

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:

ORIGINAL

APPLICATION OF CHEVRON U.S.A., INC.
FOR A NONSTANDARD SPACING AND
PRORATION UNIT AND COMPULSORY
POOLING, LEA COUNTY, NEW MEXICO.

CASE NO. 15160

REPORTER'S TRANSCRIPT OF PROCEEDINGS

EXAMINER HEARING

June 26, 2014

Santa Fe, New Mexico

BEFORE: RICHARD EZEANYIM, CHIEF EXAMINER

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This matter came on for hearing before the
New Mexico Oil Conservation Division, Richard Ezeanyim,
Chief Examiner, on Thursday, June 26, 2014, 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.

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1 (8:45 a.m.)

2 EXAMINER EZEANYIM: The next case is on
3 page 3. This is Case Number 15160, application of
4 Chevron U.S.A., Inc. for a nonstandard spacing and
5 proration unit and compulsory pooling, Lea County, New
6 Mexico.

7 Call for appearances.

8 MR. FELDEWERT: May it please the Examiner,
9 Michael Feldewert with the Santa Fe Office of Holland &
10 Hart. I'm here on behalf of the Applicant, and I have
11 two witnesses here today.

12 EXAMINER EZEANYIM: Any other appearances?

13 Okay. The two witnesses, would you stand
14 up and state your name for the record and be sworn in?

15 MR. COLE: Cody Cole.

16 MR. VERNER: Fred Verner, V-E-R-N-E-R.

17 (Mr. Coal and Mr. Verner sworn.)

18 EXAMINER EZEANYIM: You may proceed.

19 MR. FELDEWERT: Thank you.

20 CODY COLE,

21 after having been first duly sworn under oath, was
22 questioned and testified as follows:

23 DIRECT EXAMINATION

24 BY MR. FELDEWERT:

25 Q. . Would you please state your name, identify by

1 whom you are employed and in what capacity?

2 A. My name is Cody Cole. I work for Chevron as a
3 petroleum land representative.

4 Q. How long have you been a petroleum land
5 representative with Chevron?

6 A. Just over three-and-a-half years.

7 Q. And have your responsibilities throughout that
8 time included the Permian Basin of New Mexico?

9 A. No, it has not.

10 Q. How long have you been involved with the
11 Permian Basin of New Mexico?

12 A. For approximately four months now.

13 Q. And what were your responsibilities prior to
14 the Permian Basin?

15 A. A year prior, I worked New Mexico nonoperative
16 joint ventures for Chevron as a land representative, and
17 before that, I worked in Pennsylvania as the Marcellus
18 shale assets.

19 Q. Have you previously testified before this
20 Division?

21 A. I have not.

22 Q. What is your educational background?

23 A. I have a bachelor's degree in energy management
24 from the University of Oklahoma. I'm a registered
25 petroleum landman with the AAPL.

1 Q. Now, when did you get your degree from
2 Oklahoma?

3 A. 2010.

4 Q. And at that time, is that when you -- your
5 employment started with Chevron?

6 A. Upon graduation, yes, I started working with
7 Chevron.

8 Q. How long have you been a member of the AAPL?

9 A. For approximately six years.

10 Q. Do you live in Houston?

11 A. Yes.

12 Q. Are you also a member of the Houston
13 Association of Petroleum Landmen?

14 A. Yes, I am.

15 Q. How long have you been a member of that
16 association?

17 A. Just over two years now.

18 Q. Are you familiar with the application filed in
19 this case?

20 A. Yes, I am.

21 Q. And are you familiar with the status of the
22 lands in the subject area?

23 A. Yes, I am.

24 MR. FELDEWERT: Mr. Examiner, I would
25 tender Mr. Cole as an expert witness in petroleum land

1 matters.

2 EXAMINER EZEANYIM: Mr. Cole's
3 qualifications are accepted.

4 Q. (BY MR. FELDEWERT) Would you please turn to
5 what's been marked as Chevron Exhibit Number 1? And,
6 Mr. Cole, is this a C-102 that has actually been filed
7 with the Division?

