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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:

CASE NOS: 22472

REPORTER'S TRANSCRIPT OF VIRTUAL PROCEEDINGS EXAMINER HEARING February 3, 2022 SANTA FE, NEW MEXICO

This matter came on for virtual hearing before the New Mexico Oil Conservation Division, HEARING OFFICER WILLIAM BRANCARD and TECHNICAL EXAMINER DYLAN ROSE-COSS on Thursday, February 3, 2022, through the Webex Platform.

Reported by:

Irene Delgado, NMCCR 253 PAUL BACA PROFESSIONAL COURT REPORTERS 500 Fourth Street, NW, Suite 105 Albuquerque, NM 87102 505-843-9241

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Page 4 1 HEARING EXAMINER BRANCARD: With that, I will 2 call -- we have four cases here all involve drilling in the vicinity of the Carlsbad Brine Well Project, so I guess I 3 4 will check with counsel about how we would like to proceed 5 on this. The first three cases are cases 22534, 22535, 22536, SPC Resources. 6 7 MR. RANKIN: May it please the Examiner, Adam 8 Rankin from the Santa Fe office of Holland & Hart appearing 9 in these three consolidated cases on behalf of the applicant 10 in these -- in these cases. HEARING EXAMINER BRANCARD: Okay. We have case 11 12 22472, Oil Conservation Division. 13 MR. TREMAINE: Good morning, Mr. Hearing 14 Examiner, Jesse Tremaine for the Division. 15 HEARING EXAMINER BRANCARD: All right. Let me just ask for the other appearances here and get them on the 16 17 record. I have Mewbourne Oil Company. MR. BRUCE: Yes, Mr. Examiner, Jim Bruce here on 18 behalf of Mewbourne. 19 20 HEARING EXAMINER BRANCARD: Thank you. Matador Production Company? 21 MR. RANKIN: Mr. Examiner, Adam Rankin with the 22 23 Santa Fe office of Holland & Hart appearing on behalf of 24 Matador Production Company, WPX Energy Permian LLC and Tap 25 Rock Operating LLC.

Page 5 1 HEARING EXAMINER BRANCARD: Thank you. 2 MR. RANKIN: And that's only with respect to Cases 22472. 3 4 HEARING EXAMINER BRANCARD: These are the entries for those cases. Are there any other interested persons for 5 6 any of the four cases I have just mentioned, 22534, 535, 536 7 and 22472? 8 MR. TREMAINE: Mr. Hearing Examiner, Oil Conservation Division, I did enter an appearance in the 9 10 three other cases late yesterday. I don't believe they are in the record yet, I did file those for a clear record, but 11 12 the Division is here to take part in these hearings. I do 13 not intend to --14 HEARING EXAMINER BRANCARD: Mr. Tremaine, you're 15 fading in and out. (Discussion with reporter regarding technical 16 17 issues.) 18 HEARING EXAMINER BRANCARD: Mr. Tremaine is going to change his technology here. So Mr. Tremaine, we did get 19 your entries of appearance in those three cases. Thank you. 20 Okay. Well, I'll start with, Mr. Rankin, how 21 would you like to proceed here? Do you want to combine all 22 23 of these cases into one big packet, or do you want to move 24 ahead with your three cases or wait for the last case to go 25 and then you go?

MR. RANKIN: Mr. Examiner, good question. I suppose my intent is to request that the Division take administrative notice of the case that's listed for hearing later, Case 22472, the testimony and the facts and exhibits and evidence in that case. And presumably the record that will be developed will be pertinent, I believe, to these three cases.

8 So I'm happy to defer these three cases until 9 afterwards in order to allow that record to evolve and be --10 so we can then more appropriately dispose -- take 11 administrative record of these three cases.

HEARING EXAMINER BRANCARD: Thank you. That may be the way to go, but I will ask Mr. Tremaine, how would you like to proceed, and if we are going to go forward with 22472, how long a presentation do you envision for that?

MR. TREMAINE: So first off, I don't have any objection to proceeding with 22472 first. And in terms of 22472, I think that we are hopefully going to be within half an hour. I have about seven questions for a witness.

20 My intent is to ask you to also take 21 administrative notice of the prior entered exhibits and the 22 testimony and the transcript from Case 22102. The parties 23 involved and present were aware of -- took part in that 24 hearing, so I'm hoping that we don't need to go back through 25 all of that information, and Mr. Griswold's testimony would

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Page 7 be to limited to updates of their mediation project of the 1 Brine Well since about October -- october 1. 2 3 HEARING EXAMINER BRANCARD: Thank you. I will 4 just check that with the other parties. And Mewbourne has filed a prehearing statement, but I don't think you had any 5 6 witnesses planned. Is that correct, Mr. Bruce? 7 MR. BRUCE: Correct, Mr. Examiner. We do not 8 plan to have a witness available, however, Mr. Mitchell will be available if the Division has any questions. 9 10 HEARING EXAMINER BRANCARD: All right. Do you think you might have questions for the witnesses today from 11 12 the Division? 13 MR. BRUCE: Really, I think I have essentially 14 one question at the end of the presentation, at the end of 15 the witness' presentation. Mr. Rankin, I think you -- since you are involved in this case, too, do you think you have 16 questions for the Division? 17 18 MR. RANKIN: I don't anticipate having any questions. I suppose it may depend on what is elicited in 19 the testimony, but I may have question, a clarification, but 20 I don't have anything that I intend to ask or probe. 21 22 HEARING EXAMINER BRANCARD: So I'm just trying to 23 get a sense of whether we can go forward right now or break 24 for lunch. Sounds like we can go forward right now. Mr. 25 Rankin, are you okay with that?

