

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. 20575
PERMIAN, LLC FOR APPROVAL OF A
SALTWATER DISPOSAL WELL IN LEA COUNTY,
NEW MEXICO.

REPORTER'S TRANSCRIPT OF PROCEEDINGS

EXAMINER HEARING

June 14, 2019

Santa Fe, New Mexico

BEFORE: PHILLIP GOETZE, CHIEF EXAMINER
 DAVID K. BROOKS, LEGAL EXAMINER

This matter came on for hearing before the
New Mexico Oil Conservation Division, Phillip Goetze,
Chief Examiner; and David K. Brooks, Legal Examiner, on
Friday, June 14, 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
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1 (1:36 p.m.)

2 EXAMINER GOETZE: Back on the record.

3 There has been a request that we change the
4 order of the cases and move to Case Number 20575,
5 application of NGL Water Solutions Permian, LLC for
6 approval of a saltwater disposal well in Lea County, New
7 Mexico.

8 Call for appearances.

9 MS. KATZ: Good afternoon, Mr. Examiner.
10 My name is Lara Katz. I'm with the Santa Fe office of
11 Abadie & Schill. I'm here today on behalf of NGL Water
12 Solutions Permian.

13 I had intended to present this case with
14 Neel Duncan as my witness, but, unfortunately, when the
15 hearing got rescheduled, he had a conflict and was
16 unable to stay in Santa Fe an extra day. So I'm going
17 to presenting his testimony and that of all the other
18 NGL witnesses via affidavit. So I will do my best to
19 answer any questions that you may have.

20 And Deana also, as you know, represents NGL
21 and has presented a number of these cases before you,
22 and so perhaps she can help me if I get in trouble. And
23 otherwise we might have to provide information after.

24 EXAMINER BROOKS: There is no rule
25 authorizing presenting saltwater disposal cases by

1 affidavit. However, that said, no order of the Division
2 will ever be reviewed by a court because appeal is to
3 the Commission which hears the case de novo. If the
4 Commission were to allow the case to be presented
5 entirely by affidavit, that would violate the legal
6 residual rule, but that, I'm sure, will not happen.

7 MS. KATZ: Thank you.

8 And given that this -- I think there have
9 been a number of NGL cases, and Mr. Duncan is usually
10 one of five witnesses and several of them present via
11 affidavit. So hopefully we can at least move forward
12 before the Division.

13 EXAMINER BROOKS: Well, I see no reason why
14 it shouldn't move forward before the Division. Of
15 course, I'm not even sure why we have hearings before
16 the Division.

17 MS. KATZ: I share that question as well.

18 EXAMINER BROOKS: It's the history.

19 MS. KATZ: All right. So with that, I
20 will --

21 MS. ANTILLON: There is one other entry of
22 appearance.

23 MS. KATZ: Oops. Sorry.

24 MS. ANTILLON: Andrea Antillon on behalf of
25 the State Land Office. And we don't object to hearing

1 the case by affidavit, and we don't have any witnesses
2 to put on today, just a statement.

3 EXAMINER GOETZE: You're just going to have
4 the statement?

5 MS. ANTILLON: Yes.

6 EXAMINER GOETZE: Thank you.

7 So no witnesses, affidavits, and the State
8 Land Office has entered an appearance.

9 Let's start off with a summary of your
10 affidavit.

11 MS. KATZ: All right. So beginning on Tab
12 1 of the materials that I've provided to you, this is
13 Mr. Duncan's affidavit and also the application for the
14 Ghost Rider well, along with the C-108 and the
15 supporting documents.

16 So Mr. Duncan states that he's the managing
17 director of Integrated Petroleum Technologies, and he
18 oversees drilling operations of saltwater disposal wells
19 for NGL in southeast New Mexico. He gives a summary of
20 his education and experience. He has often previously
21 testified before the Division and has been qualified as
22 an expert in saltwater disposal well drilling operations
23 and engineering matters. He states that he is familiar
24 with the application that NGL has filed in this matter.

25 He testifies that NGL seeks an order

1 approving a saltwater disposal well known as the Ghost
2 Rider well that will inject a maximum of 50,000 barrels
3 per day of salt water into the Devonian-Fusselman-
4 Silurian Group, and that's indicated in the application,
5 in the C-108 documents that are included behind his
6 affidavit in Tab 1. His affidavit explains how NGL
7 determined the affected parties that were entitled to
8 notice and how the C-108 was prepared.

9 He states that there are no existing SWDs
10 within 1.5 miles of the proposed location of the Ghost
11 Rider well. There is an application for a well that's
12 proposed to be located 1.5 miles away, and that is the
13 NGL Thunderbolt well. And then the next nearest wells
14 are NGL applications that are all located more than five
15 miles away from this well.

