

1 STATE OF NEW MEXICO
2 ENERGY AND MINERALS DEPARTMENT
3 OIL CONSERVATION DIVISION
4 STATE LAND OFFICE BLDG.
5 SANTA FE, NEW MEXICO

6 17 June 1987

7 EXAMINER HEARING

8 IN THE MATTER OF:

9 Application of Texaco Producing, Inc. Case
10 for an unorthodox gas well location, 9152
11 Lea County, New Mexico.

12 BEFORE: Michael E. Stogner, Examiner
13

14 TRANSCRIPT OF HEARING

15 A P P E A R A N C E S
16

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20 Oil Conservation Division
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GARY KERN

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DALE RYAN

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MR. STOGNER: Call next Case
Number 9152.

Application of Texaco Producing,
Inc. for an unorthodox gas well location, Lea County, New
Mexico.

MR. STOGNER: Call for appear-
ances in this case.

MR. HALL: I'm Scott Hall with
the Campbell & Black Law Firm, Santa Fe, appearing on behalf
of the applicant.

We have two witnesses this
morning.

MR. STOGNER: Are there any
other appearances in this case?

Will the witnesses please stand
at this time?

(Witnesses sworn.)

MR. STOGNER: Mr. Hall.

GARY KERN,
being called as a witness and being duly sworn upon his
oath, testified as follows, to-wit:

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DIRECT EXAMINATION

BY MR. HALL:

Q For the record please state your name and your place of residence.

A Okay. My name is Gary Kern and I'm -- I reside in Midland, Texas.

Q By whom are you employed?

A I'm employed by Texaco, Incorporated, as a Division Proration Engineer.

Q And you've previously testified before the OCD or its examiners, have you not?

A Yes, I have.

MR. HALL: Is the witness qualified?

MR. STOGNER: Mr. Kern is so qualified.

Q All right. Are you familiar with the application filed in this case?

A Yes, I am.

Q And have you made a study of the subject area?

A Yes, I have.

Q What is it that Texaco is seeking by this application?

1 A Texaco is seeking an unorthodox location
2 for the McKee Gas Pool, which is a wildcat in this area. I
3 might add that we are also, or we have applied for orthodox
4 locations in both the Devonian and Pennsylvanian Pools and
5 those would be the -- in particular the Vacuum Devonian Pool
6 Area and the Vacuum Upper Pennsylvanian Pool.

7 Q But you have one location, three comple-
8 tions, is that correct?

9 A That is correct.

10 Q Are you familiar with the pool rules in
11 the area?

12 A Yes, I am.

13 Q Okay, what are the well location require-
14 ments with respect to the pool rules?

15 A The well location requirements call for
16 locations of 1980 feet from the end boundary and 660 from
17 the side boundary, without being closer than 330-foot to any
18 quarter/qauarter section.

19 Q All right, let's look at Exhibit One, if
20 you could identify that and explain that to the Examiner.

21 A Okay. Exhibit One, first of all there
22 are several things I've attempted to show here.

23 In the upper part there under Sections 35
24 and 36 I've shown the areas which are designated, or desig-
25 nate the Vacuum Devonian Pool Area, and that's the thinner

1 hatched line, which includes the northeast quarter of Sec-
2 tion 35 as well as the west half of Section 36.

3 I've also shown in the darker hatching
4 the pool area of the Vacuum Upper Pennsylvanian Pool, and it
5 includes all of Section 36 and the west half of Section 31.

6 In addition, I've shown in the middle
7 part of the page under the New Mexico R State NCT 3 TN
8 Lease, which is the south half of Section 1, it's a 320-acre
9 lease, I've shown the areas where Texaco can drill both De-
10 vonian Pennsylvanian wells which the pool rules are the same
11 for, and -- as well as the McKee wildcat test.

12 The McKee wildcat test would have legal
13 locations where the squares are indicated and those match
14 the field rules that I have previously testified to.

15 The circle areas match where we could
16 drill a Devonian or Pennsylvanian Pool well. I might note
17 that the red arrow to the dot indicates where our proposed
18 well location is.