Page 8 1 MR. RANKIN: That's fine with me. I'm happy to 2 proceed with Mr. Tremaine's case. 3 HEARING EXAMINER BRANCARD: Mr. Tremaine, are you 4 ready to go? 5 MR. TREMAINE: I am. 6 HEARING EXAMINER BRANCARD: So we are going to 7 flip the agenda here a little bit and we are going to hear 8 Case 22472 first, and hopefully that will help us in Cases 9 22534, 535 and 536. Is everyone okay with that? 10 MR. BRUCE: Yes. HEARING EXAMINER BRANCARD: Thank you. 11 All 12 right. Mr. Tremaine, you may proceed. 13 MR. TREMAINE: Thank you, Mr. Hearing Examiner, 14 as introduction to this case, OCD's application represents 15 an updated position and some concerns related to the Carlsbad Brine Well Remediation Project that follows on 16 closely based on the facts of Case 22102. And OCD's 17 previously requested voluntarily cessation of drilling or 18 completion activities on the part of operators within 19 initially three miles and now an area of review up to five 20 21 miles. 22 The remediation of the cavity is proceeding as 23 planned. As part of that plan, OCD finalized a sonar survey 24 that was conducted in September, finalized by OCD in 25 October. That survey revealed that the cavity continued to

deteriorate at a concerning rate which underscored it's
 sensitivity and decreased its groundwater which Mr. Griswold
 will discuss shortly.

4 OCD reviewed it's position from October into 5 November and ultimately moved from requesting voluntarily 6 cessation on the part of operators to filing this 7 application.

8 I do want to make note that there is -- that in 9 discussions with operator WPX, there is one well listed in 10 the application as 5B which was completed prior to OCD's 11 submission of this application. So this -- OCD intends to 12 remove that well from this application.

13 It was included because the completion 14 information was not filed with OCD until after the 15 application was submitted. There was one issue raised by Mr. Bruce of correlative rights, and I can address this 16 17 issue in more detail if you wish, Mr. Hearing Examiner, but my view is that ultimately in the amended prehearing 18 statement, Mewbourne asked that OCD promptly determine and 19 notice the operators (inaudible) so completion activities 20 can commence when appropriate. That's consistent with OCD's 21 intent. So unless you have any other need for me to address 22 23 that argument, I will leave that there.

I will, as indicated earlier, ask you to take administrative notice of Case 22102. The bulk of the

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Page 10 information about the Brine Well was established at quite 1 2 some length in that hearing. OCD's Exhibit 1 through 11 were submitted without objection in that hearing, and 3 4 Exhibit 12, submitted Exhibit 12 is in the back of the 5 transcript of that hearing. 6 Mr. Griswold was accepted as an expert in the 7 Brine Well and testified at that hearing. The other counsel 8 and parties in this case also took part in that hearing. 9 OCD has one new exhibit, which is Exhibit 13, which is the 10 updated sonar survey which Mr. Griswold can discuss. So with that I will pause and say that my next 11 12 step would be to proceed with questions from Mr. Griswold 13 regarding updates to the Brine Well from about October 1 14 through present. 15 HEARING EXAMINER BRANCARD: Okay. Let me just start with a very basic question, which is, in your 16 application of this case, 22472, at the end you list a 17 series of conditions that you would like to add, I believe, 18 to the HSD. Is that still what your goal is in this 19 proceeding? 20 21 Pardon me, yes, there is two MR. TREMAINE: things. OCD is seeking a 45-day cessation of any drilling 22 or completion activities for these enumerated wells, and the 23 24 second is that OCD is requesting to modify those APDs to 25 include these conditions of approval.

Page 11 1 (Inaudible.) REPORTER: Hello, I'm not getting any sound. 2 3 HEARING EXAMINER BRANCARD: I'm muted, I'm sorry. 4 So your order says you want to cease for 45 days after the order, and then everything after 45 days is to specific 5 6 conditions in the application? 7 MR. TREMAINE: Yes. 8 HEARING EXAMINER BRANCARD: All right. I just want to be clear what it is we are discussing today. It is 9 10 a little unusual proceeding here, but figure out exactly what the boundaries are. With that, you can proceed with 11 your presentation. 12 13 MR. TREMAINE: If it helps, in Case 22102, OCD 14 was asking for an indefinite stay of drilling and completion 15 activities for those specific wells, and then ultimately results to reflect these conditions. In this case, these 16 were all APDs that were issued with different conditions of 17 approval prior to the event that led up to Case 22102. And 18 rather than asking for an indefinite cessation given where 19 OCD is in the course of the remediation project, that ask 20 has changed to a specific 45 days cessation, so if that 21 helps at all. 22 23 And, with that, I would ask that Mr. Griswold to 24 introduce himself and be sworn in. 25 MR. GRISWOLD: Can you hear me, Mr. Tremaine?

