STATE OF NEW MEXICO ENERGY, MINERALS AND NATURAL RESOURCES DEPARTMENT OIL CONSERVATION DIVISION

IN THE MATTER OF THE HEARING CALLED BY THE OIL CONSERVATION DIVISION FOR THE PURPOSE OF CONSIDERING:

AMENDED APPLICATION OF NGL WATER SOLUTIONS PERMIAN, LLC FOR APPROVAL OF A SALTWATER DISPOSAL WELL IN EDDY COUNTY, NEW MEXICO.

CASE NO. 20404

REPORTER'S TRANSCRIPT OF PROCEEDINGS

EXAMINER HEARING

May 2, 2019

Santa Fe, New Mexico

BEFORE: SCOTT DAWSON, CHIEF EXAMINER

MICHAEL McMILLAN, TECHNICAL EXAMINER

DAVID K. BROOKS, LEGAL EXAMINER

This matter came on for hearing before the New Mexico Oil Conservation Division, Scott Dawson, Chief Examiner; Michael McMillan, Technical Examiner; and David K. Brooks, Legal Examiner, on Thursday, May 2, 2019, at the New Mexico Energy, Minerals and Natural Resources Department, Wendell Chino Building, 1220 South St. Francis Drive, Porter Hall, Room 102, Santa Fe, New Mexico.

REPORTED BY: Mary C. Hankins, CCR, RPR

New Mexico CCR #20

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- 1 (3:23 p.m.)
- 2 EXAMINER DAWSON: The next case is another
- 3 NGL Water Solutions Permian, LLC case. It's Eddy
- 4 County, New Mexico.
- 5 Call for appearances, please.
- 6 MS. BENNETT: Good afternoon,
- 7 Mr. Examiners. My name is Deana Bennett. And I am from
- 8 Modrall, Sperling in Albuquerque, New Mexico, and I
- 9 represent the Applicant, NGL Water Solutions Permian, in
- 10 this matter.
- 11 EXAMINER DAWSON: Okay.
- 12 Any others?
- MS. KESSLER: Mr. Examiners, Jordan Kessler
- 14 from the State Land Office.
- 15 EXAMINER DAWSON: Okay.
- 16 MR. RANKIN: Adam Rankin, with the law firm
- 17 of Holland & Hart, here on behalf of ConocoPhillips
- 18 Company.
- 19 MR. CARR: May it please the examiners,
- 20 William F. Carr, senior counsel to Concho Resources. I
- 21 represent COG Operating in this matter. I have no
- 22 witnesses.
- MS. BENNETT: Mr. Examiners, I would like
- 24 to note for the record that the Domenici Law Firm
- 25 entered an appearance on behalf of Solaris in this case

- 1 and also filed a motion to dismiss the application. In
- 2 the intervening weeks, I have received an email from the
- 3 Domenici Law Firm saying that Solaris does not have any
- 4 objection to the application, the Whitt 31 application.
- 5 And I take it by their nonappearance today that that
- 6 remains true.
- 7 EXAMINER DAWSON: Okay. So noted.
- When you're ready.
- 9 NEEL L. DUNCAN,
- 10 after having been previously sworn under oath, was
- 11 questioned and testified as follows:
- 12 DIRECT EXAMINATION
- 13 BY MS. BENNETT:
- 14 Q. Hello, Mr. Duncan.
- 15 A. Good afternoon.
- 16 Q. Would you state your name for the record?
- 17 A. Neel Lawrence Duncan.
- 18 Q. And for whom do you work?
- 19 A. Integrated Petroleum Technologies.
- 20 Q. And have you been retained by NGL?
- 21 A. Yes.
- Q. And what are your responsibilities for NGL?
- 23 A. Oversight of the drilling and development of
- 24 saltwater disposal wells in southeast New Mexico.
- 25 Q. And have you previously testified before the

- 1 Division and the Commission?
- 2 A. Yes.
- Q. And your credentials were accepted as a matter
- 4 of record?
- 5 A. Yes, they were.
- 6 Q. Are you familiar with the amended application
- 7 filed by NGL in this matter?
- 8 A. I am.
- 9 Q. Are you familiar with the saltwater disposal
- well which is the subject of this application?
- 11 A. Yes, the Whitt 31.
- 12 MS. BENNETT: At this time I would like to
- 13 tender Mr. Neel Duncan as an expert in operations and
- 14 engineering matters.
- 15 EXAMINER DAWSON: Any objections?
- MR. CARR: No objection.
- MS. KESSLER: No objection.
- MR. RANKIN: No objection.
- 19 EXAMINER DAWSON: At this time Mr. Duncan
- 20 will be admitted as an expert in petroleum matters and
- 21 engineering.
- MS. BENNETT: Thank you.
- Q. (BY MS. BENNETT) Mr. Duncan, would you please
- 24 turn to Tab 1 in the materials that handed I've
- 25 everyone?

