

STATE OF NEW MEXICO

ENERGY, MINERALS AND NATURAL RESOURCES DEPARTMENT

OIL CONSERVATION DIVISION

CASE 9951

EXAMINER HEARING

IN THE MATTER OF:

Application of Pennzoil Exploration and Production
Company for an Unorthodox Oil Well Location, Lea
County, New Mexico

TRANSCRIPT OF PROCEEDINGS

BEFORE: DAVID R. CATANACH, EXAMINER

STATE LAND OFFICE BUILDING

SANTA FE, NEW MEXICO

May 30, 1990

ORIGINAL

A P P E A R A N C E S

FOR THE DIVISION:

ROBERT G. STOVALL
Attorney at Law
Legal Counsel to the Division
State Land Office Building
Santa Fe, New Mexico

FOR THE APPLICANT:

KELLAHIN, KELLAHIN & AUBREY
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Santa Fe, New Mexico 87504-2265

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E X H I B I T S

APPLICANT'S EXHIBITS:

Exhibit 1

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Exhibit 2

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* * *

1 WHEREUPON, the following proceedings were had
2 at 9:43 a.m.:

3 EXAMINER CATANACH: Okay, we'll call the
4 hearing back to order at this time, and at this time
5 we'll call Case 9951.

6 MR. STOVALL: Application of Pennzoil
7 Exploration and Production Company for an unorthodox
8 oil well location, Lea County, New Mexico.

9 EXAMINER CATANACH: Are there appearances in
10 this case?

11 MR. KELLAHIN: Mr. Examiner, I'm Tom Kellahin
12 of the Santa Fe law firm of Kellahin, Kellahin and
13 Aubrey.

14 I'm appearing today on behalf of the
15 Applicant, and I have two witnesses to be sworn.

16 EXAMINER CATANACH: Any other appearances?
17 Will the witnesses please stand and be sworn
18 in?

19 (Thereupon, the witnesses were sworn.)

20 H.W. HOLLINGSHEAD, JR.,
21 the witness herein, after having been first duly sworn
22 upon his oath, was examined and testified as follows:

23 EXAMINATION

24 BY MR. KELLAHIN:

25 Q. Mr. Hollingshead, for the record, sir, would

1 you please state your name and occupation?

2 A. I'm H.W. Hollingshead, Jr. I go by Bill.

3 I'm the Western Division Exploration/Exploitation

4 Manager for Pennzoil. I reside in Houston, Texas.

5 Q. You're a petroleum geologist by degree, are
6 you, sir?

7 A. Yes, I am.

8 Q. And your employment experience, a substantial
9 portion of it, has been with Pennzoil?

10 A. Yes, it has.

11 Q. As part of your employment as a petroleum
12 geologist for your company, have you been involved in
13 the exportation by your company of the various Strawn
14 pools in Lea County, New Mexico?

15 A. Yes, I have.

16 Q. And have you made yourself familiar with the
17 geology that's involved in this particular Application?

18 A. Yes.

19 MR. KELLAHIN: We tender Mr. Hollingshead as
20 an expert petroleum geologist.

21 EXAMINER CATANACH: He is so qualified.

22 Q. (By Mr. Kellahin) Mr. Hollingshead, let me
23 ask you to turn your attention to what is marked as
24 Exhibit Number 1 and take a moment and orient the
25 Examiner as to what portion of the northeast Lovington

1 Strawn Pool that you're seeking the approval with this
2 well location.

3 A. Okay, if you go to the index map on there,
4 you'll see the City of Lovington. We're about five
5 miles southeast and within the confines of the
6 northeast Lovington pool.

7 Q. When we look at the portion of the display on
8 the right side, would you identify and describe that
9 for us?

10 A. Yes, this is an isopach map of what we call
11 the lower Strawn lime. This is a producing horizon in
12 most of the wells that you see -- in fact, on all of
13 them that you see on this map.