Page 12 1 MR. TREMAINE: I can. 2 MR. GRISWOLD: My name is Jim Griswold. 3 HEARING EXAMINER BRANCARD: Thank you. 4 Mr. Griswold, will you raise your right hand. Do you solemnly swear the testimony you are about to give will be 5 the truth and nothing but the truth? 6 7 MR. GRISWOLD: I do. 8 HEARING EXAMINER BRANCARD: Thank you. 9 MR. TREMAINE: Mr. Hearing Examiner, may I 10 proceed as Mr. Griswold is so accepted as an expert in the Carlsbad Brine Well. 11 12 HEARING EXAMINER BRANCARD: Are there any 13 objections to --14 MR. BRUCE: No. 15 HEARING EXAMINER BRANCARD: Mr. Rankin? MR. RANKIN: No objection. 16 17 HEARING EXAMINER BRANCARD: So accepted. JIM GRISWOLD 18 19 (Sworn, testified as follows:) DIRECT EXAMINATION 20 BY MR. TREMAINE: 21 22 Q. Mr. Griswold, could you please describe 23 the status of the Carlsbad Brine Well cavity and remediation 24 project immediately following the resolution of Case 22102, 25 so starting in the time period of early October?

Page 13 Certainly. We put a pause in operations seeking 1 Α. 2 funding in July of 2020. In September of last year 2021, we remobilized the site. Our first task was to determine if 3 4 the cavern was as we left it in July of 2020. We accomplished that by a sonar survey there in September. 5 6 We resumed sand injection operations in mid 7 October of 2021 and have proceeded actually fairly 8 expeditiously since we continued injection, and we have had 9 originally good success in filling the cavern. 10 When was the sonar survey that you just Q. referenced conducted? 11 12 Α. The actual date, Mr. Tremaine, or I would have to 13 look at the file. It was in September of 2021 -- in June, I'm sorry, followed by another one in January, early January 14 15 of this year. 16 Okay, thank you. Could you please describe the Q. 17 remediation work on the cavity that's commenced between 18 recommencement and today? Certainly. It basically constitutes injecting a 19 Α. slurry of sand and brine water into the void, and 20 withdrawing simultaneously an equivalent volume of brine in 21 an attempt to backfill that void with sand. 22 23 Q. Okay. And I believe you just referenced that 24 there was a second sonar survey. So just for clarity, when 25 was the second survey conducted?

Page 14 January 3, 4 and 5, if I recall. It was 1 Α. 2 undertaken as a gauge in progress since injection restarted in October. 3 4 0. And when did you receive the results of the second sonar survey? 5 6 Α. Mid January. 7 Has backfill injection of the sand proceeded as Q. 8 expected? 9 Yes, we are on schedule. Α. 10 ο. Did -- were there any concerns that were raised 11 based on the first sonar survey? 12 Α. Just ask for a little bit of clarification, when 13 you say the first, do you mean the September survey? 14 Thank you, yes, not the previous one. The 0. 15 September 2021 sonar survey, was there anything of note from 16 that survey? 17 Compared to the July 2020 survey, yes. Areas of Α. the roof and sidewalls of the cavern had indeed collapsed. 18 We see continuous failure of the void. 19 20 And going back to your testimony at the prior Q. 21 hearing, is it still true that one of OCD's primary concerns 22 is the potential impact to groundwater upon, if the roof 23 continues to fail? 24 Yes, sir, it is. If it continues to fail, Α. 25 groundwater will be the first adverse impact we may realize.

Page 15 And based on that September 2021 sonar survey, 1 0. 2 how much closer did the roof move towards groundwater? 3 Oh, between September and January? Α. 4 0. No, from the sonar survey prior to September 21, 5 2021, until -- so the movement in the roof that was 6 observed in the September 2021 survey, could you indicate 7 how much that roof has moved? 8 Α. Certainly. Approximately five foot vertically 9 up. 10 Okay. And now the January 2022 survey that was Q. 11 completed, did you make any -- any observations based on 12 that survey? 13 Yes. Actually the side, just gauging the Α. progress of the backfill, the roof survey indicates it's a 14 continuous failure. We lost several more feet of roof 15 material in certain areas of the void. 16 17 Back in October at the time that backfill 0. 18 activities were picking back up or restarting, how much void 19 space was there in the cavity? Α. In September, approaching 63,000 cubic yards. 20 Ιf you want an exact number it's 62,538 as imaged by the sonar 21 technique. 22 23 0. When was the -- ask this in another way. As of 24 February 1 of this year, how much void space was observed in 25 the cavity?

A. Well, as of February 1 it's projected based on the amount of material we have added. Since we have resumed sand injection operations in October of 2021, excuse me, as of the start of the day shift on February 1, we have injected 59,227 cubic yards of sand, which, if you compare that to the void space observed in the September 21 sonar survey, we are about 95 percent backfill.