8 A. Yes, it has.

9 Q. Now, I look in the upper, right-hand corner --
10 or this was filed -- first off, this was filed in --
11 recently, correct?

12 A. That's correct.

13 Q. June 24th?

14 A. Yes. It has been amended, June 24th.

15 Q. But in the upper, right-hand corner, it shows
16 that this is an amended C-102?

17 A. That's correct.

18 Q. When was the initial C-102 filed?

19 A. March 13th of 2014.

20 Q. Okay. And does this amended C-102 identify not
21 only the surface and bottom hole but also the perforated
22 interval -- the completed interval for this well?

23 A. Yes, it does.

24 Q. Is that why an amended C-102 was filed?

25 A. That is correct, yes.

1 Q. What does the company seek under this
2 particular application?

3 A. To communitize 160-acre nonstandard units and
4 to pool uncommitted interests in the west half-west half
5 of Section 14, 24 South.

6 EXAMINER EZEANYIM: If I may back up,
7 Counsel.

8 You use the word "communitize." Are we
9 trying to -- what are we doing? Are we forming that
10 project area, or are we seeking a communitization
11 agreement, or what are we doing?

12 MR. FELDEWERT: I was going to correct
13 that.

14 EXAMINER EZEANYIM: You know, because they
15 are two terms that are different, so I wanted to find
16 out --

17 MR. FELDEWERT: You are correct.

18 EXAMINER EZEANYIM: -- what we are doing.
19 Okay. Go ahead.

20 Q. (BY MR. FELDEWERT) Mr. Cole, as I look at this
21 plat, are we creating a west half-west half 160-acre
22 nonstandard spacing unit?

23 A. Yes, that's correct.

24 Q. In Section 14, Township 24 South, 34 East,
25 correct?

1 A. That's correct.

2 Q. Now, you mentioned you wanted to also pool the
3 interests in this west half-west half spacing unit?

4 A. That's correct.

5 Q. In what formation?

6 A. In the Bone Spring Formation.

7 Q. And does this particular exhibit identify for
8 the Examiner the footage locations for your proposed
9 well that you intend to dedicate to this west half-west
10 half spacing unit?

11 A. Yes, it does.

12 Q. And does it also provide for the Examiner the
13 API number?

14 A. Yes, it does.

15 Q. As well as the pool code?

16 A. Yes, it does.

17 Q. Is Section 14 all fee lands?

18 A. Yes, it is.

19 Q. If I turn to what's been marked as Chevron
20 Exhibit Number 2, is this a lease tract map that
21 identifies the interest owners in your proposed west
22 half spacing unit first by tract?

23 A. Yes.

24 Q. And then if I look at the second page, does it
25 identify the working interests in this west half-west

1 half spacing unit in total?

2 A. Yes, it does.

3 Q. There are -- in addition to Chevron, there are
4 five additional entities listed. Has the company been
5 able to locate all of these interest owners?

6 A. Yes, we have.

7 Q. And do these -- at this point do these interest
8 owners remain uncommitted to the well?

9 A. Yes. All interest owners are uncommitted.

10 Q. Now, if I turn to Chevron Exhibit Number 3, is
11 this a copy of the well-proposal letter that you sent to
12 these interest owners in April?

13 A. Yes, it is.

14 Q. And it was sent to all of the mineral owners?

15 A. Yes.

16 Q. And it contains an AFE; does it not?

17 A. Yes, it does.

18 Q. And in this case, is Chevron's AFE comprised of
19 four pages?

20 A. Yes, it is.

21 Q. And how is it generally -- how is it split up?

22 A. It's split up by drilling costs, completion
23 costs and facility costs.

24 Q. Now, in addition to this letter that you sent
25 out in April that's been marked as Chevron Exhibit

1 Number 3, what other efforts did the company undertake
2 to reach agreements with these uncommitted interest
3 owners?

4 A. Approximately a year before the letter was sent
5 out, we tried to reach agreement through leasing, and
6 even after the letter sent out, we had continuously
7 approached them in leasing and/or participating in the
8 joint operating agreement.

