

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 NOVO OIL & GAS NORTHERN CASE NO. 16284
DELAWARE, LLC FOR COMPULSORY POOLING,
EDDY COUNTY, NEW MEXICO.

REPORTER'S TRANSCRIPT OF PROCEEDINGS

EXAMINER HEARING

February 21, 2019

Santa Fe, New Mexico

BEFORE: MICHAEL McMILLAN, CHIEF EXAMINER
 TERRY WARNELL, TECHNICAL EXAMINER
 DAVID K. BROOKS, LEGAL EXAMINER

This matter came on for hearing before the New Mexico Oil Conservation Division, Michael McMillan, Chief Examiner, Terry Warnell, Technical Examiner, and David K. Brooks, Legal Examiner, on Thursday, February 21, 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
 Paul Baca Professional Court Reporters
 500 4th Street, Northwest, Suite 105
 Albuquerque, New Mexico 87102
 (505) 843-9241

1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20
21
22
23
24
25

APPEARANCES

FOR APPLICANT NOVO OIL & GAS NORTHERN DELAWARE, LLC:

CANDACE H. CALLAHAN, ESQ.
BEATTY & WOZNIAK, P.C.
500 Don Gaspar Avenue
Santa Fe, New Mexico 87505
(505) 983-8764
ccallahan@bwenenergy.com

INDEX

PAGE

Case Number 16284 Called	3
Case Presented by Affidavit	3
Proceedings Conclude	21
Certificate of Court Reporter	22
EXHIBITS OFFERED AND ADMITTED	
Novo Oil & Gas Northern Delaware, LLC Exhibit Numbers 1 through 8	8
Novo Oil & Gas Northern Delaware, LLC Exhibit Numbers 9 through 13	16
Novo Oil & Gas Northern Delaware, LLC Exhibit Numbers 14 and 15	19/20

1 (2:43 p.m.)

2 MS. CALLAHAN: So moving to Case 16284,
3 this case has not been heard before. The application
4 has, however, been amended, and it was amended in
5 conjunction with an agreement that was reached between
6 Novo and BTA Oil Producers.

7 So in this case, we have affidavits for the
8 same three experts as we had for 16282 and 16283.

9 EXAMINER McMILLAN: Are there any other
10 appearances?

11 MR. BRUCE: Once again, I'm entering an
12 appearance for TDY Industries, LLC, and I have no
13 witnesses, no objection.

14 MS. CALLAHAN: So this case is in the same
15 Rana Salada development group and is proposed to create
16 a 160.36-acre spacing unit for the Rana Salada Fed Com
17 05 124H well. They propose to drill in the Cedar
18 Canyon; Bone Spring, pool code 11520. They seek to pool
19 all uncommitted mineral interests. And this well is
20 proposed to develop the 2nd Bone Spring Sand interval.
21 And the spacing unit is essentially the east half-east
22 half of Section 5. There is a lot. The
23 northeast-northeast is Lot 1, which is why the acreage
24 is not exactly 160.

25 In Mr. Patrick's affidavit, he states that

1 the completed interval for the well will be orthodox,
2 and there are no depth severances in the Bone Spring
3 Formation underlying this proposed spacing unit.

4 However -- and this is where Mr. Brooks
5 will probably be interested to hear -- we are asking for
6 a pooling of only the 2nd Bone Spring Sand interval
7 because as we saw in Cases 16282 and 16283, those two
8 wells are proposed to develop the 3rd Bone Spring. So
9 it might be easiest to kind of understand what we're
10 looking at if we look at Exhibit Number 3 to
11 Mr. Patrick's affidavit, and it reflects how these
12 proposed spacing units intersect one another. The well
13 in the 16284 case is a stand-up in the east half-east
14 half of 5, and then you'll see that the other two wells
15 are lay-downs that will intersect the proposed spacing
16 unit in the 16284 case.

17 EXAMINER BROOKS: And those that intersect
18 are 3rd Bone Spring?

19 MS. CALLAHAN: Well, the first two cases
20 are going to develop the 3rd Bone Spring because of the
21 depth severance.

22 EXAMINER BROOKS: Okay.

23 MS. CALLAHAN: So this case is going to
24 develop the 2nd Bone Spring.

25 EXAMINER BROOKS: Okay. So this case is

1 going one direction and the others are going the other
2 direction, but they're not going to tap the same -- the
3 same zone?

4 MS. CALLAHAN: They're not going to tap the
5 same bench of the Bone Spring, which is why we're asking
6 to limit the pooled area to just the 2nd Bone Spring
7 Sand interval.