Q. So as of today, when is the backfill phase of
 9 this project projected to be completed?

10 A. We've got a slowdown here in the last few days 11 because of the inclement weather we can't work when it's 12 freezing, it's not safe. But taking that delay in mind, we 13 are hopeful to perhaps be done with the backfill portion of 14 the project probably Friday of next week.

Q. Okay. And and in terms of next steps and completion of the project, I believe this is referred to in a contract with Wood as substantial completion; is that correct?

A. Yeah, there are certain other aspects of the
project that go on other than just finishing the backfill.
Q. So once backfill is completed, what remaining
steps are there prior to reaching substantial completion

23 under the contract?

A. Well, the next step, after the -- we feel like we packed down as much sand as we can practically put in is

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1 to depressurize the cavity. And we will do that on a 2 gradual basis. It may take several days while we do that 3 and monitor the void as we do that.

4 If everything goes successful, then we will start demobilizing from the site, which also includes removing 5 6 fences and surface restoration on leased properties in the area that are involved in the project. Three of the 7 8 properties we have been using are actually privately owned, 9 and two additional properties are publicly owned, one is the 10 by the DOT, the right-of-way along US 285, and then other right-of-way to the south of the Carlsbad irrigation 11 12 district main canal.

Q. And what is OCD's current estimate for how long
surface restoration, that phase is going to take?
A. Probably on the order of about a month once start

16 it.

Q. Once you reach a point of substantial completion
under the contract, is it true that, that Wood contractually
has 60 days to provide the final report?

20 A. Yes.

Q. Okay. So is it fair to say that the current
projection is, is final completion within 90 days?
A. Approximately. No guarantees, though.
MR. TREMAINE: Mr. Hearing Examiner, with that I
have no further questions.

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1	HEARING EXAMINER BRANCARD: Thank you. I guess I
2	will start with Mr. Rankin.
3	CROSS-EXAMINATION
4	BY MR. RANKIN:
5	Q. Thank you very much, Mr. Griswold. I just want
6	to make sure, I may have missed it. Mr. Tremaine asked you
7	a question that you would have a month to do certain next
8	steps. What were those next steps and what was the time
9	frame from which they have a month to do it? I missed the
10	context of that question and answer.
11	A. Certainly, Mr. Rankin. And let me refer to
12	undertake this remediation project, it not only involved the
13	I & W property itself, but we needed access to adjacent
14	properties, three of them, one to the east and two to the
15	west.
16	Those areas were fenced in. We have had
17	equipment, folks working on those areas ever since. So when
18	we're done we need to return those properties to their
19	owners in the same state that we found them, in essence. So
20	activities that we need to replace a second tank in one area
21	that got inadvertently damaged, probably some work on some
22	asphalt, pulling down fences that we constructed to maintain
23	site security in the area, those kind of things need to
24	happen.
25	Q. That's the one month, essentially, to demobilize

Page 19 on those properties from the time they have completed 1 2 depressurization? 3 Α. Correct. 4 MR. RANKIN: I think that was the only question I think I missed I wanted to make sure I understood. Thank 5 6 you very much, Mr. Griswold. 7 THE WITNESS: You're welcome. 8 HEARING EXAMINER BRANCARD: Thank you. Mr. 9 Bruce, any questions. 10 CROSS-EXAMINATION BY MR. BRUCE: 11 12 Good afternoon, Jim. How are you? Q. 13 Α. I'm well, Mr. Bruce. 14 THE WITNESS: Forgive me, Mr. Brancard, for not 15 having the normal jacket and tie. There has been a bit of an issue in the last few days. 16 I am sitting here in shorts and a T-shirt. 17 0. But looking at your time line, it looks like and this will --18 19 maybe this, these questions, may be answered by you, maybe 20 also Mr. Tremaine, you said there is certain things will be 21 done in little over a week and then you've got to backfill. 22 How long was that estimated to take? Our current projection is we will be done with 23 Α. 24 the sand backfill portion of the project hopefully by next 25 Friday.

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1 **Q.** Okay.

2	A. And then the next step thereafter would be to
3	depressurize the cavern. That's a gradual process, and I
4	can't tell you right now exactly how long it will take, it
5	depends on how the void responds, but it would be on the
6	order of days.
7	Q. Okay. And then the surface restoration takes
8	roughly a month and I'm not trying to pin you down, I'm
9	just trying to understand in general terms what the time
10	limits are here.
11	A. Yes, we have several project trailers located out
12	there that need to be moved off. As I said we have a
13	damaged septic system we need to replace. If there is any
14	significant damage to asphalt on the properties we need to
15	replace those as well.
16	Q. Okay.
17	A. There's a substantial amount of fencing around
18	the entire project that we need to remove.
19	Q. Okay. And then the surface restoration, about a
20	month, like you just said. Now, is I understand the
21	technical things, the backfill, depressurize, will the
22	surface restoration slow down operators from recommencing
23	operations?
24	A. By itself, no.
25	Q. And then Mr. Tremaine mentioned 45 days in

response to Mr. Brancard's question. What is that 45 days?
 Is that tacked on to the end of this period?

A. Well, there is a contractual commitment in the state's contract with Wood that a final completion report be provided to the Division once substantial completion of the project has been reached.

