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STATE OF NEW MEXICO
OIL CONSERVATION COMMISSION
SANTA FE, NEW MEXICO

EMPIRE NEW MEXICO; NEW MEXICO'S
OIL CONSERVATION DIVISION; RICE
OPERATING COMPANY; PERMIAN LINE
SERVICE, LLC; and PILOT WATER
SOLUTIONS SWD, LLC,

Plaintiffs,

v.

GOODNIGHT MIDSTREAM PERMIAN,
LLC,

Defendant.

Case Nos.

24123, 23614-17,
23775, 24018-20,
24025

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HEARING

DATE: Monday, May 19, 2025
TIME: 9:01 a.m.
BEFORE: Honorable Rip Harwood, Hearing Officer
Gerasimos Razatos, Chairman
LOCATION: Pecos Hall
First Floor, Wendell Chino Building,
1220 South St. Francis Drive
Santa Fe, NM 87505
REPORTED BY: Mariana Novoa
JOB NO.: 7225935

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17
18 ALSO PRESENT:
19 Sheila Apodaca, Clerk of the Oil Conservation
20 Commission
21 Dr. William Ampomah, Commission Member
22 Baylen Lamkin, Commission Member
23 Bill Knights (by videoconference)
24 Toby Holland (by videoconference)
25 Amanda Rabon (by videoconference)

A P P E A R A N C E S (Cont'd)

ALSO PRESENT:

Ryan Bailey (by videoconference)
Steve Drake (by videoconference)
Ernest Padilla (by videoconference)
Julia Caldaro-Baird (by videoconference)
Scott Birkhead (by videoconference)
Jim Griswold, EMNRD (by videoconference)
Philip Goetze, EMNRD (by videoconference)
Carl Chavez, EMNRD (by videoconference)
Patrick Walter (by videoconference)
Madai Corral, EMNRD (by videoconference)
Royce Lanning (by videoconference)
Greg Edwards (by videoconference)
John McBeth (by videoconference)
Jaclyn Burdine, EMNRD (by videoconference)
Kim Gordon (by videoconference)
Cory Smith, EMNRD (by videoconference)
Patrick Ryan (by videoconference)
Jonathan Markell (by videoconference)
Jim Davidson (by videoconference)
Rachel Chaput (by videoconference)
Jose Amaya (by videoconference)
Anibal Araya (by videoconference)
Austin Anderson (by videoconference)

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A P P E A R A N C E S (Cont'd)

ALSO PRESENT:

Dana S. Hardy (by videoconference)

David White (by videoconference)

Drew Dixon (by videoconference)

Lucy King (by videoconference)

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I N D E X

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By Mr. Wehmeyer 93

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P R O C E E D I N G S

MR. RAZATOS: Today is Monday, May the 19th, 2025. We have the continuation of our case that we've been hearing for some time now as part of the Oil Conservation Commission. But before we started, I wanted to take roll. As I stated, I'm Gerasimos Razatos. I am the acting director for the Oil Conservation Division and the acting chair for the Oil Conservation Commission.

I turn it over to Pecos Hall. We'll start with Dr. Ampomah for our roll call.

DR. AMPOMAH: Thank you. Good morning. My name is William Ampomah, professor, New Mexico Tech, and also designee of the Energy Secretary. Thank you.

MR. RAZATOS: Excellent. Thank you. Mr. Lamkin?

MR. LAMKIN: Good morning. My name is Baylen Lamkin. I'm the designee of the Commissioner of Public Lands petroleum engineer.

MR. RAZATOS: Excellent. So we are all present for the case. Just making sure that all parties are present as well. I always start on -- when I'm sitting in the auditorium, I start on my left-hand side and I move over to the right. We'll

1 start from that side with Empire, please.

2 MR. WEHMEYER: Corey Wehmeyer for
3 Empire. We're ready.

4 MR. RAZATOS: Excellent. Thank you,
5 Mr. Wehmeyer.

6 Mr. Rankin?

7 MR. RANKIN: Good morning, Mr. Chair.
8 Adam Rankin for Goodnight Midstream with my colleague,
9 Nathan Jurgenson.

10 MR. RAZATOS: Excellent. Thank you.

11 OCD?

12 MR. MOANDER: Chris Moander on behalf
13 of OCD.

14 MR. RAZATOS: Excellent.

15 Rice?

16 MR. BECK: Matt Beck on behalf of Rice
17 and Permian.

18 MR. RAZATOS: Great. Thank you.

19 And Pilot, are you on the platform?

20 MR. SUAZO: Yes. Good morning. Miguel
21 Suazo with Beatty & Wozniak appearing on behalf of
22 Pilot Water.

23 MR. RAZATOS: Excellent. Thank you,
24 Mr. Suazo.

25 Mr. Harwood, you're also on the

1 platform as well; correct?

2 THE HEARING OFFICER: Yes, sir. I see
3 my seat up there on the podium is empty, and I'm
4 filling it from a damp and chilly boatyard here in
5 Maine.

6 MR. RAZATOS: Well, there could be
7 worse places, though.

8 THE HEARING OFFICER: True.

9 MR. RAZATOS: And, Madam Court
10 reporter, I see that you're on as well; correct?

11 THE REPORTER: Yes. Hello. Good
12 morning.

13 MR. RAZATOS: Excellent. Thank you for
14 that.

15 Okay. So we're ready to start. This
16 is -- I'm sorry, did someone need to say something?
17 Okay. This is the consolidated cases by Goodnight
18 Midstream and Empire New Mexico. The case numbers are
19 case numbers 24123, 23614 through 17, case number
20 23775, and case numbers 24018 through 24020, and
21 24025. This is a matter to be heard by the
22 commission, and it's our continuation of our
23 evidentiary hearing.

24 Mr. Harwood, we transfer it over to
25 you.

1 THE HEARING OFFICER: Thank you,
2 Chairman Razatos.

3 Good morning, everybody. So before we
4 begin with what I understand will now be the last and
5 final witness, are there any preliminary matters?
6 I'll start with you guys, Empire.

7 MR. WEHMEYER: Not from Empire.

8 THE HEARING OFFICER: Mr. Rankin for
9 Goodnight?

10 MR. RANKIN: Nothing at this time,
11 Mr. Hearing Officer.

12 THE HEARING OFFICER: All right. Mr.
13 Moander, I know there's a settlement agreement that's
14 been reached in the dismissal of OCD from the case.
15 Is there anything you wish to put on the record in
16 connection with that at this point?

17 MR. MOANDER: Nothing, Mr. Hearing
18 Officer. I just wanted to appear today to be sure --
19 in case there was any lingering issues or opposition,
20 which I am not anticipating any. But I'll remain here
21 if there needs to be anything additional addressed.
22 Thank you.

23 THE HEARING OFFICER: Okay. And I
24 assume that you will successfully resist the habit and
25 temptation of cross-examination?

1 MR. MOANDER: That's part of the idea,
2 Mr. Hearing Officer, is for me to not work this case
3 any further at this stage.

4 THE HEARING OFFICER: Okay. Thank you.
5 Mr. Rankin, is it Mr. or Dr. McGuire?

6 MR. RANKIN: It's Mr. McGuire.

7 THE HEARING OFFICER: And will he be --
8 I don't see him on my screen, but that doesn't mean
9 he's not on another page. Is he appearing remotely or
10 in person?

11 MR. RANKIN: He's appearing remotely,
12 Mr. Hearing Officer. I think Ms. Apodaca has him now
13 up on the screen.

14 THE HEARING OFFICER: Okay. All right.
15 So I'm assuming that we're still operating under the
16 earlier agreement, which is, if I'm reading my notes
17 correctly, Goodnight will limit its direct examination
18 of this witness to no more than one and a quarter --
19 1.25, one and a quarter hours; is that correct?

20 MR. RANKIN: I believe that's correct.
21 We had discussed being able to bank time, but I
22 believe that that shouldn't be a problem with this
23 witness, being able to fit his direct within that
24 timeframe.

25 THE HEARING OFFICER: Okay. All right.

1 Great. Well, if you're ready to proceed -- I'm not
2 seeing Mr. McGuire on my screen. Let me move to
3 another page. There he is.

4 Good morning, Mr. McGuire. You're on
5 mute. If you'd please raise your right hand.

6 WHEREUPON,

7 PRESTON MCGUIRE,
8 called as a witness and having been first duly sworn
9 to tell the truth, the whole truth, and nothing but
10 the truth, was examined and testified as follows:

11 THE HEARING OFFICER: All right. Thank
12 you.

13 Mr. Rankin, your witness.

14 MR. RANKIN: Thank you, Mr. Hearing
15 Officer.

16 EXAMINATION

17 BY MR. RANKIN:

18 MR. RANKIN: Mr. McGuire, will you
19 please state your full name for the record?

20 MR. MCGUIRE: Preston McGuire.

21 MR. RANKIN: By whom are you employed
22 and in what capacity?

23 MR. MCGUIRE: I am employed by
24 Goodnight Midstream, and I am the geology and
25 reservoir engineering manager.

1 MR. RANKIN: Have you previously
2 testified before the New Mexico Oil Conservation
3 Commission?

4 MR. MCGUIRE: I have not.

5 MR. RANKIN: How about the division?

6 MR. MCGUIRE: I have not.

7 MR. RANKIN: Are you familiar with the
8 Goodnight Midstream applications that were filed in
9 these consolidated cases?

10 MR. MCGUIRE: I am.

11 MR. RANKIN: And are you also familiar
12 with the applications filed by Empire seeking to
13 revoke Goodnight's four saltwater disposal well
14 permits within the EMSU?

15 MR. MCGUIRE: I am.

16 MR. RANKIN: Is your curriculum vitae
17 attached as Goodnight Exhibit B1 to your written
18 direct testimony, which is marked as Exhibit B?

19 MR. MCGUIRE: Yes.

20 MR. RANKIN: Does it provide an
21 overview of your education and work experience as a
22 geological engineer?

23 MR. MCGUIRE: Yes.

24 MR. RANKIN: Do you seek to be
25 qualified as an expert in geological engineering

1 before the commission?

2 MR. MCGUIRE: I do.

3 MR. RANKIN: Have you conducted a study
4 of the geology of the area in and around the EMSU, in
5 particular the Grayburg and San Andres formations?

6 MR. MCGUIRE: I have.

7 MR. RANKIN: And have you also
8 conducted an engineering analysis of the reservoirs
9 that are found within the Grayburg and San Andres
10 formations?

11 MR. MCGUIRE: Yes, I have.

12 MR. RANKIN: Have you prepared written
13 direct, rebuttal, and supplemental testimony and
14 exhibits that are marked as Exhibit B and with
15 attachments Exhibits B1 through B64?

16 MR. MCGUIRE: Yes.

17 MR. RANKIN: And were those exhibits
18 prepared by you?

19 MR. MCGUIRE: They were, or under my
20 direction.

21 MR. RANKIN: Okay. Any corrections or
22 changes to the testimony or exhibits that were filed
23 in this case?

24 MR. MCGUIRE: There's one change that
25 needs to be made to one of the exhibits. I believe

1 it's Exhibit B47. There were some dates on that map
2 that need to be adjusted. But other than that, no.

3 MR. RANKIN: I think we're going to
4 address that in your direct summary. So when we get
5 to that, will you just please point out what needs to
6 be corrected?

7 MR. MCGUIRE: Yes, I will.

8 MR. RANKIN: With the exception of
9 those corrections to Exhibit B47, do you adopt the
10 testimony and the self-affirmed statement and your
11 direct statement and your rebuttal statement and your
12 supplemental statement that are marked as Exhibit B as
13 your sworn testimony today?

14 MR. MCGUIRE: I do.

15 MR. RANKIN: At this time,
16 Mr. Examiner, I would -- Mr. Hearing Officer, I would
17 tender Mr. McGuire as an expert witness in geological
18 engineering.

19 THE HEARING OFFICER: Any objection,
20 Empire?

21 MR. WEHMEYER: We do object. The
22 witness has zero education in engineering, zero
23 experience in engineering, no certifications, is no
24 member of any engineering society or affiliated group.
25 I think it's an incredibly dangerous precedent for

1 this OCC to recognize somebody with such an utter
2 paucity of education and qualifications as an
3 engineer. We have no objection to him being
4 acknowledged as a geologist, but he is no engineer.

5 THE HEARING OFFICER: Do you want an
6 opportunity to voir dire the witness on
7 qualifications?

8 MR. WEHMEYER: That would be
9 appropriate at this stage, I think.

10 THE HEARING OFFICER: All right. Don't
11 prolong that. I'll give you ten minutes.

12 MR. WEHMEYER: Thank you.

13 EXAMINATION

14 BY MR. WEHMEYER:

15 MR. WEHMEYER: Mr. McGuire, what did
16 you get your bachelor's degree in?

17 MR. MCGUIRE: Bachelor of science in
18 geology, with an emphasis in petroleum geology.

19 MR. WEHMEYER: Where?

20 MR. MCGUIRE: Western State Colorado
21 University.

22 MR. WEHMEYER: Western State Colorado
23 University does not have its own engineering school.
24 Doesn't it partner with University of Boulder
25 Colorado -- University of Colorado Boulder?

1 MR. MCGUIRE: I believe so.

2 MR. WEHMEYER: It also has no petroleum
3 engineering classes, does it?

4 MR. MCGUIRE: I don't know, currently.

5 MR. WEHMEYER: When you attended there,
6 it also had no petroleum engineering classes, did it?

7 MR. MCGUIRE: I don't believe so, no.

8 MR. WEHMEYER: Where did you get your
9 master's degree?

10 MR. MCGUIRE: TCU.

11 MR. WEHMEYER: The master's degree is
12 in what?

13 MR. MCGUIRE: Geology.

14 MR. WEHMEYER: With respect to TCU,
15 they offer no petroleum engineering degree, do they?

16 MR. MCGUIRE: I -- I don't know.

17 MR. WEHMEYER: They have mechanical
18 engineering and civil engineering, but no petroleum
19 engineering on campus in any shape, form, or fashion;
20 isn't that true?

21 MR. MCGUIRE: Unaware.

22 MR. WEHMEYER: TCU does not offer any
23 classes in petroleum engineering, do they?

24 MR. MCGUIRE: That's not true.

25 MR. WEHMEYER: With respect to the

1 societies, I'm going to bring up your resume off of
2 LinkedIn. Do you keep your LinkedIn resume current?

3 MR. MCGUIRE: I don't know. I haven't
4 updated it in quite some time.

5 MR. WEHMEYER: If the commissioners
6 wanted to look at your -- and we can do this either
7 way. In your exhibits, you have a CV. On your
8 LinkedIn profile page, you have very similar material.
9 Are you a member of any engineering group whatsoever?

10 MR. MCGUIRE: I was a member of SPE for
11 a while, but I think I've let that lapse. I haven't
12 paid the dues this year.

13 MR. WEHMEYER: It's not on the CV that
14 Mr. Rankin just asked you about, is it?

15 MR. MCGUIRE: I don't believe so, no.

16 MR. WEHMEYER: And so if the
17 commissioners want to know if there's a single entry
18 on your CV that I think he's going to offer for
19 evidence, you could tell the commissioners that you've
20 identified no engineering affiliations in there
21 whatsoever; isn't that true?

22 MR. MCGUIRE: That's probably true for
23 the CV.

24 MR. WEHMEYER: You have no PE. No
25 state, be it New Mexico or anywhere else, has ever

1 acknowledged you as a professional engineer?

2 MR. MCGUIRE: That would be true. I do
3 not --

4 MR. WEHMEYER: In terms of testimony, a
5 tribunal, a district court, a federal district court,
6 state district court, a regulatory body such as the
7 OCC here, or the OCD, or the Railroad Commission of
8 Texas, or a regulatory body in North Dakota, nobody,
9 no court has ever in the history of time recognized
10 you as an expert in engineering; isn't that true?

11 MR. MCGUIRE: This is my first time
12 doing this, so yes, that would be true.

13 MR. WEHMEYER: And so to just put a bow
14 around that, if this OCC wants to know if it would be
15 the first tribunal that would have ever recognized you
16 as an expert in any kind of engineering, you would
17 agree this would be the very first time; correct?

18 MR. MCGUIRE: That's correct.

19 MR. WEHMEYER: Ignoring any commission
20 district court, be it state or federal or regulatory
21 body, ever acknowledging you as an engineering expert,
22 nobody's ever hired you as an expert in engineering,
23 have they?

24 MR. MCGUIRE: That's not true.

25 MR. WEHMEYER: What third party hired

1 and retained you as an expert in engineering?

2 MR. MCGUIRE: My current role today.

3 MR. WEHMEYER: Oh, you're talking about
4 Goodnight?

5 MR. MCGUIRE: Yes.

6 MR. WEHMEYER: Okay. Outside of the
7 party that's in litigation here, nobody has ever hired
8 you as an expert in engineering; is that right?

9 MR. MCGUIRE: That's true.

10 MR. WEHMEYER: Additionally, the idea
11 that Goodnight hired you as an expert in engineering,
12 that's not true either, is it?

13 MR. MCGUIRE: No. My role -- a
14 significant part of my role and my work experience
15 here at Goodnight has been in reservoir engineering.

16 MR. WEHMEYER: The truth is that
17 approximately seven years ago you were hired by
18 Goodnight as a geologist, not an engineer; isn't that
19 true?

20 MR. MCGUIRE: Well, that was my title.
21 But throughout that time, probably about half my
22 workload has been reservoir engineering based.

23 MR. WEHMEYER: My question is what they
24 hired you for. I'll just publish your LinkedIn bio.
25 And I can only go off of what you actually offered in

1 the evidence of the case by way of the CV that Mr.
2 Rankin discussed. But if we go down to when -- you
3 had three summer internships before joining Goodnight;
4 is that right?

5 MR. MCGUIRE: Yes. Yes, that's
6 correct. Yeah.

7 MR. WEHMEYER: So if the commission
8 wants to know about experience before joining
9 Goodnight, your only experience would have been three
10 summers, and those would have been geology summer
11 internships; correct?

12 MR. MCGUIRE: Primarily, yes. But
13 for -- when working at Antero, yeah, that's a
14 multidisciplinary team where you're working in all
15 aspects of oil and gas production, including reservoir
16 engineering.

17 MR. WEHMEYER: Then you were hired as a
18 geologist by Goodnight in 2017, about seven years ago?

19 MR. MCGUIRE: Closer to eight.

20 MR. WEHMEYER: And according to this,
21 you didn't list engineering as part of your job
22 function, did you?

23 MR. MCGUIRE: It's on my CV.

24 MR. WEHMEYER: I'm talking about what
25 you've posted to the consuming public on the internet.

1 You don't list engineering as part of your job
2 responsibilities at Goodnight, do you?

3 MR. MCGUIRE: Well, this is just
4 stating my title. Yes, my title is geologist, but a
5 big part of my work is reservoir engineering based.
6 We could look at the CV and -- and see those
7 descriptions.

8 MR. WEHMEYER: The first time that
9 Goodnight acknowledged you as a engineer would have
10 been in October/November of 2023 while litigation was
11 well underway already; correct?

12 MR. MCGUIRE: I don't know if
13 litigation was well underway at that point.

14 MR. WEHMEYER: You don't remember the
15 timing of the permit protests?

16 MR. MCGUIRE: Well, if that's what
17 we're calling litigation, then sure. But I don't
18 think that --

19 MR. WEHMEYER: Now, with respect to the
20 engineering involved here, you can tell the commission
21 in your witness statements you have discussion about
22 ROZ; correct? R-O-Z?

23 MR. MCGUIRE: That would be true.

24 MR. WEHMEYER: Goodnight Midstream is a
25 trash company. It is not an oil producer, is it?

1 MR. MCGUIRE: We have some production
2 wells.

3 MR. WEHMEYER: I didn't see anywhere in
4 your materials that there was any experience or work
5 by you to produce one single barrel of oil. Can the
6 commissioners find that anywhere in your CV materials?

7 MR. MCGUIRE: No, that's not our
8 primary business.

9 MR. WEHMEYER: Okay. So with respect
10 to what you would do if you wanted to claim to be an
11 engineer -- you have not assisted in the production of
12 one single drop of oil; isn't that true?

13 MR. MCGUIRE: That's not true.

14 MR. WEHMEYER: With respect to modeling
15 actual ROZs, you have never modeled an ROZ before,
16 have you?

17 MR. MCGUIRE: Can you define "model"?

18 MR. WEHMEYER: Prepare an economic
19 reserve summary of hydrocarbons in an ROZ.

20 MR. MCGUIRE: That would be true.

21 MR. WEHMEYER: In terms of a drilling
22 engineer, a completion engineer, a facilities
23 engineer, a reservoir engineer on ROZ oil, you've
24 never done that before in your entire life, have you?

25 MR. MCGUIRE: Specific to ROZ oil, that

1 would be correct.

2 MR. WEHMEYER: You've also received no
3 education on ROZ; isn't that true?

4 MR. MCGUIRE: Yeah. I don't think -- I
5 don't know if there's any classes out there that are
6 specific to ROZ.

7 MR. WEHMEYER: My question is you've --
8 we've talked about your utter lack of any experience
9 whatsoever in your life with ROZ, and I'm not -- if
10 I'm saying something amusing, I apologize. I mean,
11 it's a serious proceeding, and I'm trying to be
12 serious with you here. We've talked about zero
13 experience. If the commissioners want to know about
14 your education on ROZ, you would tell them you have
15 zero of that; isn't that true?

16 MR. MCGUIRE: Yes. I have not worked
17 an ROZ in producing an ROZ. That would be correct.

18 MR. WEHMEYER: In the history of time,
19 no tribunal has recognized you as any expert in ROZ
20 and nobody has hired you to be an expert in ROZ; isn't
21 that true?

22 MR. MCGUIRE: That would be true.

23 MR. WEHMEYER: With respect to other
24 opinions that you have in this case pertaining to
25 water chemistry, you are not a chemist, are you?

1 MR. MCGUIRE: Never claimed to be.

2 MR. WEHMEYER: You've received no
3 education in chemistry, have you?

4 MR. MCGUIRE: That's not true.

5 MR. WEHMEYER: Where on your CV that
6 Mr. Rankin is about to offer in evidence would we find
7 expertise or education in chemistry?

8 MR. MCGUIRE: Chemistry is a part of
9 getting a science degree. You have to take chemistry.

10 MR. WEHMEYER: With respect to -- if
11 the commission wants to know whether they would be the
12 first tribunal that accepts your sworn testimony and
13 recognizes you as an expert in water chemistry, you
14 can tell them nobody in the history of time has ever
15 done that, have they?

16 MR. MCGUIRE: Has ever done what?
17 Sorry.

18 MR. WEHMEYER: Recognized you as a
19 water chemistry expert.

20 MR. MCGUIRE: Yeah, having claimed to
21 be.

22 MR. WEHMEYER: You do not claim to be a
23 water chemistry expert; true?

24 MR. MCGUIRE: Yeah. I mean, I can -- I
25 can read data and understand basic data sets relating

1 to chemistry. But to the inner workings of chemistry
2 and the mechanisms that are behind it, no, I would not
3 claim to be an expert in chemistry.

4 MR. WEHMEYER: Have you been listening
5 to all of these proceedings?

6 MR. MCGUIRE: Yeah, the vast majority
7 of them. I've had to step out for a few of the
8 witnesses from time to time. But the vast majority.

9 MR. WEHMEYER: Have you heard your
10 Goodnight witnesses actually testify that you were
11 going to be the water chemistry person here today?

12 MR. MCGUIRE: No. That would have been
13 Tom Tomastik.

14 MR. WEHMEYER: Perfect. So if the
15 commission wants to know about water chemistry,
16 they've heard everything they're going to hear from
17 Goodnight Midstream; true?

18 MR. MCGUIRE: Well, I've done some
19 review of some of the documents that have been
20 provided from Empire, and just looking at the data set
21 there and compared the data sets.

22 MR. WEHMEYER: My question is about
23 expertise, because in terms of locating the SWD wells
24 that are in litigation here, you were not the person
25 that picked those locations or drilled those wells,

1 were you? That was all done before?

2 MR. MCGUIRE: No. No. Yeah, that
3 was -- I was at the company at the time and was
4 involved in conversations. But no, I was not
5 overseeing the project.

6 MR. WEHMEYER: So we know you're not a
7 fact witness. And so the question then is the matter
8 of expertise and water chemistry expertise. And I
9 think you've already conceded and given me that you
10 would not hold yourself out as a water chemistry
11 expert; isn't that true?

12 MR. MCGUIRE: Sure. Yeah. I
13 wouldn't -- I -- I definitely would not call myself a
14 chemist, but I can -- I can read data sets and compare
15 data sets.

16 MR. WEHMEYER: I pass the witness and
17 renew the objection of Empire that the witness is not
18 educated or qualified as an engineer in any capacity
19 or on the matters of ROZ or on the matters of water
20 chemistry, which permeate repeatedly the sworn written
21 testimony that he's offered to the commission in the
22 original witness statement, the rebuttal witness
23 statement, and the supplemental witness statement.
24 Thank you.

25 THE HEARING OFFICER: Mr. Rankin, is

1 the witness being offered as the water chemistry
2 expert?

3 MR. RANKIN: No, Mr. Hearing Officer,
4 he's not. He testifies as to it. He has background
5 experience managing water chemistry as a saltwater
6 disposal company, similar to the way Mr. West
7 testified about water chemistry. He's an engineer,
8 has no qualifications or expertise in water chemistry.

9 However, as part of his job obligations
10 and responsibilities as the manager of reservoir
11 engineering and geology for Goodnight Midstream, with
12 oversight over the operations of all of its disposal
13 wells in New Mexico, Texas, and North Dakota, he has a
14 lot of responsibility to understand the functionality
15 of the saltwater disposal wells, how they are scaling
16 or not, the corrosion issues.

17 And so he has a lot of practical
18 experience working with his team and overseeing the
19 health and functionality of his saltwater disposal
20 wells. So he has actually a lot of on-the-job
21 experiences. So that's -- I intend to offer him based
22 on that experience and background managing these
23 saltwater disposal wells with his chemistry
24 experience.

25 THE HEARING OFFICER: Well, I heard you

1 were offering him as an oil reservoir geologist and a
2 geologic engineer.

3 MR. RANKIN: That's true. And I think
4 to the extent he testifies about chemistry and
5 management relates to his oversight and managing
6 saltwater disposal wells as part of his obligations
7 and job responsibilities as a manager of all
8 Goodnight's injection wells.

9 THE HEARING OFFICER: Okay. Given Mr.
10 Wehmeyer's questions, I'll give you an opportunity to
11 question the witness more at this point in time about
12 his education, training, and/or experience.

13 MR. RANKIN: Thank you, Mr. Hearing
14 Officer.

15 EXAMINATION

16 BY MR. RANKIN:

17 MR. RANKIN: Mr. McGuire, just in terms
18 of your experience doing reservoir engineering as part
19 of your job responsibilities when you first were hired
20 by Goodnight Midstream, will you please just give us
21 an overview of -- from the time you were first brought
22 on to Goodnight in 2017, please give us an overview of
23 your job responsibilities and duties as they pertain
24 to reservoir engineering.

25 MR. MCGUIRE: Sure. So we put -- we

1 put fluid in -- in the ground; right? And so it's
2 pretty difficult to separate the rock from the fluid
3 that you're injecting into that rock. So you have to
4 have an understanding of the rock, as well as how that
5 fluid goes into that rock, and that -- all that -- the
6 latter half of that is all reservoir engineering
7 based.

8 I've been working with reservoir engineering
9 since my time at Goodnight, and roughly half of my
10 responsibilities since being at Goodnight were
11 reservoir engineering based. I've had training in
12 engineering over these last eight years, and I'm
13 competent in -- in reservoir engineering as it
14 pertains to putting fluid in the ground.

15 MR. RANKIN: I'm going to pull up your
16 resume and CV, Mr. McGuire, and I'm going to ask you
17 just to highlight, starting in May 2017 through May
18 2021, when you were hired with the title as a
19 geologist, what specifically did you do that relates
20 to reservoir engineering?

21 MR. MCGUIRE: So drill and complete
22 wells. That has stuff to do with reservoir
23 engineering. But primarily, it's monitoring the --
24 the saltwater disposal wells and how they perform over
25 time and their well health. I think there's more

1 pertinent information as we scroll up in this.

2 MR. RANKIN: Okay. But just to be
3 clear, from the time you were hired -- and who hired
4 you at Goodnight?

5 MR. MCGUIRE: Mr. Steve Drake.

6 MR. RANKIN: Okay. And when he hired
7 you, what were the job duties that you undertook at
8 the time of your hiring?

9 MR. MCGUIRE: Yeah. So started mapping
10 reservoirs, as well as looking at injection
11 performance of how our wells were operating over time
12 and how efficient they were putting water into the
13 ground. And if there was a change in that, then we
14 would discuss and understand why that change occurred,
15 and seek remedies to fix it.

16 MR. RANKIN: Okay. So scrolling up
17 here, when you were assigned the title of senior
18 geologist, explain during this timeframe what you did
19 that qualified as a reservoir engineering experience.

20 MR. MCGUIRE: So yeah, it says right
21 here, reservoir analysis system performance for
22 managing -- for management and stakeholders.
23 Operational challenges, a lot of that is based on
24 reservoir engineering and -- and not geology.
25 Innovative solutions to enhance injection efficiency.

1 That's reservoir engineering. Monitor the injection
2 data to analyze well health. I've already kind of
3 covered that a bit. Understanding injection capacity.
4 That's all reservoir engineering.

5 A lot of what I do also is -- we look at the
6 oil and gas production of our customers to understand
7 how much water we think that they're going to be
8 sending us. So we do decline curve analysis on those
9 wells to make sure that, if we're going to build a
10 pipeline to somewhere, that it's worth building that
11 pipeline, and there's going to be sufficient volumes
12 coming out of those wells to pay for the -- pay for
13 the project.

14 MR. RANKIN: When you say -- just to be
15 clear, Mr. McGuire, is that something you personally
16 were responsible for doing?

17 MR. MCGUIRE: Yes. Yeah.

18 MR. RANKIN: Okay. Is there anything
19 further during this period as a senior geologist that
20 you can speak to about reservoir engineering?

21 MR. MCGUIRE: Yeah. So I -- I guess I
22 could go into the details of what that looks like to
23 understand injection performance. So I've experienced
24 analyzing step rate tests, fall off tests, bottom hole
25 pressure analysis, fall plot analysis, scaling index,

1 injectivity index. Again, then going back to the
2 production stuff, decline curve analysis, inventory
3 analysis, EUR mapping. Those are some examples of --

4 MR. RANKIN: So I want to just
5 understand a little more detail. When clients or
6 potential customers come to Goodnight with a proposal
7 for you to take on water, what was your responsibility
8 to evaluate that request, and what exactly did you do
9 to analyze whether or not Goodnight had the capacity
10 to take on that water?

11 MR. MCGUIRE: Well, yeah. So we see
12 how much capacity we think we have on our system. So
13 you know, we look at our -- how our wells are
14 performing and -- and understand if there's any excess
15 capacity that can be sold to a client. And then we
16 look at, okay, how much water does -- is the client
17 saying they need disposal operations for? They'll
18 send us a forecast, and we'll do a review of the area
19 that they're planning to develop, and make sure that
20 we agree with their forecast.

21 MR. RANKIN: And tell me specifically
22 how that review that you do to evaluate their forecast
23 involves reservoir engineering skills and experience?

24 MR. MCGUIRE: Yeah. So we do decline
25 curve analysis. We develop type curves for different

1 areas. Understand how many remaining locations we
2 think are left to be drilled. And in the aggregate,
3 that can give us what we think -- how much water we
4 think that a certain area is going to produce. We use
5 that to underwrite the cash flows on that system
6 and -- and get us comfortable with building a pipeline
7 to that developing area.

8 MR. RANKIN: And that's a job that was
9 your responsibility with the company as a senior
10 geologist; correct?

11 MR. MCGUIRE: That's correct.

12 MR. RANKIN: And that was assigned to
13 you for what areas of Goodnight's footprint?

14 MR. MCGUIRE: The entire company.

15 MR. RANKIN: Okay. Now, Goodnight
16 Midstream then hired you to be their manager of the
17 reservoir engineering and geology; correct?

18 MR. MCGUIRE: That's correct.

19 MR. RANKIN: And tell me about your job
20 responsibilities here and how much time approximately
21 you spend doing reservoir engineering in this
22 capacity.

23 MR. MCGUIRE: Well, it varies from time
24 to time. It can be, you know, way more than half of
25 my job if we're not, you know, actively mapping

1 reservoirs and doing geology. A lot of my job is
2 overseeing reservoir engineers that we have here, or
3 consulting reservoir engineers for any consulting work
4 that we have. I understand the basic -- or the
5 concepts of -- of reservoir engineering and how they
6 play into our role as a saltwater disposal company.

7 MR. RANKIN: Now, Goodnight
8 Midstream -- just give us a little background on
9 Goodnight Midstream. Tell me a little bit about the
10 footprint and where Goodnight Midstream has
11 operations.

12 MR. MCGUIRE: Yeah. So we operate in
13 North Dakota. We're the largest mover of saltwater in
14 the Bakken. And then we also have operations in the
15 Delaware Basin, Central Basin Platform, Midland Basin,
16 as well as South Texas in Eagle Ford. We have roughly
17 around 65 saltwater disposal wells, which I am the
18 manager of. I -- I have to keep up with all of those
19 wells and make sure that they're performing
20 adequately.

21 MR. RANKIN: So Goodnight Midstream,
22 when it hired you to be the manager of their entire --
23 and your job is to manage all those, correct, across
24 the entire footprint?

25 MR. MCGUIRE: That's correct.

1 MR. RANKIN: And when Goodnight
2 Midstream hired you, they entrusted you with the job
3 of overseeing their entire reservoiring program;
4 correct? Reservoir engineering program; correct?

5 MR. MCGUIRE: That would be correct.

6 MR. RANKIN: Now, you mentioned that
7 Goodnight Midstream actually does oversee -- does
8 manage some production of oil wells; is that correct?

9 MR. MCGUIRE: Yeah, we have a few of
10 them.

11 MR. RANKIN: And that falls within your
12 duties as well; correct?

13 MR. MCGUIRE: That's correct.

14 MR. RANKIN: Okay. Mr. McGuire, thank
15 you for your time.

16 Mr. Hearing Officer, we oppose the
17 objection here. I believe that it goes to weight, if
18 anything. Empire themselves had a witness who was a
19 geological engineering expert. And with the
20 commission and their expertise, they can weigh
21 Mr. McGuire's testimony based on his experience and
22 the veracity and the reasonableness of his opinions.

23 THE HEARING OFFICER: Okay. All right.
24 Thank you, Mr. Rankin. Can you please stop screen
25 sharing and save our eyeballs here on the platform?

1 Thank you.

2 MR. WEHMEYER: May I respond very
3 briefly?

4 THE HEARING OFFICER: Just a minute,
5 Mr. Wehmeyer. I want to make sure we cover all our
6 bases here.

7 Rice, what's your position?

8 MR. BECK: Mr. Hearing Officer, as you
9 pointed out, and as the courts including the US
10 Supreme Court Sixth Circuit have held, expertise is
11 not only based on education. It's also based on
12 training and experience.

13 Mr. McGuire has eight years of
14 experience in reservoir engineering. He oversees the
15 reservoir engineering program of Goodnight for at
16 least the last two years. I did not hear any -- in
17 voir dire, I did not hear any voir dire of the content
18 of his report, which is lengthy. As we all saw, it
19 has three different parts. I didn't hear any inquiry
20 into analysis that he performed incorrectly, analysis
21 that was -- I'm sure we'll get to that.

22 But I think that his expert report
23 analysis shows that he has the technical expertise to
24 be accepted as an expert. And as Mr. Rankin said, the
25 objection at this point goes to weight and not

1 evidence. Throughout case law, you'll see that
2 machinists, mechanics are oftentimes accepted as
3 experts, including engineering experts, based solely
4 on their experience and training.

5 So Mr. McGuire is competent in the
6 areas that he is being tendered as an expert in, and
7 I'm sure that we'll hear significant cross-examination
8 about the underlying data and perhaps his application
9 of that data. But this so far goes to weight and not
10 the admissibility of his expert testimony.

11 THE HEARING OFFICER: All right. Thank
12 you, Mr. Beck.

13 Pilot? Mr. Suazo?

14 MR. SUAZO: Pilot agrees with Rice's
15 position and Goodnight's position. I don't have
16 anything to add, so no objections to this witness
17 being recognized as an expert.

18 THE HEARING OFFICER: Okay. Mr.
19 Wehmeyer, I don't want to beat a dead horse. So I
20 mean, what else, if anything, have you got to add?
21 And you know, please, one or two sentences would be
22 great.

23 MR. WEHMEYER: This commission has an
24 important gatekeeping function. Goodnight has made
25 clear that it intends to use the state of New Mexico

1 as a dump site. As we go forward, it is a dangerous
2 precedent to set to acknowledge somebody with this
3 utter absence of education or experience in reservoir
4 engineering as an expert before this proceeding in
5 terms of the actual evidence that has come in.

6 As you perform your gatekeeping
7 function, this is not a matter of weight. You've
8 heard no education in engineering. You've heard no
9 experience whatsoever in engineering. You've heard no
10 training on the job in engineering. What he said is
11 he works as part of a multidisciplinary team. That
12 does not make him a landman. That does not make him
13 an engineer. That doesn't make him an accountant.
14 That doesn't make him a lawyer.

15 The point is that there are experts to
16 perform these functions of which he is not. He works
17 on a team that includes him. Every engineer in this
18 room should be offended by the idea that this man is
19 an engineer. I know many of them are offended.

20 THE HEARING OFFICER: All right. Thank
21 you, Mr. Wehmeyer. Your objections are noted, but I'm
22 going to rule in favor of Goodnight on this.

23 You know, first of all, the rigorous
24 standards, gatekeeping standards that might apply to
25 experts in court proceedings are somewhat relaxed

1 here. And not only is this an administrative, not a
2 court proceeding, but you know, we have a panel of OCC
3 members who themselves have deep technical
4 backgrounds, and they are better qualified than your
5 average lay jury to assess the depth and
6 qualifications of experts that appear before them.

7 So I do agree with Mr. Rankin and
8 Mr. Beck that this goes to the weight and not the
9 admissibility of the witness's testimony. So he'll be
10 recognized as an oil reservoir geologist and a
11 geologic engineer. And of course, you can make
12 objections as we go along.

13 You know, he testified that a big part
14 of his work is engineering. He's got eight years of
15 on-the-job training. And I think, at times,
16 Mr. McGuire said that at least half of his work
17 involved engineering. So you know, there's a first
18 time for every expert, and I guess this is
19 Mr. McGuire's.

20 All right. So Mr. Rankin, with that,
21 you can proceed, and I'm going to start your stopwatch
22 now. We're not going to count all this voir dire
23 against you. So your one-and-a-quarter hour starts
24 now.

25 MR. RANKIN: Thank you, Mr. Hearing

1 Officer. At this time, I would also move the
2 admission into evidence of Mr. McGuire's direct,
3 rebuttal, and supplemental testimony, marked as
4 Exhibit B, and the attached exhibits B1 through B64.

5 THE HEARING OFFICER: Empire?

6 MR. WEHMEYER: We object. With respect
7 to the -- there are numerous opinions concerning water
8 chemistry and water chemistry analyses. The witness
9 has sworn under oath he is no such expert, and he is
10 also no fact witness. There is no place in this sworn
11 testimony for this witness to have any opinions about
12 water chemistry. All of those should be stricken.

13 Additionally, opinions on ROZ and
14 economic feasibility of ROZ here in the EMSU permeate
15 the opinions. The witness has zero education, zero
16 experience with ROZ. You could pick somebody off the
17 street would know as much about ROZ as this witness.
18 All of those statements require exclusion for the
19 reason that there's been no showing during the voir
20 dire or the sworn statements that he has any such
21 experience.

22 And in fact, it's been established, to
23 the extent he could have any experience over the last
24 seven to eight years at Goodnight, they do not produce
25 oil. No hydrocarbons come out of the ground. They

1 dispose of saltwater. That's what they do. And so
2 the idea that this witness would have opinions in this
3 case on ROZ is inappropriate. All of those should be
4 stricken.

5 Additionally, I respect your decision
6 with respect to admissibility in the first place by
7 way of the testimony. We would also object to all of
8 the reservoir engineering opinions for the same reason
9 I stated back at the qualifications. But at a bare
10 minimum, the water chemistry and ROZ require
11 exclusion.

12 THE HEARING OFFICER: Okay. Rice?

13 MR. BECK: No objection. Again, I
14 think this goes to the weight, not the admissibility.
15 And I'm sure on cross-examination we'll hear that.

16 THE HEARING OFFICER: Pilot?

17 MR. SUAZO: No objections.

18 THE HEARING OFFICER: Okay. The
19 exhibits will be admitted over Empire's objections.

20 THE HEARING OFFICER: And of course, we
21 expect, Mr. Wehmeyer, your usual vigorous
22 cross-examination.

23 MR. RANKIN: Thank you.

24 //

25 //

1 DIRECT EXAMINATION

2 BY MR. RANKIN:

3 MR. RANKIN: Mr. McGuire, have you been
4 present or did you listen to the testimony provided by
5 all the witnesses presented during this proceeding?

6 MR. MCGUIRE: The vast majority. Like
7 I said earlier, I had to step out for parts of the
8 expert testimony, particularly Mr. West and Mr.
9 Wheeler. I had to step out for -- at times during
10 those testimonies.

11 MR. RANKIN: Okay. And have you
12 reviewed the written testimonies of all the witnesses
13 that have been submitted as part of this proceeding?

14 MR. MCGUIRE: I have.

15 MR. RANKIN: Did you prepare summary
16 slides reflecting your up-to-date opinions based upon
17 observing the testimony provided during this hearing?

18 MR. MCGUIRE: I have.

19 MR. RANKIN: Mr. McGuire, I'll move
20 over to -- and share my screen so we can review your
21 summary slides. Sliding over to number 2, slide 2,
22 this shows your Exhibit B3 from your direct testimony.
23 Just give us an overview, if you would, of Goodnight's
24 operations --

25 MR. MCGUIRE: Oh, sorry, did you cut

1 out? Do I still have audio?

2 MR. RANKIN: We can hear you.

3 MR. MCGUIRE: Okay. So yeah, this is a
4 map that's depicting our Llano system. It takes water
5 from the Delaware Basin and moves it to the Central
6 Basin platform where we've identified a world-class
7 disposal reservoir. It contains 110 miles of pipe, 11
8 active disposal wells, 6 water recycling facilities,
9 which are shown by the green dots along the pipeline
10 there.

11 We have 13 dedicated operators connected
12 to 29 different receipt points. Oh, sorry, I messed
13 that up. The -- the 29 different receipt points are
14 the green dots along the pipeline there. We provide
15 disposal services for about 640 producing wells at the
16 time of my testimony, but that -- that's grown a bit
17 since my testimony was submitted.

18 Our thesis here was to take water from the
19 Delaware Basin where there's been issues with
20 saltwater disposal wells, induced seismicity. The
21 bullseyes on the map here show seismic response areas
22 where disposal has been either curtailed or shut in
23 due to seismic events. And there's been a lot of
24 issues with Delaware Mountain Group disposal that has
25 interfered with Bone Spring production. So our thesis

1 was to move the water out of those areas of concern.

2 Goodnight has spent approximately \$300
3 million on the system here, and we have four wells
4 that Empire is asking to be revoked. On average, they
5 provide about 60,000 barrels of water per day of
6 disposal. And if that disposal is revoked, that would
7 have an immediate impact on approximately 19,000
8 barrels of oil per day of current production that
9 would likely be shut in, and until an alternate
10 disposal could be found for that -- for that water
11 that comes with that production.