- 1 A. Yes.
- 2 O. And what is behind Tab 1?
- A. This is the application for an injection well
- 4 called the Whitt 31.
- 5 Q. Do you know why I needed to amend the
- 6 application?
- 7 A. Somebody made a typo.
- 8 Q. Yeah. A typo got made?
- 9 (Laughter.)
- 10 A. Yeah. A typo got made.
- 11 Q. So that was the only correction that was
- 12 required?
- 13 A. Yes. Yes.
- 14 Q. The C-108 was correct. It was the application
- 15 that was incorrect?
- 16 A. Yes.
- Q. And so the application that's in front of the
- 18 examiners today has the correct location?
- 19 A. Yes.
- 20 Q. Thank you.
- 21 And behind the application, as we just
- discussed, is the C-108 and all the backup documentation
- 23 for the application?
- A. Yes, it is.
- 25 Q. Now, I mentioned that Solaris has no further

- 1 objections to this case.
- Didn't ConocoPhillips enter their
- 3 appearance in this case as well?
- 4 A. Yes, they did.
- Q. And they're no longer disputing --
- 6 A. That's correct.
- 7 Q. Okay. And in the application for the Whitt 31,
- 8 what does NGL seek?
- 9 A. We seek an objection -- an objection well
- 10 (laughter) -- an injection well to the -- into the
- 11 Devonian-Fusselman-Silurian group. And that well would
- 12 be constructed for injection of approximately 50,000
- 13 barrels per day of water.
- 14 Q. And you're also seeking to use a larger tubing
- 15 size, right?
- 16 A. Yes, 7-inch-by-5-1/2 tapered string.
- 17 Q. And what are the benefits of using a larger
- 18 tubing size?
- 19 A. Lower friction, more water per single well,
- 20 less surface impact because there are fewer wells, less
- 21 horsepower, just greener.
- Q. And I neglected to ask you this question
- 23 before, but are you aware of orders in which the
- 24 Division has granted or is allowing SWDs with this
- 25 larger tubing size?

1 A. Yes. It's been done. It's even been done for

- 2 NGL before.
- Q. Has NGL retained a reservoir engineer to
- 4 conduct a study of the injection zone for these wells?
- 5 A. Yes.
- 6 Q. And is that behind Tab 3?
- 7 A. Yes.
- 8 Q. And who is the reservoir engineer that NGL has
- 9 retained?
- 10 A. It's Scott Wilson from the Ryder Scott firm.
- 11 Q. And has Mr. Wilson previously testified before
- 12 the Division?
- 13 A. Yes, he has. And his qualifications were
- 14 accepted.
- 15 Q. And did Mr. Wilson provide an affidavit which
- 16 discusses his studies?
- 17 A. Yes.
- 18 Q. And is that affidavit included in Exhibit 3?
- 19 A. Yes, it is.
- 20 Q. And would you briefly -- well, in his
- 21 affidavit, does Mr. Wilson confirm that increasing the
- 22 tubing size for this well will reduce friction in the
- 23 wellbore?
- A. Yes, he does.
- 25 Q. And does he confirm that using increased tubing

1 sizes will only have a very little -- very small impact

- 2 on pore pressure in this formation?
- 3 A. Yes.
- 4 Q. Is it Mr. Wilson's opinion that these increased
- 5 tubing sizes will not cause fractures in the formation?
- 6 A. Yes. Correct.
- 7 Q. Did Mr. Wilson also perform a study that models
- 8 the migration of fluids that are injected into the well?
- 9 A. Yes. And it shows that the fluids would not
- 10 migrate beyond nominally a mile in over a 20-year
- 11 period.
- 12 Q. And Mr. Wilson's study is not just limited to
- 13 this well, right? He studies all the wells -- or models
- 14 all of the wells in the area?
- 15 A. Yes, he does.
- 16 Q. Has NGL retained a geologist to review the
- geology in the area where the wells are located?
- 18 A. Yes. And that's Dr. Kate Zeigler.
- 19 Q. And is her affidavit behind Tab 4?
- 20 A. Yes.
- 21 Q. And does she also include a study that's
- 22 included with her affidavit?
- 23 A. Yes. It shows that there are confining layers
- 24 to hold the injection in the injection zones, and she's
- 25 done significant work to back that up.

