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

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

APPLICATION OF NGL WATER SOLUTIONS CASE NO. 20235 PERMIAN, LLC FOR APPROVAL OF A SALTWATER DISPOSAL WELL IN LEA COUNTY, NEW MEXICO.

REPORTER'S TRANSCRIPT OF PROCEEDINGS

EXAMINER HEARING

February 7, 2019

Santa Fe, New Mexico

BEFORE: PHILLIP GOETZE, CHIEF EXAMINER

KATHLEEN MURPHY, TECHNICAL EXAMINER TERRY WARNELL, TECHNICAL EXAMINER SCOTT DAWSON, TECHNICAL EXAMINER

This matter came on for hearing before the New Mexico Oil Conservation Division, Phillip Goetze, Chief Examiner; Kathleen Murphy, Terry Warnell and Scott Dawson, Technical Examiners on Thursday, February 7, 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  | APPEARANCES                                                                         |         |
| 2  | FOR APPLICANT NGL WATER SOLUTIONS PERMIAN, LLC:                                     |         |
| 3  | DEANA M. BENNETT, ESQ.                                                              |         |
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- 1 (1:06 p.m.)
- 2 EXAMINER GOETZE: Good afternoon, ladies
- and gentlemen. I don't have an attorney, but we'll
- 4 proceed. I'm Examiner Phillip Goetze, and we shall hear
- 5 Case Number 20235, application for approval of the
- 6 saltwater disposal well, Lea County.
- 7 Call for appearances.
- 8 MS. BENNETT: Good afternoon. Deana
- 9 Bennett on behalf of the Applicant, water solutions
- 10 Marathon Oil Permian LLC.
- 11 EXAMINER GOETZE: Thank you.
- MS. BENNETT: And I have packet of
- 13 exhibits.
- 14 EXAMINER GOETZE: Any other appearances?
- 15 MS. BENNETT: As with previous SWD
- 16 applications presented by myself on behalf of NGL, we
- 17 have a single witness with us today, Mr. Neel Duncan.
- 18 Would you like to swear him in?
- 19 EXAMINER GOETZE: Not really, but we'll
- 20 swear him in.
- 21 Please rise and state your name to the
- 22 court reporter.
- MR. DUNCAN: Neel L. Duncan.
- 24 NEEL L. DUNCAN,
- 25 after having been first duly sworn under oath, was

- 1 questioned and testified as follows:
- 2 DIRECT EXAMINATION
- 3 BY MS. BENNETT:
- 4 Q. Mr. Duncan, who do you work for?
- 5 A. I'm managing director of Integrated Petroleum
- 6 Technologies, and we work for NGL.
- 7 Q. And what are your responsibilities for NGL?
- 8 A. To manage the drilling and development of
- 9 saltwater disposal wells in southeast New Mexico.
- 10 Q. Do your responsibilities include management and
- 11 oversight of drilling saltwater disposal wells?
- 12 A. Yes.
- 13 Q. Have you previously testified before the Oil
- 14 Conservation Division or the Commission?
- 15 A. Yes.
- 16 Q. Were your credentials accepted as a matter of
- 17 record?
- 18 A. Yes.
- 19 Q. Does your area of responsibility with NGL
- 20 include the area of southeastern New Mexico?
- 21 A. Yes.
- Q. Are you familiar with the application filed by
- 23 NGL in this matter?
- 24 A. I am.
- Q. And are you familiar with the saltwater

disposal well which is the subject of this application?

- 2 A. I am.
- 3 MS. BENNETT: I'd like to tender Mr. Duncan
- 4 as an expert in operation and engineering matters.
- 5 EXAMINER GOETZE: He is so qualified.
- 6 Q. (BY MS. BENNETT) As with prior cases, I've put
- 7 in front of the examiners a number of exhibits and
- 8 affidavits. And the first exhibit -- if we could turn
- 9 to Exhibit Number 1, Mr. Duncan, and if you wouldn't
- 10 mind explaining what Exhibit Number 1 is.
- 11 And I apologize in advance that I didn't
- 12 get tabs in these.
- 13 A. It should be the C-108, right?
- 14 Q. Exhibit Number is the application and the
- 15 C-108, that's right, for the Javelin well.
- 16 A. Yes. Uh-huh.
- 17 Q. And can you briefly explain what NGL seeks in
- 18 Case Number 20235?
- 19 A. We seek approval to drill and operate and
- 20 inject into the Javelin a disposal well in this
- 21 application with an injection rate of 50,000 barrels per
- 22 day.
- Q. And do you seek to use a tubing size that is a
- 24 string tubing?
- 25 A. Yes. Yes, a tapered string of

- 1 7-inch-by-5-1/2-inch tubing.
- Q. And what's the purpose of using this tapered
- 3 string tubing?
- 4 A. To reduce friction, reduce horsepower
- 5 requirements and allow more water per injection -- well,
- 6 reduce the number of total injectors.
- 7 Q. Are you aware of any Devonian disposal wells
- 8 for which the Division has recently approved the use of
- 9 **7-by-5-1/2-inch tubing?**
- 10 A. Yes. It's been fairly commonplace in recent
- 11 applications for both Mesquite, NGL and others.
- 12 Q. Is the proposed well, the Javelin well, in
- 13 close proximity to other wells?
- 14 A. No, not very close, but we'll discuss that.
- 15 Q. Are there other wells currently injecting into
- 16 the Devonian in this area?
- 17 A. Yes.
- 18 Q. So if you turn about 50 pages in the
- 19 materials -- and, again, I apologize for not having tabs
- 20 in here -- the next exhibit is the affidavit of Scott
- 21 Wilson. I think you need to go back a little bit
- 22 further, Mr. Duncan.
- 23 A. I have Kate Zeigler here. He's behind.
- Q. He's before Kate's.
- 25 A. Okay. Go ahead.