12 MR. RANKIN: So next slide here shows
13 the same Exhibit B3. Do you recall the testimony of
14 Empire's witness, Mr. Jack Wheeler, when he testified
15 that Empire asked Goodnight to move its four existing
16 wells to a location 2 miles outside of the EMSU
17 boundary?

18 MR. MCGUIRE: Yes, I do remember that.

19 MR. RANKIN: To your knowledge, has
20 Empire ever reached out to Goodnight directly to make
21 such a request, or through counsel?

22 MR. MCGUIRE: No, I'm not aware of
23 that.

24 MR. RANKIN: To your knowledge, has
25 Empire ever attempted to reach out to Goodnight to

1 make any effort to reach a settlement, including an
2 offer to pay all or a portion of the costs to move its
3 wells outside the EMSU?

4 MR. WEHMEYER: Objection, Rule 408.
5 Settlement negotiations are irrelevant and privileged.

6 THE HEARING OFFICER: Yeah. How is
7 that relevant, Mr. Rankin?

8 MR. RANKIN: Well, Mr. Wheeler
9 testified that they did, and I'm asking whether or not
10 that's the case.

11 THE HEARING OFFICER: Mr. Wheeler.
12 Let's see. Okay. That's been too far back for me to
13 remember. Was that one of Empire's witnesses?

14 MR. RANKIN: It was, Mr. Hearing
15 Officer. Mr. Wheeler testified that they would
16 potentially be willing to make that offer, and he
17 believes that they did. And so I'm just asking
18 whether Mr. McGuire recalls whether that was ever the
19 case.

20 MR. WEHMEYER: May I reflect very
21 briefly?

22 THE HEARING OFFICER: No. Overruled.

23 MR. RANKIN: You can answer, Mr.
24 McGuire.

25 MR. MCGUIRE: No. Nobody here at

1 Goodnight, at least to my knowledge, knew that that
2 request was made.

3 MR. RANKIN: How much would it cost --
4 referring to the slide, how much would it cost
5 Goodnight to move its four existing saltwater disposal
6 wells in the EMSU to a location at least 2 miles
7 outside the unit boundary?

8 MR. MCGUIRE: So for the four wells
9 that are inside the unit, as it states on the slide
10 here, that would be approximately \$40 million. Those
11 costs include the P&A, surface facility relocation,
12 reclamation, new pipeline, and the new drills. That
13 also assumes equivalent injection capacity that we
14 currently have, and we would not need to add new
15 wells.

16 MR. RANKIN: And how much would it cost
17 to move all of Goodnight's existing saltwater disposal
18 wells, including those already outside the unit, to
19 locations at least 2 miles away from the EMSU?

20 MR. MCGUIRE: Yeah. So that would be
21 all of our wells with the exception of two of them,
22 and that would be an approximate cost of \$120 million.
23 And all of those same cost assumptions that I just
24 described for the last point there apply here.

25 MR. RANKIN: Okay. Next slide here is

1 slide number 4. Did you hear questions, Mr. McGuire,
2 during testimony about the value of oil production
3 supported by Goodnight's disposal activities?

4 MR. MCGUIRE: I did.

5 MR. RANKIN: Referring to the slide,
6 can you explain how you estimated the value of oil
7 sales supported by Goodnight's disposal operations?

8 MR. MCGUIRE: Yeah. So this is a
9 simple calculation just to estimate the cumulative oil
10 sales that Goodnight has supported to date and then
11 projected going into the future.

12 So from 2018 to 2024, we took our actual
13 disposal volumes and divided them by 3.1. That's the
14 large scale average oil-water ratio for all the
15 unconvensionals in the Delaware Basin in New Mexico.
16 And then we multiplied that by the average WT -- WTI
17 price for that -- that given year. That -- that
18 represents the bold line there from 2018 to -- to
19 current.

20 And we can see that currently we've
21 supported more than \$5 billion worth of oil sales.
22 And then going into the future, it's the -- it's the
23 exact same calculation, although we're just taking
24 our -- our 2025 projected volume and carrying that
25 forward, and then we're assuming a WTI price of \$70

1 with no escalation we can see in the next ten years.

2 According to this graph, it looks like that
3 we'll be able to support about \$20 billion worth of
4 oil sales in the state -- state of New Mexico.

5 MR. RANKIN: Just to be clear, this
6 does not assume any new wells or new capacity;
7 correct?

8 MR. MCGUIRE: That's correct.

9 MR. RANKIN: Moving to your next slide,
10 number 5, we're moving into your testimony about
11 Goodnight's disposal zone in the San Andres. Just
12 give us a quick overview from your testimony of the
13 history of San Andres disposal.

14 MR. MCGUIRE: Yeah. So the EMSU has a
15 long history of -- of San Andres disposal, even before
16 the time it was a unit. The San Andres in the unit
17 has been used as a saltwater disposal zone since the
18 1960s, and just outside of the boundaries of the EMSU
19 since the 1950s. Tens of millions of barrels have
20 been disposed of into the San Andres before the --
21 before the unit was ever formed.

22 EMSU operators continued to utilize the San
23 Andres as a disposal formation after the unit was
24 formed, and even the -- the EMSU operators actually
25 added wells to that after the unit was formed. Empire

1 continued to rely on San Andres disposal with their
2 own saltwater disposal well, the EMSU Number 1, or by
3 sending water to Rice's EME disposal system, which
4 also disposes inside and just offset the -- the unit.

5 It doesn't really make any sense that the
6 EMSU operators would continue to utilize the San
7 Andres for disposal if there was known communications
8 with the producing zone. Empire claims that there
9 should be no disposal within 5 miles of their three
10 units here, the EMSU, the EMSU B, and the HEU. That
11 5-mile number comes from Dr. Buckwalter's testimony.

12 But when we look inside that -- that 5-mile
13 halo around these three units, more than 60 SWDs have
14 been disposed -- have been disposing into the San
15 Andres, and most of them are still active today.
16 Hundreds of millions of barrels have been disposed
17 into the San Andres, and it's -- it's still an under
18 pressured reservoir.

19 Empire is the first operator to claim that
20 disposal is interfering with unit operations and is
21 selectively targeting Goodnight, while there's other
22 commercial SWD operators operating within the same
23 area.

24 MR. RANKIN: Moving to slide 6, this
25 pulls from your Exhibit B47 in your rebuttal

1 testimony. Just give us a quick overview of what this
2 exhibit reflects.

3 MR. MCGUIRE: Yeah. So this goes --
4 this is a map showing all of the San Andres disposal
5 wells that have disposed into the centers within 5
6 miles of Empire's three units here in the area. And
7 this is the map that I -- I need to correct two dates
8 on, which I'll -- I'll do here. The first date
9 that -- well, let me say what is actually being posted
10 with all these wells here.

11 What we're showing with these wells is the
12 date of first injection into the San Andres, and then
13 the cumulative volume that has gone into the San
14 Andres through each of those wells. So two dates need
15 to be corrected here. The first date is the Trucker
16 SWD. It's on the -- up on the west side of the EMSU.
17 Its date of first injection was 4 of 1975.

18 And then the other date that needs to be
19 corrected is our Ryno SWD. The date that's being
20 posted there is the date of first injection when it
21 was a Devonian well. But that date -- or that well
22 was plugged back to the San Andres, and we started San
23 Andres injection in that well in 7 of 2020. But the
24 volume that is being posted with that well is the
25 correct volume for what's -- what's gone into the San

1 Andres here.

2 So within 5 miles of these three units,
3 there's been more than 961 million barrels has gone
4 into the San Andres in this 5-mile halo. The reason
5 that I have a greater than symbol there is because OCD
6 records only go back to 1994. And before that, the --
7 the records are pretty sparse. Many of these wells
8 were disposing before 1994, so we don't have a
9 complete history. So we know that that number is
10 larger than what is documented.

11 MR. RANKIN: Referring to the sixth
12 slide, Mr. McGuire, explain the significance of those
13 numbers related to Empire's reservoir simulation that
14 was presented by Dr. Buckwalter.

15 MR. MCGUIRE: Yeah. So Dr. Buckwalter
16 only used disposal volumes from 1994 forward, but we
17 know that the San Andres in and around these units has
18 been used for saltwater disposal since the 1950s. We
19 summed up the -- the volume that he had in his model,
20 and his -- his sum volume was 588.7 million barrels of
21 water.

22 So Dr. Buckwalter is missing many of the
23 wells that are -- that are on this map here. He only
24 modeled Goodnight and Rice, and then he later added
25 the Empire well, and then one other well, the Parker

1 Energy Service well, right where your cursor is there.
2 But he's -- he's missing all the rest.

3 So in aggregate, he's missing more than 370
4 million barrels of water that have gone into this
5 reservoir. And there's no way that he could have an
6 accurate reservoir simulation, particularly on
7 pressures, if he were to include that -- that volume,
8 given his current model setup.

9 MR. RANKIN: Next slide is slide number
10 7. This is moving into your testimony about the
11 potential or claimed communication between the
12 Grayburg and Goodnight's disposal zone in the San
13 Andres. Just referring to the slide, give us an
14 overview of your key takeaways from your testimony.

15 MR. MCGUIRE: Yeah. So the Grayburg is
16 not in communication with the disposal zone. Empire
17 has not shown any direct evidence that the disposal
18 zone is -- is in communication through fractures with
19 the producing zone. EMSU oil and water production has
20 remained unchanged since Goodnight began its disposal
21 operations.

22 If the communication was as pervasive as
23 Empire claims, there would have been direct evidence
24 of -- of the impacts, and saltwater disposal would
25 have been shut in long ago. There's been a -- there

1 was a lot of water that went into the ground before
2 Goodnight commenced its disposal operations. And if
3 that -- if that communication was as pervasive as
4 Empire claims, yeah, it would have been dealt with
5 long before Goodnight started.

6 Claims of changes in Grayburg produced water
7 chemistry are unsubstantiated. Core data presented by
8 Empire actually shows a competent confining layer that
9 separates these two reservoirs. Empire claims, really
10 without evidence, that fracturing is most prevalent at
11 the top of the -- line of the EMSU. Find that
12 interesting because it doesn't make sense that Chevron
13 would place the EMSU SWD Number 1 at the top of the
14 structure in the area where they -- they thought that
15 there was the highest potential for communication.
16 That doesn't make any operational sense.

17 But the main reason that we know that these
18 two formations are -- are not in communication with
19 each other is because there's this pressure
20 differential between these two reservoirs. There's a
21 certain pressure system that's associated with the
22 producing interval in the Grayburg, and there's a
23 completely different pressure system that's associated
24 with the San Andres disposal zone. And we'll get into
25 the details of that here in a bit.

1 But one of the major pieces of evidence
2 that -- that confirms this is that there was a major
3 loss circulation after drilling through the confining
4 layer that separates these two reservoirs. That's
5 been -- that's happened in nearly every well that has
6 drilled through that down into the San Andres. The
7 water supply well saw that, as well as all of the SWDs
8 operated by Rice and Goodnight.

9 MR. RANKIN: Next slide is slide number
10 8. This slide shows your Exhibit B40. Just review
11 for us what your Exhibit B40 shows and highlight your
12 testimony on that.

13 MR. MCGUIRE: Yeah. So this is the
14 monthly oil production that was from the EMSU that was
15 provided to us from -- from Empire. It goes back to
16 1970. So the -- the graph on the left-hand side here
17 is, like I said, the monthly oil production curve from
18 1970 to present. And we can see that after the water
19 flood was enacted in the -- the late 1980s, that the
20 decline of that has been predictable, and it's
21 actually at its flattest decline that it's seen in the
22 life of the -- of the field.

23 The graph on the right zooms into the last
24 five years since Goodnight started its disposal
25 operations inside the unit, and we can see that the

1 production is -- is very, very flat. It has a very,
2 very shallow decline, and there's no indication
3 that -- that there's been any -- anything happening.

4 It -- it appears to be unaffected, despite
5 the lower well count that -- the black line shows the
6 well count, and we can see that the well count has
7 declined over the past few years, and oil production
8 has remained the same. So the field is actually
9 operating more efficient than it was just a few years
10 ago.

11 MR. RANKIN: You highlight here with a
12 bracket West Exhibit I18 in the top right corner.
13 Explain what that shows and the purpose of that
14 bracket.

15 MR. MCGUIRE: Yeah. So Mr. West, in
16 his direct testimony, showed Exhibit I18, which was a
17 table of -- of oil production, and the claim was is
18 that they were seeing an unreasonable decline in -- in
19 their oil production. But we can see, just the month
20 after that bracketed interval there, that the oil
21 production came right back up.

22 So Empire hasn't shown any direct evidence
23 that Goodnight is impacting Grayburg production
24 whatsoever. Empire has not pointed to a single well
25 that they feel has been impacted by disposal.

1 MR. RANKIN: Next slide is slide number
2 8 -- rather, 9. This goes to the chemical analysis
3 that was -- or chemical samples that were provided by
4 Empire. From your Exhibit B42, explain what this
5 shows, from your testimony.

6 MR. MCGUIRE: Yeah. So this is all
7 data that was provided to us by Empire for chemical
8 analysis for Grayburg wells that are directly offset
9 to our injection operations within the unit. So just
10 to walk through the graphs, we have TDS up on the top
11 left-hand side, sulfate on the right, and then
12 chlorides is down there on the bottom left.

13 I've highlighted the wells that Mr. West
14 used in his exhibit in 9. He -- Mr. West did not show
15 all of the data that -- that was provided to us. He
16 just showed a subset of this data. So the first thing
17 to say here is that Empire's claim that -- that
18 sulfate is a major indicator which shows San Andres
19 communication.

20 But if we look at the sulfate numbers,
21 they're -- they're flat to decreasing. So no
22 indication that -- that -- by their own argument,
23 that -- that San Andres water is -- is infiltrating
24 these wells. All of these values are within the
25 historical ranges that have been provided by Empire

1 for -- for the field, and none of these are -- are
2 anomalously high when you look at the rest of the
3 field.

4 If disposal was in communication with --
5 with any of these wells, all of these values would be
6 increasing over time, and we're just not seeing that.

7 MR. RANKIN: Next slide is slide 10.
8 This also reflects your Exhibit B42, and the table on
9 the right is from Mr. West's summary slides. Slide
10 21, explain what this slide shows and how it relates
11 to the chemistry analysis and chemistry discussion in
12 your testimony.

13 MR. MCGUIRE: Yeah. So the -- the
14 tables that are on the left-hand side is just the --
15 it's the same data that was shown on the graphs on
16 the -- on the last slide that we were looking at. And
17 again, I'm highlighting the wells that Mr. West used
18 in his exhibit in 9. And then on the right-hand side
19 is data from -- from wells all across the entire
20 field.

21 And we can see that -- that none of these
22 values that we're seeing here are anomalous when
23 compared to the rest of the field. Actually, we
24 can -- we can see, if we look at the 407, that earlier
25 data, the TDS, chloride, and sulfate was even higher,

1 and -- and Mr. West did not show that data point in
2 his -- in his exhibit.

3 So when we compare these -- these numbers,
4 we can see that, like I said, nothing's really out of
5 line that -- the TDS ranges from 16 to 30,000 parts
6 per million, the chloride from 7,000 to 15,000 parts
7 per million, and then the sulfate from, you know,
8 roughly 0 to 2,800 parts per million. And when we
9 compare that to the rest of -- of these data points
10 that are directly offset to our injection, we see that
11 nothing stands out as being anomalous.

12 MR. RANKIN: Other historic water
13 samples in Empire's testimony and exhibits that show
14 higher chloride concentrations for Grayburg from
15 before Goodnight started disposal operations than even
16 what's depicted here?

17 MR. MCGUIRE: Yes, sir, that's correct.
18 In one of Mr. West's figures, he showed other historic
19 water chemistry tests where the -- the chlorides
20 specifically were as high as 30,000 earlier in the
21 life of the field. And I believe Mr. Tomastik found
22 data where some parts of the field were as high as
23 90,000 parts per million chlorides.

24 MR. RANKIN: Just at a high level
25 talking about water chemistry issues, does Goodnight

1 treat its water prior to disposal, and how does that
2 affect the water chemistry prior to disposal?

3 MR. MCGUIRE: Yeah. So we have a
4 pretty robust chemical treatment program. The main
5 thing that we do is try to reduce the TDS before it
6 goes down holes. So the average TDS that we get from
7 our producers out in the basin ranges from, you know,
8 200,000 to 250,000 parts per million. And by the time
9 we run it through our chemical treatment program, we
10 can bring it down to, on average, about 140,000 parts
11 per million.

12 So we -- we can significantly reduce that --
13 that -- those constituents. The other thing that we
14 do is before the well goes down -- before the water
15 goes down -- down hole, we treat it with scale
16 inhibitors.

17 MR. RANKIN: What is your understanding
18 of Empire's current use of San Andres water as part of
19 its operations?

20 MR. MCGUIRE: Yeah. So my
21 understanding is that they only have one operable EMSU
22 water supply well. I believe it's the 459, which is
23 the most distal well from our operations. It only
24 produces minimal volumes, intermittently. You know,
25 maybe a few thousand barrels a month. And Empire has

1 provided no evidence that Goodnight has -- is having
2 any effect on that -- that water quality.

3 MR. RANKIN: -- from the beginning of
4 the water flood operations in the 1980s, was San
5 Andres water ever compatible with Grayburg water?

6 MR. MCGUIRE: No. EMSU operators used
7 the San Andres knowing it was incompatible with the
8 Grayburg, despite representing to the commission that
9 it was compatible with the Grayburg. And their main
10 justification for that was because the San Andres was
11 the only formation that could provide sufficient
12 volumes of water to enact the water flood.

13 MR. RANKIN: Next slide here is slide
14 11. On the left-hand side, you've got the core data
15 plot that's from your Exhibit B27. And then down in
16 the middle -- bottom of the slide are core photos from
17 Dr. Lindsey's Exhibit B34. And on the right is a
18 structure map showing the top of Goodnight's -- a
19 structure map for Goodnight's pick for the San Andres
20 that I think you produced to Empire last summer during
21 discovery; is that correct?

22 MR. MCGUIRE: That's correct.

23 MR. RANKIN: Has Goodnight mapped the
24 permeability barrier that confines its disposal zone?

25 MR. MCGUIRE: We have.

1 MR. RANKIN: Reviewing this slide, Mr.
2 McGuire, can you review your analysis of the -- your
3 assessment of the permeability barrier you've
4 identified?

5 MR. MCGUIRE: Yeah. So the EMSU 679
6 actually shows a really good confining zone. So
7 the -- the plot that we're showing here on the left-
8 hand side is the vertical permeability plot that was
9 measured in the 679 core. And we can see that there's
10 at least a 100-foot interval here that has very, very
11 low to zero vertical permeability. So that's what I'm
12 showing there as that confining layer.

13 The -- going over to the next photo here,
14 this is the only photo that was in the testimony from
15 that interval. So that's a core photo from the 679 at
16 a depth of 4,335. So that's inside that confining
17 layer that I'm -- I'm showing there on the left-hand
18 side. And we can see that the -- there is a fracture
19 there, but we can also see that that fracture is
20 totally cemented up and -- and no longer conductive of
21 fluids.

22 The other thing to note is that
23 Dr. Lindsey's fracture study did not go down into this
24 interval. I think its -- its last -- the -- the
25 bottom of his fracture study is about 4,180, I

1 believe. And we can see that our confining layer is,
2 you know, at least 100 feet thick, starting at 4,250.

3 And again, the other -- the thing that I'm
4 showing here on the right-hand side is that Empire has
5 claimed that the -- the highest potential for
6 communication occurs at the top of the structure.
7 Chevron decided to place their San Andres saltwater
8 disposal at the top of the structure, and if -- if
9 they really thought that there was the potential for
10 communication, it doesn't make any operational sense
11 to put that well there.

12 MR. RANKIN: Mr. McGuire, is the
13 confining layer that you've identified in the core
14 data correlative across the EMSU?

15 MR. MCGUIRE: It is.

16 MR. RANKIN: And is that reflected in
17 your San Andres structure map?

18 MR. MCGUIRE: It is.

19 MR. RANKIN: Moving to slide number 12,
20 this is a modification of Mr. West's Exhibits I5 and
21 I6. Just explain if you would what this exhibit shows
22 and summarize your testimony around Empire's claims on
23 these two exhibits.

24 MR. MCGUIRE: Yeah. So the -- the
25 figure on the left-hand side is -- is from Mr. West's

1 testimony, and I -- it's showing a number of wells and
2 their cumulative water production as of 1986. And
3 then on the right-hand side, we have a figure that's
4 from the technical committee report from the
5 unitization documents for the EMSU, and it's a three-
6 dimensional histogram that is depicting the 1981
7 cumulative water volumes.

8 This is not intended to show plumbing of
9 water of any sorts. It's just a -- it's just a --
10 like I said, a three-dimensional histogram. In the
11 technical committee report, there's -- there's no
12 discussion of Santa Andres water plumbing up, and
13 there's no description of that for this particular
14 figure.

15 So on the left-hand side, I've also
16 annotated some of these wells, as well as highlighted
17 in blue here edge water. So Dr. Lindsey has described
18 that there's this edge water encroachment coming in
19 from the left-hand side -- or the west side of the
20 field that stems from the Goat Seep aquifer. So it's
21 very well documented that edge water encroached on --
22 onto the west-hand side. And it -- we -- he -- he
23 showed in some of his figures that it actually made it
24 all the way to the top of the structure here.

25 But there are three wells that -- that seem

1 to be anomalous when looking at the rest that are at
2 the top of the structure. And so when you look at
3 these, there's a pretty clear explanation. So the 239
4 was drilled open hole below the oil-water contact.
5 The 262 was drilled open hole within 12 feet of the
6 oil-water contact. And the 362 was drilled within 16
7 feet of the oil-water contact.

8 So as production were to continue to occur
9 in those wells, it's totally expected that those wells
10 would cone up water from below the oil-water contact.
11 Again, I'm showing the EMSU Number 1. Similar to the
12 last figure, Empire's claim that 239 is -- shows
13 evidence of this water pluming up from -- from the San
14 Andres.

15 Again, if that were true and -- and Chevron
16 confirmed that, why then would they put the EMSU SWD
17 Number 1 as a direct offset to that well? Again, it
18 does not make any operational sense. When we look at
19 the figure on the right-hand side, we have one spike
20 over there that is higher than all the rest, and that
21 is the 239 that was drilled below the oil-water
22 contact.

23 MR. RANKIN: Mr. McGuire --

24 MR. MCGUIRE: So it's a pretty easy
25 explanation here.

1 MR. RANKIN: Mr. McGuire, you're
2 referring to the oil-water contact. Just for clarity,
3 that's at minus 325 subsea based on the unit documents
4 at the time of unitization? Is that what you're
5 referring to?

6 MR. MCGUIRE: That's correct, yes.

7 MR. RANKIN: Are you aware of any
8 documentation, reports, establishing communication
9 between Goodnight's disposal zone and the overlying
10 reservoir?

11 MR. MCGUIRE: No, I'm not.

12 MR. RANKIN: Moving to slide 13,
13 explain how -- in summarizing your testimony, how
14 you're confident that the permeability barrier that
15 you've mapped across the unit creates an effective
16 seal isolating Goodnight's disposal operations.

17 MR. MCGUIRE: Yeah. So -- so proof of
18 the -- of the seal is that we have two different
19 pressure regimes associated with these two different
20 reservoirs. There's one pressure system that's
21 associated with the Grayburg, and there's a different
22 pressure system that's associated with the San Andres
23 disposal zone.

24 There's some data that shows this, and --
25 and the first data point would be that Grayburg

1 injection wells shut in with pressure at the surface,
2 while all San Andres SWDs shut in with negative tubing
3 pressure. They can't hold a column of fluid like the
4 Grayburg injection wells can.

5 Another data point is that all the SWDs in
6 the area were able to hold a column of fluid when
7 drilling through the Grayburg. But once we passed
8 through the confining layer that separates these two
9 reservoirs, we had a complete loss of returns,
10 indicating that there's a major change in -- in the
11 reservoir pressure regimes there. And that pressure
12 differential occurs across the entire field.

13 So we're confident -- or we're confident
14 that this barrier is extensive across the entire EMSU.
15 That drilling experience happened in every single one
16 of our wells. And then after discussions with Rice
17 and -- and Permian Line, they confirmed that to be the
18 case with all of their wells as well.

19 MR. RANKIN: Slide 14 here is from your
20 Exhibit B45, and I believe it's from Empire's data on
21 pressure in the Grayburg. Can you just review what
22 this slide shows and summarize your testimony about it
23 as it relates to differential reservoir pressures?

24 MR. MCGUIRE: Yeah. So during
25 discovery, we requested from Empire what is their

1 minimum shut in pressure on all of their Grayburg
2 injection wells, and this is the document that they
3 provided to us. I've highlighted the column that says
4 "Min shut in pressure reviewed." So we take that as
5 that that is the reviewed number that Empire is going
6 with for all of those -- those wells. And we can see
7 that on average, these wells shut in with 524 pounds
8 at surface.

9 MR. RANKIN: Okay. Next slide here is
10 slide 15. This is from your Exhibit B12 and your
11 direct testimony. Explain what this shows and how it
12 relates to what you understand about the difference in
13 pressure regimes between the Grayburg and San Andres.

14 MR. MCGUIRE: Yeah. So just to say it
15 off at the offset, this well, when it's shut in, is on
16 negative tubing pressures, and we can see that on the
17 right-hand side with the -- with the red curve, that
18 it falls below zero instantaneously after an injection
19 cycle.

20 But just to -- just to walk through the --
21 the graph that I'm showing here, we have in blue the
22 instantaneous injection rate in barrels of water per
23 day, and that goes with the Y-axis on the left-hand
24 side. The red line is surface tubing pressure, and it
25 goes with the Y-axis on the right-hand side. And then

1 I've dashed in where zero tubing pressure is on the --
2 on this graph here.

3 And so we can see that this well can inject
4 at more than 40,000 barrels of water per day with less
5 than 80 pounds at the -- at the surface. This is also
6 the reason why we're requesting an increase in the
7 Andre Dawson well, from increase in rate or -- or
8 permitted volume for -- daily permitted volume. It
9 has a very similar injection profile to Sosa, and
10 Sosa's not far from it.

11 So this is -- this is the reason that we're
12 requesting the increase in the permitted daily volume
13 for that well.

14 MR. RANKIN: Before I move off this
15 slide, just, if you would, make sure you explain how
16 this relates to the prior testimony --

17 MR. MCGUIRE: Yeah. So --

18 MR. RANKIN: -- on the other slide.

19 MR. MCGUIRE: Yeah. I said that at the
20 beginning, but just to be clear. So the second that
21 the -- that the pump shuts off, the well
22 instantaneously goes on vacuum. That's -- that's
23 very, very different from all of the Grayburg
24 injection wells, which hold pressure at the surface.
25 So there's -- there's no way that these two wells are

1 in the same reservoir.

2 MR. RANKIN: Okay. Next slide is slide
3 16. This is -- the top table here on this slide is
4 from your Exhibit B21. The bottom table here is from
5 new data that was acquired in April of this year and
6 provided to Empire; is that correct?

7 MR. MCGUIRE: That's correct. Yep.

8 MR. RANKIN: So just referring to these
9 two tables, will you explain what the data shows?

10 MR. MCGUIRE: Yeah. So we -- we try to
11 keep an eye on -- on what our bottom hole pressures
12 are doing over time. So we -- we take static fluid
13 levels at least twice a year to -- to monitor how the
14 bottom hole pressures are changing over time. And so
15 these -- this is just some data that's reflecting some
16 of those measurements here. So the -- the tables are
17 exactly the same. I'll just walk through them just to
18 get everybody oriented here.

19 We have the -- the well name, the -- the
20 date that the fluid level was taken, the shut in
21 tubing pressure at surface, the fluid level in feet
22 from surface, the top perf, the mid perf, the base
23 perf, the calculated bottom hole pressure at the mid
24 perf point, and then the calculated pressure gradient.

25 So the -- the table on top were from fluid

1 measurements that were taken in July of 2024. And
2 then the next table down were measurements that were
3 taken at the beginning of April of this year. Between
4 these two dates, 39.3 million barrels were disposed in
5 all of these wells here, and we can see that the
6 average gradient basically didn't change. It went
7 from an average of 0.381 to an average of 0.383. So
8 that's a -- that's a minimal change given that volume
9 of water that has gone in the ground.

10 MR. RANKIN: You've highlighted the
11 Piper Number 2 in both those tables. Just explain why
12 that's the case.

13 MR. MCGUIRE: Yeah. So Piper, it's the
14 most distal well on our -- on our system. And it --
15 because of that, it does not receive nearly as much
16 injection fluid as these -- rest of these wells. So
17 at the time that the Piper fluid measurements were
18 taken, they -- it had been shut in for a month or
19 longer, whereas the other ones were only shut in for
20 maybe a few hours.

21 And what we can see is that, one, it's --
22 it's the lowest fluid level compared to all of the
23 other wells, despite being the well that has injected
24 the most in its lifetime. It's the oldest well on the
25 system. It's been operating since 2012. So it's put

1 more volume in the ground than all of the other wells,
2 yet it still -- it -- it has a fluid level that is
3 significantly lower than all of those.

4 So what that tells me is that if we were to
5 let all of these other wells shut in for more than a
6 month, that they would -- they would likely come back
7 down to closer to where that fluid level is in Piper.

8 MR. RANKIN: What does this data tell
9 you about the accuracy and reliability of Dr.
10 Buckwalter's simulation?

11 MR. MCGUIRE: Yeah. So -- in Dr.
12 Buckwalter's testimony, he said that, on average,
13 the -- the bottom hole pressure of the -- or the San
14 Andres reservoir pressure as a whole would increase
15 about 7 PSI per million barrels injected. And we can
16 see -- so for the 39.3 million barrels, his model
17 would estimate that the reservoir pressure in the San
18 Andres as a whole would go up 275 pounds. And we're
19 clearly not seeing that here.

20 Just to go to the next bullet point here, we
21 got some information from Rice on a 1959 bottom hole
22 pressure survey in the San Andres disposal zone. So
23 961 million barrels has been injected into this
24 reservoir, and there's been a very minimal increase in
25 the bottom hole pressures. The -- the pressure

1 gradient in 1959 was 0.36, and today it's -- it's 0.38
2 for more than 961 million barrels in the ground. So
3 that -- that tells you, one, just how big this
4 reservoir truly is.

5 MR. RANKIN: And finally, what does
6 this data tell you about the alleged impacts to
7 Empire's plans to inject CO2 into the San Andres
8 disposal zone?

9 MR. MCGUIRE: Yeah. So Empire has
10 alleged that we're raising the bottom hole pressure
11 significantly through our injection, and that's
12 clearly not the case. And that raise in -- in that
13 bottom hole pressure in the San Andres has -- they
14 allege it is causing them to need an elevated CO2
15 volume to enact their project. And that's just not
16 the case. We're really having -- we have had very,
17 very little to -- to de minimis effects on the bottom
18 hole pressure.

19 MR. RANKIN: Next slide, slide 17.
20 This is Empire Cross Exhibit 10. Same data that they
21 put on a chart. Just explain what this shows and the
22 information on the right side of your --

23 MR. MCGUIRE: Yeah. So I -- I like
24 that Empire put this together, because the table on
25 the right-hand side actually shows the shut in time

1 for -- prior to these wells being measured. And then
2 the graph just shows the fluid level in feet from
3 surface relative to time.

4 Again, I'll point to the Piper SWD, which is
5 the purple line there, and we can see that, given
6 enough time for the well to equivalate with the --
7 with the larger reservoir, that it -- it falls back
8 down to near original conditions where the fluid level
9 is at about 1,050 feet from surface. And the last two
10 data points are -- the curve is a little odd 'cause
11 it -- it curves a little weird, but those two data
12 points are exactly the same number.

13 MR. RANKIN: Does the data on that
14 table reflect a relationship between how long a well
15 is shut in and the fluid levels?

16 MR. MCGUIRE: Yeah. The table on the
17 right shows the -- the shut in time prior to the
18 measurement being taken.

19 MR. RANKIN: And is a relationship --

20 MR. MCGUIRE: And we can see for
21 Piper -- you can see for Piper, for the last two data
22 points, it was shut in for two months and -- and one
23 month, whereas prior it was 20 minutes, 11 hours, and
24 20 minutes.

25 MR. RANKIN: Okay. Slide 18 is from

1 your Exhibit B15. I think this is where we're going
2 to start talking about your pick for the top of the
3 San Andres. Reviewing the slide, just give us the
4 background from your testimony on the San Andres top
5 at the EMSU.

6 MR. MCGUIRE: Yeah. So this is a
7 exhibit that was presented at the unitization hearing
8 for the EMSU, and this is a description of the San
9 Andres that was included in that exhibit. So we can
10 see that they said that the -- the approximate depth
11 was 4,100 to 4,500 feet and was approximately 1,130
12 gross feet thick. That doesn't match what Empire is
13 claiming. They're claiming that the San Andres was
14 closer to 1,500 feet thick.

15 The other thing that I'm marking here is
16 that there's no clear marker for the -- the top of the
17 San Andres, which can be traced across the field.
18 Dr. Lindsey actually states that in his rebuttal
19 testimony, that it's -- it's very difficult to
20 correlate in logs.

21 So because of this, different operators of
22 the EMSU have placed the top of the San Andres at
23 different stratigraphic locations over time. When you
24 review all of the well file picks for the EMSU wells,
25 there's no consistency in picking the top of the San

1 Andres. It's -- it's all over the place when -- when
2 reviewing what different operators did over different
3 times.

4 MR. RANKIN: So in light of that
5 background, explain from your testimony how you went
6 about identifying the top of the San Andres.

7 MR. MCGUIRE: Yeah. So the -- the
8 Grayburg has historically been the producing zone,
9 where the San Andres has been the water management
10 interval. Goodnight relied on the -- the Chevron well
11 file pick from the water supply wells because they
12 were targeting the San Andres specifically.

13 We also relied on this document and other
14 unit documents as to where the San Andres should be
15 picked. We also got guidance from the OCD when
16 discussing this project with them prior to -- to
17 permitting these wells of -- of where the top of the
18 San Andres should be, 'cause they noticed that there
19 was this large discrepancy in -- in the tops that were
20 being picked for the San Andres in -- in this
21 particular area.

22 But primarily, our pick is based on the --
23 the point that separates these two reservoir systems,
24 where everything above our pick acts and behaves as
25 one reservoir, and everything below our pick acts and

1 behaves as a separate reservoir. Empire's pick for
2 the San Andres is not the point that separates these
3 two reservoir systems. So again, Goodnight's top for
4 the San Andres marks the top of the water management
5 interval, which acts as a completely different
6 reservoir from everything above it.

7 MR. RANKIN: Now, Mr. McGuire, you're
8 aware that Empire hired Ops Geologic to testify on
9 their opinion about where the top of the San Andres
10 is. Did you identify any conflict between Ops
11 Geologic's picks and Empire's picks?

12 MR. MCGUIRE: Yeah, I did. So we
13 got -- we got picks from Ops Geologic, as well as
14 picks from Empire, and then compared those two. And
15 there were 14 wells where -- both inside the EMSU --
16 where Empire and Ops both had picks for the top of the
17 San Andres. Seven of those fourteen wells, three were
18 deeper by 60 to 80 feet, and four were shallower by 40
19 to 60 feet.

20 So for Empire to say that -- that they
21 were -- they were really consistent, and we -- maybe
22 it was just a few feet difference, that's inaccurate.
23 There was a pretty big discrepancy between those tops
24 in -- in some of those wells.

25 MR. RANKIN: Slide number 19 is taken

1 from your Exhibit B17. What does this show, and how
2 does it relate to your pick for the San Andres?

3 MR. MCGUIRE: Yeah. So these are the
4 six water supply wells that were drilled to the San
5 Andres. We keyed off of these wells because, one,
6 they -- they contributed to this pressure differential
7 between the two. And -- and two, they were actually
8 targeting the -- the San Andres. So we keyed off of
9 these picks. And -- and this table just shows our --
10 our pick versus the Chevron reported top of San Andres
11 in -- in those wells.

12 When we were reviewing those well files, we
13 noticed that they were picking a low porosity
14 interval, or at least very close to a low porosity
15 interval, which actually correlated to this
16 pressure -- the -- the confining layer that separates
17 these two reservoirs. So we -- we used those and
18 keyed off of those wells to -- for guidance as to
19 where the -- the top of the San Andres should be
20 picked.

21 MR. RANKIN: Next slide is -- oh,
22 sorry -- slide 20. This is from Empire Exhibit K14,
23 but you made some modifications. Explain what this
24 shows and how it explains what you were talking about
25 on the previous slides.

1 MR. MCGUIRE: Yeah. So this is, like
2 you just said, a modified exhibit from one of the Ops
3 folks. It shows the difference between our top and
4 the San Andres top. And then I've just highlighted
5 the -- the water management zone and the interval
6 that's -- that's above the water management zone. Our
7 top delineates that water management zone.

8 The other thing that I'd -- I'd point out
9 here is that our tops are -- in this cross section
10 are -- are much more consistent with the unit
11 documents saying that the -- the top of the San Andres
12 is between 41 and 45 hundred feet, whereas Empire's
13 picks are significantly shallower than that, between
14 39 and roughly 40, 50. So a discrepancy there.

15 The other thing is is while there's --
16 there's no direct evidence of Grayburg and San Andres
17 communication, when Empire is describing the
18 communication between the two zones, the yellow
19 interval is what they're discussing, not the water
20 management interval.

21 MR. RANKIN: Do you recall Dr.
22 Davidson's testimony about the potential for an ROZ in
23 the upper San Andreas?

24 MR. MCGUIRE: I do. Yep.

25 MR. RANKIN: What's your understanding

1 about what zone he was referring to?

2 MR. MCGUIRE: Yeah. He was referring
3 to the -- to the upper zone. And this -- from
4 discussions with him, he does not believe that there's
5 any ROZ in the water management zone.

6 MR. RANKIN: Okay. Slide 21 is
7 Goodnight Cross Exhibit 20. There's been some
8 discussion about the original -- or rather the
9 reservoir pressure that was measured in 1986 from the
10 RFT in the 211 well. Explain what this shows and how
11 it relates -- explain what this shows and summarize
12 your testimony around this issue.

13 MR. MCGUIRE: Yeah. So the -- the 211
14 RFT that was taken in 1986 is not representative of
15 the water management interval that's being used for a
16 water supply and water disposal. So this is just a
17 cross section that -- that we put together that goes
18 from the EMSU 211 on the left-hand side, the EMSU
19 Number 1 Empire saltwater disposal well, and then over
20 to our Ryno SWD.

21 And then I've -- I've shown where we show
22 the top of the San Andres, which denotes the -- the
23 barrier between the water management zone and
24 everything above it, and then also where Empire has
25 placed the top of the San Andres in that well. And

1 then in blue, we're showing where that RFT measurement
2 was taken at 4,006 feet, and we can see that that --
3 that that measurement is not representative of the --
4 the disposal reservoir.

5 MR. RANKIN: Slide 22 is one of
6 Empire's demonstratives that was used during its
7 cross-examination. Just remind the commission what
8 this shows.

9 MR. MCGUIRE: Yeah. So this is a
10 cross-section that was put together by -- by the
11 Empire folks, and they were showing where we had lost
12 circulation down in the San Andres. And they actually
13 added data that I was unaware of. There's other wells
14 that confirmed the -- the same thing that we saw in
15 all of our wells.

16 So this cross-section kind of zigzags all
17 around the entire EMSU. And I did not have data on --
18 on some of these wells, but they confirmed the same
19 thing that we're seeing in our wells. But we noticed
20 that some things needed to be corrected, which --
21 which I've done on -- on the next slide here.

22 MR. RANKIN: Okay. Slide 23 is your
23 modification of that demonstrative. What does it
24 show, and explain what changes you made.

25 MR. MCGUIRE: Yeah. So this is just a

1 zoom-in of just the Goodnight wells. I didn't have
2 the data to confirm the other wells that were included
3 on this in -- in that cross-section, so I've just
4 zoomed into our wells specifically here. The first
5 thing I noticed is that the -- that our top of San
6 Andres was incorrectly depicted on this, particularly
7 in Yaz and Nolan Ryan. So I've redrawn the blue line
8 to be consistent with where we have the top of the San
9 Andres.

10 And then I've -- I've slightly modified the
11 pink line where we had complete loss of circulation.
12 So below the -- our orange line was a major loss of
13 circulation where we lost all the drilling fluid to
14 the hole, and not another barrel came back up to
15 surface after we entered the -- the major porosity
16 body of the San Andres.

17 We did have some minor losses shallower in
18 the section below our blue line, which indicated that
19 we were in this different pressure system. But once
20 we got down into the major porosity body, we lost
21 complete circulation. And then just to point out
22 the -- the Andre Dawson here, they have the -- the
23 pink line, which is what they were saying was the lost
24 circulation above the top of our San Andres pick.

25 After reviewing the file, nothing occurred

1 at -- at that particular depth. It was -- we had some
2 minor losses a little bit lower in the -- in this
3 section, and then major losses where I've depicted it
4 in -- in orange.

5 MR. RANKIN: Okay. What does this tell
6 you about the reservoirs in the Grayburg and San
7 Andres disposal zone?

8 MR. MCGUIRE: Well, it tells me that
9 these are two different reservoirs systems that are
10 not connected and -- and act completely different from
11 one another.

12 MR. RANKIN: Slide 24 gets into your
13 review of Empire's ROZ claims. Just, if you would,
14 walk through the points on the slide summarizing
15 what's in your testimony.

16 MR. MCGUIRE: Yeah. So there's no data
17 to support that the water management zone is a
18 commercial ROZ prospect. It's my opinion that the
19 EMSU water supply wells prove that the water
20 management zone is not a producible ROZ. Empire zone
21 experts explain that pressuring the ROZ is a valid
22 test method to -- to see if the ROZ is producible.

23 In -- in their literature, they have
24 described this -- that between 500 and 2,000 barrels
25 of water per day over 30 to 60 days, totaling for --

1 15,000 to 120,000 barrels of water in total, is
2 sufficient to test an ROZ. The EMSU water supply
3 wells effectively did that. They produced more than
4 350 million barrels of water over more than 4,000
5 days, and no oil was produced.

6 Dr. Trentham expected that the water supply
7 wells would have produced some oil if there was
8 producible oil in that zone where they were completed,
9 and they did not. Additionally, Dr. Trentham and
10 Mr. Merrick, while on the stand, said that the water
11 supply wells -- their completion intervals must be
12 below the base of the claimed ROZ.

13 So given that information, it's my opinion
14 that the -- that these water supply wells have -- have
15 tested the water management zone for producible ROZ,
16 and -- and the test was negative.

17 MR. RANKIN: Next slide here is from
18 your Exhibit B32. Just give us your key takeaways
19 from your testimony on this slide.

20 MR. MCGUIRE: Yeah. So this is just a
21 comparison of some of the core oil saturations. So on
22 the top left-hand side, we have -- this is from some
23 of the ROZ experts literature on the GLSAU, and
24 they're plotting core oil saturations. So Empire's
25 experts agree that ROZ oil saturations are defined to

1 have a cutoff -- a lower end cutoff of 20 percent.