1 O. And so she concludes that the areas where the

- well is proposed to be located is suitable for injection
- 3 at increased rates?
- 4 A. Yes.
- 5 Q. And as you just mentioned, she, in her
- 6 materials, discusses a permeability barrier that's
- 7 located both above and below the injection zone?
- 8 A. Yes.
- 9 Q. And that permeability barrier will prevent --
- in her opinion, will prevent the migration of fluids
- 11 from the reservoir?
- 12 A. Yes.
- Q. Let's turn to Tab 5, please. Tab 5 contains
- 14 the affidavit of Dr. Steven Taylor; is that right?
- 15 A. Yes.
- 16 Q. And does it also contain two studies?
- 17 A. Yes.
- 18 Q. And who has prepared those two studies?
- 19 A. Dr. Taylor prepared one study and also Todd
- 20 Reynolds of Platt Sparks.
- 21 Q. And Dr. Taylor is a --
- A. He's a seismologist up in Los Alamos.
- Q. And NGL has retained his company to do seismic
- 24 monitoring; is that right?
- 25 A. Yes. He does seismic monitoring for NGL and

- 1 studies.
- Q. And he has installed seismic monitors around
- 3 the NGL wells?
- 4 A. Yes.
- 5 Q. And he's also looked at prior seismic activity
- 6 in the area using desktop review like USGS and other
- 7 materials?
- 8 A. Yes.
- 9 Q. And in his study, does he conclude that there
- 10 is not a lot of seismic activity in this area?
- 11 A. Yes.
- 12 Q. And Mr. Taylor worked with Todd Reynolds at FTI
- 13 Platt Sparks to run the fault slip probability tool
- 14 analysis?
- 15 A. Yes. They collaborate on that work.
- 16 Q. And Todd Reynolds then prepared a study that
- gives his results from his fault slip probability tool
- 18 analysis; is that right?
- 19 A. Yes. Yes.
- Q. And do Dr. Taylor and Todd Reynolds conclude
- 21 that there is very little risk of induced seismicity as
- 22 a result of --
- A. Yes, they do.
- Q. And, again, does Todd Reynolds' study include
- 25 just this well or more wells?

1 A. He includes all the wells that he has data on.

- Q. We haven't talked about the fault slip
- 3 probability tool analysis for a while. Are you familiar
- 4 with that tool?
- 5 A. I don't think I could run it, but I'm familiar
- 6 with it.
- 7 Q. And it was developed by a group of scientists
- 8 at Stanford University, is that right --
- 9 A. Yes.
- 10 Q. -- as far as you recall?
- 11 A. Yes. Mark Zoback, I believe.
- 12 Q. Let's now turn to Exhibit 6, please.
- 13 A. Yes.
- 14 Q. Is Exhibit 6 a declaration obtained from Steve
- 15 **Nave?**
- 16 A. Yes, it is. And he is a fishing
- 17 consultant-operator of an off-site service and rental
- 18 tool company.
- 19 Q. And in his declaration, does he discuss the
- 20 possibility of fishing equipment out of a well with the
- 21 tubing size that NGL is proposing?
- 22 A. Yes. He concludes that the 5-1/2-inch tubing
- 23 can be fished from the inside of the 7-5/8 casing.
- Q. And let's now turn to Tab 7, please. Now,
- 25 earlier we talked about how there was a mistake, a typo

1 got made, and that typo was not in the C-108 but was in

- 2 the application.
- 3 A. Yes.
- q Q. And so this affidavit is an affidavit that I
- 5 prepared --
- 6 A. Yes.
- 7 Q. -- attesting to notice, right?
- 8 And so this affidavit -- as exhibits to
- 9 this affidavit, I include a notice of mailing that's
- dated 3/22/2019. Do you see that right after my
- 11 affidavit?
- 12 A. Yes.
- 13 Q. And if you look a little further in the packet,
- 14 you'll see on March 22nd, 2019 the letter. Do you see
- 15 that letter? It's almost to the end of the packet.
- 16 A. Yes. Uh-huh.
- 17 Q. And in that letter, I'm advising all of the
- 18 affected parties of the amended application and that
- 19 there was a typo in the application. Does that look
- 20 right to you?
- 21 A. Yes.
- Q. So on March 22nd, 2019, based on my affidavit,
- it's -- it establishes that on March 22nd, 2019, I
- 24 mailed out copies of the amended application to all
- 25 affected parties; is that right?

