's appearing on this map, Ms. Presley, I'll just ask you to recount with respect to the Kodiak well, the case that's been dismissed. What does this map show? It shows two locations for the Kodiak. Will you just explain for the examiner what those two locations represent?

25 A. Yes.

Page 40 MR. McMILLAN: Object to the -- the 1 2 question. The testimony is unrelated to these -- the matters currently before the Division. 3 EXAMINER BROOKS: I'm going to overrule the 4 5 objection. 6 (BY MR. RANKIN) Go ahead, Ms. Presley. Q. 7 Α. In Section 5, the Kodiak SWD #1, the pin there 8 is the original location that the -- well, not the 9 original -- the updated location from the State Land 10 Office that they approved. Last week they sent me the 11 KMZ for the location in Section 33 up near the road --12 off-bounds road that they are proposing we have under 13 review. 14 You mentioned the acronym, KMZ. What is that? 0. 15 Is that a type of file? 16 Α. It's a file from Google Earth. It'll just send you the pin of the GPS coordinates of the location. 17 18 So this is the current -- the current location Q. 19 that the land office has proposed that Delaware is 20 currently evaluating from the State Land Office? Is 21 that correct? 22 Correct. Yes. Α. 23 Thank you for just reflecting what that 0. 24 indicates on the map. 25 Now, are these applications now pending

Page 41 before the Division -- these three, are they expansions 1 2 of existing projects, or are they new applications for 3 new disposal wells? 4 Α. New applications. 5 And are each of these three wells -- are they Q. 6 intended to be operated as commercial disposal wells? 7 Α. Yes. 8 Q. And will you have a witness -- will there be a witness who will testify on the expected source of 9 produced water for each of these injection wells? 10 11 Α. Yes. 12 0. So now let's talk about the land here that is 13 underlying each of these proposed wells. What's the 14 status of the surface ownership with respect to each of 15 these three wells? 16 Α. The surface owner for each of the three wells is the New Mexico State Land Trust. 17 18 Q. So those are being operated and governed by the 19 State Land Office; is that correct? 20 Correct. Α. 21 Now, can you explain why -- just so it's clear Q. 22 for the record, why it is that Delaware has asked that 23 these three cases be brought to hearing today? We were -- all three wells were protested. 24 Α. 25 Do you understand which -- which protestants 0.

Page 42 are protesting which wells and applications in these 1 2 cases? Jim Davis and Alisa Ogden are protesting 3 Α. Yes. the Giant Panda, Grizzly and Kodiak. Well, the Kodiak 4 5 is no longer there. Giant Panda and Grizzly SWDs. 6 Okay. And those are Case Numbers 6259 and Q. 7 6260; is that correct? 8 Α. Yes. Okay. How about the protestants, Foundation 9 Q. Minerals, LLC, Marvos Minerals, LLC and Oak Valley 10 Mineral and Land, LP; do you understand what cases 11 12 they're protesting? 13 Α. The Mineral Group is protesting all three Yes. 14 cases. 15 6258, 6259 and 16260, correct? Q. 16 Α. Correct. 17 How about 3Bear Delaware Operating and then Q. 18 LLC? What cases are they protesting? 19 Α. 3Bear is also protesting all three wells. 20 Now, did of any of these entities that we've Q. 21 just gone through, did they receive notice from Delaware 22 of its applications in these three cases? 23 Α. No. 24 And why is that? 0. 25 There were not an affected party that we needed Α.

Page 43

1 to send notice to.

2	Q. Okay. Now, what's your understanding of what
3	the rules require for notice for injection wells?
4	A. You notify the surface owner of the location
5	the surface owner of where your saltwater disposal well
6	is located, and you notify the offset the operators
7	of record within the mile area of review. If there is
8	no operator for any part of the section-mile radius, you
9	modify the lessee of record. And if there is no lessee,
10	you notify the mineral owner.
11	Q. Now, the rules do you understand that the
12	rules require notice out to a half-mile-area radius? Is
13	that your understanding?
14	A. Yes.
15	Q. And in this case, did do you a half mile?
16	A. We extended the area of review to a mile.
17	Q. And that was based on what?
18	A. Just past work with the OCD and how close these
19	injectors are.
20	Q. So your understanding is based on the volume of
21	the injection wells and the proximity and so forth, the
22	Division has been asking the operators to notice out to
23	a full mile for each of these cases?
24	A. Yes.
25	Q. So that's what you did here; is that right?

Page 44 1 Α. That's correct. 2 Now, are any of the protestants surface owners 0. 3 on land where Delaware's applications are proposed? 4 Α. No. 5 Are any of them leasehold operators within a Q. 6 one-mile radius of any of these three wells at the time 7 of Delaware's applications? 8 Α. No. Are any of them affected persons under the 9 0. Division's rules within one mile of these applications? 10 11 Α. No. 12 0. So in this circumstance, is it fair to say that 13 for each of Delaware's applications, mineral interest 14 owners were not required to receive notice under the 15 rules? 16 Α. That's correct. 17 Q. That's your understanding? 18 So who -- just to be clear, who did 19 Delaware provide notice to? 20 We provided notice to the surface owner, the Α. 21 State Land Office and the operators within the mile area of review. 22 23 When you say operators, do you mean the 0. 24 leasehold operators? 25 Α. Yes.

Page 45

Q. And you identified the leasehold operator for each tract of land that was wholly or partially within the one-mile area of review for each of these three applications?

A. That's correct.

5

6 Now, are those entities that we just discussed, Q. 7 the leasehold operators and the surface owners of these 8 tracts, are they identified in the updated C-108 that has been marked as Exhibit Number 1 for each of these 9 10 cases before you? And I would direct you to Tab A, two pages in. Let's start with Case Number 16258. Looking 11 12 at Tab A, Exhibit Number 1, let's start there, okay, the first tab of that page. What does that map reflect? 13 The map is showing the two black circles, one 14 Α. showing the mile radius and the two-mile radius, with 15 16 the star in the middle being the Bear Trap SWD #1. And the dots on the map are what I pulled off of the 17 18 New Mexico OCD GIS. The blue wells are permits. The 19 grays are canceled permits. The black are active wells, 20 and the red are plugged and abandoned. 21 Q. So this includes other injectors, as well as

- 22 producing wells; is that right?
- 23 A. Yes.
- 24 Q. And canceled APDs as well?
- 25 A. Correct.

Page 46 Now, flipping to the next page, what does this 1 0. 2 map reflect? This is the -- the black circle is the one-mile 3 Α. radius around the blue dot, which is the Grizzly SWD --4 5 I'm sorry -- yeah, the Bear Trap SWD #1 and the state and federal leases that are encompassed within the area 6 7 of review. There is one piece that is showing fee 8 ownership, which I identified using Midland Map. 9 So you identified the leaseholder for each of 0. 10 these tracts -- rather, the lease operator for each of 11 these tracts? 12 Α. Correct. 13 And there is an identified lease operator for 0. 14 each of these tracts? 15 Α. Correct. 16 And are those the notice parties that are Q. 17 identified on the next page? 18 Α. Yes. 19 And you've identified them on that sheet by Q. 20 section? 21 Α. Yes, I did. 22 0. Now, let's look at the same tab and the same 23 exhibit for Case Number 16259. Just walk through the 24 same sequence. So turning to Tab A, Ms. Presley, is 25 this the same map that you just -- not the same map but

Page 47 the same kind of map that you just reviewed for me in 1 2 Case Number 16258? This is the two circles, one being the 3 Α. Yes. mile radius, one being the two-mile radius. But this is 4 5 around the Giant Panda SWD #1, which is the red star in the middle, showing the same dots being the active 6 7 wells, permitted -- permits pending, canceled APDs and 8 plugged-and-abandoned wells. 9 And, again, these are all the updated locations 0. that were approved by the State Land Office? 10 11 That's correct. Α. 12 0. So the next page, what does that show? This is the one-mile radius around the Giant 13 Α. Panda SWD #1, which is the blue dot in the center, 14 showing the federal and state leases and fee land where 15 16 I identified the lessees on a different map. 17 Q. And so for each of the tracts that are wholly 18 or partially contained in this one-mile radius, have you 19 identified the leasehold operator? 20 I have. Α. 21 Are these leasehold operators identified on the Q. 22 next page? 23 They are. Α. 24 And you have identified them by section? 0. 25 That's correct. Α.

Page 48 1 Now, let's move to the next case, Case Number 0. 2 16260, the Grizzly well, and we'll review the same 3 sequence of exhibits starting with Exhibit 1, Tab A. 4 Does this also reflect the same one-mile and two -- this 5 first map reflect the same one-mile and two-mile radius 6 using the same symbols? 7 That is correct. Α. 8 Q. And the star here represents the location of 9 the proposed Grizzly SWD well? 10 Α. Yes. 11 Does your next page show the lease tract area? 0. 12 Α. No, it does not. 13 0. Okay. It's behind Tab E. Unfortunately, I 14 think when we were making these exhibits, some of the 15 pages got disheveled. 16 MR. RANKIN: So if you -- Mr. Examiner and 17 Counsel, if you turn to Tab E in your exhibit packet, 18 you will see first a wellbore schematic diagram, 19 hopefully, and the next page should reflect the tract 20 acreage. Do you see that? 21 EXAMINER BROOKS: That's not the case in my 22 book. My book, the -- oh, this is 16259. You're in 23 16260. 24 MR. RANKIN: Correct. 25 EXAMINER BROOKS: Let's see if that's

Page 49 1 correct. 2 You're right. Go ahead. 3 MR. RANKIN: Is everybody on the lease 4 tract map? 5 Thank you. (BY MR. RANKIN) Ms. Presley, will you proceed 6 Q. 7 through what this exhibit shows? 8 Α. This is the one-mile radius around the Grizzly 9 SWD #1 showing the state, federal and fee leases. 10 Okay. Just to be clear, this reflects that Q. you've identified each lease tract within the one-mile 11 12 area of review; is that right? 13 Α. That's correct. 14 And does the next page reflect the leasehold 0. 15 operators for each of those tracts that you identify? 16 Α. Yes. 17 Q. Thank you. 18 Now, with respect to each of those exhibits 19 that we've just reviewed, how did Delaware identify each 20 of these leasehold operators? I used the New Mexico OCD GIS maps and the 21 Α. different layers. 22 23 And that enabled you to determine who the 0. 24 leasehold operators are for each of those tracts of 25 land; is that correct?

Page 50

1 Α. That's correct. 2 And in your opinion, did Delaware undertake a 0. 3 good-faith effort to identify and locate the correct 4 parties required for notice within the one-mile area of 5 review? 6 Α. Yes. 7 And were there any unlocatable interests or Q. 8 notice parties that were required to have notice in 9 these cases? 10 Α. No. 11 Were all the addresses valid and correct? 0. 12 Α. Yes. 13 Now, let's turn to -- so based on your land 0. 14 work and your evaluation of the leasehold operators, was 15 there any need under the Division rules to provide 16 notice to the mineral interest owners where there was a 17 leasehold operator in the tracts of land within the 18 one-mile area of review? 19 Α. No. 20 So for every case, Delaware was not required to Q. 21 give notice to mineral interest owners; is that right? 22 Α. That's correct. 23 Now, let's review what notice you gave of the 0. 24 updated C-108. Starting on the page -- let's see. 25 Starting with Case Number 16258, the page following the

Page 51 list of leasehold operators, is there a copy of an 1 2 Affidavit of Publication indicating that Delaware has 3 provided notice of the updated location in the "Carlsbad 4 Current-Argus," which is a newspaper of general 5 circulation in the county where the well is proposed? 6 Α. Yes. 7 EXAMINER BROOKS: Excuse me. I think I 8 missed something that I'm sure you covered way back. Did you give notice throughout the one-mile area of 9 review or two-mile area of review? 10 11 MR. RANKIN: One-mile. Yeah, one-mile. 12 EXAMINER BROOKS: Okay. Thank you. Go ahead. 13 14 (BY MR. RANKIN) Ms. Presley, turning to the 0. 15 corresponding page following the listing of leasehold 16 operators, Case Number 16259, Exhibit 1, behind Tab A, is there also a notice of -- an Affidavit of Publication 17 18 to the "Carlsbad Current-Argus" indicating that Delaware 19 gave notice by publication of the updated location in 20 the newspaper of that county? 21 Α. Yes. 22 And in Case Number 16260, following the listing 0. 23 of leasehold operators, there is an intervening letter 24 of notice, but is there a follow-up letter of notice, 25 also an Affidavit of Publication, that Delaware gave

	Page 52
1	notice by publication of the updated location in the
2	"Carlsbad Current-Argus"?
3	A. Yes.
4	Q. And did Delaware also provide notice letters to
5	each of the identified notice parties for each of these
6	cases?
7	A. Yes.
8	Q. And is a copy of that letter that was sent out
9	for each of the cases also included within the same
10	series of pages behind Tab A for each case?
11	A. Yes.
12	Q. And behind that notice letter, is there a list
13	of all the parties, leasehold operators, that Delaware
14	noticed, including the surface owner, State Land Office,
15	for each of these cases?
16	A. Yes.
17	Q. Okay. Now, we're going to move out of Exhibit
18	1 and we're going to review the notice that was given
19	for today's hearing. So starting with Case Number
20	16258, please flip to what's been marked as Exhibit
21	Number 3 in your notice packet. And I'll ask for you to
22	go ahead and flip to that same exhibit number in each of
23	case exhibit packets so we're able to review them
24	quickly.
25	In Case 16258, the first page of Exhibit

Page 53 Number 3, is that an affidavit prepared by my office, by 1 2 myself, indicating that Holland & Hart has provided 3 notice to the parties pursuant to the Division rules, to 4 the parties that Delaware has identified for us? 5 The first page --Α. 6 Is an affidavit prepared by me indicating that Q. 7 we provided notice of the application; is that correct? 8 Α. It's saying "Hilcorp," so no. I see. All right. 9 0. Ah. 10 MR. RANKIN: Mr. Examiner, I notice that 11 there was an error in each of those affidavits. 12 (Laughter.) 13 EXAMINER BROOKS: You represent Hilcorp so much that you forgot you have other clients. 14 I will supplement the record, 15 MR. RANKIN: 16 if there is no objection from the protestants in the case, with an updated affidavit reflecting that we did 17 do what we said we did later today. In fact, we can do 18 it after lunch. So I apologize for that error. 19 20 EXAMINER GOETZE: So kudos to Ms. Presley 21 in seeing what the attorneys couldn't. 22 MR. RANKIN: That's right. 23 EXAMINER GOETZE: I see that your other 24 affidavits also have the same --25 MR. RANKIN: That is correct.

Page 54 EXAMINER GOETZE: Okay. MR. RANKIN: Mr. Examiner, since I can't testify, I will ask the patience of the examiners and protestants to provide an updated affidavit after lunch. I'll be happy to bring Ms. Presley back up, although I don't think that's necessary just to submit an affidavit. Q. (BY MR. RANKIN) Ms. Presley, on the next page, is that a copy of the letter that was sent out by my office for each of the proposed wells in each case? Α. Yes. 0. And behind that letter in each exhibit, is there a copy of the United States Postal Service 14 tracking sheet reflecting the parties that were sent certified mail, return receipt requested? Α. Yes. Q. And behind that tracking sheet, is there an update list reflecting that each of those notice parties signed for and received the notice letters that were sent? Α. Yes. Q. So in each case, the tracking sheet reflects that those parties actually did sign and receive the 24 notice letter that was sent out, correct? Α. Correct.

1

2

3

4

5

6

7

8

9

10

11

12

13

15

16

17

18

19

20

21

22

23

25

Page 55 And just as a bootstrap measure, is there also, 1 0. 2 behind the last page of the exhibit, a copy of the Affidavit of Publication from the "Carlsbad 3 4 Current-Argus" reflecting that we published notice 5 identifying the case, the updated well location and each 6 party by name? 7 Α. Yes. 8 And that's true for each of these exhibit Q. packets for each case, right? 9 10 Α. That's correct. 11 0. Now, let's shift gears again and talk about the 12 State Land Office and their role in these cases. Has 13 the Commissioner approved the location -- the updated 14 location for each of these cases? 15 Α. Yes. 16 And is that reflected in Exhibit Number 4 for Q. 17 each of these cases in the exhibit packets before you? 18 Α. Yes. 19 Will you review for the examiners what Exhibit Q. 4 reflects for each of these cases? 20 21 Α. The first page is the staking notification that I sent out to each of the grazing lessees on the 22 23 location where we're putting the well, and the second 24 page is the approval for the staking from the State Land 25 Office.

Page 56 And that's -- that's true for each Exhibit 1 0. 2 Number 4 for each of these wells? 3 Α. Yes. 4 Now, in each of these cases of these leases ο. 5 identified are not the original locations that Delaware 6 had picked out; is that correct? 7 Α. That's correct. 8 Q. And why were these locations changed to the best of your understanding? 9 10 The State Land Office requested that we move Α. them outside of Zone B and any drainage that could lead 11 12 into the river for the Texas hornshell mussel. 13 So, Ms. Presley, if you would turn to Exhibit 2 0. 14 in any one of your exhibit packets, since the exhibit is 15 identical for each case. Now, you mentioned that the 16 State Land Office had asked that Delaware move its 17 proposed locations for these disposal wells outside of 18 Zone B. On this map, what is identified as Zone B? 19 Α. It's the orange larger plume around the red line showing the Black River. 20 21 ο. So based on the State Land Office's request, Delaware has moved each of these three wells, the Bear 22 23 Trap, the Grizzly and the Giant Panda, to be at a 24 location that's no longer encroaching or near that Zone 25 B that's reflected in orange; is that correct?

Page 57

1 A. That's correct.

2	Q. And in addition to that, I think I heard you
3	say that the State Land Office also identified locations
4	that are not will not provide a conduit or are not in
5	a drainage area that will drain into the Black River; is
6	that correct?
7	A. That's correct.
8	Q. And that was the basis for the State Land
9	Office's approval for each of these cases, was that it
10	was not going to impact or impair in any way the
11	potential habitat for the Texas hornshell mussel; is
12	that right?
13	A. That's right.
14	Q. So your understanding is these new locations
15	were approved by the State Land Office because they were
16	no longer going to be impacting in any way any drainage
17	or runoff or any potential environmental or habitat
18	concerns relating to the Black River or the Texas
19	hornshell mussel?
20	A. That's correct.
21	MR. CRAIG: I'd like to object. I think
22	this is all hearsay that's coming in from what the State
23	Land Office told her that she's telling us. I think
24	it's objectionable as hearsay.
25	EXAMINER GOETZE: Well, at this point she's

Page 58 presenting what is in the C-108, and the basis of 1 what -- the merits of the C-108 can be challenged, and 2 it's brought forth for acceptance. Again, she is just 3 providing us the information of what she has done as far 4 5 as putting together this package. So we'll enter it into record. We can debate the merits of it later. 6 7 Okay? 8 MR. CRAIG: Okay. 9 EXAMINER BROOKS: To summarize, it's not offered for the truth of the matter stated. 10 11 EXAMINER GOETZE: Thank you. 12 EXAMINER BROOKS: That's what my law 13 professors would have said. 14 EXAMINER GOETZE: Right. Just to respond, I'm just 15 MR. RANKIN: 16 asking Ms. Presley to recount her understanding for the basis for the approved locations. 17 (BY MR. RANKIN) Now, your understanding, 18 Q. 19 Ms. Presley, just to summarize, is that these locations 20 that have been approved by the State Land Office for 21 each of these three cases no longer pose a risk to the 22 Black River or to the Texas hornshell mussel habitat 23 based on --24 EXAMINER GOETZE: Well, that, I would --25 that is an opinion from her based on hydrology, and I

Page 59 think we can take the fact that she was requested to 1 move these in accord to what the State Land Office 2 requested. I think you're getting a little farther off 3 of her expertise. 4 5 Okay. That's fine. I mean, I MR. RANKIN: was just asking because she was the one who dealt with 6 7 the State Land Office, she had the conversations with 8 them, and she understands the basis for the new locations. 9 10 EXAMINER GOETZE: Very good. 11 MR. RANKIN: With that, I will ask at this time that Exhibit Numbers 2 and 3 in each case be 12 entered into the record with the caveat that I will be 13 supplementing Exhibit Number 3 to reflect a correct 14 affidavit for each case. 15 16 EXAMINER GOETZE: Okay. So what we're looking at in all three cases, the same section being 17 entered into --18 19 MR. RANKIN: Correct. At this time I'll 20 reserve admitting Exhibit Number 1, the C-108, until I have a technical witness to provide testimony on that. 21 22 EXAMINER GOETZE: I was trying to avoid 23 this overlapping. The court reporter has a hard enough 24 time keeping track of us. 25 So if I can restate, MR. RANKIN:

Page 60 Mr. Examiner, I would ask that at this time Exhibits 2 1 and 3 in Case Number 16258, Case Number 16259 and Case 2 Number 16260 be admitted into the record. Is that 3 helpful? 4 5 EXAMINER GOETZE: It is, but at the same 6 time, we're drifting. 7 Since you have protested the two cases, you 8 now are involved. Are there any objections from you, 9 Mr. Craiq? MR. CRAIG: As to Exhibits 2 and 3 with the 10 11 supplemental affidavit, we have no objection. 12 EXAMINER GOETZE: Mr. McMillan? 13 MR. McMILLAN: No objection. EXAMINER GOETZE: Ms. Callahan? 14 15 MS. CALLAHAN: No objection. 16 EXAMINER GOETZE: Well, in light of the presentation, we will go ahead and enter into the record 17 18 for Case 16258, Exhibits 2 and 3; Case 16259, Exhibits 2 19 and 3; and Case 16260, Exhibits 2 and 3, with the 20 notation that we'll be provided with a corrected affidavit, at least the cover letter, for the --21 affidavit for the package at this point. 22 23 (Delaware Energy, LLC Exhibit Numbers 2 and 24 3 for each case, Case Numbers 16258, 16259 and 16260, are offered and admitted into 25

Page 61 evidence.) 1 2 MR. RANKIN: Nothing further from me, Mr. Examiner. I'll pass the witness, reserving the 3 4 opportunity to redirect. 5 EXAMINER BROOKS: Mr. Examiner, I'm going to request a recess at this point. I'd like to take 6 7 about 15 minutes so I can arrange what needs to be done 8 with regard to the lunch break. 9 EXAMINER GOETZE: Okay. Well, then, let's go ahead and do cross following and understanding we're 10 11 just going to talk about 16258 first, and then we'll 12 move on to the other cases. All right? 13 MR. RANKIN: That's fine. 14 EXAMINER GOETZE: Let's take a 15-minute break and come on back. 15 16 EXAMINER BROOKS: Thank you. 17 (Recess, 10:28 a.m. to 10:50 a.m.) 18 EXAMINER GOETZE: Let's go back on the 19 record. 20 Ms. Presley, at this point, the witness, has been passed to Mr. McMillan. 21 22 Proceed. 23 MR. McMILLAN: And just to be clear, 24 Mr. Examiner, am I authorized at this point -- given 25 that Ms. Presley testified across the three applications

Page 62 with some kind of generalities and commonalities, I 1 2 suppose, can I ask some questions that go to, again, all three of the pending applications? 3 EXAMINER GOETZE: It is so noted. 4 Since we 5 have entered the notice portion from all three cases, 6 please proceed on that assumption. 7 EXAMINER BROOKS: And before you start your 8 examination, let me state that I may be walking out 9 during the proceedings, before Mr. Goetze takes the 10 lunch break, and there is no note to be observed of 11 that. He has permission to proceed in my absence. 12 EXAMINER GOETZE: And to make his own mistakes (laughter). 13 Proceed, Mr. McMillan. 14 15 MR. McMILLAN: Okay. 16 CROSS-EXAMINATION BY MR. McMILLAN: 17 18 Good morning, Ms. Presley. I'm Seth McMillan, Q. counsel for the Mineral Companies. 19 20 We are initially -- from the most broad 21 perspective, we're curious as to how Delaware went about 22 choosing the initial locations for the Bear Trap, Giant 23 Panda and the Grizzly SWD wells. 24 Α. We picked state locations to put our wells on. 25 I'm sorry? Q.

Page 63 We picked state surface locations to put our 1 Α. 2 wells on --3 Q. Okay. -- along Black River Village Road. 4 Α. 5 You wanted it to be along the Black River Q. 6 Village Road. 7 Are you familiar with the Black River Ranch 8 property that runs through the area? 9 The Foundation Minerals property, yes. Α. 10 0. Yes. Yes. 11 Did you not previously work with the 12 Mineral Companies? I did, yes. 13 Α. 14 And during what time period? Q. 2016 to 2018. 15 Α. 16 So that was prior to working for Delaware? Q. 17 That's correct. Α. 18 Is that where you gained your familiarity with Q. 19 the Black River Ranch property? 20 I did not work on it. No. Α. 21 Were you aware of the Black River Ranch while Q. 22 you were working with the Mineral Companies? Not that I can recall. 23 Α. 24 0. No? 25 Were you -- while with the Mineral

Page 64 Companies, were you involved in any negotiations -- or 1 2 any conversations, rather, with 3Bear concerning putting 3 saltwater disposal wells on the Black River Ranch 4 property? 5 I was not. Α. 6 Were you involved in any negotiations with Q. 7 Delaware? 8 Α. I was not. And do you have any awareness of how the names 9 Q. of these wells, the Bear Trap, the Grizzly and the Giant 10 11 Panda, where those names came from? 12 Α. I do not. They're just the names we picked. 13 Just the names you picked? 0. Yeah, that I know of. 14 Α. 15 And you'd agree with me that they're all ο. 16 bear-related names? 17 Α. Yes. 18 Was there any -- were the names chosen at all Q. 19 because of the presence of 3Bear in the -- in the 20 region? 21 Α. Not that I know of. 22 Okay. Let's take a look at -- under 16258. Q. 23 That's your Bear Trap proposal. I'm going to ask you 24 about your -- your land work. First of all, how did you 25 go about determining the ownership of the fee lands

Page 65 1 here? 2 Α. I used Midland Map to see who the current 3 lessee was on the map. 4 ο. So you relied entirely on Midland Map? That's correct. 5 Α. 6 What is Midland Map? Q. 7 Α. It's a map company in Midland that goes out and 8 does the title, and they'll put the lessee and the lease 9 date on the map. 10 Okay. So you yourself did not do any work in 0. 11 the county records; is that correct? 12 Α. That's correct. 13 Same with any BLM records? 0. That's correct. 14 Α. 15 Let's turn now to 16258 -- ay-yi-yi -- 1A, and ο. 16 if you turn with me to the second page there, you'd agree with me that this image shows leases within a 17 one-mile radius of your proposed location for the Bear 18 19 Trap well? 20 Α. Yes. 21 Let's look down in the south half of the Q. 22 southwest quarter of Section 3. 23 Α. Yes. 24 Do you see that? That's within an area -- or a 0. 25 portion of that acreage is within your area of review,

Page 66 1 correct? 2 Α. Correct. 3 Q. What do you know about the lease in place on 4 that -- on that acreage? 5 I showed it to the Featherstone Development Α. 6 Corporation. 7 Q. And did you do any work to determine whether 8 that lease has subsequently been assigned to any party? 9 Α. T did not. Would it surprise you to learn that that lease 10 Q. 11 has subsequently been assigned to MRC Permian? 12 Α. Yes. 13 It would surprise you? 0. 14 Α. Yes. 15 And does MRC Permian appear on your notice list ο. 16 on the following page? 17 They do not. Α. 18 Q. As such, assuming that that lease has been 19 assigned to MRC Permian and is no longer with 20 Featherstone, on that assumption, would this notice list 21 be true, correct and appropriate under the Division's 22 rules? 23 With the assumption, no. Α. 24 Right. Okay. Q. 25 In that case, Mr. Examiner, MR. McMILLAN:

Page 67 we would raise a serious issue as to notice on this 1 matter and move for its dismissal. 2 EXAMINER BROOKS: We will so note and 3 overrule the motion for dismissal at this time subject 4 5 to matter being re-opened. MR. RANKIN: Mr. Examiner, just to respond 6 7 to the motion to dismiss, if it's simply a notice issue, 8 it's not a basis for dismissal. It's simply a matter of 9 noticing a party. We have no evidence on the record whether or not the assignment occurred before or after 10 the application was filed, so that remains an open 11 12 question. 13 EXAMINER BROOKS: At this point that's entirely true. There is no evidence because -- "would 14 you" -- "would you be surprised if there" is a question 15 16 that does not bring into evidence the -- subject to the "if," contrary to the opinion of many lawyers. 17 18 Proceed. 19 MR. RANKIN: Mr. Examiner, I would also 20 make -- well, I'll reserve an objection at the end of the cases to address some of these dismissal issues. 21 EXAMINER BROOKS: Very good. 22 23 MR. McMILLAN: I think that's about it for 24 this witness with respect to this matter, meaning the 25 Bear Trap well.

Page 68 Thank you. 1 2 EXAMINER GOETZE: Ms. Callahan? 3 MS. CALLAHAN: No questions. 4 EXAMINER GOETZE: And you are not 5 protesting --6 MR. CRAIG: We're not protesting. 7 EXAMINER GOETZE: Just want to make sure, 8 since we're wandering. 9 I have no questions for this witness. 10 Mr. Brooks? 11 CROSS-EXAMINATION 12 BY EXAMINER BROOKS: 13 Well, the one question I have is just out of Q. 14 curiosity. When you were at UTPB, were you at all 15 acquainted with Dean Ladd in the business school there? 16 Α. Yes. 17 Q. Ah, yes. Well, Jack was a friend -- very close 18 friend of mine many years ago, and I really regretted 19 his premature demise. 20 Α. Yeah. 21 Q. And I think he was also the funniest man I've 22 ever met. 23 EXAMINER BROOKS: Continue. EXAMINER GOETZE: And, Mr. Rankin, do you 24 25 have comments?

Page 69 MR. RANKIN: Not at this time. No further 1 2 questions. 3 EXAMINER GOETZE: Okay. No other questions. We're done with you. Thank you very much 4 5 for your testimony. And your two other witnesses are technical? 6 MR. RANKIN: That is correct. 7 8 Mr. Examiner, if there are no other 9 questions related to the other cases --10 EXAMINER GOETZE: I mean, we're going to go 11 through the other cases. 12 MR. RANKIN: I mean for Ms. Presley. 13 MR. CRAIG: For her, I have one other. EXAMINER GOETZE: This is why I hate 14 doing -- this overlapping is really a pain. 15 16 Mr. Craig, proceed on Case 16259 and Case 16260. Please continue. 17 MR. CRAIG: Yes, sir. I'm sorry. It gets 18 19 kind of confusing. 20 CROSS-EXAMINATION BY MR. CRAIG: 21 22 Q. On Exhibit 2, which is that map that's got the 23 river and the brown, it's the same in all three? 24 Α. Yes, sir. 25 You did not prepare this, correct? You put Q.

Page 70 maybe the -- where the Bear Trap and the Grizzly are, 1 2 but you didn't prepare the rest of the map? That's correct. 3 Α. 4 And the red is the river? Is that your Q. 5 understanding? 6 Α. Yes. 7 Now, the brown is -- I think they call it Zone Q. B; is that right? 8 9 Α. Yes. 10 Now, is it your understanding that the brown, 0. 11 which is Zone B, is the 100-year flood area? 12 Α. I know nothing of that. 13 Okay. You just got the map? 0. 14 Α. Correct. MR. CRAIG: That's all I have. 15 16 EXAMINER BROOKS: In the interest of clarity, I would say it's more accurately characterized 17 18 as gold rather than brown. 19 MR. CRAIG: Well, but --20 EXAMINER BROOKS: My idea is that 21 everything on there is brown except the red line. 22 MR. CRAIG: I'm not sure what color it is. 23 It's kind of a brownish-gold. What is that? It's a fall color. 24 25 EXAMINER BROOKS: Good point.

Page 71 EXAMINER GOETZE: Very well. 1 2 MR. McMILLAN: Before we excuse the witness, can we just clarify? Am I going to have an 3 opportunity to ask this witness about the Giant Panda 4 5 and the Grizzly wells? 6 MR. RANKIN: I don't know why you want to call her back. 7 8 EXAMINER GOETZE: We can call her back. EXAMINER BROOKS: Well, I'm reluctant to be 9 10 having people going back and forth all the time. I 11 think -- go ahead. 12 EXAMINER GOETZE: Okay. Well, if we're going to go down that road, if you have questions about 13 Cases 16259 and 16260 regarding the exhibits that were 14 employed, your opportunity -- let's go ahead and have 15 16 your questions now. 17 MR. McMILLAN: Okay. 18 CROSS-EXAMINATION 19 BY MR. McMILLAN: 20 All right. Turning to Case 16259, the Giant Q. 21 Panda well --22 EXAMINER GOETZE: 259? MR. McMILLAN: 259. 23 24 (BY MR. McMILLAN) -- I'd like to begin by 0. 25 discussing -- are you familiar with the initial proposed

Page 72 1 location that Delaware did the C-108 on? 2 Α. Yes. 3 Q. That's the location in Unit P that's on there? 4 This, again, was the initial location. 5 MR. RANKIN: Mr. Examiner, I would object to further line of questioning, unless Mr. McMillan can 6 7 explain the relevance of it. But he's going to ask 8 questions about the original location of the wells, 9 which are no longer relevant to these applications. So 10 I suggest it's not necessary to pursue that questioning, 11 or we'll probably make a full day out of this. 12 EXAMINER GOETZE: Where you going with this, Mr. McMillan? 13 MR. McMILLAN: We're curious about the --14 what was done with respect to that location, whether it 15 16 was staked and, more importantly, what notice was given with respect to that location. Given that Delaware's 17 treating these applications as continuing on and on and 18 19 on, it seems to me that's really the same case, same 20 series of events and that questions about the initial 21 location are perfectly appropriate. 22 EXAMINER BROOKS: Well, I'm usually very 23 reluctant to sustain relevance objections, but in this 24 case, I think we're running down a rabbit trail, so I'll 25 sustain the objection.

