

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:)	CASE NO. 11,385
)	
APPLICATION OF TEXACO EXPLORATION)	
AND PRODUCTION, INC.)	
)	

REPORTER'S TRANSCRIPT OF PROCEEDINGS

EXAMINER HEARING

ORIGINAL

BEFORE: DAVID R. CATANACH, Hearing Examiner

September 21, 1995

Santa Fe, New Mexico

This matter came on for hearing before the New Mexico Oil Conservation Division, DAVID R. CATANACH, Hearing Examiner, on Thursday, September 21st, 1995, at the New Mexico Energy, Minerals and Natural Resources Department, Porter Hall, 2040 South Pacheco, Santa Fe, New Mexico, Steven T. Brenner, Certified Court Reporter No. 7 for the State of New Mexico.

* * *

STEVEN T. BRENNER, CCR
 (505) 989-9317

I N D E X

September 21st, 1995
 Examiner Hearing
 CASE NO. 11,385

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APPLICANT'S WITNESSES:

<u>ROBERT H. HEIMKE</u> (Geophysicist)	
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E X H I B I T S

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* * *

A P P E A R A N C E S

FOR THE APPLICANT:

CAMPBELL, CARR & BERGE, P.A.
 Suite 1 - 110 N. Guadalupe
 P.O. Box 2208
 Santa Fe, New Mexico 87504-2208
 By: WILLIAM F. CARR

* * *

1 WHEREUPON, the following proceedings were had at
2 10:40 a.m.:

3 EXAMINER CATANACH: Okay, at this time we'll call
4 Case 11,385, the Application of Texaco Exploration and
5 Production, Inc., for an unorthodox location, Eddy County,
6 New Mexico.

7 Are there appearances in this case?

8 MR. CARR: May it please the Examiner, my name is
9 William F. Carr with the Santa Fe law firm Campbell, Carr
10 and Berge.

11 We represent Texaco Exploration and Production in
12 this case, and I have one witness.

13 EXAMINER CATANACH: Any other appearances?

14 Will the witness please stand to be sworn in?

15 (Thereupon, the witness was sworn.)

16 ROBERT H. HEIMKE,
17 the witness herein, after having been first duly sworn upon
18 his oath, was examined and testified as follows:

19 DIRECT EXAMINATION

20 BY MR. CARR:

21 Q. Would you state your name for the record, please?

22 A. Bob Heimke.

23 Q. And where do you reside?

24 A. In Midland.

25 Q. By whom are you employed?

1 A. Texaco.

2 Q. And what is your current position with Texaco?

3 A. I'm a geophysicist.

4 Q. Mr. Heimke, have you previously testified before
5 the Oil Conservation Division?

6 A. Yes, I have.

7 Q. At the time of that prior testimony, were your
8 credentials as a geophysicist accepted and made a matter of
9 record?

10 A. Yes, they were.

11 Q. Are you familiar with the Application filed in
12 this case on behalf of Texaco?

13 A. Yes.

14 Q. And have you made a geophysical study of the area
15 which is the subject of this case?

16 A. Yes, I have.

17 MR. CARR: Are the witness's credentials
18 acceptable?

19 EXAMINER CATANACH: Yes, they are.

20 Q. (By Mr. Carr) Mr. Heimke, would you briefly
21 summarize for Mr. Catanach what Texaco seeks with this
22 Application?

23 A. Texaco seeks approval of an unorthodox well
24 location for its Dow "B-28" Federal Well Number 1, located
25 1028 feet from the south line and 1227 feet from the east

1 line of Section 28, Township 17 South, Range 31 East.

2 Q. In what pools do you propose to complete this
3 well?

4 A. We propose to attempt a completion in the Siluro-
5 Devonian formation, a 40-acre spacing unit, southeast
6 quarter of the southeast.

7 And if that is not successful, we will attempt a
8 Morrow formation completion in the Undesignated East Cedar
9 Lake-Morrow Gas Pool. That's 320-acre spacing, south half
10 of Section 28.