14 Q. When we look at that portion of Section 16
15 that's outlined by the green rectangle, do you see
16 that?

17 A. Yes.

18 Q. That's the north half of the southwest
19 quarter of Section 16?

20 A. Correct.

21 Q. And is that the proposed spacing unit for the
22 well that you're seeking approval for?

23 A. Yes, it is.

24 Q. Describe for us the footage location for that
25 well.

1 A. That well as proposed is 900 feet from the
2 west line and 2310 from the south line.

3 Q. Describe for us in what way that is an
4 unorthodox well location.

5 A. It is actually 400 feet directly northeast of
6 a 660-foot location in the west 40 of the south -- of
7 the proration unit.

8 Q. When we look at the proposed location, then,
9 on the display, it's that open circle 900 feet from the
10 west line and 2310 from the south line of the section?

11 A. Correct.

12 Q. When we look at the distance from the
13 location to the northern boundary of that spacing
14 unit --

15 A. It is 330 feet.

16 Q. And when we look at the distance, then, from
17 the well to the line that divides the two 40-acre
18 tracts in the spacing unit --

19 A. It's 420 feet from the east line.

20 Q. Okay, and what do the rules for the pool
21 require in order to have a standard well location?

22 A. That it needs to be in the center of the 40-
23 acre tract, but they do give you 150 feet tolerance
24 around that.

25 This well is actually about 400 feet

1 northeast of the -- of the center line of the 40-acre
2 tract.

3 Q. In looking at the display, there are two blue
4 lines. Describe those for me.

5 A. Those are actually green on mine.

6 Q. Mine are blue.

7 A. Okay.

8 Q. Whatever those colored lines are?

9 A. Yes, the northeast-to-southwest lines, those
10 are seismic lines that are pertinent to this location.

11 Q. Why is seismic data utilized by your company
12 in an effort to help you locate wells in the Strawn
13 Pool?

14 A. We have found that we improve the quality of
15 our wells significantly by using the seismic lines.

16 We use them primarily, first, to define the
17 configuration of the mound. And we use them, second,
18 to try to tell us where we are structurally within that
19 mound.

20 Q. When we look at the eastern 40-acre tract in
21 the spacing unit --

22 A. Yes.

23 Q. -- why can't you drill at a standard well
24 location within that 40-acre tract?

25 A. We could. There is a location that would

1 have adequate lower Strawn lime present, but we are
2 afraid it will be too low structurally.

3 The two wells to the west in that elongated-
4 to-ellipse area --

5 Q. The BTA Wells?

6 A. Yes, the BTA Wells, Number 1 Lovington and
7 Number 2 Lovington, Tom, both of those wells have been
8 recently completed but are making a little water.

9 So we feel that we need to stay as far updip
10 as we can, but still stay in the well located on the
11 mound complex.

12 Q. When we look at the other 40-acre tract, the
13 western 40-acre tract --

14 A. Yes.

15 Q. -- why can't you drill at a standard well
16 location in that 40-acre tract?

17 A. If you'll look at the map you'll see that we
18 believe that a standard location would be less than 180
19 foot thick, and we believe that our location as
20 proposed will be around 220 feet thick.

21 We have learned over the years that it's very
22 important to try to get your wellbore within the
23 thicker part of the mound.

24 Q. To approximate for the Examiner where the
25 closest standard location is in the 40-acre tract where

1 the well is proposed, where would that line be?

2 A. It would be about 250 foot southwest of the
3 location that is shown on the map.

4 Q. All right.

5 A. And as I mentioned earlier, a 660 location,
6 which would be in the center of the 40, is actually 400
7 feet southwest of the proposed location in a diagonal
8 direction.

9 Q. So if we're on the southwest-northeast
10 seismic line -- Do you see that?

11 A. Southwest-northeast, yes.

12 Q. Do you see that seismic line?

13 A. Yes.

14 Q. And if we start at the well location, the
15 proposed unorthodox well location is on the shot line
16 -- I mean, the seismic line?

17 A. It is on the seismic line.

18 Q. If you follow that line to the southwest,
19 there's a shot point?

20 A. Yes, there is a shot point, and the actual
21 location, Tom, would be about a hundred feet to the
22 northeast along the seismic line, which would be a
23 center -- center location of that 40.

24 Q. All right. So that would give you an
25 approximate standard location at 180 foot thickness on

1 your mound?