Page 73 1 MR. McMILLAN: I can't hear. 2 EXAMINER GOETZE: And in addition to that, 3 we're looking at the application as it currently is. If you wish to refer back to it, fine, but the application 4 is for the surface location put in the notice. And, 5 again, qualified as business relationships and things 6 7 like that have no variance on what a C-108 is. We're 8 looking at the Safe Drinking Water Act, not about 9 business models and whatnot. 10 MR. McMILLAN: Okay. 11 EXAMINER GOETZE: On that note, please 12 proceed with your questions. 13 (BY MR. McMILLAN) Well, we can turn then to the 0. 14 relocated surface location, and that's now in Unit L; is 15 that correct? 16 Α. For the Grizzly? 17 Q. For the Grizzly -- no. For the Giant Panda. 18 Oh, for the Giant Panda. Α. 19 MR. CRAIG: What section? 20 MR. McMILLAN: We're in Section 16. THE WITNESS: Yes. It is in L. 21 22 0. (BY MR. McMILLAN) All right. Well, in any 23 event, the revised location, has that location been 24 staked by Delaware? 25 Α. Yes.

Page 74 Did you have permission from the State Land 1 0. 2 Office to stake that location? 3 Α. Yes. 4 Who did that staking for you? Was it Delaware, Q. 5 or did you have an entity conduct the staking? 6 Α. Basin Survey. 7 I'm sorry? What was the name? ο. 8 Basin Survey. Α. Did you work directly with Basin Survey? 9 Q. 10 Yes. Α. 11 Well, let's take a look at -- do you happen to 0. 12 have a copy of the -- see, this is how -- this is --13 EXAMINER GOETZE: Yes? MR. McMILLAN: Doing limited 14 cross-examination based on the exhibits that were 15 16 already entered is not going to work here. This is -this is -- okay. 17 18 (BY MR. McMILLAN) How did Delaware access the Q. 19 surface to stake the revised location of the Giant Panda 20 well? MR. RANKIN: Mr. Examiner, I would object 21 to this line of questioning. I don't see the relevance 22 23 relating to the application before the Division as to 24 the C-108 seeking authority to inject. 25 EXAMINER BROOKS: Well, I'm going to

overrule the objection because we've had questions 1 before about what was done to establish who needed to be 2 noticed, and who needs to be noticed is a question that 3 is relevant to this case, so as long as we're pursuing 4 that trail and I don't think we're on a rabbit trail. 5 If we get off into who would be noticed, if it were 6 7 somewhere else, that's the rabbit trail. So you may 8 continue. 9 (BY MR. McMILLAN) Do you know how Basin Survey 0. 10 and/or Delaware accessed the surface location in order

11 to stake it?

12 A. I do not know the 100 percent way they went in.13 No.

MR. RANKIN: Mr. Examiner, I'm not sure we have an answer from counsel whether or not this line of question is relating to the notice issue or not, and I would object on the further line of questioning if it's not related to notice.

19 EXAMINER BROOKS: Well, I agree. Who 20 the -- there is no issue under the Surface Owners Protection Act here, but if it is related to notice, you 21 22 may pursue it. If you're not -- if you're not going to 23 raise an objection to have they received notice in this 24 case, then I think it's irrelevant. 25 MR. McMILLAN: Okay.

PAUL BACA PROFESSIONAL COURT REPORTERS 500 FOURTH STREET NW - SUITE 105, ALBUQUERQUE, NM 87102

## Page 75

Page 76 (BY MR. McMILLAN) In any event, was -- were the 1 Q. 2 Mineral Companies provided notice as to the Giant Panda 3 well? 4 Α. No. 5 And it's your opinion that's not required under Q. 6 the rules? 7 Α. Yes. 8 Did you do any work to investigate the Mineral Q. 9 Companies' ownership either surface or otherwise? 10 Α. I saw there were surface owners in the area. 11 Yes. 12 0. Okay. In examining their surface ownership, 13 did you note that they own Section 9? I can't say with 100 percent certainty. 14 Α. 15 Do you have the map in front of you? Do you ο. 16 see Section 9 there? 17 Yes. I turned to it. Α. 18 And that map is Exhibit 2, correct? Q. 19 Α. Yes. 20 Are you familiar with the roads in the Q. 21 vicinity? 22 Black River Village Road, yes. Α. 23 Do you have any idea if there is any way to 0. access the Giant Panda surface location without crossing 24 25 through Section 9?

Page 77 1 Α. No. 2 You don't know if there is any way to do it? 0. I do not know if there is. 3 Α. 4 Okay. Q. MR. McMILLAN: That's all I have for this 5 witness at this time on the Giant Panda. 6 7 And am I similarly confined with respect to 8 the Grizzly concerning questions of notice? EXAMINER BROOKS: Yes, sir, unless you can 9 demonstrate something else is relevant. 10 11 MR. McMILLAN: All right. 12 0. (BY MR. McMILLAN) Looking at your map, Exhibit 13 2, with respect to the Grizzly, it looks like that's 14 staked just to the south of Section 11, correct? 15 Α. Correct. 16 Do you know who owns in Section 11? Q. 17 The State Land Office. Α. 18 You believe the State Land Office owns 11? Q. 19 Part of it, yes. Α. 20 Is there any way to stake that Grizzly SWD well Q. 21 without crossing through Section 11, to your knowledge? 22 Α. No. 23 No, there is no other way to get there, or no, 0. 24 you don't know? 25 It's in Section 11. Α.

Page 78 MR. RANKIN: Mr. Examiner, I would just --1 MR. McMILLAN: I'll end the questions. 2 3 EXAMINER GOETZE: Okay. 4 MR. RANKIN: Mr. Goetze, do you have 5 questions of the witness, because I have one more? 6 EXAMINER GOETZE: No. I had already said 7 that I have no questions of the witness. 8 Mr. Craig, since we're covering both 16259 and 16260, do you have any questions about --9 10 MR. CRAIG: We have none. I just had the one of the map. 11 12 EXAMINER GOETZE: Just on the -- okay. 13 In light of that, back to you (indicating). REDIRECT EXAMINATION 14 BY MR. RANKIN: 15 16 Ms. Presley, Mr. Craig, counsel for the Davises Q. 17 and Ms. Ogden, asked you a couple of questions about the 18 map, Exhibit Number 2, that is in your exhibit packet. With respect to that map, just so the record is clear, 19 20 how was this map created with respect to the 21 identification and locations of your proposed wells? Did you get GPS coordinates for those well locations? 22 23 Α. Yes. 24 And you entered those into this map to identify 0. 25 the locations as depicted in the map, correct?

Page 79 1 Α. Correct. 2 Now, with respect to the orange coloring 0. 3 depicting Zone B for the mussel habitat and then the red 4 coloration depicting the Zone A habitat, where did that 5 information come from; do you know? б I received the KMZ file from the State Land Α. 7 Office. 8 So the depiction of all of that territory, Zone Q. 9 B and Zone A, was received to you from the State Land Office? 10 11 That's correct. Α. 12 Q. And did they provide it to you upon your 13 request, or how did it come that they sent it to you? They just sent it to me. 14 Α. In order so that you could understand what the 15 ο. 16 locations were -- why did they send it to you? So you could understand the locations of the different zones? 17 18 Just for me to see the map, where it was in Α. 19 relation to the wells that we're talking about putting 20 on state land. 21 Q. Okay. So that's the information that you used 22 from the State Land Office to create this map, correct? 23 Α. That's correct. 24 MR. RANKIN: Okay. No further questions. 25 EXAMINER GOETZE: Mr. Brooks?

Page 80 1 EXAMINER BROOKS: No questions. 2 EXAMINER GOETZE: I have no more questions of this witness. 3 4 Thank you. 5 MR. RANKIN: Thank you, Mr. Examiner. I call my second witness, Mr. Jason Goss. 6 7 JASON S. GOSS, 8 after having been previously sworn under oath, was questioned and testified as follows: 9 10 DIRECT EXAMINATION 11 BY MR. RANKIN: 12 0. Mr. Goss, will you please state your full name for the record? 13 Jason Sterling Goss. 14 Α. 15 By whom are you employed? Q. 16 Α. Delaware Energy. 17 And in what capacity? Q. I am VP of drilling. 18 Α. 19 Would you please recite for the examiners what Q. your duties entail as the VP? 20 21 Α. I oversee all aspects relating to drilling from the initial planning of the wellbore at the surface 22 23 through the regulatory process for approval of the C-108, as well as the C-101, getting it staked, building 24 25 the location, and then to all the downhole, the wellbore

Page 81 design, the tubular design, the drilling mud design, the 1 entire drilling program, and then as well as the 2 completion of the well because we complete the wells 3 with the drilling rig. And so I oversee the entire 4 5 process of drilling for Delaware. (Cell phone ringing.) 6 7 (Examiner Brooks exits the room.) 8 (BY MR. RANKIN) Have you previously had the Q. 9 opportunity to testify before the Division? 10 Α. I have not. 11 Will you please review for the examiner what 0. 12 your educational background is first? I have a Bachelor in Science from the 13 Α. University of Texas at Austin. I graduated in December 14 of 2008. 15 16 ο. And with respect to your relevant work history, 17 will you review for the examiners what your past work 18 history is and your different duties and your experience 19 drilling wells and working with saltwater disposal 20 wells? 21 Α. I have about ten years of experience total in the oil and gas industry. I started in the Northern 22 23 Delaware Basin drilling, completing and overseeing a 24 Levelland, San Andres and Clearfork water flood. We did 25 pressure maintenance. I oversaw the injection wells

Page 82 that were involved with the water flood. 1 I then moved on to Midland and started 2 working for Nadel and Gussman Permian. My 3 responsibilities there were drilling engineer, then 4 5 following that, drilling manager for Nadel and Gussman 6 Permian. I drilled all of Nadel and Gussman's Lea and 7 Eddy Counties wells, as well other entities we were 8 involved with such as Nadel and Gussman Heyco. 9 Following that, we merged in early '16 with 10 BC Operating. I was the drilling manager for BC 11 Operating. I was completely responsible for all aspects of drilling at BC. We drilled a handful of wells in the 12 two years I was there. I also drilled a few disposal 13 wells for BC. I drilled a handful of disposal wells for 14 Nadel and Gussman Heyco and Nadel and Gussman Permian. 15 16 Now, you're familiar with the C-108 Q. applications that were filed in each of these cases? 17 18 Α. I am. 19 And you contributed substantially to the Q. 20 preparation of each of those C-108 applications for each 21 of these cases? 22 Α. That's correct. 23 And you prepared exhibits to support your 0. 24 testimony today; is that right? 25 Α. That's correct.

Page 83 MR. RANKIN: Mr. Examiner, I would tender 1 2 Mr. Jason Goss as an expert in petroleum engineering. EXAMINER GOETZE: And we're going to be 3 discussing all three, or we're just going to discussing 4 5 one? MR. RANKIN: My preference, Mr. Examiner, 6 7 is I think it would be most efficient to discuss all 8 three, but --9 EXAMINER GOETZE: Well, efficiency has created a degree of confusion. 10 11 Okay. We'll proceed on that. 12 Do you have any objections, Mr. Craig? 13 MR. CRAIG: No objection. EXAMINER GOETZE: Mr. McMillan? 14 MR. McMILLAN: No objection to the witness' 15 16 qualifications. 17 EXAMINER GOETZE: Ms. Callahan? 18 MS. CALLAHAN: No objection. 19 EXAMINER GOETZE: Very well. He's so 20 qualified. 21 Proceed. 22 Q. (BY MR. RANKIN) Mr. Goss, you've got before you 23 three exhibit packets for Case Numbers 16258, 16259 and 24 16260. 25 Α. Correct.

Page 84 Will you flip to what's been marked as Exhibit 1 0. 2 Number 1 in each of those exhibit packets? Is this a 3 copy of the cover letter and the C-108 -- updated C-108 that was filed in each of these cases? 4 5 Α. That's correct. 6 Now, were you responsible for preparing -- and Q. 7 just to be clear, Exhibit 1 has got intervening tabs, A, 8 B, C, D, E and F, correct? 9 Α. That is correct. And with respect to Exhibit 1 and the C-108, 10 0. 11 were you responsible for creating -- for generating and 12 overseeing the preparation of all aspects of that C-108 13 except for the material that's behind Tab letter F? That is correct. 14 Α. 15 And that's true for each of the cases before ο. 16 the Division today? 17 Α. Correct. 18 And on some of materials that were filed with Q. 19 the Division in that C-108, the name Mike McCurdy 20 appears. Did you work with Mr. McCurdy to develop the 21 C-108 in each of the cases? 22 Α. I did. 23 Now, turning to the C-108 itself, do the C-108 0. 24 applications in each case contain all the geologic 25 information and analyses that are required by the

1 Division for approval?

A. They do.

2

Q. If you look at -- turn to Tab B on each of your exhibit packets in Exhibit 1, are these Delaware's responses to the questions that are required under the Division's C-108?

7 A. That is correct.

Q. And looking at item number eight, Roman numeral VIII, is this an outline of the geologic information that's required by the Division for approval?

11 A. It is.

Q. And that's been provided for each C-108 now
 pending before the Division, correct?

14 A. Correct.

Q. Will you review for the examiner the geologic framework here in these areas for all three of these wells and just explain what the stratigraphy is and the different formation tops and the surface to the

19 injection interval?

A. Yes. The surface in this -- for this general area, the surface has some early age -- or late-age quaternary alluvium. For the most part, the Rustler is at surface or near surface in outcrops. Following that, the Salado begins at around 700 feet, in my experience. It ends at the Lamar limestone at around 22 to 25,

Page 86 followed by the Delaware Mountain Group, which will be 1 from 2,500 to 5,500, where the top of the Bone lime is. 2 The Bone lime will carry down to about 9,000 to the top 3 of the Wolfcamp in this area. Wolfcamp intervals A, B 4 5 and C are normally a depth to about 11 or 10,8 [sic]. Following that, you have the gas intervals, the Strawn, 6 Atoka, Morrow, followed by the Mississippian-age rock, 7 8 the Barnett shale, the Mississippian lime, and then down 9 to the Woodford, which is the top of the Devonian-age Then followed by that, after the Woodford, you 10 rock. 11 have the Devonian carbonate and the Silurian, which is 12 the injection intervals. 13 So just to be absolutely clear, in each of 0. 14 these three cases, Delaware is proposing to inject into 15 the Devonian Formation -- what is known as the Devonian 16 Formation; is that correct? 17 That's correct. Α. 18 So let's go ahead and talk about what the Q. footages are and the depths for the proposed injection 19 20 in each case. 21 Let's turn first to Case Number 16258, 22 which relates to the Bear Trap SWD #1 well. Can you 23 relate to the examiner what the proposed injection 24 interval is for that well? 25 The top of the Devonian carbonate is Α. I can.

Page 87 13,280 feet, and the base over injection interval is 1 14,280. 2 3 Q. And how about in Case Number 16259 with respect 4 to the Giant Panda SWD #1, what are the proposed 5 injection intervals -- what is the proposed injection interval for that well? 6 7 That well has a top of Devonian carbonate at Α. 8 13,255 feet down to the end of the Silurian at 14,255. 9 And then turning to Case 16260, which relates 0. to the Grizzly SWD #1 well, what are the proposed 10 11 injection -- what's the proposed injection for that 12 well? 13 Α. 13,420 to 14,420. 14 Now, sticking with the geologic issues, have 0. 15 you evaluated whether the Devonian in these areas is 16 capable of fully containing the injection fluids that 17 you propose to inject into these wells? 18 Α. I have. 19 And what have you determined based on your Q. 20 assessment? 21 Α. I have determined that there are many, multiple 22 impervious intervals from the Devonian injection interval to the surface and to the groundwater in that 23 24 13,000 feet, number one being the Woodford, a very 25 organic shale. It virtually has no impermeability.

Page 88 Following that, as you go up, there are uncounted 1 impervious shale intervals that would be a barrier to 2 channeling upwards. 3 4 ο. So starting with the formation immediately 5 overlying the Devonian, the Woodford shale, right? That's correct. 6 Α. 7 And the Woodford shale is an impermeable ο. 8 barrier that would contain the injected fluid? 9 Α. That's correct. What's the approximate thickness of the 10 Q. Woodford shale in these locations? 11 12 Α. In this part of Eddy County, it's around 150 feet. 13 14 0. Now, we're talking generally about the geology 15 and the stratigraphy in this area, and is that 16 stratigraphy the same in each -- for each case? 17 That's correct. In this area there is not Α. 18 much -- there is not much change. 19 Q. Okay. There may be some slight variation in 20 the depths, but other than that, the stratigraphy is the 21 same across -- across the area here that we're talking 22 about in each of these cases? 23 Α. That's correct. 24 Now, have you evaluated the injection capacity 0. 25 of the Devonian in this area?

Page 89 I have. 1 Α. 2 And is that based on -- based on prior 0. 3 experience, or what have you determined -- what is your opinion based on the injection capacity in this area? 4 5 We've determined that this interval can easily Α. take 20- to 25,000. In our active wells -- we have six 6 7 current wells in Eddy County, and they all have the 8 capacity for that and probably more. 9 What is your -- what is the expected life 0. capacity of each of these three wells? 10 11 We're expecting for the lifetime of these wells Α. 12 to be 10 to 15 years. 13 And over the course of that lifetime, is it 0. 14 your opinion that the Devonian will have the capacity to 15 receive the injection fluids from all three of these 16 wells? 17 That's correct. Α. 18 Now, is there any production of hydrocarbons Q. 19 from the Devonian within this area, within the one-mile 20 area of review, for each of these three wells? There is none. 21 Α. 22 You've not identified any potential hydrocarbon 0. 23 production or actual hydrocarbon production within this 24 area? 25 I've reviewed every deep test that has any kind Α.

Page 90 of data, and throughout this area, in most of Eddy 1 2 County, I've never seen any evidence of hydrocarbon production in the Devonian. 3 4 So it's your opinion that the Devonian in these ο. 5 areas for these three wells is not prospective for 6 hydrocarbons? 7 Α. That's correct. 8 Q. Now let's talk about -- move up to the stratigraphy a little bit and talk about freshwater 9 10 zones. Have you evaluated these areas for potential 11 freshwater zones? 12 Α. I have. I reviewed the State Engineer's data for all these locations. 13 14 Okay. And what have you identified as 0. 15 productive freshwater zones? 16 Α. So in general there's, you know, handfuls of wells in each section, but generally speaking, the 17 usable water in this area is 0 to 100 feet. Most wells 18 are 80 feet, 75 feet deep, somewhere in there. 19 20 There are some that may be a little deeper than Q. 21 that? 22 That's correct. The deepest I've seen on the Α. 23 State Engineer's website for this area is a well that is 24 200 feet, but the usable water is higher than that. 25 So relatively speaking generally here, the Q.

Page 91 1 depth to fresh water is in the range of what? 0 to 100 feet, somewhere in there. 2 Α. 3 Q. Okay. Now, are these freshwater zones 4 geologically isolated from your injection interval? 5 Α. They are. 6 And what do you mean by geologically isolated? Q. 7 How are they geologically isolated? 8 Α. Well, one, with the rock that's impermeable, and then, two, the casing program that we have when we 9 drill the wells. 10 11 0. Okay. When you say the rock that's 12 impermeable, what zones underlying this freshwater zone 13 can you identify is impermeable to -- to water? Sure. For one, the Bone lime is impermeable, 14 Α. and there are others from -- the hydrocarbon production 15 16 would begin nearly around 2,500 feet. And between there and the freshwater table, there are impervious lines, 17 18 like, for example, the Lamar limestone. 19 Q. So those function -- they effectively function 20 as a barrier to separate and contain the fresh water, 21 keeping -- the hydrocarbon-producing zones, and then 22 below that, your injection interval into the Devonian; 23 is that correct? 24 Α. That's correct. 25 Is that a fair statement? 0.

1 A. That's fair.

Page 93 1 Α. That's correct. 2 Now, have you identified in your geologic 0. 3 review any vertical faulting or fractures or any other 4 kind of geologic conduits that could potentially serve 5 as a pathway for contamination between your injection interval and the shallower freshwater zones? 6 7 Α. I have not identified any in this area. 8 Q. And there is hydrocarbon production going on in this area; is that right? 9 10 A bunch, yes, a great deal. Α. 11 0. So if there were fractures or any kind of 12 vertical faulting or geologic conduits, would you not 13 expect to see some leakage from the underlying 14 hydrocarbon zones in the freshwater area? Yeah. You would expect it to be known. 15 Α. 16 Q. Yeah. 17 Okay. Now, in your opinion, based on your 18 analysis and assessment of the geology and the 19 impermeable barriers that you've just reviewed, do you expect your injection in these three wells -- through 20 21 these three wells to pose a risk to contamination of 22 fresh water in this area? 23 Absolutely not. Α. 24 Now, we were just talking about the geology. 0. 25 We'll move on to the casing program shortly. But as to

Page 94 the geology, you don't see any issues or concerns? 1 2 Α. That's correct. 3 Q. Now, let's go ahead and talk about the well 4 design and casing --5 Α. Great. 6 -- and walk through for the examiner what it is Q. 7 Delaware is proposing here. Let's start at -- well, 8 before we move on to the casing, let's just talk about the area of review first, and then we'll move on to the 9 casing program. 10 11 So first I'll ask you to flip to Tab D --12 I'm sorry -- Tab A for each of cases before you. 13 Ms. Presley already discussed these maps, but with 14 respect to your analysis relating to the area of review, 15 will you just review for the examiners what this first 16 map shows? The first map is a two -- the larger circle is 17 Α. a two-mile radius. The second smaller circle is a 18 one-mile radius that we are now using from a 19 20 recommendation of the Division. 21 Q. Okay. And the area of review, what I refer to 22 here, is the one-mile radius area; is that correct? 23 Α. That's correct. 24 Did you look at the wells -- producing wells 0. 25 and the wells that are in the Division records within

	Page 95
1	the area of review?
2	A. I do. I either through the GIS or land
3	maps, I review every wellbore that is located within the
4	area of review. I review how deep it was drilled. If
5	it doesn't penetrate the Devonian, then we move on.
б	Q. Okay. So in this case, for each of these three
7	wells, did you identify any wells that actually
8	penetrate the injection interval within the Devonian
9	within the one-mile area of review?
10	A. I did not, for either of them, for either
11	Q. For
12	A. That's correct.
13	Q. Yeah.
14	So for Cases 16258, 16259 and 16260, there
15	is no well that penetrates the Devonian and injection
16	interval; is that correct?
17	A. That's correct.
18	Q. So have you reviewed, therefore, the data
19	available through the OCD's website and database to
20	determine and satisfy yourself that there is no remedial
21	work required on any of the wells within the one-mile
22	area of review to enable Delaware to safely inject into
23	the Devonian here?
24	A. That's correct.
25	Q. Now, let's talk about the injection and the

Page 96 source of the produced water that Delaware will be 1 2 producing now. Ms. Presley tested that these wells are 3 going to be commercial disposal wells; is that right? 4 Α. That's correct. 5 So what -- do you know what operators or what Q. 6 area of development you'll be servicing? 7 Α. As far as the operators? 8 Q. Yeah. All the major operators in the area. 9 Α. Okay. So the source of produced water is going 10 Q. 11 to be basically generated locally within the area of the 12 region? 13 Α. That's correct. It'll be within some economic, feasible distance that we can run a pipeline. 14 15 Okay. Now, as to the specific formations that ο. 16 you'll be receiving water from, do you have an idea 17 based on the active production in the area what those 18 formations will be? 19 I do. Based on my review of all the horizontal Α. activity, the majority -- the vast majority will be 20 Wolfcamp, primarily Wolfcamp A, the Wolfcamp A sands, 21 followed by some Bone Spring, Bone Spring 2nd Sand and 22 23 3rd Sand, and then some Lower Brushy Canyon, Delaware 24 production. 25 Okay. So knowing that or anticipating that, Q.

Page 97 have you been able to evaluate potential compatibility 1 2 issues -- scaling issues with respect to the anticipated 3 produced water sources for each of these wells? We have. 4 Α. 5 And with that, Mr. Goss, will you turn to Q. 6 what's been marked as Exhibit 1D, Tab D, in each of the 7 cases before you? 8 Are you there? Α. I am. 9 Give you time to --10 Q. 11 Now, will you review for the examiners what 12 this exhibit shows, each page one at a time? 13 Α. These are water analysis of offset water production from the Bone Spring, first, the Brushy 14 Can- -- Wolfcamp, second, followed by a Lower Brushy 15 16 Canyon Sand well. 17 Q. And the source of the produced water -- the formation source is identified in that handwriting at 18 19 the top of each analysis; is that right? 20 Correct. Α. 21 And the exhibits that you just referenced is Q. 22 the same for each case; is that right? 23 Α. That's correct. 24 So you used the same samples for each of the 0. 25 three cases to demonstrate that there are no

Page 98 compatibility issues or scaling anticipated with this 1 2 produced water? 3 Α. Correct. 4 And that's not just based on these samples but Q. 5 from experience; is that correct? That's correct, industry experience and then 6 Α. 7 with our current wellbores. 8 Q. So you've got active injectors that are receiving water from these sources and injecting into 9 10 the Devonian? 11 That's correct. Α. 12 Q. And you're not seeing any scaling or 13 compatibility issues with that injection? 14 Α. We are not. 15 Now -- now -- now we can talk about well ο. 16 design. Let's turn to Tab E in your exhibit packets for 17 each of the cases before you, Cases 16258, 259 and 18 16260. 19 Α. I am there. 20 Looking at the exhibit behind Tab E, is this a Q. 21 representation of the wellbore schematic for each of the 22 proposed wells in these cases? It is. 23 Α. 24 And is the wellbore schematic -- do they vary? 0. 25 Does your well-casing design vary between wells?

A. Only in slight differences in the tops of the formations, very slightly. The most important top is the top of the Devonian, and that's where they will change some and then the top of the Wolfcamp. But for the most part, in this general area, they're all very similar.

Q. Okay. So let's just start with the first one,
Case 16258, which is the Bear Trap well -- SWD well.
Will you review for the examiners what your proposed
casing program and well design looks like?

11 A. Yes, sir.

12 The first string would be a 20-inch conductor set to at least 80 feet. It will be cemented 13 with Ready-mix -- if we can get farther, we will 14 usually -- followed by the surface casing. With the 15 conductor casing set, we usually, in this area, don't 16 17 have any issues with getting a continuous slurry 18 circulated on the first -- on the primary job in one 19 slurry. And the surface casing is set to a few hundred 20 feet below the deepest known water-well depth, which in 21 this case is 500 feet. 22 The next casing string is to top of the

23 Wolfcamp, which for this general area is around 9,000 24 feet. That is cemented in two stages and circulated to 25 surface and circulated to the top of the stage tool so

PAUL BACA PROFESSIONAL COURT REPORTERS 500 FOURTH STREET NW - SUITE 105, ALBUQUERQUE, NM 87102

## Page 99

Page 100 that we have a continuous slurry and the entire pipe is 1 2 covered in cement. And that gives you three barriers of cement and pipe that protect the fresh water. 3 The final casing string is a liner that has 4 5 200 foot of overlap, as the Commission requires, and then that setting depth is determined on the rig with 6 7 the mud log and a backed-up gamma log on the bit. We 8 drill 10 foot past the Woodford into the Devonian 9 carbonate and we set pipe there, and then we circulate that to the liner top. 10 11 Before proceeding to the other cases, Mr. Goss, 0. 12 would you just explain what the purpose of the conductor 13 pipe is at the surface and the surface casing? What 14 does that do, and why is it that you're setting it so 15 deep below the last known water well? 16 Α. Sure. Are you talking about the surface 17 casing? 18 Q. Yeah. 19 Α. So the surface casing protects the freshwater 20 interval, and we drill it with fresh water so we don't 21 contaminate anything. 22 0. And how does it protect the surface water? 23 It protects it because we have the pipe and --Α. 24 the pipe is isolated with cement, and no drilling 25 fluids, once it's set, can interact with the surface

Page 101 water interval. 1 2 Basically, it creates a barrier between the 0. 3 wellbore and the freshwater zones adjacent to the well? 4 Α. That's correct. 5 And you said that you're using freshwater Q. 6 drilling fluids while you're drilling and setting that 7 surface casing; is that right? 8 Α. Correct. And that's so that there is no chance of 9 0. contamination between your wellbore and the adjoining 10 11 freshwater zones? 12 Α. Correct. 13 Now, moving on to Case 16259, this is a very 0. 14 similar well design. Will you just recount the 15 differences between this and the one you just reviewed? 16 Α. The only difference would be the top of the Wolfcamp. We may have a different top of Wolfcamp 17 18 there. I like to get that casing point into the 19 Wolfcamp shale. It's another good impermeable -- and we get the Wolfcamp A under pipe -- that's where I like to 20 set pipe in this area -- and then followed by the liner 21 22 top, which we set 10 foot into the Devonian carbonate. 23 So that's why there is some change there. 24 But otherwise -- looks like my copy at the top 0. 25 might have been cut off. But otherwise you're using the

Page 102 same format of conductor pipe down 80 feet and doing the 1 2 same cement program in between each stage of drilling; 3 is that right? 4 Α. That's correct. 5 Okay. And the last case in front of you is Q. 6 And again, it's a familiar well design. 16260. Is it 7 the same process you're going to follow to drill this 8 well? 9 Α. It is. So you're going to be using freshwater drilling 10 Q. 11 fluids at the surface and using a conductor pipe to 12 isolate the first 80 feet and then surface casing down 13 below the deepest freshwater well, right? That's correct. 14 Α. 15 Okay. And the only difference may be the depth ο. 16 of the injection interval that you're hitting, right? That's correct. 17 Α. 18 Okay. Do you have -- does Delaware have a Q. 19 proposal or intention for a stimulation program for 20 these wells once you complete drilling? 21 Α. We do. For our Eddy County wells, we have been pumping 60 gallons of 20 percent HCl. 22 23 And as to the operations now, once this well is 0. 24 drilled -- these wells are drilled and completed, do you 25 have a proposed maximum surface injection pressure for

Page 103 each of these wells that you've identified? 1 2 Α. We do. This is set by the state guidelines of 3 .2 psi per foot to the top of the injection interval. Q. 4 And will you review for the examiners what 5 you've calculated that maximum injection pressure to be for each of the wells? 6 7 Α. Yes. 8 Q. You can take your time to get to it. Yeah. 9 Α. And if you would, Jason, just make sure you 10 Q. 11 tell us which case number you're referencing --12 Α. Will do. 13 -- injection pressures. 0. So I'll start with the Grizzly, 16260. We have 14 Α. a max allowable surface-injection pressure of 2,684 psi. 15 16 For Case Number 16259, Giant Panda, we have a maximum surface injection pressure of 2,651 psi. 17 18 And for Case 16258, the Bear Trap, we have 19 a maximum pressure of 2,656 psi. 20 Would those surface injection pressures be Q. 21 adequate to receive the volumes of rates of water that 22 you're proposing to inject into these three wells? 23 Absolutely. We typically inject well below Α. 24 this. 25 Well below these pressures? Q.

Page 104

1 A. That's correct.

2 Q. Okay. And that's because of the nature of the 3 Devonian in this area?

A. Correct.

4

Q. And would you just briefly explain why -- why
you can achieve injection at those rates without
approaching those surface pressures here in the
Devonian?

9 A. I'm sorry. You said explain it?

Q. Yeah. Just how it is that the Devonian is able
 to receive those volumes without approaching those
 injection pressure limitations.

A. Due to two factors: The hydrostatic column that you have. Gravity is your friend while injecting. And then two, the porosity development of the dolomite. The intercrystalline porosity lends itself to some permeability, and then with the surface pressure that we add to it and the weight of the fluid, the Devonian can take these rates.

Q. Okay. And basically, as I understand, the
Devonian has a lower -- lower formation pressure, and
it's able to essentially take these fluids on relatively
easy, correct?
A. That is correct. In this area it's about a .89
to .9 equivalent mud density gradient.