16 Mr. Duncan discusses NGL's request to use a
17 tubing size of 7-inches-by-5-1/2 inches and the benefits
18 of using this larger tubing size. He explains that it
19 significantly reduces friction in the tubing and
20 increases the ability to inject more fluid into the
21 formation. The more water injected per well, the fewer
22 number of wells that are needed to meet industry demands
23 in the areas of development. It reduces cost and
24 results in less surface impact and fewer emissions. He
25 states that the larger tubing size will not impact the

1 ability to conduct fishing operations in the well if
2 necessary. And the Division has previously approved the
3 use of 7-inch-by-5-1/2-inch tubing for other Devonian
4 disposal wells, including applications by NGL and
5 Mesquite.

6 Mr. Duncan oversaw the work of Scott
7 Wilson, Dr. Kate Zeigler, Dr. Steven Taylor and Todd
8 Reynolds in connection with this application, and these
9 technical experts were retained to ensure that the
10 drilling and operation of the well would not impact
11 groundwater resources, would protect the rights of
12 mineral interest owners and would minimize the risk of
13 induced seismicity and that the injection would be
14 confined to the Devonian injection interval requested in
15 the C-108. He states that each of these witnesses has
16 previously testified before the Division, and their
17 qualifications have been accepted as a matter of record.

18 And he states that it's his opinion that
19 the granting of this application is in the interest of
20 conservation and the prevention of waste.

21 So then moving on to Tab 2, these are the
22 exhibits of Scott Wilson. It contains his affidavit, as
23 well as the study that he has done. He is the reservoir
24 engineer that was retained by NGL to conduct a study of
25 the injection zone for the Ghost Rider well. He

1 conducted a nodal analysis and reservoir study related
2 to this area, and he confirms that increasing the tubing
3 size for this well will reduce friction in the wellbore,
4 thereby conserving pump horsepower and fuel and reducing
5 emissions. And he testifies that his nodal analysis
6 indicates that increasing the tubing size will not
7 significantly increase reservoir pressures over a
8 20-year period, and this is due to the thickness of the
9 high-permeability rocks within the reservoir where the
10 injection zone is located.

11 He states his opinion that increased tubing
12 size is not likely to cause fractures in the formation
13 because regulatory constraints on wellhead pressures
14 make it impossible to exceed the formation fracture
15 pressure.

16 Mr. Wilson also conducted a study that
17 modeled migration of fluids injected into the well. His
18 study shows a minimal impact on reservoir pressures and
19 fluid migration of no further than one mile in 20 years.
20 In evaluating pore pressure, his study modeled injection
21 in all the proposed wells in the areas when looking at
22 fluid migration, so not just the Ghost Rider well that
23 is the subject of this application. And this modeling
24 shows no materially adverse pressures in the formation.
25 All right. So that's Scott Wilson's materials.

1 Moving on to Tab 3, this tab contains the
2 affidavit and exhibits of Dr. Kate Zeigler, who is the
3 geologist retained by NGL to review the geology in the
4 area where the well is proposed to be located.

5 Dr. Zeigler conducted a geologic study of
6 the lands that are the subject of this application, and
7 this study, including cross sections, a structure map
8 and isopach maps for each rock interval, is included
9 behind her affidavit. She concludes that the area where
10 the well is proposed to be located is suitable for
11 injection at increased rates. She discusses
12 permeability barriers located both above and below the
13 injection zone, specifically the Woodford Shale above
14 and the Simpson Group below. She states her opinion
15 that these permeability barriers will prevent migration
16 of fluids beyond the approved injection zone.

17 She concludes there is no risk to
18 freshwater resources from injection within the Wristen
19 Group, Fusselman and Upper Montoya Group because of the
20 depths of these subformations and the upper shale
21 permeability boundary created by the Woodford Shale.

22 She also evaluated the location of known
23 fault lines in the area where the well is proposed to be
24 located, and she states that the closest known fault
25 line is located approximately ten miles from the

1 proposed well location.

2 She testifies that there are currently no
3 recognized production shales within the Wristen Group,
4 Fusselman Formation and Upper Montoya Group in this part
5 of the western Permian Basin.

6 So moving on to Tab 4, this contains the
7 affidavit and exhibits of Dr. Steven Taylor. It also
8 contains two studies, one that was prepared by
9 Dr. Taylor and one prepared by Todd Reynolds of FTI
10 Platt Sparks.

11 Dr. Taylor is the chief scientist of
12 GeoEnergy Monitoring Systems, and he was retained by NGL
13 to do seismic monitoring. He has installed seismic
14 monitors around several NGL wells in this area, and he
15 has also evaluated prior seismic activity in the area
16 using desktop review and other materials.

17 He states that the closest fault line is
18 located approximately 10 miles from the proposed
19 location of the Ghost Rider well, and his study
20 concludes that there is very little seismic activity in
21 this area.