9 Q. Have you had telephone conversations with each
10 of these parties?

11 A. Yes, we have.

12 Q. And now with a number of these parties, do you
13 believe that you're close to an agreement?

14 A. Yes. Four out of five of them are coming
15 closer to an agreement, yes.

16 Q. But you don't quite have it completed?

17 A. That's correct.

18 Q. What's the circumstance with the New Mexico
19 Department of Transportation, which is listed as an
20 interest owner?

21 A. We have submitted lease forms to them. They
22 have reviewed them. They've said that they received
23 them, and we have yet to hear back if they were willing
24 to sign them or not.

25 Q. Now, with respect to the AFE that was submitted

1 with your well proposal letter, are those costs
2 consistent with what the company has incurred for
3 drilling similar horizontal wells?

4 A. Yes, that's correct.

5 Q. And in the course of your discussions with the
6 parties to reach an agreement, has the company made an
7 estimate of the overhead and administrative costs while
8 drilling this well and also producing, if you are
9 successful?

10 A. Yes, we have.

11 Q. And what are those figures?

12 A. It is 7,000 for drilling and \$700 for
13 completions and producing.

14 Q. Are those overhead rates consistent with what
15 Chevron and other operators have charged for similar
16 wells in this area?

17 A. Yes, they are.

18 Q. Now, Mr. Cole, did the company identify the
19 known operators and lease mineral interest owners in the
20 40-acre tract surrounding your proposed nonstandard
21 spacing unit?

22 A. Yes, we have.

23 Q. And did the company provide notice of this
24 hearing to these known offsetting operators and lessees?

25 A. Yes, we have.

1 Q. If I turn to what's been marked as Chevron
2 Exhibit Number 4, is this the affidavit prepared by my
3 office with the attached letters providing notice of
4 this hearing to not only to the pooled parties but also
5 these offsetting operators and lessees?

6 A. Yes, it is.

7 Q. And finally, were Exhibits 1 through 3 prepared
8 by you or compiled under your direction or supervision?

9 A. That's correct, yes.

10 MR. FELDEWERT: Mr. Examiner, I would move
11 for admission into evidence at this time of Chevron
12 Exhibits 1 through 4, which includes my affidavit.

13 EXAMINER EZEANYIM: Exhibits 1 through 4
14 will be admitted.

15 (Chevron U.S.A., Inc. Exhibit Numbers 1
16 through 4 were offered and admitted into
17 evidence.)

18 MR. FELDEWERT: And that concludes my
19 examination of this witness.

20 CROSS-EXAMINATION

21 BY EXAMINER EZEANYIM:

22 Q. This is federal land?

23 A. No. All fee.

24 Q. It's all fee.

25 Are you pooling the Department of

1 Transportation? Every time someone comes here to pool
2 them. Do they get any revenues? When you pool them,
3 they have to pay their costs. Are they a working
4 interest?

5 A. They become a working interest, and that
6 renders the forced pooling of, I believe, 200 percent.

7 Q. How much do they own in this unit?

8 A. Do they own?

9 MR. FELDEWERT: I believe, Mr. Examiner,
10 it's identified on Exhibit Number 2, on the last page.

11 THE WITNESS: Approximately 1.41 percent.

12 EXAMINER EZEANYIM: 1.41.

13 And the only way they can be paid is out of
14 production, after you collect 200 percent, right?
15 Because they never show up to -- they never participate.
16 I wonder why. I don't know how that comes about, but
17 that has been my experience, that every time people come
18 here to pool the Department of Transportation -- I don't
19 know.

20 MR. FELDEWERT: I think as you have
21 found -- as we have found and you've observed, they, for
22 whatever reason, seem unable to either execute a lease
23 or join in the drilling of a well.

24 EXAMINER EZEANYIM: I need to find out how
25 they acquire those and don't do anything with them. I

1 don't know. Because it's part of our agency; it's an
2 agency, so I'm surprised.

3 It does not have anything to do with you.
4 You have to pool whoever you want to pool.

5 THE WITNESS: (Indicating.)

6 Q. (BY EXAMINER EZEANYIM) And the location of the
7 well would be -- I think from the plat, it would be
8 standard, right? Statewide rules, right?