Page 105 And that simply means, translated to lay 1 Q. 2 terms --3 Α. We're -- we're -- we're translating the bottom-hole pressure of the Devonian to an equivalent 4 5 mud weight given the distance that it -- the depth. 6 And that mud weight is relatively low given how Q. 7 deep it is? 8 Α. Much lower than the rock above it, the Atoka-Strawn-Morrow. 9 10 And that suggests that the Devonian is under --0. 11 is under pressure and will receive fluids relatively 12 easy? 13 Exactly. Α. 14 Okay. Now, if a higher pressure is needed, 0. 15 will Delaware approach the Division and request the OCD 16 witness a step-rate test to confirm higher pressures? We would. 17 Α. 18 Now, with respect to monitoring your operations Q. 19 and injection, how is it that Delaware proposes to 20 ensure the wellbore integrity during the time of 21 injection? 22 So for injection, we run the injection string. Α. 23 It is set with a packer within 50 to 100 feet of the 24 open-hole interval, as per the OCD guidelines. We will 25 then conduct an MIT test where the entire annulus is

Page 106 liquid filled and then it is tested and witnessed by the 1 2 Commission, as per the rules. Following that, for continuous operations, that liquid-filled annulus will 3 be monitored with a pressure gauge at all times. 4 5 So if there were to be any -- any mechanical Q. 6 issues or annulus issues, integrity of your annulus or 7 injection tubing, would that be recorded by a change in 8 the annulus pressure of your liquid between -- that 9 you've injected or that you've included in your program? 10 Absolutely. Α. 11 0. Okay. And how is that -- how is that being 12 monitored? It's monitored by a liquid-filled gauge, which 13 Α. is also electronically monitored through our electronic 14 system that can be monitored at the computer station at 15 16 the site and then on the Internet from anywhere in the world. 17 Okay. So in other words, Delaware is real-time 18 Q. 19 reviewing and evaluating the constant integrity of each 20 of these wells? 21 Α. That's correct. 22 0. Now, in your opinion, Mr. Goss, would approval 23 of these three applications be in the best interest of 24 conservation? 25 Absolutely, it would. Α.

Page 107 1 And in your opinion, would the approval of 0. 2 these three applications be in the interest of 3 protecting against waste? That is correct. 4 Α. 5 And in your opinion, will -- are these three Q. 6 proposed applications protective of the environment and 7 human health? 8 Α. Absolutely. Just to confirm, you oversaw or contributed 9 0. substantively to the preparation of the C-108 every part 10 11 except for the part that's reflected behind Tab F; is 12 that true? 13 Α. That is correct. 14 0. And that's true for Case 16258, Case 16259 and 15 Case 16260, correct? 16 Α. All true and correct. 17 MR. RANKIN: With that, Mr. Examiner, I would move the admission of Exhibit Number 1, but for 18 19 the exhibit behind Tab F, which our next witness will 20 address in each of these cases. 21 EXAMINER GOETZE: So let me understand. For Case 16258, 1A through 1E; Case 16260, 1A through 22 23 1E; and 16259, 1A through 1E is what you wish to enter? 24 I would, Mr. Examiner. MR. RANKIN: 25 EXAMINER GOETZE: At this point we get to

Page 108 go around and ask your input, Mr. Craig, at this point. 1 2 MR. CRAIG: No objection. EXAMINER GOETZE: Mr. McMillan? 3 MR. McMILLAN: No objection. 4 5 EXAMINER GOETZE: Ms. Callahan? 6 MS. CALLAHAN: No objection. 7 EXAMINER GOETZE: Very well. Then in Cases 8 16258, 12659 and 16260, Exhibits 1A through 1E are so 9 entered. 10 (Delaware Energy, LLC Exhibit Numbers 1A 11 through 1E are offered and admitted into 12 evidence for each case, Case Numbers 16258, 13 16259 and 16260.) EXAMINER GOETZE: And seeing how it's ten 14 of 12:00, do you have a lot, if you're going to do 15 16 cross, or would you like to reserve until after lunch? 17 MR. CRAIG: It might be good to do it after 18 lunch. I have no idea how long it's going to take. 19 EXAMINER GOETZE: Well, if counsel --20 MR. RANKIN: I hate to give them more time 21 to come up with more questions, Mr. Examiner. 22 EXAMINER GOETZE: We love more time. 23 Let's go ahead and do this. Let's break 24 for lunch and try to be back here about 1:30, and then 25 we'll carry on.

Page 109 (Recess, 11:49 a.m. to 1:31 p.m.; Examiner 1 2 Brooks not present.) EXAMINER GOETZE: We're back on the record. 3 4 Thank you. 5 MR. RANKIN: Mr. Examiner, I think where we left off is that Mr. Goss was on the stand. I had just 6 7 passed the witness for questioning. 8 EXAMINER GOETZE: That's correct. 9 MR. RANKIN: Mr. Examiner, would you like Mr. Goss to approach the witness stand? 10 11 EXAMINER GOETZE: He may get back on the 12 witness stand, and he knows he's been sworn in. 13 So, Mr. Craig. 14 MR. CRAIG: Yes, sir. MR. RANKIN: Mr. Examiner, before we 15 16 commence, I just want to make a statement real quick about the -- our position on the objectors' status in 17 this case. I reserve a standing objection as to all 18 19 three protestors in the case, which I believe further evidence and testimony are necessary for me to establish 20 a basis for dismissal of all parties. It's our position 21 that the parties have -- not parties, the objectors --22 23 sorry -- that the objectors have not properly filed a 24 notice of intervention to participate in the case nor 25 are they subject to -- or required to receive notice

Page 110 under the Division's rules. Having failed to do so, you 1 2 know, our position is that they should be precluded from 3 asking questions or participating. But I anticipate being able to establish that through the course of the 4 rest of the testimony in today's proceeding. 5 EXAMINER GOETZE: Well, you can go make 6 7 that part of the record, but at this point, we've gone 8 this far down the road. We'll let them have their day at this hearing. 9 10 MR. RANKIN: I understand. 11 EXAMINER GOETZE: I would also ask you to 12 take a look at your edits for this exhibit. I believe that for Case 16259 and 16260, you've put the same well 13 in the title block. 14 MR. RANKIN: Did we? For the affidavits? 15 16 EXAMINER GOETZE: Yup. 17 MR. RANKIN: All right. I'll have to --18 EXAMINER GOETZE: You'll have to go back to 19 the drawing board on that one. 20 All right, Mr. Craig. 21 MR. CRAIG: Yes, sir. 22 CROSS-EXAMINATION BY MR. CRAIG: 23 24 0. Mr. Goss, you said you were the last present 25 drilling; is that right?

Page 111 1 Α. That's correct. 2 Now, in the -- when you looked at the 0. 3 geologic -- I mean, you went through all the zones going 4 down the hole, right, earlier, down to wherever you're 5 injecting the water? I did. 6 Α. 7 ο. Yeah. 8 Did you do any kind of hydrologic or 9 hydrology on the water zones up in the 100-foot range? 10 A hydrology study? Α. 11 Q. Right. 12 Α. No. 13 Did you do any testing, for example, the Q. 14 permeability of the -- of the water-bearing areas, the 15 water zones? 16 Α. Did not. 17 Q. Now, would these things be -- I guess the Giant Panda and the Grizzly, would they be considered in a 18 19 karst area? 20 That area, yes. It's considered moderate Α. 21 karsting. 22 Q. Okay. And could you explain to us what 23 karsting is, in your opinion? 24 Α. Karsting is the dissolution of limestone due to 25 fresh water near the surface.

Page 112 And from -- you probably went through a bunch 1 0. 2 of geology, I'm sure, when you were in college. 3 Α. I did. 4 Have you found that in these karsting areas, Q. 5 the permeability of the -- of the rock, we'll call it, 6 is really high? I mean, the water will flow through it 7 in a fairly rapid rate, correct? 8 Α. You know, rapid rate compared to other areas. I'd say it's normal for that area for New Mexico. 9 10 Q. Well, I mean, if you're going through something that was not -- that didn't have -- what would you say, 11 12 though? Permeability is high in a karsting area? It would be, yes, if it's present. 13 Α. 14 What? 0. 15 Α. If the karsting is present. A lot of time we 16 don't see it in most wells. 17 Q. Right. But in this area we're talking about 18 down there around Carlsbad, especially along like at 19 Black River, that's -- that's recognized as a karsting 20 area? 21 Α. Yeah, moderately. We see it in about one out of 15 to 10 wells. 22 23 And have you looked at the areas where you have 0. 24 proposed drilling to see if it's a karsted area or not? 25 I have. I don't think the BLM actually Α.

Page 113 requires a karst review for that area, so I wouldn't say 1 2 it's -- that's kind of what I use as a general rule. 3 Q. Okay. So you didn't examine that for these two 4 wells we're talking about -- I'm talking about? 5 Α. We didn't have a karst survey done. No. 6 Now, we looked at that map earlier, the one Q. 7 that shows the -- Exhibits 2 and 3 in all these --8 Exhibit 2. Now, you understand that to be the floodplain in the -- we'll call it the golden brown 9 That's really the 100-year floodplain, and that 10 area. 11 is what you --12 Α. I don't know -- I know that that KMZ survey --13 these shake files are given to us from the State Land Office. I do not know -- they came up with these shake 14 files. I know they represent the B zone of the 15 16 hornshell mussel, but as far as flood zone, I can't comment to that. 17 18 Q. Did you do anything about -- I mean, are you 19 acquainted with the Texas hornshell? 20 Α. I am. 21 You understand it's an endangered species Q. 22 protected by all kinds of laws? I'm aware of it. 23 Α. 24 And do you understand that it's very 0. 25 susceptible to high -- well, parts per -- water that's

Page 114 brackish or has got a high chlorine content -- chloride 1 2 content? I've been advised by Matt Ramey and the 3 Α. Yes. 4 other people at the Conservation -- CEHMM about what 5 they see as the issue. 6 And Mr. Ramey is here? Q. 7 Α. That's correct. 8 Q. And did you understand that he had something to do with putting together this map? 9 I've never talked to him about this map 10 Α. No. 11 explicitly. I didn't know that was him. 12 Q. And you testified that the freshwater zones 13 were basically 0 to 100 feet in this area? 14 Α. Correct. 15 Now, wouldn't those zones typically drain ο. 16 toward the river? 17 MR. RANKIN: Objection. I think -- I'm not sure if Mr. Goss is qualified as a hydrologist or is 18 19 familiar with the hydrology. 20 MR. CRAIG: If he doesn't know -- yeah. EXAMINER GOETZE: I'm sure he can state. 21 But at the same time, he's put forth a drilling plan and 22 23 a casing design which is specifically put forward as 24 being protective of underground sources of drinking 25 water, and our contention is and recognized by the State

Page 115 Engineer that the beta zone is a protected source of 1 2 drinking water. 3 MR. RANKIN: I understand. 4 THE WITNESS: Would you repeat your 5 question again? (BY MR. CRAIG) Yes. That 100-foot zone -- to 6 0. 7 100 feet, that one is going to be naturally draining 8 toward the Black River, along the river areas? 9 So you're saying that the water table is going Α. to drain towards the river? That's what you're saying? 10 11 Q. (Indicating.) 12 Α. I guess you could -- you could make that case. 13 Q. And you realize that that -- if we get 14 pollutants like in the produced water into that water zone, it could have an adverse effect not only on the 15 drinking water, but it could have an adverse effect on 16 17 the Texas hornshell mussel? 18 Produced water from an oil and gas well? Α. Right. Or injected produced water. 19 0. 20 That would be adverse. Α. Yeah. 21 Because produced water is worse than just salt Q. 22 water. It's got all kinds of hydrocarbons and things like that in it besides just salts, correct? 23 24 Α. It has some hydrocarbon carry-over, it does. 25 Well, if we look at those things you put in Q.

Page 116 this morning where we were talking about the -- where 1 2 you looked at the water that you're going to be putting 3 down the well -- is that exhibit -- it's D in all of 4 these, the water analysis. 5 Α. Yes. 6 I mean, that -- I mean, we're talking, the very Q. 7 first one, Bone Spring, you've got chlorides of 109,018, 8 looks like, something like that. Is that right? 9 Α. That's correct. I would say that's typical for Bone Spring produced water. 10 11 0. Now, this particular one -- this analysis I 12 think was done in 2011; is that right? If you look at the next page at the top, it says "Scale Predictions 13 14 from Baker Petrolite." 15 Α. I think so. 16 Okay. And the next one is maybe 2011, the Q. 17 Baker Hughes one on the Wolfcamp. 18 That's correct. Α. 19 Now, in here it's showing total dissolved Q. 20 solids, but it's not showing any of the hydrocarbon-type 21 things that come back out of oil wells. Do you agree 22 with me? This is basically chlorides, calcium, that 23 kind of thing? 24 Α. That's correct. 25 And so what you'll be injecting in this **Q**.

Page 117 produced water will have other things in it besides 1 2 this, won't it, from out of the wells? 3 Α. Sure. Yes. 4 And all of those things that are getting Q. 5 injected out there, those other things would also be 6 considered harmful for animals, mussels, people, 7 correct? They have the potential to be, yes. 8 Α. Like benzenes and that kind of thing. 9 0. I mean, 10 like, benzene is a carcinogen, correct? 11 Α. Yes. 12 And the next one, this next testing, it was in 0. 13 2008. Did you do any more recent ones than the ones 14 that are in here? 15 Α. No. Just the ones we provided here are what 16 are required by the C-108. 17 Q. Did you do any of them from the particular 18 wells that you're going to be injecting produced water 19 from? 20 A lot of them haven't been drilled yet. Α. No. 21 But there are a lot of wells that are -- you're Q. 22 basically going to be doing these for these horizontal wells? 23 24 That's exactly right. Α. 25 And they produce quite a bit of water? **Q**.

Page 118 A lot. 1 Α. 2 Q. And they're full of a lot of these chlorides 3 and also other hydrocarbons, correct? 4 Α. Correct. 5 And in your analysis of a casing design -- now, Q. 6 I mean, you've been doing this what, 10, 12 years? 7 Α. That's right. 8 In that period of time, you ever had a casing Q. 9 fail? 10 I have not -- not a well that I was overseeing. Α. 11 I have not. 12 0. Have you ever seen one fail? 13 Α. I have. 14 And when you have a casing failure at 2,500 0. 15 psi, basically -- that's kind of a round number, kind of 16 close to where you're at. I think your-all's high 17 number was 2,651 or something like that. 18 Α. Correct. 19 When you've got the produced water going in at Q. 2,500 psi, if you had a casing failure, what would that 20 21 do? 22 If you had a casing failure -- so you're not Α. 23 talking about the injected --24 MR. RANKIN: Objection. Calls for 25 speculation. Mr. Goss can answer it, but it calls for

Page 119 speculation about what might happen under unknown 1 2 circumstances. EXAMINER GOETZE: Well, let's just get a 3 general opinion of what he would think. Objection --4 5 MR. RANKIN: Overruled. 6 (BY MR. CRAIG) I mean, if you had a casing Q. 7 failure up at the top part of the well, up there at the 8 top, at 2,500 psi, what would you expect to happen? 9 Α. So which casing are you referring to? There's -- when completely conducted, there are four 10 strings of pipe and the injection string, and we use 11 casing as injection string. So you're referring to 12 which string would fail? 13 14 0. I guess it would be the one -- you've got four 15 at the top. 16 Α. Right. Yes. So which one are you referring to failing? 17 18 Q. Well, if you had a failure up in the top 100 19 feet where the -- where the pressurized produced water 20 could escape --21 Α. Okay. 22 0. -- what would you be looking at? 23 So in that case, the casing that would be Α. 24 subjected to that, assuming there is a failure, we would 25 see it immediately on the annulus, and we would see it

Page 120

immediately on that annulus pressure gauge. And we would do something and shut the well in, and we would investigate what we have to do to fix the well.

Now, with -- is -- I noticed when you were 4 ο. 5 testifying, there was -- that you were going to be 6 watching this all the time. How does that work, this 7 annulus pressure? What do you gauge? What do you see? 8 Α. So after we fill the annulus with inhibited fluid, corrosion inhibitor, we load the back side and 9 test it, the annulus, make sure that it -- then we pass 10 11 the state inspection. They witness that. We draw a 12 chart. We turn it in to them, to Mr. Goetze. And then 13 we hook a liquid-filled gauge onto the 2-inch casing valve, and then we also have that electronically 14 monitored by the third-party site probe which monitors a 15 16 host of -- everything on the site, all the cameras, all the tank levels and everything else. That's being 17 18 watched by our 24-hour supervision at the well, the 19 pumpers, as well as alarms online, and we can view it 20 from anywhere. 21 So how long when the -- when the thing -- if ο. 22 you had a failure, how long would it take before 23 everything was shut down?

A. Well, we would -- so assuming you had a failure on the -- so I'm assuming here you're talking about a

Page 121 9-5/8 casing failure here because that's what would be 1 exposed. So if you had a casing failure there, that's 2 extremely rare. Once the casing is in the ground and 3 you've cemented to surface, that would be almost unheard 4 5 It only occurs usually when -- you know, when of. you're running the pipe is when casing failures usually 6 7 occur, if it gets stuck. 8 However, if you had a failure in there, if 9 it was overpressured, you'd see the pressure. If it was 10 underpressure, you would see a drop in fluid on the 11 annulus. 12 0. And at some point, you said, though, that would 13 cause you to shut down the operation? If we had an indication of -- in our annulus 14 Α. that we have a pressure anomaly, yes, we would shut the 15 16 well in and halt operations, and we would do some testing to see what was going on. 17 18 Q. And during the period of time from when you 19 have the failure until you've got it shut down and I 20 guess the pressure off of -- off the well --21 Α. Uh-huh. 22 0. -- how long would that take? 23 It would be instantaneous. If you're talking Α. 24 about something that would cause a hole, it's probably 25 pressured up, so that means it would be causing the

Page 122 annulus to increase pressure. We would see that 1 2 immediately on the gauge and the transducer that we have. 3 4 ο. Would you get any escape -- any fluid that 5 could escape that would --The injection zone is isolated from the 6 Α. No. 7 injection tubing and the packer. 8 And those don't fail? ο. 9 Packers can fail, but that's another thing --Α. that's why we're monitoring it, and that's why the 10 11 Commission has rules about how we operate. 12 0. Well, in the rules, I think they require every 13 five years you do some kind of pressure testing on 14 the --The Bradenhead testing is -- yeah. 15 Α. I have to 16 look at the rules. I don't have them in front of me. But the initial one is very important. We have to turn 17 18 that chart in, and it's witnessed. Following that, it's 19 up to us to be a prudent operator and make sure 20 everything is good. 21 Q. So how often are you going to be pressure 22 testing these wells? 23 As much as -- as much as the OCD requires. Α. Ι 24 don't have the rule book in front of me, so I can't 25 testify to that.

Page 123 Well, I think -- I think the actual rule says 1 0. 2 every five years. That's -- then that's what we would be doing. 3 Α. 4 In an area that's like a karst area like this ο. 5 is --Uh-huh. 6 Α. 7 -- where if you have an escape of fluid, it Q. 8 could be really disastrous? 9 Α. The karst interval that you're referring to is isolated by the conductor pipe and the surface casing. 10 There is no karsting below -- I've only had lost 11 12 circulation very near surface. And then so you eliminate -- you isolate that with the conductor pipe 13 immediately when you pour Ready-mix down it and get that 14 isolated, and then your surface casing primary job goes 15 16 fine with the cementing. 17 Q. Well, I mean, after doing this for years, I've seen concrete that's failed, you know, where the 18 19 concrete was poured in by Halliburton or whoever --20 On a surface casing job? Α. 21 -- and it's -- and it's failed. If that Q. 22 happens, it would cause produced water to escape into 23 our water formation. Well, the failure that you're talking about is 24 Α. 25 extremely rare. I mean, we have very strict rules on

Page 124 how it's cemented, and it has to be done exactly the way 1 the Commission says. And it's usually -- the primary 2 job goes very well, and then you have very thick wall 3 pipe that's isolated from everything so it doesn't get 4 corroded from everything. 5 So if you're saying -- well, you can pose a 6 7 question, but if you're saying that water -- produced 8 water would get into a karsting zone through the intermediate casing, through the surface casing, I would 9 10 say that it could happen. It would be extremely rare, and I have not seen it happen yet. 11 12 0. And -- well, it would be a rare -- I mean, I 13 think I could agree with you on that. It would be a 14 rare occurrence. 15 Α. Very, very rare. 16 The problem is if you have such an occurrence, Q. it could have disastrous effects on the -- on the -- on 17 the mussel -- I mean, it's an endangered species -- or 18 19 the water -- fresh water from that zone; could it not? 20 If you have produced water going into the Α. freshwater interval? 21 22 0. Yes. 23 That would not be good. Α. Yes. 24 Now, you said something about pipelines. 0. Are 25 you planning to use pipelines to transport the produced

Page 125 1 water to these wells? 2 Α. Yes. 3 Q. What about trucking? Trucking as well. 4 Α. 5 And have y'all done any testing to see -- for Q. 6 example, let's say you have a truck load of produced 7 water that spill -- had a large spillage at the 8 disposal. 9 Α. Uh-huh. Have you done any testing to see how long it 10 Q. 11 would take for that water to get down 30 feet or 12 whatever is the freshwater zone? No, I haven't. 13 Α. 14 One thing -- let's see. Which one is it? I 0. 15 think it's the Giant Panda. If you'll look with me on 16 the Giant Panda to Exhibit -- it's the one that's got the picture of where everything is going to be. 17 I had 18 it out a while ago. 19 MR. RANKIN: The area of review maps? 20 MR. CRAIG: No. EXAMINER GOETZE: Well construction? 21 22 MR. CRAIG: It's a survey, like a little 23 site. It shows how you're going to get to the road, all that stuff. 24 25 MR. RANKIN: It's behind Exhibit B, I

Page 126 believe, behind the C-102 plat. 1 2 MR. CRAIG: Yeah. That looks like it. 3 Q. (BY MR. CRAIG) So Exhibit 1B. It's about 4 halfway there. It's this picture (indicating). 5 Α. Yes. 6 Have you been out to the location where -- this Q. 7 new location in Section 16 for the Giant Panda? 8 Α. I have put eyes on the original site. I can't say that I've actually looked at the stake. 9 But have you been out there? It shows there is 10 Q. 11 an existing lease road. Have you actually seen that 12 existing lease road? 13 I've probably seen it. I don't recall at the Α. 14 moment. 15 Is it on the state land, or is it on federal ο. 16 land? I don't know, judging from this at the moment. 17 Α. 18 Well, this one, this little map, shows an Q. 19 existing lease road all the way up running in about -it says "plus or minus two miles," to the Black River 20 21 Road, which would be the Black River Village Road. 22 Α. Uh-huh. Would that -- and that's running startup. And 23 0. 24 that well location is kind of down in the -- in the 25 corner -- in the southwest corner, I think, as I

Page 127 remember right from the map. 1 Oh, the section? 2 Α. 3 Q. Yes. 4 Α. Okay. 5 And there is a BLM section across from it, and Q. 6 then there is that state section. If you go up the 7 section above Section 16 -- I think it's Section 9; I 8 think that's right -- which is -- that's y'all's, Foundation Minerals' property. Do you understand that? 9 10 Α. I'm aware of where some of their surface is, 11 correct. 12 0. Do you have an easement from the -- of the BLM 13 to be going down that road? No. We would start working that as we got 14 Α. 15 closer to -- to drilling. 16 Do you have an easement from Foundation Q. 17 Minerals to go across their property? 18 Α. Not at this time. 19 And it shows "Proposed Lease Road." So you're Q. 20 going to -- the trucks -- I guess if they're trucks, 21 they would turn off Black River Village Road, and they 22 would go down this existing lease road and then cut over to the location about two miles? 23 24 Α. Well, this is all preliminary, so that's 25 possible. We don't know if we would have truck

Page 128 off-loads at this station as well. That's yet to be 1 2 determined, depending on the operator needs in the area. 3 Q. Well, if you had a truck, you'd have to put in 4 an all-weather road, wouldn't you, caliche and all that 5 stuff? I mean, you don't want those big, heavy trucks 6 bogged down there in the pasture. 7 Α. No. We'd probably have to work on the road. 8 Correct. Because the only one that we know that 9 0. Yeah. exists -- there's a two-track road that goes down 10 11 through there that's pipeline -- for a pipeline through 12 there. Does that sounds right? 13 I can't recall what you're referring to right Α. 14 now. Mr. Examiner, at this point it 15 MR. RANKIN: 16 sounds like the questions are going to continue down this, quote, unquote, "road" of questioning about an 17 access for this location. While I understand that the 18 Division requires approval -- demonstration of approval 19 for the location well itself, the exact access and 20 21 easements that are necessary to get there are outside the scope of the application, I understand. So I would 22 23 ask that Mr. Craig not continue this guestioning. I 24 think it's irrelevant to the approval authority related 25 to the C-108, and I just don't want to have to spend too

Page 129 much time on something that's not going to be relevant 1 to the Division's decision. 2 3 EXAMINER GOETZE: Where are you going with 4 this, Mr. Craiq? 5 MR. CRAIG: Well, I think you were talking earlier that one of the issues that we look into is 6 7 public safety and health on these disposal wells. And 8 these trucks full of saltwater -- produced water turning 9 off of Black River Road and proceeding south through 10 various country, it seems to me, create a situation 11 where you could have a danger of produced water spillage 12 or other issues that we'll get into with some of our 13 witnesses up on Black River Village Road with these truckloads of produced water. And it seems to me that 14 goes to the public safety of the -- of the project. 15 16 MR. RANKIN: Mr. Examiner, it sounds like Mr. Craig has his own witnesses to address their 17 18 concerns about safety and environmental health and 19 spills. 20 EXAMINER GOETZE: Well, we'll go with this: How far along are you in accessing this line 21 22 of questioning? 23 MR. CRAIG: Pretty well done. 24 EXAMINER GOETZE: That's good. 25 (BY MR. CRAIG) Now, when you're going down 0.

Page 130 through there, if we look through this map -- I don't 1 2 know if it shows it very well -- on number two, it shows where the Giant Panda saltwater disposal well is down 3 there at the bottom in Section 16. See that? 4 5 Α. Yes, sir. Correct. 6 And then right next to it is the section line, Q. 7 and I'm assuming that this road that you're talking 8 about is that one that looks like on the other side of 9 the section. It goes straight up. 10 Α. I would agree with that. 11 Okay. Now, if you go straight up, first thing 0. 12 you do is you cross all of this golden brown area, and 13 then you cross the river. Is there a bridge there? I'm not sure. I don't believe so. It looks 14 Α. like the other oil companies are accessing from the 15 16 lease road that goes to the east in Section 9 up to Black River Road. That's what it looks like to me. 17 So 18 you wouldn't cross the river there. 19 Q. Well, I mean, you're going to -- oh, you mean cutting down just before you get to the river? 20 Right. Like that new location in the southwest 21 Α. quarter of 9, it's most likely that the pumpers, the 22 23 water trucks, the oil-hauling trucks are accessing that 24 location from the roads at 9 and not crossing the river. 25 In order to do that, you'd have to get access Q.

Page 131 across that particular property, correct? 1 2 Α. You would, yeah. 3 Q. And otherwise you're going to be in a situation 4 that you're very well going to have to cross the river 5 some way to get down to the Giant Panda saltwater 6 disposal #1, right? 7 Α. Yeah. If you couldn't find access to the east or to the west, yeah, you may. Like you said, I don't 8 know if there is a bridge there or not. But --9 Okay. And that is -- in the red area of the 10 0. 11 Black River -- of the Black River, that's that Zone A 12 which basically doesn't -- can't do anything in it. 13 That's where the mussel lives, right? 14 Α. Correct. 15 Now, when you get over to -- well, did you ο. 16 ever -- have you done any kind of site -- looking at 17 the -- at where this -- looking where the Giant Panda 18 is, it's my understanding -- and I don't know; I haven't 19 been out there -- that there is a natural drainage from 20 that point to the north. Do you have any knowledge of 21 that? 22 I mean, I can't recall sitting here which way Α. 23 it drains right now. 24 How about at the Grizzly saltwater disposal 0. 25 well? What would the surface -- you were talking about

## Page 132

surface. There is surface drainage, and then there is the subsurface, I guess, water flow that we -- we were talking about earlier. But there is -- on the surface, how would the water flow from the Grizzly saltwater disposal well if it came from a big rain or anything like that?

A. Well, just looking at this -- I don't have the topo map complete in front of me. I'm not sure how the water would drain on that specific site.

10 0. Well, you'd have to -- would you agree with me, 11 though, that the way the water would drain off of one of 12 these locations for a saltwater disposal well could be 13 very important, especially if you have a big rain come 14 through and wash the pad down and wash the accumulated 15 salt or whatever else that's out there on the pad down, 16 that you need to know which way that's going to go? 17 Α. It would be a good idea to know. 18 I mean, you don't want it draining into the Q. 19 river, do you? 20 Α. No. 21 And if it drained into this area which is the Q. 22 floodplain, if it floods, then you're going to pick that 23 stuff up, and it'll end up getting in the river that 24 way, too, correct?

25 A. Possibly.

Page 133 Have you seen pictures of the fact when they 1 0. 2 had that flood down there a few years ago? Which -- I remember a lot of rains in '13. 3 Α. 4 Which one are you talking about? 5 '14, where the Black River was maybe half a Q. 6 mile across. 7 Α. I haven't seen pictures, no. 8 I think that's where this was generated. Q. This area that you're talking about here in the golden 9 10 brown --11 Uh-huh. Α. 12 Q. -- is basically what was filled up with water. 13 Because you wouldn't want your saltwater disposal wells 14 to drain into that area, would you? 15 Α. You wouldn't want any well or any -- anything 16 to drain into there. 17 Q. Now, if you do pipelines, would they come --18 how would you get the pipelines into this area? 19 Α. Are you -- are you -- are talking about a 20 specific well? 21 Q. Either the Panda or the Grizzly. Those are the 22 only two I'm talking about. 23 Well, a lot of times the operators run the Α. 24 lines to us, so that would be up to them. 25 You contract with those -- those operators? **Q**.

Page 134 We do. 1 Α. 2 If they have a failure in their pipe, who is 0. 3 responsible for that? It depends on where -- where we take custody. 4 Α. 5 And those -- you're talking about like laying a Q. 6 fast line across there? 7 Well, not for produced water, not a fast line. Α. No, sir. 8 9 What kind of -- what kind of line do they put 0. 10 in? 11 Well, this is outside of my expertise, but we Α. run poly. It's usually SDR 8, 6 inch, 8 inch. It just 12 depends on the application, the amount of water, the 13 elevation, who's tying -- how many operators are tying 14 in, how many valves there will be. 15 There is a lot of 16 engineering that goes into that. 17 Q. And you have to keep that line pressured all 18 the time, too, don't you? Keep the water moving to 19 where you want it? I mean, it could be moving several 20 miles. 21 Α. It could. 22 MR. CRAIG: I think that's all I have. 23 EXAMINER GOETZE: Thank you. 24 Mr. McMillan. 25

Page 135 1 CROSS-EXAMINATION 2 BY MR. McMILLAN: 3 Q. Just a couple of questions. Looking at the 4 Giant Panda packet, back to that map behind Exhibit Tab 5 2 --6 Yes, sir. Α. 7 -- looking at that section -- looking at ο. 8 Section 9 that you discussed with Mr. Craig, I just have a couple of brief follow-up questions. 9 10 Mr. Craig represented that Section 9 is 11 owned by Foundation Minerals. Does that sound right to 12 you? 13 Α. I believe that's correct. Yeah. They own in 8, 9, 10, 3 and 4. 14 15 Okay. And I believe you testified that you Q. 16 don't yet have an easement from Foundation Minerals to 17 cross through Section 9; is that correct? 18 We don't at this point. No. Α. 19 Did you either seek or receive permission from Q. 20 Foundation Minerals to cross Section 9 in the staking of 21 the Giant Panda SWD #1? MR. RANKIN: Mr. Examiner, I object to the 22 23 questions -- questioning. It's outside the scope of 24 what is relevant to the Division's review for approval 25 for the C-108, which is restricted to the location, the

Page 136 casing design and other aspects --1 2 EXAMINER GOETZE: I would agree with the 3 Applicant in the sense that these type of agreements are not relevant to this application. As far as agreement 4 5 and access points, that's business outside of our 6 application. 7 MR. McMILLAN: Okay. 8 EXAMINER GOETZE: So if it's something 9 relevant to notification and/or this application, let's keep it in bounds. 10 11 Okay. So does the examiner MR. McMILLAN: 12 suggest a different route for finding out whether Delaware crossed Foundation Minerals' land in staking 13 the well? 14 Well, you know, we're not 15 EXAMINER GOETZE: 16 the police out there holding people off property. If it was relevant to, again, the application, the staking of 17 a well -- we get these papers all the time with no stake 18 19 on them. So it's about what's in the application. So 20 let's stay relevant to that. Okay? 21 MR. McMILLAN: Does the application not 22 reflect that the well was staked in this instance, 23 though? 24 EXAMINER GOETZE: No. It doesn't ask that, 25 just whether you were notified, because I have numerous

Page 137 of these with no APD approved for it. And I have a 1 2 C-102 that's applied and given in the application, which 3 doesn't have a surveyor stamp on it. So in many cases, it may be a proposed surface location. So based upon 4 that, whether you jump a fence to put a stake in is 5 something between you and the landowner. But usually we 6 7 assume that some prior work has been done to gain access 8 or at least get an indication that it will be performed. 9 MR. McMILLAN: Okay. Does the -- and I don't mean to push my luck here --10 11 (Laughter.) EXAMINER GOETZE: 12 MR. McMILLAN: -- but I'll ask one more question of the examiner (laughter). Perhaps I am 13 pushing my luck. 14 Is the exhibit shown by the Applicant 15 16 showing -- this is an SLO letter regarding the notice of intent to conduct a land survey dated September 10th, 17 18 2018. It's Exhibit 4 in the package. And that letter 19 specifically states that the SLO is not granting access 20 on private land. My concern is that this authorization was essentially breached by the Applicant in staking the 21 well. I'll leave it at that. 22 MR. RANKIN: Mr. Examiner, I just would 23 24 point out that it seems to me that counsel for 25 Foundation Minerals Group is seeking to establish a

Page 138 claim that has nothing to do with the administrative 1 application that is before the Division, and I think 2 it's inappropriate to pursue that line of questioning. 3 EXAMINER GOETZE: Again, the notice of 4 5 intent to conduct a land survey is out of this scope. If permission was granted or not is not relevant to this 6 7 application. 8 MR. McMILLAN: Thank you. That's helpful. I will hereby cease pushing my luck. 9 10 EXAMINER GOETZE: Thank you. 11 Ms. Callahan? 12 MS. CALLAHAN: I have no questions. 13 EXAMINER GOETZE: Okay. Then it's back to 14 me. 15 CROSS-EXAMINATION 16 BY EXAMINER GOETZE: 17 Q. Good afternoon. 18 Good afternoon. Α. 19 Okay. On the C-108 application, let's start Q. 20 off with in reference to all three cases. We have a 21 proposed maximum of 25,000 barrels of water per day. 22 Considering the casing design and the tubing diameters, 23 isn't this somewhat of a low number expected for this 24 type of casing and tubing design? That would be correct. Our surface facilities 25 Α.

for most of these wells, once you get past 25,000, the 1 2 electrical costs triple; the pump costs triple. We're currently sizing these wells for what we have on the 3 application, 25, with the surface facilities. 4 So although -- lowering our injection pressure does reduce 5 our operating costs. That's the idea behind that. 6 7 ο. Okay. And 10 to 15 years, isn't that somewhat

Page 139

8 light considering what others have proposed?