8 EXAMINER BROOKS: Okay. And the geologist
9 testified that there is a recognized frac barrier on
10 both the top and already established pretty well with
11 several geologists a recognized frac barrier between the
12 2nd and the 3rd. I haven't heard as much testimony
13 about the 1st and the 2nd.

14 MS. CALLAHAN: And we're getting ready to
15 do that.

16 EXAMINER BROOKS: Okay. Good.

17 MS. CALLAHAN: I just wanted to point this
18 out, so maybe once we have kind of an overview, the rest
19 of it will make sense.

20 EXAMINER BROOKS: Okay. Very good.

21 MS. CALLAHAN: So Exhibit 1 to
22 Mr. Patrick's affidavit is a C-102 for the proposed
23 well, 124H.

24 EXAMINER BROOKS: Mr. Patrick is what?

25 MS. CALLAHAN: He's the landman.

1 EXAMINER BROOKS: Okay. That's what I
2 assumed since --

3 MS. CALLAHAN: Yes. And he has previously
4 qualified.

5 EXAMINER McMILLAN: No objections?

6 MR. BRUCE: No objection.

7 EXAMINER McMILLAN: Proceed.

8 MS. CALLAHAN: Thank you.

9 Exhibit 2 is the proposal letter that Novo
10 sent out of the amended application. That was sent out
11 December 13th, and it included a copy of the proposed
12 AFE.

13 And Exhibit 3 is the execution plan that we
14 looked at earlier.

15 And Exhibit 4 -- let's see. Exhibit 4 is
16 our description of the depth severance for the proposed
17 spacing unit for this case.

18 And Exhibit 5 is the plat outlining the
19 proposed horizontal unit and giving us the mineral
20 ownership by tract and cumulative unit interest.

21 6 identifies the parties to be pooled.
22 Marathon Oil Permian, LLC is the only working interest
23 owner to be pooled. The remainder are either overriding
24 royalty interest owners or royalty interest owners, TDY
25 Industries and BTA Oil Producers.

1 Exhibit Number 7 is my Affidavit of Notice.

2 And Exhibit 8 is a summary of the status of
3 the return of the return receipts. And, again, Destiny
4 Management, Inc. was the only overriding royalty
5 interest owner who we did not receive a return-receipt
6 card for, and so we published notice again. And that is
7 found at Exhibit 8.

8 I think I misspoke. My affidavit is
9 Exhibit 7 and the summary of the status of the return
10 receipts is Exhibit 7B. The Affidavit of Publication is
11 Exhibit 8.

12 Then if we -- let's see -- look at the
13 affidavit of Mr. Michael Hale, the geologist for Novo.

14 EXAMINER McMILLAN: Let's get the landman
15 exhibits as part of the record.

16 MS. CALLAHAN: Okay. He's previously
17 testified, and his credentials were accepted as an
18 expert in petroleum land matters. I offer him again as
19 an expert.

20 EXAMINER McMILLAN: Now the exhibits.

21 MS. CALLAHAN: Oh, you want me to enter the
22 exhibits?

23 EXAMINER McMILLAN: Yes.

24 MS. CALLAHAN: Okay. I'd like to enter the
25 affidavit and Exhibits 1 through 8 into the record.

1 MR. BRUCE: No objection.

2 EXAMINER McMILLAN: Exhibits 1 through 8
3 may now be accepted as part of the record.

4 (Novo Oil & Gas Northern Delaware, LLC
5 Exhibit Numbers 1 through 8 are offered and
6 admitted into evidence.)

7 EXAMINER McMILLAN: Okay. My question is
8 the notice question. Did you notify everyone in the
9 mineral estate within the Bone Spring -- within the
10 entire Bone Spring within the horizontal spacing unit?

11 MS. CALLAHAN: Yes, we did. But as you'll
12 see -- I guess I should have pointed out -- the
13 ownership is uniform in the stand-up east half-east half
14 spacing unit.

15 EXAMINER BROOKS: Then there is not a depth
16 severance?

17 MS. CALLAHAN: No. There is no depth
18 severance. We're just asking that the order pool only
19 the 2nd Bone Spring.

20 EXAMINER BROOKS: Oh. So you're asking us
21 to create a depth severance --

22 MS. CALLAHAN: Correct.

23 EXAMINER BROOKS: -- where there is not one
24 in the title.

25 MS. CALLAHAN: Correct.

1 EXAMINER BROOKS: Okay. So that's a novel
2 concept. We'll have to get Mr. Wade's approval to do
3 that.

4 MS. CALLAHAN: Well, the reason for that is
5 because the other two wells are producing -- are going
6 to --

7 EXAMINER BROOKS: Yeah, I understand the
8 rules, and they sound good to me. But, you know, it's
9 not clear if it's within the purview of the existing
10 cases. But we do --

11 MS. CALLAHAN: It's a new age.

12 EXAMINER McMILLAN: Hold on. So let me
13 make sure I understand. You're requesting the OCD to
14 make a depth severance whereas of right now, as we
15 speak, there is no depth severance?