9 A. Statewide rules, yes. Correct.

10 Q. And we got notice to everybody that's supposed
11 to get notice?

12 A. Yes.

13 Q. And did you find everybody?

14 A. Yes, we did.

15 Q. Okay. So there is no need for me to file a
16 publication?

17 A. No, sir.

18 Q. You may step down.

19 EXAMINER EZEANYIM: Call your next witness.

20 FREDERICK VERNER,

21 after having been previously sworn under oath, was
22 questioned and testified as follows:

23 DIRECT EXAMINATION

24 BY MR. FELDEWERT:

25 Q. Would you please state your name, identify by

1 whom you're employed and in what capacity?

2 A. My name is Frederick Verner. I work for
3 Chevron in Houston, Texas. I am both an earth scientist
4 and a project manager.

5 Q. And how long have you been a -- how long have
6 you been with Chevron?

7 A. Most recently, I've been with Chevron almost
8 two years. Prior to that, when I got out of school, I
9 was with Chevron seven years.

10 Q. Have you previously testified before this
11 Division?

12 A. No, I have not.

13 Q. Would you please outline your educational
14 background?

15 A. I have a bachelor's in geology from Purdue
16 University in 1983 and a master's in geophysics in 1985.

17 Q. Again, from Purdue?

18 A. Purdue, yes.

19 Q. When you graduated in '85, is that when you
20 started with Chevron?

21 A. I started in January of '86.

22 Q. And what were your job responsibilities?

23 A. I was essentially an earth scientist going
24 through a training rotation so a number of both
25 geophysical and geological mapping, technical roles.

1 Q. And where were you assigned?

2 A. In Midland, Texas, working across many plays in
3 the Permian Basin.

4 Q. At that time were you involved with the geology
5 of the Basin?

6 A. Yes.

7 Q. And what did you then do after leaving Chevron?

8 A. I left Chevron in 1993 to work for Monsanto in
9 St. Louis working on both earth science and project
10 management roles supporting their mining business --
11 their phosphate mining business in Idaho, as well as
12 developing agricultural affectations for remote sensing.

13 Q. And now currently as a project manager for
14 Chevron, do your responsibilities include the Permian
15 Basin?

16 A. Yes, they do. I'm a project manager for our
17 Lea County project.

18 Q. And do you oversee a team of geologists?

19 A. Yes. They are part of a cross-functional team.

20 Q. And as a result of your job responsibilities,
21 do you routinely oversee and critique the work done by
22 your team of geologists?

23 A. Yes.

24 Q. Are you familiar with the application that's
25 been filed in this case?

1 A. Yes.

2 Q. And did you oversee and approve the geologic
3 study of the lands that are the subject of this
4 application?

5 A. Yes.

6 Q. And was that done by your team?

7 A. Yes.

8 MR. FELDEWERT: Mr. Examiner, I would
9 tender Mr. Verner as an expert witness in petroleum
10 exploration.

11 EXAMINER EZEANYIM: So qualified.

12 Q. (BY MR. FELDEWERT) Would you turn to what's
13 been marked as Chevron Exhibit Number 5, please?
14 Identify it and explain to the Examiner what it shows,
15 particularly the various lines and colors as we see them
16 on here.

17 A. Certainly. So we're looking at a fairly simple
18 structure map. The contours represent the subsea depth,
19 and what you see is a general one-degree dip to the
20 south across this area.

21 On here, in yellow, is identified the
22 Chevron acreage and a cross section from A to A prime,
23 which run through the nonstandard proration unit that is
24 of interest right now.

25 Q. Now, what is the target of the proposed well?

1 A. The 2nd Bone Spring.

2 Q. And is this a structure map of the 2nd Bone
3 Spring?

4 A. Yes. It is the top of the 2nd Bone Spring.

5 Q. How is your well control in this area?

6 A. It's -- it's -- it's -- it's good enough to
7 make a map. It's not really strong enough to make great
8 detail stratigraphic maps.

9 EXAMINER EZEANYIM: Could you repeat that?
10 What did you say?

11 THE WITNESS: It's enough to make a rough
12 structure map, as we've seen. We feel it's not strong
13 enough to make a detailed -- stratigraphic detailed
14 interpretation.