9 A. Yes, sir. I would say that I know Matador has 10 proposed higher. They have their own wells. So they 11 intend to operate those wells for as long as -- you 12 know, to plugging probably, so that may be behind those 13 answers.

Q. I just want to make sure because what we're looking at here is something that you may not own through the course of this well. It may be sold to a new operator, and this is permissible under the rule, so we have to look down the road.

19 A. Yes, sir.

Q. Let's see. In each of these cases of well
construction, we're looking at an intermediate casing.
We notice, at least in listening, that there are stage
tools that are going to be used?
A. Yes, sir, in that part of Eddy County on the
six wells we've drilled. I do it a little bit

Page 140 differently in Lea for the few wells we have over there. 1 2 But I usually stick that stage tool right above the base of the Cherry Can- -- you know, somewhere around 4-, 3 5,000 feet usually has done really well for us. 4 We 5 circulate on both stages with it there. 6 And you realize that we do have injection in ο. 7 the Cherry in this area --8 Α. I do, yes, sir. -- Marathon's well and a few others? 9 0. Yes, sir. I believe that they both have -- the 10 Α. Black River SWD, which I drilled as a member of BC, has 11 12 been plugged, from what I understand. 13 We're working on that. 0. Yes, sir. I knew it was in the works. 14 Α. 15 So with regards to a program to log these ο. wells, we've given the top -- it says "circulate to 16 surface with the liner" --17 18 Α. That's an error. Yes, sir. 19 So how are we going to --Q. 20 Well, top to the liner top. Α. 21 Yeah, I know. But when we say circulate, it Q. 22 usually means to surface. 23 Would there be some sort of program to show 24 placement of cement for both intermediate and liner? 25 Yes, sir, CBLs. Α.

Page 141 For both -- in all wells? 1 Q. 2 Α. Yes, sir. MR. RANKIN: Mr. Goss, just for the record, 3 4 would you clarify what a CBL is? 5 THE WITNESS: Cement bond log. 6 EXAMINER GOETZE: Thank you, Counselor. 7 (BY EXAMINER GOETZE) In Case -- just for the ο. record, Case 16259, the Giant Panda, the well diagram 8 9 shows a lack of conductor casing. Are we planning to 10 put one on? That's an error, sir. Yes, sir, we will. 11 Α. 12 We've got to have something to start the rig on, so yes, 13 sir. 14 And it will be cemented? 0. 15 Α. It will be, with Ready-mix. 16 Let's get to particulars. Are you aware of Q. 17 your Ruehle SWD #1? Yes, sir, I am aware of it. I can't recall the 18 Α. 19 exact section survey. 20 Well, it's located in Unit Letter P, Section ο. 21 28, Township 23 South, Range 27 East. The reason why I 22 bring this up is that your Bear Trap, in Case 16258, in 23 doing the geometry, we have a quarter-mile overlap with 24 what the Division has been using as a template to space 25 out these wells.

Page 142 1 Α. Okay. 2 At least a quarter-mile of overlap. 0. And, 3 again, going back to pressures and who owns this and 4 where it goes, there is concern by the Division with 5 regards to the placement of this well. So if I may, Mr. Goetze, that well is also 6 Α. 7 proposed at this time, so -- but --8 Q. It is an approved SWD order. Correct. 9 Α. And, therefore, it holds the injection 10 0. Therefore, I have to take into account --11 authority. 12 Α. Understood. 13 -- that the balancing out of these wells has to 0. 14 go along with the possibility that it will be drilled or 15 sold to someone else. So as long as it has a valid injection authority, it is considered a real well. 16 Until such time that it either fails through it not 17 being drilled or rescinded or actually gets put in, it's 18 19 still alive. 20 And let's see. The Grizzly. The Grizzly, 21 Case 16260, we have wells in this area that are completed to 80 feet. As a matter of fact, the State 22 23 Engineer has provided 3260 -- Carlsbad C3260, which 24 shows a water zone at 80 feet. How do we plan to 25 overcome -- have we done anything to make sure that that

Page 143 conduit -- the connector casing with the addition of the 1 2 surface casing is adequately protecting? So we can run the conductor to 120. 3 Α. That's no problem. And then at that point, if we don't have any 4 5 issues, then the primary cement job on the surface casing should go well. 6 7 ο. I would ask you to revisit and actually take a 8 look at some of the wells in the area. 9 Okay. Α. The tendency is that a depth to water is not 10 Q. 11 the aquifer. A depth to water is what the hydrostatic 12 head comes to. 13 Α. Okay. 14 So I would look at again in the case of the 0. 15 Grizzly with additional information provided to all, 16 including an updated well construction for the Giant Panda so we can have that on record. 17 18 For adding the conductor? Α. 19 Q. Yes. 20 And as far as the Grizzly, you want to relook Α. 21 at the --22 0. At how you're planning to do that surface 23 vadose zone. 24 Α. Okay. Will do. 25 Mr. Goetze, just so I'm also MR. RANKIN:

<ul> <li>clear, I think as I understood, you're asking him to</li> <li>look at what the true depth to water is, excluding the</li> <li>hydrostatic pressure effect? Is that right? So you</li> <li>understand what depth the conductor casing should be</li> <li>EXAMINER GOETZE: Where is the bottom of</li> <li>the vadose zone? Where is the first confining layer?</li> <li>That's a rule of hydrology no matter what you do.</li> <li>MR. RANKIN: Okay. I just want to make</li> <li>sure I understand what it is you're asking for.</li> <li>EXAMINER GOETZE: That's what we're looking</li> <li>for. You're in a drainage that's both gaining and</li> <li>losing as a result of precipitation. It has to be taken</li> <li>into account. It's not being taken into account at this</li> <li>point.</li> <li>THE WITNESS: Yes, sir.</li> <li>Q. (BY EXAMINER GOETZE) Other than that, I would</li> <li>also ask that you include for each of these applications</li> <li>where is the well you got the water from. The water</li> <li>sample for the freshwater wells is given as just a</li> <li>reference. If we're going to monitor them, we have to</li> <li>know where that water is coming from.</li> <li>MR. RANKIN: I see. In other words, the</li> <li>EXAMINER GOETZE: If it's a legal</li> <li>description, if it's a State Engineer-designated number.</li> </ul>		Page 144
<ul> <li>hydrostatic pressure effect? Is that right? So you</li> <li>understand what depth the conductor casing should be</li> <li>EXAMINER GOETZE: Where is the bottom of</li> <li>the vadose zone? Where is the first confining layer?</li> <li>That's a rule of hydrology no matter what you do.</li> <li>MR. RANKIN: Okay. I just want to make</li> <li>sure I understand what it is you're asking for.</li> <li>EXAMINER GOETZE: That's what we're looking</li> <li>for. You're in a drainage that's both gaining and</li> <li>losing as a result of precipitation. It has to be taken</li> <li>into account. It's not being taken into account at this</li> <li>point.</li> <li>THE WITNESS: Yes, sir.</li> <li>Q. (BY EXAMINER GOETZE) Other than that, I would</li> <li>also ask that you include for each of these applications</li> <li>where is the well you got the water from. The water</li> <li>sample for the freshwater wells is given as just a</li> <li>reference. If we're going to monitor them, we have to</li> <li>know where that water is coming from.</li> <li>MR. RANKIN: I see. In other words, the</li> <li>EXAMINER GOETZE: If it's a legal</li> <li>description, if it's a State Engineer-designated number.</li> </ul>	1	clear, I think as I understood, you're asking him to
<ul> <li>4 understand what depth the conductor casing should be</li> <li>EXAMINER GOETZE: Where is the bottom of</li> <li>6 the vadose zone? Where is the first confining layer?</li> <li>7 That's a rule of hydrology no matter what you do.</li> <li>8 MR. RANKIN: Okay. I just want to make</li> <li>9 sure I understand what it is you're asking for.</li> <li>10 EXAMINER GOETZE: That's what we're looking</li> <li>11 for. You're in a drainage that's both gaining and</li> <li>12 losing as a result of precipitation. It has to be taken</li> <li>13 into account. It's not being taken into account at this</li> <li>14 point.</li> <li>15 THE WITNESS: Yes, sir.</li> <li>16 Q. (BY EXAMINER GOETZE) Other than that, I would</li> <li>17 also ask that you include for each of these applications</li> <li>18 where is the well you got the water from. The water</li> <li>19 sample for the freshwater wells is given as just a</li> <li>20 reference. If we're going to monitor them, we have to</li> <li>21 know where that water is coming from.</li> <li>22 MR. RANKIN: I see. In other words, the</li> <li>23 EXAMINER GOETZE: If it's a legal</li> <li>24 description, if it's a State Engineer-designated number.</li> </ul>	2	look at what the true depth to water is, excluding the
5       EXAMINER GOETZE: Where is the bottom of         6       the vadose zone? Where is the first confining layer?         7       That's a rule of hydrology no matter what you do.         8       MR. RANKIN: Okay. I just want to make         9       sure I understand what it is you're asking for.         10       EXAMINER GOETZE: That's what we're looking         11       for. You're in a drainage that's both gaining and         12       losing as a result of precipitation. It has to be taken         13       into account. It's not being taken into account at this         14       point.         15       THE WITNESS: Yes, sir.         16       Q. (BY EXAMINER GOETZE) Other than that, I would         17       also ask that you include for each of these applications         18       where is the well you got the water from. The water         19       sample for the freshwater wells is given as just a         10       MR. RANKIN: I see. In other words, the         12       MR. RANKIN: I see. In other words, the         13       EXAMINER GOETZE: If it's a legal         24       description, if it's a State Engineer-designated number.	3	hydrostatic pressure effect? Is that right? So you
<ul> <li>the vadose zone? Where is the first confining layer?</li> <li>That's a rule of hydrology no matter what you do.</li> <li>MR. RANKIN: Okay. I just want to make</li> <li>sure I understand what it is you're asking for.</li> <li>EXAMINER GOETZE: That's what we're looking</li> <li>for. You're in a drainage that's both gaining and</li> <li>losing as a result of precipitation. It has to be taken</li> <li>into account. It's not being taken into account at this</li> <li>point.</li> <li><b>Q.</b> (BY EXAMINER GOETZE) Other than that, I would</li> <li>also ask that you include for each of these applications</li> <li>where is the well you got the water from. The water</li> <li>sample for the freshwater wells is given as just a</li> <li>reference. If we're going to monitor them, we have to</li> <li>know where that water is coming from.</li> <li>MR. RANKIN: I see. In other words, the</li> <li>EXAMINER GOETZE: If it's a legal</li> <li>description, if it's a State Engineer-designated number.</li> </ul>	4	understand what depth the conductor casing should be
<ul> <li>That's a rule of hydrology no matter what you do.</li> <li>MR. RANKIN: Okay. I just want to make</li> <li>sure I understand what it is you're asking for.</li> <li>EXAMINER GOETZE: That's what we're looking</li> <li>for. You're in a drainage that's both gaining and</li> <li>losing as a result of precipitation. It has to be taken</li> <li>into account. It's not being taken into account at this</li> <li>point.</li> <li>THE WITNESS: Yes, sir.</li> <li>Q. (BY EXAMINER GOETZE) Other than that, I would</li> <li>also ask that you include for each of these applications</li> <li>where is the well you got the water from. The water</li> <li>sample for the freshwater wells is given as just a</li> <li>reference. If we're going to monitor them, we have to</li> <li>know where that water is coming from.</li> <li>MR. RANKIN: I see. In other words, the</li> <li>EXAMINER GOETZE: If it's a legal</li> <li>description, if it's a State Engineer-designated number.</li> </ul>	5	EXAMINER GOETZE: Where is the bottom of
8       MR. RANKIN: Okay. I just want to make         9       sure I understand what it is you're asking for.         10       EXAMINER GOETZE: That's what we're looking         11       for. You're in a drainage that's both gaining and         12       losing as a result of precipitation. It has to be taken         13       into account. It's not being taken into account at this         14       point.         15       THE WITNESS: Yes, sir.         16       Q. (BY EXAMINER GOETZE) Other than that, I would         17       also ask that you include for each of these applications         18       where is the well you got the water from. The water         19       sample for the freshwater wells is given as just a         20       reference. If we're going to monitor them, we have to         21       MR. RANKIN: I see. In other words, the         23       EXAMINER GOETZE: If it's a legal         24       description, if it's a State Engineer-designated number.	6	the vadose zone? Where is the first confining layer?
<ul> <li>sure I understand what it is you're asking for.</li> <li>EXAMINER GOETZE: That's what we're looking</li> <li>for. You're in a drainage that's both gaining and</li> <li>losing as a result of precipitation. It has to be taken</li> <li>into account. It's not being taken into account at this</li> <li>point.</li> <li>THE WITNESS: Yes, sir.</li> <li>Q. (BY EXAMINER GOETZE) Other than that, I would</li> <li>also ask that you include for each of these applications</li> <li>where is the well you got the water from. The water</li> <li>sample for the freshwater wells is given as just a</li> <li>reference. If we're going to monitor them, we have to</li> <li>know where that water is coming from.</li> <li>MR. RANKIN: I see. In other words, the</li> <li>EXAMINER GOETZE: If it's a legal</li> <li>description, if it's a State Engineer-designated number.</li> </ul>	7	That's a rule of hydrology no matter what you do.
10EXAMINER GOETZE: That's what we're looking11for. You're in a drainage that's both gaining and12losing as a result of precipitation. It has to be taken13into account. It's not being taken into account at this14point.15THE WITNESS: Yes, sir.16Q. (BY EXAMINER GOETZE) Other than that, I would17also ask that you include for each of these applications18where is the well you got the water from. The water19sample for the freshwater wells is given as just a20RR. RANKIN: I see. In other words, the23EXAMINER GOETZE: If it's a legal24description, if it's a State Engineer-designated number.	8	MR. RANKIN: Okay. I just want to make
11       for. You're in a drainage that's both gaining and         12       losing as a result of precipitation. It has to be taken         13       into account. It's not being taken into account at this         14       point.         15       THE WITNESS: Yes, sir.         16       Q. (BY EXAMINER GOETZE) Other than that, I would         17       also ask that you include for each of these applications         18       where is the well you got the water from. The water         19       sample for the freshwater wells is given as just a         20       reference. If we're going to monitor them, we have to         21       MR. RANKIN: I see. In other words, the         23       EXAMINER GOETZE: If it's a legal         24       description, if it's a State Engineer-designated number.	9	sure I understand what it is you're asking for.
<ul> <li>losing as a result of precipitation. It has to be taken</li> <li>into account. It's not being taken into account at this</li> <li>point.</li> <li>THE WITNESS: Yes, sir.</li> <li>Q. (BY EXAMINER GOETZE) Other than that, I would</li> <li>also ask that you include for each of these applications</li> <li>where is the well you got the water from. The water</li> <li>sample for the freshwater wells is given as just a</li> <li>reference. If we're going to monitor them, we have to</li> <li>know where that water is coming from.</li> <li>MR. RANKIN: I see. In other words, the</li> <li>EXAMINER GOETZE: If it's a legal</li> <li>description, if it's a State Engineer-designated number.</li> </ul>	10	EXAMINER GOETZE: That's what we're looking
<ul> <li>into account. It's not being taken into account at this point.</li> <li>THE WITNESS: Yes, sir.</li> <li>Q. (BY EXAMINER GOETZE) Other than that, I would also ask that you include for each of these applications where is the well you got the water from. The water sample for the freshwater wells is given as just a reference. If we're going to monitor them, we have to know where that water is coming from.</li> <li>MR. RANKIN: I see. In other words, the EXAMINER GOETZE: If it's a legal description, if it's a State Engineer-designated number.</li> </ul>	11	for. You're in a drainage that's both gaining and
14       point.         15       THE WITNESS: Yes, sir.         16       Q. (BY EXAMINER GOETZE) Other than that, I would         17       also ask that you include for each of these applications         18       where is the well you got the water from. The water         19       sample for the freshwater wells is given as just a         20       reference. If we're going to monitor them, we have to         21       MR. RANKIN: I see. In other words, the         23       EXAMINER GOETZE: If it's a legal         24       description, if it's a State Engineer-designated number.	12	losing as a result of precipitation. It has to be taken
15THE WITNESS: Yes, sir.16Q. (BY EXAMINER GOETZE) Other than that, I would17also ask that you include for each of these applications18where is the well you got the water from. The water19sample for the freshwater wells is given as just a20reference. If we're going to monitor them, we have to21MR. RANKIN: I see. In other words, the23EXAMINER GOETZE: If it's a legal24description, if it's a State Engineer-designated number.	13	into account. It's not being taken into account at this
16Q. (BY EXAMINER GOETZE) Other than that, I would17also ask that you include for each of these applications18where is the well you got the water from. The water19sample for the freshwater wells is given as just a20reference. If we're going to monitor them, we have to21MR. RANKIN: I see. In other words, the23EXAMINER GOETZE: If it's a legal24description, if it's a State Engineer-designated number.	14	point.
17 also ask that you include for each of these applications 18 where is the well you got the water from. The water 19 sample for the freshwater wells is given as just a 20 reference. If we're going to monitor them, we have to 21 know where that water is coming from. 22 MR. RANKIN: I see. In other words, the 23 EXAMINER GOETZE: If it's a legal 24 description, if it's a State Engineer-designated number.	15	THE WITNESS: Yes, sir.
18 where is the well you got the water from. The water 19 sample for the freshwater wells is given as just a 20 reference. If we're going to monitor them, we have to 21 know where that water is coming from. 22 MR. RANKIN: I see. In other words, the 23 EXAMINER GOETZE: If it's a legal 24 description, if it's a State Engineer-designated number.	16	Q. (BY EXAMINER GOETZE) Other than that, I would
19 sample for the freshwater wells is given as just a 20 reference. If we're going to monitor them, we have to 21 know where that water is coming from. 22 MR. RANKIN: I see. In other words, the 23 EXAMINER GOETZE: If it's a legal 24 description, if it's a State Engineer-designated number.	17	also ask that you include for each of these applications
20 reference. If we're going to monitor them, we have to 21 know where that water is coming from. 22 MR. RANKIN: I see. In other words, the 23 EXAMINER GOETZE: If it's a legal 24 description, if it's a State Engineer-designated number.	18	where is the well you got the water from. The water
21 know where that water is coming from. 22 MR. RANKIN: I see. In other words, the 23 EXAMINER GOETZE: If it's a legal 24 description, if it's a State Engineer-designated number.	19	sample for the freshwater wells is given as just a
22 MR. RANKIN: I see. In other words, the 23 EXAMINER GOETZE: If it's a legal 24 description, if it's a State Engineer-designated number.	20	reference. If we're going to monitor them, we have to
<ul> <li>23 EXAMINER GOETZE: If it's a legal</li> <li>24 description, if it's a State Engineer-designated number.</li> </ul>	21	know where that water is coming from.
24 description, if it's a State Engineer-designated number.	22	MR. RANKIN: I see. In other words, the
	23	EXAMINER GOETZE: If it's a legal
	24	description, if it's a State Engineer-designated number.
25 A water sample has no value to me without a location.	25	A water sample has no value to me without a location.

Page 145 So with that, if you wish to have any 1 2 redirect. 3 MR. RANKIN: Just a couple of questions. 4 REDIRECT EXAMINATION BY MR. RANKIN: 5 6 Mr. Goss, Mr. Craig was asking you about Q. 7 concerns with runoff from the well pad sites for each of 8 these facilities and the effect that could have on the 9 100-year flood zone, Zone B that's marked in Exhibit 2 10 of each of these cases, with the orange or golden color. 11 What facility plans are in place or will be implemented 12 by Delaware for each of these sites to contain any 13 incidental spills or storm water runoff should that 14 occur? Sure. So on top of what we've talked about 15 Α. 16 with the annulus monitoring, we have a sump at the off-load lines if there is trucking. We also have a 17 2-foot steel wall lined with poly for containment around 18 19 the tank battery. In this area -- after speaking with Matt Ramey, he has talked to us about, in this area, to 20 put a berm around the location. We'll do that as well. 21 22 We have 24-hour monitoring with a pumper on-site, 24/7. All of our sites -- all of the -- we have six or seven 23 24 active sites right now. They all have about half a 25 dozen cameras each that are always monitored. There is

Page 146 always someone at the well, and they're always 1 monitoring electronically, and the data is always 2 recorded. And so any kind of issue with the tanks or 3 tank alarms are also sent via text message. So we have 4 5 24-hour monitoring, and the pad itself -- the tank battery is contained, and the pad will be contained as 6 7 well with the berm. 8 MR. RANKIN: No further questions. 9 EXAMINER GOETZE: No more exhibits to be entered, and, therefore, we need the next witness? 10 11 MR. RANKIN: That's correct, Mr. Examiner. 12 EXAMINER GOETZE: Thank you. 13 THE WITNESS: Thank you, sir. MR. RANKIN: With that, I'd like to call 14 our third and final witness, Mr. Kevin Schepel. 15 16 And while Mr. Schepel is approaching the 17 stand, I have an updated -- an updated --18 EXAMINER GOETZE: You're going to try 19 again? 20 MR. RANKIN: Well, no. This is an updated analysis for the Grizzly 21 that would go behind F in Exhibit 1 in Case Number 22 16260. 23 24 EXAMINER GOETZE: So 16260. What you've 25 just handed out is to replace Tab F?

Page 147 1 MR. RANKIN: Correct. 2 EXAMINER GOETZE: Okay. But we'll wait until you decide to enter it. 3 4 MR. RANKIN: That's right. That's right. 5 KEVIN J. SCHEPEL, after having been previously sworn under oath, was 6 7 questioned and testified as follows: 8 DIRECT EXAMINATION 9 BY MR. RANKIN: Mr. Schepel, will you please state your full 10 0. 11 name, and go ahead and spell it for the record? 12 Α. It's Kevin John Schepel. The last name is S-C-H-E-P-E-L. 13 14 Q. And by whom are you employed? I'm currently a technical consultant for 15 Α. 16 applied petrophysics for Delaware Energy. 17 Q. And how long have you been working for Delaware 18 in that capacity? 19 Α. About a year now. 20 Have you previously testified before the Q. 21 Division? 22 No, sir. Α. 23 Will you review for the examiners your -- first 0. 24 your educational background? 25 I'm a graduate of Michigan State University in Α.

Page 148 1980, which is probably a little on the high side here 1 because of age. But I came down from there -- just the 2 education or the experience? 3 4 ο. Yeah, just education first, and then we'll move 5 to the experience. Okay. So I graduated in geology -- with a 6 Α. 7 Bachelor's in Geology from Michigan State University. 8 And what is your relevant industry experience Q. 9 in oil and gas? 10 After graduating from Michigan State, I Α. actually started with Exxon in Midland, Texas and had 11 several positions with them. I started out in 12 operations and drilling, which I drilled a lot of the 13 Delaware wells in -- in -- in New Mexico. I drilled 14 also the deep Morrow wells and Atoka wells in the 15 16 project. And later on, I was an exploration geologist for Exxon in Midland, and I spent 15 years there. I 17 ended up at Exxon Production Research in Houston where I 18 19 was a formation valuation specialist, and I did research 20 applications all over the world for Exxon. When I left Exxon, I actually started with 21 22 Pioneer Natural Resources, when they started. Ιt 23 actually went public in 1998, and I spent ten years as 24 their vice president of development. And since then, 25 I've been involved in a number of companies, but right

Page 149 now I'm consulting and semi-retired. 1 2 So in your consulting capacity for Delaware, 0. 3 what do you do for them in that capacity? I was asked to provide the initial material for 4 Α. 5 the required seismicity report on the well and any other location -- specific information, technical material for 6 7 the location. 8 Q. Okay. And is that something that you've done 9 in your other -- in the past in your other prior work experience? 10 11 Well, it's always something you do with Α. 12 drilling. I've drilled a number of wells in my career. 13 But the seismicity thing is something that's relatively new, and it's certainly something that's a good thing to 14 have. 15 16 Now, are you familiar with the -- you're ο. familiar with the work that was included along with the 17 18 C-108 in each of these cases, Case 16258, 16259, 16260, behind Exhibit 1, Tab F? You prepared that report? 19 20 Α. I did. 21 And that's the same -- same analysis with Q. 22 respect to each of those three cases? 23 Α. Yes. 24 MR. RANKIN: Mr. Examiner, I would tender 25 Mr. Kevin Schepel as an expert witness in petroleum,

Page 150 geoscience and petrophysics. 1 2 EXAMINER GOETZE: Mr. Craig? 3 MR. CRAIG: No objection. EXAMINER GOETZE: Mr. McMillan? 4 5 MR. McMILLAN: No objection. EXAMINER GOETZE: Ms. Callahan? 6 7 MS. CALLAHAN: No objection. 8 EXAMINER GOETZE: Thank you. 9 Please proceed. 10 MR. RANKIN: I take it that he's qualified then to give --11 12 EXAMINER GOETZE: Yeah. He's good. He's 13 so qualified. 14 MR. RANKIN: Thank you. 15 (BY MR. RANKIN) Mr. Schepel, will you review ο. 16 for the examiner what it is that you did to prepare this 17 report? Essentially, what did you look at, how did you 18 do it, and what were your conclusions when you undertook 19 this work? 20 I can give you kind of a summary of the things Α. 21 I do, and then we can talk about the specific case. 22 Q. That sounds good. Yes. Give us a summary, and 23 let's use the first case, 16258. 24 Α. Right. 25 My role is to document the well, the well's

proximity to the publicly available data in terms of 1 seismic events, earthquakes, things that have occurred, 2 what the distance is from known seismic events. 3 I also look at the major bounding faults around the location. 4 I look at the orientation of those wells to look at 5 whether they're set up in relationships that would 6 7 result in shear which could cause earthquakes or 8 movements versus just down to the basin faults, which are the normal things that occur when you have basin 9 loading in the Delaware. So I look at the faulting in 10 11 reference to each one of the wells. 12 I also review the overlying geological

horizons from the available log data. Most of the data 13 here, of course, only goes down to maybe the top of the 14 Atoka or the top of the Miss. I look at the continuity 15 16 of those beds. I look at the potential disruption in those beds that could be due to faulting or tectonic 17 18 events that are occurring below the logged interval 19 essentially in the area where we may be injecting. So I 20 evaluate that.

I use public available data of gravity magnetics. I look at disruptions in the subsurface gravity magnetics, which is basically the base of an area, to see if there is any major faulting or disruption -- tectonic-type disruption that could affect

Page 151

1 the possible placement of the well.

2 I also review the surface image data, the land set data, and I look for any obstacles in the 3 wells. I look for, you know, any type of potential 4 5 surface fault expressions. Maybe some of these -- I haven't seen anything in these cases, but, you know, due 6 7 to -- are there any cases where the faults might come to 8 surface. And typically you can see results of movement, and that's available in the land set. 9 And then finally, I look at basically all 10 11 the activity, the oil and gas development drilling in 12 the area, the proximity to other active injectors, not necessarily permitted injectors, but at least active 13 injectors in either other formations of the Delaware or 14 certainly the ones that are in the Devonian. 15 16 So that's kind of in a nutshell the scope of it, but I can explain each one of the exhibits if 17 you'd like. 18 19 ο. Let's do that. Let's turn to Exhibit 1F in Case 16258. If you would just review what your report 20 21 says and what your conclusions are with respect to that 22 case, and then we'll just get to the other cases, too. 23 Α. Okay. Sure. 24 This is -- this is the preliminary report 25 that goes, essentially, with the permit. And in this I

look at the source of the data. Most of the data that I 1 2 use is publicly available data that's available through the USGS and their database on faulting. I also look at 3 the original study by -- that was done by Stanford. 4 5 There is a group there that did some software б development for injecting -- or looking at injection 7 versus orientation of faults, Snee and Zoback and 8 Steinberg [phonetic]. They have an actual report where they have faults referenced, so I use those faults, as 9 well as public document and data. 10 11 I also then provide a statement. Basically So

Page 153

the statement is the distances of those activities. 12 I'll look at the distance to the nearest and most recent 13 seismic activity or earthquake that may have occurred. 14 And, of course, in this case, most of them are well over 15 16 four, five, you know, miles away, so there is a lot of distance away from them. But I also look at the 17 18 distance to any of the major bounding faults. And if 19 you look at the illustration here, the plot at the 20 bottom basically has a lot of information. But the well is the -- the well is in the middle. The dotted line 21 22 around it is the one-mile area, which is kind of the 23 area that we look at in terms of other injection or 24 other activity. The faults are seen in both orange --25 and it's kind of hard to see. That's actually a green

line going in the lower left corner. But you can see I
 look at the distance to those faults.

Of importance here is the orientation of 3 4 those faults. What you look for in this basin is where 5 you've had what's called shear movement. So you look at 6 the maximum shear max or the point which is going to 7 cause any type of movement in this direction. Movement 8 down to the basin due to loading is just high-angle 9 faults, which usually doesn't cause any problems. But where there has been issues -- and there have not been 10 11 issues in this area, but Oklahoma and things like that where they've looked at it, that movement of those 12 13 faults in this direction is where you need to be worried. So proximity to that fault is important. 14 And in these cases, obviously, we're four to five miles from 15 16 any potential shear fault.

17 Then on the next page, this is more of a 18 step back. This may encompass about 40 square miles, 19 but it -- it notes the actual events, the seismic 20 events, where it says "seismicity," the date they 21 occurred and the magnitude. And what you would be 22 looking at here is is there anything that's related --23 any seismic event that may have been related to some 24 pre-existing injection that's been occurring for ten, 20 25 years, and those are the things you would look at as

PAUL BACA PROFESSIONAL COURT REPORTERS 500 FOURTH STREET NW - SUITE 105, ALBUQUERQUE, NM 87102

## Page 154

Page 155 1 flags. 2 So I do that on each one of the wells, and, of course, each one is different. Each one may be a 3 little different from the activity, but it's a good 4 5 starting point for the evaluation of a -- of a location. 6 And based on your analysis and assessment of Q. 7 the publicly available data and the information you 8 reviewed, have you identified any concerns that would 9 result in an elevated or unreasonably elevated risk of a 10 seismic event as a result of the injection proposed 11 through this well? 12 Α. No, not on these wells. 13 And in your opinion, would the injection into 0. 14 this well -- does it cause you any concern at all 15 related to any of the issues that you reviewed relating 16 to the potential seismic events? 17 Α. No. 18 And why is that? Q. 19 It's just mainly from the distance to the Α. 20 closest possible fault is, in most cases, four to five miles, so it's quite a distance. Normally, if anything 21 22 is within a mile, it's a little bit more of a concern. 23 Okay. So just based on --0. 24 It's a long way to inject. Α. 25 Yeah. It's a long way away. Q.

A. Yeah.

1

4

2 Q. Now, you conducted the same analysis of review 3 for each of the other two cases, correct?

A. Yes, sir.

5 Q. All right. So let's go ahead and look at the 6 next one, 16259, and turn to Exhibit 1F for the Giant 7 Panda well. It sounds like you can just give a review 8 of the differences of what you found, with respect to 9 what your conclusions are with respect to this proposed 10 injection.