19 There's only two real areas there where
20 we could drill orthodox locations in all three pools. The
21 location we have proposed is orthodox for the Devonian and
22 the Pennsylvanian, which are our primary objectives.

23 Q All right, let's look at Exhibit Two. If
24 you would identify that and explain that to the Examiner.

25 A Exhibit Two is a map. This just basical-

1 ly shows this same -- the same area, and just to get the
2 bearings straight, Section 1 is located in the upper left
3 corner and it shows the wells that produce, or really the
4 formations that produce in this area. There are the Gray-
5 burg-San Andres, the Glorieta, the Drinkard, the Abo, and
6 the Devonian. Some Devonian production is shown here in the
7 southeast -- southeast quarter of Section 7. There are also
8 some to the north, which this map doesn't encompass, but
9 which are -- which are encompassed in the pool areas which
10 I've previously testified to in Exhibit One.

11 Q All right, and what's the primary produ-
12 cing interval in this area?

13 A Primarily the Grayburg-San Andres and
14 it's under waterflood in this area.

15 Q Okay. Let's look at Exhibit Three, which
16 I believe are your OCD filings.

17 A Exhibit Three constitute the approved
18 copies of the C-101s and 102s which were filed in the Hobbs
19 OCD Office. They were approved, let's see, I guess it was
20 on May 21st and signed by -- the originals were signed by
21 Paul Kautz, the geologist, and they were approved with the
22 notation that no production for McKee gas would be author-
23 ized until the unorthodox location is approved, which is
24 what we're seeking here today.

25 Q While we're on the C-101, is there some

1 sort of discrepancy with the well name for this location?

2 A Yes, there is. There was -- when we ori-
3 ginally made application we had had some discussions with
4 the OCD here in Santa Fe, and they indicated that the well
5 should -- should be classified as the New Mexico R State NCT
6 3 Well No. 24 TN, and that's how we originally filed the ap-
7 plication.

8 And then when it got to Hobbs they ad-
9 vised us that TN could not be in the well name, so we then
10 changed the lease name to the New Mexico R State NCT 3 TN
11 Well No. 24.

12 There may be a little confusion even on
13 some of the exhibits here today in regard to that well and
14 lease designation.

15 MR. STOGNER: What's the proper
16 name of it? New Mexico R State NCT 3 TN Well No. 24.

17 A Yeah, thqt's -- that's what was approved
18 at the OCD Office in Hobbs.

19 Q Now, I understand that your location is
20 standard with respect to a Devonian, is that correct?

21 A That is correct. The Devonian and Penn-
22 sylvanian also.

23 Q Because you're also completing in the
24 McKee, is that what's necessitating the unorthodox applica-
25 tion?

1 A That is correct.

2 Q All right. Do you believe that produc-
3 tion from the McKee should be penalized due to the unorthodox
4 location?

5 A No, I do not.

6 Q Okay. Well, if it is penalized, what --
7 will that affect Texaco's plans at all?

8 A Yes. The geological witness who will
9 come on after me will testify probably more to this, but the
10 McKee is a high risk test, and in fact, the only reason
11 we're really testing it is because we are drilling a well to
12 the Devonian and Pennsylvanian. Really the Devonian is our
13 primary objective, but due to the proximity to the McKee, we
14 feel like that a test of the McKee is actually warranted
15 here.

16 Q All right. Let's look at Exhibit Four.
17 Have you directed that a notice be provided to all offset
18 operators are required by the OCD rules?

19 A Yes, we have.

20 Q And does Exhibit Four reflect that?

21 A Yes, it does.

22 Q Exhibit Five, if you would look at that,
23 please. Who are the offset operators?

24 A Okay. The offset operators are Marathon
25 Oil to the -- which is due east of our location, which is

1 the direction which is the unorthodox location, as well as
2 Exxon Corporation, which is immediately to the south.

3 Q All right, and have you sought and ob-
4 tained waivers from those offset operators?

5 A Yes, we have.

6 Q And are they evidenced by Exhibit Five?

7 A Yes, they are.

8 Q Mr. Kern, do you believe that granting
9 Texaco's application will be in the best interests of con-
10 servation, the protection of correlative rights and the pre-
11 vention of waste?