15 EXAMINER EZEANYIM: Okay. I will take that
16 to heart.

17 Q. (BY MR. FELDEWERT) Does your map here identify
18 the data points that you utilized for your structure
19 map?

20 A. Yes. They're marked -- you can see the wells.
21 They've got some red marks on them, as well as the
22 actual structural depth marked on them.

23 Q. And some of those -- okay. And those are
24 reflected -- some of them have a red cap on them and
25 some do not. What does that indicate?

1 A. The ones with the red cap are usable data
2 points. So if they have a red cap, they were used.

3 Q. Now, based on the data that you have available
4 to you, did you observe any faulting or pinch-outs that
5 would present any impediments to the drilling of
6 horizontal wells?

7 A. No, not in this area. Not at all.

8 Q. And have there been some horizontal wells
9 drilled in this particular area?

10 A. There have been a few, one of which is not on
11 here yet because we don't have data on it. It is in
12 Section 10, on the south side of Section 10, called the
13 Salvador Fee, and we don't have data on that.

14 EXAMINER EZEANYIM: Before I forget, your
15 red-capped wells, are they vertical wells?

16 THE WITNESS: Yes, they are.

17 Q. (BY MR. FELDEWERT) And based on your review and
18 the review of your team, did you observe any geologic
19 impediments to the horizontal wells?

20 A. Not at all. This is structurally and, from
21 what we can tell stratigraphically, a very consistent
22 area.

23 Q. And you mentioned that on this map you show a
24 selection of wells that you've identified for A to A
25 prime?

1 A. Yes.

2 Q. In your opinion, are those wells representative
3 of the area?

4 A. Yes.

5 Q. And if I keep my finger on Exhibit Number 4 --
6 or on Number 5, does Chevron Exhibit Number 6 correspond
7 with the type logs to the wells that you show in
8 Chevron's Exhibit Number 5?

9 A. Yes, exactly. There are four wells on the
10 diagram, Exhibit 5, which are represented in order on
11 Exhibit Number 6.

12 Q. And what do you observe with respect to Chevron
13 Exhibit Number 6?

14 A. Well, what you see, essentially, going from
15 east -- no -- from west to east, or A to A prime, there
16 is, essentially, across this area, an equivalent amount
17 of pay in each of the wells, although the pay does tend
18 to move up and down or split from time to time. It's
19 very typical of all the horizontal plays in this area.
20 Our well would be located in between the Buckeye and
21 Madera wells to the right, and we have a fairly
22 consistent pay zone running through, really, the center
23 part of the 2nd Bone Spring Sand.

24 Q. Have you identified on this exhibit the
25 proposed target of your horizontal well?

1 A. Yes. It's highlighted by the little yellow
2 box. It says "2H Target."

3 Q. And what do the horizontal lines represent that
4 we see on this exhibit?

5 A. Certainly. The upper horizontal line is the
6 top of the gross 2nd Bone Spring Sand. The bottom is
7 the bottom of the gross 2nd Bone Spring Sand.

8 EXAMINER EZEANYIM: What is the gross
9 thickness on that 2nd Bone Spring Sand? I can't -- it's
10 too tiny. I can't read the depth.

11 THE WITNESS: Over to the left, there is
12 another scale which might be a little easier to read.

13 EXAMINER EZEANYIM: Oh, those are depth
14 scales.

15 THE WITNESS: Right. So roughly 500 to 550
16 feet.

17 EXAMINER EZEANYIM: Go ahead.

18 Q. (BY MR. FELDEWERT) Mr. Verner, what conclusions
19 have you drawn based on the study done by the geologic
20 team?

21 A. Well, it's our opinion that there are no
22 geologic impediments to developing this area with
23 horizontal wells, that we can both efficiently and
24 economically develop this area with horizontal wells.
25 And a well -- a horizontal well in this area, across a

1 nonstandard proration unit, all areas within that
2 proration unit will contribute, essentially, equally to
3 the production of the well.