11 Just on a relative basis because this is kind Α. 12 of a high-level, distant-type evaluation, these wells are pretty close together, so all of them are going to 13 have very similar results. The same faults are going to 14 be impacted or referenced. So that's the key here. 15 16 And, of course, the other thing is minor changes in location or anything like that in terms of, you know, 17 actually where it's at is not going to significantly 18 19 impact the assessment.

20 So you can see that that's the same map as 21 we had before. Those are the same faults; just the one 22 in the upper left side is, you know, just a little 23 further away. But, again, that is the fault that has 24 the shear. That's the more potential. The green fault 25 is just a normal fault that occurs out there, and it's

Page 157

1 really not -- it doesn't have any shear.

Q. Will you explain just so we understand, what is it about the shear fault versus a normal fault that creates a greater concern for the shear faults in this area?

Well, it's just the fact that it's shear. 6 Α. 7 Faults move in this direction (indicating), where you 8 have down -- you know, actual movement, or you have 9 strike slip. Strike slips are what cause earthquakes. 10 So in order to have that strike slip, you have to have, 11 basically, a force that's coming in this direction 12 (indicating) that causes that slip. That's the shear max. And in this area, it's north 35 degrees east, and 13 anything that's paralleling that shear is a fault that's 14 at risk. And there are, you know, several faults in 15 16 here, but the proximity to these wells, there's minor problems. 17

18 Q. So the faults that are in line with that shear 19 force are far removed?

A. Yeah. And I would reference the next page there, the big outline. If you look at the red well there -- or the red fault or the orange fault that's 4.3 miles from the location, it's kind of in that orientation. But that's also the fault that sets up the entire Capitan Reef Complex that you have rotation.

Page 158

1 It's multiple directions.

2	Q. Now, just to be clear, behind Exhibit 1F, there
3	are actually two sets of maps and statements. Is the
4	first one relating to the original location?
5	A. Yeah. When we actually filed the permit was
6	the first one. The second one is the updated location.
7	And, of course, I update this data regularly in terms of
8	new wells that are staked, new wells that are permitted,
9	and I try to keep them basically evergreen as we go. So
10	I went ahead and provided that as well.
11	Q. Okay. So because the location was updated
12	based on the State Land Office's change of location, you
13	went ahead and did an updated analysis for that new
14	election?
15	A. Absolutely.
16	Q. And with respect to the updated location, do
17	you have any concerns about an elevated, unreasonable
18	risk of a seismic activity as a result of the proposed
19	injection through this well?
20	A. No.
21	Q. And that's again based on the distance and the
22	location relative to the
23	A. Orange fault. Yeah, the orange fault. They
24	were actually further away. I don't know exactly
25	what, but yeah.

Q. Now, you conducted the same analysis on Case - in Case 16260?

3 A. Yup.

Q. So turning to Tab 1F, I'll ask the examiners and protestants to reference the supplemental page that I distributed which reflects the -- your analysis for the updated location; is that correct?

8 A. That's correct. And there are only minor 9 changes, but I did want to reflect them and make sure we 10 had them. It could be helpful information.

Q. Okay. So with respect to the first page of your updated supplemental statement in the exhibit, will you please review for the examiners what your ultimate conclusion is regarding the location and proposed injection of this well relative to potential concerns over seismic activity?

A. Yeah. The Grizzly is actually the furthest
away from any activity, so it's certainly no problem
there. Everything is fine.

Q. Just to be clear, you conducted the same
analysis and assessment and identified no concerns with
respect to its location or its proposed injection rates?
A. Yeah.

24 Q. And in your opinion, Mr. Schepel, will the 25 granting of the Case Number -- approving the application

Page 160 in Case Numbers 16258, 16259 and 16260 will be in the 1 2 interest of conservation and the prevention of waste? 3 Α. Yes. 4 And in your opinion, is there a -- will it Q. 5 protect against human health -- protect human health and protect the environment, in your opinion? 6 7 Yes. Yes. Α. 8 MR. RANKIN: Mr. Examiner, I would move the admission of Exhibit 1, Tab F in Case Numbers 16258, 9 16259 and 16260 into the record, with the notation that 10 the supplemental exhibit that I circulated with the 11 12 updated Grizzly assessment should replace the existing 13 exhibit behind Tab 1F. 14 EXAMINER GOETZE: Very well. 15 Mr. Craiq? 16 MR. CRAIG: No objection. 17 MR. McMILLAN: To the exhibit, no 18 objection. 19 MS. CALLAHAN: No objection. 20 EXAMINER GOETZE: Okay. Thank you. So in Cases 16258, 16259, 16260, 1F is 21 22 entered into the record, along with the additional 23 supplement that was provided today. 24 (Delaware Energy, LLC Exhibit Number 1F is 25 offered and admitted into evidence.)

Page 161 MR. RANKIN: No further questions of this 1 2 witness, Mr. Examiner. I pass Mr. Schepel for 3 questioning. 4 EXAMINER GOETZE: Mr. Craig? 5 MR. CRAIG: Yes, sir. 6 CROSS-EXAMINATION 7 BY MR. CRAIG: 8 Q. Did you look at any of the water issues involved in this -- these applications? 9 10 Are you talking about the surface waters? Α. 11 0. Surface water. 12 Α. I did not look -- I was not asked specifically 13 to look at that, but I was very interested in your discussion because I am -- I am a -- I've done a lot of 14 work in hydrology and potential metric surface mapping. 15 16 ο. So then you understand about karst-type formations? 17 18 Yeah. Yeah. There were a few -- few things Α. 19 that -- that came up in there. One, the surface drainage is not necessarily with the aquifer's flow. 20 The flow is within really -- it's determined by 21 basically the pressure of the aquifer, and the potential 22 23 metric pressure of the aquifer determines the flow. And 24 it doesn't necessarily have to be toward the river. Ιt 25 can be in other directions, too. And you would have to

1 assess that with a true potential metric, and that means 2 you would have to have pressures in the aquifer, and 3 that's a difficult thing to get sometimes. So that was 4 just one of the comments as you were speaking that I 5 thought was relevant.

But in assessing like public health and public 6 Q. 7 safety, like you were saying, that these would be 8 positive for that, would that be something you would 9 want to look at, the way the water flows because we've 10 got this river with endangered species living in it? 11 Sure. No, no. Definitely it would be Α. 12 required. And certainly the topographic maps are good indications of actual drainage on the locations. 13 But, again, we have -- I'm assuming containment issues are --14 are worked very hard in terms of runoff to the -- any 15 16 surface runoff, if that's what you're referring to. 17 Now, contamination, that's something that's 18 a little bit harder to determine where that water would 19 end up. 20 Right. And that would be something that would Q. 21 be important --22 Absolutely. It's always important. Α. Yes. 23 MR. RANKIN: Mr. Examiner, I think 24 Mr. Schepel was testifying that the -- as to any seismic 25 issues, and his testimony was constrained to that. So

PAUL BACA PROFESSIONAL COURT REPORTERS 500 FOURTH STREET NW - SUITE 105, ALBUQUERQUE, NM 87102

## Page 162

Page 163 his opinion about public health and safety was 1 2 reflecting on his testimony in that area. 3 THE WITNESS: Yes. MR. RANKIN: So the scope of his testimony 4 5 and the questioning by Mr. Craig is outside the area of -- and I'd ask that it be curtailed. 6 7 EXAMINER GOETZE: He's your witness. 8 MR. RANKIN: Yeah. 9 EXAMINER GOETZE: Mr. Craiq? MR. CRAIG: Well, I was just interested. 10 He did say that about public safety and health, and 11 water is kind of an important issue, especially here. 12 13 THE WITNESS: Always. Always. 14 (BY MR. CRAIG) I mean, I represent some folks 0. 15 down there that live along the river. You can see why 16 they would be concerned about the water quality of the 17 Black River. If you lived down there, you would be, 18 wouldn't you? 19 Α. There is a lot of drilling activity in that 20 area. Yes. 21 And produced water can be somewhat -- have an Q. 22 adverse effect on potable water. 23 MR. RANKIN: Mr. Examiner, I think that 24 Mr. Schepel was clear in his testimony about the scope 25 of it. It's related to the seismic issues, and this

Page 164 question is way outside the scope of what Mr. Schepel is 1 2 testifying about. EXAMINER GOETZE: I think this witness' 3 opinion is about the seismic, and that's what the 4 5 Division has asked for. 6 (BY MR. CRAIG) As to the seismic, were you ο. 7 privy to any seismic data that was generated by any of 8 these oil companies down there when you were putting 9 together your report? 10 Not for the report. Previously, I worked a lot Α. 11 of the data. Matter of fact, I shot a lot of the original data with Exxon, but not for the report. For 12 the record, Delaware Energy does not own 3D seismic or 13 seismic in this area. 14 15 And the new 3D seismic is pretty -- I mean, ο. 16 it'll pick up some of this that the older information 17 doesn't show, correct? 18 Yes, it will. Α. In order to be for sure that there is no 19 Q. faulting in this general area of this well, would it be 20 21 better to have the 3D seismic? 22 If the seismic -- the 3D -- the way we actually Α. 23 evaluate these is we look at the major bounding faults that are documented and have been documented either 24 25 through 2D or publicly available data. If there is a

Page 165 fault that looks like it's within a concerning proximity 1 2 of the well, it would be good to actually probably look back and see if there is any additional data available. 3 But in these cases, we did not have to do that. 4 But 5 it's not to say we have not done that. We've looked at other seismic data on some other -- so --6 7 ο. They've done a lot of 3D seismic shoots? 8 Α. Yeah. Fairfield is mainly the -- most 9 companies have that data. I'm familiar with the data. I've seen the data. I do not have the data. I can't 10 11 afford the data, but I have seen the data. 12 0. But you didn't use any of that data in arriving 13 at any of these opinions? 14 Α. No. MR. CRAIG: That's all I have. 15 16 EXAMINER GOETZE: Mr. McMillan? 17 MR. McMILLAN: I have no questions of this 18 witness. 19 EXAMINER GOETZE: Ms. Callahan? 20 MS. CALLAHAN: No questions. 21 CROSS-EXAMINATION 22 BY EXAMINER GOETZE: 23 Well, thank you for the presentation. Just out 0. 24 of curiosity, did you run the Stanford model? 25 Okay. On these wells, I did not. I do have Α.

Page 166 the Stanford Monte Carlo analysis that I can run, and 1 like I say, if it comes up that it's required, we 2 3 certainly -- on anything, we'll do it. Okay. But you have it available, too? 4 Q. 5 Yes. Yup. Luckily, it's publicly available. Α. It's not something that's -- that you have to pay for. 6 7 It may not be for long, but who knows? 0. 8 Α. Yeah. You're probably right. You're probably right. 9 10 With regard to this magnitude 3.9 event --0. 11 Α. Yes. 12 -- what depth was that at, just out of Q. 13 curiosity? 14 Α. Well, it's often hard to -- I mean, I don't know if they actually -- the reports I see, I never 15 really see a documented depth point. But I'm assuming 16 17 that most of the activity here is -- because of the 18 continuity of the overlying horizons, there's not a lot 19 of disruption. It's probably fairly deep. 20 Q. Okay. 21 EXAMINER GOETZE: I have no further 22 questions for this witness. Do you have any redirect? 23 24 MR. RANKIN: No questions, Mr. Examiner. 25 EXAMINER GOETZE: At this point you are

Page 167 1 excused. Thank you. 2 MR. RANKIN: With that, Mr. Examiner, we have no further witnesses. We ask that Case Numbers 3 16258, 16259 and 16260 -- I understand that the 4 5 protestants may have some witnesses. I will hold my objections to their testimony until the close of the 6 7 testimony of the case. 8 EXAMINER GOETZE: We appreciate that. 9 And noting also the affidavit, what are we 10 going to do about that? 11 MR. RANKIN: I will call and get one with 12 the correct well caption prepared as quickly as 13 possible. I may not be able to deliver it today, but if I can't do it today, I will circulate one by email to 14 everybody by tomorrow after I double-check it. 15 16 EXAMINER GOETZE: Okay. And we have an Exhibit 4. Has that been entered into record? Do you 17 18 want to use it? 19 MR. RANKIN: Mr. Examiner, if I didn't say 20 so, that was introduced by my first witness, 21 Ms. Presley. 22 EXAMINER GOETZE: I just want to make sure 23 we covered it all. 24 MR. RANKIN: And if I didn't request that 25 be admitted into the record, because I can't recall if I

PAUL BACA PROFESSIONAL COURT REPORTERS

500 FOURTH STREET NW - SUITE 105, ALBUQUERQUE, NM 87102

Page 168 offered it off the top of my head, I'd ask that Exhibit 1 4 in Case Numbers 16258, 16259 and 16260 be entered into 2 the record. It's just for the other counsels' benefit. 3 It's the letters that were sent out by Delaware 4 5 reflecting the State Land Office's approval for the staked location, to stake locations for each of the 6 7 wells. EXAMINER GOETZE: Mr. Craig? 8 9 MR. CRAIG: I think he put it in. 10 EXAMINER GOETZE: Let's make sure. 11 MR. CRAIG: Yeah. I don't have any 12 objection. 13 EXAMINER GOETZE: Okay. Fine. 14 MR. McMILLAN: No objection. MS. CALLAHAN: No objection. 15 16 EXAMINER GOETZE: Okay. Just to make sure, Exhibit 4 in Cases 16258, 16259 and 16206 has been 17 18 entered. 19 (Delaware Energy, LLC Exhibit Number 4 is offered and admitted into evidence.) 20 MR. RANKIN: Take a short break? 21 22 EXAMINER GOETZE: Yes. 23 Then we'll have Mr. Craig and your witnesses. All right? 24 25 Let's go up till 3:00 and come back.

Page 169 (Recess, 2:48 p.m. to 3:06 p.m.; Examiner 1 2 Brooks present.) 3 EXAMINER GOETZE: Let's go back on the record. 4 5 Mr. Craig, you have the floor, sir. MR. CRAIG: Thank you. 6 7 We would call Matt Ramey, Matthew. 8 MATTHEW RAMEY, after having been previously sworn under oath, was 9 questioned and testified as follows: 10 11 DIRECT EXAMINATION 12 BY MR. CRAIG: 13 Would you state your name for the examiner? 0. My name is Matthew Ramey. 14 Α. 15 And what do you do? ο. 16 Α. I'm the project manager for the Texas hornshell mussel at the Center of Excellence. 17 18 Q. And that's headquartered in Carlsbad? 19 Yes, sir. That's the District 1 office. Α. 20 Could you give the examiner some background on Q. 21 the mussel -- the Texas hornshell mussel? I mean, it's an endangered species and all that kind of stuff. 22 23 Α. Yes, sir, definitely. 24 EXAMINER GOETZE: Is our witness here just 25 stating the facts or an opinion, or where are we going

Page 170 with this? 1 2 MR. CRAIG: This is fact. 3 EXAMINER GOETZE: Okay. EXAMINER BROOKS: Yeah. If he's going to 4 5 be giving opinions, we'll need to get him qualified of his expertise. 6 7 EXAMINER GOETZE: Very good. 8 EXAMINER BROOKS: If it's just facts, no. 9 EXAMINER GOETZE: Please continue. 10 (BY MR. CRAIG) The factual background on the 0. 11 mussel. 12 Α. So the background on the mussel is the mussel was actually listed as federally endangered as of March 13 of this year. It's been in the process of -- been in 14 that process for about two years now. But it just 15 16 recently was listed as federally endangered under Fish and Wildlife Service. 17 The mussel itself is a bivalve mussel that 18 19 is a filter feeder. It needs flowing water and water 20 quality. The mussel overall is an indicator species of stream habitats such as the Black River. Indicator 21 22 species are species that directly reflect better water 23 quality as an ecosystem, so there is not as much 24 salinity or pH. They have a very narrow range of 25 tolerance for salinity, chlorides, dissolved oxygen

Page 171

1 levels, things of that nature.

2 They have a very unique reproductive system where the males and females do not actually meet as a 3 system, but males will release sperm into the water 4 column, and females will filter that through their gill 5 apparatus, and that basically starts the process. And 6 7 then the female mussels will shoot glochidia onto host 8 fish species, and they remain on that fish species for 9 about a month and then fall off. And then they make, oftentimes, very short-distance trips to ideal habitat, 10 11 which is shelves or crevices or underneath large 12 boulders, rocks, that they can be protected from large flood events, and also the substrate that allows them to 13 attach their foot, which is their way of means of 14 holding onto the substrate into softer sediment material 15 16 without being actually covered with additional sediment into the river. That's kind of the biology of it. 17 18 Q. And you've studied the hornshell for a while, 19 it sounds like? 20 I've been into this for about a year now. Α. 21 What was your undergraduate degree? Q. I have a Bachelor's in Fishery Sciences from 22 Α. 23 Eastern New Mexico University. 24 0. And how long have you worked for the Center of 25 Excellence?

Page 172 The Center of Excellence as a whole, three 1 Α. years, one year as a mussel project manager. Before 2 that, I was working with the chicken and lizard species, 3 doing grazing monitoring and range con work in the 4 5 District II area, which is the Milnesand area. And a habitat in New Mexico for the Texas 6 ο. 7 hornshell mussel, where does that exist? 8 Α. So right now if you were to directly focus on New Mexico, the Black River, it's a nine-mile reach of 9 the river which starts at the Black River Village and 10 goes to the CID Dam. Below that, we have water quality 11 12 issues, so right now, the Black River sustains a nine-mile stretch or a ten-mile stretch. Then we have a 13 small relocated population that lives on the Delaware. 14 In the United States, there are only two populations 15 16 total or three locations total. One is on the Devil's River, the Delaware and the Black, total. 17 18 That's in the whole world or in the United Q. States, isn't it? 19 20 That's the U.S. only. Yes, sir. If you were Α. to account for Mexico's hornshell population, that does 21 22 throw a difference into the population estimates and 23 location, but we don't get to work there, so --24 Well, if you'll look at Exhibit 2 in that book 0. 25 there -- I've got it open --

Page 173 Yes, sir. 1 Α. 2 -- is that red that's shown there, is that ο. 3 basically where the mussel lives? Yes, sir. So in this diagram --4 Α. 5 EXAMINER GOETZE: May I interrupt for a This is Exhibit 2 of the Applicant? 6 moment? 7 MR. CRAIG: Applicant's Exhibit 2. And it's Exhibit 2 in all of them. 8 9 EXAMINER GOETZE: In all cases, it's the 10 same exhibit. Thank you. 11 THE WITNESS: Yes, sir. 12 So this exhibit is showing the red line indicating the potential occupied habitat of the 13 hornshell, and then referring back to the gold, that is 14 a 100-year floodplain. 15 (BY MR. CRAIG) and I put in front of you -- I 16 ο. 17 called it, I think, Ramey Number 1. Can you tell the 18 hearing examiner what that is? 19 So the Ramey Number 1 exhibit that you gave is Α. 20 a harder map to read, but this is something that I go 21 off of for the Texas hornshell itself. This is the 22 zones that are in our agreements, the voluntary agreements that we have, the CCA/A, which is the 23 Candidate Conservation Agreement and the Candidate 24 25 Conservation Agreement with Assurances.

Page 174 1 And there is an agreement like that with the 0. 2 State Land Office, too, isn't there? Yes, sir. The State Land Office administers 3 Α. the State Land Office portion of their own CCA/A. 4 5 And Exhibit 1 that's Ramey 1, it looks like Q. Exhibit 2 is basically taken from that? 6 7 This is -- that is correct. Α. Yes. This will be 8 the exact same shake file or KMZ layer that CEHMM, the 9 Center of Excellence, would have and the State Land Office would have. This particular document was created 10 through multiple agencies such as Fish and Wildlife 11 Service, BLM, CEHMM, State Land office. They were all 12 13 in accordance when this began as a program, and this program began well over two years ago. 14 15 ο. And you directly worked on putting together 16 this map? I have directly been working on the ephemeral 17 Α. drainage aspect, which is Zone C. These are the larger 18 19 head cuts that rain events allow water to get to the 20 Black or Delaware Rivers. 21 Q. And you recognize and participated in Ramey 1; 22 did you not? 23 Α. Yes, sir. 24 MR. CRAIG: We'd move admission of 1 --25 Ramey 1.

Page 175 EXAMINER GOETZE: Mr. McMillan? 1 2 MR. McMILLAN: No objection. 3 EXAMINER GOETZE: Ms. Callahan? MS. CALLAHAN: No objection. 4 5 EXAMINER GOETZE: Mr. Rankin? MR. RANKIN: No objection. 6 7 EXAMINER GOETZE: The Ramey 1 exhibit is so 8 entered. 9 (Ramey Exhibit Number 1 is offered and admitted into evidence.) 10 11 (BY MR. CRAIG) Now, if you'll look at Exhibit 2 0. 12 in the book which is basically the bigger one --Yes, sir. 13 Α. 14 Q. -- you said the golden brown or the golden part is the floodplain? 15 16 Α. Yes, sir. 17 That's not to say that areas outside the Q. 18 floodplain would not drain into the floodplain? 19 Α. Say that again. 20 Right. The floodplain is what you've got Q. 21 marked? 22 Α. Yes. 23 That's where the top of the 100-year floodplain 0. 24 would be? 25 Α. Yes.

## Page 176 1 And like where these wells are, the Giant Panda 0. 2 and the Grizzly, they're shown on there. Just because 3 they're outside of the gold floodplain would not be an 4 indication that the water from those areas would not 5 drain into that area? That is correct. There is potential that 6 Α. 7 additional water could drain into those. 8 And, in fact, if you look at the Giant Panda, Q. it's pretty well adjacent to the top part of the 9 floodplain. And the floodplain opening up wide like 10 that, what does that tell you? 11 12 Α. So that particular area is just showing me that 13 it is a low spot in the distribution of the topography. Without a topography map, I couldn't exactly tell you 14 the way it truly flows, but it is a larger flat area 15 16 that potentially has the susceptibility to flood in that 17 nature. 18 And when you were looking at Ramey Number 1, Q. 19 there were some areas on there that basically showed 20 where draws would flow into the --Yes, sir. So if you were looking at the Ramey 21 Α. 1 exhibit, there is -- it's very hard to see on my map 22 23 because it is so zoomed out, but there is a yellow 24 portion of line that comes out of the -- out of this 25 bottom part of the floodplain, and there is an ephemeral

Page 177 drainage that does connect to that particular area. 1 2 And that ephemeral drainage runs close to where 0. 3 we're talking about the Giant Panda saltwater disposal 4 1? 5 It has some proximity to it. Yes, sir. Α. 6 And if you'll assume with me that that area Q. 7 where the Giant Panda saltwater disposal 1 is is higher 8 in elevation, would it tend to run into those 9 ephemeral -- what did you call them? 10 Ephemeral drainages. Α. 11 0. -- ephemeral drainages and then run into the 12 floodplain? If there was connectivity, that could be a 13 Α. 14 concern. 15 And the same thing with the Grizzly saltwater ο. 16 disposal. It's fairly close to the floodplain. Would 17 that -- does that show you that it doesn't spread out as 18 wide or what? 19 That means the river is more channelized in Α. 20 that area so it does not have a large -- a vast area of floodplain. That's just years of -- thousands of years 21 22 of erosion in that area. 23 That's why it narrows like that? 0. 24 Α. And then river systems aren't meant to be 25 channelized. They are meant to meander and wind and

Page 178 turn and alter as nature decides. Intervention has a 1 2 great way of making them channelized and creating rivers to be a large cup that move water faster at higher 3 volumes. 4 5 And in looking around where that Grizzly Q. saltwater disposal is, since it's in proximity to the 6 7 floodplain, it could likewise drain into that same area? 8 Α. It could, based off of connectivity. And, again, you'd look at those things like the 9 0. elevations and those little ephemeral deals, right? 10 11 Yes. There are many, many parts to that. Yes, Α. 12 sir. 13 Now, the -- the -- talking about the hornshell, 0. 14 you talked about water quality. 15 Α. Yes, sir. 16 And does the hornshell require a high water Q. 17 quality to be able to survive? 18 Water quality could vary and tolerance can vary Α. in species. Basically, if we're talking directly for 19 20 the hornshell, they have a tendency to not function well with salinity or chlorides in dissolved oxygen issues. 21 22 Particularly at the Black River right now, 23 it usually runs .9 part per thousand on salinity in some 24 areas. It just depends if you're up by the spring or if you're in the middle or if you're by CID. The CID 25

diversion dam runs about 2.7 parts per thousand. 1 Below Malaga, you're talking -- where the Pecos confluence 2 meets -- or the Black meets the Pecos, then you're 3 looking at 6 to 7 parts per thousand. And what studies 4 5 have showed us is that the hornshell can tolerate up to 7,000 parts per thousand, but even lower concentrations 6 7 will give them -- basically will make them stressed and 8 result in the death of that species.

9 Q. Well, you said earlier that from the CID Dam
10 down to the Pecos really didn't have any mussels?
11 A. No. It currently does not have mussels at this

12 time, but that is because of the CID diversion dam.

Q. And when you move up the Black River toward,
for example, Mr. Davis' place, you have higher and
higher populations as the chlorides go down, correct?
A. There are stable populations within Mr. Davis'
property.

Q. I think that's one of the main places. You've
been out there a bunch, haven't you?

A. Yes, sir. I have been out there quite a bit. But I would never state that one area is more important than the other. Foundation Minerals has a very good population as well, along with Mr. Davis. There's definitely areas that are higher-quality management from the landowners's side of what they're doing with the

PAUL BACA PROFESSIONAL COURT REPORTERS 500 FOURTH STREET NW - SUITE 105, ALBUQUERQUE, NM 87102

## Page 179

Page 180 1 landscape. 2 And theirs, Foundation Minerals, is right next 0. 3 door to Mr. Davis? 4 Α. Yes. He's actually below Mr. Davis, even closer to the CID Dam. 5 6 And those have -- the quality of the water in Q. 7 those areas at least helps the mussel in its habitat? 8 Α. Yes. It thrives, I guess you would say, in this area 9 0. as opposed to when you get farther down and the 10 11 chlorides come up, they don't thrive as well. 12 Α. Yes, that is correct. 13 And are you acquainted with the karsting around 0. 14 the Black River? No, sir. I am not very familiar with the karst 15 Α. 16 features in that area. 17 Q. Now, if you'll look with me at Davis Number 18 1 -- yeah, the little packet there -- can you identify 19 that? 20 This particular picture is showing John D. Α. Forehand Crossing, which is right next to Mr. Davis' 21 22 property, and that is a truck in the river. 23 And it was a water truck? 0. 24 It was a truck hauling produced water. Α. Yes. 25 And were you called out to -- on that? 0.

Page 181 I was called out. Based off of timeline 1 Α. aspects, I did not actually see the truck in the river. 2 3 Q. But you were called out to check to see if there had been any spills? 4 5 Yes, sir. I did go out and perform a ground Α. check to see if I had seen any automotive spill or 6 7 produced water. 8 Q. And you were particularly interested in produced water spills? 9 10 Yes, sir. Α. You lucked out. There wasn't any, was there? 11 ο. 12 Α. No, sir. From your dealing with the hornshell, had that 13 Q. water -- produced water out of that -- I don't know how 14 many gallons that is. 15 16 Α. I'm not sure. 17 Q. A big tank? 18 Yes, sir. Α. If it had leaked into the river, would that 19 0. 20 have been adverse to the hornshell? 21 Yes, sir. That could have caused potential Α. 22 issues with the hornshell with that being a direct location for live hornshell mussels. 23 I think there are all kinds of federal 24 ο. 25 regulations about endangered species, and I'm not even

Page 182 sure what they all are. Who enforces those? 1 2 Α. If something were to happen outside of the 3 agreements, I believe that would fall upon Fish and Wildlife Service. They carry the Endangered Species 4 5 Act. That's the federal government? 6 0. 7 Α. Yes, sir. Since you work with CEHMM, is CEHMM at least 8 0. 9 somewhat concerned by the increased saltwater disposal 10 activity that is going on down there, not just the 11 Applicant, but all in this area? 12 Α. This amount of movement is something of 13 concern, but good practice managements would be our 14 biggest concern. So this is something that is going to happen, but if someone is doing everything right, then 15 that's what we want. 16 17 And from hauling the water in trucks through 0. 18 there -- I think there are several low-water crossings 19 that cross the Black River. 20 Yes, sir. There are many. Α. 21 Just like the one where this truck went off, Q. 22 right? Yes, sir. 23 Α. And does CEHMM have a concern with these water 24 ο. 25 trucks crossing low-water crossings?

Page 183 Yes, sir. The truck traffic is definitely a 1 Α. 2 concern with the hornshell population. 3 Q. And you drive those roads on a fairly regular 4 basis, don't you, Black River Village Road? 5 Α. Yes, sir. 6 Would you characterize that as a good piece of Q. 7 highway? 8 Α. I would say that the road needs to be worked on thoroughly to promote safer trucking conditions. 9 10 There's a lot of truck traffic and 0. Yeah. 11 potholes and all kind of bad, right? 12 Α. Yes, sir. 13 Now, in that area, are you acquainted with the 0. 14 subsurface water, how it moves around -- around the 15 river? 16 Α. In particular, if you're talking about the 17 Davis 1 exhibit, no, sir. More the Blue Springs area, 18 that's where we focus our concentration on, keeping our 19 eye on. 20 I'm talking about, for example, the pollutants Q. 21 getting into the first 30 to 60 feet or whatever of the 22 underground water. In your observations of the Black 23 River, does any of that feed into the river? 24 Α. I do not know. 25 MR. CRAIG: We'll pass the witness.

Page 184 EXAMINER GOETZE: Mr. McMillan? 1 2 MR. McMILLAN: No questions. 3 EXAMINER GOETZE: Ms. Callahan? 4 MS. CALLAHAN: No questions. 5 EXAMINER GOETZE: Mr. Rankin? 6 CROSS-EXAMINATION 7 BY MR. RANKIN: 8 Q. I just have a couple of questions, Mr. Ramey. Appreciate you coming down to testify. 9 10 Yes, sir. Α. 11 I just want to make sure I understood what you 0. 12 were saying about your involvement in the hornshell 13 mussel and also your understanding -- your testimony 14 about the particular locations for these wells that are 15 the subject of this application. 16 Α. Yes, sir. 17 Now, looking at what's been marked as Exhibit Q. 18 Ramey Number 1 -- and I just want to make sure I 19 understand because it's a little bit hard to see, but I 20 think I understand what you're saying. 21 Α. Yes, sir. 22 0. So looking at this map where I see depicted the 23 Black River, the sort of sinuous red line, that flows 24 approximately from the lower, left-hand part of the 25 exhibit sinuously going up east -- going from left to

Page 185 right; is that right? 1 2 Α. Yes, sir. The red is the occupied habitat. 3 Q. Okay. Which direction does the river flow 4 across that map? 5 So from the southwest to the northeast. Α. 6 So it flows -- and do you have an understanding Q. 7 of where the Davis' property is on this map? 8 Α. Yes, sir. So if you're looking at the first 9 green mark downriver, the first green mark is Old Cavern 10 Highway. That particular green plus symbol is the exact 11 location of Davis Exhibit 1. 12 0. Okay. So that -- that green plus sign, the 13 first one -- if I'm looking from left to right, the 14 first one I come across is the location of that 15 photograph that we see, Exhibit Davis 1? 16 Α. Yes, sir. 17 Q. Is that on the Davis' fee property? Is that 18 your understanding? 19 Α. No, sir. That is -- I actually wouldn't know. 20 You don't know where the Davis property is? Q. I do know where that is in relation to that. 21 Α. 22 Yes, sir. 23 Where is it at in relation to that? 0. 24 Α. You would have to go probably a quarter mile 25 downriver. But it's on -- but that particular spot

Page 186 would be Alisa Ogden's. 1 2 Okay. So that first green plus sign is Alisa 0. 3 Ogden's property -- fee property? And the section line just to the right of 4 Α. Yes. that plus symbol is Jim Davis'. 5 Okay. And then from -- but the river flows 6 Q. 7 away, downstream from both the Ogdens and the Davises 8 from west to east, generally? 9 So that first green plus sign, going to the Α. right, that goes across Jim Davis'. 10 11 Okay. But the river flows from the left-hand 0. 12 side of the exhibit to the right-hand side of the 13 exhibit? Yes, sir. 14 Α. 15 So the location for all the wells proposed by ο. 16 the Applicant in this case are downstream of the 17 protestants, Mr. Davis and Ms. Ogden; is that correct? 18 Α. That's correct. 19 Then I want to understand what you have Q. reviewed in relation to the specific well locations for 20 21 each of these three applications that are currently 22 pending. Are you familiar with the topography for the staked locations for each of these wells? 23 24 Α. Up to today, the new location sites -- I was 25 aware of the old original sites. So the new sites, I

Page 187 have not actually got to look at specifically. 1 2 Okay. So you don't know the topography of ο. 3 those sites and whether or not there is connectivity between them and any ephemeral drainage that would lead 4 5 to any of the zones of concern identified on the map? No, sir, not without looking farther into what 6 Α. 7 these sites have. I would not be able to accurately 8 speculate or even say what I think the connectivity is, 9 but proximity is always a concern. Okay. And did you work with the State Land 10 0. 11 Office to help -- consult with them on the location of 12 these wells, by chance? 13 Α. No, sir. So the part of the State Land CCA/A is that they handle all of their own particular -- I 14 quess I can't call them, like, well deductions but 15 on-sites and things of this nature. That is the State 16 17 Land Office's -- part of their agreement, and that's 18 what they wanted. So outside of this -- all of these 19 are state lands -- I actually don't even look at these, 20 and they don't have to update me on this information. 21 This is all State Land's call. 22 0. Okay. So State Land, because they're part of 23 this agreement, they have to comply -- they're supposed 24 to comply with the requirements of the CCA/A; is that 25 right?