16 MS. CALLAHAN: Correct.

17 EXAMINER McMILLAN: At the time of the
18 order, you are requesting a depth severance?

19 EXAMINER BROOKS: Right.

20 MS. CALLAHAN: Correct.

21 EXAMINER McMILLAN: I'm trying to make sure
22 I got that clear.

23 MS. CALLAHAN: Yes. Yes.

24 EXAMINER BROOKS: And in the east half-east
25 half of Section -- I'm sorry --

1 MS. CALLAHAN: 5.

2 EXAMINER BROOKS: -- 5, there is no depth
3 severance in the title throughout the Bone Spring?

4 MS. CALLAHAN: Correct.

5 EXAMINER BROOKS: Now, is COG the other
6 mineral owner in this, or is there somebody else?

7 MS. CALLAHAN: No. It's just Marathon.

8 EXAMINER BROOKS: Marathon is the only one.
9 But there is only one?

10 MS. CALLAHAN: There is only one other
11 working interest besides Novo.

12 EXAMINER BROOKS: There are overrides,
13 though?

14 MS. CALLAHAN: There are overrides. Yes.

15 EXAMINER BROOKS: Okay. I'm getting it
16 straightened out. But there are no depth severances.
17 All the overrides are throughout the east half-east
18 half --

19 MS. CALLAHAN: Correct.

20 EXAMINER BROOKS: -- throughout the Bone
21 Spring?

22 MS. CALLAHAN: Correct.

23 EXAMINER McMILLAN: Okay. I had to figure
24 it out in my head. Okay. Now I've figured it out.

25 MS. CALLAHAN: It took me a while to sort

1 it through myself.

2 EXAMINER BROOKS: I thought you were
3 holding your hand up.

4 EXAMINER McMILLAN: I was trying to figure
5 out because the south half is the 3rd Bone Spring and
6 the east -- or the east half of the southeast quarter is
7 the 3rd Bone Spring, and you want -- and the east
8 half-east half, this well, is only the 2nd Bone Spring,
9 right?

10 MS. CALLAHAN: Yes. The east half-east
11 half of 5 is only the 2nd Bone Spring, correct.

12 EXAMINER McMILLAN: Yes. Okay. Thanks.

13 EXAMINER BROOKS: A little bit complicated,
14 but I think you've gotten it across.

15 MS. CALLAHAN: Oh, I hope so. Okay.
16 Thanks.

17 EXAMINER McMILLAN: Jim, do you have any
18 questions?

19 MR. BRUCE: No.

20 EXAMINER McMILLAN: Okay. Proceed.

21 MS. CALLAHAN: So now I'd like to look at
22 Mr. Hale's affidavit who is Novo's geologist. And,
23 again, I offer him as an expert based on his credentials
24 as set forth in the affidavit. Would you like me to
25 read through them or --

1 EXAMINER McMILLAN: Well, I mean, he was in
2 the previous case, so he's an expert witness.

3 MS. CALLAHAN: No. Mr. Hale, to my
4 knowledge, has not testified before the Division.

5 EXAMINER McMILLAN: Okay. Yeah. You need
6 to go through his --

7 MS. CALLAHAN: Would you like me to recap?

8 EXAMINER McMILLAN: Yes.

9 MS. CALLAHAN: So he has a Bachelor of
10 Science in Geology and a Master's of Science in Geology
11 from East Carolina University. He obtained those in
12 2004 and 2008.

13 While in graduate school, he worked on a
14 petroleum research fund grant with senior scientists
15 from the National Museum of Natural Histories,
16 Smithsonian institution in Washington, D.C. He worked
17 as a geologist in the oil and gas industry -- he has
18 been working as a geologist in the oil and gas industry
19 for over 11 years.

20 Beginning in 2008, he began working for
21 Fronterra Geosciences doing primarily resistivity
22 formation image evaluation. And after that, he worked
23 as a geologist for SandRidge Energy performing both
24 operational and exploration duties in both the Permian
25 Basin and the Anadarko Basin. And then before coming to

1 Novo, he was geological advisor for Ascent Resources
2 overseeing all work in the Appalachian Basin with a
3 primary focus in Ohio's Utica shale play.