2 And so the only modification that I've made
3 to the figure up on the top left-hand side is that
4 I've highlighted that 20 percent line, and we can see
5 that where the ROZ experts drew the base of the ROZ is
6 where the vast majority of those data points fell
7 below 20 percent. I did the same thing with the core
8 oil saturations that I have from the EMSU, and using
9 that same methodology, the vast majority of the data
10 points fall below 20 percent at negative 652.

11 The ROZ experts have defined that ROZs
12 should have similar oil saturations to a mature water
13 flood. So we can see that here that the main pay of
14 the EMSU field in the Grayburg has an average oil
15 saturation of 18 percent. And if we go down to what
16 I've defined as -- as the ROZ is -- it's effectively
17 the same number. But once we go below the point where
18 I've drawn the base of the ROZ, the average oil
19 saturation is 7 percent. The other thing to note is
20 that Goodnight does not inject above 700 feet subsea,
21 so all of our injection is below the base of the ROZ.

22 So I -- like the -- like the bullet point
23 says there, I feel that there's a clear base of the
24 ROZ as shown by the core data that is specific to the
25 EMSU 679 well. Others have explained that that depth

1 is not constant across the field, that it's actually
2 shallower, higher on structure. And I'll refer you
3 to -- to Bill Knights's testimony on that. He did a
4 little bit more in-depth look at where the base of the
5 ROZ is in other parts of the field.

6 ROZs, by definition, have a decreasing oil
7 saturation with depth, so it's unfounded to assume
8 that oil saturations would be higher than what is
9 shown in -- in the core data. The other thing that
10 I -- I would mention is that the ROZ experts state
11 that solid hydrocarbon residue is found at or below
12 the base of the ROZ. Solid hydrocarbon residue was
13 described in the course -- in that interval below
14 where I picked the -- the base of the ROZ.

15 And the other thing to note is that during
16 Dr. Trentham's -- or Trentham's deposition, we showed
17 him this chart on the right-hand side, and he agreed
18 with where I put -- put the base of the ROZ. He said
19 maybe you could move it down a few feet, but largely
20 was in agreement with -- with where we put the -- the
21 base of the ROZ.

22 MR. RANKIN: Anything further on this
23 slide, Mr. McGuire?

24 MR. MCGUIRE: No, sir.

25 MR. RANKIN: Okay. Last slide here,

1 slide 26. Just summarize, if you would, your
2 conclusions based on -- and summarize your testimony
3 and your conclusions from your testimony.

4 MR. MCGUIRE: Yeah. So the EMSU has
5 had a long history of disposal with no claims of
6 interference with the producing Grayburg formation
7 until Empire acquired the field. Empire has not
8 provided any direct evidence showing that the San
9 Andres disposal is having any impact on production.
10 They -- they haven't pointed to a single well that
11 they feel Goodnight has impacted the production in.

12 The pressure differential observed between
13 the disposal zone and the producing zone proves that
14 these two reservoirs are isolated from one another,
15 and it's -- it's expansive across the entire field.
16 And -- and our top pick for the San Andres denotes the
17 top -- or -- or denotes that delineation between these
18 two reservoir systems.

19 The -- the San Andres is a massive aquifer,
20 and due to its size, the -- the saltwater injection
21 has had no material impact on -- on the down hole
22 reservoir pressures. We haven't changed the bottom
23 hole pressures hardly at all with our injection,
24 causing Empire to need elevated CO2 volumes for their
25 purported project.

1 There's -- there's no technical evidence
2 preventing Empire from acquiring additional data in
3 the alleged ROZ, previously or currently. They've --
4 they've had this field for more than four years now,
5 and I find it quite interesting that, if they really
6 believed in this project, that they haven't gone
7 and -- and got the data to bring to this hearing
8 and -- and prove their case to the commission.
9 They've had four years to do it. They've known this
10 hearing is coming and -- and have chose not to do
11 that.

12 I think that there's sufficient evidence,
13 primarily from the water supply wells, that proves
14 that the -- the ROZ is -- is not prospective in the
15 water management interval as shown by the -- the water
16 supply wells. And they didn't -- they pulled a lot of
17 water out the ground. It was -- it was a sufficient
18 volume to drop the near wellbore pressure, develop a
19 gas drive, and produce oil, if there was producible
20 oil there to be had. I -- I feel that that test was
21 negative.

22 So with all of that, there's no evidentiary
23 basis to suspend or limit current San Andres disposal
24 or deny the pending applications. All the evidence
25 shows that the San Andres is a world class disposal

1 reservoir, and it's a critical asset to New Mexico to
2 support its growing production needs.

3 There's a -- there's a lot of issues in the
4 produced water management space ongoing today, and
5 those -- those issues are -- are continuing to grow
6 as -- as production continues to grow. There's a lot
7 of water that's being shipped over the state line to
8 Texas, and that could -- that could cease at any time.

9 I think New Mexico should be very thankful
10 that they have this world class disposal reservoir
11 that can continue to support New Mexico's growing
12 production needs.

13 MR. RANKIN: Anything further on this
14 last slide, Mr. McGuire?

15 MR. MCGUIRE: I'm sure I could talk a
16 lot more about it, but I'll -- I'll end there.

17 MR. RANKIN: Well, I think you're going
18 to over the rest of the day.

19 Mr. Hearing Officer, at this time, I
20 have no further questions of Mr. McGuire and make him
21 available for cross-examination.

22 THE HEARING OFFICER: Okay. Perfect
23 timing, Mr. Rankin. Let's take our morning break, and
24 let's be back at five minutes till 11.

25 (Off the record.)

1 THE REPORTER: We're back on the
2 record. The time is 10 -- 11:58 a.m. Central Standard
3 Time.

4 MR. WEHMEYER: Very good.

5 CROSS-EXAMINATION

6 BY MR. WEHMEYER:

7 MR. WEHMEYER: Mr. McGuire, can you
8 hear me all right?

9 MR. MCGUIRE: Yes, sir.

10 MR. WEHMEYER: Similar to what I've
11 done with other witnesses, what I want to do is talk a
12 little bit about qualifications, and then talk about
13 data relied on, talk about particular methodologies
14 that would have been employed, and then talk about
15 some of the conclusions. And we'll do this topically
16 as well.

17 So coming back to just this issue of
18 qualifications in the first place, we've already
19 visited about your lack of education and experience in
20 reservoir engineering. You remember we covered that?

21 MR. MCGUIRE: I remember that
22 discussion.

23 MR. WEHMEYER: I want to talk a little
24 bit about just the entity Goodnight. You have worked
25 with Goodnight in the states -- as a geologist,

1 certainly, in the states of North Dakota, Texas, and
2 in now New Mexico; is that right?

3 MR. MCGUIRE: That's correct.

4 MR. WEHMEYER: Any other states?

5 MR. MCGUIRE: With Goodnight? No.

6 MR. WEHMEYER: Have you ever worked in
7 the state of New Mexico before Goodnight?

8 MR. MCGUIRE: I grew up in New Mexico,
9 but you know, not as a engineer or a -- or a
10 geologist.

11 MR. WEHMEYER: And so with respect to
12 responsibility for New Mexico, my understanding is you
13 only recently acquired that responsibility after Mr.
14 Drake left; is that right?

15 MR. MCGUIRE: Yes. That's -- that's
16 true. I was involved in the discussions, but I was
17 not overseeing that project. That's correct.

18 MR. WEHMEYER: And so with respect to
19 the first time that you would have ever acquired any
20 responsibility to perform work in the state of New
21 Mexico, that would be what month and year?

22 MR. MCGUIRE: Well, since I took full
23 responsibility, that would have been September/October
24 of 2023. But, you know, helped on the project in a
25 supporting role before that.

1 MR. WEHMEYER: September of 2023 was
2 the answer?

3 MR. MCGUIRE: Yeah, I believe that's
4 right. If I -- it's in my CV as to when I took over
5 that. I -- I believe that to be correct.

6 MR. WEHMEYER: Mr. Rankin covered the
7 idea of you picking tops, and I want to make sure the
8 commission has a clear record on this. You in fact
9 did not pick the San Andres tops here, did you?

10 MR. MCGUIRE: Not all of them, no. The
11 vast majority of them, they were picked by Steve
12 Drake. That's correct.

13 MR. WEHMEYER: And so if the commission
14 wants to know who at Goodnight picked the tops on the
15 San Andres, that would not be you. That would be Mr.
16 Drake; correct?

17 MR. MCGUIRE: Yeah, that's true. I --
18 I reviewed his tops, had discussions with him about
19 his methodology, and agreed and adopted his analysis.

20 MR. WEHMEYER: The point in time that
21 you visited with Mr. Drake about his analysis and
22 conferred with him, that was in response to there
23 being litigation over the saltwater disposal wells of
24 Goodnight; isn't that true?

25 MR. MCGUIRE: That's not true. No.

1 MR. WEHMEYER: With respect to
2 selecting the locations of the SWDs, if the commission
3 wanted to visit with the human that did that, you
4 would also not be the right person. You did not pick
5 the locations of the SWD wells, did you?

6 MR. MCGUIRE: That would be accurate.

7 MR. WEHMEYER: By the time you became
8 responsible for New Mexico, there was already
9 litigation pending over the SWD permits and the
10 revocation, wasn't there?

11 MR. MCGUIRE: Not the revocation, no.

12 MR. WEHMEYER: There hadn't been
13 protests on new permits, and there were petitions made
14 to remote revoke permits?

15 MR. MCGUIRE: No, the -- the revocation
16 applications came after I stepped into my role.

17 MR. WEHMEYER: So at the time you
18 stepped into the role, there was already protests of
19 new permits by Goodnight; correct?

20 MR. MCGUIRE: Yes, that's correct.

21 MR. WEHMEYER: And by the time you
22 stepped into the role, there was already millions of
23 dollars of infrastructure drilled into the ground;
24 right?

25 MR. MCGUIRE: Yes.

1 MR. WEHMEYER: Just so that the
2 commission -- in terms of the person who picked the
3 San Andres tops, coordinated the permitting
4 procedures, and selected the location of the SWDS that
5 are being litigated over as part of this OCC
6 proceeding, that's not you, and they're not going to
7 hear from that person in this case, are they?

8 MR. MCGUIRE: No. Yeah, that's --
9 that's true. Steve Drake retired at that time, and he
10 had personal plans to -- to go off and enjoy his
11 retirement. And normal course of business is somebody
12 else has to step into that role.

13 MR. WEHMEYER: Was that retirement
14 because Goodnight had drilled these SWDs and then sold
15 the company at approximately \$1 billion?

16 MR. RANKIN: Objection, relevance.

17 MR. MCGUIRE: It sounds like somebody
18 else is unmute, and I -- I kind of missed the
19 question.

20 MR. RAZATOS: I muted them. I
21 apologize. Someone on the platform was -- had unmuted
22 themselves. Please make sure that if you're on the
23 platform, you keep yourself muted.

24 MR. WEHMEYER: May I ask a clean
25 question, just --

1 MR. RAZATOS: Please.

2 MR. WEHMEYER: I think the question
3 was --

4 MR. RAZATOS: Please restate your
5 question, yeah.

6 MR. WEHMEYER: Is the reason that Mr.
7 Drake retired because Goodnight had drilled its SWD
8 wells and sold the company for approximately \$1
9 billion?

10 MR. RANKIN: Objection. Assumes facts
11 not in evidence, not relevant, outside the scope of
12 Mr. McGuire's testimony.

13 THE HEARING OFFICER: Yeah, I don't see
14 the relevance of why Mr. Drake retired. I'll sustain
15 the objection.

16 MR. WEHMEYER: Let's -- one of the
17 things you want to tell this committee about is
18 barriers; is that right?

19 MR. MCGUIRE: Yes.

20 MR. WEHMEYER: And as we talk about
21 barriers -- and this permeates your written
22 statements. It permeates some of your testimony.
23 Haven't you tried to bolster the reputation of
24 Goodnight by speaking to what a responsible SWD
25 operator it is?

1 MR. MCGUIRE: Can you repeat the
2 question? I got a little lost there. I'm sorry.

3 MR. WEHMEYER: Yes. Doesn't this
4 permeate your written sworn statements, this idea that
5 Goodnight is a responsible saltwater disposal
6 operator? You've placed that in issue. You've sworn
7 to it. That's part of you trying to add credibility
8 to Goodnight in this proceeding.

9 MR. MCGUIRE: Yeah, I -- I think we're
10 a prudent operator.

11 MR. WEHMEYER: Now, in North Dakota --
12 are you aware that in North Dakota there was 2.5
13 million pounds of radioactive material moved from
14 Goodnight wells into the state of Oregon that is being
15 litigated over?

16 MR. MCGUIRE: I -- I have a bit of a
17 recollection of something like that. But I believe
18 that was done by a third-party trucking company that
19 we hired, and we -- I -- I'm not super familiar, so
20 I -- I don't want to speak much more than that on it.

21 MR. WEHMEYER: There's an OWL that was
22 the shipping contractor. Is that the same OWL that
23 we've heard about in this case, or is that a different
24 OWL?

25 MR. MCGUIRE: I don't know.

1 MR. WEHMEYER: So with respect to
2 the -- and I mean, this has received media attention
3 that 2.5 million pounds of radioactive chemical waste
4 ended up all the way from North Dakota, from Goodnight
5 wells, into the state of Oregon, transported by a
6 company called OWL. You're aware of all of that?

7 MR. MCGUIRE: Vaguely. What year did
8 this happen? I can't remember.

9 MR. WEHMEYER: Were you responsible for
10 North Dakota at that point in time for Goodnight?

11 MR. MCGUIRE: What year was it?

12 MR. WEHMEYER: I don't know what year.
13 I'm asking you. You said you were in charge of North
14 Dakota. It's in your CV. It's been in the last seven
15 years. It would seem to me, if I was in charge of
16 North Dakota, and 2 and a half million pounds of my
17 radioactive material ended up almost 1,000 miles away
18 in the state of Oregon, I would get to the bottom of
19 that. Have you done that or not?

20 MR. MCGUIRE: Well, no, I was never in
21 charge of -- of the North Dakota stuff until I stepped
22 into my role, you know, in --

23 MR. WEHMEYER: But you were in
24 charge --

25 MR. MCGUIRE: -- October of 2023.

1 So -- and no, this is -- this is not a -- this is not
2 a down hole thing. I'm responsible for -- for down
3 hole issues, and this is out of my purview.

4 MR. WEHMEYER: So if it happens above
5 the ground, that's not your problem?

6 MR. MCGUIRE: That's not my words.

7 MR. WEHMEYER: Let's talk about Crane
8 County. Are you familiar with the Texas Tribune
9 article that discussed injection of wastewater into
10 the San Andres and the Glorieta in Crane County,
11 Texas?

12 MR. MCGUIRE: I am.

13 MR. WEHMEYER: And the article
14 discusses that there were nine SWD wells involved.
15 Seven of them were Goodnight, weren't they?

16 MR. MCGUIRE: Well, seven of the -- two
17 of those seven do not inject into the San Andres.

18 MR. WEHMEYER: Were seven of the wells
19 Goodnight wells?

20 MR. MCGUIRE: I -- I can't -- can we
21 read the -- the -- what you're referring to here?

22 MR. WEHMEYER: Fracking wastewater
23 injected underground for permanent disposal traveled
24 12 miles through geological faults before bursting to
25 the surface through a previously plugged West Texas

1 oil well in 2022, according to a new study from
2 Southern Methodist University. Began to spray water.
3 Discusses that of the nine wells, seven were Goodnight
4 wells two were Blackbeard wells. That the surface of
5 the earth has risen approximately 40 centimeters, if
6 you go read the SMU article. That NASA is involved as
7 part of this problem.

8 Were you in charge of Texas saltwater
9 operations for Goodnight in 2022?

10 MR. MCGUIRE: Yeah. I oversaw parts of
11 Texas, yes.

12 MR. WEHMEYER: Did it include Crane
13 County, Texas?

14 MR. MCGUIRE: Partially. I -- I split
15 that workload with -- with others. At that time, I
16 was more responsible for our operations down in Reeves
17 County. I was kind of overseeing that stuff, but I
18 was definitely -- I was definitely involved in the
19 Crane --

20 MR. WEHMEYER: In Crane -- go ahead. I
21 didn't intend to interrupt you.

22 MR. MCGUIRE: No, that's fine. All
23 good.

24 MR. WEHMEYER: In Crane County, Texas,
25 was Goodnight injecting into the San Andres?

1 MR. MCGUIRE: Yes. It's -- it's a very
2 different situation. The reservoir is completely
3 different down there than it is at EMSU.

4 MR. WEHMEYER: The question was a
5 narrow one. In Crane County, Texas, was Goodnight
6 injecting into the San Andres, yes or no?

7 MR. MCGUIRE: Yes. But it's a totally
8 different reservoir situation down there.

9 MR. WEHMEYER: Were they also injecting
10 into the Glorieta?

11 MR. MCGUIRE: No.

12 MR. WEHMEYER: With respect to the San
13 Andres -- in that instance, had Goodnight taken the
14 position that there was a confining barrier above the
15 San Andres that would have prohibited water from
16 migrating upwards? Did you tell the Railroad
17 Commission that as part of your SWD application?

18 MR. MCGUIRE: We do, and we still
19 believe that.

20 MR. WEHMEYER: But in fact, the SMU
21 paper has come to the conclusion that water has
22 traveled a great distance and has -- through --
23 reached shallower formations; isn't that true?

24 MR. MCGUIRE: That's what it says.
25 We've hired a third-party engineering firm to -- to

1 review all of this stuff. They're just finishing up
2 their study right now, and their preliminary
3 conclusions are that it was not our -- our wells.

4 MR. WEHMEYER: Right. But SMU -- and
5 SMU doesn't have any dog in this hunt, does it? It's
6 just an -- right?

7 MR. MCGUIRE: Sorry, go ahead. Well,
8 SMU didn't call out Goodnight specifically.

9 MR. WEHMEYER: Okay. And even NASA's
10 involved studying this, isn't it?

11 MR. MCGUIRE: Well, they -- it uses
12 InSAR data, which is a NASA satellite.

13 MR. WEHMEYER: But this would be an
14 instance in which it has been alleged -- you know it's
15 been alleged that Goodnight's saltwater injection
16 wells in the San Andres did not confine saltwater to
17 the San Andres as Goodnight told the Railroad
18 Commission, and that it has migrated upwards through
19 barriers into shallower formations. You know that's
20 been alleged.

21 MR. MCGUIRE: That's -- that's the
22 allegation, not proved.

23 MR. WEHMEYER: Basic Energy vs. PPC.
24 That's in Reeves County. You said you were
25 responsible for Reeves all by yourself; right?

1 MR. MCGUIRE: Yes, sir.

2 MR. WEHMEYER: That's a lawsuit you're
3 familiar with?

4 MR. MCGUIRE: It is.

5 MR. WEHMEYER: Now, the allegations in
6 that case were that Goodnight's saltwater injection
7 was watering out oil and gas hydrocarbon production.
8 Fair summary of the allegations in that one?

9 MR. MCGUIRE: Sure. Yeah.

10 MR. WEHMEYER: Did Goodnight actually
11 defend at the Railroad Commission on the basis that
12 the permits could not be revoked because the waste had
13 already been carried out by Goodnight?

14 MR. MCGUIRE: I don't know if we
15 actually had conversations with the Railroad
16 Commission about that. But we did do a study of it
17 and showed that the water was migrating, not from our
18 wells. It -- the water actually migrated into that
19 area from the opposite side of the field from where we
20 were injecting.

21 MR. WEHMEYER: If you'll focus on my
22 actual question, did Goodnight actually defend at the
23 Railroad Commission on the basis that you can't stop
24 our injection, the waste here has already occurred?
25 Yes or no?

1 MR. MCGUIRE: If they did, I'm unaware
2 of that.

3 MR. WEHMEYER: You don't know one way
4 or the other?

5 MR. MCGUIRE: That's correct.

6 MR. WEHMEYER: Goodnight actually paid
7 a settlement to the affected mineral owners, didn't
8 it?

9 MR. MCGUIRE: We did, 'cause it was
10 cheaper than going to hearing, and it was a very small
11 settlement.

12 MR. WEHMEYER: If you would just
13 listen -- Goodnight, in response to allegations that
14 it committed waste of hydrocarbons, paid a settlement
15 to be dismissed from the case to the mineral owners;
16 isn't that true?

17 MR. MCGUIRE: Same answer.

18 MR. WEHMEYER: Are you aware of other
19 instances in which Goodnight is being sued for waste?

20 MR. MCGUIRE: No, I don't think so.
21 If -- if you have -- I'm sure, if you know of one,
22 you'll bring it up.

23 MR. WEHMEYER: How about the Marston
24 case? Is Marston suing Goodnight and Blackbeard right
25 now?

1 MR. MCGUIRE: We won that in summary
2 judgment.

3 MR. WEHMEYER: That is at the Eighth
4 Court of Appeals, isn't it?

5 MR. MCGUIRE: I don't know.

6 MR. WEHMEYER: What is Marston alleging
7 Goodnight did to its minerals?

8 MR. MCGUIRE: I was not involved in
9 that.

10 MR. WEHMEYER: Are those the wells that
11 you mentioned in your direct testimony with Mr. Rankin
12 that Goodnight claims to own? Are those the oil
13 wells, the ones on the Marston Ranch?

14 MR. MCGUIRE: Yes. We, at one time,
15 had oil wells on the Marston Ranch.

16 MR. WEHMEYER: So are those the wells
17 that you offered in your testimony in Mr. Rankin, or
18 are those different wells?

19 MR. MCGUIRE: That -- those were
20 included in the -- in that statement. Yeah, those
21 came to mind.

22 MR. WEHMEYER: Can you think of any
23 others, or were those the wells?

24 MR. MCGUIRE: I can think of a -- I can
25 think of one other.

1 MR. WEHMEYER: Okay. But --

2 MR. MCGUIRE: Maybe -- maybe another
3 one down -- yeah, maybe -- maybe two. Two others.

4 MR. WEHMEYER: But in terms of what you
5 had in your mind with Mr. Rankin in answering the
6 questions, it was those Marston wells, wasn't it?

7 MR. MCGUIRE: They were included.

8 MR. WEHMEYER: Isn't it true that
9 Marston is actually suing Goodnight, saying it was a
10 breach of contract to assign these wells to an SWD
11 operator, they are intentionally killing our oil wells
12 so that they can drill four new SWD wells to the waste
13 of our minerals?

14 MR. MCGUIRE: No. We have no intention
15 of adding wells on that -- on that particular system.

16 MR. WEHMEYER: What, then, are the
17 Marston allegations?

18 MR. MCGUIRE: If there's new
19 allegations, I have no idea what they are. The --
20 that was settled in summary judgment where we -- where
21 we won.

22 MR. WEHMEYER: Okay. You have no clue
23 how the appellate process works in the stage it's in
24 right now at the Eighth Court of Appeals, do you?

25 MR. MCGUIRE: No.

1 MR. WEHMEYER: As we talk about
2 qualifications and methods, you have been educated as
3 a geologist. I give you that; right? That's
4 reflected on your CV, isn't it?

5 MR. MCGUIRE: Yes.

6 MR. WEHMEYER: Now, as a geologist, did
7 you perform any rock outcrop studies here as part of
8 picking tops or as part of any of the geological or
9 engineering assessments?

10 MR. MCGUIRE: I guess I don't
11 understand the question. All of these are subsurface
12 rocks.

13 MR. WEHMEYER: Well, tell the
14 commission the very first time you ever saw one of the
15 EMSU subsurface rocks. Was it when Dr. Lindsey
16 brought it into this hearing on the first day?

17 MR. MCGUIRE: I've seen cuttings before
18 then.

19 MR. WEHMEYER: Mud cuttings?

20 MR. MCGUIRE: Yeah.

21 MR. WEHMEYER: Okay. In terms of
22 actually looking at a piece of rock, a piece of core,
23 was the first time you ever saw a piece of core when
24 Dr. Lindsey brought it to you?

25 MR. MCGUIRE: I -- sure, I guess that

1 would be accurate. We don't have cores.

2 MR. WEHMEYER: Is there -- have you
3 ever actually looked at the core of the 679 well, or
4 tried to describe that core?

5 MR. MCGUIRE: I've -- I've seen the
6 pictures, yes.

7 MR. WEHMEYER: You think that would be
8 a proper core assessment, looking at a photograph?

9 MR. MCGUIRE: That wasn't your
10 question. You said if I had ever seen it.

11 MR. WEHMEYER: The actual core and
12 prepared a core study. Have you ever done that?

13 MR. MCGUIRE: I have not prepared a
14 core study on any wells at the EMSU.

15 MR. WEHMEYER: Have you prepared any
16 study whatsoever on the RR Bell?

17 MR. MCGUIRE: No.

18 MR. WEHMEYER: Have you prepared any
19 study of any other core in or around the EMSU?

20 MR. MCGUIRE: I have not.

21 MR. WEHMEYER: Any fracture gradient
22 surveys or studies?

23 MR. MCGUIRE: So we've tried to
24 establish what the frack gradient is through step rate
25 tests, but we physically can't get there.

1 MR. WEHMEYER: So is the answer to my
2 question no? You agree that you have performed no
3 fracture gradient studies in the EMSU?

4 MR. MCGUIRE: No. We've tried to test
5 it, and we physically can't.

6 MR. WEHMEYER: Have you performed any
7 geomechanical studies in the EMSU?

8 MR. MCGUIRE: Same answer.

9 MR. WEHMEYER: You've never done it?

10 MR. MCGUIRE: We've attempted to, and
11 you can't -- you physically can't get there, given the
12 reservoir conditions.

13 MR. WEHMEYER: If the commission wanted
14 to know in the history of time what core studies
15 you've ever performed -- I think you mentioned at your
16 deposition there was one back in graduate school or
17 undergrad, and that would have been the only one in
18 the history of your career; correct?

19 MR. MCGUIRE: Yeah, I was involved at
20 the TCU core lab during graduate school.

21 MR. WEHMEYER: That was just one
22 project, ever?

23 MR. MCGUIRE: No, it was -- I was in
24 there all -- you know, fairly frequently, and, you
25 know, helping out with different studies over time.

1 MR. WEHMEYER: Did you hear Dr.
2 Lindsey's testimony about he and Dr. Trentham actually
3 performing outcrop studies in the -- as to the San
4 Andres?

5 MR. MCGUIRE: Yeah.

6 MR. WEHMEYER: Have you ever
7 performed --

8 MR. MCGUIRE: I've read the studies.

9 MR. WEHMEYER: Have you ever performed
10 a rock outcrop study in your entire life?

11 MR. MCGUIRE: I have.

12 MR. WEHMEYER: In connection with EMSU?

13 MR. MCGUIRE: Not in connection with
14 EMSU.

15 MR. WEHMEYER: Would it have only been
16 as part of your schoolwork?

17 MR. MCGUIRE: Yes. Well, during the
18 internship, we did some outcrop studies.

19 MR. WEHMEYER: Do you know --

20 MR. MCGUIRE: Or participated in those
21 outcrop studies.

22 MR. WEHMEYER: Has anybody associated
23 with Goodnight performed any rock outcrop studies on
24 the San Andres?

25 MR. MCGUIRE: The outcrops are pretty

1 clearly defined. You can read that literature. It's
2 all published.

3 MR. WEHMEYER: Question is, have you --
4 so Dr. Lindsey just did it for giggles, or why would
5 Dr. Lindsey and Dr. Trentham take the time to do it if
6 it wasn't meaningful?

7 MR. MCGUIRE: Well, they were trying to
8 publish papers, and yeah, those -- those papers are
9 meaningful.

10 MR. WEHMEYER: And so my question is,
11 has anybody with Goodnight ever performed a rock
12 outcrop study, yes or no?

13 MR. MCGUIRE: Well, like I said, I
14 have.

15 MR. WEHMEYER: On San Andres?

16 MR. MCGUIRE: No.

17 MR. WEHMEYER: Has anybody at Goodnight
18 prepared a material balance study or a simulation
19 model that they have brought here to the OCC as part
20 of any effort to establish their case, yes or no?

21 MR. MCGUIRE: We have not, no. And
22 there's reasons for that.

23 MR. WEHMEYER: I'm going to move into
24 your presentation now. And you know, we have had
25 three different written testimony sworn to by you, and

1 also there was a deposition. Do you remember that?

2 MR. MCGUIRE: I do.

3 MR. WEHMEYER: I guess I'll just start
4 here on this system. In terms of 13 dedicated
5 operators, has Goodnight produced one scrap of paper
6 to Empire in which it has ever given over any of the
7 contracts with operators? If anybody wanted to
8 investigate what you are saying, 13 dedicated
9 operators, have any of those revenue payments, any of
10 the volumes, any of the contracts, any of that been
11 produced in this case to Empire?

12 MR. RANKIN: Objection, relevance,
13 outside the scope. It wasn't asked for, as I recall,
14 in discovery.

15 THE HEARING OFFICER: Overruled.

16 MR. MCGUIRE: Can you repeat the
17 question? Sorry.

18 MR. WEHMEYER: You saw fit -- of your
19 26 slides, the very first one talks about 13 dedicated
20 operators. Has any of those documents that you
21 testified to -- I presume these are evidenced in a
22 written agreement?

23 MR. MCGUIRE: Yes, we have contracts.

24 MR. WEHMEYER: Have any of those been
25 given over to Empire, and are any of those in any of

1 the evidence that has been filed by way of exhibits
2 with the OCC?

3 MR. MCGUIRE: Not to my knowledge. I
4 don't think Empire requested them, and I -- I don't
5 know how it -- what that has to do with the reservoirs
6 that we're discussing here.

7 MR. WEHMEYER: Why did you put it,
8 then, on your very first slide of 26 and offer
9 testimony to the commission about it?

10 MR. MCGUIRE: Because I wanted to
11 describe what the -- what the project is, what
12 we're -- what we're looking at here.

13 MR. WEHMEYER: Speaking of things that
14 don't have anything to do with the case -- and I agree
15 with you, if there's one dedicated operator or a
16 thousand, I agree with you that that's irrelevant. So
17 we'll just put a bow around that. Now let's talk --

18 MR. MCGUIRE: Yeah, I guess the thought
19 was that it was -- you know, Dr. Ampomah was asking
20 some of these questions.

21 MR. WEHMEYER: Okay. The revocation of
22 the wells -- it costs about \$2.5 million to drill an
23 SWD; is that right?

24 MR. MCGUIRE: No. You're -- that's an
25 underestimation.

1 MR. WEHMEYER: I've taken that
2 literally off of one of Goodnight's AFEs. So are you
3 telling me your documents are false, or how have I
4 misread your AFE?

5 MR. MCGUIRE: That may have been the
6 AFE, but that's not -- that's not what it ended up
7 costing.

8 MR. WEHMEYER: Through poor execution,
9 you overran your AFE, or what do we do with that?

10 MR. MCGUIRE: There's -- there's things
11 that happen when you try to drill these wells that
12 deviate from the AFE numbers.

13 MR. WEHMEYER: Okay. Where else on the
14 planet earth has Goodnight permitted SWDs and drilled
15 SWDs within a designated and producing oil unit?

16 MR. MCGUIRE: I think this is the only
17 one.

18 MR. WEHMEYER: And do you remember that
19 Mr. Tomastik was asked by the commission, "Have you
20 ever -- in all of your permitting experience, you came
21 here and you were offered as the permitting expert on
22 behalf of Goodnight. Have you ever seen this before
23 in your life?" And he said no. Do you remember that?

24 MR. RANKIN: Objection, misstates
25 evidence.

1 THE HEARING OFFICER: Overruled.

2 MR. MCGUIRE: Mr. Tomastik was not the
3 permitting expert in this case. Yes, he was involved
4 in the permitting, but -- I guess I don't remember
5 that -- that testimony.

6 MR. WEHMEYER: Did you not offer him as
7 a regulatory expert associated with the permitting
8 process of SWDs?

9 MR. MCGUIRE: No. That was more
10 specific to the permitting -- you know, his experience
11 as a UIC director.

12 MR. WEHMEYER: Okay. You've heard Mr.
13 McBeth ask the question. You've heard Mr. Tomastik
14 ask the question. You've heard Mr. Alaman [ph] ask
15 the question. I've now asked you the question. There
16 has not been one single Goodnight witness who's been
17 able to tell this commission about one SWD in the
18 history of time that they're aware of that was
19 permitted within an existing oil unit; isn't that
20 true?

21 MR. MCGUIRE: We weren't the first
22 commercial SWD operator to permit a well inside the
23 EMSU.

24 MR. WEHMEYER: Was the EMSU established
25 at the time that the SWD permits you're referring to

1 were issued?

2 MR. MCGUIRE: Yes.

3 MR. WEHMEYER: Which operator are you
4 referring to?

5 MR. MCGUIRE: I'm -- well, the wells
6 are the P -- or the N11 and the P15. Those were
7 permitted not long before we permitted our wells.

8 MR. WEHMEYER: What year?

9 MR. MCGUIRE: Those -- those are
10 commercial wells. 2018/19 timeframe.

11 MR. WEHMEYER: So other than the folks
12 that are parties to this proceeding, you're not
13 aware -- no witness for Goodnight has been able to
14 tell the commission about anywhere else on the entire
15 planet earth in which SWDs were permitted within the
16 boundaries, surface and depth, of a designated unit;
17 true?

18 MR. MCGUIRE: I haven't -- I haven't
19 looked outside of the -- the units that are in this
20 area. But the units in this area have.

21 MR. WEHMEYER: At the revocation of
22 wells inside EMSU, 40 million -- I've looked at all of
23 the briefing here on avoiding watering out of
24 hydrocarbons, PPQ, avoidance of waste, the
25 constitutional charge of this OCC to protect the

1 state's valuable natural resources. I can't see where
2 this -- if the commission wants to take your word on
3 \$40 million, where is that relevant to anything that's
4 before the commission for consideration?

5 MR. MCGUIRE: That was in direct --

6 MR. WEHMEYER: Or is this just some
7 effort to have the commission feel sorry for
8 Goodnight?

9 MR. MCGUIRE: No, that was in direct
10 response to Dr. Ampomah's questions.

11 MR. WEHMEYER: Great. So we can agree
12 that whether you spent 50 cents or 50 million, that's
13 not relevant to this avoidance of waste charge that's
14 before the OCC today; agree?

15 MR. MCGUIRE: Well, I think that the
16 commission's questions are the most important, and
17 we're trying to answer those.

18 MR. WEHMEYER: You've cited in your
19 original witness testimony some of the regulations
20 that are before this commission for decision. You
21 didn't know what they meant, but Mr. Rankin provided
22 them to you, and you swore to the statement. You
23 remember that?

24 MR. MCGUIRE: Can you be specific?

25 MR. WEHMEYER: Well, for example,

1 production and paying quantities. You wouldn't have
2 the first idea how to perform a production and paying
3 quantities analysis in New Mexico, do you?

4 MR. MCGUIRE: Never done one.

5 MR. WEHMEYER: But you didn't have any
6 why problems --

7 MR. MCGUIRE: That's why we hired --

8 MR. WEHMEYER: Go ahead. Sorry, I
9 didn't realize you were continuing --

10 MR. MCGUIRE: No, yeah. I mean, that's
11 why we hired John McBeth.

12 MR. WEHMEYER: Then why did you swear
13 that there was no evidence -- this is in your original
14 witness statement -- that there was no evidence here
15 that the SWDs of Goodnight would impair production and
16 paying quantities? Now, if you have no clue how to
17 perform that analysis, why would you put it in your
18 opening statement and swear to it?

19 MR. MCGUIRE: Well, number one, there's
20 no evidence that we're affecting current production.
21 And number two, I don't think that there's any
22 producible hydrocarbon in the San Andres.

23 MR. WEHMEYER: By producible
24 hydrocarbon in the San Andres -- if the commission
25 wants to see where you've done a technical

1 recoverability study, they're not going to find that
2 anywhere in your sworn statements, are they?

3 MR. MCGUIRE: There's no reason to do
4 the study if the oil is not there.

5 MR. WEHMEYER: Well, as you bring up
6 this idea that oil is not there, let's cover that here
7 for a moment. Did you sit through Mr. Davidson's
8 testimony? Dr. Davidson, I apologize.

9 MR. MCGUIRE: I did.

10 MR. WEHMEYER: -- if I can get some
11 audio. We don't have audio. I was worried we weren't
12 going to be able to play the audio. Try again.

13 (Audio played.)

14 MR. WEHMEYER: I think we're going to
15 have to work on the audio. We'll work on the audio,
16 and we'll get it going. Try it one more way. That's
17 all right. We'll get this working after the lunch
18 break.

19 Did you hear Dr. Davidson actually
20 swear that there was a rise throughout the San Andres?
21 Were you here for that testimony?

22 MR. MCGUIRE: I don't believe he said
23 that.

24 MR. WEHMEYER: Were you here for Mr.
25 Tomastik's testimony that there was a rise in the

1 upper San Andres?

2 MR. MCGUIRE: I don't remember Mr.
3 Tomastik saying that. But what he was referring to
4 was not the disposal zone, if he did say that.

5 MR. WEHMEYER: Were you here for Mr.
6 McBeth -- actually, strike that. Were you here when
7 Dr. Davidson testified that he's calculated oil
8 saturations from the very top of the San Andres to the
9 very bottom of the San Andres? Did you hear that
10 testimony?

11 MR. MCGUIRE: Yeah, I've -- I've seen
12 his analysis, and the -- the saturations that he
13 calculated in the disposal zone don't meet the
14 definition of an ROZ. And it's -- it's his opinion,
15 to my understanding, that they're not producible

16 MR. WEHMEYER: Well, just since you
17 opened that door, you've -- in your sworn statements,
18 you've actually sworn and opined here as the geologist
19 that this is a shallow water environment -- a high
20 energy, shallow water environment in the EMSU at the
21 San Andres, haven't you?

22 MR. MCGUIRE: Can you show me that?

23 MR. WEHMEYER: I will. We're going to
24 get to it. But as you, the author and the person
25 who's literally offering sworn testimony to this

1 commission, you don't remember swearing that this is a
2 shallow water environment?

3 MR. MCGUIRE: I probably -- let's see.
4 I may have said that referring to parts of the San
5 Andres.

6 MR. WEHMEYER: Okay. So as we have a
7 fight over deep water or shallow water, since you
8 raised this Dr. Davidson thing, you know as a fact
9 that you've sworn here that the San Andres was a
10 shallow water environment at EMSU?

11 MR. MCGUIRE: Not --

12 MR. WEHMEYER: And that's actually also
13 consistent with the demonstratives that were shown by
14 Mr. White, one of your other witnesses, who placed
15 EMSU at a shallow water depositional environment;
16 isn't that right?

17 MR. MCGUIRE: I guess it depends on how
18 each of these people are defining "shallow."

19 MR. WEHMEYER: Coming back to -- since
20 you volunteered that you don't think there's PPQ here,
21 did you hear Mr. McBeth swear in this court that he --
22 using all of your volumes, what Dr. Davidson and Mr.
23 Knights come up with -- you with me so far?

24 MR. MCGUIRE: Which volumes?

25 MR. WEHMEYER: Your volumes.

1 Goodnight's volumes of hydrocarbon through the top all
2 the way to the bottom of the San Andres. You with me
3 on the same page of those volumes?

4 MR. MCGUIRE: Yeah. Yeah. So we're
5 talking about calculated oil saturations?

6 MR. WEHMEYER: And you know, you heard
7 the testimony, that every drop under 20 percent
8 calculated oil saturation's excluded, isn't it?

9 MR. MCGUIRE: Yeah. That doesn't meet
10 the definition of an ROZ.

11 MR. WEHMEYER: Okay. So every drop
12 under 20 percent, which you've heard Dr. Trentham and
13 Mr. Meltzer talk about -- 20 percent would be the
14 place you start an ROZ development, not finish it;
15 right? Do you understand that?

16 MR. MCGUIRE: Oh, well, they said that
17 it -- it might be commercial over 20 percent.

18 MR. WEHMEYER: Starting at 20, and then
19 you would bring it down; right?

20 MR. MCGUIRE: I don't know if that's
21 what they said specifically.

22 MR. WEHMEYER: Now, just coming back --
23 using your volumes, under Mr. McBeth's reservoir
24 engineering analysis here, he agreed that if you have
25 the 45Q tax credits and have dollar CO2 and have \$75

1 WTI with that 1 percent escalator, this all -- it's
2 commercial to the tunes of many millions of dollars.
3 Do you remember that testimony?

4 MR. RANKIN: Objection, misstates prior
5 testimony.

6 THE HEARING OFFICER: I have no
7 specific recollection of the prior testimony, so
8 you'll have to be more specific, Mr. Rankin, if you
9 want me to rule on whether it misstates it.

10 MR. RANKIN: Well, Mr. Hearing Officer,
11 Mr. McBeth provided testimony about his analysis of
12 what -- and whether -- and to what extent Empire's
13 proposed project would be economic. And in every
14 instance in his analysis, he did identify that it
15 would not be.

16 THE HEARING OFFICER: Mr. Wehmeyer?

17 MR. WEHMEYER: I literally have the
18 audio clip and video clip where Mr. McBeth swore to
19 precisely what I just asked this witness about. I
20 would love to play it. Gosh, I want to play it so bad
21 right now, but the audio's not coming through. So he
22 absolutely -- this is his own expert contradicting
23 what he just volunteered as an unqualified reservoir
24 engineer. I can rephrase the question, if that helps.

25 THE HEARING OFFICER: Why don't you try

1 that?

2 MR. WEHMEYER: Mr. McBeth was asked --
3 taking all of your Goodnight volumes, whatever Mr.
4 Knights and Dr. Davidson came up with after their
5 calculations, and even cutting out every drop of oil
6 under a 20 percent saturation, use those volumes. At
7 a dollar CO2 and \$75 WTI oil on a 1 percent annual
8 escalator, the whole project is profitable to Empire.
9 You're not aware of that testimony?

10 MR. MCGUIRE: I -- I don't believe
11 that's what he said at all.

12 MR. WEHMEYER: We're going to get the
13 audio working and we'll take that up and let it play.
14 Other than CO2 and WTI price, Mr. McBeth didn't have
15 any other contrary analysis with respect to Mr. West's
16 economic modeling here, did he?

17 MR. RANKIN: Objection, misstates the
18 testimony of Mr. McBeth.

19 THE HEARING OFFICER: I'm looking back
20 through my notes. What I have here is McBeth said
21 that there was no viable ROZ. The pressure data was
22 unreliable. RFT measurements are contradicted. The
23 unreliable economic analysis and CO2 EOR economic
24 analysis was unreliable, and Buckwalter's model was
25 unreliable. Those are the six bullet points I wrote

1 down.

2 So Mr. Wehmeyer, why don't you try and
3 rephrase, or move on.

4 MR. WEHMEYER: Mr. McGuire, in terms of
5 the model that Mr. McBeth built on the economic case,
6 the only variables he fussed with were quantities of
7 crude, CO2, and WTI price. There were no other
8 variables. He didn't build any model that challenged
9 any other variable in a profitability equation. Do
10 you understand that?

11 MR. MCGUIRE: He didn't have to,
12 because when he buried those, it showed that the
13 project was cashflow negative.

14 MR. WEHMEYER: But -- okay. But if you
15 use the WTI price and the CO2 price of Empire, you
16 know the project is profitable even with your volumes,
17 don't you?

18 MR. RANKIN: Objection, asked and
19 answered. And that's the exact objection I raised
20 previously. I believe it misstates Mr. McBeth's
21 testimony.

22 THE HEARING OFFICER: I'll allow it.
23 Overruled.

24 MR. MCGUIRE: Can you restate the
25 question, please?

1 MR. WEHMEYER: We talked about the
2 three variables for Mr. McBeth. Using your volumes,
3 but Empire's WTI price and CO2 price, the project is
4 profitable, isn't it?