- 1 A. That's my understanding.
- 2 O. Okay. And then if you look at the transaction
- detail, which is the sheet that has the black header,
- 4 this one (indicating), it states that all the parties --
- 5 mail was received by all the parties with the exception
- of the Bureau of Land Management; is that right?
- 7 A. Yes.
- 8 Q. And in your experience in these hearings that
- 9 we've done for NGL and others that you've attended, is
- 10 it unusual that mail would not be delivered to the BLM,
- 11 or is it in your experience usual that the BLM would not
- 12 get mail?
- 13 A. It's unusual, and we've discussed this.
- 14 Q. Now -- okay. And the BLM is the only party
- 15 that did not get mailed notice?
- 16 A. Yes.
- MS. BENNETT: My notice affidavit does not
- 18 include a Notice of Publication, which would have
- 19 alerted the BLM to the amended application, and I'm
- 20 happy to take a letter over there myself today. But
- 21 they did have constructive notice of the original
- 22 application. I did publish that, and -- but I did not
- 23 publish for the amended application.
- 24 EXAMINER BROOKS: Well, since the BLM never
- 25 pays any attention to their publications one way or the

- 1 other, I would say that's not necessary.
- MS. BENNETT: Thank you.
- That's all the questions I have.
- 4 Oh, I would ask that Exhibits 1 through 7
- 5 be admitted into the record, please.
- 6 EXAMINER DAWSON: Any objections?
- 7 MR. CARR: No objection.
- 8 MS. KESSLER: No objection.
- 9 MR. RANKIN: No objection.
- 10 EXAMINER DAWSON: Exhibits 1 through 7 will
- 11 be admitted to the record at this time.
- 12 (NGL Water Solutions Permian, LLC Exhibit
- Numbers 1 through 7 are offered and
- 14 admitted into evidence.)
- 15 EXAMINER DAWSON: We'll start on this side.
- 16 Mr. Carr?
- MR. CARR: No questions.
- 18 EXAMINER DAWSON: Jordan?
- 19 MS. KESSLER: Mr. Examiners, I would like
- 20 to make a brief statement for the record.
- 21 The State Land Office in this case, as in
- 22 other cases, maintains concerns about proximity and in
- 23 particular proximity to State Trust Land, along with
- 24 well-spacing issues, so we're here maintaining our
- 25 ability to take this case to the Oil Conservation

1 Commission, but we don't have any witnesses or evidence

- 2 to present today.
- 3 EXAMINER DAWSON: Okay. Thank you.
- 4 Mr. Rankin?
- 5 MR. RANKIN: No questions.
- 6 EXAMINER DAWSON: Any questions, Mike?
- 7 CROSS-EXAMINATION
- 8 BY EXAMINER McMILLAN:
- 9 Q. I've got a weird question for you. On Tab 5
- 10 and I'm looking at Exhibit 1, what do the 40s values in
- 11 Reeves County represent? Is that where that fault is,
- 12 at the bottom of the map?
- MS. BENNETT: Oh. Down here (indicating).
- 14 I don't know that we'll be able to answer
- 15 that.
- 16 But he's asking about these higher numbers
- down here (indicating), the 40s, 42, 44, because
- 18 everything else is in the 20s and 30s.
- 19 THE WITNESS: I don't know what those
- 20 represent. We can get back with you on that.
- Q. (BY EXAMINER McMILLAN) I was just curious.
- 22 A. Yeah.
- 23 EXAMINER DAWSON: I have no further
- 24 questions.
- 25 Mr. Brooks?

Page 18 1 EXAMINER BROOKS: No questions. 2 EXAMINER DAWSON: No questions. 3 MS. BENNETT: Thank you. At this time I'd like to ask that Case 4 5 Number 20404 be taken under advisement. 6 EXAMINER DAWSON: Okay. At this time Case 7 Number 20404 will be taken under advisement. 8 MS. BENNETT: Thank you. 9 EXAMINER DAWSON: Thank you. We'll take a five-minute break and come 10 11 back here in a little bit. When we come back, we will 12 go over the OXY U.S.A. pressure maintenance project and 13 then get into the Hilcorp cases. 14 (Case Number 20404 concludes, 3:38 p.m.) (Recess, 3:39 p.m. to 3:49 p.m.) 15 16 17 18 19 20 21 22 23 24 25

- 1 STATE OF NEW MEXICO
- 2 COUNTY OF BERNALILLO

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- 4 CERTIFICATE OF COURT REPORTER
- 5 I, MARY C. HANKINS, Certified Court
- 6 Reporter, New Mexico Certified Court Reporter No. 20,
- 7 and Registered Professional Reporter, do hereby certify
- 8 that I reported the foregoing proceedings in
- 9 stenographic shorthand and that the foregoing pages are
- 10 a true and correct transcript of those proceedings that
- 11 were reduced to printed form by me to the best of my
- 12 ability.
- I FURTHER CERTIFY that the Reporter's
- 14 Record of the proceedings truly and accurately reflects
- 15 the exhibits, if any, offered by the respective parties.
- 16 I FURTHER CERTIFY that I am neither
- 17 employed by nor related to any of the parties or
- 18 attorneys in this case and that I have no interest in
- 19 the final disposition of this case.
- DATED THIS 21st day of May 2019.

21

22

MARY C. HANKINS, CCR, RPR
Certified Court Reporter

New Mexico CCR No. 20

Date of CCR Expiration: 12/31/2019
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