Q. Okay. Okay.

8 A. I keep going to all of these terms or those9 provisions.

Q. Okay, okay, yeah, I don't need to go into them.
It looks like, you know, looking at anywhere from two to
three months from today before the final certification?
A. Yeah, which is pretty much on our schedule as we
anticipate.

15 Okay. Okay. So once the Wood group signs off, 0. 16 would there be any additional time after that before an 17 operator can commence operations other than routine 18 approvals for well operations that the Division always does? Mr. Bruce that's not a decision that I can make 19 Α. on my own. That will have to consult technical people with 20 the contractor, folks within the OCD to come to a decision 21 in that regard. 22

Okay. Well, the reason I'm asking this, Jim, is, you know, we are about ready to enter year three of two weeks to flatten the curve, and so I'm a little suspicious

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Page 22 of time projections at this point in my old life. I'm just 1 2 trying to get a handle on it for Mewbourne because -- I'm not going to go into the prehearing statement that's of 3 4 record, but they've got a lot of wells set to be completed 5 and they've got a lot of money sitting in the ground and they are kind of anxious. Let's put it that way. But I'm 6 glad to work with the Division, there is no doubt about 7 8 that, but of course, you know, time is money, as people say. 9 Speaking for myself, I would like to have this Α. 10 project in my rearview mirror as well, Mr. Bruce. 11 Q. I'm sure you have other stuff occupying your 12 time, also, so thank you. 13 MR. BRUCE: Thank you. That's all I have, Mr. 14 Examiner. 15 HEARING EXAMINER BRANCARD: Mr. Rose-Coss, questions? 16 17 TECHNICAL EXAMINER ROSE-COSS: It may be simple (inaudible) Mr. Griswold (inaudible). Can you describe the 18 depressurization process. My understanding of the time 19 line, so a week to finish backfilling and then what goes on 20 in the depressurization process? And then so -- and can you 21 also kind of quantify or at least wave your arms at the 22 risk. It sounds like the risk to the cavern caving in is 23 24 decreasing daily and is maybe low at the point of filling 25 next week, or am I incorrect in that assumption?

THE WITNESS: Well, the effort we are undertaking 1 now and have been since 2019 is not about stabilization of 2 the roof. It continues to fail, and it will continue to 3 4 fail. What we've been working on is mitigating the 5 consequence of that failure by backfilling that void. I'm 6 guessing by the look on your face you want me to say more. 7 TECHNICAL EXAMINER ROSE-COSS: When you're 8 backfilling the void, will you be able to determine kind of the level of status after that and then also comment on 9 10 what's involved in the depressurization or how --THE WITNESS: Oh, yes, certainly. We will know 11 12 fairly well once we finish the backfilling effort, we will 13 (inaudible) down the holes to find out what the final level 14 of injected sand is. 15 We know where the roof has been, it continues to (inaudible) so we will have an idea of how much volume we 16 were not able to backfill. And as the roof continues to 17 fail, it bulks up in a procedure known as stoping. 18 So at some point that upward migration or figure will stop, and 19 it's our projection that even with the backfill we've got 20 now, that it will stop short of adversely impacting 21 groundwater. 22 The depressurization process itself, to a large 23 24 extent what has been supporting that roof even though it 25 fails, possibly, has been the liquid in the void because

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Page 24 it's incompressible. So as part of our remediation process, 1 we needed to maintain that pressure. 2 So for every unit volume of injected sand, we 3 4 remove a volume of brine maintaining that pressure. Once we're at that point of putting as much backfill as we think 5 6 we can in there, the cavern will still be under pressure, 7 but we are going to relieve that pressure simply by bleeding 8 off the remaining brine. And while we do that, we've got, you know, a lot 9 10 of instrumentation out there to monitor ground movement, including microseismicity, to see how that goes. 11 12 TECHNICAL EXAMINER ROSE-COSS: I see. Thanks for 13 that explanation. I suppose I will not ask any more 14 questions. 15 HEARING EXAMINER BRANCARD: All right. Well, then let me ask a question. So the exhibits that I see we 16 17 have here, Mr. Tremaine and Mr. Griswold, are related to the September seismic sonar. 18 19 THE WITNESS: Yes, sir. 20 HEARING EXAMINER BRANCARD: We don't have any exhibits related to the more recent sonar. Is that correct? 21 22 MR. TREMAINE: You know, Mr. Hearing Examiner, we 23 did not utilize the January -- the sonar survey which was 24 received a couple of weeks ago. It -- it would certainly 25 be informative, but it wasn't available at the time of the

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1 application.

2	HEARING EXAMINER BRANCARD: So, Mr. Griswold, my
3	recollection is there are sort of two phases to sonar
4	investigation. One is the sonar company's report, which is,
5	to my layperson knowledge, just a whole bunch of
6	incomprehensible maps. And then I believe the Division has
7	relied on the general contractor, Wood, to provide its own
8	set of interpretation and analysis of the sonar. Is that
9	correct? And is that going to happen in this case?
10	THE WITNESS: Yes, it will. You are correct.
11	The sonar basically provides a three dimensional image of
12	what the void looks like within the constraints of the
13	technology itself. It's Wood's task, after any given
14	imaging sonar effort is undertaken, to ascertain what
15	progress has been made, what adverse consequences may still
16	be out there, those kinds of things, and if we need to
17	adjust the program in any way shape or form.
18	HEARING EXAMINER BRANCARD: So as I understand,
19	they have not provided that; is that correct?
20	THE WITNESS: I don't have any a sonar report
21	on the January 3 sonar, no, I do not.
22	HEARING EXAMINER BRANCARD: Have you discussed
23	the sonar with Wood?
24	THE WITNESS: Yes, sir, we have. We have
25	actually at least weekly technical meetings throughout the

1 project.