5 MR. MCGUIRE: I don't think that's what
6 he said.

7 MR. WEHMEYER: Let's go -- well, before
8 I leave this, on the idea of the cost to relocate the
9 wells, can you direct the commission to a regulation
10 that is in its jurisdiction that should care what it
11 would cost Goodnight, according to you, to relocate an
12 SWD well?

13 MR. MCGUIRE: A regulation?

14 MR. WEHMEYER: Yeah. The commission is
15 going to eventually issue an order here, make findings
16 of fact and conclusions of law. Any of those that
17 care about what it costs Goodnight to relocate an SWD?

18 MR. MCGUIRE: No, I'm not -- I'm not
19 aware of any regulation.

20 MR. WEHMEYER: So you don't know how
21 this idea of relocation cost would be relevant to
22 anything the commission needs to make a decision on;
23 true?

24 MR. MCGUIRE: Other than -- it was
25 responding to Dr. Ampomah's question.

1 MR. WEHMEYER: Now, we covered the New
2 Mexico constitution. You would agree that New
3 Mexico's constitution charges the state and this OCC
4 with protecting the state's sacred natural resources,
5 including hydrocarbons?

6 MR. RANKIN: Mr. Hearing Officer,
7 objection. He's asking from Mr. McGuire to make a
8 legal conclusion about what the New Mexico
9 Constitution says or requires.

10 THE HEARING OFFICER: I'll allow it.
11 He's just asking him -- he's asking him whether he
12 agrees or disagrees with it. Overruled.

13 MR. MCGUIRE: Again, restate your
14 question, please.

15 MR. WEHMEYER: Do you understand and
16 agree that the constitution of the state of New Mexico
17 charges the state, its legislature, its governor, and
18 this OCC with protecting the state's sacred natural
19 resources, inclusive of hydrocarbons, yes or no?

20 MR. MCGUIRE: I'm not a lawyer.
21 Shouldn't --

22 MR. WEHMEYER: Then why --

23 MR. MCGUIRE: I -- I have no -- I have
24 no reason to opine on that.

25 MR. WEHMEYER: Then why do you have so

1 many regulations cited in your witness testimony that
2 you swore to, if you're not a lawyer?

3 MR. MCGUIRE: Which ones?

4 MR. WEHMEYER: There's numerous of
5 them. Again, this is your sworn testimony. You don't
6 remember putting numerous regulations in your
7 testimony?

8 MR. MCGUIRE: Well, I -- I'm asking you
9 to be specific.

10 MR. WEHMEYER: Let's continue on. With
11 respect to -- do you agree that the OCC, when it makes
12 its decision here, should protect correlative rights?

13 MR. MCGUIRE: Yeah, I -- I believe
14 that's what they're charged with.

15 MR. WEHMEYER: Do you agree that the
16 OCC should ensure waste is prevented?

17 MR. MCGUIRE: I think that's what
18 they're tasked with.

19 MR. WEHMEYER: Do you understand that
20 waste equates to operating any well in a way that
21 reduces the total quantity of crude petroleum or gas
22 produced?

23 MR. MCGUIRE: I think my understanding
24 of the definition of waste is that it's the improper
25 management of reservoir energy that would tend to

1 reduce or reduce oil that can be economically
2 recovered.

3 MR. WEHMEYER: Where does it say
4 "economically recovered" in the regulation that I've
5 got up right now?

6 MR. MCGUIRE: Well, it says in the
7 definition that waste is -- is -- that term is
8 understood in the oil and gas business, so -- oh,
9 yeah, you have it right here. "As those words are
10 generally understood the oil -- in the oil and gas
11 business." So "business" implies economics.

12 MR. WEHMEYER: That's your answer for
13 where the economic case comes from, according to you?

14 MR. MCGUIRE: Yeah. If it's -- if
15 you're not making money doing it, it's not a business.

16 MR. WEHMEYER: If this commission
17 decides that allowing Goodnight's SWDs to continue
18 will reduce in less of the state of New Mexico and the
19 BLM's oil being produced by Empire -- you with me so
20 far on the assumption -- hypothetical?

21 MR. MCGUIRE: One more -- yeah, one
22 more time. Sorry.

23 MR. WEHMEYER: If this commission
24 decides that allowing Goodnight's SWDs to continue
25 injecting -- you with me so far?

1 MR. MCGUIRE: Yes.

2 MR. WEHMEYER: Would lead to less oil
3 being recovered by Empire in its oil unit -- you with
4 me so far on the hypothetical?

5 MR. MCGUIRE: Yeah. So we're --
6 we're -- sure. Yes, I can -- I'm following along.

7 MR. WEHMEYER: If the commission
8 decides that allowing Goodnight to continue SWD
9 injection would result in less oil being recovered by
10 Empire in its unit, you would agree the OCC should
11 revoke Goodnight's SWD permits; true?

12 MR. MCGUIRE: Yeah, that's a --
13 that's -- the -- the commission is tasked with -- with
14 protecting producible hydrocarbons.

15 MR. WEHMEYER: And so if they decide --

16 MR. MCGUIRE: But I -- again, I
17 don't -- I don't agree that that's the case here.

18 MR. WEHMEYER: My question is,
19 hypothetically speaking, if the OCC decides that
20 allowing Goodnight to continue saltwater injection in
21 the EMSU or within 2 miles of the EMSU would result in
22 Empire producing and selling less of its oil and gas
23 hydrocarbons in the EMSU -- you with me so far?

24 MR. MCGUIRE: I am.

25 MR. WEHMEYER: You would agree, then,

1 that it is the charge of this commission to revoke
2 Goodnight's SWD permits; true?

3 MR. MCGUIRE: Sure. I -- but if --

4 MR. RANKIN: Mr. Hearing Officer, I'm
5 trying to get out an objection. Mr. Wehmeyer is
6 misstating the law. I believe that the language of
7 the statute speaks for itself.

8 THE HEARING OFFICER: Well, the
9 language may speak for itself. It's a hypothetical.
10 If he understands it, he can answer it. It's a
11 hypothetical.

12 I want to take this opportunity,
13 though, to remind you guys -- I know, especially on
14 cross, it tends to get contentious. You're doing a
15 fairly good job, but for the sake of clarity of the
16 record, just try not to step on each other's questions
17 and answers. So the objection's overruled.

18 MR. WEHMEYER: Mr. McGuire, would you
19 like me to re-ask the question?

20 MR. MCGUIRE: I would. I get lost with
21 the objections.

22 MR. WEHMEYER: I'm just trying to get
23 this simple for the commission here so we've got it in
24 one spot. If the commission decides that on the facts
25 that it is presented as part of this case -- and you

1 understand the OCC is the final decision maker on
2 facts; right?

3 MR. MCGUIRE: I am.

4 MR. WEHMEYER: If it decides factually
5 that allowing Goodnight to continue to inject SWD
6 water in the EMSU boundaries would result in Empire
7 producing and selling less oil, you would agree, then,
8 that it is the charge of this OCC to revoke
9 Goodnight's permits; true?

10 MR. MCGUIRE: Sure. I -- yeah, I -- I
11 guess that's what they're tasked with. But I -- I
12 guess I somewhat disagree with the -- the premise. I
13 don't think that evidence has been shown.

14 MR. WEHMEYER: Now, since you brought
15 up the concept of the \$40 million or the cost to
16 relocate, do you remember seeing Exhibit I29 out of
17 the work of Mr. West?

18 MR. MCGUIRE: Yeah, I remember seeing
19 this.

20 MR. WEHMEYER: And Mr. West came -- he
21 actually physically came to Santa Fe. He sat in the
22 seat, he put his hand up, and he swore in the oath to
23 tell the truth, the whole truth, and nothing but the
24 truth, didn't he?

25 MR. MCGUIRE: He did.

1 MR. WEHMEYER: Would you give me that
2 between you and Mr. West, he is a much more educated
3 and qualified reservoir engineer?

4 MR. RANKIN: Objection, argumentative.

5 THE HEARING OFFICER: I'll allow it.
6 It is a bit argumentative, but -- yeah, it's
7 overruled.

8 MR. WEHMEYER: You want me to re-ask
9 it, Mr. McGuire?

10 MR. MCGUIRE: Please.

11 MR. WEHMEYER: You understand you are
12 here sworn in to tell the truth, the whole truth, and
13 nothing but the truth, and that the part of this
14 OCC -- part of their role in listening to your
15 testimony is to assess credibility, is this someone I
16 can trust or not trust; right?

17 MR. MCGUIRE: Sure.

18 MR. WEHMEYER: You will give me that
19 between you and Mr. West, he is the much more educated
20 and qualified and experienced reservoir engineer,
21 isn't he?

22 MR. MCGUIRE: I don't know what his
23 education is.

24 MR. WEHMEYER: How about if he has any
25 engineering degree on the planet earth? Wouldn't that

1 be more educated than you?

2 MR. MCGUIRE: Not necessarily.

3 MR. WEHMEYER: Okay. Now, did you not
4 look at his CV that was appended to his testimony?

5 MR. MCGUIRE: I may have glanced at it,
6 but no, I -- I don't recall going over it line by
7 line.

8 MR. WEHMEYER: If the commission says,
9 "Gosh, this is hard to weigh" -- I want to now ask
10 about Dr. Lindsey. You would agree with me that Dr.
11 Lindsey is the much more educated, qualified, and
12 experienced geologist as compared to you as to the San
13 Andres and the Grayburg and the EMSU; true?

14 MR. MCGUIRE: Sounds like ad hominem to
15 me.

16 MR. WEHMEYER: You're disagreeing with
17 that?

18 MR. MCGUIRE: Yeah. I mean, I'm -- I'd
19 say if you have an issue with my arguments, attack my
20 arguments, not my qualifications.

21 MR. WEHMEYER: Okay. And I'm not
22 fussing with -- it's just kind of like one-on-one
23 expert -- the very first thing is qualifications. If
24 you didn't want to have your qualifications attacked,
25 this wasn't the right place to come swear in.

1 MR. MCGUIRE: Okay.

2 MR. WEHMEYER: But between you and Dr.
3 Lindsey, you will tell this commission that he is the
4 much more educated, experienced, qualified geologist
5 as concerns all things San Andres, Grayburg, and EMSU;
6 isn't that true?

7 MR. MCGUIRE: He's -- he's been working
8 longer than I have. That's for sure.

9 MR. WEHMEYER: You would give me the
10 same answer for Dr. Trentham, wouldn't you?

11 MR. MCGUIRE: Yeah. The -- the --
12 they've been -- they have -- they've been working
13 longer than I have, for sure, if that's --

14 MR. WEHMEYER: And you would give me
15 the same --

16 MR. MCGUIRE: -- if that's the
17 question.

18 MR. WEHMEYER: And you would give me
19 the same answer for Mr. Meltzer, wouldn't you?

20 MR. MCGUIRE: Same answer. Yeah.

21 MR. WEHMEYER: Just to understand --
22 we've been here nearly four weeks, or actually over
23 four weeks, I think, starting today. You can tell the
24 commission not one single Goodnight witness is coming
25 here to Santa Fe to testify to the OCC; isn't that

1 true?

2 MR. MCGUIRE: That's not true.

3 MR. WEHMEYER: Who employed by
4 Goodnight came to Santa Fe to testify here in Santa Fe
5 to the OCC?

6 MR. MCGUIRE: So yeah, if you're being
7 specific to -- to Goodnight employees, no, I -- I'm --
8 I was unable to make it to Santa Fe for this.

9 MR. WEHMEYER: Mr. Drake, nobody else
10 bothered to come here either, did they?

11 MR. MCGUIRE: Mr. Drake was there for
12 some of it. But no, he's not testifying.

13 MR. WEHMEYER: As we look at -- did you
14 prepare any economic case -- other than just taking
15 your word for it that there's no ROZ, that Mr.
16 Meltzer's crazy, that Dr. Davidson's crazy, that Mr.
17 Tomastik's crazy, that Mr. West is crazy, everybody's
18 crazy. There's no ROZ here. Did you prepare an
19 economic case such as Mr. McBeth or Mr. West?

20 MR. MCGUIRE: I never -- I never called
21 those folks --those folks crazy.

22 MR. WEHMEYER: You do know that the
23 cumulative cash flow that Mr. West opined on here, if
24 Goodnight will just stop its injection, get out of the
25 oil unit it never should have been in, is

1 approximately \$5.5 billion?

2 MR. MCGUIRE: That's what he claimed,
3 although I think that Mr. McBeth disagrees pretty
4 vehemently.

5 MR. WEHMEYER: And that would result in
6 \$1.1 billion in royalties to the state of New Mexico
7 associated with its 58 percent share of the minerals
8 in the EMSU?

9 MR. MCGUIRE: That -- I guess that's an
10 assumption. But again, Mr. McBeth totally disagrees
11 with this.

12 MR. WEHMEYER: On what basis?

13 MR. MCGUIRE: On his analysis.

14 MR. WEHMEYER: Help the commission.
15 What was the analysis? If you say he totally
16 disagrees, what were the variables Mr. McBeth
17 disagreed with?

18 MR. MCGUIRE: I would refer you to his
19 testimony.

20 MR. WEHMEYER: You don't know?

21 MR. MCGUIRE: That's not what I said.

22 MR. WEHMEYER: Then what is it?

23 MR. MCGUIRE: I'd rather not try to
24 recall that, so I would just refer you to his
25 testimony.

1 MR. WEHMEYER: All right. Now, the
2 OCD, you know they issued an order in connection with
3 the Piazza well, yes?

4 MR. MCGUIRE: I do.

5 MR. WEHMEYER: In terms of experience
6 between you on the one hand and the OCD on the other
7 in making determinations about drowning of stratum or
8 economic recovery or total recovery of crude
9 petroleum -- you with me so far?

10 MR. MCGUIRE: Yes, sir.

11 MR. WEHMEYER: Between you and Mr.
12 Goetze, who is the far more experienced person there?

13 MR. MCGUIRE: In what avenue?

14 MR. WEHMEYER: Determining whether
15 hydrocarbons capable of producing oil and gas are
16 being encroached on by water, or that there would be a
17 reduction in the total crude petroleum produced from a
18 pool? Who has more experience and more qualifications
19 in that as between you and Mr. Goetze and the OCD?

20 MR. MCGUIRE: That's not what Mr.
21 Goetze said.

22 MR. WEHMEYER: My question is the
23 qualifications. Who has better qualifications there?

24 MR. MCGUIRE: To determine -- sorry,
25 say that again?

1 MR. WEHMEYER: Who has more experience
2 and qualifications to determine in the state of New
3 Mexico whether hydrocarbons risk drowning that are
4 capable of producing oil and gas, or that the total
5 ultimate recovery of crude petroleum would be
6 diminished? Between you and Mr. Goetze and the OCD,
7 who has more of that experience?

8 MR. MCGUIRE: I don't know Mr. Goetze's
9 full background.

10 MR. WEHMEYER: Isn't it true that the
11 order of the division was that Empire has provided
12 sufficient evidence for continued assessment of the
13 unitized interval for potential recovery of any
14 additional hydrocarbon resources remaining in place,
15 and that approval of the permit -- proposed well would
16 contradict the responsibility of the OCD to prevent
17 the drowning by water of any stratum or part thereof
18 capable of producing oil or gas or both oil and gas in
19 paying quantities, and to prevent the premature and
20 irregular encroachment of water or any other kind of
21 water encroachment that reduces or tends to reduce the
22 total ultimate recovery of crude petroleum oil or gas
23 or both from the pool?

24 MR. RANKIN: Mr. Hearing Officer,
25 objection. The document speaks for itself.

1 THE HEARING OFFICER: Overruled.

2 MR. MCGUIRE: If the question was --
3 yes, you read that accurately.

4 MR. WEHMEYER: That is what the OCD
5 after being presented with evidence determined here,
6 isn't it?

7 MR. MCGUIRE: I disagree that they were
8 provided that evidence. During the Piazzo hearing,
9 Empire really provided no evidence for an ROZ. It
10 wasn't after until additional testimony -- or
11 additional evidence was submitted in a different case
12 that this order come out. And I -- I disagree.

13 MR. WEHMEYER: But you're not really a
14 very good person to rely on for ROZ opinions because,
15 in fact, Dr. Davidson and Mr. Tomastik have both sworn
16 in this proceeding that there is an ROZ in the San
17 Andres. They disagree with you.

18 MR. RANKIN: Objection,
19 mischaracterizes prior testimony.

20 THE HEARING OFFICER: Okay. Mr.
21 Rankin, again, you're going to have to be a little
22 more specific on how it mischaracterizes prior
23 testimony, because it's been a while. How does it
24 mischaracterize it?

25 MR. RANKIN: Neither of the witnesses

1 that Mr. Wehmeyer references said anything along those
2 lines. Mr. Wehmeyer is overstating what was referred
3 to in their testimony, and he's mischaracterizing it.

4 THE HEARING OFFICER: Okay. These were
5 Goodnight witnesses?

6 MR. RANKIN: Yes.

7 THE HEARING OFFICER: All right. Mr.
8 Wehmeyer, rephrase the question, and try not to argue
9 with the witness.

10 MR. WEHMEYER: I have two clips, Mr.
11 McGuire, that are ready to play right now if I can get
12 the audio to work through this remote thing, since
13 you're not here.

14 MR. RAZATOS: Let's call it here, then,
15 Mr. Wehmeyer. At that point, you can practice it
16 during the lunch hour and make sure that it's working
17 on your end, and then we can pick up.

18 Mr. Hearing Officer, I apologize for
19 interrupting like that, but I think it would be a
20 great time for us to cut out for lunch.

21 THE HEARING OFFICER: Perfect. All
22 right. What time -- Mr. Chairman, what time do you
23 want us all back?

24 MR. RAZATOS: We will meet back at
25 1:15.

1 THE HEARING OFFICER: Okay, folks,
2 thank you all. Enjoy your lunch. See you at 1:15.

3 (Off the record.)

4 THE HEARING OFFICER: All right, Mr.
5 Wehmeyer. Let's see. I guess let's make sure we have
6 a witness. He's not on my screen yet, but -- oh,
7 there he is.

8 Hello, Mr. McGuire. I'll just remind
9 you, you're under oath still.

10 Mr. Wehmeyer, hopefully you got your
11 technical issues straightened out.

12 MR. WEHMEYER: We did not, but we'll
13 just go without it, unfortunately.

14 THE HEARING OFFICER: All right. Take
15 it away.

16 MR. WEHMEYER: Mr. McGuire, just with
17 this remote setting, you don't have any notes with you
18 or any extra screens open? Anything of that -- was
19 just noticing how you were glancing at some stuff,
20 like right now. Do you have any notes open?

21 MR. MCGUIRE: I had notes for my
22 presentation.

23 MR. WEHMEYER: Handwritten?

24 MR. MCGUIRE: No.

25 MR. WEHMEYER: Where were they?

1 MR. MCGUIRE: They're on the screen.

2 MR. WEHMEYER: Was it the same exact
3 thing, or you had different notes?

4 MR. MCGUIRE: I -- I guess I don't
5 understand.

6 MR. WEHMEYER: The notes you're
7 referring to, is that the exact slide deck that Mr.
8 Rankin showed, or do you have an additional set of
9 notes?

10 MR. MCGUIRE: No, I have some
11 additional comments.

12 MR. WEHMEYER: And so for all of the
13 testimony we've just heard, you've been using a
14 different set of commented notes that are not here in
15 this tribunal?

16 MR. MCGUIRE: Sure. If you want them,
17 you can have them.

18 MR. WEHMEYER: We would move that all
19 of the testimony of Mr. McGuire be stricken for his
20 use of improper materials that are outside of any kind
21 of properly administered sworn proceeding.

22 THE HEARING OFFICER: Mr. Rankin?

23 MR. RANKIN: -- Mr. Hearing Officer. I
24 don't have Mr. McGuire's notes. I think he had --
25 maybe Mr. McGuire can explain what he has, and he said

1 he's willing to share them. I think he was -- so I
2 don't see any problem with what -- it's --
3 Mr. McGuire's testimony is what his testimony is. I
4 don't think there's anything that's undue or improper
5 about that.

6 THE HEARING OFFICER: Mr. McGuire, in
7 responding to Mr. Wehmeyer's questions over the past
8 57 minutes of cross-examination, were you responding
9 from your own memory and knowledge, or were you
10 responding from independent notes that you have there?

11 MR. MCGUIRE: For the cross, no. It's
12 all been from memory. It was just for the
13 presentation.

14 THE HEARING OFFICER: Okay. Do the
15 notes that you have with you there today differ in any
16 material respect from the slides or the written
17 testimony that you've submitted?

18 MR. MCGUIRE: No.

19 THE HEARING OFFICER: All right. Okay,
20 Mr. Wehmeyer, your objection is overruled.

21 Mr. McGuire, I would ask that from here
22 on out you keep your testimony confined to what's in
23 your brain and/or what's already of record in this
24 case and not any extraneous or additional notes that
25 you might have; okay?

1 MR. MCGUIRE: Understood.

2 THE HEARING OFFICER: Mr. Wehmeyer.

3 MR. WEHMEYER: Mr. Hearing Officer, in
4 the alternative -- in light of the objection being
5 overruled, we would ask for a complete copy of all of
6 the notes, unadulterated, in the precise form that
7 they are, whether the particular section was looked at
8 or not.

9 Again, this is not how sworn testimony
10 is to go. This is not what he can create -- from
11 folks in the office or from Mr. Rankin. This is to be
12 based on the sworn statements that have been received
13 properly in evidence and from what's in his head as a
14 purported expert. And so as an alternative ask, it
15 would be the entire note deck provided over to us.

16 THE HEARING OFFICER: Mr. McGuire, what
17 are you looking at?

18 MR. MCGUIRE: Right now, I'm looking at
19 my screen with everybody on it, the platform.

20 THE HEARING OFFICER: But I mean, do
21 you have a screen -- we're at a disadvantage, I guess,
22 if you have a screen of notes that are different from
23 what is already in the record or the slides. Do you
24 have a set of notes that you're referring to that are
25 not in the record and not part of the slide

1 presentation?

2 MR. MCGUIRE: No. The -- the notes
3 that I referred to during my presentation were just to
4 keep my thoughts organized in case I got lost, so I
5 could redirect myself during that presentation. But
6 no, for the cross, there have been no notes.

7 THE HEARING OFFICER: How many pages of
8 notes are we talking about?

9 MR. MCGUIRE: It was just some bullet
10 points per slide. It's -- it's not in -- it was in
11 OneNote, so there's not really pages associated with
12 it.

13 THE HEARING OFFICER: All right. Mr.
14 Rankin, I think that's a fair request by Mr. Wehmeyer.
15 Do you have any problem with that?

16 MR. RANKIN: No problem with it
17 whatsoever.

18 THE HEARING OFFICER: All right. Then
19 Mr. McGuire, when you're done testifying, you'll
20 please provide a copy of your bullet points and/or
21 notes to Mr. Rankin so that he can provide them to
22 Mr. Wehmeyer.

23 MR. MCGUIRE: Understood.

24 MR. RAZATOS: Mr. Hearing Officer, I do
25 have a question for you.

1 Mr. Wehmeyer -- second?

2 MR. WEHMEYER: I'm sorry, Hearing
3 Officer.

4 MR. RAZATOS: No, I'm the chair, so I
5 apologize. I'm just jumping in quickly. Sorry, I
6 need to put my headset on.

7 Mr. Hearing Officer, do we need to give
8 them -- do you want to do this after his testimony, or
9 do you want to do it before?

10 THE HEARING OFFICER: Mr. Razatos, I've
11 asked the witness just to limit his testimony to
12 what's been presented on direct examination and not to
13 refer to his notes for -- you know, separate notes for
14 future answers. So as long as he abides by that
15 directive, I don't think we need to interrupt the
16 proceeding.

17 MR. RAZATOS: Okay. I was just asking
18 just to make sure.

19 THE HEARING OFFICER: In other words,
20 there's no -- as long as we eliminate the potential
21 for unfair surprise that Mr. Wehmeyer has raised, I
22 don't think we have any infection going on.

23 MR. RAZATOS: Okay. I was just making
24 sure procedurally. Thank you for answering.

25 And Mr. Wehmeyer, I apologize for

1 interrupting.

2 MR. WEHMEYER: I think I interrupted.
3 Just with the remote setting, I'm doing a even worse
4 than usual job at making sure folks are finished.

5 MR. RAZATOS: No worries, no worries.
6 Please proceed. My apologies.

7 MR. WEHMEYER: Mr. McGuire, the notes
8 that apparently you were using in your sworn testimony
9 to the OCC earlier today, when were those created?

10 MR. MCGUIRE: Late last week, when I
11 was preparing the slideshow.

12 MR. WEHMEYER: Were those notes
13 developed in consultation with your lawyer?

14 MR. MCGUIRE: We did some run-throughs
15 of the -- of the presentation, and I made sure that
16 the notes reflected what I wanted to say during the
17 presentation.

18 MR. WEHMEYER: The question is, the
19 notes that you were using to testify in response to
20 Mr. Rankin's questions, were those developed in
21 consultation with meetings with him in those
22 conversations, yes or no?

23 MR. MCGUIRE: A little bit of both.

24 MR. WEHMEYER: If the goal here is to
25 offer truthful testimony to the commission based on

1 your actual qualifications and the work that you've
2 done, the data you relied on, the methods employed,
3 and drawing a nexus to conclusion, why did you need to
4 script the answers with Mr. Rankin ahead of time?

5 MR. MCGUIRE: Didn't script the
6 answers. Just -- there were short bullet points that
7 were directly out of my testimony.

8 MR. WEHMEYER: Speaking directly out of
9 testimony and Mr. Rankin's help -- and I've never had
10 to instruct a witness this before. If there's any --
11 has anybody texted you or used some kind of a live
12 chat feature or anything while your testimony's going
13 on?

14 MR. MCGUIRE: No, sir.

15 MR. WEHMEYER: Okay. And anybody in
16 the room with you?

17 MR. MCGUIRE: No, sir.

18 MR. WEHMEYER: All right. I would ask
19 that if anybody enters the room, you immediately let
20 everybody know, and I would ask that if anybody's
21 texting you or sending you any kind of a live
22 communication during this proceeding that you let us
23 know; okay?

24 MR. MCGUIRE: Sure. That -- that has
25 not occurred, and it will not occur.

1 MR. WEHMEYER: You remember earlier I
2 asked you whether your witness statements were replete
3 with legal citations, and you said, "I don't know, can
4 you show me?" You understand today's exercise is not
5 what can Mr. Wehmeyer show you? This is what you, on
6 your knowledge, know as a person who's purporting to
7 be an expert here?

8 MR. MCGUIRE: I didn't know what you
9 were referring to, so I was asking you to show me what
10 you were referring to.

11 MR. WEHMEYER: Okay. You understand,
12 though, today's exercise is not, what can I make Mr.
13 Wehmeyer show me? The exercise is, if you have the
14 fact or opinion in your head, you offer that
15 truthfully. Do you understand that?

16 MR. MCGUIRE: I -- I guess so. Yeah.
17 Some -- I've -- I've written a lot of testimony here,
18 and I can't remember every single word that's in
19 there.

20 MR. WEHMEYER: My question is about the
21 testimony that Mr. Rankin wrote for you. For example,
22 production and paying quantity, you literally swore
23 under penalty of perjury to this OCC, who you've never
24 given testimony to before, that Empire provided no
25 evidence or technical information showing that the San

1 Andres is capable of producing oil or gas in paying
2 quantities. You swore to that; right?

3 MR. MCGUIRE: I did.

4 MR. WEHMEYER: And I asked you 15
5 minutes of examination ago, "Do you have the first
6 clue how to conduct a PPQ analysis?" And you said,
7 "No, I don't." Do you remember that testimony?

8 MR. MCGUIRE: Well, yeah. If there's
9 no producible hydrocarbon in the zone, then of course
10 you can't show oil in producing -- or in paying
11 quantities.

12 MR. WEHMEYER: My question was, do you
13 remember 15 minutes of testimony ago swearing that you
14 have no clue how to perform a production and paying
15 quantities analysis?

16 MR. MCGUIRE: Don't need to here.

17 MR. WEHMEYER: Now, the legal
18 citation -- as examples, this is just one paragraph,
19 and I think you've offered over 110 pages of sworn
20 testimony. This is just one paragraph, and there's
21 two different legal citations. You are not -- I
22 didn't hear lawyer on your CV or in any of your
23 testimony. You're not a lawyer, are you?

24 MR. MCGUIRE: I'm not.

25 MR. WEHMEYER: What is section 70-2-

1 33H?

2 MR. MCGUIRE: I'm assuming it has
3 something to do with paying quantities.

4 MR. WEHMEYER: Okay. Explain it for
5 me.

6 MR. MCGUIRE: I -- I don't know the
7 exact wording of that -- of that.

8 MR. WEHMEYER: Then why would you swear
9 to this? Do you understand how significant the oath
10 is that you took before being allowed to utter one
11 word in this proceeding, be it written or oral?

12 MR. RANKIN: Objection, argumentative.

13 THE HEARING OFFICER: Hold on. Oh, my
14 mic is on. It is argumentative. You know, if you
15 want to -- there's been a lot of back and forth about
16 whether or not this witness should be offering legal
17 opinions or making citations, you know, agreeing or
18 not agreeing with constitutional provisions. It's
19 only fair to the witness, Mr. Wehmeyer, if you want to
20 go there, show him the section.

21 MR. WEHMEYER: Mr. McGuire, I didn't
22 raise this section to you. You raised -- let me
23 strike that. You were the first person that mentioned
24 section 70-2-33H in your testimony. What particular
25 resource do you use to find your legal citations to

1 statutes and regulations? Is it Westlaw? Is it
2 Lexus? Is it Bloomberg? Who's your subscription
3 service?

4 MR. MCGUIRE: I don't have a
5 subscription service to any legal -- anything legal, I
6 guess.

7 MR. WEHMEYER: If the commission goes
8 back and reads your sworn testimony and sees legal
9 citations, is it fair for them to assume that you did
10 not find those, you don't know what they say or mean,
11 and that those were fed to you by counsel?

12 MR. RANKIN: Objection, argumentative.

13 THE HEARING OFFICER: Overruled.

14 MR. MCGUIRE: The -- in discussions
15 with counsel, yes, he gave me the overview of what
16 those mean. And when I wrote this, I had an
17 understanding of what they were and then included them
18 in my testimony.

19 MR. WEHMEYER: Move on to one of your
20 other slides. So that I understand, what on earth is
21 this slide supposed to demonstrate?

22 MR. MCGUIRE: It's to show the
23 cumulative New Mexico oil production that our company
24 has supported -- oil sales, sorry.

25 MR. WEHMEYER: And this would be an

1 instance -- we had quite a bit of wrestling with Mr.
2 McBeth about using historical performance to predict
3 future conduct. This would be an instance in which
4 you're predicting future based on what's happened
5 historically, isn't it?

6 MR. MCGUIRE: In what context?

7 MR. WEHMEYER: I assume in the
8 context --

9 MR. MCGUIRE: Which one of these
10 variables are you talking about?

11 MR. WEHMEYER: The graph, oil
12 production revenue.

13 MR. MCGUIRE: Okay. Can you -- can you
14 restate the question again?

15 MR. WEHMEYER: You are using historical
16 oil production to predict future oil production
17 revenue, aren't you?

18 MR. MCGUIRE: Yeah. We're taking our
19 2025 projected disposal volumes, assuming that that
20 stays flat and doesn't add any new disposal onto the
21 system, and projecting that forward.

22 MR. WEHMEYER: I want to make sure the
23 commission has this. Before preparing this slide, did
24 you look at the historical water production volumes
25 out of the Delaware?

1 MR. MCGUIRE: Yes. Yeah, I used the
2 overall average of the water-to-oil ratio over the --
3 all the unconventional wells in the -- I guess I
4 shouldn't say all the unconventional wells. It was
5 just Wolf Camp and Bone Springs in the -- in New
6 Mexico, and calculated what the large scale average
7 oil-to-water ratio was.

8 MR. WEHMEYER: Great. So before I get
9 to my next slide, the commission can take solace that
10 before you brought this slide to them, you had made
11 sure that you were aware of the historical volumes of
12 Delaware saltwater water being produced; true?

13 MR. MCGUIRE: Yeah.

14 MR. WEHMEYER: So Enverus -- do you --
15 I still call it Drillinginfo. I have a Drillinginfo
16 account. Do you have a Drillinginfo account that's
17 now Enverus?

18 MR. MCGUIRE: Yeah, and I still call it
19 Drillinginfo as well.

20 MR. WEHMEYER: Okay. You use Enverus?
21 I'm not showing you something that's unfamiliar to
22 you?

23 MR. MCGUIRE: That's correct.

24 MR. WEHMEYER: You know that there's an
25 entire dashboard for Delaware, New Mexico oil

1 production and water production, isn't there?

2 MR. MCGUIRE: I use the -- I don't use
3 this new version. I use the original DI still. I
4 really don't like how this version is set up. So no,
5 I did not use this.

6 MR. WEHMEYER: Okay. If you'll listen
7 to my question and answer only my question -- Mr.
8 Rankin's going to get a chance to redirect. If you'll
9 just answer my -- this is going to go so much faster
10 and we're going to get through this. The question is,
11 are you aware that on Enverus, you can sort off of a
12 dashboard and see Delaware oil production in New
13 Mexico and Delaware water production in New Mexico,
14 yes or no?

15 MR. MCGUIRE: Sure, I can agree with
16 that.

17 MR. WEHMEYER: And in the bottom left,
18 do you see that there's a legend there? You can even
19 do it by operator, can't you?

20 MR. MCGUIRE: You can, yes.

21 MR. WEHMEYER: Barrels of oil, barrels
22 of Delaware oil produced. Does that trend line on the
23 graph look anything like what you offered to this
24 commission in your sworn testimony?

25 MR. MCGUIRE: I didn't offer any graphs

1 or anything like that.

2 MR. WEHMEYER: Okay. But doesn't this
3 look like the Delaware oil production trend since
4 January of 2023 is falling off of a cliff in New
5 Mexico?

6 MR. MCGUIRE: I don't see any titles on
7 this. I see it says barrels of oil equivalent per
8 day. I didn't use equivalent. I used barrels of oil.

9 MR. WEHMEYER: That's a meaningful
10 distinction for this. You think if we just use
11 barrels of oil, the graph is going to go the other
12 way? Instead of falling off the cliff, it's going to
13 go up?

14 MR. MCGUIRE: No, I didn't -- I didn't
15 say that.

16 MR. WEHMEYER: Great. In terms of a
17 production profile for a Delaware well, this is a fair
18 production profile, isn't it? And this is even sorted
19 by operator.

20 MR. MCGUIRE: Sure. Yeah. I'm -- is
21 that -- I'm assuming that's like a type curve by
22 operator?

23 MR. WEHMEYER: Not even a type curve.
24 It's an average of the production volumes that are
25 in -- reported to the OCD.

1 MR. MCGUIRE: Okay, so --

2 MR. WEHMEYER: You understand?

3 MR. MCGUIRE: I do, yes.

4 MR. WEHMEYER: Not a type curve,
5 actuals. Now, you can even -- before you came and
6 gave the commission your earlier slide, you can sort
7 by all of the Delaware water produced. And you
8 understand, this is not even accounting for many of
9 these volumes being recycled. This is just saltwater
10 that comes up out of the ground. Do you understand
11 that?

12 MR. MCGUIRE: Sure. Yeah.

13 MR. WEHMEYER: Like Delaware oil,
14 Delaware saltwater has also fallen off of a cliff
15 since January of '23, hasn't it?

16 MR. MCGUIRE: It appears so in this
17 graph.

18 MR. WEHMEYER: I'm worried that you're
19 trying to leave the impression with the commission
20 that if these four wells inside the EMSU are shut in
21 as they should be, that the poor operators of New
22 Mexico are going to have nowhere to go with their
23 water. You're not offering that opinion to this
24 commission, are you?

25 MR. MCGUIRE: I guess I -- I lost you.

1 Can you restate that?

2 MR. WEHMEYER: Are you putting your
3 hand up and swearing to this commission that if waste
4 is avoided with the Goodnight saltwater injection
5 wells shut down -- you with me so far on the
6 hypothetical?

7 MR. MCGUIRE: Yes, sir.

8 MR. WEHMEYER: You're not telling this
9 commission that there's going to be operators who have
10 nowhere to go with their oil, are you?

11 MR. MCGUIRE: With their oil?

12 MR. WEHMEYER: That they're going to
13 have to shut in their oil because they have no water
14 disposal capacity? I would really hope that's not
15 what you're opining to this commission.

16 MR. MCGUIRE: Well, we have contracts
17 with these operators where they have dedicated the
18 water to us, and so they're obligated by that contract
19 to send the water that's -- that's on that acreage
20 that's under contract to us.

21 MR. WEHMEYER: You're not listening to
22 my question. And you're a Dallas-based -- when I said
23 it originally way back at early stages of the case
24 with Mr. McBeth -- I have it exactly right. Every
25 dollar of revenue here, that's shipped back to Dallas,

1 Texas, and then is shared with equity partners out of
2 Fort Worth, Texas. Do I have that right in terms of
3 y'all's structure?

4 MR. MCGUIRE: You have it right that we
5 are a Dallas-based company, yes, and that the
6 financial supporters are a Dallas-based company --
7 firm, yes.

8 MR. WEHMEYER: Now, coming back to the
9 idea that if this commission shuts down the SWD wells,
10 that an operator would have to shut in an oil well for
11 lack of saltwater capacity. I'm not talking about how
12 much profit Goodnight wants to make. The idea that
13 oil wells would have to be shut in because of lack of
14 capacity. You with me so far?

15 MR. MCGUIRE: I am.

16 MR. WEHMEYER: You're not going to
17 testify to this commission under oath and swear that
18 if these saltwater wells are shut in, that the
19 operators would have to shut in oil wells, are you?

20 MR. MCGUIRE: I think that there's the
21 potential that that might happen.

22 MR. WEHMEYER: Well, let's talk about
23 market share. Have you ever performed any analysis of
24 what the greatest market share was Goodnight ever had
25 in the state of New Mexico?

1 MR. MCGUIRE: I've seen -- I've seen
2 it, but not -- it's not -- those numbers are not at
3 the top of my head right now.

4 MR. WEHMEYER: So to just illustrate,
5 as of January of 2023 and -- and you agree there's
6 been a trend towards using recycled water, right, as
7 taking produced water, making it recycled, as opposed
8 to sticking it down a hole forever; right?

9 MR. MCGUIRE: That's -- that is
10 definitely part of our business, yes.

11 MR. WEHMEYER: The highest it ever got
12 in New Mexico was 130 million barrels a month; true?

13 MR. MCGUIRE: If you're referring to
14 this graph, that's what this graph would indicate,
15 yes.

16 MR. WEHMEYER: Do you think the graph
17 which draws its data from the OCD database is wrong?

18 MR. MCGUIRE: I have no reason to think
19 it -- it is wrong.

20 MR. WEHMEYER: And so as we talk about
21 the largest market -- you tell me if I get off here.
22 But in terms of the SWDs in the EMSU, the max rate I
23 saw was an average of 1.8 million barrels per month in
24 the year 2024. Does that sound correct to you?

25 MR. MCGUIRE: I'd have to -- I know it

1 in barrels per day. I'd have to do the math to see if
2 I agree with that.

3 MR. WEHMEYER: What's your barrels per
4 day?

5 MR. MCGUIRE: Long-term average for the
6 four inside the unit is roughly 15,000 barrels of
7 water per day.

8 MR. WEHMEYER: Times four wells, times
9 30 days, 1.8 million. Did I hit it, like, to the --
10 literally, I wasn't even off by one barrel, was I?

11 MR. MCGUIRE: Sounds like you did
12 pretty good.

13 MR. WEHMEYER: So 1.8 million barrels
14 per month as we talk about inside the EMSU would be
15 less than 1.3 percent of all of the water, Delaware
16 water, in the entire state of New Mexico; right.

17 MR. MCGUIRE: I can agree with that.

18 MR. WEHMEYER: And if we take the SWD
19 wells in the 2-mile halo, that would go to
20 approximately 4 million barrels a month. If we put
21 all the inside EMSU wells plus the ones in the 2-mile
22 halo, the biggest volume you ever got to there was
23 approximately 4 million barrels a month; that sound
24 correct?

25 MR. MCGUIRE: Let's see. I -- I don't

1 like doing public math, but -- let's see. Capacity of
2 the entire system is plus or minus 250,000 barrels of
3 water per day. So it sounds like it would be quite a
4 lot -- quite a bit bigger than that, actually.

5 MR. WEHMEYER: What I'm talking is
6 actuals. What Goodnight actually did in a given month
7 was never more than 4 million barrels in a month, if
8 we take the 2-mile halo. If you'd like to disagree
9 with it and say you don't know about your own SWDs,
10 that's fine. I'll move on.

11 MR. MCGUIRE: I haven't looked at
12 the -- at -- at that in a while. I just know what our
13 system capacity is, and at -- at times, we're full.
14 At other times, our -- our operators are on reuse, or
15 we are actively recycling water and water's not going
16 down hole.

17 MR. WEHMEYER: So if you accept my 4
18 million barrel calculation per month, that would be
19 approximately 3 percent of all of the Delaware water
20 in New Mexico; fair?

21 MR. MCGUIRE: Sure. Yeah. I guess --
22 are you including conventional, or are you being
23 specific to unconventional?

24 MR. WEHMEYER: All Delaware produced
25 water. Delaware produced water.

1 MR. MCGUIRE: I just want to make that
2 clarification. Okay.

3 MR. WEHMEYER: And so to just
4 illustrate this idea, the greatest it ever got to was
5 4 million barrels a month. In 2023, New Mexico's
6 saltwater disposal operators were handling at least
7 130 million barrels. We're currently at about 60
8 million barrels per the graph, less than half.

9 This comes back to my first question that
10 started the whole discussion. I would hope that
11 where, in 2023, New Mexico is taking care of 130
12 million barrels, and oil production and water
13 production is falling off the cliff, literally less
14 than half, 60 million plus barrels of difference, that
15 you're not going to tell these commissioners that if
16 these wells are shut in, oil wells will have to be
17 shut in. There is disposal capacity in the state of
18 New Mexico, isn't there?

19 MR. RANKIN: Hearing Officer, I object
20 to relevance. I'm not sure what Mr. Wehmeyer hopes is
21 relevant to the commission's decision here.

22 THE HEARING OFFICER: Overruled.

23 MR. MCGUIRE: Yeah. So a lot of that
24 water is going over the state line to Texas. Huge
25 volumes of water are going over the state line to

1 Texas, and that could be ceased at any time. Going
2 back to the contracts, I think that some of that water
3 would -- or some of that oil would need to be shut in
4 until the contract issues were resolved.

5 MR. WEHMEYER: You're not listening to
6 my question. In terms of capacity, I would really
7 hope you're not going to tell this commission that if
8 the SWD wells are shut in within the 2-mile halo, that
9 there's not sufficient capacity in the state of New
10 Mexico to handle that water, are you? Yes or no?

11 MR. MCGUIRE: Well, I -- it -- it
12 depends on the infrastructure in the field. But no,
13 I -- I disagree with you.

14 MR. WEHMEYER: I think I'm hearing you
15 say that saltwater going to the state of Texas is a
16 bad thing for New Mexico. Do you have -- how is it
17 not a great thing that the saltwater is getting the
18 heck out of the state of New -- and this is a
19 hazardous waste; right? OCD defines saltwater, when
20 it leaves the lease boundary, as a hazardous waste.