Page 188 Yes, sir. There are stipulations that would 1 Α. 2 have to fall into the agreement if the company was enrolled. 3 4 ο. And if the locations were not compliant, based 5 on what the -- on the State Land Office's own 6 evaluation, is it your experience that the State Land 7 Office would -- would approve one, a location 8 that doesn't comply with their commitment to the 9 agreement? 10 I honestly couldn't say. Α. 11 You don't know --0. 12 Α. No, sir. 13 -- one way or the other? 0. Yeah. I wouldn't know if that would be 14 Α. something they would do or wouldn't do. 15 16 In your opinion, do these locations comply or Q. 17 have any issues with the CCA/A that the State Land 18 Office is required to comply with? 19 From -- without looking more in-depth based off Α. location and topography, I couldn't accurately say that. 20 There is two loca- -- distance -- the Grizzly could be a 21 potential and Giant Panda if you were looking at 22 23 topography. I don't know that topography, so I can't 24 speculate. But the Bear Trap and, like, Kodiak, those 25 are areas that we would push to that site idealistic.

Page 189 Explain that again. The Kodiak or the Bear 1 Q. 2 Trap, you said are what now? 3 Α. Just based off of sheer proximity --You like those locations because they're 4 Q. 5 farther away? Yes. And the amount of grade and ephemeral 6 Α. 7 drainages that would be closer to the river is more 8 abundant throughout. 9 0. Where? 10 It's not depicted in either one of these maps Α. 11 without --12 Q. I just want to be sure because I'm not quite clear what your testimony is. Are you saying that the 13 Bear Trap and the Kodiak well proposed locations are in 14 a better location relative to the concerns over the 15 CCA/A and the hornshell mussel? 16 17 MR. McMILLAN: Object to questions about 18 the Kodiak location. It's not on the table today. 19 MR. RANKIN: The witness testified about 20 I just want to make sure I understand what he's it. saying about his preference for location. I just want 21 22 to make sure I'm clear on it, as his testimony is unclear. 23 24 EXAMINER BROOKS: Okay. Go ahead. 25 THE WITNESS: So just looking at the map,

Page 190 if I was looking at topography, based off of like what I 1 2 can visually see, like the Kodiak and the Bear Trap, 3 there is no agreement. There is no ephemeraldrainage-looking features, and those are -- would be 4 5 more appropriate for a CCA/A standard. 6 (BY MR. RANKIN) Okay. Then as to the Grizzly Q. 7 and the Giant Panda, your testimony is that you haven't 8 looked at the topography, so you don't know -- you can't say one way or the other if there is any connectivity 9 between those locations and the ephemeral drainages that 10 11 you've identified? 12 Α. That is correct. Yes, sir. 13 Okay. Now, one thing I just wanted to make 0. 14 sure I also understood. I think I heard you say that 15 the Foundation Minerals Ranch, the Black River Ranch 16 have good locations or good populations for hornshell 17 mussels; is that right? 18 Yes, sir. Α. 19 Okay. No further questions. Q. 20 EXAMINER GOETZE: Redirect? 21 MR. CRAIG: Just very briefly. 22 EXAMINER GOETZE: Okay. 23 REDIRECT EXAMINATION 24 BY MR. CRAIG: 25 On Exhibit 2, where you were talking about the 0.

Page 191 Kodiak, that's the -- that's the proposed location 1 2 you're talking about, the one that's way up on the top 3 side, right? 4 Α. Yes, sir. 5 All right. Now, the -- I was going to talk to Q. 6 Mr. Davis about this one, but I only have -- I didn't 7 bring enough of these (indicating). I've only got two. 8 So this is from the USDA-Natural Resources 9 Conservation Service. Have you seen one of these maps 10 before? 11 That particular map, possibly. Yes, sir. Α. 12 Q. But the topography --13 MR. RANKIN: I guess, Mr. Examiner, I'm going to ask if counsel's going to be questioning 14 Mr. Ramey on hydrology and topography relating to 15 16 drainage patterns, he's not been qualified as an expert on hydrology or drainage. I question, you know, the 17 scope of the questioning where he's not been qualified 18 19 as a witness in that area. 20 EXAMINER BROOKS: Okay. Well, I don't know 21 what he's going to say, so I will give you a running objection to that, and we will consider it if he's not 22 23 shown to have an expertise to give the opinions he 24 gives. 25 Go ahead.

Page 192 MR. CRAIG: Yes, sir. If I might approach 1 the witness and hand him this. This is what we would 2 mark as Ramey 2, and it's just a topographic mark. And 3 I want to note for the record that I'm not asking him 4 5 about hydrology --6 EXAMINER BROOKS: Okay. 7 MR. CRAIG: -- underground stuff. I just 8 don't have a lot of copies. 9 MR. RANKIN: That's all right. If you can get me one later, that'll be fine. 10 11 MR. CRAIG: Okay. Yeah. I can get you 12 one. Okay. USDA. 13 (BY MR. CRAIG) This has got the lines for the 0. 14 topography? 15 Α. Yes, sir. 16 Okay. The -- I think this is Section -- what Q. 17 is that? Section 16, which is where we're talking 18 about. I don't think that we get far enough down on 19 this one to --20 MR. CRAIG: I think this is 16 (indicating). That's 17 (indicating). 21 22 MR. RANKIN: I would just note for the 23 record that the map doesn't identify the sections, so 24 it's hard to tell where it is. 25 MR. CRAIG: Let's see. I think it does.

Page 193 EXAMINER GOETZE: We -- we just can't keep 1 2 bringing in things. We do have to draw a point, if we don't have an exhibit for everybody. 3 THE WITNESS: It does have sections on it, 4 5 and it is gridded. It's just very faint. But that's 16, that's 17, that's 18 (indicating). 6 7 MR. RANKIN: Gotcha that. 8 (BY MR. CRAIG) Okay. If you could look at Q. 9 Section 16 down there in the southwest corner, would that give you an idea of the surface drainage, not the 10 11 subsurface? 12 Α. It does give me some idea. Yes, sir. 13 And the "some idea" that it gives you is what? 0. That it drops approximately 50 feet in 14 Α. elevation from the southwest corner to the middle of the 15 16 section. It drops 56 feet. 17 Q. And the middle of that section is part of the 18 floodplain, correct? 19 Α. No, not quite at that point. 20 Where that little hangy-down part of that Q. 21 picture? That's what I was trying to remember. 22 It would be close. Yes, sir. I mean, Α. 23 relatively close. Yes, sir. 24 So that would generally show that it would 0. 25 drain toward the -- toward the floodplain?

Page 194 A. Yes, sir. 1 2 MR. CRAIG: That's all I have. 3 EXAMINER GOETZE: That's all? Do you have any questions? 4 5 EXAMINER BROOKS: No questions. EXAMINER GOETZE: I have no questions 6 7 either. 8 Thank you for your presentation. 9 Your next witness? 10 MR. CRAIG: Yes, sir. We call Jim Davis. 11 THE WITNESS: You want me to leave all 12 these up here, Mr. Craig, just like that? 13 MR. CRAIG: Probably. 14 EXAMINER BROOKS: Make sure the court reporter has copies if they've been admitted in 15 evidence. 16 17 MR. CRAIG: We've introduced 1. 2, I can 18 put in with Mr. Davis. 19 EXAMINER BROOKS: Okay. 20 JAMES DAVIS, 21 after having been first duly sworn under oath, was 22 questioned and testified as follows: 23 DIRECT EXAMINATION 24 BY MR. CRAIG: 25 Would you state your name for the examiner, Q.

Page 195 please? 1 2 Α. Jim Davis. 3 Q. And you're one of the protestants? 4 Α. Yes. 5 Where do you live? Q. I live at 889 Black River Village Road. 6 Α. 7 And let's look first -- get a little Q. 8 housekeeping done -- on the Ramey Exhibit 1. 9 This one here (indicating)? Α. 10 I mean 2. I'm sorry. The big map. Q. Oh, the big map. 11 Α. 12 Q. Where did you get that? 13 USDA. Α. 14 Q. And was that given to you by the United States 15 Department of Agriculture? 16 Α. I went and visited with them, and we were looking at some various programs that they have to offer 17 18 for conservation. And they brought this map up and give 19 me several copies of it. And this is the best map I've ever had showing my property. 20 21 Q. And that's the map that the government gave 22 you? 23 Α. Yes. 24 And you've been out there where that proposed 0. 25 well in Section 16 is?

Page 196 Yes. I visited it. 1 Α. 2 Is it higher? 0. 3 Α. Yes. 4 Which would comport with what's on the map? Q. 5 Yeah. I've got an X here marked on it. Would Α. you like to see it, sir? 6 7 0. I was going to --8 MR. CRAIG: Anyway, we'd move introduction 9 of Ramey 2. EXAMINER GOETZE: Mr. Rankin? 10 11 MR. RANKIN: I'm sorry, Mr. Examiner. What 12 was the question? 13 EXAMINER GOETZE: He wants to enter in this map as Ramey Number 2. 14 15 MR. RANKIN: No objection. 16 EXAMINER GOETZE: Mr. McMillan? 17 MR. McMILLAN: No objection. 18 EXAMINER GOETZE: Ms. Callahan? 19 MS. CALLAHAN: No objection. 20 EXAMINER GOETZE: So entered. Ramey 2 is in the record. 21 (Ramey Exhibit Number 2 is offered and 22 23 admitted into evidence.) 24 THE WITNESS: Okay. Thank you. 25 (BY MR. CRAIG) Now, if we could look at your Q.

Page 197

1 little packet there, Davis Number 1, did you take that 2 picture?

3 A. Yes, sir.

4 And can you describe to the hearing examiner ο. 5 what was happening out there, what you found? My load station is just to the north of this 6 Α. 7 crossing, and I was opening my crossing at 6:00 in the 8 morning. And there were red lights flashing on both 9 sides of the river, and I knew there was some kind of problem. So I opened the station, and I ran down there. 10 11 And what I had done is I went on the high side of the 12 bank, because you can see the front of my bumper of my four-wheeler. It was still dark, and I couldn't take a 13 good picture. But the truck had run off in the river, 14 and there was not a skid mark or nothing. He just drove 15 16 it right straight into the river. 17 The second truck that you see up there, 18 they backed it down at the crossing and pumped off the 19 trailer, which was hauling produced water, and that's 20 120 to 130 barrels. A barrel is 42 gallons a barrel. 21 Finally the wrecker got down there and had 22 both sides of the road blocked nearly to daylight. So 23 we're looking at -- you know, we're looking at 6:30 to 24 7:00. And the truck -- the wrecker backed up to it and 25 started -- and he had timbers underneath his rear wheels

Page 198 trying to hold -- so his truck wouldn't skid, and he was 1 having a hard time moving it. So this other truck 2 pulled around and got on the back of the -- or the front 3 of the wrecker to give him more holding power, and they 4 5 moved the truck. I don't have the picture showing it, but they got the truck up on the -- on the runway there 6 7 or the road. And the only damage to the truck was the 8 front bumper, and it had a lot of debris in the front of 9 it. And they actually drove the truck to the top of the 10 hill. 11 Now, in looking at Exhibit Number 1, would that 0. 12 be considered a low-water crossing there? Oh, absolutely. That's the John D. Forehand 13 Α. crossing. It's been there many years, which is Alisa's 14 family. They actually put the actual original crossing 15 16 in the '30s. 17 Q. Now, that -- and you heard Mr. Ramey testify 18 that there wasn't any leakage there? 19 Α. That's correct. 20 Were you concerned about that when you went Q. 21 down there? 22 I -- I -- I first drove down to the --Α. Yes. 23 the sheriff's department was there, and I drove down and 24 I asked the sheriff's officer, "What are they hauling?" 25 And he said, "It's not hazardous waste." I said,

Page 199 "That's not my question." I said, "What are you 1 hauling?" And he said, "Produced water." I said, 2 "That's hazardous." So that's pretty disturbing right 3 there because they don't even know what hazardous is in 4 5 relation to contaminating the river. 6 So now in looking at that -- and you were there Q. 7 when this flood happened in 2014? 8 Α. Oh, absolutely. Could you -- in looking at Davis 1, could you 9 0. give the hearing examiner an idea where the water was on 10 11 the back side there where those trucks are? 12 Α. Yes. This truck that's facing -- which would be facing to the west, there is a draw that dumps in 13 there called Flume Draw. There were three trucks parked 14 right there bumper to bumper, and about the tail end of 15 16 that truck that's to the -- to the west -- it was over more to the south -- the water got plumb up into the 17 18 door of the cab of the truck, and he couldn't even get 19 out of the truck. And he was getting it from both 20 directions. He was getting it from the river flowing down and also the runoff from Flume Draw. It's a wonder 21 22 he didn't drown. 23 And that would be about where the second truck 0. 24 is? 25 Yes, about the tail end of the second truck. Α.

Page 200 And then, of course, going to the north 1 side, it was plumb past the picture, as far as, you 2 3 know, the width and the height. So essentially during that flood, that river 4 Q. 5 was almost from those telephone poles all the way --Oh, that telephone pole right there was wiped 6 Α. 7 out. It was laid over. It was way past that. There 8 was a big ol' tree right against it. 9 0. Now, if you'll look at Number 2, Exhibit 2, which is the next one, what is that? 10 11 Α. Okay. That's on the north side of the river. 12 In other words, you have crossed the crossing now. And you'll see these signs and so forth, and you'll see a 13 gate there, and the trucks have run over that. 14 When they redone the crossing, the idea was that when the 15 river flood, they would close the gates to warn "do not 16 17 cross the river." They haven't even gotten a chance to 18 exercise that because the trucks have already run over 19 it without the river flooding. 20 Now, when the river flooded, were those 0. trucks -- had they driven off into the flooded river? 21 22 Α. Yes. Oh, absolutely. Yeah. This truck right here (indicating) would have been in a hell of a bind. 23 I mean, this thing would have come floating right down 24 25 in front of my house. And it's not a question of if;

Page 201

1 it's a question of when.

2 And if you'll look at the next page, Davis 3, 0. 3 what's that? That's a sign coming across the river. So in 4 Α. 5 other words, you're going north. And when you come down the road, it makes sort of like an S turn, and they're 6 7 coming too fast or not paying attention, and they just 8 run over the signs on both sides of the river. 9 And this purports to be a sign that was knocked Q. down? 10 11 Α. Right. 12 Q. Did you take that picture? 13 Α. Yes. 14 Q. That accurately shows what you saw? 15 Α. Yes. 16 Okay. Look at Number 4, what's that, Exhibit Q. Number 4? 17 That's the well log of my last well that was 18 Α. 19 drilled, which is just recently. This is on the north 20 side of the river. 21 And if you'll -- let's see. On the second Q. 22 page, I think it gives you the various sands and where 23 the water is? 24 Α. Yeah. What's unusual about this well -- we've 25 drilled a lot of wells over the years, over 25 wells on

Page 202 our property, and this was done with ground imaging, to 1 drill this well. And normally we'll have -- the first 2 surface water will be 25, 30 feet. The next will be 3 around 50 to 60 feet. In this case, this one here was 4 more bearing at 80 feet, and we drilled to 220 feet. 5 6 And it would fill in with sand, and we drilled it again, 7 and it filled in with sand. And so we cased it to -- I 8 think it's 160-some-odd feet. And this is my best well. 9 And there there's been -- so that's a total of three wells within probably 250, 300 feet, and each well is 10 11 different. The formation is unpredictable. 12 0. Now, in one of those wells, did you actually look down into the well? 13 That well was on the south side of the 14 Α. Yes. river, and we drilled -- there is a sand barrier. 15 So 16 when you go through the surface, you go into a sand barrier. It's about 20 feet deep. And we drilled 17 18 through it, and when we pulled out and we run our tape 19 in, it caved in. So we drilled it out again, and it 20 caved in. So then we stepped off. Anyway, we done that three times and was getting nervous. We had a lot of 21 22 sand on the ground and was trying to figure out what in 23 the world is going on, and that's when we got a mirror and shined down into the well. And that's when we could 24 25 see the water running. And this is strange. The water

Page 203 was running from -- Section 9 and 16 comes across into 1 So in other words, I'm saying the water comes 2 there. from the east to the river. And that's one strata. 3 That ain't all the stratas. And so how we solved that 4 5 problem is we got a rathole rig and we went with steel casing through the sand barrier and then we drilled our 6 7 well. 8 Q. But you actually saw the water running? Running, yeah. That's what shocked us. 9 Α. 10 And it was running from Section 9, which is Q. 11 the --12 Α. And the other -- and 16. 13 And 16. 0. Yeah. And the reason I know that is that 14 Α. Section 9 and Section 16, in 2000- -- I don't know the 15 16 exact year, but it was -- it's on Foundation Minerals' property. There is a pad there that has not been put 17 18 into production. It's got the cellar and the pad and 19 the rathole. And I walked -- went over there and 20 watched it while they were drilling it, and he hit water at 70 feet for the rathole. 21 22 In Section 16 -- and this is just -- I mean 23 just over the fence, you might say -- in the '50s, a 24 seismograph crew come across there and said there's 25 water there because it washed off their bit.

Page 204

And then in the '80s, Thompson drilled with a cable tool rig to hold lease, and he said the same thing. And there is casing sitting there to this day right there in that corner.

5 And then we came down right there in our corner of the -- between the BLM and where it's deeded. 6 And this is in the '50s. We drilled a well with several 7 8 wells around it, and we acidized it and we sanded. The 9 same problem that we've had later on in that area, and then, of course, like I'm telling you about where we 10 11 seen the water running. I don't know how wide that 12 strata is and I don't know how long that strata is, but I do know it's in those two sections and it comes down 13 and sort of ends on me at the river. And the water on 14 the river that -- those three zones, they sort of run 15 16 with the river, going towards the Pecos River. I don't know if my area is -- is -- is the same further down, 17 18 but you'll find in the village area that they've got 19 shallow wells up there, 30, 40, 50, 60 foot. Some of 20 them are a little bit deeper. But the main water around me is the bottom strata. But that one well is the 21 22 80-foot strata. That's what's strange. And on each side of the river it's different. 23 24 And you cased down to 165? 0. 25 I think it's 160 on that one. Α. We tried to case

Page 205 to 200. And the reason for that is we use the wellbore 1 as a reservoir, if I can do it. 2 3 Q. Now, if you'll look at Davis Number 5, I mean, 4 this is something that you saw, and I think you just 5 wanted to present it to the -- to the examiner. What is 6 this? 7 Α. Right. Okay. This is on the -- this is on the 8 south side of the river from John D. Forehand, which is 9 not very far from John D. Forehand going south. 10 That's crossing where the truck was? 0. 11 Α. Yes. 12 0. Okay. And this is Mewbourne's lease. And we had a 13 Α. real hard rain, one of our first rains starting the 14 latter part of the season, and a lot of water came 15 16 down -- how the road was built, the water goes straight to the river, and the culvert was completely enclosed 17 18 in. And actually it wasn't able to handle the volume of 19 water that even was coming down that. And it jumped 20 into this lease and broke this dike there, and this ran into the river. And there was salt on the ground and 21 that kind of thing. And, of course, where the wellhead 22 23 was and even to get to the tank batteries, it was 24 impossible because it was so muddy, and it was that way 25 for quite -- quite a few weeks.

Page 206 1 Now, this is -- you said this was Mewbourne's? Q. 2 Α. Mewbourne, right. 3 Q. And this is a well location and a -- and a 4 disposal facility? 5 Α. Yes. Yes. MS. OGDEN: No. It's not a disposal. 6 7 THE WITNESS: Well, where is that pipeline 8 coming to? 9 MS. OGDEN: I can -- I can answer all 10 those. 11 THE WITNESS: Okay. 12 MS. OGDEN: That's on our federal lease. 13 THE WITNESS: Yeah. This is on her 14 property. 15 (BY MR. CRAIG) Okay. But that's one of the ο. 16 issues that you worry about with these wells in 17 proximity to the lease? 18 Right. We need the pad to be in such a manner Α. 19 that nothing can get on the pad from the outside and 20 nothing can get out of the pad from the inside and nothing can penetrate the pad if -- you know, if it --21 22 you have a spill in the pad. 23 Now, what's Davis Number 6? 0. Okay. That's -- that's the -- the old lease 24 Α. 25 that was in Section 9.

Page 207 1 Was that the --Q. That's the Giant Panda, isn't it? 2 Α. 3 Q. Giant Panda, before they moved it? So this is where it was, I think, the 4 Α. Yeah. 5 second round, and this is where it is for the last round, which is in Section 16. 6 7 ο. And that's Davis Number 7? 8 Α. Correct. And you've actually been to these locations? 9 Q. 10 Yes. I took those pictures. Α. 11 And the Davis 7, in 16, you were up there. Is 0. 12 that higher? You said, I think, it is a higher --Absolutely. You start going up the hill. 13 Α. Yes. And in this place where it's at, it's got a high spot, 14 and it can run off in two different directions. 15 And one 16 of them comes into my pasture, which will go to the river. And then the other one stays in Section 16, and 17 it will run towards the river. 18 19 And it'll get into that -- as Mr. Ramey was Q. 20 talking about? 21 Α. Right. Yeah. And all that has to do with how much rain. You know, our rains are so unpredictable. 22 Ι 23 mean, I could swear up and down sometimes it can rain 24 just a few feet wide to somebody's fence line, and we 25 just got a ton of water going down one area. That's

Page 208 just Black River. It's unpredictable. And so we're 1 2 famous for getting hard rains and spotty rains. Like in this past one right here was on Alisa, where it run off 3 the end there, Alisa got more rain than I did and we 4 5 adjoin each other. And we're just talking, you know, б half a mile between each other of the rain. 7 ο. And it was enough to just wash out that lease? 8 Α. Oh, yeah. 9 And, you know, you're talking about -- can I speak to this, about runoff? 10 11 0. Yeah. That's, I think, one of the rain 12 concerns we have, is the runoff from the disposal 13 facilities. So what is your concern, if you can tell 14 the examiner? Well, okay. 15 Α. Several. 16 Like I was saying about our rains, our rains is -- is unpredictable, and everything runs to the 17 18 river, whether it's on the south side or the north side. 19 And the one that you've got on the Hood Number 1, 3-Mile 20 Draw, in the '60s, destroyed the scout camp that's on my property. My mother had a scout camp. 21 She was in the 22 Girl Scouts. It wiped the buildings plumb off, pump 23 house, everything. In 2014, the water got there again. 24 And that comes right around the edge of Hood 1, and it 25 dumps in the Black River.

Page 209 The runoff in the Black River watershed 1 goes plumb into Texas, west, and it's very broad north 2 and south, and so you never know where the water is 3 going to come. The river can come up and not -- and not 4 5 be a cloud in the sky on our property, and it comes from the mountains, from the Guadalupes. And it's clear; the 6 7 water's clear. If the water's muddy, that tells me that 8 it's from the village area south, working towards me. And just like the other day, just recently, one of our 9 10 last rains, they got -- the river came up at Higby Hole, 11 which is right down below the CID Dam. We didn't -- the 12 river never came up at my place. And they got -- well, at Alisa's place, they got, I think, over three 13 inches in a --14 15 MS. OGDEN: In 45 minutes. 16 THE WITNESS: -- in a short time frame. 17 So we have a lot of area that dumps to the river and it's spotty, and so I say that the river 18 19 should be the dividing line, from Black River Village to 20 the CID Dam. We need to think about what is the smallest footprint and the least risk, and that's going 21 22 to put more money in your pocket and all the others 23 involved. So keep everything on the south side on the south side of the river and everything on the north side 24 25 on the north side of the river, build your pads where it

1 cannot get to the river, and I think you'll solve a lot 2 of problems.

Page 210

3 And then another thing about the truck 4 traffic, each well that you're proposing, when you say 25,000 more barrels, that's 190 truckloads every 24 5 hours per pad. Our roads will not handle it, and we do 6 not have the financial ability of Eddy County to get the 7 8 money from -- and the road they're redoing right now 9 from close to the Delaware -- no, from Roadrunner Road to Old Cavern Highway, a \$6 million job. 10 That is the 11 worst road in the state of New Mexico 'cause of truck 12 traffic. 13 (BY MR. CRAIG) Now, did you -- do you have one 0. 14 of these books (indicating)? I don't have one, but here is one on the table. 15 Α. 16 Is there one for the Giant Panda? Q. This is the Grizzly. 17 Α. 18 Let me show you this one. I've got it. Q. The 19 Giant Panda, that's Exhibit 1B. It's that same plat we 20 were looking at earlier, this one (indicating). 21 Α. Okay. 22 EXAMINER GOETZE: So you're looking at a 23 Delaware exhibit. 24 MR. CRAIG: Delaware Exhibit 1B, and it's 25 about halfway in there, the plat that shows the road.

PAUL BACA PROFESSIONAL COURT REPORTERS

500 FOURTH STREET NW - SUITE 105, ALBUQUERQUE, NM 87102

	Page 211
1	Q. (BY MR. CRAIG) Now, you've been down there?
2	A. Yes.
3	Q. Is there an existing lease road there?
4	A. No.
5	Q. What is there?
6	A. This is a two-tracker going to our back
7	pasture, plus a pipeline for Devon for the Habanera. So
8	that's been used just to go to the back pasture. If you
9	look at it today, it's been bladed. And the reason it
10	was bladed is when the crossing was taken out in 2014,
11	they needed a way to get in there to pour the concrete
12	on the south side of the crossing.
13	Q. And you're talking about that crossing where
14	the truck ran off?
15	A. Yeah, the John D. Forehand crossing.
16	Q. Okay.
17	A. So they came through me and made that circle
18	around to that side. That's the reason it looks like a
19	road. And, of course, there's not much traffic. You
20	know, we go to the back pasture and that's it.
21	Q. That area is BLM property, correct?
22	A. Yes.
23	Q. And you had that leased?
24	A. Yes.
25	Q. And then that's Section 17? Section 16 is

Page 212 where the well is going to be? 1 2 Α. 16. So we have it right to the --What is that section, Alisa, on the map? 3 4 Q. 17. 5 17, yeah. And then we've got down below that Α. б probably. 7 ο. Right. But that one is BLM? 8 Α. All that is BLM. Yes. And that's where this road exists, is on the 9 Q. 10 BLM? 11 Α. Yes. 12 And to get back down there, how do you have to Q. 13 go? I mean, if you wanted to get down to where that's 14 marked on Section 16 for the Giant Panda, how do you 15 have to get there? 16 Α. Well -- okay. If you're going to come in -- if you're going to come in from Black River Village Road on 17 the east side, you're going to have to go through 18 19 Foundation Minerals to get in there. 20 And then what do you do? Q. 21 Α. And then you go through the gate of BLM, and then you go south down BLM land all the way to that. 22 Ιf 23 you wanted to go out of there to the west, you'd have to 24 go south to the pipeline road, which is Main Pipeline, 25 to go west, and you're going to come out on Alisa Ogden.

Q. So that road that's shown on here, there really
isn't an existing lease road?

Page 213

3 A. No.

25

Q. So if you could summarize your concerns to the examiner, what would they be on these saltwater disposal wells, the ones we're still talking about, which is the Giant Panda and the Grizzly?

8 Α. Well, okay. I'm going to start with the 9 Grizzly. My main objection and in our discussions and 10 the meetings that we've been having over the years, it 11 would be wise to start at a mile distance from the river, on either side of the river, and start working 12 from that base what is best that you can work out your 13 lease. And then wherever you arrive at what you're 14 going to do, you're going to build your pad in a manner 15 16 that's not going to be able to contaminate, period. And that means anything coming from the outside in and 17 18 inside out or penetrating the ground. That means the 19 whole pad.

Where your trucks unload and your trucks park, if you have a contamination there, you're not protected. The whole pad needs to be protected. And if you do that, yes, it costs you more money, but it's going to save you in the end.

And then the last thing to do is reduce the

Page 214 truck traffic by pipeline. The cheapest way to move 1 2 material is pipeline. You know that. I know that from 3 experience. Q. 4 And this increased truck traffic, with that 5 many gallons, how many trucks did you say that would be 6 a day? 7 109 [sic], plus. Α. 8 Q. And the truck traffic is pretty heavy --Very heavy, very heavy, running around the 9 Α. 10 clock. 11 And another thing about that is I went to 12 the County and I said, "What is your" -- "What is your" -- "How do you determine to block the river when 13 the river floods?" They said, "We don't have a plan." 14 So then you ask the producer, "What is your procedure 15 16 when the river's flooding? Where are you going to go?" There is no plan. And we know -- me and Alisa sit there 17 and watched it happened. God dang, they're going to 18 19 cross that river; it's flooding. And they cross it. 20 And that's the way it is. 21 **Q**. And you've seen those flooded trucks. If those 22 had produced water in them, what would that have done? 23 Α. Yes. And, you know, there are other trucks 24 hauling other stuff. But, you know, the people hauling oil and stuff are a little bit more reliable than the 25

Page 215 ones with solid. There are some trucks -- I sell water. 1 2 There are some trucks that are hauling water that can't even pay a \$50 water bill. And if they have -- if they 3 have a contamination, they're out of business. And 4 5 guess who is going to inherit the problem? Not you (indicating) because you didn't haul it. You're 6 7 responsible when you receive it. But you created the 8 demand. And we need some help there. We need some 9 serious help. 10 Now, the exhibits that we talked about, you 0. personally took those pictures? 11 12 Α. Yes. 13 And they accurately depict what is shown? 0. 14 Α. Yes. MR. CRAIG: We'd move introduction of Davis 15 16 1 through 7 -- 7. 17 EXAMINER GOETZE: Mr. McMillan? 18 MR. McMILLAN: No objection. 19 EXAMINER GOETZE: Ms. Callahan? 20 MS. CALLAHAN: No objection. 21 EXAMINER GOETZE: Mr. Rankin? 22 MR. RANKIN: No objection. 23 EXAMINER GOETZE: Exhibits Davis 1 through 24 7 are so entered into the record. 25 (Davis Exhibit Numbers 1 through 7 are

Page 216 offered and admitted into evidence.) 1 MR. CRAIG: That's all we have. Pass the 2 3 witness. EXAMINER GOETZE: Mr. McMillan? 4 5 MR. McMILLAN: No questions. 6 MS. CALLAHAN: No questions. 7 EXAMINER GOETZE: Mr. Rankin? 8 MR. RANKIN: I have -- yeah. 9 THE WITNESS: One other I think that you asked a question about about the river, how it narrows 10 down and the flow, can I talk about that? 11 12 EXAMINER BROOKS: Well, he passed the 13 witness. It's up to -- now you need to answer Mr. Rankin's questions. 14 THE WITNESS: All right. Not a problem. 15 Ι 16 just like to get the facts out. 17 CROSS-EXAMINATION BY MR. RANKIN: 18 19 Mr. Davis, it's nice to meet you. I just have Q. a couple of questions for you. 20 21 Α. Sure. 22 0. You said that you have a load station and that 23 you sell water and that you've drilled 25 water wells? Yes, sir, since the '50s. 24 Α. 25 Since the '50s -- or since the '50s, you've 0.

Page 217 1 drilled 25 water wells. 2 Α. Yes. 3 Q. What -- what's the load station for? To sell water commercially. 4 Α. 5 Okay. And where is that located? Q. John D. Forehand Road. 6 Α. 7 Would you mind referencing that? Why don't we Q. 8 look at Exhibit 2 in one of those exhibit packets, if 9 you would. I heard a lot of names used and points of reference, so I'm trying to --10 11 Let me get to Exhibit 2 that you're talking Α. 12 about. 13 It would be the Applicant's exhibits. Q. MR. CRAIG: One of the books. 14 THE WITNESS: Oh, in the book. Either 15 16 book? 17 Q. (BY MR. RANKIN) Either one. 18 MR. CRAIG: It's this one right here 19 (indicating). 20 THE WITNESS: Okay. 21 **Q**. (BY MR. RANKIN) So correct me if I'm wrong -- I 22 don't know you stated this for the record, but where is 23 your fee property that you own? 24 Α. Okay. I'm in Section 8. 25 Section 8. Okay. Is that the south half of 8; Q.