12 A Yes, I do.

13 Q What is the present status of the well?

14 A Okay, the well, in fact I checked this
15 morning, the well is actually drilling at -- well, we've
16 made -- we've drilled 14-1/2 inch, what we call a pilot
17 hole. This is in an area of severe waterflows, and so we're
18 setting -- we're going to set a 20-inch surface casing, or a
19 20-inch casing here down to 1563 feet.

20 We've made the 14-1/2 inch or 14-3/4 inch
21 pilot hole and we're now coming in and drilling that hole
22 out to 24 inches in which we're currently at 859 feet.

23 Q Well, because drilling is underway is an
24 expedited order necessary in this case?

25 A We would like it to be expedited as we

1 feel that we could conceivably be at the McKee, or testing
2 the McKee, sometime around mid-July.

3 Q All right, were Exhibits One through Five
4 prepared by you or at your direction?

5 A Yes, they were.

6 MR. HALL: We offer Exhibits
7 One through Five and that concludes our direct of this
8 witness.

9 MR. STOGNER: Exhibits One
10 through Five will be admitted into evidence.

11

12 CROSS EXAMINATION

13 BY MR. STOGNER:

14 Q Mr. Kern, when was this well spudded?

15 MR. RYAN: 6-8-87.

16 A On June 8th, '87.

17 Q June 8, '87. So this well was spudded
18 between the time you made the application until today.

19 A We originally thought that we would -- we
20 could get an administratively approved unorthodox location.
21 We found out different.

22 Q Okay, that's due to it only being 660
23 foot from the end boundary, is that correct?

24 A That's correct.

25 Q When I refer to Exhibit Number Two --

1 A Okay.

2 Q -- you show over there in your legend Abo
3 production is shown in the purple and Devonian production is
4 shown with a circle. What is the one between that, the
5 orange field with a little black dot?

6 A Do you mean the unlabeled?

7 Q Yeah, the unlabeled production.

8 MR. RYAN: That's Abo Reef
9 and the one that says Abo production is Abo Back Reef.
10 They're both Abo production.

11 MR. STOGNER: I've got some
12 questions from you, or answers from you. Would you identify
13 yourself?

14 MR. RYAN: My name is Dale Ryan
15 and I work for Texaco as an exploration geologist in Denver,
16 Colorado.

17 MR. STOGNER: All right, just
18 for the record.

19 Okay, I have no further ques-
20 tions for Mr. Kern at this time.

21 He may be excused. Mr. Hall?

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23 DALE RYAN,
24 being called as a witness and being duly sworn upon his
25 oath, testified as follows, to-wit:

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DIRECT EXAMINATION

BY MR. HALL:

Q Mr. Ryan, have you ever testified before the OCD before?

A No, sir, I have not.

Q Why don't you give the hearing examiner a brief summary of your educational background and work experience?

A I have a Master's degree in geology from the University of Akron. I've worked for Texaco as an exploration geologist for slightly longer than seven years, all of which time in the Permian Basin, West Texas and New Mexico.

Q All right. Are you familiar with the application in this case?

A Yes, I am.

Q And are you familiar with the subject well?

A Yes, I am.

MR. HALL: We'd offer Mr Ryan as a qualified geologist.

MR. STOGNER: Mr. Ryan is so qualified.

Q Mr. Ryan, have you prepared certain

1 exhibits and conducted a study in connection with this
2 application?

3 A Yes, I have.

4 Q All right, let's look at those exhibits.
5 If you'd turn to your Exhibit Six and explain that to the
6 Examiner.

7 A Exhibit Number Six is a base of Woodford
8 structural map, which represents the structural top of the
9 Devonian. It demonstrates the structural closure on the
10 prospect that is currently being drilled by Texaco.

11 The circled well with a vertical slash
12 indicates the location of the currently drilling well which
13 Mr. Kern referred to.

14 The triangular location demonstrates the
15 position of the orthodox location for both McKee and Devon-
16 ian, which Gary referred to on his previous exhibit.

17 This map demonstrates that the orthodox
18 location for both McKee and Devonian would be structurally
19 down dip by approximately 160 feet to the position of the
20 well currently being drilled for the Devonian.