4 Although he's never testified before this
5 Division, while with Ascent Resources, he testified as
6 an expert witness as part of about ten unitization
7 hearings before the Ohio Department of Natural
8 Resources.

9 His professional associations are the
10 American Association of Petroleum Geologists, the West
11 Texas Geological Society, the Oklahoma City Geological
12 Society and the Young Professionals in Energy.

13 He's familiar with the application filed by
14 Novo in this case and in Cases 16282 and 16283, and he
15 has conducted a geologic study of the Bone Spring
16 Formation underlying Sections 4 and 5.

17 With that, I tender him as an expert
18 petroleum geologist.

19 EXAMINER McMILLAN: Jim?

20 MR. BRUCE: No objection.

21 EXAMINER McMILLAN: He is so qualified.

22 Hey, I'm experiencing a low-energy period.
23 We're taking ten minutes.

24 (Laughter.)

25 (Recess, 2:58 p.m. to 3:12 p.m.)

1 EXAMINER McMILLAN: Let's call the hearing
2 back to order.

3 Proceed.

4 MS. CALLAHAN: So I think we left off that
5 I had asked that Mr. Hale be accepted as an expert in
6 petroleum geology. I'm not sure what the status of that
7 is.

8 MR. BRUCE: I have no objection.

9 EXAMINER McMILLAN: So qualified.

10 MS. CALLAHAN: Thank you.

11 So I'd like to go now to the five exhibits
12 that Mr. Hale has submitted. Exhibit Number 9 is again
13 the Bone Spring execution plan.

14 Exhibit Number 10 is a subsea structure map
15 for the top of the 2nd Bone Spring.

16 Let's see. 11 is the gross isopach map for
17 the 2nd Bone Spring.

18 And 12 is the stratigraphic cross section
19 of the 2nd Bone Spring, and this cross section
20 identifies the target interval.

21 Exhibit Number 13 is the Rana Salada
22 development block type log, frac barriers and target
23 interval based on the Carthel Federal Number 2. It
24 illustrates the low porosity limestone barriers between
25 the 2nd and 3rd Bone Spring intervals. And the target

1 zone and target depth are also identified.

2 Mr. Hale concludes from his study of the
3 Bone Spring that the proposed location of the wellbore
4 for the 124H well is such that the 2nd Bone Spring Lime
5 barrier will effectively prevent communication between
6 the 1st and 2nd Bone Spring intervals, and the fracs for
7 the well will not extend into the 1st Bone Spring
8 interval.

9 The proposed location of the wellbore for
10 the 124H well is such that the 2nd Bone Spring Lime
11 barrier will effectively prevent communication between
12 the 2nd and the 3rd Bone Spring intervals, and the fracs
13 for the well will not extend into the 3rd Bone Spring
14 interval.

15 He also concludes there is no preferential
16 stress direction underlying the Rana Salada development
17 area and both north-south, east-west development is
18 acceptable.

19 He also concludes the Bone Spring Formation
20 underlying the proposed unit is suitable for horizontal
21 development and that each quarter-quarter section will
22 contribute more or less equally to production from the
23 proposed well. He finds that the granting of Novo's
24 application will be in the interest of conservation and
25 the prevention of waste.

1 Let's see. I'd like to go now to the
2 affidavit of Mr. Kurt Shipley, who is Novo's engineer.

3 EXAMINER McMILLAN: Let's do the --

4 MS. CALLAHAN: Oh, would you like me to
5 submit the exhibits?

6 EXAMINER McMILLAN: Yeah. Do the
7 geologist. I like to do the geology before the
8 engineer.

9 MS. CALLAHAN: At this point I would offer
10 the affidavit of Mr. Michael Hale together with his
11 Exhibits 9 through 13 into the record.

12 EXAMINER McMILLAN: Jim?

13 MR. BRUCE: No objection.

14 EXAMINER McMILLAN: Exhibits 9 through 13
15 may now be accepted as part of the record.

16 (Novo Oil & Gas Northern Delaware, LLC
17 Exhibit Numbers 9 through 13 are offered
18 and admitted into evidence.)

19 MS. CALLAHAN: Thank you.

20 If we look at the affidavit of Kurt
21 Shipley -- I don't believe he has had his credentials
22 accepted before the Division, so I'll run through his
23 credentials.