1 Q. Has NGL retained a reservoir engineer to

- 2 conduct a study of the injection zones for this well?
- 3 A. Yes.
- 4 Q. Was that engineer Scott Wilson?
- 5 A. That's Scott Wilson of Ryder Scott Company.
- 6 Q. And has he previously testified before the
- 7 Division?
- 8 A. Yes, he has.
- 9 Q. Has he provided an affidavit which discusses
- 10 the study that he undertook?
- 11 A. Yes.
- 12 Q. Is the affidavit included in his exhibits?
- 13 A. Yes.
- 14 Q. In his affidavit, does Mr. Wilson confirm that
- 15 increasing the tubing size for this well will reduce
- 16 friction in the wellbore?
- 17 A. Yes.
- 18 Q. Does he also confirm that using increased
- 19 tubing sizes will only have a very small impact on pore
- 20 pressures in the formation?
- 21 A. Yes, that's correct.
- 22 Q. Is it his opinion that the increased tubing
- 23 sizes will not cause fractures in the formation?
- 24 A. Yes.
- Q. Did Mr. Wilson also perform a study looking

1 at -- or a study that models migrations of fluids that

- 2 are injected into the well?
- 3 A. Yes.
- 4 Q. And in that study, did he conclude that over a
- 5 period of 20 years, the majority of fluids injected will
- 6 stay within a -- within one mile of where the well is
- 7 located?
- 8 A. Yes, he did.
- 9 Q. Next I'd like to turn to the exhibit provided
- 10 by Ms. Kate Zeigler. Has NGL retained a geologist to
- 11 review the geology in the area where the well will be
- 12 located?
- 13 A. Yes.
- 14 Q. And what is her name?
- 15 A. Her name is Kate Zeigler.
- 16 Q. Has she previously testified before the
- 17 Division?
- 18 A. Yes, she has.
- 19 Q. And has she provided an affidavit which
- 20 outlines her study and conclusions?
- 21 A. Yes.
- Q. And is her affidavit included in this packet of
- 23 materials?
- 24 A. Yes.
- 25 Q. Does she find that the areas where the well

- 1 will be located is suitable for injection?
- 2 A. Yes, and that there is also sufficient
- 3 isolation above and below the injection zone.
- 4 Q. So she finds that there is a permeability
- 5 barrier both above and below?
- 6 A. Yes.
- 7 Q. Next I'd like to turn to the affidavit of
- 8 Dr. Steven Taylor, which follows the affidavit prepared
- 9 by Ms. Zeigler. Could you explain who Dr. Steven Taylor
- 10 is for the examiners?
- 11 A. He's a geophysicist in Los Alamos who runs our
- 12 seismic monitoring network.
- Q. And did he look at prior seismic activity in
- 14 the area where this well will be located?
- 15 A. Yes.
- 16 Q. And he prepared a study that he submitted with
- 17 his affidavit?
- 18 A. Yes.
- 19 Q. And did he find that there is not a lot of
- 20 seismic activity in this area?
- 21 A. Yes, he did.
- 22 O. Did NGL also work with consultants at FTI Platt
- 23 Sparks to run a fault slip probability tool analysis?
- 24 A. Yes. That is Todd Reynolds.
- Q. And did Mr. Taylor review those studies?

- 1 A. Yes.
- 2 Q. And are those studies included as attachments
- 3 to Dr. Taylor's affidavit?
- 4 A. Yes, they are.
- Q. And did Dr. Taylor and FTI Platt Sparks find
- 6 that there is a very little risk of induced seismicity?
- 7 A. Yes.
- 8 Q. The final -- the next final exhibit in the
- 9 materials is an exhibit from Steve Nave, a declaration
- 10 obtained from Steve Nave. Can you tell me who Steve
- 11 Nave is?
- 12 A. He owns a fishing company in Artesia.
- 13 Q. Has he previously testified before the
- 14 Division?
- 15 A. Yes, he has.
- 16 Q. And in his declaration, does he conclude that
- 17 fishing operations will be possible in this well if NGL
- is permitted to use the tubing size they request?
- 19 A. Yes, provided they use 39 pound or lighter,
- 7-5/8 casing for the liner.
- 21 MS. BENNETT: And on the last exhibit in
- 22 the packet that I've presented to you-all is an
- 23 affidavit that I prepared, and this is an affidavit that
- 24 shows that NGL notified all affected parties within a
- 25 mile of where the well is located. And this affidavit