21 Q All right, so structure was one of the
22 most important considerations?

23 A Yes, sir.

24 Q In spotting your location?

25 A That's correct.

1 Q All right. Again we've asked Mr. Kern
2 this, so why is the unorthodox location necessary?

3 A We feel that this is the best location to
4 test both the McKee and Devonian horizons and in addition,
5 the Pennsylvanian horizon and that we may be sacrificing a
6 commercial well by drilling the initial test at an unortho-
7 dox location for both zones.

8 Q All right. Let's look at Exhibit Six.
9 Oh, I'm sorry, Exhibit Seven.

10 Would you identify that and explain that
11 to the Examiner?

12 A Exhibit Seven, yeah, Exhibit Seven is a
13 top of McKee sand structure map and it demonstrates the
14 structural configuration at the McKee horizon.

15 Also indicated on the map are a number of
16 Simpson and specifically McKee penetrations, of which there
17 are only two McKee penetrations in this entire area, which
18 is the basis for wanting to take -- to justify taking the
19 Devonian well, which is the primary target, into the McKee.

20 Q All right, oh, well, do you -- if a pro-
21 duction penalty is imposed, what will Texaco's plans be?

22 A I would think that we would re-evaluate
23 the program and there's a possibility that we would not take
24 this well to the McKee.

25 Q All right, would a penalty of any kind

1 render the McKee completion uneconomic?

2 A Yes, I believe it would.

3 Q Mr. Ryan, in your opinion will the
4 granting of Texaco's application be in the best interests of
5 conservation, the prevention of waste and protection of
6 correlative rights?

7 A Yes, it would.

8 Q Were Exhibits Six and Seven prepared by
9 you or at your direction?

10 A Yes, they were.

11 MR. HALL: We'll offer Exhibits
12 Six and Seven and that concludes our direct of this witness.

13 MR. STOGNER: Exhibits Six and
14 Seven will be admitted into evidence at this time.

15

16 CROSS EXAMINATION

17 BY MR. STOGNER:

18 Q Mr. Ryan, referring to Exhibit Number
19 Six, you show the well up in Section 26 in the far upper
20 lefthand corner to be a dry hole, but referring to the well
21 down in Section 35 in the extreme lower righthand corner --

22 A Are you referring to Exhibit Six or
23 Seven?

24 Q I'm sorry, Exhibit Seven.

25 A Okay.

1 Q My apology.

2 A Could you please ask that again?

3 Q Yeah. I'm referring now to the well down
4 in Section 35 in the extreme lower righthand corner.

5 A Yes, sir.

6 Q Is that well presently producing?

7 A I believe the well is producing from the
8 Devonian formation.

9 Q Was it ever commercially completed in the
10 McKee?

11 A No, sir, it was not. It tested subcom-
12 mercial quantities of gas and quite an amount of condensate
13 from the McKee formation.

14 Q And how about the two wells above that?

15 A Those wells penetrated the Simpson, did
16 not penetrate the McKee, which is located at the base of the
17 Simpson formation, and were not productive from -- from that
18 horizon and are productive from shallower zones.

19 Q So you only have these two wells as well
20 control in the McKee, right?

21 A I have the well to the north in Section
22 26 and the well in Section 35, that's correct, as McKee pen-
23 etrations.

24 Q Okay. To help you evaluate this did you
25 utilize geophysical data to come up with all those frac-

1 tures?

2 A Yes, we did.

3 Q Okay.

4 MR. STOGNER: Are there any
5 other questions of Mr. Ryan?

6 If not, he may be excused.

7 Mr. Hall, do you have anything
8 further in this case?

9 MR. HALL: Nothing further.

10 MR. STOGNER: Does anybody else
11 have anything further in Case Number 9152?

12 If not, this case will be taken
13 under advisement.

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15 (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 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 prepared by me to the best of my ability.

Sally W. Boyd CSR

I do hereby certify that the foregoing is a complete and correct transcript of the examination of the transcript of the hearing by me on April 7 9/52
87
Michael S. Hynes Examiner
Oil Conservation Division