Page 218 is that right? 1 2 Α. I go in 40-acre blocks about a mile along there, all this square right here (indicating). 3 4 ο. Okay. So it looks like it's the -- the --5 So I go from the west to the east nearly all Α. 6 the way across Section 8. 7 The south half of Section 8; is that correct? ο. Is that correct, Mr. Davis, the south half? 8 9 Α. Yeah. 10 I'm trying to find your -- the one you're 11 talking about here. 12 0. Exhibit 2. 13 MR. CRAIG: Probably that one (indicating). 14 (BY MR. RANKIN) That one that's folded over 0. 15 right there. 16 Α. This one right here (indicating)? 17 Q. No. If I might approach to give you a hand. 18 This one here (indicating). 19 So your property was identified as Section 20 8 in that township and range; is that right? Yes, sir. 21 Α. 22 0. So it's just below where that Kodiak location 23 is identified in Section 5; is that right? 24 Α. Yes, sir. 25 Okay. And then where is your load station for Q.

Page 219 your water well? 1 Okay. You go to the west, and it's right there 2 Α. on John D. Forehand. 3 4 Okay. And where are your 25 wells that you've Q. 5 drilled over time? On both sides of the river, up and down the 6 Α. 7 river. 8 Q. Okay. So you've got wells on one side -- on the north side of the river, and you've got wells on the 9 south side of the river? 10 11 That's correct. Α. 12 0. And your load station is on the north side of the river? 13 14 Α. Yes, sir. 15 So do you pipe water to that load station? Q. 16 No. I pipe it to the tank battery, and then Α. out of the tank battery, I pipe it to the load station. 17 18 Q. So there are two separate pipeline systems --19 Yes. That's correct. Α. 20 -- that pipe it to the load station? Q. Yeah. I've got an 8-inch line going to the 21 Α. load station, and then the various individual wells have 22 23 got 4-inch lines going to the tank battery. 24 Okay. And what's the greatest distance your 0. 25 freshwater wells are from the river?

Page 220 Well, all of them are up and down the river. 1 Α. 2 They're -- they're probably 150 to 200 feet. 3 Q. So they're right up against the river; is that 4 right? 5 You know, on the high part -- on the north Α. side, on the high part of the bank, and on the south 6 side, they're -- you know, the bank is lower, but 7 8 it's -- so it's like this (demonstrating) when you look 9 at it. 10 0. Okay. And how much water are you producing total from your 25 wells, approximately? 11 12 Α. Well, I'm not pumping 25 wells. 13 0. Okay. I've only got five wells I use to pump 14 Α. Okay? to sell water. So all my wells are small-volume wells. 15 16 And our water -- I've only got two wells that I can run continuous, around the clock. The others are pump, 17 rest, pump, rest, pump, rest. That's the reason I got 18 19 the tank battery. So you're looking at a total of five wells, and they go by tank level and that kind of thing, 20 21 kick on and off, probably 550 gallons a minute. 550 gallons a minute? 22 0. 23 Uh-huh. Α. 24 And can you sell that water approximately at 0. 25 that same rate? In other words, you're selling all the

Page 221 water that you're producing? 1 2 Α. I can sell all I can produce. 3 Q. Okay. And people that buy the water from you, 4 how are they taking it away? 5 Well, they come into the load station, and I Α. can do a top load or a bottom load. 6 7 ο. What does that mean? 8 Well, a bottom load is they -- they go into the Α. 9 bottom of the tank. And the oil field likes the bottom load more than -- the construction likes the top load. 10 11 I'm still not following you. 0. 12 Α. But the top load is in the top of the tank. MS. OGDEN: In trucks, Jim. In trucks. 13 14 (BY MR. RANKIN) I guess my question is: How 0. 15 are they taking the water away? What kind of mechanism 16 are they taking the water away? Are they pipelining it 17 away? Are they trucking it away? 18 Well, I do sell in the pipeline, but Α. No. mainly from the truck side, they're hauling it. 19 20 How many trucks are coming to your load station Q. 21 on a daily basis? 22 Well, right now probably 2- to 3,000 barrels a Α. 23 day, and all those trucks vary in size. Some of them --24 some of them are getting, you know, like 500 gallons. 25 Some of them are getting 40 barrels. Some of them are

Page 222 getting 60 barrels, some of them 80 barrels, some of 1 them 90 barrels. 2 3 Q. How many truckloads are you seeing at your load station? 4 5 It varies. We probably have anywhere from 20 Α. 6 to 40 tickets a day. 7 Okay. And those trucks are running on Black ο. 8 River Road? 9 That's correct. Α. 10 But my water is used mainly for drilling, well testing, pipeline well testing, showering at the 11 12 drill rigs, drilling underneath the river and cementing because of the quality of water, and you've been using 13 it also. 14 15 Now, you testified -- I believe I understood ο. 16 you to say that as long as you have an operator using 17 best management practices for the construction of their 18 well pads, you don't have a problem with their -- with 19 their operations? Is that fair summary of your 20 testimony? 21 Α. Now, clear that -- I'm not sure I understand 22 that. 23 I think I understood you to say -- and correct 0. 24 me if I'm wrong -- that you don't have a problem with 25 operators who are using best management practices for

Page 223 1 the construction of their well pads? 2 Α. That is correct. 3 Q. As long as an operator is complying with those 4 best management practices for this area, you don't have 5 a problem with the way they operate? 6 Α. That's correct. 7 MR. RANKIN: No further questions. EXAMINER GOETZE: Mr. Brooks? 8 9 CROSS-EXAMINATION 10 BY EXAMINER BROOKS: 11 If I understand what you've said, it's all 0. about surface flows of water. You're not talking about 12 13 flows within deep formations? Now, let me see if I understand the question. 14 Α. You're saying about the surface. 15 16 If you do an injection well -- if you drill an Q. 17 injection well, the purpose of the well is to inject 18 water and pump it down the hole --19 Α. Correct. 20 -- to a formation several thousand feet down --Q. 21 Α. Correct. 22 0. -- where it will be pumped out into a formation 23 for storage, correct? 24 Α. Correct. 25 You're not talking about what happens to the 0.

Page 224 1 water after it's injected? 2 Α. No, sir. 3 Q. You're talking about what happens to it if it's 4 spilled at the surface? 5 Α. That's correct. 6 That's what I thought. Thank you. Q. 7 Yes, sir. Α. 8 CROSS-EXAMINATION 9 BY EXAMINER GOETZE: 10 I just have two questions, Mr. Davis. 0. This well record that you have, is this well now on line? 11 12 Have you seen any production out of it? 13 Α. I basically have run it for testing purposes right now, and I'm waiting for my permit to come back on 14 it. So I don't have -- all I know is when we tested it, 15 16 we ran it four hours pumping, and it didn't pull down very far. Most of them pull down. So that's where we 17 18 are at right now. 19 Q. Okay. 20 EXAMINER GOETZE: And then for the record, Lisa [sic] is? 21 22 MS. OGDEN: Me. 23 EXAMINER GOETZE: Your last name? 24 MS. OGDEN: Alisa. I'm sorry. Alisa 25 Ogden.

Page 225 MR. CRAIG: She's next. 1 2 EXAMINER GOETZE: We just wanted to make 3 sure, when we have references to Lisa, that it's the right Lisa. 4 5 EXAMINER BROOKS: We don't normally encourage members of the audience to coach the 6 7 witnesses. 8 (Laughter.) 9 MS. OGDEN: He has trouble hearing accurately. 10 11 EXAMINER GOETZE: Would you like to take a 12 few minutes' break or press on? 13 EXAMINER BROOKS: That sounds like a decent idea. 14 EXAMINER GOETZE: Let's take about ten off, 15 16 and let's come back and we'll do our next witness. 17 MR. CRAIG: She'll be our last, and then I think --18 19 EXAMINER GOETZE: You've got one? 20 MR. McMILLAN: Yeah, hours of testimony. 21 You guys can order pizza. 22 EXAMINER GOETZE: We don't get to eat on the job. 23 24 (Recess, 4:23 p.m. to 4:37 p.m.) 25 EXAMINER GOETZE: All right. Let's go back

Page 226 on the record. 1 And, Mr. Craig, I believe you have another 2 3 witness. MR. CRAIG: Yes. We'd call Alisa Ogden. 4 5 ALISA OGDEN, after having been previously sworn under oath, was 6 7 questioned and testified as follows: 8 DIRECT EXAMINATION 9 BY MR. CRAIG: Could you state your name for the record? 10 0. 11 Alisa Ogden. Α. 12 0. And where do you live? I live on the north end of the ranch, so I live 13 Α. north of the river about six miles, in Section 15, 14 And we own the property on Black River. 15 23-27. It's 16 our private land. We have private land in Section 15. And then the private land is in Sections 17 and 18 of 17 18 24-27. And then we have private land on the south end 19 in Sections 25, 25, 26. And so in between all of those, 20 the private lands in Section 15 and Section 25, is state and federal land that my family has had since 1890 when 21 22 they homesteaded on Black River. Where Jim Davis lives 23 now, my great, great grandfather homesteaded in 1890, 24 that area, and then he and his family homesteaded along 25 the river.

Page 227 So you and your family have land pretty much 1 0. 2 along this whole stretch that we've been talking about? 3 Α. Exactly. And that was my mother's side of the family. And my father's side of the family has -- we 4 farm downriver from there and own private land on Black 5 River just west of what they call Higby Hole Road, south 6 7 of Loving three miles. 8 Q. Now, the -- and your primary objection was to -- on the one on Section 5? 9 10 It was dismissed. Α. Yes. And that was dismissed? 11 0. 12 Α. Yes. 13 But on the other, you're still concerned about 0. 14 the river? Right. And I always think it's interesting, on 15 Α. 16 affected properties -- or affected persons, what they call it because the quality of water in Black River has 17 a direct effect on me and on our livestock. Our usage 18 19 of Black River is totally for watering of our livestock 20 whenever we have cattle in those pastures, and then when we're downriver on the farm, we still water livestock 21 out of that river. And so we're very dependent upon the 22 23 river for the viability of our livestock and our 24 operation as ranchers. 25 And when you look at the maps of this, you'll 0.

	Page 228
1	see that most along the river there is a lot of
2	private land, and I guess that's because that's where
3	people homesteaded.
4	A. Correct.
5	And most of the homesteading that was done
6	in this area was done prior to the 1914 Homestead Act
7	where you got the 160 acres of surface and 160 acres of
8	private in there. So and, you know, it was
9	advantageous. You needed the water, and you wanted the
10	mineral rights that went along with those private lands.
11	Q. Now, you're acquainted with these two locations
12	that we're still talking about, the Grizzly and the
13	A. Giant Panda.
14	Q Giant Panda?
15	A. Yes, I am.
16	Our we are Jim's west neighbor as far as
17	his in Section 17. And, again, we do own private
18	land in Section 17. And so when we had the flood in
19	2014, our access to our south end of the ranch, since it
20	washed out the low-water crossing called Forehand
21	Crossing, was through his pasture, through the BLM land,
22	along the fence line, looking over into Section 16, and
23	then we took the DCP pipeline right-of-way through his
24	pasture a mile into our pasture, and then we were able
25	to access John D. Forehand Road from there to go into

Page 229 the south end of our pasture. And we go -- from Black 1 2 River south, it's about nine miles. 3 Q. And that's that road that we've talked about --4 Α. Correct. -- that was the lease road? 5 It used to be a ο. 6 two-track. 7 Α. It's never been a lease road. It's always been 8 a two-track. And it's only been a rancher-used road 9 until the flood, and then that was how most people 10 utilized that area to access, mostly pumpers and then the -- and us, our ranch people. The others further 11 12 south went in other ways. But it was pumpers. A few 13 water trucks tried to get through there, but they had to be pulled out because the terrain is not conducive for 14 anything larger than a pickup to go through. 15 16 So being down there, you've seen, basically, Q. where the location of the Giant Panda well is? 17 Yes, and also the Grizzly, because prior to 18 Α. 19 Black River Village Road becoming the pothole road of 20 hell, that's how I would access from the farm to the ranch, is going down Black River Village Road. Now we 21 currently access it going down Bounds Road to get in 22 because the road -- well, they're in the process of 23 resurfacing it, but prior to that, we had to go Bounds 24 25 Road so we wouldn't tear up -- you know, take chances of

Page 230 tearing up tire rods or anything else like that on the 1 vehicles. 2 3 Q. Black River Village Road was in somewhat bad 4 shape? 5 Α. That's an understatement. Yes. It was in 6 somewhat bad shape. 7 ο. You could lose a car in a pothole? 8 Α. Probably. 9 The location of the Grizzly and the access for that specific one is on a current lease road in 10 11 which they access locations that are in -- on that state 12 land, and the state grazing lessee for that is ClaraMai Hayhurst. And so that's going through part of her 13 ranch, state lease, and so I have seen that. 14 But in my traversing for nine months over 15 16 that road through Jim's to access our ranch, I went by on almost a daily basis the road that the Giant Panda is 17 proposed to be located. 18 19 Q. Now, how does the -- from your observations, 20 over all these years -- because you grew up down there. 21 Α. Exactly. 22 0. From your observations, how does the water 23 drain? 24 Α. So there are a variety of ridges in the area, 25 and I'm not going to go into it too much. But north of

Black River, everything from Bounds Road south drains 1 into Black River. Bounds Road used to be called the 2 Ridge Road. And south of Black River, if you'll go 3 about 3-and-a-half miles or so, there's another ridge, 4 and everything from that ridge to the north, everything 5 6 drains into Black River. And then beyond that ridge, 7 then all those drainages go into the Pecos River. So it 8 just funnels into Black River. Black River is a spring-fed river, primarily, other than having rain 9 10 events.

Q. And your concern about the saltwater disposal
 wells on Black River Village Road is what?

A. Well, my number one concern on the locations themselves are what type of measure would be taken to prevent spillage from the location in rain events draining in -- you know, because of the flooding, draining into the river and having the water quality affected by the produced water.

On our ranch, I have had several produced-water spills. I won't go into the details of what all is entailed in that, how deep you have to go. Sometimes I've seen them have to go down 30, 40, 50 feet in order to get to clean dirt from produced-water spills. I personally have had cattle drink produced water. They like the taste of it once they've drank it,

PAUL BACA PROFESSIONAL COURT REPORTERS 500 FOURTH STREET NW - SUITE 105, ALBUQUERQUE, NM 87102

## Page 231

Page 232 and they starve to death because all of the good 1 bacteria in their stomachs is killed by the 2 hydrocarbons. So they starve to death and die. 3 So I've had cattle die from drinking produced water. 4 5 And so I do have concerns about the produced water and how it will affect -- once it's on 6 7 the ground, it sterilizes the soil, and so the grass 8 doesn't grow anywhere it is. That's why you have to 9 come in and dig it out or else it's gone forever. 10 Anytime it gets into a water system, any kind of 11 produced water, then you have your water quality going 12 down. If your cattle drink it, you have the chance of 13 those cattle dying. And so my concern is the measures that might be taken to help alleviate mitigate, 14 whatever. 15 16 You know, nowhere in any of the plans I've seen -- and I currently have on our state lease land one 17 of Delaware Energy's saltwater disposals, the Iceman, 18 19 and it's in Section 17 of 23-27. So I see it on a daily 20 basis when I go in that area. But anyway, my concern, in the close 21 22 proximity to Black River, is what the plan will be in 23 order to help prevent any type of spillage going into the river and contaminating not only the river but the 24 25 soil between the location and the river, number one.

## Page 233

Number two, talking, once again, about the number of trucks that are required to bring the produced water to that location, I do know how many trucks are in on that one location that is in my pasture. In fact, they added to the size of the location so that once the trucks unload, if they need to pull off and sleep, then they have that.

8 Also, I had taken out of production for 9 grass, and it was in one of the prime grass-growing 10 areas on our -- in that one pasture, you know, their 11 take out of production that grass that you've been 12 paying for for 102 years, and you no longer get that back. And it's the same with locations for oil wells, 13 so we won't start on all of those. But my main concern 14 on this is the effect that it will have on the ground, 15 16 on the water and on the livestock.

Q. And you were talking about it getting on the ground and killing everything. Then when the rain comes, it washes it somewhere?

20 A. Further on down and does more damage.

Q. And washes it down into the river, is one of your concerns?

24 Q. You've heard the discussions about Black River

25 from Mr. Ramey, that this is like one of the

Yes.

23

Α.

Yes.

PAUL BACA PROFESSIONAL COURT REPORTERS 500 FOURTH STREET NW - SUITE 105, ALBUQUERQUE, NM 87102

That's a concern.

Page 234 1 high-quality waters? 2 Α. Exactly. And that's one of the things, being a farmer, as well as a rancher, the water that is in Black 3 River, you can always tell -- there are farmers who farm 4 5 down from --(Cell phone ringing.) 6 7 THE WITNESS: I know I turned my phone off. 8 -- who farm downriver, and the water --9 they have the ability to farm with Black River water. They have X number of water rights, and I think --10 11 Jim, I think that's your phone. 12 And so if anything contaminates that water, then it will affect their ability to farm their farms. 13 And we had an instance where herbicide was put out on 14 ranch land above water. We had a big flood event. 15 They 16 farmed with the flood water that came down, and their crops were killed. So I've seen the effect of what 17 18 contaminants in Black River will do for the farmers 19 downstream from that area. 20 So affected parties aren't just the oil companies who have mineral rights in that area and the 21 surface owner on that. So there are a lot of affected 22 23 people when you get the river involved. 24 (BY MR. CRAIG) Now, the -- did anybody approach 0. 25 you for an easement across your property to Number 16 --

## 1 Section 16?

2 Α. Well, my property, they would have to come off of John D. Forehand Road, and no, it is not. The river 3 crossing is on our private land, and the county has a 4 prescriptive easement. So where that truck went in the 5 water, that was on our private land right there. 6 So --7 and it went right over the top of the waterline that has 8 the water for our livestock. I don't sell any water to 9 the oil companies at all. All of our -- our one well that we have on the north side of Black River is a 10 11 60-foot well, and it's only for livestock water. And so 12 no, no requests for easement across any of our private land that might be going through if they utilize John D. 13 Forehand and went through the BLM land from west to east 14 for an easement. 15 16 Would you be favorably disposed to give people Q. 17 easements across it? 18 I don't do that very often. I'm not well Α. No. 19 liked. 20 (Laughter.) THE WITNESS: I'm not. You can ask. 21 Ι 22 state my opinion succinctly. 23 (Laughter.) 24 EXAMINER GOETZE: Are you done? 25 MR. CRAIG: I'm done.

Page 236 1 EXAMINER GOETZE: Okay. Thank you. 2 Mr. McMillan? 3 MR. McMILLAN: No questions. 4 EXAMINER GOETZE: Ms. Callahan? 5 MS. CALLAHAN: No questions. 6 EXAMINER GOETZE: Mr. Rankin? 7 CROSS-EXAMINATION 8 BY MR. RANKIN: 9 I just want to make sure I understand real 0. quick, Ms. Ogden. I have a couple of questions for you. 10 11 Α. Sure. 12 Q. Do you own surface land under -- around a 13 location where one of Delaware's wells is being 14 proposed? No, not currently, not now. 15 Α. The Kodiak was the 16 one that was -- is which had the most personal effect on me because it was located on my state lease land, and 17 then they access through my private land to survey the 18 19 state lease land. 20 Okay. So you didn't have -- none of the wells Q. 21 you own fee surface; is that correct? 22 No, none of these. Α. 23 And you're not a leasehold operator, correct, 0. 24 for any leases within the area of these wells? 25 State lease, you mean? Α.

Page 237 1 Any lease, an oil and gas lease. You're not a Q. 2 leasehold operator for an oil and gas lease within --3 Α. No, I'm not. Not in this area, no. MR. RANKIN: No further questions. 4 5 EXAMINER GOETZE: Mr. Brooks? 6 EXAMINER BROOKS: No questions. 7 EXAMINER GOETZE: I don't have any 8 questions, but you're still a nice person here. 9 (Laughter.) 10 EXAMINER GOETZE: So you have concluded? 11 MR. CRAIG: I am done. 12 EXAMINER GOETZE: Okay. Mr. McMillan, your 13 turn. MR. McMILLAN: Yes. I have just the one 14 witness and a single exhibit. Mr. Arnold, Jr. has been 15 16 sworn in previously. 17 EXAMINER GOETZE: Seems like a long time 18 ago. 19 MR. McMILLAN: Sorry. I have more paper 20 than I know what to do with. 21 EXAMINER GOETZE: As an attorney, you're supposed to manage your paper and your witnesses. 22 23 MR. McMILLAN: I have my witness under 24 control; it's my paper. 25

	Page 238
1	BRIAN ARNOLD, JR.,
2	after having been previously sworn under oath, was
3	questioned and testified as follows:
4	DIRECT EXAMINATION
5	BY MR. McMILLAN:
б	Q. Sir, would you kindly state your full name for
7	the record?
8	A. Brian Arnold, Jr.
9	Q. And who are you here on behalf of?
10	A. Foundation Minerals, LLC, Mavros Minerals, LLC
11	and Oak Valley Mineral and Land, LP.
12	Q. And what is your role in each of those three
13	entities?
14	A. For Foundation Minerals, LLC, I am the vice
15	president of land. For Mavros Minerals, LLC, I am the
16	manager. For Oak Valley Mineral and Land, LP, I am the
17	secretary.
18	Q. Are you authorized today to testify on behalf
19	of all three of these entities?
20	A. Yes.
21	Q. Great.
22	Have you previously had your credentials
23	heard by an examiner and made a matter of record here at
24	the Division?
25	A. No.

Page 239 1 Please then briefly describe your educational 0. 2 background. I have a bachelor's degree from Texas Tech 3 Α. University. I've been in the oil and gas business for 4 5 13 years, two years on the drilling side and 13 -- or 11 years on the land side. I'm a current member of the 6 7 American Association of Professional Landmen, and I have 8 a registered professional landman designation from that 9 association, as well the New Mexico Landmen's Association. 10 11 0. Are you familiar with the application that's 12 filed in these cases? 13 Α. Yes. 14 Q. Are you familiar with the subject land? 15 Α. Yes. 16 MR. McMILLAN: Mr. Examiner, I tender Mr. Brian Arnold, Jr. as an expert petroleum landman. 17 18 EXAMINER GOETZE: Ms. Callahan? 19 MS. CALLAHAN: I have no objection. 20 EXAMINER GOETZE: Mr. Craiq? 21 MR. CRAIG: No objection. EXAMINER GOETZE: Mr. Rankin? 22 23 MR. RANKIN: No objections. EXAMINER GOETZE: He is so gualified. 24 25 MR. McMILLAN: Excellent.

Page 240 (BY MR. McMILLAN) Mr. Arnold, do you recall 1 Q. 2 Delaware's land witness testifying to the use of Midland 3 Maps to do -- to do land work? Yes. I think it was operations manager. 4 Α. 5 Operations manager. Is that related to Midland Q. 6 Maps, to your knowledge? 7 Α. Yes. 8 Q. Are you familiar with this system? 9 Yes. Α. 10 Do you use it to do your land work? Q. I reference Midland Maps. 11 Α. 12 Do you use it as your be-all, end-all tool for Q. 13 doing your land work? Absolutely not. 14 Α. 15 And why not? ο. 16 Α. Because Midland Maps is, a lot of times, incorrect and only gets updated a few times a year. 17 18 Q. Do you recall testimony from Delaware's land 19 witness concerning the Featherstone Development 20 Corporation lease? 21 Α. Yes. 22 0. And that's the lease covering the south half of 23 the southwest corner -- southwest quarter, rather, of Section 3, which is part of the Bear Trap area of 24 25 review; is that correct?

Page 241

1	A. Yes, sir.
2	Q. And did you or do you recall Delaware's land
3	witness not being able to or she wasn't aware if the
4	Featherstone lease had subsequently been assigned. Do
5	you recall that testimony?
6	A. I do recall that testimony.
7	Q. Now, can you please turn to what is labeled as
8	Exhibit 9 and tell us what we're looking at here?
9	A. You're looking at an assignment and bill of
10	sale from Featherstone Development Corporation to MRC
11	Permian Company, recorded in Eddy County, New Mexico,
12	Book 935, page 923, and it was so filed with Darlene
13	Rosprim, who is the county clerk, May 22nd of 2013 at
14	4:08 p.m.
15	Q. So you acquired this from the public records?
16	A. Yes, sir.
17	Q. And, again, this is a 2013 assignment, correct?
18	A. That is correct.
19	Q. And to your understanding, does this assignment
20	and bill of sale assign the Featherstone lease to MRC
21	Permian?
22	A. Yes, sir, it does.
23	Q. Was it your understanding that in noticing up
24	the Bear Trap well, that Delaware noticed Featherstone?
25	A. That is correct.
1	

Page 242 1 Do you recall, with respect to the Bear Trap 0. 2 lease, that Delaware had noticed up MRC Permian? I noticed that they had not noticed MRC 3 Α. Permian. 4 5 In your opinion as an expert landman, should Q. they have noticed MRC Permian? 6 7 That is correct. Α. 8 Q. In your opinion as an expert landman, as of today, do they still owe MRC Permian notice as to the 9 Bear Trap application? 10 11 They do still owe notice. Α. 12 0. And is the Featherstone -- is Featherstone also 13 listed in the notice list of materials provided today by 14 Delaware with respect to the Giant Panda well? I don't believe that Featherstone was listed --15 Α. 16 Let's see. Q. -- but let me double-check. 17 Α. 18 I'm sorry. I must have been mistaken. Q. 19 Let's do the same exercise with the third and final well here today, the Grizzly well. 20 Is 21 Featherstone listed on the Grizzly well? 22 MR. RANKIN: Just to assist the witness 23 here, you'll have to turn to E, actually, to get that 24 list. 25 Appreciate that. MR. McMILLAN:

Page 243 THE WITNESS: Featherstone is listed. 1 2 (BY MR. McMILLAN) Okay. In your opinion, 0. 3 should Delaware be double-checking its work with respect 4 to their Grizzly notice as well? 5 Α. Yes. In your overall opinion, is Midland Maps and 6 Q. 7 the related product that you already referred to, is it 8 a reliable tool for land work? 9 It's a reliable reference tool. However, it's Α. always wise to go to the county records and make sure 10 that Midland Map is correct whenever sending out notice 11 12 to parties. 13 Is that your preferred process, actually 0. 14 checking the county records? 15 Α. Yes. 16 Let's see. Have you been approached about an Q. 17 easement across your property, the ranch property, for 18 purposes of these saltwater disposal wells? 19 No, I have not. Α. 20 To borrow a phrase from Mr. Craig, would you be Q. 21 favorably disposed to granting an easement with respect 22 to the wells that are subject to applications here 23 today? 24 Α. Not at this time. 25 MR. MCMILLAN: That's all I have for this

Page 244 1 witness. Thank you. 2 EXAMINER GOETZE: Ms. Callahan? 3 MS. CALLAHAN: I have no questions. EXAMINER GOETZE: Mr. Craig, any questions? 4 5 MR. CRAIG: No questions. 6 EXAMINER GOETZE: Mr. Rankin, any 7 questions? 8 MR. RANKIN: A couple of questions. 9 CROSS-EXAMINATION BY MR. RANKIN: 10 11 Mr. Arnold, with respect to the two fee leases 0. 12 that you identified in your testimony just now where 13 Featherstone was listed as the notice party, is it your 14 testimony that MRC is the correct leasehold operator for 15 those tracts? 16 Α. Yes. However, it may be a little bit, you know, ambiguous because that lease may have expired. 17 18 Q. Okay. 19 Α. It is no longer in the primary term. 20 Q. Gotcha. 21 So which lease -- when you say "that 22 lease," you're talking about which one? Is it the same lease for both? 23 There are actually three different leases, and 24 Α. 25 they were granted by the predecessors and titled to

Page 245 Foundation Minerals, LLC, Mavros Minerals, LLC and Oak 1 Valley Mineral and Land, LP; Mineral Companies, short 2 for saying it every time. They were granted by Susan 3 Lorraine Smith Patterson Trust, Tom Moore, and the Wayne 4 5 and Jo Ann Moore Charitable Foundation. 6 And I'm going to just shorten the entities you Q. 7 are representing here today, and I'm just going to call 8 them the Foundation Group. Is that okay with you? 9 Yes, sir. Α. With respect to the Foundation Group, does the 10 0. 11 Foundation Group own the surface interest on any of the 12 well locations proposed by Delaware before the Division 13 today? No, sir. 14 Α. 15 Is the Foundation Group a leasehold operator in ο. 16 the area -- one-mile area of any of the wells that 17 Delaware is proposing today? 18 If the minerals are unleased, then we would be Α. 19 a leasehold operator. 20 I guess what I'm asking is: Sitting here Q. 21 today, can you testify one way or the other whether or 22 not Foundation Group is a leasehold operator within the 23 one-mile area of review for any of these wells? 24 Α. We're not a leaseholder operator, but we have 25 correlative mineral rights in the area.

Page 246 Okay. So are you a lessee of record of an oil 1 Q. 2 and gas interest in any of the one-mile areas of review 3 surrounding the wells proposed by Delaware today? 4 Α. Can you repeat the question? 5 Are you a lessee of record of an oil and gas Q. 6 lease --7 Α. And when you say lessee of record, what record 8 are you referring to? 9 County record, record title. Q. Just the county record? 10 Α. 11 0. Record title. Are you a record title owner of 12 a mineral lease? 13 Α. No. MR. RANKIN: No further questions. 14 15 EXAMINER GOETZE: And before we go on, your 16 Exhibit 9 --17 MR. McMILLAN: Yes. EXAMINER GOETZE: -- would you like to 18 19 enter it into the record? 20 MR. McMILLAN: Sure. That's a good idea. At this time I would endeavor to move the 21 admission of Exhibit 9. 22 23 EXAMINER GOETZE: Okay. Featherstone 24 Exhibit 9, Ms. Callahan? 25 MS. CALLAHAN: No objection.

Page 247 1 EXAMINER GOETZE: Mr. Craiq? 2 MR. CRAIG: No objection. 3 EXAMINER GOETZE: Mr. Rankin? MR. RANKIN: No objections. 4 5 EXAMINER GOETZE: Okay. We've entered Featherstone Exhibit Number 9 into the record. 6 7 (Featherstone Exhibit Number 9 is offered 8 and admitted into evidence.) 9 EXAMINER GOETZE: Mr. Brooks? 10 EXAMINER BROOKS: As I recall, 11 Mr. McMillan's announcement at the beginning of the case 12 is that he was appearing for Foundation Minerals; is that correct? 13 14 MR. McMILLAN: Yes. EXAMINER BROOKS: Okay. Well, of course, 15 16 for yourself, you can't really complain of not having notice in a proceeding in which you appear, but the 17 question of other people's rights to notice still 18 19 exists. 20 MR. RANKIN: Mr. Examiner, my intention is to raise an objection to the participation and testimony 21 of each of the parties in this case on the basis that 22 none of them are -- well, first of all, they're not the 23 24 Applicant. Number two, they are not a leasehold 25 operator in the area of review. And number three,

## Page 248

they're not a lessee of record that's in the area of review. And number four, they are not a -- they did not file a notice of intervention to appear in the case to plead their -- to plead their complaints.

5 And so on that basis, under the Division rules, not only after apprising them of the fact that 6 7 they haven't filed a notice of intervention with my 8 motion last week, they still have not sought to do so sitting here today. And so, you know, my -- the point 9 of all that is to say that their objections on behalf of 10 11 other entities I think are misplaced. I'm not sure that 12 they have standing to make those complaints. Be that as it may, you know, if the Division is concerned about 13 notice to those parties, Delaware works a lot with MRC 14 Permian and the Matador entity, and I would ask that 15 16 they would look to see if they can get a notice waiver from that company with respect to those two leases --17 18 fee leases that intersect with their areas of review of 19 the two cases, the Bear Trap and the Grizzly. 20 Now, I understand that both Mr. McMillan

and Ms. Callahan are interested in responding to my motion to dismiss on those grounds, and I have no problem with them having some reasonable time to write -- prepare a written motion in response.
With respect to Mr. Craig, I have the

Page 249 same -- I'd like to make the same motion orally, and 1 2 with respect to Mr. McMillan's clients as well, I would make that same motion orally, to dismiss them from the 3 proceeding on the basis that they didn't have standing 4 and didn't file a notice of intervention, and they 5 weren't a party entitled -- they weren't a party under 6 7 the Division's rules. 8 So with that, you know, I just want to make that clear, that we intend to make that motion to the 9 Division. 10 11 EXAMINER BROOKS: Okay. 12 MR. McMILLAN: If may I respond just 13 briefly? 14 EXAMINER BROOKS: You want to respond now, 15 or you can respond later. 16 MR. McMILLAN: I'm sorry. I'm not hearing 17 you well. 18 EXAMINER BROOKS: You can respond later, 19 and there is no ruling before either of the examiners 20 that's going to be made immediately, so perhaps --21 MR. McMILLAN: Sure. Sure. May I, 22 however, make another motion that's not going to be 23 ruled upon immediately? 24 (Laughter.) 25 EXAMINER BROOKS: You bet.