21 MR. RANKIN: Objection,
22 mischaracterizing the law, and -- just completely not
23 true.

24 THE HEARING OFFICER: Well, it is
25 testimony, Mr. Wehmeyer, if you want to try and

1 rephrase. But the objection's sustained.

2 MR. WEHMEYER: Mr. McGuire, do you
3 know, in the state of New Mexico, is produced
4 saltwater classified as a hazardous waste, depending
5 on its location?

6 MR. RANKIN: Objection, asking for a
7 legal conclusion.

8 THE HEARING OFFICER: Overruled.

9 MR. MCGUIRE: That's my understanding.

10 MR. WEHMEYER: Why on earth would New
11 Mexico want to add saltwater disposal capacity for the
12 reason that the volumes are going to Texas right now?
13 How is that in the interest of the state of New
14 Mexico?

15 MR. MCGUIRE: There's a few different
16 reasons. We pay -- we pay royalty owners. We pay
17 state tax. New Mexico State land is a royalty -- or
18 is a -- is a landowner that we pay royalty to. So I
19 think that benefits the state.

20 MR. WEHMEYER: How big is the surface
21 use agreement halo that you have a lease on for
22 saltwater --

23 MR. RANKIN: Objection, relevance.
24 Surface use agreements and private interests have no
25 jurisdiction within the OCC's purview.

1 THE HEARING OFFICER: What's the
2 relevance, Mr. Wehmeyer?

3 MR. WEHMEYER: They have already far
4 exceeded as a trespass matter the boundaries of what
5 they claim they have the legal right to inject on by
6 way of SUA. Long ago, they've exceeded these
7 boundaries, and they're just naked trespassers. What
8 he's advocating is that this is a wonderful thing for
9 the state of New Mexico that Goodnight pays taxes
10 associated with some of its trespasses.

11 MR. RANKIN: Mr. Hearing Officer --

12 THE HEARING OFFICER: I'm going to
13 sustain the objection. If you'll move on, Mr.
14 Wehmeyer. This is the first -- I'm hearing testimony
15 about trespass from a lawyer, not a witness. So
16 objection sustained.

17 MR. WEHMEYER: With respect to the
18 trend towards recycling, there are numerous saltwater
19 disposal operators in the state of New Mexico that are
20 investing vast sums in CapEx to the ends of recycling
21 water as opposed to sticking it down SWDs; true?

22 MR. MCGUIRE: Yeah, that's -- that's
23 true.

24 MR. WEHMEYER: Which would further
25 reduce saltwater disposal demand in the state of New

1 Mexico; true?

2 MR. MCGUIRE: Not necessarily.

3 Recycling usually just delays the time it takes for a
4 barrel to find a home at a saltwater disposal well.

5 MR. WEHMEYER: Now, earlier, do you
6 remember in your opening testimony you made some
7 corrections to some dates on this slide?

8 MR. MCGUIRE: Yes.

9 MR. WEHMEYER: Would you -- with
10 respect to the Verlander, would you believe -- that
11 well's within 2 miles of the EMSU, isn't it?

12 MR. MCGUIRE: It is.

13 MR. WEHMEYER: If the idea from your
14 slide -- again, this was your slide, this financial
15 implication if you have to move a well. You chose
16 that and you swore to it didn't you?

17 MR. MCGUIRE: Chose what?

18 MR. WEHMEYER: You chose to offer this
19 testimony. You thought it was relevant enough you
20 made it your very first slide, or second slide, the
21 financial impact according to you; right?

22 MR. MCGUIRE: I did.

23 MR. WEHMEYER: Isn't the truth that
24 Goodnight doesn't care one lick and in fact drilled an
25 entire Verlander well without telling the OCC as part

1 of these proceedings in January and February of 2025?

2 MR. MCGUIRE: We did drill that well
3 about that timeframe, yes.

4 MR. WEHMEYER: So this is after you
5 know we are in this proceeding over wells that are
6 currently injecting and that are within the 2-mile
7 halo; right?

8 MR. MCGUIRE: Yes. Verlander is within
9 2 miles of the unit.

10 MR. WEHMEYER: You knew that there's a
11 pending objection to the Verlander permit that Empire
12 intends to have heard and disposed of as a matter of
13 its due process rights.

14 MR. MCGUIRE: Yeah, I guess that's
15 accurate.

16 MR. WEHMEYER: You know it's very easy
17 to secure extensions on drilling deadlines from Mr.
18 Goetze at the OCD's office because you've done it
19 numerous times, including on the Verlander well; isn't
20 that true?

21 MR. MCGUIRE: Easy, I would not
22 necessarily agree with. The OCD is -- doesn't always
23 like to grant those extensions, and that permit was
24 going to expire, so we decided to drill the well.

25 MR. WEHMEYER: Did you try to get an

1 extension? Did you just ask Mr. Goetze, "Can we have
2 an extension in light of this OCC proceeding?"

3 MR. MCGUIRE: I think we had already
4 had two extensions, and we had never seen a well that
5 had more than two extensions.

6 MR. WEHMEYER: Listen to my question.
7 Question is, did you ask Mr. Goetze, in light of this
8 OCC testimony that has now gone on for over four
9 entire weeks with this permit being protested, "Can we
10 have an extension so that we can see what the three
11 commissioners say about this?" Yes or no?

12 MR. MCGUIRE: I don't -- I guess I
13 don't recall.

14 MR. WEHMEYER: But why, after we are
15 now over four entire weeks into this proceeding, did
16 you not tell the OCC that in January and February of
17 2025 you drilled and completed the Verlander?

18 MR. RANKIN: Mr. Hearing Officer, the
19 Verlander is not part of this case. It's outside of
20 the caption, and so I don't see the relevance of these
21 questions. I allowed it to go forward a little bit
22 here, but it's outside the scope of what's before the
23 commission in this hearing.

24 THE HEARING OFFICER: I'll allow it.
25 Overruled.

1 MR. MCGUIRE: Can you please restate
2 the question?

3 MR. WEHMEYER: Why -- as we're here on
4 a fact-finding mission and you're telling the
5 commission about, "Oh, gosh, this is going to be so
6 bad if we have to move our wells. It might be \$40
7 million," literally four times the cost of an AFE, to
8 move these, why would you not tell them that in the
9 middle of this proceeding you went ahead and drilled
10 the Verlander within 2 miles?

11 MR. MCGUIRE: Why we didn't tell the --
12 the commission that?

13 MR. WEHMEYER: Anybody. Did you tell
14 Empire? Did you tell the OCC?

15 MR. MCGUIRE: Well, as -- as Mr. Rankin
16 stated, Verlander is not in this -- in this
17 proceeding. I don't think we have to tell Empire that
18 we're going to drill a well if we already have it
19 permitted.

20 MR. WEHMEYER: That's the business
21 ethics of Goodnight? That's your position?

22 MR. MCGUIRE: I guess I don't --
23 restate the question again? Sorry, I think I missed
24 that.

25 MR. WEHMEYER: The business ethics of

1 Goodnight is that if you don't absolutely have to or
2 unless somebody forces to, you're not going to do it
3 as a matter of just being forthcoming; true?

4 MR. MCGUIRE: I mean, I'm sure they saw
5 the rig standing up out there.

6 MR. WEHMEYER: Because it's that darn
7 close, isn't it? Well, to Mr. Rankin's question on --
8 it's not part of the proceeding. Do you see all these
9 subpoenas that we've sent in September and June of
10 '24, in December of '24, requesting things like, for
11 anything within 2 miles of the unit -- just so that we
12 can bring this commission the science case to help
13 them make a decision -- for example, request 24,
14 produce all well logs for wells operated by Goodnight
15 within 2 miles, all side or rotary core information
16 for wells within 2 miles.

17 MR. RANKIN: Mr. Hearing Officer,
18 objection. These were dealt with in discovery. We
19 objected to request for discovery outside of the
20 narrow confines of this hearing, which were related
21 only to the EMSU. Empire counsel did not pursue or
22 raise any objections to our objections or seek to
23 compel. So these lines of questions is not relevant
24 and outside the scope. Should not be permitted.

25 THE HEARING OFFICER: Mr. Wehmeyer, I

1 think you've carried this line of questioning to its
2 logical conclusion already. I think we're getting too
3 far afield here. I'm going to sustain the objection
4 and ask you to move on.

5 MR. WEHMEYER: With respect, Mr.
6 McGuire, to the idea that Mr. Goetze wouldn't be
7 forthcoming with an extension, on January 29, 2025,
8 didn't he actually email you and Mr. Rankin and others
9 with cautionary remarks? He actually thought that
10 what you were doing was significant because this well
11 falls within the scope of the ongoing OCC cases
12 between Empire of New Mexico and Goodnight.

13 MR. MCGUIRE: This is the first time
14 I'm seeing this -- this email.

15 MR. WEHMEYER: Okay. You weren't aware
16 that Mr. Goetze had actually cautioned you about the
17 importance on these wells?

18 MR. MCGUIRE: No, I was -- I was not
19 aware of this email that you're showing on the -- on
20 the screen here.

21 MR. WEHMEYER: Do you see the date of
22 one -- I just want to nail this down. As of
23 1/30/2025, this well was clearly completed, wasn't it?

24 MR. MCGUIRE: It was.

25 MR. WEHMEYER: Have you filed -- we

1 have looked for all of the logs that are required.

2 Have you filed all of these logs with the OCD for the
3 Verlander well?

4 MR. MCGUIRE: I believe we have.

5 MR. WEHMEYER: Where is the resistivity
6 log?

7 MR. MCGUIRE: What do you mean, where
8 is it?

9 MR. WEHMEYER: It's not reflected as
10 filed with the OCD, is it? Where is your resistivity
11 log, and did you file it with the OCD?

12 MR. MCGUIRE: I believe -- I believe we
13 did, yeah.

14 MR. WEHMEYER: Are you guessing?

15 MR. MCGUIRE: Yeah, I guess I -- I'd
16 have to go back through my documents. But I'm -- I'm
17 pretty sure we submitted all the logs.

18 MR. WEHMEYER: Do you know when those
19 logs were due?

20 MR. MCGUIRE: After the well was
21 drilled. I don't know the exact due date, no.

22 MR. WEHMEYER: Have you filed your mud
23 logs back?

24 MR. MCGUIRE: I'm trying to think if we
25 ran mud logs. I can't remember right now. But if

1 we -- if we did have mud logs, then they would have
2 been submitted with all the other logs.

3 MR. WEHMEYER: You've mentioned, "Well,
4 I was just trying to be helpful to Dr. Ampomah." Have
5 you filed back any measured static bottom hole
6 pressures in the Verlander well that you just took as
7 of January 30, 2025? Because we can't -- we've looked
8 everywhere. We just can't find any bottom hole
9 pressures filed with the OCD. Did you file those?

10 MR. MCGUIRE: I -- I guess I -- I don't
11 recall right now.

12 MR. WEHMEYER: And just with respect to
13 how easy extensions are, this is an example. All it
14 took was a letter from Mr. Alaman [ph] to get these
15 extensions. And seeing Mr. Goetze's concern in the
16 email that I showed you earlier, don't you think Mr.
17 Goetze would have been so happy to give you an
18 extension to avoid adding to the problems that this
19 OCC is having to resolve?

20 MR. MCGUIRE: I can't speak for Mr.
21 Goetze.

22 MR. WEHMEYER: Doesn't that seem
23 imprudent, when there's literally pending cases over
24 the Verlander permit, that you go out without telling
25 this OCC or Empire and drill the --

1 MR. RANKIN: Mr. Hearing Officer, asked
2 and answered. This question's been asked several
3 times in different forms.

4 MR. MCGUIRE: Sustained.

5 MR. WEHMEYER: With respect to the
6 perfs in the Verlander -- and again, this is within 2
7 miles of EMSU. Those are as shallow as 4,300, yes?

8 MR. MCGUIRE: I'd have to review the --
9 the documents. What do you have here on the screen?

10 MR. WEHMEYER: 4,300.

11 MR. MCGUIRE: Can you scroll up just a
12 little bit so I can see this whole document, please?
13 So this is a sundry notice. That seems a little
14 shallow to me.

15 MR. WEHMEYER: It certainly feels that
16 way for Empire, too. With respect to what you're
17 sticking in those perfs, you're actually telling the
18 OCD you're going to stick acid into them, aren't you?

19 MR. MCGUIRE: Yeah. Just -- almost
20 every well that's drilled has acid in them as a way to
21 clean -- clean up the -- the perforations, yes.

22 MR. WEHMEYER: What does acid do to
23 rock?

24 MR. MCGUIRE: It can dissolve it.

25 MR. WEHMEYER: I'm sorry?

1 MR. MCGUIRE: It can dissolve the rock
2 very near the wellbore.

3 MR. WEHMEYER: What does it do to
4 anhydrite?

5 MR. MCGUIRE: That's a chemistry
6 question. I don't know if it's reactive with
7 anhydrite or not.

8 MR. WEHMEYER: What does it do to
9 cement?

10 MR. MCGUIRE: It can dissolve cement.
11 That's the -- that's the goal. You want to clean up
12 the cement that's around your perf hole.

13 MR. WEHMEYER: So if there's any cement
14 anywhere near the acid injection, you would agree that
15 that cement -- acid would break that down; right?

16 MR. MCGUIRE: Yeah, very, very near the
17 perforations. It's not going to affect the -- the
18 integrity of the well. If that were true, every well
19 in the Permian Basin would have issues.

20 MR. WEHMEYER: Dr. Ampomah had some
21 questions to Mr. McBeth about his opening witness
22 statement where he spends pages and pages on wellbore
23 integrity. Do you remember those questions that Dr.
24 Ampomah had for Mr. McBeth?

25 MR. MCGUIRE: Not off the top of my

1 head.

2 MR. WEHMEYER: Why is it important that
3 you get the cement back up to either the casing or the
4 surface with these saltwater disposal wells?

5 MR. MCGUIRE: To make sure that you
6 have integrity and that you're not going to have fluid
7 go out of zone on the backside.

8 MR. WEHMEYER: Based on this bond log
9 for the Verlander, which is approximately 1 mile from
10 the EMSU in the San Andres, you can see that this was
11 not a satisfactory cement job and that it didn't seat
12 up to the pipe, did it?

13 MR. RANKIN: Mr. Hearing Officer, I
14 appreciate Mr. Wehmeyer's questions around this.
15 However, the commission and the hearing officer did
16 limit the scope of this hearing to wells that are
17 within the EMSU, and this is outside that limit of the
18 instruction from the commission on what the scope of
19 this hearing would address. This is a case involving
20 the Verlander that Mr. Wehmeyer and Empire are free to
21 bring up when the other cases come before the
22 commission.

23 MR. WEHMEYER: May I respond briefly?

24 THE HEARING OFFICER: Well, tell me,
25 are you -- where are you going with this, Mr.

1 Wehmeyer? Is this to show that acid eats rock?

2 MR. WEHMEYER: No, Mr. Hearing Officer.
3 This is to show that Goodnight, who wants to assure
4 this commission and Empire, "Just take our word for
5 it. We're a great" -- despite all the things that
6 have happened in Oregon and Texas and New Mexico and
7 everywhere else. Here we are within 1 mile, and they
8 are not properly cementing their SWD wells in the San
9 Andres, at the top of the San Andres, where their own
10 witnesses have testified there's a ROZ.

11 This is not acceptable for Empire to be
12 put in a situation where a party such as Goodnight
13 behaves this way.

14 THE HEARING OFFICER: All right. Well,
15 it's character evidence. I'm going to sustain the
16 objection.

17 MR. WEHMEYER: Mr. McGuire, do you see
18 where the cement is needed per the OCD regulations,
19 how high it needed to come up to the casing string?

20 MR. MCGUIRE: Can you point that out to
21 me? There's a lot of words here.

22 MR. WEHMEYER: "Permittee shall
23 circulate to surface the cement for the surface and
24 intermediate casings." Actually, I'm going to pause
25 there. Do you know what the cementing protocols are

1 for saltwater injection wells in New Mexico?

2 MR. MCGUIRE: Yeah, I believe it says
3 cement to surface.

4 MR. WEHMEYER: Do you know how to read
5 a cement bond log?

6 MR. MCGUIRE: Vaguely. That's not my
7 expertise.

8 MR. WEHMEYER: Is the answer you don't
9 know how?

10 MR. MCGUIRE: I've looked at a few
11 and -- and have some ideas.

12 MR. WEHMEYER: I thought you were the
13 down hole guy. You said, "I don't know anything about
14 horizontal pipe, but if it's down hole pipe, I'm the
15 engineer and I know about it."

16 MR. MCGUIRE: This is -- this is the
17 drilling engineer's purview.

18 MR. WEHMEYER: Do you have enough
19 understanding to know what that hot yellow
20 fluorescence on the right track means that, that what
21 you need, if we're following OCD regulations, would be
22 a cement bond log that looks like this dark section
23 down here as opposed to the hot yellow?

24 MR. MCGUIRE: Yes. I -- I understand
25 that.

1 MR. WEHMEYER: What is -- if the OCC or
2 Empire had been alerted to the drilling of this well,
3 maybe something could have been done. But what is
4 Empire going to -- strike this. What is Goodnight
5 going to do about this?

6 MR. RANKIN: Mr. Hearing Officer,
7 again, this is about the Verlander well, which is
8 outside of the EMSU. If Mr. Wehmeyer wants to redress
9 the conditions of the CBL, the cement behind the wells
10 in the unit, which is part of this case, I think
11 that's appropriate. This is far outside the scope of
12 what this case is about and what is being asked of the
13 commission in this matter.

14 MR. WEHMEYER: May I respond very
15 briefly?

16 THE HEARING OFFICER: You can respond
17 briefly, yeah, but I do think that we're -- it'll have
18 to be persuasive, because I think you're getting
19 pretty far afield here.

20 MR. WEHMEYER: This is within 1 mile.
21 This is where the water is going to communicate.
22 We -- nobody with Goodnight produced these documents
23 or told Empire this was going on within 1 mile of its
24 boundary while it's being litigated, while there's
25 request for productions -- covering it.

1 If Goodnight's going to pretend to be
2 some kind of an honorable operator of saltwater
3 disposal wells and is doing this stuff in the middle
4 of this OCC proceeding, these commissioners absolutely
5 have to know about it, because Mr. McGuire is
6 responsible for all down hole pipe, he says, and this
7 is the stuff that's going on right here while the OCC
8 is determining, is a waste of Empire's hydrocarbons
9 going to occur because of these people?

10 MR. RANKIN: Mr. Hearing Officer, they
11 had a valid permit. We agreed with counsel that
12 publicly filed records and documents with the OCD were
13 not part of discovery because they could get them
14 publicly, as they've done. Again, this is outside the
15 scope of this hearing. This hearing is limited to the
16 wells within the unit boundary. The commission has
17 made that determination months ago. So --

18 THE HEARING OFFICER: I'm going to
19 sustain the --the objection's sustained. If you'll
20 move on, Mr. Wehmeyer.

21 MR. WEHMEYER: Let's talk about tops.
22 You've already testified under oath, Mr. McGuire, that
23 you didn't pick the tops in the EMSU. That was done
24 by Mr. Drake; true?

25 MR. RANKIN: Objection,

1 mischaracterization of prior testimony.

2 MR. WEHMEYER: You did not pick the
3 tops?

4 I'm sorry, Mr. Harwood.

5 THE HEARING OFFICER: Thank you. You
6 know, again, Mr. Rankin, you're going to have to do
7 better than that. You'll have to refresh my
8 recollection on why. If you're going to raise
9 objections that it mischaracterizes prior testimony, I
10 need more information. I'm going to overrule that.

11 But, Mr. Wehmeyer, why don't you try
12 and rephrase?

13 MR. WEHMEYER: Mr. McGuire, you've
14 already testified that in the EMSU, you did not pick
15 the tops of the San Andres, did you? That was done by
16 Mr. Drake.

17 MR. MCGUIRE: That's -- yeah. That --
18 that's true for the vast majority of them, yes.

19 MR. WEHMEYER: And likewise, we've now
20 heard from every single one of the experts that you
21 all have, haven't we?

22 MR. MCGUIRE: Yeah. I'm the last
23 expert.

24 MR. WEHMEYER: Now, you -- and you
25 remember in opening remarks, Mr. Rankin said, "I just

1 can't wait for" -- he told the OCC -- he told the
2 commissioner, "I just can't wait for you to hear all
3 of my experts." You remember those remarks?

4 MR. MCGUIRE: I believe so, yeah.

5 MR. WEHMEYER: So if they just want
6 to -- if we want to have an examination of the person
7 for Goodnight that pick tops -- we've now heard from
8 Dr. Davidson. He didn't pick any tops, did he?

9 MR. MCGUIRE: He did not.

10 MR. WEHMEYER: We heard from Mr.
11 Knights. He didn't pick any tops, did he?

12 MR. MCGUIRE: He did not.

13 MR. WEHMEYER: We heard from Mr.
14 McBeth. He didn't pick any tops, did he?

15 MR. MCGUIRE: He did not.

16 MR. WEHMEYER: We heard Mr. White. He
17 didn't pick any tops.

18 MR. MCGUIRE: Not inside the EMSU.

19 MR. WEHMEYER: I really hope Mr. Alaman
20 [ph] didn't pick any tops.

21 MR. MCGUIRE: He did not.

22 MR. WEHMEYER: So everybody said, "We
23 got the tops from Mr. McGuire." You remember --
24 witness after witness -- we've asked geologists.
25 Y'all have brought in expert geologists who don't pick

1 tops. We've examined everyone. Everyone said, "We
2 just got them from Mr. McGuire." That's a fair
3 characterization?

4 MR. MCGUIRE: Yeah, that's a fair
5 characterization.

6 MR. WEHMEYER: And so if the commission
7 wanted to examine, or as part of its due process
8 rights, Empire wanted to examine Mr. Drake on the top
9 selection and methodology, we can't do that because
10 he's not a witness; isn't that right?

11 MR. MCGUIRE: Yes, Mr. Drake is
12 retired. That's correct.

13 MR. WEHMEYER: Help me with paragraph
14 94. When you swore "Goodnight Midstream defines the
15 boundary between the Grayburg and the San Andres as
16 the location of the mappable boundary -- permeability
17 barrier that prevents flow from occurring between
18 those two formations" -- quote, "This is a functional
19 top of San Andres." Where on earth in geology,
20 literature, studies, textbook, anywhere, there is a,
21 quote, "functional top"?

22 MR. MCGUIRE: Yeah. So in areas where
23 the chronostratigraphy is difficult to pick in well
24 logs, for our -- for our industrial purposes, we
25 wanted to pick the boundary that separated these two

1 reservoirs, and we got guidance from the OCD because
2 of that issue, and they agreed with our methodology.

3 MR. WEHMEYER: Okay. Did you talk to
4 the OCD? I just want to know if you have personal
5 knowledge, you can swear to of conversations with the
6 OCD about tops. Did you do that?

7 MR. MCGUIRE: I have personal knowledge
8 of it, yes.

9 MR. WEHMEYER: You had the
10 conversation?

11 MR. MCGUIRE: I did not have the
12 conversation.

13 MR. WEHMEYER: Okay. That's not --

14 MR. MCGUIRE: But I have personal
15 knowledge of the -- of the conversation.

16 MR. WEHMEYER: That is not personal
17 knowledge. That would, on its best day, be hearsay;
18 okay? If someone wanted to come and tell the
19 commissioners about a conversation with the OCD, the
20 person that had the conversation needs to be here.
21 And that wasn't you. Do I have that right?

22 MR. MCGUIRE: Yes. I did not have a
23 conversation with the OCD with discussing the tops.
24 But I discussed with the people that did. We had a
25 debrief meeting, and I got the download of what was

1 discussed.

2 MR. WEHMEYER: Likewise, the idea that
3 XTO thought it was pretty cool to have SWDs permitted
4 inside the EMSU oil unit -- you with me so far?

5 MR. MCGUIRE: I am.

6 MR. WEHMEYER: You had no conversations
7 with XTO, did you? Zero?

8 MR. MCGUIRE: What timeframe?

9 MR. WEHMEYER: Ever, on the EMSU. This
10 was all while Mr. Drake was there before you came in.
11 You had zero conversation with XTO on EMSU; true?

12 MR. MCGUIRE: I've had conversations
13 with XTO on this project before

14 MR. WEHMEYER: When?

15 MR. MCGUIRE: In the last year or two,
16 or maybe two years ago.

17 MR. WEHMEYER: They'd already sold.

18 MR. MCGUIRE: Okay.

19 MR. WEHMEYER: They had already sold to
20 Empire.

21 MR. MCGUIRE: You asked about if I had
22 conversations, and I have.

23 MR. WEHMEYER: Now, the original
24 conversation with XTO, that would have been at the
25 time that the permit was to the Devonian outside of

1 the oil unit, wouldn't it? You need me to break it
2 down?

3 MR. MCGUIRE: No, I got you. I'm just
4 trying to -- I'm trying to remember the timing of
5 those conversations. No, I'm -- I'm pretty sure those
6 conversations occurred because we were planning on
7 recompleting the -- the Ryno SWD.

8 MR. WEHMEYER: You have no clue, do
9 you?

10 MR. MCGUIRE: That's not what I said.

11 MR. WEHMEYER: Wouldn't it make sense
12 that the conversation would have been as part of the
13 first permit, because XTO was an operator to be
14 noticed, and at that time, it was the Devonian?
15 Doesn't that just make common sense?

16 MR. MCGUIRE: Makes just as much common
17 sense that we would have the conversation when we were
18 planning on plugging it back, 'cause we would have --
19 we have to repermit, and they would be notified again
20 of that permit.

21 MR. WEHMEYER: In fact, they weren't.
22 Corporate headquarters used to be in Fort Worth,
23 Texas. Now they've moved to Spring, Texas, with
24 Exxon. I have an office down the street from the
25 address y'all sent Midland notice to. Have you ever

1 been -- the first notice to XTO was provided by
2 certified mail, return receipt requested, and was
3 directed to a different address, wasn't it?

4 MR. MCGUIRE: A different address
5 than --

6 MR. RANKIN: Mr. Hearing Officer --
7 strike that. Apologize for interrupting.

8 MR. WEHMEYER: Mr. McGuire, let's take
9 it in pieces.

10 MR. MCGUIRE: Okay.

11 MR. WEHMEYER: The first notice when
12 you were going to the Devonian, that notice was given
13 to XTO, certified mail, return receipt requested;
14 right?

15 MR. MCGUIRE: I believe so.

16 MR. WEHMEYER: When you came out of the
17 Devonian, into the oil unit, that was sent to a
18 different address someplace in Midland, Texas, with no
19 return receipt requested; isn't that right?

20 MR. RANKIN: Mr. Hearing Officer, these
21 questions actually were related to Mr. Alaman's [ph]
22 testimony because he's the one that sent those -- his
23 company, and he was responsible for sending those out.
24 So these questions should be directed -- should have
25 been directed to Mr. Alaman [ph], not Mr. McGuire.

1 This is outside the scope of his direct testimony,

2 THE HEARING OFFICER: I'm going to
3 allow it. He can just say, "No," or "I don't know."
4 So overruled.

5 MR. MCGUIRE: So let me make sure I got
6 the question right. After we were going to recomplete
7 the Ryno to a San Andres well, it was sent to a
8 different address than the original Devonian
9 application was? Is that -- do I have that right?

10 MR. WEHMEYER: You've got it dead on.

11 MR. MCGUIRE: Okay. My understanding
12 is that the permit consultants got the addresses from
13 the OCD website.

14 MR. WEHMEYER: You have no idea why
15 they would have sent it to Midland, do you?

16 MR. MCGUIRE: Yeah, I -- I mean, I
17 guess that would be a question for Mr. Alaman [ph].

18 MR. WEHMEYER: Why didn't they do it
19 certified mail, return receipt requested, like when
20 you told XTO and they signed, saying they received it
21 at the proper address in the Devonian?

22 MR. MCGUIRE: That's a conversation --
23 I -- I didn't -- I wasn't involved in that. I --
24 that's not a question for me.

25 MR. WEHMEYER: As we talk about top

1 picks, you want the commission to believe that this is
2 a basis for a geologist picking a top would have
3 been -- as part of the initial unitization papers.
4 And you chose this slide. You highlighted it -- Mr.
5 Rankin -- that they cite an approximate depth of 4,100
6 to 4,500 feet.

7 MR. MCGUIRE: That's what the document
8 says.

9 MR. WEHMEYER: Is that geology? That
10 that doesn't really seem like a geological way to pick
11 a top.

12 MR. MCGUIRE: Well, because the
13 chronostratigraphy is very difficult here, we wanted
14 to see what the operators who were drilling wells and
15 had experience in this area at the time -- what they
16 were doing.

17 MR. WEHMEYER: Have you ever mapped the
18 Lovington Sand?

19 MR. MCGUIRE: No, I have not.

20 MR. WEHMEYER: So we've heard Dr.
21 Lindsey talk about the Lovington Sand. We've seen
22 literature from New Mexico, the university, on
23 Lovington Sand. We've seen it described in other
24 literature, and it's got a clear, clean gamma ray
25 response. It never occurred to you as a geologist to

1 try to start by mapping the Lovington Sand with its
2 clean gamma response?

3 MR. MCGUIRE: I don't think that that
4 Lovington Sand has a clear gamma response across the
5 entire field.

6 MR. WEHMEYER: And again, as we just
7 talk about geology, this little cartoon, this was --
8 you cite this; right? I mean, this is what you're
9 citing for your basis of your San Andres pick.

10 MR. MCGUIRE: Yeah, that -- that was
11 part of it. Yes.

12 MR. WEHMEYER: Where in geology --
13 well, let's start -- where is this well, the cartoon?
14 Where is the well associated with the cartoon?

15 MR. MCGUIRE: Those are the water
16 supply wells at the top of the structure.

17 MR. WEHMEYER: In fact, the truth is
18 there is no particular well associated with the
19 cartoon. You couldn't even call this a type cartoon,
20 could you?

21 MR. MCGUIRE: Guess I would disagree.
22 This paper discusses the drilling of the water supply
23 wells and where the San Andres was found in those --
24 or you know, where the -- yeah, where the San Andres
25 was found in those water supply wells.

1 MR. WEHMEYER: Moving from
2 qualifications to data relied upon, this was 50
3 percent of what you cite for your basis of picking San
4 Andres where it is. And we've got a cartoon, and this
5 cartoon doesn't even correspond to a particular well.

6 MR. MCGUIRE: The -- the cartoon was
7 talking about the water supply wells. It says it
8 right there, Figure 6, EMSU water supply casing
9 programs and lithology diagram.

10 MR. WEHMEYER: As a geologist, wouldn't
11 you want to know which particular well this is
12 supposed to be representative of so that you can start
13 making correlations?

14 MR. MCGUIRE: Well, yeah. So we looked
15 at that. We had -- we had the Chevron picks for the
16 water supply wells, and we utilized them.

17 MR. WEHMEYER: I want to ask about this
18 one. This is also something you've sworn to. "This
19 top is confirmed to the barrier that separates two
20 different pressure systems, one associated with
21 Grayburg, the other associated with San Andres
22 aquifer, discussed later in testimony.

23 "Because of the difficulty identifying
24 stratigraphic intervals within the San Andres
25 carbonate ramp systems that exist within the EMSU, the

1 best method for accurately picking the top of the San
2 Andres and the strongest evidence it is correct is not
3 necessary geologic, but engineering-based data." I
4 read your opinion correctly there?

5 MR. MCGUIRE: You did.

6 MR. WEHMEYER: In the entire history of
7 published scientific literature, have you been able to
8 find one publication in the history of time on the
9 planet earth in which anyone has written that the
10 proper way, best way to pick the top of a formation is
11 not geology, but rather engineering, yes or no?

12 MR. MCGUIRE: Yes.

13 MR. WEHMEYER: What site? I didn't see
14 it cited. Where would we find it?

15 MR. MCGUIRE: Yes. Well, I guess I
16 would point you to Mr. Bailey's testimony. He said
17 that that's commonly used in areas where the
18 chronostratigraphy is difficult to see in well logs.

19 MR. WEHMEYER: All right. One -- I'm
20 not going to fuss with you on what Mr. Bailey said.
21 I'm glad he's not here right now. But as we -- in
22 response to that remark -- well, it wouldn't do any
23 good, you're not here.

24 Coming back to -- I asked you, published
25 scientific literature. You with me so far? Again, if

1 you'll just listen to the question, this is going to
2 go so much faster. Published scientific literature by
3 an engineer or a geologist, peer reviewed or not peer
4 reviewed, textbook, or university paper, or PhD
5 thesis, or Chevron created, Exxon created.

6 If this commission just wants to look at one
7 scrap of published paper that would support that you
8 pick tops using engineering as opposed to a geology
9 pick, you don't have a single scrap of paper to direct
10 this commission to, do you?

11 MR. MCGUIRE: Our goal here was to --
12 to define the -- the point which these two different
13 reservoir systems -- where that pressure differential
14 occurs.

15 MR. WEHMEYER: Is the answer to my
16 question you don't have any scrap of paper in the
17 entire history of science to support what you just
18 said here?

19 MR. MCGUIRE: I don't have anything off
20 the top of -- the top of my head here. I'm -- I'm
21 sure I could find something if I looked.

22 MR. WEHMEYER: Now, this paper, this
23 was published by the New Mexico Bureau of Mines and
24 Mineral Resources, the Division of the New Mexico
25 Institute of Mining and Technology. Geology of Loco

1 Hills Sand, Loco Hills Field, Eddy County, New Mexico.
2 Would you agree with me that this would be a reputable
3 source for geologic information on the San Andres?

4 MR. MCGUIRE: Specific to that field,
5 yeah.

6 MR. WEHMEYER: Useless here at the
7 EMSU, or do you think this is reliable information for
8 use at EMSU?

9 MR. MCGUIRE: I think it's 50 miles
10 away. So geology could change drastically over short
11 distances. So to apply this to EMSU, you might be
12 able to get some information from it, but no, I don't
13 think it would be really applicable to EMSU.

14 MR. WEHMEYER: Okay. And I don't care
15 which way the fish flops. So it's your testimony here
16 as the alleged expert that this is not a relevant or
17 reliable source for geological information of the San
18 Andres EMSU; true?

19 MR. MCGUIRE: That's -- that's not
20 exactly what I said.

21 MR. WEHMEYER: You agree or don't
22 agree?

23 MR. MCGUIRE: I agree that it could
24 provide maybe some information that could be helpful,
25 but it's pretty far away.

1 MR. WEHMEYER: The San Andres formation
2 is about 1,500 feet thick in this area. That aligns
3 closely with Empire's thickness, doesn't it?

4 MR. MCGUIRE: It does.

5 MR. WEHMEYER: Cites the Lovington Sand
6 about 150 feet below the top. That also aligns
7 closely with the opinion testimony of Dr. Lindsey and
8 the opinion testimony of Mr. Bailey, doesn't it?

9 MR. MCGUIRE: Yeah, maybe. But the top
10 of the San Andres is a -- is an unconformity. So just
11 because the Lovington Sand is 150 feet below the top,
12 50 miles away, doesn't mean that it's 150 feet below
13 the top somewhere else.

14 MR. WEHMEYER: But it's going to be
15 below the top of the San Andres. I would hope we
16 could agree on that as a matter of geography.

17 MR. MCGUIRE: Could be right at the
18 top. Depends on how much erosion occurred at the top
19 of the San Andres.

20 MR. WEHMEYER: If the commission wanted
21 to hear from a geologist that studied that, the only
22 ones that they would be able to hear from is Dr.
23 Lindsey and Mr. Bailey, not you; right?

24 MR. MCGUIRE: That's -- that studied
25 what?

1 MR. WEHMEYER: Where the Lovington Sand
2 would be within the EMSU.

3 MR. MCGUIRE: Yeah, I -- I seen where
4 they -- where they -- the interval that they've called
5 the Lovington Sand. I'm not sure it's the same
6 correlated interval from the Loco Hills 50 miles away.
7 I haven't done that -- that analysis.

8 MR. WEHMEYER: My question is if this
9 commission wants to hear from an actual educated --

10 MR. RANKIN: Objection, argumentative.

11 MR. WEHMEYER: May I finish my
12 question, Mr. Hearing Officer?

13 THE HEARING OFFICER: Yeah. Let him
14 finish his question, Mr. Rankin.

15 MR. WEHMEYER: My question, Mr.
16 McGuire, is if these commissioners want to hear from
17 an actual educated and practicing geologist who has
18 mapped the Lovington Sand in the EMSU that's here
19 before this commission for decision, the only ones
20 they could visit with would be Dr. Lindsey and Mr.
21 Bailey; isn't that true?

22 MR. MCGUIRE: I mean, I -- they have
23 mapped something that they call the Lovington Sand.
24 Whether it's the same Lovington Sand that's described
25 in the Loco Hills, I'm not sure.

1 MR. WEHMEYER: And again, still working
2 out of the New Mexico Bureau of Mines and Mineral
3 Resources publication, do you see at the bottom, the
4 upper San Andres is identified?

5 MR. MCGUIRE: I see that text, yes.

6 MR. WEHMEYER: And the Lovington Sand
7 sits in the middle of the upper San Andres?

8 MR. MCGUIRE: That's what it says for
9 this generalized cross-section of the Loco Hills
10 field.

11 MR. WEHMEYER: Have you looked at the
12 lexicon book for West Texas and southeastern New
13 Mexico, published by the West Texas Geological
14 Society?

15 MR. MCGUIRE: It's been a while. I
16 have seen this, but it's -- it's been quite some time.

17 MR. WEHMEYER: Would this be a relevant
18 and reliable source of geology information for the
19 EMSU area?

20 MR. MCGUIRE: Maybe.

21 MR. WEHMEYER: Did you look at it as
22 part of any of your work in this case to form
23 opinions?

24 MR. MCGUIRE: Not this case, no.

25 MR. WEHMEYER: Lovington Sand, member

1 of the San Andres formation, original definition.
2 Near the top of the San Andres, there is one sandy bed
3 persistent over the entire lime bang. This is called
4 the Lovington Sand. The sand is gray to gray-white,
5 fine to medium grained, semi-friable. That means
6 easily cracked up; right? Or do you know, as a
7 geologist, what semi-friable means?

8 MR. MCGUIRE: I know what semi-friable
9 means.

10 MR. WEHMEYER: What does it mean?

11 MR. MCGUIRE: It means that you could
12 basically break it. It's not well cemented, I guess,
13 is a -- is a good way to put it.

14 MR. WEHMEYER: Okay. So as a
15 geologist, you can tell these commissioners that if
16 your pick would be the upper San Andres -- upper San
17 Andres would be one and same as Lovington Sand, that
18 the Lovington Sand would be semi-friable, that is,
19 easily cracked up; true?

20 MR. MCGUIRE: I don't think that what
21 they have defined as the Lovington Sand here at EMSU
22 is -- is friable. I -- I don't think it has much sand
23 content in it. That's not what Mr. Bailey's -- or I
24 guess Mr. Burke has a lithology diagram show for the
25 Lovington Sand interval.

1 MR. WEHMEYER: Mr. Bailey at Exhibit K7
2 also brought in a BEG study, which would demonstrate
3 the location of the Lovington Sand. And you can tell
4 the commissioners again, from this literature, the
5 Lovington Sand sits conformably within the upper San
6 Andres, doesn't it?

7 MR. MCGUIRE: It says northwest shelf
8 of Eddy County, New Mexico. This is a different
9 geologic province than where EMSU sits.

10 MR. WEHMEYER: My question is, this is
11 a BEG study that places the Lovington Sand within the
12 San Andres, yes?

13 MR. MCGUIRE: That's what it says, yes.
14 But it's --

15 MR. WEHMEYER: And do you see --

16 MR. MCGUIRE: -- it's not anywhere near
17 EMSU.

18 MR. WEHMEYER: Do you see that the
19 Lovington Sand here has a clear gamma ray marker?

20 MR. MCGUIRE: Yeah, sure. I -- if --
21 yeah, I can see what they're calling Lovington Sand,
22 and that there is a high gamma ray interval associated
23 with it.

24 MR. WEHMEYER: By way of laying hands
25 on a single publication in the history of time that

1 would not place the Lovington Sand within the upper
2 San Andres, have you been able to find any such
3 document, ever?

4 MR. MCGUIRE: That would not -- that
5 would not place it in the upper San Andres?

6 MR. WEHMEYER: Yes.

7 MR. MCGUIRE: I've never -- I don't --
8 I can't recall. I -- I don't think I've ever seen
9 anybody put it in the lower San Andres. I guess I
10 don't really understand where you're going with this
11 question.

12 MR. WEHMEYER: Anywhere in New Mexico
13 where a geologist has written a paper, produced a
14 mapping, produced work product, that would indicate
15 that there is not Lovington Sand within the upper San
16 Andres?

17 MR. MCGUIRE: Yeah, most of the
18 stratigraphy says that it's at the upper San Andres,
19 or it's -- I've seen publications where they put it at
20 the boundary between what has been defined as the
21 upper and lower San Andres.

22 MR. WEHMEYER: But it's going to be
23 somewhere below the top of the upper San Andres, isn't
24 it?

25 MR. MCGUIRE: Not necessarily. Like I

1 said, if the -- the top of San Andres is an
2 unconformity, it could be right at the top. It could
3 not -- it could be completely eroded and not have the
4 Lovington Sand.

5 MR. WEHMEYER: My question is, where's
6 the publication that says that? If we don't want to
7 take your say so, what publication do we look to see
8 that?

9 MR. MCGUIRE: So there was a cross-
10 section by Dr. Trentham that was produced to us in --
11 in discovery where he shows the Lovington Sand right
12 at the top of the San Andres.

13 MR. WEHMEYER: Was that published, and
14 where?

15 MR. MCGUIRE: Yes, it -- I -- I don't
16 know if it was published in a paper or if it was just
17 from a talk that he gave. But it was in the documents
18 that were produced to us in discovery, and it was
19 authored by Dr. Trentham.

20 MR. WEHMEYER: My question is a
21 published paper in the history of science that would
22 not place the Lovington Sand within the upper San
23 Andres. Can you tell the commissioners where do we go
24 find that publication?

25 MR. MCGUIRE: I guess same answer. I

1 don't -- I -- I really don't know where you're -- what
2 you're trying to get at.

3 MR. WEHMEYER: Now, this was a slide
4 that you showed in your direct testimony. Do you
5 remember trying to show the Goodnight pick against
6 certain OCD picks?

7 MR. MCGUIRE: These were Chevron picks.

8 MR. WEHMEYER: Well, is -- so do you
9 agree with them or not?

10 MR. MCGUIRE: Some of them, yes. Yeah,
11 particularly the 458. We put it at the exact same
12 spot.

13 MR. WEHMEYER: You also have the same
14 pick of the top of the San Andres and the Ryno with
15 Empire, don't you?

16 MR. MCGUIRE: That might be true.
17 Yeah, I think so.

18 MR. WEHMEYER: You recognize this
19 document, don't you?

20 MR. MCGUIRE: I -- yeah, I think so.
21 Yeah, I think this is when we did a review of all of
22 the well file picks for the -- all the wells that are
23 within the boundaries of the EMSU.

24 MR. WEHMEYER: Who's "we"?

25 MR. MCGUIRE: Me and my team.

1 MR. WEHMEYER: I need humans.

2 MR. MCGUIRE: Yeah. So Julia Caldaro-
3 Baird helped me with -- with this work.

4 MR. WEHMEYER: Did she pick tops?

5 MR. MCGUIRE: No.

6 MR. WEHMEYER: Okay. Who else?
7 Anybody?

8 MR. MCGUIRE: I think -- I think Julia
9 and I did most of this work. I don't think anybody
10 else worked on that.

11 MR. WEHMEYER: So what I've done is
12 I've sorted out of your Excel spreadsheet the ones
13 where you didn't have a pick, or the OCD didn't have a
14 pick. So basically, if there's an OCD pick and a
15 Goodnight pick, this is what we got; okay?

