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GARY C. FITZSIMMONS

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Direct Examination by Mr. Kellahin 4

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Cross Examination by Mr. Stogner 10

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E X H I B I T S

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Tenneco Exhibit One, Plat 4

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Tenneco Exhibit Two, Structure Map 6

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Tenneco Exhibit Three, Porosity Map 8

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Tenneco Exhibit Four, Return Receipts 9

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MR. STOGNER: Call Case Number

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8966.

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MR. TAYLOR: The application of

5

Tenneco Oil Company for an unorthodox oil well location, Lea

6

County, New Mexico.

7

MR. STOGNER: Call for appear-

8

ances.

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MR. KELLAHIN: If the Examiner

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please, I'm Tom Kellahin of the Santa Fe law firm of Kella-

11

hin and Kellahin, appearing on behalf of the applicant, and

12

I have one witness to be sworn.

13

MR. STOGNER: Are there any

14

other appearances?

15

Will the witness please stand

16

and be sworn at this time?

17

18

(Witness sworn.)

19

20

GARY C. FITZSIMMONS,

21

being called as a witness and being duly sworn upon his

22

oath, testified as follows, to-wit:

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DIRECT EXAMINATION

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BY MR. KELLAHIN:

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Q

Mr. Fitzsimmons, for the record would you please state your name and occupation?

5

6

A

Gary Fitzsimmons. I'm a Senior Geologist for Tenneco Oil.

7

8

Q

Mr. Fitzsimmons, as a geologist for Tenneco have you previously testified before the Oil Conservation Division?

9

10

11

A

Yes, I have.

12

Q

Pursuant to your employment have you made a study of the geology surrounding Tenneco's application for an unorthodox oil well location as advertised before the Division today?

13

14

15

A

Yes, I have.

16

17

MR. KELLAHIN: We tender Mr.

Fitzsimmons as an expert petroleum geologist.

18

19

MR. STOGNER: Mr. Fitzsimmons

is so qualified.

20

21

Q

Mr. Fitzsimmons, let me direct your attention to Exhibit Number One and have you first of all identify the proposed oil well location that you seek approval for.

22

23

24

25

A

Okay. The proposal is the location lo-

1 cated 330 from the north, 330 from the -- from the west, in
2 the northwest quarter of the northeast of Section 24.

3 Q The proposed oil well is to be drilled to
4 attempt a completion in what formation?

5 A The Range Lake zone of the Pennsylvanian.

6 Q And is this zone designated as a pool un-
7 der the rules of the Oil Conservation Division?

8 A As we understand it, yes.

9 Q And this is located in Lea County, New
10 Mexico.

11 A Yes.

12 Q What are the spacing rules for the Ranger
13 Lake Penn Pool, Mr. Fitzsimmons?

14 A Well, this location, if it was going to
15 meet the general rules, would have to be 660 off the north
16 and 660 off the west line of the northeast quarter.

17 Q And how many acres would you have to de-
18 dicate to the well?

19 A 80.

20 Q What is the proposed orientation or dedi-
21 cation of acreage to the well?

22 A Well, upright, as far as I know.

23 Q What is the closest well that has been
24 completed and produces out of the Ranger Lake Zone?

25 A The closest well to our proposed location

1 is a well that we drilled in the southwest of the -- south-
2 east of southwest quarter of Section 13, which is the State
3 "QE" 13-1. We've had this well on production over, a little
4 over a month.

5 Q Let's turn, sir, now to Exhibit Number
6 Two and would you identify for us Exhibit Number Two?

7 A Well, Exhibit Number Two is a seismically
8 integrated structure map on the Penn marker that we use to
9 determine the structure at that level.

10 Q Orient us as to the information depicted
11 on Exhibit Number Two, Mr. Fitzsimmons, by explaining to us
12 where the proposed location lies in relation to established
13 production.

14 A Okay. The proposed location lies in Sec-
15 tion 24. It's captioned, so captioned.

16 The bulk of the production for the Ranger
17 Lake Zone is located in Section 23, 26, and 27, which is
18 from the same zone that we're producing from our well in
19 Section 13.

20 The bulk of production seen in 14 is from
21 a different zone higher up in the section. What we're deal-
22 ing with is a stratigraphic trapping situation.

23 Original interpretation, we shot two seis-
24 mic lines, a diagonal designated 10,127, and a north/south,
25 this is a 10,126, were proprietary lines which we shot. Our

1 original interpretation had us being structurally equivalent
2 to what we see in the field, the Range Lake Field, which is
3 that located in 23, 26, and 27.