2 HEARING EXAMINER BRANCARD: Okay. So let me --3 I'm trying to figure out how much, you know, uncertainty 4 remains here. So let me ask the three issues that I'm aware of. One, the big issue would be the first project in 5 backfilling was an enormous amount of infiltration of 6 7 material so that, per the volume that went in, the amount of 8 void that got filled was a low percentage. Is that happening in this situation? 9 10 THE WITNESS: No. Since backfilling resumed in October, and we do sonar surveys, you can gauge how much 11 12 infiltration still occurred and it was only several thousand 13 yards initially and it is no longer an issue.

However, there are two factors that we need to consider still now; one is compaction of the material we have introduced, the second is whatever void that we can potentially fill, that the sonar could not see for whatever reason in that technology. So those are the two variables that still kind of sit out there.

HEARING EXAMINER BRANCARD: So there was a second issue which was that given how the material was put down a hole, that it was essentially forming a cone and that areas off to the side were not necessarily being filled up at the same rate.

25

My sense is that current project has employed

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1 technology to try to overcome that and to spread the 2 material around more evenly. Is that correct? Is that the 3 fact?

THE WITNESS: Yes. And when we first put together the project looking for funding to resume operations out there, you're correct, we were concerned that the injection point -- and there are actually several of them across the void -- we would build up those cones, these piles of sand, and the angle of repose is what the steepness of that cone looks like.

11 So assuming, based on the material and its grain 12 size, you can kind of predict what that angle of repose will 13 be, and then, as such, you couldn't backfill the areas 14 around those cones. And the estimate going in was that was 15 going to be about 23,000 yards of void that we could not 16 fill.

However, since that was first put forward and started operations in the field, we have been doing what we, on a regular basis, was hydraulic jetting where we actually inject brine water through (inaudible) into those piles to push that sand laterally.

As part of that last survey effort in January of this year, it firmed that up. And so we've got a very flat layer of sand down there which is very great, and as I say, we are going to be able to do a substantially better

Page 28 percentage of backfill than we anticipated going in. 1 2 HEARING EXAMINER BRANCARD: And part of that question of sand was you were pushing sand to the north, 3 correct, underneath the highway? 4 5 THE WITNESS: Yes. And that's based on some of 6 the injection was located further north than others, but we 7 get them all. 8 HEARING EXAMINER BRANCARD: You don't have an 9 injection point under the highway, you have to push the material? 10 THE WITNESS: Well, we do have one injection 11 point that's within the highway right-of-way, yes, but 12 13 there's still part of the void that extended further north into the highway, but based on the sonar logging, that has 14 been filled. 15 16 HEARING EXAMINER BRANCARD: Great. So are there 17 significant areas of uncertainty at this point that still need to be resolved through analysis? 18 19 THE WITNESS: I can't say yes or no. My 20 anticipation is there aren't many, if any. The one that might change that thinking is what that depressurization 21 looks like or what the effect of that depressurization is. 22 23 But perhaps the -- I shouldn't be as concerned -- we shouldn't be as concerned about that, 24 25 because, as I mentioned before, the roof is going to

Page 29 continue to fail, however, our backfilling means that the 1 2 impact of that failure has been mitigated to a significant 3 We are not going to have failure get up and affect extent. 4 groundwater. It is very unlikely we will see any surface 5 subsidence out there. So things are looking great. 6 HEARING EXAMINER BRANCARD: And so in terms of 7 timing, Mr. Bruce was asking about this, you mentioned the 8 depressurization, there is the final report from Wood, are 9 any of these points significant that we have to sort of wait 10 for them to happen before we're really feeling totally good about this project -- scientific? 11 12 THE WITNESS: Well, we should wait for Wood's 13 recommendation or report in that regard. 14 HEARING EXAMINER BRANCARD: Final report, not the 15 report on the sonar, but the final report. THE WITNESS: The final report. And there is one 16 17 other aspect of it that we're just entering it now is changing Wood's scope because we are going to likely realize 18 some cost savings in this project to have them undertake 19 some what we refer to as post backfill monitoring. 20 21 And so what, what that looks like, I'm unsure We need to get Wood to provide that to us, and then 22 yet. 23 the duration of that monitoring will also be a part of that 24 effort, and it may be that you can only lean out so far in 25 the future as to when you make another determination as to