2 A. Or less.

3 Q. Or less?

4 A. Actually, we're showing it less.

5 Q. Okay. And by moving to the unorthodox
6 location, you'd gain some 40 feet or more of thickness
7 in the mound?

8 A. Yes, we do.

9 Q. Okay. In summary, then, Mr. --

10 A. We believe we do.

11 Q. Yes, sir, I understand --

12 A. Yes.

13 Q. -- it's not an exact science.

14 A. Right.

15 Q. In summary, then, Mr. Hollingshead, describe
16 for us why you're seeking approval of the unorthodox
17 location as the optimum location within the spacing
18 unit for which to drill and hopefully produce oil from
19 this Strawn mound.

20 A. We believe that this location as we have
21 proposed it will be around 220 foot thick, which should
22 give us a good porous section.

23 We also believe that it will be higher
24 structurally. The dip is kind of in a -- As you go to
25 the west, you'll get higher structurally.

1 So we both -- We gain both structure and we
2 also have adequate thickness of the Strawn lime to
3 believe that we'll have a very competitive well there.

4 Q. And when we look at the western 40-acre
5 tract, we may satisfy the geologic criteria of
6 thickness, but there is a significant risk that you'll
7 be downstructure in the well?

8 A. Yes, sir, that would be the east 40.

9 MR. KELLAHIN: Yes, sir.

10 That concludes my examination of Mr.
11 Hollingshead. We move the introduction of his Exhibit
12 Number 1.

13 EXAMINER CATANACH: Exhibit Number 1 will be
14 admitted as evidence.

15 EXAMINATION

16 BY EXAMINER CATANACH:

17 Q. Mr. Hollingshead, I'm still not sure I
18 understand why you can't drill in the east 40. You're
19 losing structure, you say?

20 A. Yes. I'm sorry, I do not have a structure
21 map with me, but it is lower structurally in that
22 direction.

23 To give you an example, Mr. Catanach, look at
24 the anomaly down to the south where we have labeled
25 Pennzoil "C" 2 and 3 Wells and Pennzoil State 1 Well.

1 Q. Uh-huh.

2 A. The easternmost well there, which shows 247
3 feet thickness of lime, that well is almost watered
4 out.

5 As you go west, the other two wells are still
6 doing -- Well, the Number 2 is still doing very well.

7 And also, if you'll go to the northeast of
8 our location there, there's another anomaly up there
9 called the Pennzoil State "16" 4.

10 Q. Uh-huh.

11 A. You only see part of it, the northwest
12 portion, but as you go to the southeast, we have
13 another well located down there which is cutting water.

14 So as you go easterly, you begin to get lower
15 structurally.

16 So by going to the west side, we will be
17 higher structurally, and we believe that we will have
18 much less water.

19 As you know, some of these mounds have a
20 downdip water leg.

21 Q. Pennzoil utilized seismic to pick this
22 location?

23 A. Yes, sir, we have.

24 Q. And I assume that's what you used
25 predominantly in this area, is seismic?

1 A. Yes, we have learned that we will improve the
2 success ratio of our wells significantly by using
3 seismic, so we -- we -- Unfortunately, these mounds
4 don't always fall in the middle of the sections and so
5 forth, so we do use seismic.

6 And then where necessary we will ask for an
7 unorthodox location.

8 Q. Uh-huh. Is it very important that you get
9 above the 180-foot line?

10 A. Yes, sir.

11 Q. And why is that, sir?

12 A. As you go down to less than that, we have
13 found that the wells are tight in many cases.

14 One example would be on this particular map,
15 there is a Yates East Lovington dry hole up to the
16 north of the easternmost BTA well recently drilled.
17 That well is tight, and it has 200 feet of lime.

18 Over on our State "16" 4 to the northeast, we
19 have 228 feet. It's not a one-to-one ratio, by any
20 means. But it does seem to be that the thicker part of
21 the mound will have the better reservoir quality.

22 We do not have the logs on the two BTA wells,
23 the Number 1 and Number 2. We understand, though, that
24 the -- that they're good wells. In fact, we know
25 they're good wells from the completion data.