4 Subsequent to drilling the well we came
5 in approximately 50 feet to our prognosis, which really
6 created problems for us because in the northeast quarter of
7 Section 35 there is a dry hole that tested oil and water
8 just slightly structurally lower to our location up in Sec-
9 tion 13.

10 Our subsequent re-interpretation of the
11 seismic indicated that structurally, by going into an ortho-
12 dox location in Section 24, we want to run a real risk of
13 being located structurally down dip to this dry hole that
14 did test oil and water, and considering the risks, the ini-
15 tial risk of having our original interpretation being wrong,
16 we felt that we needed to reduce the structural risk as much
17 as possible while locating as up dip as possible in that
18 particular location, which would be the request we're making
19 now.

20 Q If you follow the oil/water contact
21 that's indicated on Exhibit Number Two, first of all ident-
22 ify how you have labeled or interpreted the location of the
23 oil/water contact on the exhibit.

24 A Okay. The oil/water contact is desig-
25 nated by that dashed line, hachured line, that is so marked,

1 oil/water contact, and assuming that that does indicate an
2 oil/water contact, that structural contour slightly down dip
3 to that well location, should approximate that line, and
4 then I just projected that contour interval up to the pros-
5 pect area.

6 Q As you have interpreted the proposed or
7 the anticipated oil/water contact, if the proposed location
8 is at a standard location, it is your opinion, then, that
9 there's a significant risk that you would be down structure
10 into the water.

11 A Yes, that's our interpretation at this
12 time.

13 Q And the proposed unorthodox location
14 places you at a point that you interpret to be above the
15 oil/water contact.

16 A Yes.

17 Q Let's turn to Exhibit Number Three, and
18 have you identify that exhibit.

19 A What this is is a total porosity map us-
20 ing a 6 percent cutoff, which means that anything less than
21 6 percent porosity as determined by log analysis was not
22 considered to be effective porosity for -- for our needs.

23 And this map originally was used to pro-
24 ject a thick trend of porosity thickness across the prospect
25 area. As you can see, we ended up with about 9 feet of ef-

1 on behalf of Tenneco and we move the introduction of
2 Exhibits One through Four.

3 MR. STOGNER: Exhibits One
4 through four will be admitted into evidence.

5

6

CROSS EXAMINATION

7

BY MR. STOGNER:

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Q One little discrepancy here I'd like to
get cleared up.

10

Has the well been drilled yet?

11

A

For the proposed location, no, it has not.

12

Q

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Okay. I advertised it as being 2308 feet
from the east line. I show -- where I got that information
was the copy of the C-102 which came with the application
and all other shows 2310 feet. That's a 2-foot discrepancy
and I believe we can overlook that since you have waivers at
this time, and we'll go ahead and continue with the adver-
tisement as is, unless, Mr. Kellahin, you have any -- any-
thing to add to that.

20

MR. KELLAHIN: No, sir.

21

Q

22

23

Let's refer back to Exhibit Number One.
What is Tenneco's relationship to Union Texas Exploration
with this particular 80 acres?

24

A

25

Well, we have a farmout option from them
and we have a time restraint.

1 Q What is that time restraint?

2 A Well, we -- at the present time we have
3 to spud in and be drilling by September 1st or we lose the
4 lease.

5 Q Okay. Are you familiar with the Ranger
6 Lake Pennsylvanian Pool rules?

7 A Well, I have experience with them. I'm
8 not an expert on the rules.

9 Q Okay.

10 A I know we have 80-acre spacing in the
11 field.

12 Q Okay. So this is unorthodox because the
13 pool rules state that you have to be 150 foot from the cen-
14 ter of either --

15 A Yes.

16 Q -- quarter quarter section?

17 A Yes, that's -- that's the rules that ap-
18 ply.

19 Q All right.

20 MR. STOGNER: I have no further
21 questions of Mr. Fitzsimmons at this time.

22 Are there any other questions
23 of this witness?

24 MR. KELLAHIN: No, sir.

25 MR. STOGNER: Mr. Fitzsimmons

1 may be excused.

2 Is there -- does anybody else
3 have anything further in Case Number 8966?

4 If not, this case will be taken
5 under advisement.

6

7 (Hearing concluded.)

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C E R T I F I C A T E

I, SALLY W. BOYD, C.S.R., DO HEREBY CERTIFY that the foregoing Transcript of Hearing before the Oil Conservation Division (Commission) was reported by me; that the said transcript is a full, true, and correct record of the hearing prepared by me to the best of my ability.

Sally W. Boyd CSR

I do hereby certify that the foregoing is a complete record of the proceedings in the Examiner hearing of Case No. 8966, heard by me on 10 August 1986.

Michael E. Rogers, Examiner
Oil Conservation Division

10/15/86