- 1 includes the names and addresses that were provided to
- 2 me by NGL, as well as a sheet with a blue header that is
- 3 the equivalent of the green cards from the certified
- 4 mailings and shows to whom our notice letters were
- 5 delivered and to whom they were not delivered.
- 6 And then the final page of my affidavit is
- 7 a Notice of Publication in the newspaper, and that was
- 8 published on January 10th, 2019.
- 9 Q. (BY MS. BENNETT) Were the exhibits in this
- 10 packet prepared by you, prepared under your supervision
- or compiled from company business records?
- 12 A. Yes.
- 13 Q. In your opinion, does the granting of this
- 14 application promote the prevention of waste and the
- 15 protection of correlative rights?
- 16 A. Yes, it does.
- 17 MS. BENNETT: At this time I'd like to have
- 18 the exhibits in this exhibit packet entered into
- 19 evidence.
- 20 EXAMINER GOETZE: So Exhibit 1, which
- 21 includes the application, C-108, supporting affidavits
- 22 and publication notices is so entered into record.
- MS. BENNETT: Thank you. And, again,
- 24 apologies for not getting the tabs in.
- 25 EXAMINER GOETZE: The court reporter will

- 1 appreciate it in the future.
- MS. BENNETT: Yes.
- 3 EXAMINER WARNELL: So do the hearing
- 4 examiners.
- 5 MS. BENNETT: Yes. I certainly apologize.
- 6 It was definitely an oversight on my part.
- 7 (NGL Water Solutions Permian, LLC Exhibit
- 8 Number 1 is offered and admitted into
- 9 evidence.)
- 10 EXAMINER GOETZE: So who wants to go first?
- 11 EXAMINER WARNELL: Go ahead.
- 12 EXAMINER GOETZE: All right.
- 13 CROSS-EXAMINATION
- 14 BY EXAMINER GOETZE:
- 15 Q. First of all, welcome back.
- 16 A. Thank you.
- Q. We have had, I believe, this discussion about
- 18 this well previously. And in an effort to reduce the
- 19 paper load and the anxieties of not knowing whether a
- location is valid or not, we've had pre-hearing meetings
- 21 and agreed on the contents of what has been submitted as
- 22 exhibits.
- Of course, now we are playing this game of
- 24 the distance. So we'll start off at the top. Your
- 25 location with regards to the Tomahawk puts us inside of

- our three-quarter-of-a-mile preferred location, and I
- 2 asked you to think about it. Is there anything we can
- 3 throw out as a means of discussion with regards to
- 4 dealing with that shorter distances?
- 5 A. We're happy to have additional conditions with
- 6 approval such as enhanced monitoring, if that so pleases
- 7 the Commission.
- Q. Well, it isn't a matter of pleasing. It's just
- 9 a matter of okay, how do we deal with this pressure
- 10 pump, especially in light of looking at your seismic.
- 11 We're running in the neighborhood -- this is a planned
- 12 operation of several wells in the same location. If it
- is such, we will take the prerogative to give you
- 14 guidance on how we would like to go with it. The first
- 15 thing I probably would probably think about is reduce
- 16 your injection until such time that we can verify more
- 17 parameters from the reservoir. So I'm thinking maybe
- 18 cut you down to 40,000, and let's see how it performs
- 19 and come back.
- 20 I would also support the effort of NGL to
- 21 look at the cumulative effect a little harder, since
- 22 your fault slip model does show a major line running
- down there, a fault slip surface. Not that we're having
- 24 any apprehensions at this point, but seeing how you want
- 25 to keep all these in the same places, let's see if we

1 can accentuate that a little bit more, give us a more

- 2 comfortable feeling over the life of the field, make
- 3 sure that we don't have any issues.
- 4 Someday we'll even meet somebody from NGL,
- 5 so we'll look forward to that.
- 6 A. Someday.
- 7 Q. Someday. Hopefully it's not in front of a
- 8 hearing examiner.
- 9 A. I think you've met -- you've met Doug White.
- 10 He came in.
- 11 Q. I might have.
- 12 A. Yeah. I brought him in.
- 13 Q. They come and they go.
- 14 With that, the only other question I would
- 15 have is: Is the design of the well such that it is
- 16 protective of underground sources of drinking water?
- 17 A. It is. And it is to the west of the reef risk
- 18 area.
- 19 Q. We know we're not in the reef area, so we're
- very confident with the design as proposed.
- 21 A. Right. Okay.
- 22 Q. I have no more questions.
- 23 EXAMINER WARNELL: No questions.
- MS. BENNETT: At this time, then, I would
- 25 ask that Case Number 20235 be taken under advisement.

Page 15 EXAMINER GOETZE: Case 20235 is taken under advisement. And in the future, we can refer to Kate Zeigler as Dr. Zeigler. Thank you. THE WITNESS: Thanks. (Case Number 20235 concludes, 2:21 p.m.) 

- 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.
- 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 7th day of March 2019.

21

22

MARY C. HANKINS, CCR, RPR Certified Court Reporter

New Mexico CCR No. 20

Date of CCR Expiration: 12/31/2019
Paul Baca Professional Court Reporters

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