1 Q. Is the Pennzoil State "C" Number 3 a pretty
2 good well?

3 A. Early on, it was all right. But it was --
4 turned out to be rather pressure-depleted at the time
5 it was drilled. It was one of the later wells that was
6 drilled in that three-well tier down there. Had good
7 reservoir rock but quite a bit of the reserve.

8 Q. Good porosity?

9 A. Yes, sir, it had good porosity. The "C" 2
10 Well has produced over a million barrels of oil. I
11 don't have the exact figures. But we drilled the "C" 3
12 too late in the life of the reservoir.

13 Q. Now, Pennzoil owns the northwest quarter of
14 this section?

15 A. Pennzoil and other partners, yes, sir.

16 EXAMINER CATANACH: Okay, I have no further
17 questions of the witness.

18 MR. KELLAHIN: Call Mr. Lonnie Whitfield at
19 this time.

20 LONNIE WHITFIELD,

21 the witness herein, after having been first duly sworn
22 upon his oath, was examined and testified as follows:

23 EXAMINATION

24 BY MR. KELLAHIN:

25 Q. Mr. Whitfield, would you describe for us your

1 name and your occupation?

2 A. Yes, sir, my name is Lonnie Whitfield. I'm
3 the District Land Manager for the Midcontinent Area,
4 which includes the Permian Basin.

5 Q. As part of your duties as a petroleum landman
6 for your company, have you verified the interest
7 ownership, both royalty and working interest, for
8 Section 16?

9 A. Yes, I have.

10 MR. KELLAHIN: We tender Mr. Whitfield as an
11 expert petroleum landman.

12 EXAMINER CATANACH: He is so qualified.

13 Q. (By Mr. Kellahin) Mr. Whitfield, let me
14 direct your attention, sir, to what is marked as
15 Exhibit Number 2.

16 A. Okay.

17 Q. Would you identify and describe the
18 information that you have compiled on Exhibit Number 2?

19 A. Yes, sir. This is a map which has the
20 working interest identified thereon. It shows the well
21 location which we are proposing. We do not have all of
22 the working-interest owners on this map, but we're
23 showing it as Pepco, et al.

24 We're also showing the wells that have been
25 drilled and the dry holes that have been drilled in the

1 area.

2 Q. When we look at the particular well location
3 as requested today, that well is moving closer to the
4 center of the 80-acre tract, and we have a spacing unit
5 proposed that will encompass, then, the working-
6 interest ownership and the royalty-interest ownership
7 for that spacing unit?

8 A. That is correct.

9 Q. We are also slightly unorthodox to the
10 northern boundary of that spacing unit.

11 Describe for us whether in your opinion we
12 have the same interest owners in the spacing unit as we
13 do in the northwest quarter of Section 16.

14 A. We do have the same interest owners exactly
15 in the rest of that section.

16 Q. The interest owners and the percentages of
17 working interest shared among those owners is
18 identical, is it not?

19 A. It is identical except for the south half of
20 the southwest quarter.

21 Q. All right, and you're moving farther away
22 from those zones?

23 A. That is correct.

24 Q. Are your royalty owners the same as well?

25 A. That is correct.

1 Q. That concludes my examination of Mr.
2 Whitfield.

3 We would move the introduction of Exhibit 2.

4 EXAMINER CATANACH: Exhibit Number 2 will be
5 admitted as evidence.

6 MR. KELLAHIN: That concludes our
7 presentation, Mr. Catanach.

8 EXAMINATION

9 BY MR. STOVALL:

10 Q. I have a question, Mr. Whitfield. On the
11 south half of the northwest quarter, you show a Well
12 Number 4, I believe that is; is that correct?

13 A. That is correct.

14 Q. Is that the proration unit for that well?
15 What is the -- Is that a producing proration unit? I
16 guess that's what I'm asking.