Page 250 MR. McMILLAN: As long as we're making 1 2 speaking motions here, to the extent that it would cure Delaware's concerns about -- at least my clients' 3 participation here, I would move for intervention 4 retroactive back to earlier today. 5 EXAMINER BROOKS: Okay. I understand his 6 7 point is that you did not file a notice of intervention. 8 MR. McMILLAN: That is true. 9 EXAMINER BROOKS: So, of course, you can file an untimely motion for intervention --10 11 MR. McMILLAN: We're doing that in this 12 case. 13 EXAMINER BROOKS: -- at any time. And if you file such a motion, Mr. Rankin will probably move to 14 strike it, and then we'll have issue joined. 15 16 MR. RANKIN: Yeah. I think there will be some paper back and forth. And I don't begrudge 17 Mr. McMillan requesting the time to respond at all. 18 And 19 we would like a reasonable time to supply a reply. 20 EXAMINER BROOKS: Well, you might also want 21 to consider the situation that the Applicant is in in 22 applying for a permit if the record affirmatively shows 23 that Applicant has not given notice to every person 24 required to be noticed by the Division's rules. 25 I understand, Mr. Examiner. MR. RANKIN:

Page 251 Of course, the Division -- and we are concerned about 1 2 missing a notice party, so we will ask that this case be kept open so that we can confirm with the other -- with 3 the potential notice party whether or not they actually 4 5 are the leasehold operator for that tract -- those two tracts and, if so, endeavor to obtain a waiver from them 6 7 for the notice issue. 8 EXAMINER BROOKS: Okay. 9 MR. RANKIN: So that's my intent to deal with the notice concerns. 10 11 But as to the right of these parties to 12 appear and raise these issues and present this testimony, you know, our position remains, our 13 objections remain that they have not filed a timely 14 notice of intervention. They have not established a 15 basis for standing, and they have not done any of the 16 other procedural requirements to enter an appearance and 17 18 make their objections to our application. 19 So Mr. McMillan and Ms. Callahan and 20 Mr. Craig, I think -- I'm sure will file a response, and 21 we just would like the opportunity to reply with a written brief. 22 EXAMINER BROOKS: Well, I think given the 23 24 hour, that that would be -- written submissions would be 25 entirely appropriate.

Page 252 Oh, yeah, I agree. 1 EXAMINER GOETZE: 2 (Laughter.) 3 EXAMINER GOETZE: But where do we draw the 4 line as to a time period? 5 EXAMINER BROOKS: We're going to have to do that, but I'm not sure we finished -- that was my only 6 7 question, so --8 MS. CALLAHAN: Before we kind of conclude 9 this aspect of the hearing, I would also like to submit an oral motion to intervene in all of these cases on 10 11 behalf of 3Bear. 12 MR. CRAIG: I quess I will, too, since 13 nobody filed a motion to dismiss me except orally, so I will orally respond and say I want to intervene. 14 EXAMINER BROOKS: Well, the rules require 15 16 that if you are not a party entitled to notice, you must file a motion to intervene. Now, if you're a party 17 entitled to notice, then you're a party and you don't 18 19 have to file a notice of intervention. Notice of 20 intervention is due one day before the pre-hearing statement. And I don't know if there are any cases in 21 which that rule has been enforced, but the only two 22 23 cases in which I was representing the Division before the Commission and I filed a notice of intervention, I 24 25 was given permission to intervene late. So that's the

Page 253 precedent that I'm aware of (laughter). 1 2 MR. McMILLAN: Great. EXAMINER GOETZE: At this point, before we 3 go any further, I have no questions for this witness. 4 5 And so --6 MR. RANKIN: Yeah. I've asked my 7 questions. 8 EXAMINER GOETZE: Okay. Very good. 9 You're done for the day. Thank you. 10 THE WITNESS: Thank you. 11 EXAMINER GOETZE: Now it's lawyer talk. 12 MR. RANKIN: I could bring up a witness to rebut a few points, but I don't know that it's 13 necessary. I'm happy to address those issues in 14 closing. If you would be willing to accept a short 15 16 closing statement from each of the counsel to address any concerns just to wrap up or summarize, I'm happy to 17 18 handle it that way. 19 EXAMINER GOETZE: I've got all night. 20 MR. RANKIN: Well, in that case, I will 21 just call, you know, Mr. Goss as a rebuttal witness to cover a couple of topics, if that's okay with 22 Mr. Examiner, since it's after 5:00. 23 EXAMINER GOETZE: Well, if it's small talk, 24 25 let's go ahead. If we're going to get extravagant,

	Page 254	
1	then I'd like to avoid the paper and keep, basically,	
2	items regarding the cases and the C-108 done, and then	
3	we can get into these motions about standing and	
4	intervention as a separate item.	
5	JASON S. GOSS,	
6	after having been previously sworn under oath, was	
7	re-called and questioned and testified as follows:	
8	DIRECT EXAMINATION	
9	BY MR. RANKIN:	
10	Q. Mr. Goss, you were previously sworn and you're	
11	still under the obligation to tell the truth. Do you	
12	understand that?	
13	A. I understand.	
14	Q. Now, there were a few items that came up from	
15	the testimony from the witnesses from the objectors.	
16	Were you the present for all their testimony today?	
17	A. I was.	
18	Q. I just want to review your first, your	
19	understanding of what Delaware's plans are for designing	
20	and constructing its well pads and how will you approach	
21	that in light of Mr. Davis' and Ms. Ogden's concerns	
22	regarding the potential impacts to the Black River and	
23	the mussel?	
24	A. From what we understand with our agreements	
25	with the State Land Office, we will conduct ourselves	
1		

Page 255 under the best practices guidelines that they have now 1 set up with Mr. Ramey. And I've spoken to Mr. Ramey and 2 met with him and looked at all the sites of where the 3 mussel habitat is. And we've even asked Mr. Ramey to 4 5 review our sites once we are complete. 6 So he's going to be evaluating the design and Q. 7 construction of your proposed sites to determine whether 8 or not they meet best practice guidelines for the 9 hornshell issue --10 That's correct. Α. 11 -- hornshell mussel issue? 0. 12 Is Delaware going to be operating any 13 trucks to haul water either to or from your wells that 14 you're proposing here? 15 Α. We will not. 16 I'm just going to circulate a map that was Q. 17 prepared by Delaware. As soon as I get back, I'll ask 18 you a couple of questions about it. 19 Mr. Goss, are you familiar with this exhibit that I've just passed out? And I'd ask that it 20 21 be marked as Delaware Exhibit Number 5. I'm aware of it. 22 Α. 23 Will you review for the examiners what this 0. 24 shows? It is a distance in miles between where we 25 Α.

Page 256 believe the proposed Foundation Minerals #1 is and the 1 2 proposed Delaware Energy wells. 3 Q. What is your understanding of the location of 4 the proposed Foundation Minerals SWD #1 well? 5 From what we understand, even though we don't Α. have a C-108, I believe it's near the center of Section 6 4 of 24-27. 7 8 Is that based on the C-101, C-102 that was Q. provided to your counsel from 3Bear's counsel that I 9 10 forwarded to you? 11 That is correct. Α. 12 Q. Okay. Now, that distance between -- what's the 13 distance approximately between Foundation Minerals SWD 14 #1 proposed well and the Bear Trap SWD #1 well? 15 Α. 1.2 miles. 16 And how about between the Foundation Minerals ο. well and the Grizzly SWD #1 well? 17 18 Α. 2.7 miles. 19 And how about between the Foundation Minerals ο. 20 SWD #1 well and the Giant Panda SWD #1 well? 2.4 miles. 21 Α. And those are -- and these locations for 22 0. 23 Delaware's wells are the updated locations that are the 24 current existing proposal locations under the C-108s 25 that we just presented today?

Page 257 1 Α. That's correct. 2 MR. RANKIN: I'm going to pass around one 3 more map just to review with you. I've marked this as Delaware Exhibit Number 6. 4 5 (BY MR. RANKIN) Mr. Goss, have you seen this Q. 6 map before? 7 Α. I have. 8 And what does it show? ο. It shows the distances between the three 9 Α. proposed wells and Mr. Davis' surface in Section 8 and 10 Mrs. Ogden's fee surface in Section 8 as well. 11 12 Q. Okay. And it also actually shows the Kodiak 13 well which was dismissed from these proceedings; is that 14 right? 15 Α. That's correct. 16 So just looking at the three wells that are Q. 17 currently pending, starting at the Bear Trap, towards 18 the top of that well, what are the distances from the 19 Bear Trap to Ms. Ogden's fee and to the Davis' fee? 20 To Ms. Oqden's 80-acre tract, it's 1.91 miles. Α. To Mr. Davis' fee surface, it's 2.22 miles. 21 22 And based on your understanding from the Q. 23 testimony you heard today, is the Bear Trap SWD #1 24 well -- is it essentially downgradient or downstream 25 from the properties that are owned by the Ogdens and the

Page 258 1 Davises? 2 Α. It is. 3 Q. And tell me about the Grizzly SWD well. The Grizzly is 2.91 miles from Mrs. Ogden's fee 4 Α. surface in 8 and 2.82 miles from Mr. Davis' fee surface 5 in Section 8. 6 7 ο. And that location is -- again, it's 8 downgradient or downstream on the Black River relative 9 to the Ogdens' and Davises' fee property; is that 10 correct? 11 That's correct. Α. 12 Q. And how about the -- I guess the name of that 13 other well on the bottom of the map is cut off. 14 Α. That's the Giant Panda. That's the Giant Panda well? 15 ο. 16 Α. Yeah. Yeah. The Giant Panda is 1.48 miles from Mrs. Ogden's surface and .81 miles from Mr. Davis' 17 surface. 18 And now real quickly, I think I heard -- did 19 Q. you hear Mr. Davis' testimony on his estimate for how 20 21 many trucks Delaware would be running to its locations? I did. 22 Α. 23 What was your understanding of what his 0. 24 testimony was? 25 That was too high. Α.

Page 259 Do you understand -- do you remember what 1 Q. number it was that he was saying? 2 3 Α. I think he testified to 190. Okay. And you're saying that's too high. 4 Q. In 5 your operational experience, how many trucks -- if you were just operating on trucks --6 7 Α. Right. 8 0. -- how many trucks would you be seeing? Just trucks, we're averaging just over 100. 9 Α. 10 Okay. And now are you intending to operate 0. 11 with trucks at these sites? 12 Α. No. My guess would be trucks would be very limited. In the next -- in the next six months, we 13 should have virtually -- only trucks would be for 14 flowbacks that we have contacted to take, so very 15 minimal trucks. 16 17 0. And why is it that you say you expect to use 18 fewer trucks than even what Mr. Davis was suggesting? 19 Because the majority of the water will then Α. 20 become -- will be sourced from operator pipelines. 21 So you're working with operators to -- under 0. 22 contract to construct pipelines to deliver produced water to your wells for disposal? 23 Almost all of the major operators out there, 24 Α. 25 yes.

Page 260 Now, just real quick --1 Q. 2 MR. RANKIN: These visuals are worth a 3 thousand words, Mr. Brooks. 4 ο. (BY MR. RANKIN) I'm presenting you with what's 5 been marked as Delaware Exhibit Number 7. Are you 6 familiar with what this map shows? 7 Α. I am. 8 Q. Did you prepare this map? I created it. Yes, sir. 9 Α. What does it show? 10 0. It shows Delaware Energy's current active wells 11 Α. 12 in 24-28 and 24-26. There is another well that's just 13 off the map that's not on here, the Iceman, that Mrs. Ogden referred to, but it also shows the three 14 proposed wells and the Kodiak well also. 15 16 Which are the proposed wells and which are the Q. 17 wells that you currently operate? 18 The wells we currently operate are in red Α. 19 stars, and the proposed wells that we're here today about are the yellow wells. 20 21 So Delaware has a significant presence in this Q. 22 corridor along the Black River. Is that fair to say? 23 Α. We do. 24 And you've planned to -- have you planned to 0. 25 develop this whole area for some time with injection

Page 261 wells? 1 2 Α. Absolutely. 3 Q. Now, I'll note that your wells are not the closest wells to the Black River. Is that a fair 4 5 statement? There are literally hundreds of producing 6 Α. No. 7 wells closer than ours. 8 0. Those producing wells are producing the types of hydrocarbons that potentially leak into the river, 9 10 and they're closer to the river than your proposed produced injection well. Is that fair to say? 11 12 Α. That is correct. And are you familiar with the well pad 13 Q. construction for these producing wells that are closer 14 to the river than your proposed wells? 15 I've drilled many wells in these 16 Α. I am. 17 townships. 18 0. Tell me about how your well pad designs are 19 going to be different -- are they going to be different 20 from those producing wells? 21 Α. They will. The wells that we've talked with 22 the State Land Office about will have a berm around the entire well pad, along with everything else that we 23 talked about today as far as security and environmental 24 25 containment.

Page 262 1 Having the sump at the off-load area? Q. 2 Α. That's right. 3 Q. Tell me again what that was. So we have a sump at the off-load where the 4 Α. trucks off-load. We also have a sump inside the 5 containment. The containment around the tank battery is 6 7 a 2-foot steel wall. The entire inside of the steel 8 wall is polylined. And then we have 24-hour 9 surveillance with our pumpers and our supervision, along 10 with all the cameras, usually -- at least six to eight cameras at every site that are operating 24/7, and we 11 12 can move them around remotely. Also, every bit -- every 13 single aspect of the tank battery has an alarm and call-out for the alarm. But we have 24-hour supervision 14 as well, so that really shouldn't matter. 15 16 Q. So Ms. Ogden's -- do you remember Ms. Ogden's testimony about the Iceman well that's on her -- I think 17 18 it's a -- is it a federal grazing lease or state? 19 Α. It's state. 20 State grazing lease. Q. 21 Α. Uh-huh. 22 0. Is the well pad design that you're proposing 23 for these wells today, are they going to be -- is it 24 going to be similar, or how are they going to be 25 different than the well pad for the Iceman?

Page 263 So what I just talked about. Our standard 1 Α. 2 environmental safety features will also be present at these sites, but the Iceman does not have a berm around 3 the entire site. 4 5 So in addition to the berm, you're also working ο. 6 with Mr. Ramey to identify any other stipulations 7 regarding the construction of the well pad that might be 8 suggested based on the CCA/A; is that correct? 9 Α. That's correct. That's what came out of our meeting with the State Land Commissioner and his staff. 10 11 0. Okay. So those will be implemented, and those 12 will make -- your proposed wells will be considered 13 different than the Iceman on Ms. Ogden's state grazing 14 lease? That is correct. 15 Α. 16 Mr. Goss, Mr. Arnold raised an issue regarding Q. 17 notice -- sufficiency of notice to the fee lease in two 18 of these cases, the Giant Panda and the Grizzly. How is 19 Delaware going to address that concern? 20 Well, we work a lot with Matador Resources and Α. 21 their midstream company, San Mateo. We had a long 22 meeting with them last week. I don't foresee it being a 23 problem with the waiver. 24 So you'll approach them and discuss this 0. 25 issue --

Page 264 1 Α. That's correct. 2 -- and let them know that you filed these 0. 3 applications and let them know that you had a hearing, 4 and if they have any issues, they can address them with the Division? 5 6 Α. That's correct. 7 MR. RANKIN: No further questions, 8 Mr. Examiner. I'll pass the witness. 9 First, I would like to enter for the 10 record --11 0. (BY MR. RANKIN) Mr. Goss, were the exhibits, 5, 12 6 and 7, generated or created using existing -- using Delaware's business records, and did you oversee their 13 preparations? 14 15 Α. That's correct. 16 MR. RANKIN: Mr. Examiner, I would move to admit Exhibits 5, 6 and 7 into the record. 17 18 EXAMINER GOETZE: Mr. Craig? 19 MR. CRAIG: I don't have any objection to 5 20 and 6. I'm not sure about 7. I might need to voir dire the witness just a little on that one. 21 22 EXAMINER GOETZE: Mr. McMillan? 23 MR. McMILLAN: No objection to 5, 6 and 7. 24 I'd object only to the extent that they show the Kodiak 25 locations that aren't relevant to today's proceedings,

Page 265 but otherwise, fine. 1 2 EXAMINER GOETZE: We could have him draw a 3 line through the Kodiak. MR. McMILLAN: Yeah, please do. Could we 4 5 get some Wite-Out? EXAMINER GOETZE: Ms. Callahan? 6 7 MS. CALLAHAN: Same objection that 8 Mr. McMillan made, but I have no objection to these 9 exhibits. 10 EXAMINER GOETZE: Mr. Craig --11 MR. CRAIG: Yes, sir. 12 EXAMINER GOETZE: -- on Number 7? 13 MR. CRAIG: I'm not sure exactly what this is purporting to show, all these dots. 14 THE WITNESS: This is a map from the 15 16 OCD-generated GIS. So the red dots are plugged wells. The black dots are active. The blue are drilled, not 17 completed, and the gray are canceled APDs that have not 18 19 been drilled yet or could be still in limbo. 20 VOIR DIRE EXAMINATION BY MR. CRAIG: 21 22 And all the information was from the OCD 0. website? 23 That's correct. This is a screenshot. 24 Α. 25 0. It's a screenshot.

Page 266 1 Okay. You don't have any personal 2 knowledge of most of these wells, do you? A lot of them in this area. I drilled many of 3 Α. them. We were working with a lot of the operators on 4 all these wells. I have a lot of knowledge about all 5 the wells around. I'm in this area a lot. 6 7 Could you pick out -- if I went through every ο. 8 well on here, could you tell me about every well on 9 here? 10 Α. I could not. 11 EXAMINER BROOKS: We would prefer that you 12 didn't do that. 13 (Laughter.) MR. CRAIG: We would object to Number 7. 14 And, further, I don't see how it's relevant. 15 16 MR. RANKIN: Well, Mr. Examiner, Mr. Craig's witnesses testified that they had concerns 17 18 about the proximity of these produced water wells to the 19 Black River and to the mussel habitat. This exhibit 20 demonstrates, using the OCD's own database, with its own location for wells, existing or proposed or canceled, 21 22 that there are numerous wells that are operating much closer to the habitat, within the habitat and to the 23 24 Black River producing, you know, hydrocarbons than any 25 of the proposed injection wells by Delaware. So the

Page 267 point is just to make that these are further removed 1 2 from their concerns than even active producing wells. EXAMINER BROOKS: Okay. I'm going to 3 overrule the objection except as to the Kodiak, and 4 subject to the correction of the Kodiak, the exhibits 5 will all be admitted. 6 7 MR. RANKIN: So how do we -- do you want to 8 note for the record that the Kodiak is --9 EXAMINER BROOKS: I think that's sufficient. 10 11 EXAMINER GOETZE: We'll disregard its 12 location. I think we've pretty much established that. 13 So we're going to enter Exhibits 5, 6 and 7 into the record. 14 MR. RANKIN: For all three cases. 15 16 EXAMINER GOETZE: For each case. 17 MR. RANKIN: Thank you, Mr. Examiner. 18 (Delaware Energy, LLC Exhibit Numbers 5, 6 19 and 7 are offered and admitted into 20 evidence.) 21 EXAMINER GOETZE: So now, Mr. Craig --22 MR. CRAIG: Yes, sir. 23 EXAMINER GOETZE: -- you have the 24 opportunity to --25

	Page 268			
1	CROSS-EXAMINATION			
2	BY MR. CRAIG:			
3	Q. Okay. On Number 7, how many of these wells			
4	were drilled before the mussel was declared as an			
5	endangered species?			
6	A. That, I can't tell you.			
7	Q. So how many of these produced what's the			
8	volume of produced water from each one of these wells?			
9	A. Well, it depends on if it's a horizontal or a			
10	vertical. A horizontal well, total volume of fluid			
11	and it depends on the length of the lateral. A two-mile			
12	well could be upwards, initially, of 5- to 6,000. A			
13	mile well, 3- or 4,000 barrels of total fluid.			
14	Q. How many of these are horizontal wells?			
15	A. You cannot tell by the picture unless you zoom			
16	in farther, but I would say just an estimate would be			
17	half.			
18	Q. And how many and so you can't tell us			
19	which wells are horizontal for sure?			
20	A. No. This just depicts the surface location of			
21	the wellbores.			
22	Q. Okay. And you can't tell us the amount of			
23	water produced from each well?			
24	A. Not from the map. We could if we researched it			
25	through the OCD database. It would take about 30			

1 seconds a well.

2	Q. And how many of these wells were drilled before		
3	the mussel was an endangered species?		
4			
5	the last I can't testify to when the CCA was enacted,		
6	but it was in the last 18 months, I would say. So I		
7	would say a vast majority of these wells were drilled		
8	before that.		
9	Q. And the quality or the amount of produced water		
10	would be substantially different from just a straight		
11	ol' up-and-down well as opposed to a horizontal well,		
12	right?		
13	A. Yeah. They're not really being drilled either.		
14	Q. Well, they used to be.		
15	A. Yeah. No one is drilling gas wells, so it's		
16	almost all horizontals and disposals now.		
17	Q. Right. But that's a fairly recent development,		
18	within the last three or four years?		
19	A. Well, the Bone Spring play was big until the		
20	downturn of '14, and then within the last 24 months, the		
21	Wolfcamp is what you see here.		
22	Q. Now, the Iceman that you were talking about, it		
23	doesn't have berms, correct?		
24	A. It does not.		
25	Q. It doesn't have protection from leaks down like		

Page 270 on the ground? Like if a truck had a spill, there is 1 2 nothing --3 Α. Yes, it does. It has a sump on the off-load. There is a concrete pad that extends about 8 feet in 4 each direction where the off-load is, and if there is 5 any splashing from when they hook up, it goes in the 6 7 sump -- it goes into the sump, and then the sump pumps 8 it back into the system. 9 Do you have that annulus deal on that one? 0. Oh, absolutely. Yeah, every well -- that's the 10 Α. 11 most regulated part of the well. 12 0. And then you have TV cameras? 13 Absolutely. Α. 14 So basically the only thing you don't have is 0. 15 berms? 16 Α. That's correct. 17 And have you had any problems with that well? Q. 18 Absolutely none. It's been in operation for Α. 19 about six months. 20 Just normal problems about people not picking Q. 21 up what they're supposed to out there? 22 I don't say that -- that can't be Α. Yeah. 23 attributed to us. I mean, Old Cavern Highway is a very 24 busy road and stuff comes out of the back of trucks all 25 the time. We have two trash trailers there at all

Page 271 times, and we dump them every week. So it stays very 1 2 clean. And our superintendent works very closely with Ms. Ogden. If she has any concerns, she raises them, 3 and we fix it. So --4 5 MR. CRAIG: That's all I have. EXAMINER GOETZE: Mr. McMillan? 6 7 MR. McMILLAN: Yes. Just a couple of quick 8 questions. 9 CROSS-EXAMINATION BY MR. McMILLAN: 10 11 You testified, sir, to contracting with Q. 12 operators for their water. Do you currently have contracts in place with any operators? 13 Α. We do. 14 With whom? 15 ο. 16 MR. RANKIN: Are you free to say? 17 MR. McMILLAN: If you're not --18 THE WITNESS: I would rather not disclose. 19 We are binded by those nondisclosures. We can't give 20 out the terms. 21 Q. (BY MR. McMILLAN) That's fine. That's fine. 22 Α. Okay. 23 But you do represent that you do have contracts Q. 24 in place? 25 Absolutely. Α.

Page 272 1 And are those intended to be -- is that water 0. 2 trucked to the locations or via pipeline? Both. We're taking -- we're working on -- we 3 Α. 4 have pipelines in place from operators. We have 5 pipelines in work. We have right-of-ways in work. And then where they have flowbacks that they don't want to 6 7 go back into their facilities, we'll take it by truck. 8 But I'd say both. 9 And on Exhibit 7, which of the many lines Q. represents the actual river that is supposed to be the 10 11 reference point here? 12 Α. So since Black River Village Road traverses mostly the river in 24-27, you can see the line that is 13 That gives you a general idea of where the 14 the road. In 24-28, it follows the river and then turns 15 river is. 16 north a little bit and goes just north of Malaga. 17 Q. But in any event, none of these existing lines 18 on this map show the actual river course, correct? 19 Α. They don't. 20 Q. Okay. 21 MR. McMILLAN: That's all I have. 22 EXAMINER GOETZE: Ms. Callahan? 23 MS. CALLAHAN: I have no questions. 24 EXAMINER GOETZE: I have no questions of 25 this witness.

Page 273 EXAMINER BROOKS: Nor do I. 1 2 EXAMINER GOETZE: Are we done? 3 MR. RANKIN: I think so, Mr. Examiner. We ask that -- that counsel be given an 4 5 opportunity to submit closing statements just to б summarize. If it's helpful to you, I'm happy to do 7 that. 8 And I guess we should set time frames for 9 responses to the motions to dismiss, and I'm happy to work with counsel on whatever time they think is 10 11 reasonable to get those responses in. 12 EXAMINER GOETZE: Well, let's set up a 13 temporary date. 14 MR. McMILLAN: Sometime in June? 15 (Laughter.) 16 EXAMINER GOETZE: I'd like that, but that's 17 not our choice. 18 MR. McMILLAN: Me, too. 19 EXAMINER GOETZE: We do see that we have a 20 holiday next week and the week after. We'd like to have things submitted by December 7th, Pearl Harbor Day. 21 22 EXAMINER BROOKS: Yes. It's a day that will live in infamy, but it works. 23 24 EXAMINER GOETZE: So let's go with both 25 documents, your closing statements and a motion to

Page 274 intervene and motion to dismiss. Let's have your 1 statements on that. Let's aim for Friday, December 7th. 2 3 MR. CRAIG: Or sooner. EXAMINER GOETZE: Yes, you can. We don't 4 5 grade you down if you bring it in sooner, but we also want to give you the option, considering the lengthy 6 7 document provided to us for dismissal. We'll have time 8 to reconsider and look at and delve into it. So let's 9 go ahead with that. 10 MR. McMILLAN: Can I -- I'm sorry. Can I 11 ask for one adjustment? 12 EXAMINER GOETZE: What do you want? 13 MR. McMILLAN: If I don't get some CLE credits, I'm going to get disbarred. I'll be at the 14 Rocky Mountain Mineral Law Foundation on the 6th and 15 16 7th. Can we maybe push it to Monday, the 9th? 17 EXAMINER GOETZE: How about Monday, the 18 10th. 19 MR. McMILLAN: Yeah. That's even better. 20 Thank you. 21 (Laughter.) 22 EXAMINER GOETZE: Let us go to December 10th. 23 24 And how do you we handle this as far as 25 taking it under advisement? Do we continue?

Page 275 EXAMINER BROOKS: Well, I believe there was 1 2 some statement made that we could keep this matter open to see if they could get waivers as to specifically MRC 3 Permian, but if they found other people they haven't 4 5 noticed, maybe that might be relevant. For that reason, 6 we should probably not take it under advisement, but 7 reset it for notice purposes to a certain date. And 8 then if they don't find anybody else they want to 9 notice, then we can take it under advisement. 10 It's really more important, I think, for

11 the Applicant to make sure everybody's noticed than 12 anybody else because the Uhden case says that an order of the OCD is invalid or void as to anybody who was 13 entitled to notice and did not receive it. Of course, 14 that doesn't include somebody who appeared, so it 15 16 wouldn't include Foundation, even it were shown that they were entitled to notice, which I'm not taking a 17 position, obviously. But we want to give Mr. Rankin a 18 19 chance to get his notices in order if he needs that. 20 EXAMINER GOETZE: Well, we still have one 21 more -- do we have one more hearing? I've lost track. 22 EXAMINER BROOKS: I'm sure we do have one 23 more hearing this year. We have two more, because we 24 have one day after tomorrow.

EXAMINER GOETZE: Let me check.

25

Page 276 EXAMINER BROOKS: I'm sure we're not going 1 2 to go a whole month without a hearing. 3 MR. RANKIN: On the regular docket, I think --4 5 EXAMINER GOETZE: We're taking bets, so --We have several things going on at the same 6 7 time, so yeah. So based upon our original notice in 8 2017, we still have a date of December the 6th and 9 December the 20th. 10 Shall we say December the 20th? Let's 11 continue it there? And that way we can take it under 12 advisement once everything's in and you've had proper 13 notice, plus the additional information I requested. MS. CALLAHAN: Mr. Examiner, I will not be 14 available on the 20th. 15 16 EXAMINER GOETZE: We're just holding it. 17 MS. CALLAHAN: We're not going to argue? We're just going to submit our responses, and you're 18 19 going to decide on the --20 EXAMINER BROOKS: The only event in which we would have a hearing is if they notice some 21 additional people and those people actually appear and 22 23 want to be heard, and that doesn't happen very often. 24 MS. CALLAHAN: Okay. 25 EXAMINER GOETZE: We still want to be able

Page 277 to offer that opportunity. 1 2 So with no further outbursts --3 (Laughter.) EXAMINER GOETZE: -- we have decided we 4 5 have closing statements and response to dismissal and б additional notice and the information I requested. 7 With that, we will go with continuing Cases 8 16258, 16259, 16260, and we will take those three cases to the December 20th docket to hold them in place. 9 And I will go ahead and move forward with 10 11 16261, which is our Kodiak, which we are not going to --12 EXAMINER BROOKS: Right. That'll be 13 dismissed. MR. RANKIN: I have a question, I guess, on 14 that just to be clear. I understand that the Division 15 16 ruled on that matter based on a motion from one of the objectors. And I guess my question is whether or not 17 18 they had --19 EXAMINER BROOKS: I thought you moved to 20 dismiss it. MR. RANKIN: No. No. I asked to continue 21 22 it. I didn't want to dismiss it at all. Matter of fact, I think it's highly prejudicial and unfair for it 23 to be dismissed in light of what happened at the State 24 25 Land Office. So I'm going to ask the Division to

Page 278 If that's, you know, the position, to 1 reconsider. 2 reconsider. 3 EXAMINER BROOKS: You can always refile. MR. RANKIN: Well, we can, and there are 4 5 other factors. EXAMINER BROOKS: There is a rumor around 6 7 that there's a first in time, first in right principle 8 that applies to SWD permits. That is not in the rule, 9 and equitable considerations are by any means ruled out. 10 MR. RANKIN: I understand. I appreciate 11 that, Mr. Brooks. So we definitely have that in mind. 12 But with that, I just want to raise that 13 issue with you because that is a factor. So if the parties -- or the objectors are deemed to be not 14 permitted to participate, my question is whether or not 15 16 that motion to dismiss that case should be, you know --17 EXAMINER GOETZE: We can get into a heavy argument. I mean, we're moving it a mile and a half, 18 19 and so --20 MR. RANKIN: Yeah. Yeah. 21 EXAMINER GOETZE: Even under the administrative process, the moving of the well has been 22 23 considered based upon some sort of circumstances with 24 regards to a surface location. But the tendency is when 25 we receive that application -- we move it 500 feet, we

Page 279 move it 100 feet -- in most cases, the notice 1 requirements are minimal. You are moving it outside of 2 the area of review. And so what do you have from this 3 application that you can carry over other than the 4 5 actual well design maybe? And that might not even be accurate, too, based on how close you're coming to the 6 7 reef. So we understand the effort that went into it, 8 but we also have to draw a line at some point and say, 9 "Let's go through the administrative process again." 10 EXAMINER BROOKS: I think it's a different 11 case. 12 MR. RANKIN: I understand. So I quess I'll 13 take that as a sua sponte dismissal. EXAMINER GOETZE: That is what you'll see. 14 And it will probably be signed by this director, so look 15 16 on the bright side. 17 Yup. Thank you very much. MR. RANKIN: 18 EXAMINER GOETZE: Other than that, this is 19 the end of this hearing, and we've continued it on to 20 the December 20th for any consideration. You-all have your deadlines. Give us a call if you have anything. 21 22 And for each party, circulate copies of whatever you filed. All right? 23 24 (Indicating.) MR. McMILLAN: 25 MR. RANKIN: Yes, sir.

		Page 280
1		EXAMINER GOETZE: All right. Let's go
2	home.	
3		MR. McMILLAN: Thank you.
4		MS. CALLAHAN: Thank you.
5		EXAMINER GOETZE: Thank you for coming.
б		(Case Numbers 16258, 16259 and 16260
7		conclude, 5:46 p.m.)
8		
9		
10		
11		
12		
13		
14		
15		
16		
17		
18		
19		
20		
21		
22		
23		
24		
25		

Page 281 1 STATE OF NEW MEXICO 2 COUNTY OF BERNALILLO 3 CERTIFICATE OF COURT REPORTER 4 5 I, MARY C. HANKINS, Certified Court Reporter, New Mexico Certified Court Reporter No. 20, 6 7 and Registered Professional Reporter, do hereby certify 8 that I reported the foregoing proceedings in 9 stenographic shorthand and that the foregoing pages are a true and correct transcript of those proceedings that 10 were reduced to printed form by me to the best of my 11 12 ability. 13 I FURTHER CERTIFY that the Reporter's Record of the proceedings truly and accurately reflects 14 the exhibits, if any, offered by the respective parties. 15 16 I FURTHER CERTIFY that I am neither employed by nor related to any of the parties or 17 18 attorneys in this case and that I have no interest in 19 the final disposition of this case. 20 DATED THIS 2nd day of December 2018. 21 22 MARY C. HANKINS, CCR, RPR 23 Certified Court Reporter New Mexico CCR No. 20 Date of CCR Expiration: 12/31/2018 24 Paul Baca Professional Court Reporters 25