4 Q. Okay. Now, finally, is Chevron Exhibit
5 Number 7 a well diagram for your initial well that you
6 intend to dedicate to this west half-west half spacing
7 unit?

8 A. Yes, it is.

9 Q. And if I look at the right-hand side of this
10 exhibit, does it identify the producing area for the
11 well?

12 A. Yes, it does.

13 Q. And that's done in red?

14 A. Yes. The red actually represents the setbacks
15 from the edges of the proration unit.

16 Q. And then the blue line shows your well
17 trajectory?

18 A. Yes.

19 Q. And will the completed interval comply with the
20 setback requirements?

21 A. Yes, it will, although this particular diagram
22 doesn't illustrate that. We stay within the proration
23 unit setback. However, it shows us crossing the
24 southern edge by 50 feet. It is on our permit in which
25 we identified the last take-away point, which is on a

1 proration unit line.

2 Q. And what's going to be the purpose of that
3 last 50 feet?

4 A. It is rathole, extra room for trash at the
5 bottom of the hole or any work we need to do.

6 Q. But the completed interval will comply --

7 A. Yes.

8 Q. -- with the setbacks?

9 A. Yes.

10 Q. And is that -- Mr. Verner, is that why Chevron
11 amended their C-102 and filed it with the Division on
12 June 24th?

13 A. Yes. We were afraid it wasn't clear enough in
14 the original application that that was our intent, so we
15 clarified it with the addition of the final take-away
16 point.

17 Q. In your opinion, will the granting of this
18 application be in the best interest of conservation, the
19 prevention of waste and the protection of correlative
20 rights?

21 A. Yes, it is.

22 Q. Were Chevron Exhibits 4 through 6 prepared by
23 you or compiled under your direction and supervision?

24 A. Yes.

25 MR. FELDEWERT: Mr. Examiner, I would move

1 for admission into evidence of Chevron Exhibits 4
2 through 6.

3 EXAMINER EZEANYIM: Exhibits 4 through 6
4 are admitted. I thought you admitted 4 before, but
5 that's fine. You know, we can --

6 MR. FELDEWERT: I'm sorry.

7 EXAMINER EZEANYIM: There is no contest.

8 MR. FELDEWERT: I do need to adjust that.
9 I'd move for admission of Chevron Exhibits 5 through 7.

10 EXAMINER EZEANYIM: Okay. That's what I
11 thought.

12 MR. FELDEWERT: Thank you.

13 EXAMINER EZEANYIM: Exhibits 5 through 7
14 will be admitted.

15 (Chevron U.S.A., Inc. Exhibit Numbers 5
16 through 7 were offered and admitted into
17 evidence.)

18 MR. FELDEWERT: And that concludes my
19 examination of this witness.

20 EXAMINER EZEANYIM: Okay. Very good.

21 CROSS-EXAMINATION

22 BY EXAMINER EZEANYIM:

23 Q. Now, let's stay with the location of that well.
24 Go back to the amended -- amended, revised Form C-102.
25 I'm looking at the bottom-hole location as 215 -- 280

1 feet from the south line?

2 A. Yes.

3 MR. FELDEWERT: Exhibit 1.

4 Q. (BY EXAMINER EZEANYIM) That is the bottom-hole
5 location. And you say you are going to have a dry hole,
6 but your completed interval will be where in that
7 producing area? I need to know where it will be
8 completed, because I was thinking that I would find it
9 in the C-102. Because if you look at that -- because
10 this pool -- what is the name of the pool? Red Hills
11 Bone Spring?

12 A. Yes, Red Hills Bone Spring.

13 Q. I can't see that.

14 A. It says "Red Hills Bone Spring North."

15 Q. North. Okay.

16 Okay. Now, in that Red Hills Bone Spring
17 North, within the producing interval, where will be --
18 where will be your completed interval; do you know?

19 A. It will be from our landing point on the north
20 end through the point marked "LTP," last take-away
21 point, which is identified as 330 feet from the south
22 end of the proration unit.

23 Q. Where are you reading that? It's not in my --
24 it's not here. I'm not seeing that. I'm seeing 280.
25 Are you seeing 280 from the south line on the

1 bottom-hole location?