22 Mr. Taylor -- sorry -- Dr. Taylor also
23 collaborated with Todd Reynolds at FTI Platt Sparks to
24 run a fault slip probability analysis to evaluate the
25 potential for induced seismicity from fluid injection in

1 the area. And Mr. Reynolds' study employs the fault
2 slip probability tool developed by a group of scientists
3 at Stanford University.

4 Dr. Taylor and Mr. Reynolds conclude that
5 there is very little risk of seismic activity as a
6 result of injection in this area.

7 So that brings us to Tab 5, which includes
8 my Affidavit of Notice, followed by the list of the
9 names and addresses, as well as delivery confirmation
10 that's generated by our delivery confirmation software.
11 And it's not very readable because it's very small, but
12 it's all there. And I can provide you with a document
13 that's more readable if you would like. It just doesn't
14 print well.

15 And then the last document is a copy of the
16 Affidavit of Publication showing that it was published
17 on May 25th.

18 And that is all I have on my presentation.

19 EXAMINER GOETZE: So would you like to
20 enter these exhibits into the record?

21 MS. KATZ: Yes. I would move the admission
22 of Exhibits 1 through 5 into the record.

23 MS. ANTILLON: No objection.

24 EXAMINER GOETZE: Okay. Thank you.

25 Exhibits 1 through 5 are so entered.

1 (NGL Water Solutions Permian, LLC Exhibit
2 Numbers 1 through 5 are offered and
3 admitted into evidence.)

4 EXAMINER GOETZE: We've had some time to
5 take a look at the well and its location. The
6 information tends to be supportive of what had already
7 been seen for the Thunderbolt.

8 With regards to notice, a notice of
9 one-mile radius extends into Texas. Did we look at the
10 Texas side?

11 MS. KATZ: I believe -- I don't know
12 directly that answer, but I believe that we -- I believe
13 that we did because I see OXY is down on the Texas side
14 and I know that it included notice to OXY. So I believe
15 that all the parties that are within that radius,
16 including those within Texas, were given notice.

17 EXAMINER GOETZE: Well, let's -- let's do
18 this. Let's get ourselves a plat like we ask for in the
19 C-108 showing ownership and submit it and just verify
20 that we've done the Texas side.

21 EXAMINER BROOKS: We have to have a
22 definite assertion to that effect. General impressions
23 won't be admitted even in this lax tribunal.

24 MS. BENNETT: And this is Deana Bennett on
25 behalf of NGL as well.

1 I can say that the practice at NGL has been
2 to notify landowners on the Texas side when those owners
3 are within the one-mile area of review.

4 EXAMINER GOETZE: I know, but it would be
5 one of those things in evidence that the exhibits --
6 lawyers versus lawyers. You both tell the truth, but
7 someone's not. So let's do this as a benefit. If
8 you've been done the work, let's just pare down a
9 figure, exhibit, send it to me, and we can incorporate
10 it.

11 MS. BENNETT: Yes, definitely.

12 MS. KATZ: Yes. We can get that to you.
13 Thank you.

14 EXAMINER GOETZE: And Mr. Wilson's package
15 is familiar, so is Dr. Zeigler. Dr. Taylor seems to be
16 quite thorough with regards to looking at what is
17 available. And the only thing I would say -- I would
18 have a question for Dr. Reynolds and his analysis. Did
19 he use additional sources of seismic, 2D or 3D seismic,
20 in the selection of the faults, or was that information
21 that's generally available through public sources? That
22 can be sent via email.

23 MS. KATZ: All right. I will get that
24 information for you.

25 EXAMINER GOETZE: Other than that, this is

1 sufficient. We'll take a look into it and review it,
2 and if we have any further questions, we will get back
3 to you.

4 MS. KATZ: Okay. Thank you very much.

5 EXAMINER GOETZE: And what would you want
6 to do next?

7 MS. KATZ: I'm finished with my case, so I
8 turn it over to -- I would ask that this case be taken
9 under advisement.

10 MS. ANTILLON: On behalf of the State Land
11 Office, the State Land Office just wants to say that it
12 is reviewing this application and has concerns with the
13 saltwater disposal spacing and proximity to State Trust
14 Land.

15 EXAMINER GOETZE: Thank you very much.

16 With that statement, Case Number 20575 will
17 be taken under advisement.

18 Thank you.

19 MS. KATZ: Thank you.

20 (Case Number 20575 concludes, 1:53 p.m.)

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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.

13 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.

20 DATED THIS 28th day of June 2019.

21

22

23 MARY C. HANKINS, CCR, RPR
24 Certified Court Reporter
New Mexico CCR No. 20
Date of CCR Expiration: 12/31/2019
Paul Baca Professional Court Reporters

25