Page 30 whether or not you need to continue monitoring it or not. 1 2 So it's not like just one day you stop injecting 3 sand and we all walk away. It doesn't quite work that way. 4 HEARING EXAMINER BRANCARD: I guess I will ask 5 question of both you, Mr. Griswold and Mr. Tremaine. The application proposed is, once the order is issued, and б 7 that's going to happen in the next few weeks, that there be 8 a 45-day pause, additional 45-day pause, and then an 9 additional set of conditions after the 45 days, including notice in advance of any continued drilling or completion 10 activity. 11 12 Based on Mr. Griswold's testimony, the time 13 frames that have been mentioned today, is the Division still 14 comfortable with the time frames that are in your 15 application? MR. TREMAINE: Mr. Hearing Examiner, yes, 16 17 because, if I could clarify a couple of things about those time lines we have been discussing, so the 30 days, 18 approximately, is a projection for the surface restoration. 19 The contract defines substantial completion to occur at the, 20 among other things, at the time the surface restoration is 21 22 completed. The final report from Wood, their deadline hinges 23 24 upon substantial completion, so they have 60 days after that 25 to submit the report. That doesn't mean it will take them

60 days. Based on the surface restoration estimate, right
 now Wood's deadline to submit the final report is
 approximately 90 days.

4 It may very well be before that. OCD will certainly be asking for it as quickly as possible, they have 5 6 an interest in getting that report as soon as possible. And the conditions of approval, so, one, the 45 days that was 7 8 requested, that amount of time was requested because those 9 are the conditions of approval that have been used by the 10 Division in the other case, and they are looking for a consistent playing field, for lack of a better term, and it 11 12 does provide for an extension.

13 So it could take more than 45 days. OCD could 14 work administratively under this order and conditions with 15 operators to, you know, to extend it out to 60 days or 16 what's necessary. But in the interest of, you know, 17 transparency of where we are in the project, we are talking 18 about this 90 days, that's ultimately what we expect to be 19 the deadline for that final report.

And the last point I make is that, you know, OCD is inconsistent in talking to operators and in the prior hearing about saying that the -- the director's determination when drilling and completion can recommence is going to hinge in part on the recommendation in that report. Obviously we don't know yet what it would say. The

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Page 32 expectation at the very least, it's going to say that 1 2 backfill has occurred to a greater extent than what was originally projected in the work plan, and that gets to that 3 4 mitigation of the consequences of the failure. 5 But as of right now the project is still ongoing, and the risk of roof collapse is the same as it was before, 6 7 but Wood having gone through that step of analyzing what 8 that risk is based on the new level of film. Did that adequately respond to your question? 9 10 HEARING EXAMINER BRANCARD: Yes. From the Division's perspective, that final report from Wood follows 11 12 on a whole series of other actions on the ground should be 13 the point at which the Division is comfortable with relative 14 success of this project in mitigating this threat? 15 THE WITNESS: Yes, sir, yes. HEARING EXAMINER BRANCARD: Or the final report 16 17 indicates that there is really some huge problem still remaining that we are not aware of today. We don't consider 18 that likely -- you don't consider that likely, but you have 19 to make sure that's not going to happen? 20 21 MR. TREMAINE: That's exactly correct, and that's why we are asking for the conditions of approval, to address 22 that unlikely and hopefully not occurring potentiality. 23 24 HEARING EXAMINER BRANCARD: Thank you. So then I 25 quess I will throw it back again to Mr. Rankin and Mr.

Page 33 Bruce, if you have any follow-up questions with that. And, 1 2 in particular, if you have any questions about those positions maybe that the Division is proposing in its 3 4 application. Mr. Rankin? 5 MR. RANKIN: Thank you, Mr. Examiner. I quess I just want to make clear and point out that the conditions of 6 7 approval that were imposed in Case 22102 are not the same 8 conditions that are being proposed here. So I just want to make sure that that's understood, those are different 9 10 conditions that were the result of that order in that case. And that, that is -- I just wanted to make sure the record 11 12 is clear in that point. 13 HEARING EXAMINER BRANCARD: Is it the intent of 14 the Division and SPC, that they replace those. SPC is not 15 specifically mentioned in this case. MR. RANKIN: Mr. Examiner, just to be clear, SPC 16 is not a party to this case, so, however -- well, I can 17 address that issue. SPC is requesting that the same 18 conditions that were imposed under Case 22012 be imposed on 19 it in its cases as a result of the extension request. 20 21 HEARING EXAMINER BRANCARD: The other cases that we heard today? 22 23 MR. RANKIN: That's right. 24 MR. TREMAINE: Are we talking about 22472 or the 25 other cases, because the intent of the application in the

Page 34 instant case was to mirror the conditions and the order in 1 2 22102 because this is an analogous set of wells which had 3 APDs and conditions that existed prior to OCD's issuance of 4 the emergency order. 5 The other cases, it is true that those APDs have 6 conditions of approval which are not the same as the order -- the commission's approval issued in the order in 7 8 Case 22102. Sorry, I don't have that order number in front 9 of me. If there is a difference between the conditions 10 of approval that are requested here, and those that were 11 12 submitted -- that were approved in order 22102, I would need 13 to go back and look at that because I don't believe that was 14 the intention. 15 HEARING EXAMINER BRANCARD: Mr. Rankin, you were the one that mentioned the difference. 16 17 MR. RANKIN: I'm confirming -- I believe Mr. Tremaine is correct, that the -- that the conditions that 18 were proposed in his application are the same as those that 19 were adopted in order 21888 in case 22102. Apologize for 20 misspeaking. 21 22 HEARING EXAMINER BRANCARD: Thank you. Anything further, Mr. Rankin? 23 24 MR. RANKIN: No. 25 HEARING EXAMINER BRANCARD: Mr. Bruce?