16 MR. MCGUIRE: Okay. Yeah. And -- and
17 to be clear, the OCD -- it's -- it's not the pick of
18 the OCD. It's the pick of the operator in that --
19 that put the pick on the file that got submitted to
20 the OCD. It's just referencing the OCD well file.

21 MR. WEHMEYER: Yeah. And I would
22 submit we should pick on actual geology using core and
23 published literature and rock outcrop studies. But
24 since you want to do it off of OCD well files, we're
25 going through the exercise with you. So we have the

1 OCD well file pick from whoever the operator was, and
2 over to the left, we have the Goodnight pick. Do you
3 see that?

4 MR. MCGUIRE: I do.

5 MR. WEHMEYER: And then we show the
6 difference in feet.

7 MR. MCGUIRE: Okay.

8 MR. WEHMEYER: How much lower you are
9 than what's in decades of OCD well files from the
10 operators, do you see that?

11 MR. MCGUIRE: Yeah. I see where -- I'm
12 assuming you've done that. That's a calculation. I
13 don't think that was originally in -- in that
14 spreadsheet, so I'm assuming that was something that
15 Empire did; is that correct?

16 MR. WEHMEYER: No. You did the
17 differences yourself as you were --

18 MR. MCGUIRE: Okay.

19 MR. WEHMEYER: -- trying to see how far
20 y'all were off from, I don't know, 60 or 70 different
21 OCD files, maybe more. Those are yours --

22 MR. MCGUIRE: -- sure.

23 MR. WEHMEYER: So I mean, just eyeball
24 this, one after another after another. You can tell
25 the commissioners that you're probably on average

1 about 200 feet deeper than what the historical
2 operators of the EMSU are; isn't that true?

3 MR. MCGUIRE: For this particular
4 subset, that might be true, yes. But I know that this
5 document had many more wells than -- than what's being
6 displayed here. And they're not all -- there's some
7 that are shallower than ours -- sorry, deeper than
8 ours.

9 MR. WEHMEYER: You're talking about two
10 of them? I just counted -- this is over 50. And
11 would you agree that that's about -- you're off by
12 about 200, off of all these 50?

13 MR. MCGUIRE: Yeah, that's -- that's
14 what it looks like. Yeah. But again, if you take all
15 of these in the aggregate, they're all over the place.
16 I mean, there's -- there's no consistency when you
17 look at all of the wells in the EMSU in aggregate.

18 MR. WEHMEYER: Well, I can only do the
19 ones that you gave me the picks off of, and you're
20 consistently 200 feet off of everybody. Here's the
21 rest of the wells.

22 MR. MCGUIRE: Okay.

23 MR. WEHMEYER: And again, I went
24 through your spreadsheet.

25 Mr. Rankin, if I've done something

1 wrong, it's your -- Bates labeled 1979. But again, if
2 there was a Goodnight pick and an OCD well file pick,
3 we put it on here.

4 MR. MCGUIRE: Okay.

5 MR. WEHMEYER: And here's the rest of
6 them I think you're referring to. We just had over
7 50 -- oh, this is like 35 or 40 more. We're at, like,
8 nearly 90 wells.

9 MR. MCGUIRE: Okay.

10 MR. WEHMEYER: Does that align more
11 closely with the number of wells you think you
12 analyzed?

13 MR. MCGUIRE: I -- I still feel like it
14 was more than that. I mean, it took us months to dig
15 up all of that stuff. So no, I -- I guess I can't --
16 I -- I feel like there's more, but I -- I guess I
17 might be wrong.

18 MR. WEHMEYER: And you can tell the
19 commission again, just like the first 50 plus, for
20 these 40, you're off by about 200 feet.

21 MR. MCGUIRE: Yeah, it appears that
22 way. But then when I look at the wells that actually
23 targeted the San Andres, we're pretty close.

24 MR. WEHMEYER: My question is --
25 there's literally dozens and dozens of wells in the

1 historical OCD files. All of them picked a top of the
2 San Andres with the OCD that the OCD acknowledged, and
3 you were off from the vast, vast majority of those,
4 and not a little bit. By over 200 feet; true.

5 MR. MCGUIRE: Some of those really old
6 well files, they're actually calling the top of the
7 Grayburg the -- the San Andres top. There -- I mean,
8 there's a lot of issues with this because the -- the
9 chronostratigraphy fee is very hard to see in well
10 logs, so -- yeah, it's -- it's difficult.

11 MR. WEHMEYER: Well, n fact, if the
12 idea was that, "Well, this data's bad, this is
13 Grayburg" -- did you realize y'all had put your notes
14 into the Excel file that was produced to us?

15 MR. MCGUIRE: I guess I see that here.

16 MR. WEHMEYER: Were you aware that we
17 had these notes, or this is the first you're realizing
18 there was a notes tab hidden behind?

19 MR. MCGUIRE: I -- the -- the notes may
20 have been in there. I don't think --

21 MR. WEHMEYER: And again, this -- y'all
22 worked this, and I think the lady you referred to was
23 merging -- is S.A.D. -- is that initials for Mr.
24 Drake?

25 MR. MCGUIRE: It is, yes.

1 MR. WEHMEYER: Why did she have to
2 merge Mr. Drake's picks with your picks, with a
3 preference for Mr. Drake's?

4 MR. MCGUIRE: So I -- that -- that was
5 basically the -- the order if -- if there's two
6 different source codes inside the -- the software.
7 And I think she was just saying -- because there
8 was -- there was wells that were given to us after Mr.
9 Drake left, so those are the picks that I added after
10 Mr. Drake left. And so I -- she's -- for those wells,
11 she was merging just the -- the two data sets where
12 Mr. Drake didn't have a pick, but I had one.

13 MR. WEHMEYER: Okay. But you just
14 testified earlier that you didn't pick any tops in the
15 San Andres. Based on this notes tab, you did pick
16 some, they disagreed with Mr. Drake, and the lady you
17 referred to apparently did the merging. Why have you
18 not brought to this commission any of the work that
19 you, the actual geologist, did?

20 MR. RANKIN: Mr. Hearing Officer,
21 that's a mischaracterization. Objection,
22 mischaracterization of Mr. McGuire's testimony. He
23 did testify that he did pick some tops. He also
24 testified that he adopted, reviewed -- independently
25 reviewed and adopted other picks by Mr. Drake.

1 THE HEARING OFFICER: Mr. Wehmeyer, I'm
2 going to sustain that objection. I think really
3 you're arguing with this witness. The other thing is,
4 I think you all agreed that everybody got two and a
5 quarter hours of cross-examination with witnesses, and
6 you're at that point with this witness, so I guess I'd
7 ask how much more you think you have with this
8 witness.

9 MR. WEHMEYER: And I'm not trying to be
10 quarrelsome or disagreeable, but the agreement that's
11 stated on the record provides for banking of time not
12 used with earlier witnesses. Empire presently has
13 about 11 hours of banked time to use with Mr. McGuire
14 per the agreement that's been stated on the record.
15 And I would anticipate I have about four more.

16 THE HEARING OFFICER: Oh, okay. Well,
17 math is my short suit. You have any disagreement with
18 Mr. Wehmeyer's math, Mr. Rankin?

19 MR. RANKIN: No. I think -- my
20 colleague's been keeping track of the time, so I don't
21 have a disagreement, but I'm glad to hear that he's
22 not going to do, what was it, ten hours?

23 THE HEARING OFFICER: Eleven.

24 MR. RANKIN: Eleven. Eleven, yeah. So
25 I'm glad to hear that.

1 MR. WEHMEYER: And again, there's been
2 keeping of records. I think right now Mr. West has
3 the record, but I can -- we're not going to get
4 anywhere close to breaking any records with
5 Mr. McGuire out of my examination.

6 THE HEARING OFFICER: All right. Well,
7 why don't we go till -- let's see. Let's go till
8 three o'clock and then take a break. So go ahead, Mr.
9 Wehmeyer.

10 MR. WEHMEYER: Very good.

11 Just before leaving these tops, because
12 you suggested that maybe these operators screwed up
13 and picked up top of Glorieta, in every single one of
14 these OCD picks in which there's a San Andres pick,
15 you know, in that OCD well file, there's also a
16 Grayburg pick. There was no confusion about Grayburg
17 and San Andres. You can go to the OCD file, and every
18 one has a San Andres and a Grayburg; isn't that true?

19 MR. MCGUIRE: That's not true, no,
20 particularly the oldest wells. They were picking the
21 top of the San Andres at the top of the Grayburg
22 interval in the really old wells.

23 MR. WEHMEYER: They have a line item
24 for a Glorieta formation top, don't they?

25 MR. MCGUIRE: Well, yeah, but that --

1 not in those really old files. They did not. You
2 just had to write them in.

3 MR. WEHMEYER: For the Glorieta?

4 MR. MCGUIRE: Well, we're -- for the --
5 well, I -- I said that the formation top was picked at
6 the top of the Grayburg. If I -- if I said Glorieta,
7 I misspoke.

8 MR. WEHMEYER: I misspoke.

9 MR. MCGUIRE: Okay.

10 MR. WEHMEYER: Grayburg. If you're
11 suggesting that what they did was they mixed up and
12 what they were really talking about was Grayburg, but
13 they wrote San Andres, in each one of these OCD well
14 files there is a Grayburg pick and there's a San
15 Andres pick, isn't there?

16 MR. MCGUIRE: No, that's not true.

17 MR. WEHMEYER: XTO. Doesn't XTO, the
18 world's largest producer of oil, if you take out the
19 Middle East -- their picks align precisely with
20 Empire's picks, don't they?

21 MR. MCGUIRE: I don't think I -- I've
22 reviewed every single one, but -- no, actually, no,
23 I -- well, I know that they don't align on every
24 single one because they moved their tops. When you
25 look at the Newtech logs that were performed for XTO

1 and then the reprocess logs that were done for -- for
2 Empire, the -- the tops moved.

3 MR. WEHMEYER: Who moved the tops?

4 MR. MCGUIRE: Somebody at Empire or
5 Newtech? I -- I don't know.

6 MR. WEHMEYER: But between alignment
7 with picks by XTO, you can tell these commissioners
8 under oath that it is Empire's picks that are nearly
9 identical to XTO's, and Goodnights that are wildly
10 different than XTO's; isn't that true?

11 MR. MCGUIRE: Yeah, that might be true,
12 but we weren't trying to define the
13 chronostratigraphy. We were trying to define the two
14 different reservoirs that act differently from one
15 another.

16 MR. WEHMEYER: As we talk about the
17 unitized formation, you know that the unitized
18 formation captures all of the Grayburg and all of the
19 San Andres, don't you?

20 MR. MCGUIRE: Shouldn't have included
21 the San Andres.

22 MR. WEHMEYER: What question do you
23 think I just asked you?

24 MR. MCGUIRE: I heard the question.

25 MR. WEHMEYER: You just chose not to

1 answer it?

2 MR. MCGUIRE: I think the record speaks
3 for itself, and I think that the -- like I said, the
4 San Andres should have never been included in the
5 unitized formation.

6 MR. WEHMEYER: If you listen -- you're
7 the one under oath. The unitized oil formation is all
8 of San Andres and all of Grayburg, isn't it?

9 MR. MCGUIRE: It erroneously included
10 the San Andres.

11 MR. WEHMEYER: Is the answer to that
12 yes?

13 MR. MCGUIRE: Yeah, currently, yes,
14 that is true. But again, erroneously included the San
15 Andres.

16 MR. WEHMEYER: And I have this
17 beautiful smoking gun clip in terms of the timing of
18 discovery, but because you're not here in person, we
19 can't play this thing through the deal. I wanted to
20 play it. But you can tell the commission that
21 Goodnight had actual awareness that the San Andres and
22 the Grayburg were unitized by the OCD before it
23 permitted its first well in those depths; isn't that
24 true?

25 MR. MCGUIRE: Yeah, that's true, and we

1 had conversations about that with the OCD prior to
2 filing the applications.

3 MR. WEHMEYER: Now -- well, so that I
4 don't have to hear about conversation -- you didn't
5 have any of those conversations before filing the
6 application. That was not your timing, was it? That
7 was Mr. Drake.

8 MR. MCGUIRE: I was working for the
9 company at the -- at the time those conversations were
10 had.

11 MR. WEHMEYER: Who did you speak to at
12 the OCD about any kind of a unitized interval before
13 the first permit was filed? I need a name of a person
14 you spoke to.

15 MR. MCGUIRE: I didn't speak to
16 anybody, as I've clearly stated.

17 MR. WEHMEYER: So now we're --

18 MR. MCGUIRE: But -- and I've heard
19 that -- you know, I -- we had debrief meetings after
20 that meeting happened, you know, and that was what was
21 discussed. That's what I was told was discussed.

22 MR. WEHMEYER: I don't need hearsay
23 from you. If someone's going to come and swear about
24 a conversation, they need to be here in Santa Fe and
25 put their hand up and take the oath. The point being,

1 you had zero conversations with OCD before any first
2 well was permitted; that's true?

3 MR. MCGUIRE: That is true. Yep.

4 MR. WEHMEYER: Now, and so -- but you
5 do know that Goodnight had actual awareness of that
6 unit before permitting the first well; isn't that
7 true?

8 MR. MCGUIRE: Again, yes, and we had
9 conversations with the -- with the regulator about it
10 before they filed the applications.

11 MR. WEHMEYER: Nowhere in the permit
12 were the boundaries of the EMSU identified, were they,
13 in the very first permit in the EMSU? On that
14 permitting paperwork, were any of the boundaries of
15 the EMSU identified, yes or no?

16 MR. MCGUIRE: I don't -- I don't
17 believe so. I don't -- there's -- you don't have --
18 it's not required to put the unit boundaries on -- on
19 those area review maps.

20 MR. WEHMEYER: But you put the unit
21 boundaries on other permits, didn't you?

22 MR. MCGUIRE: I don't know. Did we?

23 MR. WEHMEYER: I'll show it to you in a
24 little while.

25 MR. MCGUIRE: Okay.

1 MR. WEHMEYER: Why on the first ones
2 did you not put any EMSU boundaries on it? Just
3 because you weren't required to?

4 MR. MCGUIRE: I don't know -- if you're
5 trying to suggest that the OCD had no awareness that
6 we were permitting inside the unitized interval,
7 that's incorrect.

8 MR. WEHMEYER: You have no personal
9 knowledge whatsoever about what the OCD knew or didn't
10 know because you didn't speak to them. On your best
11 day, you're talking about hearsay. And Goodnight's
12 made the decision to not bring anybody here to testify
13 who would have actual knowledge; isn't that right?

14 MR. MCGUIRE: If you're saying that my
15 personal knowledge from those conversations is -- is
16 not personal knowledge, I would disagree, but I get
17 your point.

18 MR. WEHMEYER: And I assume you don't
19 have any familiarity with Texas Rule of Evidence 602,
20 just as we're -- okay, perfect. Now, we'll move on to
21 the next one --

22 MR. MCGUIRE: But are we talking
23 about -- we're not talking about Texas here.

24 MR. WEHMEYER: I'm sorry. New Mexico
25 Rule of Evidence. I've been told by Ms. Hardy that

1 we're in the same sequencing here in New Mexico. Do
2 you know -- if you've got New Mexico Rule of Evidence
3 602, share that one.

4 MR. MCGUIRE: I -- I don't. I -- I
5 just wanted to make sure that we weren't talking about
6 a different state here.

7 MR. WEHMEYER: With respect to the
8 unitization well, do you see the unitization well is
9 right there in the center? We'll zoom in on it. And
10 that would reflect the top of the oil unit in the
11 Grayburg and the bottom of the oil unit in the San
12 Andres, yes?

13 MR. MCGUIRE: Yeah, and the unitization
14 well is Empire's SWD.

15 MR. WEHMEYER: Okay. So we -- I mean,
16 you can tell these commissioners, you have
17 perforations in the San Andres, and you have
18 perforations in the upper San Andres, don't you?

19 MR. MCGUIRE: Define "upper San
20 Andres."

21 MR. WEHMEYER: I'm not a geologist, but
22 how about I defer to Dr. Lindsey, who's crawled around
23 in the rocks with a hammer and has sworn to the
24 commission and offered sworn statements, and I'll
25 defer to Mr. Bailey, who did actual geology work in

1 this case.

2 MR. MCGUIRE: Okay. So which
3 perforations are you talking about?

4 MR. WEHMEYER: Well, for example, why
5 don't we just take the Ryno?

6 MR. MCGUIRE: Okay.

7 MR. WEHMEYER: So the commission -- do
8 you see -- these are your perms in the Ryno well;
9 right?

10 MR. MCGUIRE: That's -- that's correct,
11 yeah.

12 MR. WEHMEYER: And we see where you all
13 have picked your upper San Andres. Y'all are the same
14 as us in the Ryno, aren't you?

15 MR. MCGUIRE: Yeah. I'm assuming that
16 your purple line is a modification and that the purple
17 line is on top of where -- my line, so sure.

18 MR. WEHMEYER: And again, the idea
19 that -- if you think this is some game of what can you
20 have Mr. Wehmeyer show you -- as the corporate
21 representative of Goodnight and a educated geologist,
22 was it really brand new information to you in your
23 testimony today that Goodnight has perforations in the
24 upper San Andres in the Ryno well? You just learned
25 this for the first time for my questioning?

1 MR. MCGUIRE: No. I just want to make
2 sure that we're on the same page and we're talking
3 about the same thing.

4 MR. WEHMEYER: Do you -- my question
5 was, before I had to go through that whole exercise
6 and take three minutes on what should have been 30
7 seconds, you know that Goodnight has perforated
8 intervals in the upper San Andres, yes or no? You
9 understood, that was the first question?

10 MR. MCGUIRE: I heard the question,
11 yes, and I wanted to make -- I mean, there's a -- we
12 clearly have a difference in what we're calling the
13 upper San Andres, so I want to make sure that we're
14 talking apples to apples here.

15 MR. WEHMEYER: The truthful answer is
16 yes. You could have just said yes --

17 MR. RANKIN: Mr. Hearing Officer,
18 Mr. Wehmeyer is being very argumentative. We have
19 explained through Mr. McGuire's direct testimony that
20 what we're talking about -- what we refer to upper San
21 Andres -- or what they talk about as being upper San
22 Andres is different than what we talk about as being
23 the San Andres. So Mr. McGuire is well within his
24 rights to understand exactly what it is that
25 Mr. Wehmeyer is asking about.

1 So I ask that Mr. Wehmeyer please
2 conduct this questioning with respect to Mr. McGuire
3 and not be so argumentative.

4 MR. WEHMEYER: I would add --

5 THE HEARING OFFICER: Mr. Wehmeyer, you
6 do have a tendency to be argumentative with the
7 witness.

8 And, Mr. McGuire, I would remind you,
9 on the other hand, Mr. Wehmeyer makes a good point. I
10 want you to listen to his question and answer his
11 question. Mr. Rankin will have an opportunity to
12 redirect you; okay? So you don't have to cage and
13 explain every answer. I know there's a fine line
14 there but try and remember that.

15 MR. MCGUIRE: Understood.

16 MR. WEHMEYER: And, Mr. Hearing
17 Officer, for our part, there hasn't been five square
18 answers to a question in the last two hours. The
19 reason that the examination has gone the direction it
20 has is because this witness refuses to provide simple
21 factual answers to simple factual questions, and that
22 was a perfect example.

23 THE HEARING OFFICER: Well, let's move
24 on, unless Mr. Chairman Razatos has more to add.

25 MR. RAZATOS: This is going back and

1 forth and back and forth, and I have stressed multiple
2 times in this case -- and I'm kind of tired of saying
3 it over and over and over. You guys have to have some
4 decorum in here. We're not just here to placate. And
5 you know that these shenanigans, if it was in an
6 actual court, a district court, would not have upheld.

7 So I have to agree with the hearing
8 officer. We need to keep this decorum. And I'm
9 getting tired of having to repeat myself, so I think
10 this will be the last time that I'm going to say it.
11 I'm going to leave the rest of this to the hearing
12 officer. But if this continues, we're going to have
13 some problems, people. So please keep this decorum.

14 MR. WEHMEYER: Mr. McGuire, by
15 reference to this exhibit or demonstrative, there's no
16 Lovington Sand that you can find anywhere in relation
17 to what you would identify as your pick, is there?

18 MR. MCGUIRE: No, we did not place a
19 top that -- that is called the Lovington Sand. No.

20 MR. WEHMEYER: Don't you agree that
21 would have been useful to the commissioners in this
22 case as if Goodnight had identified where, if it
23 thinks it has a pick for the top of the San Andres,
24 the Lovington Sand would be?

25 MR. MCGUIRE: Not necessarily.

1 MR. WEHMEYER: Do we agree that if the
2 commissioners, as they go back and look at this -- if
3 the Lovington Sand would be up in the Grayburg based
4 on Goodnight's picks, we could agree that that makes
5 no sense whatsoever. No one has ever written that
6 there's Lovington Sand in the Grayburg; isn't that
7 true?

8 MR. MCGUIRE: Well, like I've said
9 before, our -- our goal was not to pick the
10 chronostratigraphy of the San Andres. It was to pick
11 the -- the point that defines these two different
12 reservoir systems.

13 MR. WEHMEYER: So you've never even
14 tried to pick the top of San Andres?

15 MR. MCGUIRE: No, that wasn't -- that
16 was not our goal. We were trying to pick reservoirs.

17 MR. WEHMEYER: So if the commission
18 wants to go back -- at the end of all of this
19 testimony, four weeks, and says, "Has Goodnight
20 attempted to pick the San Andres as part of its
21 testimony to the commission?" it's your testimony you
22 have never attempted to pick the San Andres for
23 purposes of the testimony in this case; true?

24 MR. MCGUIRE: We've picked the -- the
25 point -- what we're calling San Andres is the point

1 that separates the two reservoir systems.

2 MR. WEHMEYER: Which you're saying is
3 different than the geological top of the San Andres;
4 true?

5 MR. MCGUIRE: Yeah, that could be true.
6 Yeah.

7 MR. WEHMEYER: When in the history of
8 published scientific literature would somebody pick a
9 top that's different than the actual geological top?
10 What's the citation?

11 MR. MCGUIRE: When defining reservoirs
12 --

13 MR. WEHMEYER: Where would we read that
14 in a book?

15 MR. MCGUIRE: -- different reservoir
16 systems.

17 MR. WEHMEYER: Where would we read that
18 in a book?

19 MR. MCGUIRE: I don't have a citation
20 off the top of my head for you, but that -- that's
21 done in subsurface mapping.

22 MR. WEHMEYER: We're moving over to
23 talk about communication now. This is from your sworn
24 statement. "The early field production behavior of
25 the Grayburg is typical of a solution gas drive

1 reservoir having a rapid decline in reservoir pressure
2 without a rapid rise in water production." So is it
3 your testimony here that there was a rapid decline of
4 reservoir pressure created merely through the
5 extraction of liquids?

6 MR. MCGUIRE: Yes, that is -- that is
7 true, yeah. The -- the reservoir pressure dropped
8 pretty quickly during primary production.

9 MR. WEHMEYER: Because of an extraction
10 of liquids?

11 MR. MCGUIRE: Yes. Yeah.

12 MR. WEHMEYER: You say the upper San
13 Andres is capped by tight dolomite and anhydrite,
14 which serves as the upper geologic seal to prevent
15 migration to the formations above. Have you ever
16 looked at the RR Bell core descriptions?

17 MR. MCGUIRE: I have, yeah, and the RR
18 Bell core description does not get down to the -- the
19 point that we've defined the boundary that separates
20 these two reservoirs.

21 MR. WEHMEYER: Have you looked at the
22 679 core description?

23 MR. MCGUIRE: I have.

24 MR. WEHMEYER: Can you show the
25 commissioners where anhydrite is described in the

1 upper San Andres in the 679 core description?

2 MR. MCGUIRE: Yeah, there's -- there's
3 areas that have elevated anhydrite.

4 MR. WEHMEYER: There's been
5 conversation of bedded anhydrite. Will Goodnight now
6 agree that there is zero bedded anhydrite at the top
7 of the San Andres?

8 MR. MCGUIRE: I didn't say that there
9 was bedded anhydrite, although there are intervals
10 where the predominant mineral is anhydrite. So while
11 there's no layers that are 100 percent anhydrite,
12 there are intervals that are predominantly anhydrite.
13 So we could go back and forth on what you want to call
14 a bedded anhydrite.

15 MR. WEHMEYER: I would -- as the
16 commissioners assess credibility, I'd just like you on
17 the record, as the corporate representative and the
18 geology expert -- is there bedded anhydrite in the
19 upper San Andres, yes or no?

20 MR. MCGUIRE: There's -- like I just
21 said, there are intervals where the predominant
22 mineral in that interval is anhydrite.

23 MR. WEHMEYER: So you're saying yes, as
24 they assess your credibility, your position is there
25 is bedded anhydrite?

1 MR. MCGUIRE: I wouldn't say that
2 there's -- that there's a layer that is 100 percent
3 anhydrite, no.

4 MR. WEHMEYER: Anhydrite happens in a
5 shallow water environment, doesn't it?

6 MR. MCGUIRE: Yes, generally. Yeah.

7 MR. WEHMEYER: Perfect. So it's your
8 testimony here as Goodnight's representative and
9 expert geologist that anhydrite occurs in shallow
10 water environments, and that there's anhydrite
11 throughout the San Andres at EMSU; true?

12 MR. MCGUIRE: Not -- not throughout,
13 no.

14 MR. WEHMEYER: And you heard all the
15 testimony and fussing with Dr. Davidson and Mr.
16 Knights about the importance of the rock facies
17 selection here and whether this is a deep water
18 environment or a shallow water environment; isn't that
19 right?

20 MR. MCGUIRE: I did hear that
21 conversation.

22 MR. WEHMEYER: Now, this is a slide
23 that you showed with Mr. Rankin earlier. The 262 and
24 the 239, would you agree that those are high on
25 structure, as we talk geology? Are those high on

1 structure?

2 MR. MCGUIRE: They are.

3 MR. WEHMEYER: If we indulged your oil-
4 water contact, there's no water underneath the
5 Grayburg in those wells. They are above the oil-water
6 contact because of structure, and what's underneath
7 the Grayburg is San Andres rock; isn't that true?

8 MR. MCGUIRE: You -- you lost me there.
9 The -- the 239 drilled below the oil-water contact.
10 It was open hole below the oil-water contact.

11 MR. WEHMEYER: Because that's
12 structurally high, underneath that is San Andres rock,
13 not water. Do you understand that?

14 MR. MCGUIRE: I don't understand your
15 question. There's -- there's water in the rock.
16 There's -- I mean, we're subsurface. It's all rock.

17 MR. WEHMEYER: The water that would be
18 attributable to the oil-water contact -- you're making
19 the point that this well got close -- two of these got
20 close to the oil-water contact and one went below.
21 Don't you need to know if that well is structurally
22 high? Is that Grayburg well structurally high?

23 MR. MCGUIRE: Yes. Those --
24 particularly the 262 and the 239, yes, they are
25 structurally high.

1 MR. WEHMEYER: And because they're
2 structurally high, what does that mean about any water
3 underneath them that would be associated with an oil-
4 water contact?

5 MR. MCGUIRE: You're -- there could
6 be -- there's Grayburg below the oil-water contact.

7 MR. WEHMEYER: At those wells?

8 MR. MCGUIRE: Yes.

9 MR. WEHMEYER: Based on whose pick?

10 MR. MCGUIRE: I guess based on -- on my
11 pick, or -- or Goodnight's pick.

12 MR. WEHMEYER: Well, you tell the
13 commission --

14 MR. MCGUIRE: Are you saying -- are you
15 saying that those drills -- that those wells drilled
16 into the San Andres?

17 MR. WEHMEYER: Those are Grayburg wells
18 --

19 MR. MCGUIRE: Yes.

20 MR. WEHMEYER: -- that are very high on
21 structure.

22 MR. MCGUIRE: Yes.

23 MR. WEHMEYER: Now, will you tell the
24 commissioners about your work to identify what was the
25 oil-water contact in the Grayburg at the EMSU?

1 MR. MCGUIRE: Yeah. So the oil-water
2 contact was defined in the unit documents as negative
3 325. Dr. Lindsey has said that the oil-water contact
4 falls in -- in between negative 325 and negative 350.

5 MR. WEHMEYER: That was your methods?
6 As a geologist testifying as expert in this case, that
7 was the method you used?

8 MR. MCGUIRE: To define the oil-water
9 contact? It was defined -- I -- I just read the
10 documents. I didn't have to define it. It was
11 defined by the operators of the field.

12 MR. WEHMEYER: Would Chevron be a
13 reputable operator?

14 MR. MCGUIRE: Yeah.

15 MR. WEHMEYER: Chevron here in its 1989
16 technical report --you're welcome to read the top if
17 you want, but I'm focused on the second paragraph.
18 "The original oil-water contact, OWC, in the Arrowhead
19 is not known." Will you read the next sentence to the
20 commissioners?

21 MR. MCGUIRE: Well, this is talking
22 about Arrowhead. This is not at EMSU.

23 MR. WEHMEYER: Read the next sentence,
24 please.

25 MR. MCGUIRE: Okay, I see it. Yeah.

1 MR. WEHMEYER: "Recent analysis of
2 drill cuttings and core data on the western edge of"
3 what?

4 MR. MCGUIRE: Of the EMSU. Okay, yeah,
5 I see that.

6 MR. WEHMEYER: "Has resulted in an
7 estimated original oil-water contact in Grayburg zone
8 1 through 5" of what?

9 MR. MCGUIRE: Negative 550 is what it
10 says here. But that was originally. Those -- I mean,
11 the water -- the oil-water contact come up over time.
12 That's why they said it was at 325 when they unitized
13 it.

14 MR. WEHMEYER: Chevron would well know
15 what the original oil-water contact is, wouldn't it?

16 MR. MCGUIRE: Sure.

17 MR. WEHMEYER: With respect to the idea
18 of a weak aquifer edge drive on the -- and this, I
19 guess, leaks into Dr. Buckwalter -- as well as just
20 communication. Do you see that --

21 THE HEARING OFFICER: Mr. Wehmeyer,
22 it's almost three o'clock. Why don't we take a 15-
23 minute break? It looks like you're moving into a new
24 area of questioning, so it seems like a reasonable
25 time to break.

1 MR. WEHMEYER: Perfect.

2 THE HEARING OFFICER: Okay. Let's come
3 back at 3:15.

4 (Off the record.)

5 THE REPORTER: We are on the record.
6 The time is 4:15 Central Standard Time.

7 MR. WEHMEYER: Mr. McGuire, this is a
8 slide that you visited with Mr. Rankin over. Do you
9 see that "weak aquifer on western edge of reservoir"
10 is indicated here?

11 MR. MCGUIRE: I see that text. Yes,
12 sir.

13 MR. WEHMEYER: Maybe I can short
14 circuit some questions. Does Goodnight agree that
15 there would only be a weak aquifer contribution from
16 the southwest of the EMSU from the Goat Seep?

17 MR. MCGUIRE: No, I would not agree
18 that it is weak. It was able to climb to the top of
19 the structure, so that's -- that's a pretty large
20 vertical distance, so I don't think it's weak.

21 MR. WEHMEYER: What is bottom water?
22 As opposed to edge water, what is bottom water?

23 MR. MCGUIRE: Bottom water is water
24 that comes up from the bottom as opposed to coming in
25 from the edge.

1 MR. WEHMEYER: So it would move from a
2 deeper depth up to a shallower depth?

3 MR. MCGUIRE: Yes, that's correct.

4 MR. WEHMEYER: Let's see what your
5 water expert says. Do you remember this slide from
6 Mr. White?

7 MR. MCGUIRE: Yes, I think so. --
8 reorient myself here, but I remember seeing this,
9 yeah.

10 MR. WEHMEYER: And I want to help
11 orient the commissioners. Do you see T1 Prime is over
12 here on the west side of EMSU?

13 MR. MCGUIRE: I do see that. Well,
14 it's -- yeah, it's significantly farther west than
15 EMSU, but yes.

16 MR. WEHMEYER: Then you move through
17 the cross-section to T1 is on the east side of EMSU,
18 and it crosses through EMSU.

19 MR. MCGUIRE: I do see that.

20 MR. WEHMEYER: And so this gets hard to
21 follow because the east and west are backwards, but do
22 you see, on Mr. White's slide, T1 Prime is on the
23 west? It's on the right side?

24 MR. MCGUIRE: Yeah, I see that. Yeah.

25 MR. WEHMEYER: And he offered testimony

1 to the commissioners about the idea of concern over
2 the Goat Seep or Capitan Reef. Do you remember he
3 actually testified on this?

4 MR. MCGUIRE: I remember that, yes.

5 MR. WEHMEYER: And his point being that
6 he indicated low-k tight facies west of EMSU
7 indicating, quote, "limited aquifer support."

8 MR. MCGUIRE: Are you -- the text box,
9 was that added, or is that his -- are those his words?

10 MR. WEHMEYER: I -- we added that from
11 his sworn testimony in this case. You don't remember
12 him testifying and explaining this slide, that because
13 of that tight facies, there would only be limited
14 aquifer support from the west?

15 MR. MCGUIRE: I would refer to Dr.
16 Lindsey's testimony on that.

17 MR. WEHMEYER: Doesn't this clearly
18 indicate that there would be little or no Goat Seep
19 contribution from the Southwest?

20 MR. MCGUIRE: That's not what Dr.
21 Lindsey said, nor Chevron, in -- in a lot of their
22 publications.

23 MR. WEHMEYER: Let's talk some about
24 that. On the left, do you see this is something you
25 swore to? "When asked about it at a hearing in 2000,

1 Tracy Love" -- who is Mr. Love associated with?

2 MR. MCGUIRE: Chevron.

3 MR. WEHMEYER: One of the operators of
4 EMSU, yes?

5 MR. MCGUIRE: That would be correct,
6 yeah.

7 MR. WEHMEYER: What you swore to the
8 commission was that "When asked about it at a hearing
9 in 2000, Tracy Love identified only edge water and
10 water cycling through high permeability streaks as the
11 only sources of unaccounted for water in the EMSU, not
12 San Andres water." I read your sworn statement
13 correctly?

14 MR. MCGUIRE: Yes.

15 MR. WEHMEYER: You also say, "And his
16 1998 SPE paper also does not identify San Andres water
17 as migrating into the Grayburg."

18 MR. MCGUIRE: I -- sorry, were you not
19 finished?

20 MR. WEHMEYER: Go ahead. That was your
21 sworn testimony --

22 MR. MCGUIRE: I was agreeing -- I was
23 agreeing -- yeah, I was agreeing with you. Yeah.

24 MR. WEHMEYER: And with respect to
25 the -- I've looked. Did you attach any of the

1 testimony you attribute to Mr. Love anywhere to the
2 exhibits or papers filed in this case?

3 MR. MCGUIRE: I think I -- I believe I
4 did, yeah.

5 MR. WEHMEYER: Maybe I didn't find it,
6 and Mr. Rankin can point this out when he gets you
7 back. But let's look at least at the paper which I
8 could find. Mr. Love says "The general lack of
9 siliclastics to the southwest and the high energy
10 shoal environment where thick, porous grain rich
11 parasequences tend to stack has produced a more
12 homogenous reservoir that has more of a bottom and
13 edge water drive component." Did I read that
14 correctly?

15 MR. MCGUIRE: You did, yes.

16 MR. WEHMEYER: And he's discussing
17 EMSU, isn't he?

18 MR. MCGUIRE: Yes, he is. Yeah.

19 MR. WEHMEYER: And just like Mr. Bailey
20 testified, and just as you testified to with respect
21 to anhydrite, he's citing here EMSU being at a high
22 energy shoal environment, shallow water environment,
23 yes?

24 MR. MCGUIRE: Yeah. Referring to the
25 Grayburg, yes.

1 MR. WEHMEYER: Being different than the
2 rock facies selection out of -- that Dr. Davidson
3 used.

4 MR. MCGUIRE: No, Dr. Davidson said
5 that the Grayburg was high energy.

6 MR. WEHMEYER: So if there's bottom
7 water coming in -- we know we're talking EMSU, and we
8 know we're talking about Grayburg. Where would bottom
9 water that Mr. Love cites here have to come from?

10 MR. MCGUIRE: So the bottom water that
11 he's discussing -- I -- I wish I could draw it out for
12 you. He's talking about bottom water coming up from
13 the lower Grayburg off structure, as well as edge
14 water coming in from the Goat Seep.

15 MR. WEHMEYER: Okay. The bottom --

16 MR. MCGUIRE: In the -- in the
17 Grayburg.

18 MR. WEHMEYER: The bottom water is not
19 San Andres water? You've decided this is Grayburg
20 water?

21 MR. MCGUIRE: Yes. I think that's what
22 Mr. Love was saying there, yes.

23 MR. WEHMEYER: Where does he say that?

24 MR. MCGUIRE: I don't know if he says
25 it here, but he -- he definitely said it in his

1 testimony at the division in 2000.

2 MR. WEHMEYER: You've attributed many
3 statements to Dr. Lindsey, a PhD geologist who spent a
4 large part of his life studying EMSU, and you actually
5 offered this slide out of his PhD dissertation. Do
6 you remember highlighting the orange?

7 MR. MCGUIRE: I do.

8 MR. WEHMEYER: But you didn't highlight
9 the yellow, did you?

10 MR. MCGUIRE: I quoted it in my -- in
11 my direct testimony. I quoted that language.

12 MR. WEHMEYER: "Another way that the
13 upper San Andres formation fluids mix with Grayburg
14 formation fluids is by false fractures connecting the
15 two composite sequences. There have been places found
16 in EMSU." So we know we're talking EMSU; correct?

17 MR. MCGUIRE: Yes. That's what he
18 says.

19 MR. WEHMEYER: "Where false fractures
20 have allowed upper San Andres formation fluids to move
21 up section into Grayburg formation strata, which form
22 vertically oriented plumes of upper San Andres
23 formation water within the Grayburg formation. These
24 localities tend to be only associated with one well,
25 indicating that fault and fractures are localized in

1 small areas." I read all of that correctly?

2 MR. MCGUIRE: You did. Yeah.

3 MR. WEHMEYER: But you still insist,
4 even when you've placed this into evidence, that
5 there's no evidence of communication between the San
6 Andres and the Grayburg?

7 MR. MCGUIRE: Yes, primarily because he
8 does not support that statement with any facts or
9 data. And when questioned about that during his
10 deposition and during his testimony, he couldn't
11 identify a single well within the EMSU where he could
12 make that statement to. He -- he identified one well
13 in the EMSU B, which is not where we inject. It's not
14 in the EMSU.

15 MR. WEHMEYER: You would have this
16 commission believe that you know better about San
17 Andres communication with Grayburg than Dr. Lindsey;
18 isn't that true?

19 MR. MCGUIRE: I'm -- I'm saying, if you
20 have the data, show it, and he didn't.

21 MR. WEHMEYER: Now, this was literally
22 his PhD paper. You understand that?

23 MR. MCGUIRE: I do understand that.

24 MR. WEHMEYER: We're going to move on
25 and talk about the lack of barriers here. You

1 remember this slide you went through this with Mr.
2 Rankin earlier; right?

3 MR. MCGUIRE: Yes, sir.

4 MR. WEHMEYER: You asked this question,
5 "Why would Chevron place the EMSU Number 1 at the top
6 of the structure if this is true?" Do you remember
7 asking that question?

8 MR. MCGUIRE: I do. Yeah.

9 MR. WEHMEYER: You've never drilled an
10 oil and gas well, have you?

11 MR. MCGUIRE: No, I have not drilled an
12 oil and gas well.

13 MR. WEHMEYER: You've never operated
14 oil and gas assets, have you?

15 MR. MCGUIRE: That's not true.

16 MR. WEHMEYER: You're not a facilities
17 engineer, are you?

18 MR. MCGUIRE: I'm not.

19 MR. WEHMEYER: Let me see if this one
20 explains -- how about they located it because it was
21 close to the existing EMSU central facility as a
22 matter of ease and operations. You don't have any
23 operational experience for operators to be able to
24 explain why proximity to central facilities are
25 oftentimes the predominant and deciding factor for

1 locations?

2 MR. MCGUIRE: Well, if they truly
3 believed that it was going to damage their production,
4 why -- why would they do that? That doesn't make any
5 sense.

6 MR. WEHMEYER: Because it was near
7 their facility would be the easiest answer.

8 MR. MCGUIRE: Okay. And -- and to
9 sacrifice the production? I -- I don't -- I don't
10 think that's --that's what a oil and gas operator
11 would intend to do.

12 MR. WEHMEYER: Isn't that what y'all
13 are being sued for doing over in the Marston case in
14 Crane County? They were quite -- Reeves County. They
15 were quite upset that a SWD operator came to own their
16 oil and gas wells because they were going to kill
17 them?

18 MR. MCGUIRE: Yeah. And we -- we won
19 that case.

20 MR. WEHMEYER: Now, moving through your
21 testimony, we're about to get to your barrier picking.
22 You swear here that the white spaces contain
23 hydrocarbon or saltwater; right?

24 MR. MCGUIRE: Yes.

25 MR. WEHMEYER: And we've heard Dr.

1 Davidson testify in here that he's actually calculated
2 oil saturations all the way to the very, very bottom
3 of the San Andres, all the way to the Glorieta, hasn't
4 he?

5 MR. MCGUIRE: Very, very minor bits
6 that don't meet the standard for an ROZ.

7 MR. WEHMEYER: This color thing that
8 you've created, did you create this?

9 MR. MCGUIRE: I did, yeah. You can
10 call it a cartoon. It doesn't hurt my feelings.

11 MR. WEHMEYER: My question is, did you
12 use software to create this, or was it drawn by hand?

13 MR. MCGUIRE: I used a software to
14 draw, but yes, I drew it by hand.

15 MR. WEHMEYER: Okay. So this was not
16 something an algorithm created, or you put in inputs
17 from log parameters. This was you hand drawing. So
18 that when the commissioners go back and they
19 understand, everything that's colored, you hand drew;
20 right?

21 MR. MCGUIRE: Yes, that's correct.
22 It -- it's my interpretation of the logs.

23 MR. WEHMEYER: If we move over here,
24 for example, to the Dawson well -- you with me on the
25 well? How thick is the Grayburg barrier, according to

1 you? If the commissioners want to know how big is the
2 Grayburg barrier, how big is it?

3 MR. MCGUIRE: The low porosity in the
4 Grayburg, that would be -- so the -- the colors
5 represent low porous, low permeable intervals. So are
6 you asking about the -- the green in the Grayburg?

7 MR. WEHMEYER: There's, like, no
8 Grayburg barrier whatsoever at the Dawson well, is
9 there, according to you?

10 MR. MCGUIRE: Yeah. I mean, I have
11 a -- I think I -- if you zoom in, I think I have a
12 pretty thin one there, but I -- there's a barrier in
13 the -- in the San Andres there.

14 MR. WEHMEYER: My question is Grayburg.
15 I just want the commissioners to understand what
16 methodology you used. Here, what you're telling them
17 is that the Grayburg would have something less than 10
18 feet thick of barrier, according to you?

19 MR. MCGUIRE: Yeah. The -- the
20 resolution's pretty bad. But I -- I would agree with
21 you that it's probably in the 10 foot thick range.