2 A. I do.

3 Q. You see 280, right?

4 A. Yes.

5 Q. Then where do I find 330?

6 A. Just to the right of that.

7 Q. The surface location is 330 from the north, 340
8 from the west, and then the bottom hole is 280 from the
9 south, 660 from the west. Is that where you are reading
10 from, or do I have -- maybe I don't have it.

11 A. Can I approach?

12 Q. Yeah, you can approach, because it's very
13 important that I know where that well is landed, unless
14 it's 280 from the south.

15 A. At this point (indicating) it is showing the
16 last take-away point, and it's on this line
17 (indicating), which is 330 from the south line.

18 Q. Why did you not include it here?

19 A. Well, the well itself does go 280 (indicating).

20 Q. Oh. It goes 280, but for the last take-away
21 point?

22 A. Is 330.

23 Q. Okay. Okay. I understand now.

24 Okay. Do you have -- you're a physicist,
25 right?

1 A. Yes.

2 Q. Very good. Maybe I'll talk to you during the
3 break.

4 Do you have a net isopach map?

5 A. We do have net isopach maps. It is our policy
6 not to make those public records.

7 Q. I understand. I understand. You don't need to
8 show it to me, but what I want to ask you -- I know you
9 are not going to lie here; you are under oath.

10 You have to show there are no pinchouts.
11 You can't see that pinch-out on a structural map. You
12 can see it on a net isopach map, but I don't have that.
13 But you say there are no pinch-outs. Maybe that's what
14 you found. Is that correct?

15 A. So our feeling was that the cross section
16 actually illustrated the continued -- the continuous --

17 Q. I can see that.

18 A. -- at the reservoir. It's better than a map.

19 Q. I can see that, but if you construct a net
20 isopach, I will be able to determine whether there are
21 pinch-outs or not.

22 A. That's true.

23 Q. Of course you know.

24 Okay. What is the average porosity in this
25 2nd Bone Spring Sand?

1 A. I am -- I don't have that information.

2 Q. From your experience, what do you think it is
3 in that area?

4 A. It's less than a darcy.

5 Q. I'm talking about porosity.

6 A. Oh, I'm sorry.

7 The average? I would say probably 3 to 5
8 percent.

9 Q. And it's also very tight?

10 A. Yes.

11 Q. And you say it's on the order of about less
12 than a milli -- millidarcy?

13 A. Yes.

14 Q. Okay. Why did we -- why do you assume each
15 unit will produce equally? Is there anything that told
16 us that?

17 A. We see pay in every well in this area, not just
18 the ones on the cross section. While the pay does move
19 up and down, we typically have roughly the same amount
20 of pay in each well out there.

21 Q. If you look at the area, they are all a bunch
22 of vertical wells. There are no horizontal wells,
23 right?

24 A. Right.

25 Q. Then I was wondering why the orientation is

1 north to south.

2 A. North to south is the conventional wisdom in
3 this area. It is also in line with the --
4 theoretically, the best orientation relative to the
5 regional stress patterns in the area, which is probably
6 why most people are drilling north-south in most cases.

7 Q. Well, I mean, you are in there. You are a
8 geophysicist. You might have conducted a microseismic
9 event. Did you do that?

10 A. We did not.

11 Q. You did not.

12 How do you know the stress direction?

13 A. Pardon me?

14 Q. How do you know the stress direction?

15 A. Oh. Well, the stress --

16 Q. Conventional wisdom?

17 A. No. Actually, the regional stress patterns are
18 measured a number of ways. Of course, microseismic
19 surveys can help with that, also looking at shear wave
20 splitting from shear wave seismic events, as well as
21 regional whole earth seismic surveys, which are, you
22 know, generated from seismic events anywhere in the
23 world. They come through here, and the stress field
24 does play with both the orientation of the shear waves
25 which gives people clues to the regional stress

1 patterns.

2 Q. You know, I shouldn't be doing this, but I want
3 to do it, because when I look at the area, it's not yet
4 developed by horizontal wells. I want to establish a
5 credible orientation. Is this north-south or east-west?
6 And that's why I'm asking you all these questions.