24 EXAMINER McMILLAN: I thought he was -- he
25 has.

1 MS. CALLAHAN: He has?

2 EXAMINER McMILLAN: Yeah.

3 EXAMINER BROOKS: In the prior case?

4 EXAMINER McMILLAN: Yeah, in the prior
5 case.

6 MS. CALLAHAN: Okay. I didn't recall that
7 I had offered him up as an expert.

8 EXAMINER McMILLAN: Well, he's done it
9 before.

10 So do you have any objections, Jim?

11 MR. BRUCE: Nope.

12 MS. CALLAHAN: Okay. Great.

13 So in his affidavit, he points out that the
14 124H well is targeting the 2nd Bone Spring Sand
15 interval, and the wells proposed in 16282 and 16283 are
16 targeting the 3rd Bone Spring Sand interval. He states
17 that the stipulation -- the simulation -- stimulation
18 design -- excuse me -- for the 124H well is a slick
19 water and sand fracture stimulation, which is the same
20 for the wells planned in 16282 and 16283, and the design
21 is intended to control height and maximize fracture
22 half-length.

23 Mr. Shipley provides the depth-severance
24 justification between the three intervals of the Bone
25 Spring Formation by reference to data included in his

1 two exhibits, which are Exhibits 14 and 15.

2 Exhibit Number 14 is the Rana Salada
3 development block type logs, frac barriers and target
4 interval, and, again, the target depth is indicated, as
5 are the limestone barriers.

6 Exhibit Number 15 is a comparison of the
7 vertical separation of the 1st, 2nd and 3rd Bone Spring
8 intervals.

9 Referring to Exhibits 14 and 15,
10 Mr. Shipley states the planned landing point for the
11 proposed well is at 8,465 feet. And as to the first and
12 second intervals, there is 469 feet of vertical
13 separation between the base of the 1st Bone Spring,
14 which is at 7,890 feet and the top of the 2nd Bone
15 Spring, which is at 8,359 feet.

16 The gross height between the base of the
17 producing 2nd Bone Spring Sand interval and the
18 producing 3rd Bone Spring Sand interval is approximately
19 849 feet, and the conductive frac height is not expected
20 to exceed approximately 100 feet.

21 Then as to the second and third intervals,
22 he states there is 849 feet of vertical separation
23 between the base of the 2nd Bone Spring and the top of
24 the 3rd Bone Spring. There are 336 feet of frac
25 barriers between the 2nd Bone Spring and 3rd Bone

1 Spring, and there is 336 feet of vertical separation
2 between the base of the 2nd Bone Spring at 8,712 feet
3 and the top of the 3rd Bone Spring at 9,561 feet.

4 From this data, he concludes the 1st Bone
5 Spring Sand interval and the 2nd Bone Spring Sand
6 interval will be isolated from each other in the
7 proposed horizontal spacing unit and are not within
8 hydraulic fracture communication. And the 2nd Bone
9 Spring Sand interval and the 3rd Bone Spring Sand
10 interval will be isolated from each other in the
11 proposed horizontal spacing units and are also not
12 within the hydraulic fracture communication.

13 The granting of this application, he
14 opines, is in the best interest of conservation and the
15 prevention of waste.

16 If there are no objections, I move for the
17 admission of the affidavit of Mr. Shipley and his
18 Exhibit Number 14 and Number 15.

19 EXAMINER McMILLAN: Any objections?

20 MR. BRUCE: No.

21 EXAMINER McMILLAN: The affidavit by the
22 engineer and Exhibits 14 and 15 may now be accepted as
23 part of the record.

24 (Novo Oil & Gas Northern Delaware, LLC
25 Exhibit Numbers 14 and 15 are offered and

1 admitted into evidence.)

2 MS. CALLAHAN: Thank you.

3 And I'd ask that Case Number 16284 be taken
4 under advisement.

5 EXAMINER McMILLAN: Jim?

6 MR. BRUCE: No objection.

7 EXAMINER McMILLAN: Okay. Case Number
8 16284 shall be taken under advisement.

9 Thank you.

10 MS. CALLAHAN: Thank you.

11 EXAMINER McMILLAN: You had a question for
12 David Brooks.

13 MS. CALLAHAN: Oh. Do I need to re-open
14 Cases 16282 and 16283 to offer Mr. Hale and Mr. Shipley
15 as experts and run through their -- can we just adopt
16 the testimony that we gave in 16284 and incorporate it
17 into 16282 and 83 related to the credentials of the two
18 experts?

19 EXAMINER BROOKS: I think that's
20 sufficient.

21 MS. CALLAHAN: Okay. I'd ask that we do so
22 then, please.

23 With that, I conclude my presentation.

24 EXAMINER McMILLAN: Okay. Thank you. Very
25 good presentation.

1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20
21
22
23
24
25

MS. CALLAHAN: Thank you.
(Case Number 16284 concludes, 3:21 p.m.)

1 STATE OF NEW MEXICO
2 COUNTY OF BERNALILLO

3

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 27th day of March 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