22 MR. WEHMEYER: And in the Ryno, there's
23 none at all, is there?

24 MR. MCGUIRE: No, but there's clearly a
25 non-porous interval in the San Andres.

1 MR. WEHMEYER: My question is Grayburg.
2 So you're not going to tell these commissioners that
3 there's a mappable impermeable barrier that is at the
4 bottom of -- that is Grayburg that goes all the way
5 across the EMSU, are you?

6 MR. MCGUIRE: Doesn't appear -- not --
7 not in this figure, at least.

8 MR. WEHMEYER: And for example, here,
9 do you see the perf in your Ryno well that I'm
10 indicating at?

11 MR. MCGUIRE: Yes, sir.

12 MR. WEHMEYER: We talked earlier about
13 what acid does to rock. Did you put any acid in those
14 perfs?

15 MR. MCGUIRE: Yeah, probably. That's
16 standard completion operation.

17 MR. WEHMEYER: Hundreds of barrels of
18 acid, didn't you?

19 MR. MCGUIRE: Yeah. That's --
20 that's -- well, I don't know if hundreds of barrels
21 went in that specific perf. But yeah, the hundreds of
22 barrels is used during completion operations.

23 MR. WEHMEYER: It's actually a good
24 point. You don't know which perfs the acid is going
25 into when you pump it down, do you?

1 MR. MCGUIRE: That's true. It usually
2 goes in the -- in the highest perm first. And I -- I
3 do know -- I do have information on -- on that
4 particular set of perms there. That particular set of
5 perms does not take water, as shown by a down hole
6 injection survey that we have on that well.

7 MR. WEHMEYER: Why does the acid go to
8 the highest perm first?

9 MR. MCGUIRE: Because the perm is high.

10 MR. WEHMEYER: Just because it can --
11 because the fluid can move through; right?

12 MR. MCGUIRE: That would be correct.
13 Yeah.

14 MR. WEHMEYER: Just like drilling mud,
15 isn't it?

16 MR. MCGUIRE: Yeah. But the -- the
17 acid is put under pressure -- under higher pressure
18 than the drilling mud is.

19 MR. WEHMEYER: Okay. But again, you
20 immediately said that the acid's going to go to the
21 highest permeability rock first. And I asked, "Why is
22 that?" And you said, "Because it's high
23 permeability." And I said, "How would that be any
24 different than drilling mud?" And you don't have an
25 answer for that, do you?

1 MR. MCGUIRE: I do. The -- the acid is
2 done in stages with -- with pumps at the surface.

3 MR. WEHMEYER: Now, if -- I'm just
4 illustrating how this works. If the commissioners
5 indulged that there were barriers all over down
6 here -- you with me so far?

7 MR. MCGUIRE: Yes, sir.

8 MR. WEHMEYER: As soon as you punch
9 perforations right here, you've created communication
10 throughout the entire San Andres, and the best barrier
11 on your best day that you could identify to stop
12 fluid -- we know we've got no Grayburg. It would
13 possibly be what you've shaded in this little purple
14 spot; isn't that right?

15 MR. MCGUIRE: Yeah, that would be true.
16 But like I said, those perms aren't taking any fluid.

17 MR. WEHMEYER: Have you provided that
18 survey to the commissioners as part of this case?

19 MR. MCGUIRE: It's a public document,
20 and actually Empire reproduced that -- that public
21 document to us, so I know they have it.

22 MR. WEHMEYER: To further illustrate
23 this, many of these wells are open hole completed,
24 aren't they?

25 MR. MCGUIRE: Yes. Those are the water

1 supply wells, yes.

2 MR. WEHMEYER: And so as you inject,
3 even if you indulged all this idea of barrier business
4 that you've hand drawn in on cartoon -- there's open
5 hole completions such as this EMS 462, and all of the
6 saltwater you've injected you know can get at least up
7 to that shoe; isn't that right?

8 MR. MCGUIRE: Well, that well is
9 plugged and abandoned.

10 MR. WEHMEYER: Where's the plug?

11 MR. MCGUIRE: Right above your cursor.

12 MR. WEHMEYER: And that's my point is
13 all of this water is going to -- and I'm just assuming
14 you would be right on a single barrier, and we're
15 going to have a lot to talk about on that. But if the
16 commissioners indulge that all of this is barriers,
17 you can tell them all of that saltwater is going to go
18 to at least right there, isn't it?

19 MR. MCGUIRE: Yeah, in that well, but I
20 don't think it's going to go into the formation at
21 that -- at that location.

22 MR. WEHMEYER: You've performed no
23 study of that, have you?

24 MR. MCGUIRE: I've -- I've looked at
25 the logs, and that's a very, very tight interval. So

1 no, I don't think that there's any perm in that
2 interval that I've shaded as blue in that particular
3 log.

4 MR. WEHMEYER: Are you talking about
5 Raster paper logs?

6 MR. MCGUIRE: Yes, sir.

7 MR. WEHMEYER: Have you ever even
8 digitized any of these logs? I mean, you're just
9 truly looking at old paper, aren't you? As you're
10 saying that everyone should take your word that
11 there's a barrier up here, you're working off of
12 triple combo paper Raster logs from decades ago.

13 MR. MCGUIRE: Yeah, but -- but it would
14 be no different than the digitized version.

15 MR. WEHMEYER: And in many of these --

16 MR. MCGUIRE: I mean, the digitized
17 versions are built off of these paper logs.

18 MR. WEHMEYER: You don't have digitized
19 versions for the 462, do you?

20 MR. MCGUIRE: No, I've never digitized
21 the log. No.

22 MR. WEHMEYER: Again, I just want the
23 commissioners to understand what you've done here.
24 Like, for the 462, as you assure them that there's a
25 barrier up here, this is you picking porosity and

1 permeability off of a paper Raster log.

2 MR. MCGUIRE: That would be correct.

3 MR. WEHMEYER: What was your
4 methodology for calling a barrier?

5 MR. MCGUIRE: So generally I used about
6 a 7 percent cutoff using the density log.

7 MR. WEHMEYER: So just 7 percent
8 porosity?

9 MR. MCGUIRE: Yeah. For the -- for the
10 logs that I -- that I had densities on. I had a
11 different methodology for the resistivities.

12 MR. WEHMEYER: If it's purple, what --
13 do you understand why Empire's frustrated? If it's
14 purple, what is the methodology for calling it purple
15 if you're going to bring it in and swear to it?

16 MR. MCGUIRE: Just answered that
17 question.

18 MR. WEHMEYER: Seven percent porosity?

19 MR. MCGUIRE: That's what I did
20 originally, yes.

21 MR. WEHMEYER: And again, this is your
22 chance. We're in the methods bucket. If there's any
23 other methods to call something purple, have you now
24 had the opportunity to tell the commissioners about
25 that?

1 MR. MCGUIRE: Yeah. I would maybe
2 modify that a little bit going forward after I got the
3 core data. The core data shows that you can have
4 porosities as high as 16, 17 percent and zero vertical
5 perm.

6 MR. WEHMEYER: Did you change the
7 purple? If we're looking at purple, according to you,
8 this is 7 percent porosity?

9 MR. MCGUIRE: Generally, yes.

10 MR. WEHMEYER: You've heard Scott
11 Birkhead talk about 7 percent porosity -- the idea
12 that this is a barrier is insane -- and maybe 4
13 percent, and we've got some really tight porosities
14 measured in core with really high permeability, both
15 horizontal and vertical. You've heard that testimony,
16 haven't you?

17 MR. MCGUIRE: I have, but I would refer
18 back to the 679 core, and it shows a really competent
19 confining layer, which correlates with this interval
20 that I'm showing as purple.

21 MR. WEHMEYER: And again, as you -- I
22 just want to make sure the commissioners understand
23 this methodology, now that we know that purple is 7
24 percent. These wells are 2,700 feet apart. The
25 Goodnight Dawson to Sosa is 3,000 feet apart. These

1 are half a mile apart, yes.

2 MR. MCGUIRE: Yeah, approximately.

3 MR. WEHMEYER: And the logs that you're
4 using, none of this was spectral gamma, was it?

5 MR. MCGUIRE: You wouldn't pick a
6 barrier using a spectral gamma ray in -- in this
7 carbonate setting, 'cause there's -- there's no clay
8 in this system.

9 MR. WEHMEYER: Okay. The question --
10 all you had was old paper triple combo logs, except
11 for possibly on your Goodnight wells; isn't that
12 right?

13 MR. MCGUIRE: Yeah, I -- I mean, the --
14 the log quality in -- in the 1980s was -- was
15 sufficient. Yeah. There's -- there's no issues with
16 those logs.

17 MR. WEHMEYER: Now, again, continuing
18 on this idea, how far into the rock would one of those
19 logs see?

20 MR. MCGUIRE: It would be at -- you
21 know, very near wellbore.

22 MR. WEHMEYER: Three feet?

23 MR. MCGUIRE: It depends on the tool.

24 MR. WEHMEYER: How many -- these are
25 logs you used as your methodology and data relied

1 upon. If the commissioners want to know, when you're
2 mapping purple in your cartoon, how far out does the
3 log tool see? Three feet? Four feet? How far -- how
4 much rock are you seeing right there?

5 MR. MCGUIRE: It's -- it's very near --
6 near wellbore.

7 MR. WEHMEYER: Three feet?

8 MR. MCGUIRE: Yeah, I -- I'll -- I'll
9 go with you on 3 feet.

10 MR. WEHMEYER: And you can see that
11 what you've mapped, this purple barrier, these are
12 not -- they don't go well to well to well. They're
13 chopped up. This thing looks like a tiger, the side
14 of a tiger or something; right?

15 MR. MCGUIRE: Yeah, other than the one
16 at the top.

17 MR. WEHMEYER: So how on earth are you
18 mapping purple out here thousands of feet from where
19 you saw something on your tool, and telling the
20 commissioners about 7 percent porosity or not,
21 thousands of feet away?

22 MR. MCGUIRE: I'm correlating between
23 the logs, which is a standard geologic method of
24 correlating logs.

25 MR. WEHMEYER: Where in literature

1 might we see that you would define a geologic barrier
2 by 7 percent or less porosity? Where can I find that?

3 MR. MCGUIRE: So the 7 percent was
4 originally used off of different core porosity-
5 permeability cross-plots that we found for the San
6 Andres.

7 MR. WEHMEYER: No, my question is,
8 where in geologic literature would a scientist say,
9 "If you've got less than 7 percent porosity, you're
10 good. That's a barrier"? I just want to know the
11 author. Who's the author?

12 MR. MCGUIRE: It would -- it would
13 be -- it's data from a porosity-perm cross-plot.

14 MR. WEHMEYER: I'm not talking about --
15 I would just like a geology professor, a treatise, a
16 textbook that would say, if you've got 7 percent or
17 less porosity, that would be an effective barrier to
18 fluid flow.

19 MR. MCGUIRE: It -- it would be field
20 specific. And we used San Andres porosity-perm cross-
21 plots to come to that 7 percent.

22 MR. WEHMEYER: As we continue to talk
23 about -- but you came up with your 7 percent before
24 ever analyzing the core, didn't you?

25 MR. MCGUIRE: Well, we -- we looked

1 around for core and -- for San Andres core for the
2 data that was available to us.

3 MR. WEHMEYER: The question is, you
4 mapped 7 percent porosity -- if you're trying to make
5 it seem as though you picked this 7 percent off of
6 core, the truth is that you picked the 7 percent and
7 created your purple cartoon, and then later you got
8 some core; isn't that true?

9 MR. MCGUIRE: Yeah. We got -- we got
10 additional core data for the EMSU as part of this
11 case, and -- and it was very helpful, and it showed
12 some interesting relationships between vertical perm
13 and -- and porosity.

14 MR. WEHMEYER: But -- I just want --

15 MR. MCGUIRE: Like I said, there's --

16 MR. WEHMEYER: Go ahead.

17 MR. MCGUIRE: Like I said, the --the
18 679 shows that you can have porosities as high as 16,
19 17, 18 percent and have zero vertical perm.

20 MR. WEHMEYER: Okay. I just want the
21 commissioners to understand your methods and your
22 data. When you mapped the purple that we're looking
23 at here, you did it without any core; is that true or
24 not true?

25 MR. MCGUIRE: We did it without core

1 specific to EMSU. But we had published papers that
2 discussed San Andres core, and that's what we
3 utilized.

4 MR. WEHMEYER: As we continue to talk
5 about just the methods here, why would Goodnight have
6 perfered -- spent the money to make a perforation and
7 acidize something that you now say is a barrier? Do
8 you see where I'm indicating? I mean, there's
9 numerous of these, but this one's an example. Why on
10 earth would a saltwater disposal operator do that?

11 MR. MCGUIRE: Yeah, I wish we wouldn't
12 have spent the money there for those earlier wells.
13 The -- unfortunately, the drilling engineer picked --
14 picked the perfs without consulting with us, and I
15 wish he wouldn't have done that.

16 MR. WEHMEYER: This is another example.
17 You've picked a barrier, and y'all put a perf right in
18 the center of what you now say for this commission is
19 a barrier?

20 MR. MCGUIRE: Yeah. And I -- and I
21 wouldn't pick that -- that perf today.

22 MR. WEHMEYER: You said you picked the
23 purple cartoon off of logs. What log did you look at
24 right here to pick this purple cartoon?

25 MR. MCGUIRE: Just correlating those

1 from the -- the next nearest just to make the -- the
2 drawing complete. I'm just assuming it's the same
3 thickness in the 460. If I had the log that went that
4 deep, I would obviously analyze it and change that,
5 given the -- given what the log told me.

6 MR. WEHMEYER: You're saying
7 the close -- it's nearly 1 entire mile away, and there
8 is no barrier that would correlate across those.

9 MR. MCGUIRE: There may or may not be.
10 I don't have the -- I don't have any -- if I had wells
11 that went that deep in between those, I -- I probably
12 would have used them. But no, I just kept the
13 thickness constant and drew them over there to
14 complete the picture.

15 MR. WEHMEYER: I just asked you and you
16 said, "There may or may not be." You were referring
17 to a purple barrier right here?

18 MR. MCGUIRE: Yeah. You would have to
19 have the log that went that deep to -- and I'm sure it
20 would change. But we can see that those lower
21 intervals were at least correlatable between, for
22 sure, two logs, so -- yeah.

23 MR. WEHMEYER: So again, as these
24 commissioners -- if they're going to accept -- make
25 decisions for 58 percent state of New Mexico owned

1 minerals and nearly 20 percent BLM minerals and a
2 project that Empire's opined on to \$5.5 billion in
3 cashflow -- some of the purple you're saying is --
4 maybe it's -- maybe it could be look like this here.
5 That was your method?

6 MR. MCGUIRE: Yeah. It was an
7 interpretation.

8 MR. WEHMEYER: Well, it wasn't an
9 interpretation because you didn't have a log there,
10 and the closest well would be nearly 1 entire mile
11 away.

12 MR. MCGUIRE: Yeah. I used the other
13 logs that I had information for, saw that they were
14 correlating, and -- and drew them as a constant
15 thickness. Well, if the -- the thickness might not be
16 the same. The data's not there to -- to say it is or
17 it is not.

18 MR. WEHMEYER: Well, in fact, it
19 doesn't correlate. If you look as an example, the
20 only log you would have would be the banks here. And
21 as you move to the right -- I think that's east -- it
22 ends at the Dawson. It doesn't correlate across the
23 EMSU, does it?

24 MR. MCGUIRE: Well, I'm talking about
25 those lower zones.

1 MR. WEHMEYER: Also places you have no
2 log whatsoever, but you were fine shading at purple;
3 is that right?

4 MR. MCGUIRE: Yeah. It -- it
5 correlated in those two logs that went to the base of
6 the San Andres.

7 MR. WEHMEYER: On what -- I just want
8 the commissioners to understand that this is just pure
9 cartoon cocktail napkin coloring.

10 MR. RANKIN: Objection, argumentative.

11 THE HEARING OFFICER: It is
12 argumentative. Why don't you move on to your next
13 question. That's sustained.

14 MR. WEHMEYER: Why would you draw --
15 you see this little point right here? On what
16 scientific -- thousands of feet away -- why would you
17 draw this little point here? On what data would you
18 have drawn that?

19 MR. MCGUIRE: I'm correlating between
20 the two logs, and we can see that there's a little bit
21 of porosity that shows up right there where we don't
22 have -- three low porosity intervals. One of them
23 seems to somewhat pinch out somewhere in between those
24 two wells.

25 MR. WEHMEYER: As I move over here to

1 the left -- and again, this is your cross-section you
2 chose. This is the EMSU 4 -- I can't make -- 460.
3 This would be another example of that open hole
4 completion where you know the saltwater being injected
5 by Goodnight is going to come all the way up here to
6 the top of this shoe, nearly into what you've
7 identified as Grayburg; isn't that right?

8 MR. MCGUIRE: Yeah, but I don't think
9 it's going to go out into the formation.

10 MR. WEHMEYER: What studies have you
11 done about the integrity of these old plugs, or the
12 effect of the high TDSs, chlorides, sulfates, on these
13 old plugs?

14 MR. MCGUIRE: I have -- I have not done
15 a study of that. But I have no indication that our
16 water has made it to that particular well either.

17 MR. WEHMEYER: Well, under your
18 correlation, wouldn't it have had to have gotten
19 there?

20 MR. MCGUIRE: Not necessarily.

21 MR. WEHMEYER: Have you ever mapped
22 where your water is going?

23 MR. MCGUIRE: We have not done a full
24 plume analysis.

25 MR. WEHMEYER: Wouldn't that be highly

1 relevant to the OCC's decisions here, the saltwater
2 disposal operator mapping the plumes of the saltwater
3 it's injecting?

4 MR. MCGUIRE: Maybe. But -- I have
5 ideas of where I think the -- the water's going, but
6 I -- I haven't done the analysis.

7 MR. WEHMEYER: I'm going to come back
8 and talk more on the -- we're going to look at the
9 core together later on this idea that we would map
10 these with 7 percent porosity. To just illustrate
11 your cross-section, have I done the horseshoe
12 correctly? We would start up at the 460, you move
13 down to the banks, you move over to the Sosa, you move
14 to the Dawson, then up to the Ryno, then to the 462?

15 MR. MCGUIRE: Yes, sir.

16 MR. WEHMEYER: So instead of doing it
17 on the cross-section that you've -- I've just picked
18 the closest ones to each other. So for example, you
19 can see we're going to go 460, 462, and we're going to
20 actually measure in a linear fashion as opposed to
21 this horseshoe. Doesn't look like any of your purple
22 barriers correlate across, do they?

23 MR. MCGUIRE: It looks like the top one
24 does.

25 MR. WEHMEYER: Okay. And again, this

1 is 7 percent porosity? And so that the commissioners
2 understand, this is how close you can tell the
3 commissioners you know the water's going to get to
4 what you call Grayburg, isn't it?

5 MR. MCGUIRE: Yeah. In those
6 particular wells, yes. It will get the -- that close
7 in the -- in those particular wells.

8 MR. WEHMEYER: If we take --

9 MR. MCGUIRE: If -- if the water
10 makes -- makes it to those wells.

11 MR. WEHMEYER: Here we've put the banks
12 17-1 and the 462 next to Grayburg. The idea of a
13 barrier -- did you use the 7 percent in the Grayburg,
14 too?

15 MR. MCGUIRE: I believe so. I'd have
16 to -- I -- I think I used the 7 percent for -- for all
17 of it.

18 MR. WEHMEYER: Wouldn't logic say,
19 because those rocks are different, you would have had
20 to have -- a real methodology employed by a geologist,
21 it would be something different than 7 percent based
22 on the core analysis out of the Grayburg? How on
23 earth could it just happen that 7 percent works for
24 Grayburg rock and 7 percent works for San Andres rock?

25 MR. MCGUIRE: Well, most of the

1 analysis was based on the San Andres. The lithologies
2 are -- were -- were carbonates in both of these, so it
3 could probably apply to the Grayburg. When you get up
4 into the shallow resection of the siliciclastics,
5 yeah, maybe you'd use something different. But that
6 wasn't the point of this -- of this cross section.

7 MR. WEHMEYER: So are you telling the
8 commissioners that your alleged barrier mapping up in
9 the Grayburg would -- you really have no idea, because
10 you didn't prepare this methodology of 7 percent based
11 on Grayburg rock?

12 MR. MCGUIRE: I -- I still think that 7
13 percent is -- is good for the Grayburg carbonate.

14 MR. WEHMEYER: Did you perform any
15 study on core to suggest that that would be
16 appropriate for Grayburg rock, yes or no?

17 MR. MCGUIRE: I didn't. I did not, no.

18 MR. WEHMEYER: So we know all the green
19 is pure guesswork, don't we?

20 MR. MCGUIRE: Not necessarily.

21 MR. WEHMEYER: Same for Glorieta below.
22 Did you analyze the type of rock in the Glorieta, or
23 did you just use 7 percent?

24 MR. MCGUIRE: I think I used 7 percent
25 down there as well.

1 MR. WEHMEYER: You can tell the
2 commissioners that the idea of a barrier in the
3 Grayburg -- there is not a continuous barrier in the
4 Grayburg according to you, is there?

5 MR. MCGUIRE: At what interval?

6 MR. WEHMEYER: How about at the Ryno
7 17-1 in the EMSU, your saltwater disposal well? If
8 the OCD wanted to know back at that stage, or the OCC
9 wants to know today, "Mr. McGuire, is there a barrier
10 at the bottom of the Grayburg in the Ryno 17-1?" you
11 would tell them there's not?

12 MR. MCGUIRE: No, I did not put a
13 barrier in the base of the Grayburg in that particular
14 well. But there's a barrier that isolates our
15 disposal reservoir.

16 MR. WEHMEYER: This will be the last
17 time I hit this. But again, just so the commission --
18 here, you've got a perf this close to what you're
19 calling Grayburg. How many feet is that?

20 MR. MCGUIRE: I don't know. You'd have
21 to zoom in so I could count it. But like I said
22 earlier, that perf is not taking any water.

23 MR. WEHMEYER: You put acid in it,
24 didn't you?

25 MR. MCGUIRE: Yeah, we probably did,

1 and it probably didn't take very much.

2 MR. WEHMEYER: Now, again, the question
3 is how close is that perf to the Grayburg?

4 MR. MCGUIRE: I don't know, 50, 60, 70
5 feet. Something like that.

6 MR. WEHMEYER: Did you take any core
7 when you drilled the Ryno 17-1 to see -- as you just
8 called this -- and again, the methodology is just, if
9 it's 7 percent, as far as I'm concerned, Commission,
10 this is a barrier. You didn't have any core here, did
11 you, and you didn't purchase any core when you drilled
12 it?

13 MR. MCGUIRE: We -- we did not acquire
14 any core data when drilling these wells. But we
15 utilized San Andres porosity and perm cross-plots
16 that -- that was from core to understand what we
17 thought was a barrier and what wasn't.

18 MR. WEHMEYER: And those porosity and
19 permeability -- we're going to look at the actual core
20 data and photos of core here in a little while. You
21 can tell the commission those porosity and
22 permeability cross-plots are all over the place. We
23 saw that in Mr. Birkhead's data. We saw Dr. Lindsey
24 discuss that. Within the core that you have in the RR
25 Bell and the 679 porosity and permeability plotting,

1 those are all over the place; true?

2 MR. MCGUIRE: Yeah, for the entire core
3 data, yes, that would be true. But for the interval
4 that is -- that we've defined as our permeability
5 barrier, the core is -- is consistent at very, very
6 low perms. Vertical perms, I should -- I should
7 clarify.

8 MR. WEHMEYER: This log is not going to
9 tell you anything about permeability, is it? On your
10 best day, the log is telling you something about
11 porosity.

12 MR. MCGUIRE: That would be true.

13 MR. WEHMEYER: Ss we see in the 679
14 core, that low porosity can have very high
15 permeabilities. How do you know that for this little
16 interval right here that's not the case.

17 MR. MCGUIRE: I think you just use
18 the -- the data that you have available to you. And
19 like I said, the -- the data that we have available to
20 us shows that that interval is a very, very low
21 vertical perm.

22 MR. WEHMEYER: You're talking about a
23 log?

24 MR. MCGUIRE: I'm talking about the
25 core data.

1 MR. WEHMEYER: How many -- across
2 15,000 acres, how many cores did you study in coming
3 to this conclusion?

4 MR. MCGUIRE: I have one core that --
5 that is in the field that penetrated that -- or that
6 was -- that core -- that interval. There's one.

7 MR. WEHMEYER: Being that this is the
8 state of New Mexico's Grayburg oil that we're talking
9 about, don't you think that's a really big assumption
10 for a geologist to make?

11 MR. MCGUIRE: Yeah, I -- I used the --
12 I used the data that -- that's available to us, and
13 we're not -- there's no indication that our water has
14 gone into the Grayburg.

15 MR. WEHMEYER: Now, does the OCD tell
16 you where you can put your perfs, or as long as it's
17 within the permitted interval, that's okay?

18 MR. MCGUIRE: My understanding is is
19 that you can only perf inside of your permitted
20 interval.

21 MR. WEHMEYER: Right. But anywhere in
22 the permitted interval, that's okay?

23 MR. MCGUIRE: That's my understanding.

24 MR. WEHMEYER: Do you see the blue?
25 This is what you've actually permitted, for example,

1 on the Ryno well.

2 MR. MCGUIRE: Yes, that's what we
3 permitted. Yes.

4 MR. WEHMEYER: So literally today, what
5 you told the OCD when you got that Ryno permit -- you
6 with me so far?

7 MR. MCGUIRE: Yes, sir.

8 MR. WEHMEYER: We've got -- according
9 to you, there's no Grayburg barrier, and you told the
10 OCD it would be perfectly fine and they should give
11 you a permit that would allow you to perforate a
12 saltwater injection well at the very tip-top of what
13 you call San Andres; isn't that right?

14 MR. MCGUIRE: Yeah. It's pretty
15 standard that you permit the -- the entire formation
16 that you're looking to inject into.

17 MR. WEHMEYER: Wouldn't you agree that
18 if you perfed within the top of the interval, for
19 sure, your saltwater's going into the Grayburg there?

20 MR. MCGUIRE: Not necessarily. But --
21 but there's no perforation there.

22 MR. WEHMEYER: Everybody's relying on
23 good your geology work and your honor to not stick
24 something within the permitted interval.

25 MR. MCGUIRE: Can you rephrase?

1 MR. WEHMEYER: Let me re-ask it. I'm
2 just trying to figure out, how on earth could you go
3 to the OCD in good faith and tell them that you should
4 be able to place a perf right there, based on your
5 geology work, that they should approve that, and that
6 that would not threaten oil production in the
7 Grayburg? How do you do that?

8 MR. MCGUIRE: Like I said, you --
9 pretty standard that you permit the entire interval,
10 or the -- the entire formation that you're going to be
11 injecting into.

12 MR. WEHMEYER: Why on earth would you
13 put -- if the commissioner is believe this, why would
14 Goodnight, a disposal company, put saltwater perms
15 right in the middle of what you now want to say to
16 this commission as a barrier?

17 MR. MCGUIRE: Well, I didn't -- I
18 didn't do this -- this particular figure. This is a
19 republication of the figure that was done in the
20 original Piazza permit, and I -- I drew it differently
21 than Mr. Drake did in this, and -- yeah, like I said,
22 the -- the -- those two perforations where you have
23 your cursor at right now, they're not taking any
24 water.

25 MR. WEHMEYER: Hold on. Let's take

1 this in pieces, because I think we've landed on
2 something. You said you and Mr. Drake have different
3 ideas on where barriers would be?

4 MR. MCGUIRE: Yeah. We -- clearly, in
5 this particular well, we have a different
6 interpretation.

7 MR. WEHMEYER: Does Mr. Drake have more
8 experience than you?

9 MR. MCGUIRE: He -- I mean, he worked
10 longer than -- than I did. Yes.

11 MR. WEHMEYER: What methodology did Mr.
12 Drake use?

13 MR. MCGUIRE: You'd have to ask him.

14 MR. WEHMEYER: That didn't concern --
15 in coming to this OCC and offering sworn testimony, it
16 did not concern you that your 7 percent porosity
17 methodology did not match what a more experienced
18 geologist at Goodnight had determined?

19 MR. MCGUIRE: Yeah, actually, in fact,
20 it looks like the vast majority of that log is -- is
21 less than 7 percent.

22 MR. WEHMEYER: So are you telling me
23 there's actually --

24 MR. MCGUIRE: -- that interval right
25 there. So yeah, it looks like we're -- we're pretty

1 close to having the same methodology, although I drew
2 a little bit of a porosity in that where the -- where
3 the density is coming over very, very slightly.

4 MR. WEHMEYER: We maybe just landed on
5 something else. Are you telling the commissioners
6 that part of what you've shaded purple in your cartoon
7 is greater than 7 percent porosity?

8 MR. MCGUIRE: In this particular one?

9 MR. WEHMEYER: Yeah.

10 MR. MCGUIRE: Yeah, I -- I -- this is
11 just a republication of the one that was used in the
12 original Piazzo hearing.

13 MR. WEHMEYER: So as we try to get our
14 arms around what do we do with Mr. McGuire's
15 testimony -- we've got your shaded purple, allegedly
16 what's going to protect the Grayburg oil. And my
17 question is, as we look at shaded purple, some of it
18 is even higher than 7 percent porosity, which is what
19 you explained to me to be your methodology earlier;
20 true?

21 MR. MCGUIRE: Yeah, I can -- I can see
22 one -- I don't know. Maybe that's 3, 4, 5 feet that
23 looks to be above 7 percent in that particular
24 interval, and that's the -- that's the interval that I
25 did not shade in -- in those other ones, but Mr. Drake

1 did in this particular figure.

2 MR. WEHMEYER: So is what we're looking
3 at not your work? This was done by somebody else?

4 MR. MCGUIRE: This one was done by Mr.
5 Drake. That is correct.

6 MR. WEHMEYER: Are you swearing to its
7 accuracy?

8 MR. MCGUIRE: I am, yeah.

9 MR. WEHMEYER: But it's different than
10 the other one that you just showed?

11 MR. MCGUIRE: Not by much.

12 MR. WEHMEYER: And again, why -- these
13 perfs were not selected by Goodnight willy-nilly. Mr.
14 Drake, the more expensive -- more experienced
15 geologist saw something that made him want to put
16 perfs there.

17 MR. MCGUIRE: I -- I don't know if Mr.
18 Drake picked those perfs. Like I said, I think it was
19 actually the drilling engineer that picked those perfs
20 without consulting with the geologist. And that's one
21 of the reasons he no longer works for us.

22 MR. WEHMEYER: Do you -- is all of this
23 supposed to make Empire and the OCC feel good about
24 what y'all are doing right now in the San Andres
25 unitized interval, that you fired the guy who picked

1 some of these barriers?

2 MR. MCGUIRE: Not -- not the barrier.
3 No, not -- not the --

4 MR. RANKIN: Mr. Hearing Officer,
5 that's a -- objection on that question. That's kind
6 of a character attack, argumentative question. That
7 is improper.

8 MR. MCGUIRE: Sustained.

9 MR. WEHMEYER: As we continue to talk
10 about the coloring here, what is gray and what is
11 purple?

12 MR. MCGUIRE: Gray is -- looks to be,
13 in this log, limestone, and purple is dolomite.

14 MR. WEHMEYER: On what methodology was
15 dolomite determined to exist versus limestone?

16 MR. MCGUIRE: So in that particular
17 log, you can see what's being colored limestone is
18 where the neutron and the density curves are very,
19 very close to each other.

20 MR. WEHMEYER: Did you see this in core
21 that you would have, like, these -- to me, it looks
22 stratigraphic. Did you see it in the core hat you
23 would have stratigraphic intervals of limestone that
24 are this thick as compared to stratigraphic intervals
25 of dolomite?

1 MR. MCGUIRE: The core didn't reach
2 this interval of the San Andres.

3 MR. WEHMEYER: And if you don't have
4 spectral gamma, how are you down there picking rock
5 types, then?

6 MR. MCGUIRE: Because that's a typical
7 characteristic for a neutron density curve of what
8 limestone is.

9 MR. WEHMEYER: This is off of -- this
10 is, again, off of your exhibit. Do you see these are
11 all identified as water extraction, water extraction
12 within the Chevron EMSU 461 water supply? It's all
13 right in what you've identified as barrier. Do you
14 see that?

15 MR. MCGUIRE: No. That's just --
16 that's all open hole. And he was just trying to show
17 that that entire open hole interval was for water
18 extraction. No oil ever came out of that interval.
19 It's all water.

20 MR. WEHMEYER: Has this been a prolific
21 water supply well?

22 MR. MCGUIRE: Yeah, I would say so.

23 MR. WEHMEYER: If your barriers were to
24 be believed, like 85 percent of this would be a
25 barrier. Wouldn't this be, like, the worst water

1 supply well in all of New Mexico?

2 MR. MCGUIRE: Well, no. I'm seeing
3 that the porosity in that interval just above your
4 cursor is quite high, and that's probably where the
5 vast majority of the water was coming out of that
6 well.

7 MR. WEHMEYER: I just want to go back
8 to this one to illustrate something real quick. If
9 the commissioners saw fit -- now that we've heard
10 about your data relied on and your method -- to place
11 any emphasis on this thing right here, the purple
12 cartoon, the green cartoon -- you with me so far on
13 the assumption I'm using?

14 MR. MCGUIRE: Sorry, define your
15 assumption. I'm sorry.

16 MR. WEHMEYER: If the OCC saw fit to
17 rely on any of your work here on this Exhibit B9 --
18 you with me so far?

19 MR. MCGUIRE: Yes, sir.

20 MR. WEHMEYER: You can tell them even
21 under the methodology you described, there are purple
22 spots that have greater than 7 percent porosity, but
23 you shaded them purple anyway?

24 MR. MCGUIRE: I don't believe so, no.

25 MR. WEHMEYER: There's nowhere in here

1 that --so for example, there would be nowhere in here
2 that would have greater than 7 percent porosity, or
3 over here --

4 MR. MCGUIRE: You'd -- you'd have to
5 zoom into that -- that log and for that particular
6 interval.

7 MR. WEHMEYER: Right here. Are you
8 telling me there's no 7 -- there is no -- where we've
9 seen the variable porosities in core and variable --
10 you're telling me none of this is over 7 percent
11 porosity?

12 MR. MCGUIRE: There might be a few
13 intervals in there that are above 7 percent, but in
14 aggregate -- in aggregate, that entire interval is an
15 effective permeability seal.

16 MR. WEHMEYER: Now -- and so again, I
17 just want -- as the commissioners take this thing
18 back, and they don't have us here to fuss and testify
19 anymore, the purple has shaded purple instances where
20 you know for a fact do actually have greater than 7
21 percent porosity; isn't that true?

22 MR. MCGUIRE: It would be very, very,
23 very small intervals, on the order of a few feet, that
24 might have some porosity that's higher than 7 percent.
25 But in aggregate, I still feel comfortable calling it

1 a barrier.

2 MR. WEHMEYER: Where before have you
3 ever been retained as an expert to testify on
4 barriers?

5 MR. MCGUIRE: This will be the first
6 time.

7 MR. WEHMEYER: Okay. Can you tell the
8 commissioners, as a matter of geology, there's no way
9 for formation to cross each other like this?

10 MR. MCGUIRE: What do you mean, "cross
11 each other"? I don't understand what that's trying to
12 depict.

13 MR. WEHMEYER: How on earth could this
14 strata here where I'm indicating, here in gray,
15 somehow cross the purple strata? How does that happen
16 as a matter of geology?

17 MR. MCGUIRE: Cross -- I -- I don't
18 understand what you're trying to depict here. I don't
19 understand what you mean by "cross."

20 MR. WEHMEYER: You see the arrows. You
21 see the purple. You see the gray. How on earth does
22 the gray come across from east to west and then
23 somehow cross the purple lithology? How does that
24 happen?

25 MR. MCGUIRE: They're not -- he's not

1 showing those -- those two intervals as being
2 corelative. Yeah.

3 MR. WEHMEYER: Here, you've actually
4 offered the commission contrary testimony on barriers
5 out of the same exact well. Are you aware that you've
6 done that?

7 MR. MCGUIRE: Yeah, that appears -- and
8 like I said, the one on the right was not prepared by
9 me. That was Mr. Drake. And I -- I stick by -- by
10 mine.

11 MR. WEHMEYER: Mr. Drake got it wrong?

12 MR. MCGUIRE: A slight difference of
13 interpretation.

14 MR. WEHMEYER: Well, slight difference,
15 it's literally 30-something percent of the barrier
16 that Empire and this commission is supposed to take
17 heart in that the Grayburg is safe.

18 MR. MCGUIRE: Yeah, and -- and given
19 the core data that I have now, I would probably draw
20 that as being a continuous barrier, like Mr. Drake
21 did.

22 MR. WEHMEYER: Again, because you
23 didn't -- in terms of your barrier, working this case,
24 you didn't use core?

25 MR. MCGUIRE: Well, we used core -- San

1 Andres core porosity and permeability cross-plots. We
2 then got the core data from the 679 after these
3 figures were -- were built, and we -- yeah. So given
4 that new data, I would change my interpretation of
5 that -- that cross-section a little bit.

6 MR. WEHMEYER: Do you know what a
7 spinner tool looks like? Have you ever, like, laid
8 hands on the tool that would go down the wellbore on a
9 spinner tool?

10 MR. MCGUIRE: I haven't laid hands on
11 it, but I know what it looks like.

12 MR. WEHMEYER: What does it look like?

13 MR. MCGUIRE: It's a tool that has
14 little propellers in it that measure how fast fluid is
15 flowing past that.

16 MR. WEHMEYER: Does it also take
17 temperature?

18 MR. MCGUIRE: Sure does.

19 MR. WEHMEYER: And so when the
20 temperature falls off, we know that it's no longer
21 seeing the hot saltwater moving past it; right? If
22 temperature falls off --

23 MR. MCGUIRE: Yeah --

24 MR. WEHMEYER: Saltwater, your
25 injection is hot, isn't it?

1 MR. MCGUIRE: Depends on the season.

2 MR. WEHMEYER: Okay. Well, since we
3 can't talk temperature, let's talk on just the tool
4 spinning. If the tool stops spinning, we know that
5 water is not flowing past the little helicopter
6 propeller; right?

7 MR. MCGUIRE: Yeah, that -- that's
8 correct. That would be that no fluid is -- is moving
9 that tool.

10 MR. WEHMEYER: On the Ryno well, that's
11 the one that, after a great series of questions, you
12 finally agreed that even Goodnight agrees y'all are
13 injecting into the upper San Andres. That's that
14 well; right?

15 MR. RANKIN: Objection,
16 mischaracterization of prior testimony. Mr. McGuire
17 testified that that upper perf is not receiving any
18 water.

19 THE HEARING OFFICER: Rephrase, Mr.
20 Wehmeyer. Sustained.

21 MR. WEHMEYER: Mr. McGuire, you don't
22 agree that Goodnight is injecting in the upper San
23 Andres in the --

24 MR. MCGUIRE: Not in this --

25 MR. WEHMEYER: -- Ryno well?

1 MR. MCGUIRE: Well, it depends on how
2 we're defining upper San Andres. But the top perfs of
3 the Ryno are not taking fluid.

4 MR. WEHMEYER: With respect to this
5 spinner survey, you can tell the commissioners that
6 you know that all of the fluid that Goodnight is
7 injecting in the Ryno is happening in those upper
8 perfs, the upper third of perfs, isn't it?

9 MR. MCGUIRE: No, I think the vast
10 majority of the water is going in right there where
11 that -- that temperature deviation is 4845, as it's
12 depicted on this -- on this graph. I think probably
13 90 percent of the water is going in those perfs.

14 MR. WEHMEYER: That's right here. You
15 understand that? Where 4845 falls, that's right here
16 on the dotted line?

17 MR. MCGUIRE: Forty-eight -- yeah,
18 it's -- it's those perforations right there where
19 your -- where your cursor is; right? I mean, I don't
20 see the depth column -- yeah, so it's probably --
21 yeah, it's -- it's those two perfs right there.
22 That's where that water is going.

23 MR. WEHMEYER: How do you know it's not
24 going into the three above it?

25 MR. MCGUIRE: Because -- well, I know

1 it's not going in that top one because the spinner
2 survey is constant across that one. There's probably
3 some minor fluid going into the next two. And then
4 the rest of the water is going into the -- the two
5 perfs that are above the -- your dashed line there.
6 And really, it looks like hardly any water, if any, is
7 going into the perfs down in the -- in the lower part
8 of this well.

9 MR. WEHMEYER: And to just put a bow
10 around it, you can agree, on the Ryno -- as the
11 commissioners see all these lower perfs -- in the
12 Ryno, based on your spinner survey, you know that all
13 of the water is going into the upper sets of perfs,
14 not the lower sets of perfs; true?

15 MR. RANKIN: Objection, asked and
16 answered.

17 MR. MCGUIRE: I guess I'd refer back to
18 my testimony on that. It's -- it's going in those two
19 perfs right there.

20 MR. WEHMEYER: It's not going into
21 these perfs at all?

22 MR. MCGUIRE: There might be very, very
23 minor amounts that are going in those perfs. There's
24 none going in that top perf. Looks like very little
25 waters going in those next two, and then the vast

1 majority of the water is going in the following two.

2 MR. WEHMEYER: This is what a spinner
3 tool looks like?

4 MR. MCGUIRE: That's a version of it.
5 I've seen others.

6 MR. WEHMEYER: I want to talk now
7 about -- the only core that you brought to this
8 commission to talk about was the 4335; is that right?

9 MR. MCGUIRE: Yeah, that's the one that
10 I pulled from Dr. Lindsey's testimony. That's the
11 only core that -- core photo that I saw that was from
12 what I've defined as the confining layer.

13 MR. WEHMEYER: The -- with respect to
14 how the core report measures vertical permeability, is
15 that matrix permeability?

16 MR. MCGUIRE: Generally, yes. I guess
17 it depends on how they -- on how they measure it. But
18 that's -- that's generally correct.

19 MR. WEHMEYER: So to just illustrate
20 this concretely, when the core report as we're -- and
21 we're going to look at vertical permeability. If this
22 is matrix permeability, which is what core labs
23 measure, it's going to be this part of the rock right
24 here. It's not giving consideration to permeability
25 created by fractures, is it?

1 MR. MCGUIRE: Well, it -- it depends on
2 where they -- where they measured it. I would --
3 it -- I think it's safe to assume that the -- the core
4 permeability plot is intended to be representative of
5 the -- of the rock that they're trying to measure.

6 MR. WEHMEYER: This is why I asked you
7 in the first place, is it matrix permeability or is it
8 fracture permeability?

9 MR. MCGUIRE: Well, if you have a
10 highly fractured reservoir, you would want to know
11 the -- the permeability that you're trying -- you want
12 to -- you want to understand how the reservoir is
13 behaving. So whether it's matrix or -- or fracture,
14 you would want to have an understanding of how the
15 reservoir is behaving, and you would measure it as
16 such.

17 MR. WEHMEYER: To get -- and again, the
18 core report is matrix permeability, vertical
19 permeability, isn't it?

20 MR. MCGUIRE: I don't know if it
21 actually defined that in that core report.

22 MR. WEHMEYER: So you're saying you
23 don't -- as you look at the core, you don't even know
24 what the vertical permeability figure is that your
25 looking at, do you?

1 MR. MCGUIRE: I -- I would assume that
2 they're trying to understand the reservoir, and it's a
3 representative of the reservoir that they're working
4 in.

5 MR. WEHMEYER: If the -- as we talk
6 about rock being fractured, if a rock is fractured or
7 has fractures in it, that's going to create
8 permeability, isn't it?