Page 35 1 MR. BRUCE: Nothing further, Mr. Examiner. 2 HEARING EXAMINER BRANCARD: All right. So, Mr. Bruce, you're aware of the conditions that are being 3 4 proposed in the application? 5 MR. BRUCE: Yes. And Mewbourne has reviewed the 6 application, and as stated in the prehearing statement, they will continue to work with the Division. 7 8 HEARING EXAMINER BRANCARD: Thank you. All right. Mr. Rose-Coss, did you have anything further? 9 10 TECHNICAL EXAMINER ROSE-COSS: Nothing further. HEARING EXAMINER BRANCARD: Mr. Tremaine, how 11 12 would you like to proceed? Do you just want the Division to 13 take this case under advisement, or did you want to propose 14 an order? Either way, we can do that. 15 MR. TREMAINE: Either way works for me, Mr. Hearing Examiner. I think we can submit a proposed order, 16 17 if that's your pleasure. 18 HEARING EXAMINER BRANCARD: Let me also just go back quickly, and this I think pertains more to Mr. Bruce 19 than Mr. Rankin, but Mr. Tremaine has requested that we take 20 notice of the record in 22102. The party in that, Mr. 21 Bruce, your clients were not, are you okay with referencing 22 the record in that order, case? 23 24 MR. BRUCE: That's okay, Mr. Examiner. 25 HEARING EXAMINER BRANCARD: Okay.

Page 36 MR. BRUCE: I would like it if Mr. Tremaine would 1 2 draft a proposed order and ship it around. 3 HEARING EXAMINER BRANCARD: Okay. 4 MR. BRUCE: It would make it cleaner for me to 5 pass it by my clients and make sure we are okay with everything. 6 7 HEARING EXAMINER BRANCARD: All right. 8 Mr. Tremaine, are you okay with that? You said you would do 9 it. 10 MR. TREMAINE: I'm fine with that, as long as I can do it next week. 11 12 MR. BRUCE: If you do it months from now, I would be happy, Mr. Tremaine, but --13 14 HEARING EXAMINER BRANCARD: You don't want that, 15 Mr. Bruce. MR. BRUCE: I know. I know. I just got too much 16 going on, anyway, but whenever Mr. Tremaine can get to it, 17 that would be okay with me. 18 HEARING EXAMINER BRANCARD: What would be a good 19 20 deadline, Mr. Tremaine? MR. TREMAINE: Let me, you know, at the risk of 21 being overly optimistic, I suspect this is going to work 22 very much like the order in 102. So how about next Friday 23 24 the 11th. 25 HEARING EXAMINER BRANCARD: You know what, I

Page 37 think you can just adopt the findings from that case and 1 2 then just add the findings that have happened since then, if that makes it a little easier. 3 MR. BRUCE: And Mr. Brancard, if I can --4 several days into the next week to respond if we so desire. 5 6 HEARING EXAMINER BRANCARD: I just added 7 (inaudible) so really, Mr. Tremaine, findings should focus 8 on the end case here of the project. 9 MR. TREMAINE: Understood. 10 HEARING EXAMINER BRANCARD: All right. If, Mr. Tremaine, you can have a draft order by the end of next 11 12 week, and then if, Mr. Rankin, Mr. Bruce, if you can get 13 comments back to me by the 18th. 14 MR. BRUCE: That would be great. Thank you. 15 HEARING EXAMINER BRANCARD: Do we have anything else for this case? 16 17 (No audible response.) 18 HEARING EXAMINER BRANCARD: We certainly appreciate the parties working together on this 19 unconventional issue that we have to face here. 20 So with that, Case 22472, the exhibits are 21 admitted into the record, and we have a proposed order by 22 23 February 11 and responses of the other party by February 18. 24 Mr. Tremaine, just ship the order around to everybody. 25 MR. TREMAINE: Excellent, thank you.

	Page 38
1	(Exhibits admitted.)
2	(Concluded.)
3	(Prehearing discussion held regarding procedural
4	scheduling issues.)
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1	STATE OF NEW MEXICO
2	COUNTY OF BERNALILLO
3	
4	REPORTER'S CERTIFICATE
5	
6	I, IRENE DELGADO, New Mexico Certified Court
7	Reporter, CCR 253, do hereby certify that I reported the
8	foregoing virtual proceedings in stenographic shorthand and
9	that the foregoing pages are a true and correct transcript
10	of those proceedings to the best of my ability.
11	I FURTHER CERTIFY that I am neither employed by
12	nor related to any of the parties or attorneys in this case
13	and that I have no interest in the final disposition of this
14	case.
15	I FURTHER CERTIFY that the Virtual Proceeding was
16	of poor to good quality.
17	Dated this 3rd day of February 2022.
18	/s/ Irene Delgado
19	Irene Delgado, NMCCR 253
20	License Expires: 12-31-22
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