7 And did you conduct any geomechanical
8 model? Because I need to know where the natural
9 fractures are trending towards, so we know whether to go
10 north-south or east-west. Did you do any geomechanical
11 model, you know, if you can't do a microseismic?

12 A. No. In this particular area, we don't have
13 data, so we would go with the more conventional
14 approach. We feel we do understand the regional stress
15 patterns and, at least maybe wells not on this map but
16 in the general area of southern Lea County, typically
17 the north-south orientation is successful.

18 Q. Yes. I'm concerned because it's tight, less
19 than 1 millidarcy. Porosity is very poor, 3 to 5
20 percent. So we really need to establish a credible
21 horizontal well orientation, because if we don't, then
22 it might not pay out. You see what I mean?

23 A. (Indicating.)

24 Q. Okay. Anyhow. All right. You may step down.
25 What's your name?

1 A. Pardon me?

2 Q. What's your name?

3 A. Fred Verner.

4 Q. Okay. You may step down.

5 MR. FELDEWERT: Mr. Examiner, I do have
6 some follow-up questions.

7 EXAMINER EZEANYIM: Okay. Go ahead.

8 REDIRECT EXAMINATION

9 BY MR. FELDEWERT:

10 Q. Mr. Verner, you mentioned that in this area you
11 do not have microseismic data?

12 A. That's correct.

13 Q. And therefore, you're relying on regional
14 stress data, which is a conventional wisdom when you do
15 not have microseismic?

16 A. Right.

17 Q. Would you agree with me that microseismic data
18 is a better tool if it's available than utilizing
19 regional stress data?

20 A. For very local information, I would agree with
21 that.

22 Q. And would you agree with me that microseismic
23 data at times would show, for example, some anomalies?

24 A. Yes.

25 Q. Such as drapes or anticlines?

1 A. Sure. Wherever you have some sort of geologic
2 anomaly, a fault, an anticline, anything that interferes
3 with the regional picture, it will reorient the local
4 stresses.

5 Q. So it would change -- if you have, for example,
6 an anticline in an area that would change the
7 conventional wisdom, then perhaps it would change the
8 orientation of your well?

9 A. Absolutely.

10 Q. That's all I have.

11 EXAMINER EZEANYIM: Okay. Thank you very
12 much.

13 At this point we're going to take about a
14 ten-minute break and then continue with the next case.

15 Mr. Verner, I need to talk to you.

16 For the record, Case Number 15160 will be
17 taken under advisement.

18 (Case Number 15160 concludes, 9:16 a.m.)

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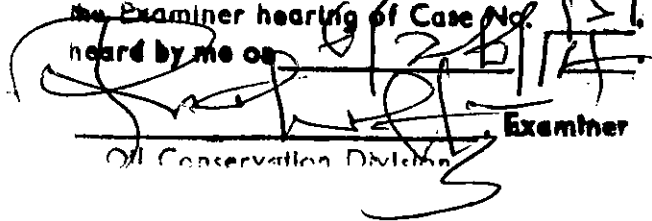
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I do hereby certify that the foregoing is
a complete record of the proceedings in
the Examiner hearing of Case No. 15160
heard by me on 9/24/14


Examiner
Oil Conservation Division

1 STATE OF NEW MEXICO
2 COUNTY OF BERNALILLO

3

4 CERTIFICATE OF COURT REPORTER

5 I, MARY C. HANKINS, New Mexico Certified
6 Court Reporter No. 20, and Registered Professional
7 Reporter, do hereby certify that I reported the
8 foregoing proceedings in stenographic shorthand and that
9 the foregoing pages are a true and correct transcript of
10 those proceedings that were reduced to printed form by
11 me to the best of my ability.

12 I FURTHER CERTIFY that the Reporter's
13 Record of the proceedings truly and accurately reflects
14 the exhibits, if any, offered by the respective parties.

15 I FURTHER CERTIFY that I am neither
16 employed by nor related to any of the parties or
17 attorneys in this case and that I have no interest in
18 the final disposition of this case.

19

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21

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