9 MR. MCGUIRE: Yeah.

10 MR. WEHMEYER: And you chose this
11 confining layer over here; is that right?

12 MR. MCGUIRE: I did.

13 MR. WEHMEYER: And I think the point
14 you were making with this 4335 slide was that there
15 was some cementing in there; right?

16 MR. MCGUIRE: Yeah. That -- like I
17 said, that's the only core photo that I have from that
18 interval that has very, very low vertical perm. And
19 we can see that the fracture is completely cemented up
20 and no longer conductive of fluids.

21 MR. WEHMEYER: Earlier you helped
22 the -- I know you're not a chemist, but you -- acid
23 dissolves cement, doesn't it?

24 MR. MCGUIRE: Yeah.

25 MR. WEHMEYER: And for this part of the

1 confining layer, you had no core at all because it was
2 so fractured up they couldn't get the core out.

3 MR. MCGUIRE: That's not what it said.
4 But yes, the -- I agree with you that that core was
5 not recovered from that interval.

6 MR. WEHMEYER: Why was the core not
7 recovered from the interval that you've called a
8 confining barrier?

9 MR. MCGUIRE: Don't know. It didn't
10 say.

11 MR. WEHMEYER: Wouldn't it make sense
12 as a geologist that it was so fractured up, it
13 wouldn't come out.

14 MR. MCGUIRE: Maybe, but not
15 necessarily if there's other explanations

16 MR. WEHMEYER: Just so that the
17 commissioners understand how much acid y'all are
18 putting in here -- this is in gallons, so at those
19 upper perfs, this is 2,000 gallons, 47 barrels, 23
20 barrels, 23 barrels, 47 barrels. At those upper perfs
21 in the Ryno, the one we were -- we saw how close to
22 your Grayburg the Ryno was perforated. You can tell
23 the commissioners you put in hundreds of barrels of
24 acid up there, didn't you?

25 MR. MCGUIRE: And it didn't help the

1 injectivity whatsoever.

2 MR. WEHMEYER: And you haven't
3 performed any studies on how acid affects the
4 particular rocks in the San Andres, have you?

5 MR. MCGUIRE: I -- I can tell you that
6 it didn't help us put fluid in -- in those intervals.
7 There's no fluid going in those intervals at the top
8 of the Ryno.

9 MR. WEHMEYER: If the commissioners
10 want to see on other -- do you see here, in terms of
11 gallons, tens of thousands of gallons of acid you've
12 pumped into the San Andres on these various wells that
13 you've drilled is in there.

14 MR. MCGUIRE: Yeah, but I would convert
15 that to barrels so we can use constant units here.

16 MR. WEHMEYER: Now, we've talked about
17 Dr. Lindsey is the only one who's prepared a core
18 study. And what you want to call confining layer, he
19 prepared a core study on that interval, didn't he?

20 MR. MCGUIRE: He did.

21 MR. WEHMEYER: Did you bother to read
22 it?

23 MR. MCGUIRE: I did.

24 MR. WEHMEYER: What did it say about
25 your confining layer about the rock properties there?

1 MR. MCGUIRE: I believe it said that
2 there was fractures, but there was no discussion of if
3 they were conduits to flow.

4 MR. WEHMEYER: Isn't a fracture
5 definitionally a conduit to flow?

6 MR. MCGUIRE: No. We just looked at a
7 fracture that's totally cemented up in that interval.

8 MR. WEHMEYER: Were you able to find
9 any other photos of core that would have had a
10 cemented up fracture, or was that the only one?

11 MR. MCGUIRE: That was the only one
12 that Mr. Lindsey -- or excuse me, Dr. Lindsey put in
13 his -- in his testimony.

14 MR. WEHMEYER: I'm asking about -- you
15 wanted -- you're the saltwater disposal operator
16 pumping millions of barrels of saltwater into the
17 unitized interval of the San Andres. Did you go
18 looking as part of any of your barrier work or
19 confining layer work here to look at other photographs
20 of the core to see if there was cementing in the
21 fractures?

22 MR. MCGUIRE: No, I -- I looked at the
23 photos that were --that I had available to me.

24 MR. WEHMEYER: Was that anything other
25 than the 4,335?

1 MR. MCGUIRE: Yeah, there -- there was
2 some photos from -- that were kind of photos of the
3 core box. But the resolution, when you zoomed in on
4 it, the documents that, like -- that I had were -- you
5 couldn't see them.

6 MR. WEHMEYER: Were they this good of a
7 quality?

8 MR. MCGUIRE: They were not.

9 MR. WEHMEYER: So you've never -- for
10 the confining layer, this is the first time you've
11 ever actually looked at good quality photos such as
12 these for that interval?

13 MR. MCGUIRE: That would be correct.
14 Yeah.

15 MR. WEHMEYER: And you understand that
16 these cores, 679 and the RR Bell are publicly
17 available to be checked out from the BEG. It's at the
18 library. Anybody can go there and look at the core if
19 they wanted to photograph it, whatever they want to
20 do.

21 MR. MCGUIRE: Okay.

22 MR. WEHMEYER: But Goodnight's never
23 done it?

24 MR. MCGUIRE: We have not, no.

25 MR. WEHMEYER: As a geologist, you can

1 look at -- now that I'm showing you the actual core
2 photos for your confining interval for the very first
3 time, do you see that this is full of fractures, that
4 this stuff is so cracked up as? As a geologist, you
5 can look at this and see that what you've decided to
6 call confining area is cracked up every which way you
7 can get. This goes all the way to 4,351. Are you
8 going to tell these commissioners that your confining
9 layer is not all kinds of cracked up?

10 MR. MCGUIRE: Well, in this particular
11 core photo, it -- it's hard to tell the difference
12 between coring induced fractures and natural
13 fractures.

14 MR. WEHMEYER: So you would want to
15 look at the description from the core lab company,
16 right, about the -- because they'll differentiate
17 between what would be a extraction created crack
18 versus one in situ; right?

19 MR. MCGUIRE: Yeah, sometimes they
20 would. But for the 679, that analysis was not done
21 by -- by core lab, or whoever -- the core -- core --
22 whoever analyzed that core.

23 MR. WEHMEYER: Bob Lindsey. You know
24 Dr. Lindsey analyzed that core.

25 MR. MCGUIRE: Yeah, and he did not

1 analyze this depth.

2 MR. WEHMEYER: He literally did. I
3 just showed it to you. This is his --

4 MR. MCGUIRE: He said the bottom Of
5 this fracture study was 4,180.

6 MR. WEHMEYER: Goes all the way to
7 4,360. So have you not even read his core description
8 down to 4,360?

9 MR. MCGUIRE: It says it very clearly
10 in his rebuttal testimony that the base of his core --
11 of his fracture analysis was 4,180.

12 MR. WEHMEYER: As a geologist -- and
13 we're all here with our eyes. Will you agree that now
14 that you've laid eyes on photos of the core, that this
15 is very cracked up rock throughout the entire what you
16 call confining layer, except for the part that was so
17 cracked up they couldn't get it up the hole?

18 MR. MCGUIRE: Well, again, yeah,
19 there's no description here as to which ones are
20 coring induced fractures and which ones are natural.
21 The other thing is is that they're -- they're pretty
22 short. I think Mr. Lindsey said that the largest ones
23 that he was able to find, not in this interval, but in
24 the intervals that he did look at, was 3 feet.

25 MR. WEHMEYER: If there's fractures

1 that communicate with fractures -- again, you're
2 calling this thing barrier at 7 percent porosity. But
3 if it's all fractured up, water's going to move
4 through, that even before applying CO2 to reduce
5 viscosity.

6 MR. MCGUIRE: Well, it depends on if
7 the fracture is open. Look, they're -- a fault --
8 well, faults, which are essentially giant fractures,
9 are -- are structural traps for oil fields. Doesn't
10 mean -- just because there's a fracture there doesn't
11 mean it's conductive of fluid.

12 MR. WEHMEYER: Do fractures also
13 solution widen with time and fluids such as saltwater
14 or hydrocarbon moving, or CO2 permissibility?

15 MR. MCGUIRE: Not saltwater. If -- if
16 saltwater is super saturated, it won't dissolve the
17 rock.

18 MR. WEHMEYER: Now let's look at the
19 actual core description that goes with the interval
20 you selected as confining layer. You remember you
21 picked out 4335?

22 MR. MCGUIRE: I do, yeah.

23 MR. WEHMEYER: What was the vertical
24 permeability?

25 MR. MCGUIRE: Well -- 43 -- oh, yeah.

1 That's right.

2 MR. WEHMEYER: So apples to apples -- I
3 just want these commissioners to understand your
4 methodology. The only one you looked at by way of a
5 photo was 4,335. That's because Dr. Lindsey gave it
6 to you. You today used that as evidence for these
7 commissioners as part of your confining barrier to
8 make your case, and you said, "Look, it's got cement
9 in the fracture." You remember that testimony? Yes?

10 MR. MCGUIRE: I sure do.

11 MR. WEHMEYER: What is the vertical
12 permeability for the one slab that you showed to the
13 commissioners?

14 MR. MCGUIRE: It's 10 milli darcies, as
15 I stated in my testimony, but the foot above it is
16 0.03. Then you have a pretty high permeability, which
17 I assume is measuring a fracture, given that high
18 permeability, and it's 1 foot. And then, I mean, this
19 interval that I've called the barrier is an aggregate
20 of very, very low permeability. Vertical
21 permeability, I should -- I should clarify.

22 MR. WEHMEYER: On your porosity, we
23 talked about your 7 percent cutoff. All of these are
24 higher. I say all of these. The majority of these
25 are higher than 7 percent porosity as well, aren't

1 they?

2 MR. MCGUIRE: Yes, and it's very, very
3 low vertical perm. That's what I was referencing when
4 we were discussing this earlier.

5 MR. WEHMEYER: Earlier there was
6 conversation about anhydrite, bedded anhydrite, and
7 you said, "There's lots of anhydrite." Will you just
8 stop me when we see anhydrite in this core
9 description?

10 MR. MCGUIRE: Yeah, you're going pretty
11 quick here. I'd want some time to go through this.

12 MR. WEHMEYER: Have you done it before?

13 MR. MCGUIRE: I -- I did it one time.

14 MR. WEHMEYER: Did you find a lot?

15 MR. MCGUIRE: I found a few
16 descriptions of that. Not on this page, apparently.

17 MR. WEHMEYER: Okay. We're ready to go
18 to the next one?

19 MR. MCGUIRE: Sure. I see some
20 anhydrite on this page.

21 MR. WEHMEYER: Is this the one you're
22 talking about?

23 MR. MCGUIRE: That's the one that I,
24 yeah, see right now. Yeah.

25 MR. WEHMEYER: Any others?

1 MR. MCGUIRE: That's the -- that's the
2 one that's described in this one.

3 MR. WEHMEYER: Now, we're in your
4 confining -- well, we've been in your confining
5 barrier. But any on here?

6 MR. MCGUIRE: No. I guess I would
7 point out that I didn't say it was exclusively
8 anhydrite. Said it was also tight dolomite in my
9 confining layer, which every single one of these is
10 dolomite.

11 MR. WEHMEYER: So while we've got the
12 core, what on earth -- and you know your testimony's
13 got anhydrite all over the place in your written
14 testimony. What on earth would be the basis from
15 looking at core for you to have sworn to these
16 commissioners that there's anhydrite, that there's
17 enough anhydrite to make a barrier

18 MR. MCGUIRE: That was calculated from
19 the logs.

20 MR. WEHMEYER: So this would be an
21 instance of Goodnight getting its rock type wrong by
22 using triple combo logs?

23 MR. MCGUIRE: Not necessarily, no.

24 MR. WEHMEYER: What -- on these -- so
25 again, if the idea is "Empire take heart, your oil is

1 safe and the state of New Mexico's oil is safe,
2 because we have bedded anhydrite," you can tell the
3 commissioners there is zero evidence of that in this
4 core report; true?

5 MR. MCGUIRE: I didn't use the term
6 "bedded anhydrite."

7 MR. WEHMEYER: Now, what do these --
8 capital F, what does that mean? What does that stand
9 for?

10 MR. MCGUIRE: Might want to go to
11 the -- the legend here. But I'm assuming right now --
12 maybe I shouldn't assume anything here. We could go
13 to the -- to the legend that describes that.

14 MR. WEHMEYER: Ss a geologist,
15 shouldn't you have these down pat? Is the answer,
16 without looking at a legend, you have no clue what a
17 capital F means?

18 MR. MCGUIRE: Well, different core
19 companies use different nomenclature. That's why each
20 of them publish their legend on each one of their core
21 reports.

22 MR. WEHMEYER: How about if -- a
23 lowercase bnf. Do you have any clue what that means?

24 MR. MCGUIRE: Same answer. I have an
25 assumption of what it means, but --

1 MR. WEHMEYER: Before we go down --

2 MR. MCGUIRE: I don't want to stand out
3 on the limb here and say that I for sure know that
4 I -- exactly what that means.

5 MR. WEHMEYER: Before we go down and
6 look at the legend, the notes to the test, you can
7 tell the commissioners that in the descriptions there
8 are VFs and Fs all the way through the core and what
9 you call confining barrier, confining layer, isn't
10 there?

11 MR. MCGUIRE: It would appear so, yes,
12 sir.

13 MR. WEHMEYER: What is a capital F?

14 MR. MCGUIRE: Randomly oriented
15 fracture.

16 MR. WEHMEYER: What moves through
17 fractures?

18 MR. MCGUIRE: Depends if the fracture
19 is conductive of fluid. But sometimes nothing can
20 move through the fracture.

21 MR. WEHMEYER: What is VF?

22 MR. MCGUIRE: Predominantly vertically
23 fractured.

24 MR. WEHMEYER: Which would accord with
25 just using our common sense and looking at the core

1 with our eye, with what we observe there, yes?

2 MR. MCGUIRE: Well, I would just refer
3 back to the -- to the vertical permeability.

4 MR. WEHMEYER: Which, again, in low
5 porosity situations, some of that vertical perm is
6 really, really high, isn't it?

7 MR. MCGUIRE: In this interval, it's
8 predominantly very, very low.

9 MR. WEHMEYER: Well, here for example,
10 is 2 percent porosity with 2.0, 2.1 milli darcy
11 vertical permeability. You know, fluids are going to
12 move through permeability like that, aren't they?

13 MR. MCGUIRE: Yeah -- yeah, for sure.
14 But then it's going to go to the foot above it and not
15 move anymore.

16 MR. WEHMEYER: How -- if the
17 commissioners want to know how laterally extensive the
18 core is outside of the 3-ish inches, how far are they
19 seeing into the -- when you assure them with these
20 high porosities that you've chosen, a 7 percent
21 cutoff, that it just goes 1 foot above and cuts off --
22 how much rock are you looking at in that core?

23 MR. MCGUIRE: You're looking at the
24 diameter of the wellbore.

25 MR. WEHMEYER: Three-ish inches?

1 MR. MCGUIRE: Yeah, that -- that sounds
2 about right for this -- for this well. But there's no
3 evidence that our -- that our fluid is -- is going
4 through that interval.

5 MR. WEHMEYER: Right. And I'm glad you
6 brought that up, because -- as we talk about -- here,
7 Dr. Lindsey -- I'm not going to dwell on this one.
8 You know Dr. Lindsey's PhD came to the conclusion that
9 there is fluid moving from the San Andres into the
10 Grayburg, didn't it?

11 MR. MCGUIRE: Without any supporting
12 data to make that -- that claim.

13 MR. WEHMEYER: In the 1989 Chevron
14 paper, they came to the conclusion in 1989 and the
15 technical committee report that although siliclastics
16 between each zone generally prevent vertical
17 communication in some localized areas, they don't act
18 as permeability barriers.

19 MR. MCGUIRE: Which document is this
20 from?

21 MR. WEHMEYER: 1989, Chevron's
22 technical committee report.

23 MR. MCGUIRE: On which field?

24 MR. WEHMEYER: Which one do you think
25 this is?

1 MR. MCGUIRE: It feels like the
2 Arrowhead unit.

3 MR. WEHMEYER: It says Arrowhead at the
4 top. But again, this is saying -- you would agree
5 with me that Arrowhead is in close proximity to the
6 EMSU, isn't it?

7 MR. MCGUIRE: It's not the EMSU.

8 MR. WEHMEYER: What question do you
9 think I just asked you?

10 MR. MCGUIRE: I heard the question.

11 MR. WEHMEYER: Why won't you answer it?

12 MR. MCGUIRE: It's -- it's -- I don't
13 know, a few miles.

14 MR. WEHMEYER: Very close, yes?

15 MR. MCGUIRE: It depends on your
16 discussion -- or your definition of "very close."

17 MR. WEHMEYER: Well, the EMSU itself is
18 7 miles or more long if you drive one direction to the
19 other. How about you just redraw the boundaries in
20 the direction of the arrowhead?

21 MR. MCGUIRE: I'm not following.

22 MR. WEHMEYER: The technical committee
23 report on Arrowhead also came to the conclusion that
24 the San Andres and the Grayburg were communicating;
25 isn't that true?

1 MR. MCGUIRE: That's what this --
2 that's what that document says. But we don't inject
3 into the Arrowhead.

4 MR. WEHMEYER: The Love paper we looked
5 at a moment ago cited bottom water coming up into the
6 Grayburg, didn't it?

7 MR. MCGUIRE: Not from San Andres.

8 MR. WEHMEYER: If the commissioners
9 just need to remind -- what formation is below the
10 Grayburg?

11 MR. MCGUIRE: It would be the San
12 Andres, but it's -- there's nowhere in there that it
13 says the bottom water stemmed from the San Andres.

14 MR. WEHMEYER: This is now the '96
15 International Annual Conference and Exposition, the
16 NACE paper. You've seen this paper before?

17 MR. MCGUIRE: Yes, sir.

18 MR. WEHMEYER: "The Eunice Monument
19 South unit, EMSU, has historically experienced barium
20 sulfate scale deposits in many producing oil wells
21 prior to field unitization and initiation of the
22 present water flood." Wouldn't that be explained by
23 the sulfate rich waters of the San Andres migrating
24 into the Grayburg?

25 MR. MCGUIRE: That's -- that's what

1 they stated in that paper. But there's sulfur in the
2 oil in the Grayburg itself. So there's another --
3 there's an alternative, source of sulfur that could
4 cause that barium sulfate scale.

5 MR. WEHMEYER: We're in the 1996
6 Chevron paper. Conclusion here, "Although the
7 drilling was confined to the Penrose and Grayburg,
8 apparently some San Andres water was finding its way
9 into the wellbore of these wells and resulted in a
10 barium sulfate scale, barite deposition problem."
11 This is another Chevron paper identifying San Andres
12 water getting up into the Grayburg.

13 MR. MCGUIRE: That's what they
14 postulated. But I just offered an alternative -- an
15 alternate explanation that could caused that. The
16 other thing is is that paper is not peer reviewed.
17 That was just from a -- from a presentation that was
18 given at a conference.

19 MR. WEHMEYER: Help me with the peer
20 reviewed paper that Goodnight's offered the commission
21 that says there's no communication.

22 MR. MCGUIRE: Well, I would --
23 Lindsey's PhD thesis says that the San Andres is an
24 occlude, and that the pressure differential proves
25 that those two formations are isolated from one

1 another. He does qualify that with that paragraph
2 that you stated before. But when we pressed him on
3 that in this hearing, he couldn't identify a single
4 well. He has no backup data for that -- for that
5 statement. And the only well he could identify that
6 it occurred in was not in EMSU.

7 MR. WEHMEYER: This is going to be the
8 last question I have on that one. When the
9 commissioners go back and read your sworn testimony
10 where you say over and over and over, no evidence, no
11 evidence, no evidence, we've gone through -- according
12 to you, this is all still -- we're still in no
13 evidence territory; is that right?

14 MR. MCGUIRE: No direct evidence, yeah.

15 MR. WEHMEYER: Okay. Y'all talked a
16 lot about the EMSU SWD Number 1. Do you see here
17 graphed the barrels of water injected historically,
18 going back to 1995?

19 MR. MCGUIRE: I do, and I disagree with
20 the statement up there that it's compatible water. It
21 was known to be incompatible. So they've been putting
22 incompatible water in the San Andres for -- since the
23 1950s.

24 MR. WEHMEYER: As we talk about
25 incompatibility, didn't you have to -- now, you didn't

1 produce this document to Empire. We had to go find
2 it. Didn't you have to replace an entire Christmas
3 tree as part of a workover on your well in the EMSU,
4 because within five years, the entire Christmas tree
5 had corroded so badly from your water that it was
6 unusable?

7 MR. MCGUIRE: I don't know if that's
8 accurate. I do know that we replaced a wellhead, but
9 I don't know if the reason was because it was -- so
10 corroded. It's pretty -- I mean, it's -- you replace
11 this equipment after so long, as a prudent operator
12 does, just to ensure that everything is
13 mechanically -- that it has mechanical integrity.

14 MR. WEHMEYER: Okay. So you've got
15 water chemistry and compatibility and all these
16 opinions, although you're not a chemist, and you don't
17 know why y'all had to replace an entire Christmas tree
18 within five years?

19 MR. MCGUIRE: No. That's -- that's not
20 in my -- that's not in my purview here.

21 MR. WEHMEYER: An entire string of
22 yellow band coated tubing within five years? That's
23 pretty strange, isn't it, to have to replace an entire
24 string of coated yellow band tubing within five years?

25 MR. MCGUIRE: No, not necessarily. No,

1 that's -- that's pretty standard.

2 MR. WEHMEYER: I want to continue going
3 through some of your testimony. You've sworn the
4 water supply well significantly dropped the pressure
5 within the San Andres due to the very large volumes of
6 water produced. So we're talking in San Andres. Now
7 we're moving on to talk some pressures here; okay?

8 MR. MCGUIRE: Got it.

9 MR. WEHMEYER: Water supply
10 significantly dropped the pressure. So you're saying,
11 in the San Andres, by taking water out, that
12 significantly dropped pressure?

13 MR. MCGUIRE: Yes.

14 MR. WEHMEYER: Yes? Would you agree by
15 Goodnight then adding water back, that's going to
16 significantly increase pressure?

17 MR. MCGUIRE: No, that's not what the
18 data is showing.

19 MR. WEHMEYER: How on scientific earth
20 could that work, that withdrawing water significantly
21 drops pressure, but adding it back doesn't increase
22 the pressure?

23 MR. MCGUIRE: Yeah. So after getting
24 some new data, it looks like the San Andres was
25 naturally under pressure to begin with, but there was

1 water taken out that that did drop -- that contributed
2 to the pressure differential that we see between the
3 two zones. But like I showed in the data, our -- our
4 injection doesn't -- is not changing the bottom hole
5 pressure significantly.

6 MR. WEHMEYER: At paragraph 53, you
7 swear that "The depletion of the San Andres aquifer
8 from the EMSU 460 and 462 water supply wells, along
9 with the other four historical water supply wells in
10 EMSU, Goodnight Midstream's active and proposed
11 disposal wells near the former water supply wells have
12 very low operating pressures, creating an ideal
13 situation for disposal injection operations."

14 Again, what you're saying here is that
15 there's low pressure because the water has been sucked
16 out; right?

17 MR. MCGUIRE: That's what I said at
18 that time, but some new data has come to light that --
19 that slightly changes my opinion.

20 MR. WEHMEYER: You say it over and over
21 again. This is paragraph 69. "With the depletion of
22 the San Andres aquifer from these three water supply
23 wells, along with the other historical water supply
24 wells in EMSU, Goodnight's proposed disposal wells
25 near the former water supply wells will have very low

1 operating pressures as confirmed by existing disposal
2 operations."

3 Again, part of what you were making the case
4 for was the reason this is so ideal is that Empire and
5 earlier operators have dropped the pressures
6 drastically by sucking water out; right?

7 MR. MCGUIRE: That's true. That's what
8 I said at the time.

9 MR. WEHMEYER: Earlier, you remember
10 showing the commission this slide?

11 MR. MCGUIRE: Yes, sir.

12 MR. WEHMEYER: And I think you said one
13 of the important things about this slide was the
14 amount of time that the wells had to be -- were shut
15 in and not injecting over here; is that right?

16 MR. MCGUIRE: Yeah, I was -- I was
17 specifically talking about the Piper -- the pink line.

18 MR. WEHMEYER: But again, to you, the
19 amount of time that the well was shut in, not
20 injecting, was significant because why?

21 MR. MCGUIRE: I guess -- can you
22 restate the question? I think I got a little lost
23 there.

24 MR. WEHMEYER: Yeah. Why was the
25 amount of time that the well was shut in significant

1 in your testimony to Mr. Rankin?

2 MR. MCGUIRE: Because it -- the longer
3 the well is shut in, the -- the more that the near
4 wellbore pressure can equilibrate with the larger
5 aquifer.

6 MR. WEHMEYER: So that the
7 commission -- these are all taken with a fluid gun;
8 right?

9 MR. MCGUIRE: Yes. Sonic tool, yes.

10 MR. WEHMEYER: Do you know how that
11 fluid gun is calibrated or works?

12 MR. MCGUIRE: I do. Yeah.

13 MR. WEHMEYER: How?

14 MR. MCGUIRE: Shoots a sound wave down
15 the pipe and a sound wave bounces back, and then you
16 can calculate where the fluid depth is based on that
17 travel time.

18 MR. WEHMEYER: What's it counting?

19 MR. MCGUIRE: Probably seconds per
20 foot, or microseconds per foot. Time per foot.

21 MR. WEHMEYER: Do you know what the
22 waves are bouncing off of for you to be able to tell
23 how deep it is?

24 MR. MCGUIRE: The fluid level.

25 MR. WEHMEYER: Have you ever used a

1 pressure gun before?

2 MR. MCGUIRE: I have not used a sonic
3 tool, no.

4 MR. WEHMEYER: And so in terms of
5 describing to the commissioners how mechanically these
6 fluid levels were measured, you don't know by way of
7 mechanical explanation, do you?

8 MR. MCGUIRE: I guess -- I guess you're
9 implying that I got something wrong. But I would rely
10 on the experts that run that as their business and
11 that they -- that they accurately report the -- the
12 data back to us.

13 MR. WEHMEYER: Who are those experts
14 here? Names?

15 MR. MCGUIRE: I'd have to look up
16 the -- the service company provider that -- that we
17 use to shoot these fluid levels.

18 MR. WEHMEYER: W2 employee or 1099
19 contractor?

20 MR. MCGUIRE: I don't know what their
21 tax situation is, but it's somebody that we hire that
22 does this for a living.

23 MR. WEHMEYER: Who's the name of the
24 contractor that does it out here in EMSU?

25 MR. MCGUIRE: Don't have it off the top

1 of my head here. I'd have to look at the -- the
2 invoice. I think the company's called Downhole
3 Diagnostics, if I'm remembering that correctly.

4 MR. WEHMEYER: And with respect to
5 their calibration technique, you have no idea?

6 MR. MCGUIRE: I guess -- I guess not.
7 No. But they seem to be doing good work for us.

8 MR. WEHMEYER: The EMSU 211, that RFT
9 measurement, you insist that that is in the Grayburg;
10 is that right?

11 MR. MCGUIRE: How we've defined it,
12 yes. It's definitely not in the water management
13 zone.

14 MR. WEHMEYER: Okay. So you're not
15 disputing that the RFT measurement in the 211 that
16 we've spent so much time talking about was taken in
17 what is geologically the San Andres formation, are
18 you?

19 MR. MCGUIRE: No, it's -- it's not in
20 the water management zone. It's not representative of
21 the disposal zone. Everything below that -- that mark
22 acts as a different reservoir than everything above
23 it.

24 MR. WEHMEYER: I just need an answer.
25 San Andres, the San Andres -- we can all agree there

1 is a San Andres formation in New Mexico in the EMSU?

2 MR. MCGUIRE: Yes, we can agree with
3 that.

4 MR. WEHMEYER: Do you have a position
5 on whether the 211 measurement was taken in that San
6 Andres formation, yes or no?

7 MR. MCGUIRE: Well, the
8 chronostratigraphic pick for the San Andres is very
9 difficult to -- to pick. So if it's in the
10 chronostratigraphic San Andres, possible, but it's not
11 representative of the disposal zone. Like I said,
12 everything below our -- our line there, what we've
13 called San Andres, acts as a different reservoir than
14 everything above it.

15 MR. WEHMEYER: Here, as we talk about
16 Empire's pick of San Andres, do you understand that in
17 the OCD well file right this second for the EMSU 211,
18 that the -- I'm sorry, on the EMSU 1. I'm right here,
19 on the EMSU 1. Do you understand what I'm talking
20 about?

21 MR. MCGUIRE: Yes, sir.

22 MR. WEHMEYER: That the OCD pic is at
23 3,942. It's way up here.

24 MR. MCGUIRE: I'll take your word for
25 it.

1 MR. WEHMEYER: Which would place, based
2 on the OCD file for the EMSU Number 1 well, would
3 place that 211 measurement within the San Andres
4 formation with the OCD?

5 MR. MCGUIRE: Yeah. That may or may
6 not be true. Again, it's -- the point of the -- of
7 the figure here is to show that it's not in the
8 reservoir that's being utilized for disposal.

9 MR. WEHMEYER: With respect to the
10 depletion that -- we've spent a lot of time on this
11 211 slide. I assume you're familiar with it?

12 MR. MCGUIRE: Yes, sir.

13 MR. WEHMEYER: Other than communication
14 with the reservoir above, what on earth could explain
15 this depletion?

16 MR. MCGUIRE: Like I said, the --
17 that -- that's not representative of the -- of the
18 different reservoir that is being utilized for -- for
19 saltwater disposal. We call that interval Grayburg.
20 And that interval may or may not be in communication
21 with the -- with the Grayburg above it. But it's
22 definitely not representative of our disposal zone.

23 MR. WEHMEYER: Okay. I just want
24 Goodnight on the record, you as its corporate
25 representative -- the answer to the question of what

1 on earth explains that pressure depletion other than
2 communication with the reservoir above? Is your
3 answer you have no idea.

4 MR. MCGUIRE: Yeah, I -- I'll go with
5 that.

6 MR. WEHMEYER: Okay. You pick on Dr.
7 Buckwalter. Have you ever prepared a simulation model
8 or material balance simulation such as Dr. Buckwalter?

9 MR. MCGUIRE: First off, I'm not
10 picking on anybody, I'm just looking at the data
11 inputs into -- it's been a long time, but yes, I have
12 prepared a reservoir simulation model, but been a very
13 long time.

14 MR. WEHMEYER: Obviously Goodnight had
15 the human resources and economic resources to prepare
16 a model and rebuttal and/or to just be helpful to this
17 OCC if it so chose; true?

18 MR. MCGUIRE: We contemplated doing
19 that, but we came to the conclusion that the data was
20 not satisfactory enough. The input data that we had
21 available to us was not satisfactory enough to bring
22 to the commission and -- and stand behind. There was
23 too many unknowns.

24 MR. WEHMEYER: Did you contract with
25 anybody to even try, let a professional that has

1 experience preparing simulation models such as these
2 try and come back and tell you the data's good enough
3 or not, yes or no?

4 MR. MCGUIRE: We had -- we had those
5 conversations.

6 MR. WEHMEYER: With who?

7 MR. MCGUIRE: John McBeth.

8 MR. WEHMEYER: Did you hear his
9 testimony that he wasn't asked to prepare one?

10 MR. RANKIN: Objection,
11 mischaracterization of prior testimony. Mr. McBeth
12 actually testified on this directly and said that he
13 made the decision and recommendation that it was not
14 sufficient data to make a reservoir model.

15 THE HEARING OFFICER: Okay. I'll
16 sustain the objection based on that representation.

17 MR. WEHMEYER: I'll move on. Now, on
18 your slide, you just pointed out -- according -- you
19 said -- you fussed with Dr. Buckwalter. You say he's
20 missing 370 million barrels of water injected in the
21 San Andres. That was your slide you showed the
22 commissioners today; right?

23 MR. MCGUIRE: Yeah, that's -- that's
24 correct. That's the difference between what I was
25 able to get from records, and then I -- I summed up

1 what he had in the materials that he provided to us,
2 and there was that discrepancy.

3 MR. WEHMEYER: But that's not fair at
4 all, is it, because if you subtract the saltwater
5 disposal volumes not included in the model from the
6 water supply volumes not included, there's actually
7 only a shortage of 24,828,860 barrels; isn't that
8 right?

9 MR. MCGUIRE: Sorry, you -- you went
10 really quick there. Can you slow it down and walk me
11 through that?

12 MR. WEHMEYER: If you subtract
13 saltwater disposal volumes that are not included in
14 the model from the water supply volumes that are not
15 included in the model, that leaves the entire model
16 short by a mere 24,828,860 barrels. Do you understand
17 that?

18 MR. MCGUIRE: I -- I think I follow you
19 there. So which -- what water supply volume -- water
20 supply volumes are you using to come to that number?

21 MR. WEHMEYER: The ones within the
22 bubble proximity that's modeled right here in the
23 graphic on rebuttal Exhibit B47.

24 MR. MCGUIRE: Yeah, I think Dr.
25 Buckwalter -- so what's -- sorry, what's the volume

1 that you used? Three hundred and -- or 461?

2 MR. WEHMEYER: Saltwater volumes in
3 model --

4 MR. MCGUIRE: I'm sorry, water supply
5 volumes.

6 MR. WEHMEYER: Water supply volumes in
7 model, 461 million. Water supply volumes not
8 included, 390 million barrels.

9 MR. MCGUIRE: Okay.

10 MR. WEHMEYER: For a total water supply
11 volume of 852,000,000.

12 MR. MCGUIRE: Okay.

13 MR. WEHMEYER: And the point being
14 here, y'all want to -- you want to fuss over missing
15 injection volumes. If you put the water supply
16 volumes, it's only off by 24 million barrels, and at
17 the \$200,000 -- 200,000 barrel disposal rate a day
18 that you guys are at, volumes would be made up in a
19 mere 124 days. Does that math look accurate?

20 MR. MCGUIRE: Yeah, I have no reason to
21 disagree with the math there. But Dr. Buckwalter is
22 missing, you know -- I can't remember exactly how many
23 he had, but there's more than 60 in the area, and he's
24 missing -- I think he had 20, maybe 30 of those. So
25 he's missing more than half of the -- of the wells.

1 That has a material impact on -- on what the model's
2 going to show you.

3 MR. WEHMEYER: As we talk about
4 cumulative balance -- I just want to get Goodnight on
5 the record. Do you agree that historically this graph
6 accurately identifies the injection volumes leading up
7 to about 1986, then the withdrawal volumes to 2010,
8 and then volumes put back up through 2025?

9 MR. MCGUIRE: Is this specific to the
10 EMSU boundary?

11 MR. WEHMEYER: It is.

12 MR. MCGUIRE: Okay. I guess, yeah, I
13 don't have any reason to disagree with that, but I
14 know that, going back to Dr. Buckwalter, he did not
15 include any of those volumes pre-1994.

16 MR. WEHMEYER: So again, I just want --

17 THE HEARING OFFICER: Mr. Wehmeyer, let
18 me just break in here. I know you're wrapped up in
19 your cross-examination, but the goal here today is
20 going to be to finish at five, so we've got a little
21 less than ten minutes. So just bear that in mind and
22 tell us when you get to a point that will be a logical
23 place to break your cross-examination for the day.

24 MR. WEHMEYER: Very good. I'll be
25 finished at five or quicker, thank you -- for the day.

1 Mr. McGuire, I'm just trying to get --
2 if the commissioners, as we talk about pressures, want
3 to know where are we historically in terms of water
4 taken out and water taken back, you would agree that
5 we are just right now getting back to, as we talk
6 about material balance, a volume of water put back
7 that was sucked out over the last almost 40 years.

8 MR. RANKIN: Objection to form.
9 Mr. Wehmeyer was confusing in the question pressures
10 and volumes.

11 THE HEARING OFFICER: Mr. Wehmeyer,
12 rephrase the question, please.

13 MR. WEHMEYER: You understand we're
14 talking on pressures right now, Mr. McGuire? You
15 understand that?

16 MR. MCGUIRE: Yes, but I would say that
17 this -- this graph is not showing pressures.

18 MR. WEHMEYER: Understand. We're
19 talking about volumes with this particular question,
20 which was the question.

21 MR. MCGUIRE: Okay.

22 MR. WEHMEYER: The question is, as we
23 continue the pressure discussion, the volumes taken
24 out of the EMSU are only right now at this moment in
25 time getting back after being put back by Goodnight to

1 the original volumes; isn't that true?

2 MR. MCGUIRE: That -- that would
3 probably -- yeah, I -- I have no reason to disagree
4 with that. But I -- I do disagree with using that
5 graph as a proxy for pressure, 'cause the data does
6 not support that it is a proxy for pressure in this
7 instance.

8 MR. WEHMEYER: Would you agree that a
9 pressure bomb is the most accurate pressure you're
10 going to get down in a well?

11 MR. MCGUIRE: I think you can get very
12 close with a static shut in pressure.

13 MR. WEHMEYER: You're talking about at
14 the well head?

15 MR. MCGUIRE: Yeah. If you -- if you
16 know the density of the water, you can calculate the
17 hydrostatic, and that's equal to the bottom hole
18 pressure. So you can get very close.

19 MR. WEHMEYER: What is most accurate, a
20 pressure bomb or something else?

21 MR. MCGUIRE: I've seen pressure bombs
22 and calculated from hydrostatic that are the -- that
23 are the exact same number, assuming you have the right
24 inputs on your calculation.

25 MR. WEHMEYER: I understand you're not

1 an educated engineer. Are you really telling these
2 commissioners that you think there's something more
3 accurate than a pressure bomb?

4 MR. MCGUIRE: I think a pressure bomb
5 is -- is very, very good when you can run it, but you
6 can get basically the same answer calculating the
7 hydrostatic.

8 MR. WEHMEYER: Now, as we continue to
9 talk on volumes, there's been a whole lot of talk
10 about, gosh, Goodnight injected into the San Andres,
11 and that was actually part of its legal right as the
12 mineral owner and as the owner of the oil unit, isn't
13 it?

14 MR. MCGUIRE: Sorry, say that again?
15 You said Goodnight there.

16 MR. WEHMEYER: We have had to hear
17 about -- I'm sorry. We I'll strike that. We have had
18 to hear about Empire has injected into the San Andres.
19 Isn't that its legal right as the mineral owner who
20 owns the leases, and also the owner of the oil water
21 flood unit?

22 MR. RANKIN: Objection. Calls for a
23 legal conclusion about what rights Empire has.

24 THE HEARING OFFICER: It does, Mr.
25 Wehmeyer. You're the one that wanted this witness's

1 expertise limited. He's not a legal expert.

2 MR. WEHMEYER: I wish he's been
3 limited -- I'm sorry, go ahead.

4 THE HEARING OFFICER: Sustained.

5 MR. WEHMEYER: Mr. McGuire, so that
6 there's no misleading the commission, we've looked at
7 this graph. Do, do you agree this graph is a fair and
8 accurate representation of the volumes that have been
9 injected into the EMSU by Goodnight just since January
10 of 2020?

11 MR. MCGUIRE: Yeah. I have no reason
12 to disagree with the graph.

13 MR. WEHMEYER: And the blue, that is
14 others, which would include Empire; right?

15 MR. MCGUIRE: Sure.

16 MR. WEHMEYER: Historically and until
17 Permian and some of our other recent folks started
18 injecting, quote unquote, others was also very small
19 in relation to what Goodnight has done, weren't they?

20 MR. MCGUIRE: The -- the rates were
21 small. The cumes are very large.

22 MR. WEHMEYER: If the commissioners --
23 and in terms of cumes, we're only now, right now,
24 getting back to the volumes that would have been
25 sucked out; right?

1 MR. MCGUIRE: Yes.

2 MR. WEHMEYER: If the commissioners
3 wanted to know on this graph how much Empire would
4 represent, it would be about the width of one of these
5 little gray lines. If you placed it on this graph,
6 you've looked at this close enough to know that you
7 couldn't even see it. It would be about the width of
8 the gray line.

9 MR. RANKIN: Objection. Mr. Wehmeyer
10 is testifying.

11 THE HEARING OFFICER: Overruled.

12 MR. MCGUIRE: Yeah, the -- the rates in
13 the EMSU SWD Number 1 were very small, but over the --
14 the cume got to over 4 million, which is less than
15 other commercial saltwater disposal wells in the unit.

16 MR. WEHMEYER: You said the cume of
17 Empire got up to 4 million?

18 MR. MCGUIRE: Yeah. The -- the
19 cumulative disposal volume in the EMSU SWD Number 1
20 is, if I'm recalling correctly, just over 4 million, I
21 think.

22 MR. WEHMEYER: Which would be, like,
23 at -- in one month, if you take the 2-mile halo --
24 that's one month of what Goodnight does, isn't it?

25 MR. MCGUIRE: Yeah. It's significantly

1 less than what we do. That's correct.

2 MR. WEHMEYER: So why have you spent so
3 much ink and testimony out of your experts in this
4 case to the OCC about Empire has injected water in the
5 San Andres?

6 MR. MCGUIRE: A few different reasons.
7 One, the precedent was set. Two, they're injecting
8 into their own alleged ROZ. It doesn't make much
9 sense. There's been disposal into the -- in that ROZ,
10 alleged ROZ interval, for a long time. Just that
11 the -- I guess the main -- the main answer is that the
12 precedent was set.

13 MR. WEHMEYER: I'm at a place to
14 transition. So if breaking now pleases the tribunal,
15 I can do that, and I certainly have some more for
16 tomorrow morning. But I will be completed within the
17 morning.

18 THE HEARING OFFICER: All right. Okay.
19 Thank you, Mr. Wehmeyer. I think everybody could use
20 a little bit of rest, and so we'll be back. Let's go
21 off the record for the day and reconvene bright and
22 early tomorrow morning again at nine o'clock.

23 THE REPORTER: Okay --

24 THE HEARING OFFICER: Mr. Chairman
25 Razatos, anything further from you for the day?

1 MR. RAZATOS: No, thank you, everybody.
2 We appreciate it. We'll see you tomorrow.

3 THE HEARING OFFICER: All right.
4 Thanks everybody.

5 (Whereupon, at 5:58 p.m., the
6 proceeding was concluded.)

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CERTIFICATE

I, MARIANA NOVOA, the officer before whom the foregoing proceedings were taken, do hereby certify that any witness(es) in the foregoing proceedings, prior to testifying, were duly sworn; that the proceedings were recorded by me and thereafter reduced to typewriting by a qualified transcriptionist; that said digital audio recording of said proceedings are a true and accurate record to the best of my knowledge, skills, and ability; that I am neither counsel for, related to, nor employed by any of the parties to the action in which this was taken; and, further, that I am not a relative or employee of any counsel or attorney employed by the parties hereto, nor financially or otherwise interested in the outcome of this action.



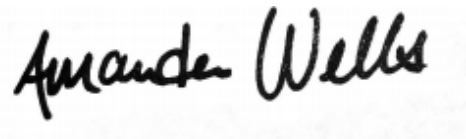
MARIANA NOVOA

Notary Public in and for the
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I, AMANDA WELLS, do hereby certify that this transcript was prepared from the digital audio recording of the foregoing proceeding, that said transcript is a true and accurate record of the proceedings to the best of my knowledge, skills, and ability; that I am neither counsel for, related to, nor employed by any of the parties to the action in which this was taken; and, further, that I am not a relative or employee of any counsel or attorney employed by the parties hereto, nor financially or otherwise interested in the outcome of this action.

A handwritten signature in black ink that reads "Amanda Wells". The signature is written in a cursive, flowing style.

AMANDA WELLS

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