17 Q. The proration unit for that well is the east
18 half of the northwest quarter.

19 Q. And the west half of the northwest quarter is
20 not currently producing; is that correct?

21 A. That is correct.

22 Q. And the east half of the southeast -- or west
23 half of the southeast is not producing as well; is that
24 correct, or -- What's the dedication for Number 3? I
25 guess that's --

1 A. It's also a standup, being the east half of
2 the southeast quarter.

3 Q. So one of the two proration units that you're
4 encroaching on is producing and one is not, if I --

5 A. That's correct.

6 MR. STOVALL: Thank you.

7 EXAMINATION

8 BY EXAMINER CATANACH:

9 Q. Mr. Whitfield, do you know if Pennzoil has
10 any plans to drill a well in that west half of the
11 northwest?

12 A. I don't know if we have any plans. There's
13 always the possibility. I'm assuming it depends on how
14 this well comes in, which would give us more well
15 control.

16 (Off the record)

17 MR. STOVALL: Mr. Kellahin, did you have any
18 notice requirements on this?

19 MR. KELLAHIN: We saw no point in sending
20 notice to ourselves and therefore didn't.

21 (Off the record)

22 Q. (By Examiner Catanach) Mr. Whitfield,
23 besides Pennzoil, what other working interests are
24 there in the proposed well?

25 A. In the proposed well you've got -- Do you

1 just want a breakdown of the working-interest
2 ownership?

3 Q. Uh-huh.

4 A. Okay. Pennzoil owns -- or Pepco owns 53.87
5 percent.

6 FURTHER EXAMINATION

7 BY MR. STOVALL:

8 Q. Let me ask a follow-up question, just to save
9 you -- You seem to be thumbing through a lot of paper.
10 Is that remaining 47 percent broken up quite a bit?

11 A. It's not broken up that much. Let me go
12 ahead and give you the breakdown.

13 Okay, Pepco has 53.87 percent working
14 interest.

15 Quinoco, 16.45 percent working interest.

16 Tom Brown, Inc., 11.72 percent working
17 interest.

18 Marshall and Winston, 6.25 percent working
19 interest.

20 Dawson George and Robert Watson as trustees,
21 5.86 percent working interest.

22 Alison B. George, 2.93 percent working
23 interest.

24 And Ann B. Watson, 2.93 percent working
25 interest.

FURTHER EXAMINATION

BY EXAMINER CATANACH:

Q. These various working interests are aware that you are drilling at this unorthodox location?

A. That is correct.

Q. And they're all voluntarily participating in the well?

A. Well, we have -- They have not decided at this point whether or not they are going to participate. It is subject to a joint operating agreement. Their options are participate or do a nonconsent under the agreement. We don't know yet which option that will be.

Q. None of the working-interest owners have expressed any concern over the location?

A. No, they have not.

EXAMINER CATANACH: Okay, I have no further questions.

The witness may be excused.

Is there anything further in this case?

MR. KELLAHIN: No, sir.

EXAMINER CATANACH: If not, Case 9951 will be taken under advisement.

(Thereupon, these proceedings were concluded at 10:05 a.m.)

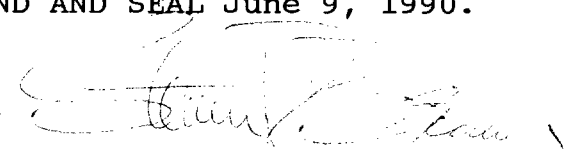
CERTIFICATE OF REPORTER

STATE OF NEW MEXICO)
) ss.
COUNTY OF SANTA FE)

I, Steven T. Brenner, Certified Shorthand Reporter and Notary Public, HEREBY CERTIFY that the foregoing transcript of proceedings before the Oil Conservation Division was reported by me; that I transcribed my notes; and that the foregoing is a true and accurate record of the proceedings.

I FURTHER CERTIFY that I am not a relative or employee of any of the parties or attorneys involved in this matter and that I have no personal interest in the final disposition of this matter.

WITNESS MY HAND AND SEAL June 9, 1990.


STEVEN T. BRENNER
CSR No. 106

My commission expires: October 14, 1990

I do hereby certify that the foregoing is a complete record of the proceedings in the Examiner hearing of Case No. 931, heard by me on May 30 1990.


_____, Examiner
Oil Conservation Division

Exhibits 1 and 2
Complete Set