11 Q. Texaco's primary objective in the well is the
12 Devonian?

13 A. Yes, it is.

14 Q. What are the well-location requirements for this
15 formation?

16 A. For a Siluro-Devonian formation it's 40-acre
17 spacing, 330-foot setbacks.

18 Q. So in the Devonian formation we're actually only
19 moving toward ourselves; is that correct?

20 A. Yes, that's correct.

21 Q. And what are the well-location requirements for
22 the Undesignated East Cedar Lake-Morrow Gas Pool?

23 A. For a Morrow gas pool it's 320-acre spacing, 660
24 feet from the sidelines, 1980 feet from the lease end
25 lines.

1 Q. And in this formation we're encroaching on the
2 east and southeast offsets?

3 A. Yes, we are.

4 Q. Let's go to Texaco Exhibit Number 1. Would you
5 identify that and review it for Mr. Catanach?

6 A. Sure. This is a base map that shows our location
7 primarily in Section 28. I have an arrow pointing to it.
8 All the yellow acreage is Texaco's, the pink acreage are
9 the offset operators.

10 In Section 28 you can see that I have the 320-
11 acre south half of 28 gas pool outlined and the 40-acre
12 southeast of the southeast outlined also. The greenish
13 blue dots on the map are the Morrow production in the area,
14 and also notice that there is no Devonian production
15 established in this area as of now.

16 Q. There is a dryhole, is there not, in the
17 northeast of the southwest of Section 28? Is that a Morrow
18 well?

19 A. Yes, that -- Yes, we drilled a Morrow well there
20 and we plugged that. That was unsuccessful in the Morrow.

21 Q. Behind the plat is a list of the offset
22 operators, is there not?

23 A. Yes.

24 Q. And they are identified by the tract in which
25 they are actually located; is that right?

1 A. Yes.

2 Q. Now, let's go to what has been marked for
3 identification as Texaco Exhibit Number 2. Would you
4 identify and review that?

5 A. Yes, Exhibit Number 2 is a Devonian structure
6 map, generated from a 3-D seismic survey in the area. I
7 have a red dot right in the center, is the proposed
8 location. The red line that goes across it we'll identify
9 as the seismic line that I will show you later.

10 But you can see from the Devonian structure, it's
11 a faulted structure, several horst blocks, and we would
12 like to test the center of the highest fault block on the
13 feature.

14 Q. Let's move to Exhibit Number 3. What is that?

15 A. Exhibit Number 3 is a seismic line from the 3-D
16 survey, east-west direction, and you can see the different
17 fault blocks from the seismic line. The Devonian is the
18 green event towards the bottom. And again, our proposed
19 location is identified, right in the center of the highest
20 horst block, we would again like to test.

21 Q. How many feet of pay do you anticipate you could
22 again encounter at this location?

23 A. As far as porosity in the Devonian, from wells in
24 the area, anywhere from 50 to 70 feet of porosity have been
25 identified.

1 Q. And what is the reservoir drive mechanism in this
2 pool?

3 A. It is a water drive.

4 Q. It's a bottom water drive?

5 A. Yes.

6 Q. So by locating the well at the top of the
7 structure, you can most efficiently drain all of the
8 reserves available in this feature?

9 A. Yes.

10 Q. In your opinion, what would be the result of
11 having to develop this particular acreage from a well at a
12 standard location?

13 A. We would not be able to drill the center of the
14 high horst block, and we might not encounter oil and gas.
15 We might drill a location that's downdip from the oil-water
16 contact.

17 And we would like to give ourselves the best shot
18 and obviously drill the center of the highest horst block
19 and not drill any location that's downdip from the highest
20 feature.

21 Q. If required to drill at a standard location,
22 could that result in a well being drilled that would
23 ultimately leave reserves in the ground?

24 A. Yes.

25 Q. If you're unsuccessful in making a well in the

1 Devonian, what are the prospects for making a successful
2 well in the Morrow?

3 A. There is an opportunity, if the Devonian is
4 unsuccessful, to come uphole and test the Morrow. There
5 are Morrow production -- Morrow production is established
6 in the area, as you can see from the greenish-blue dots
7 from Exhibit 1.

8 So we would like that opportunity to come up and
9 test the Morrow if the Devonian is unsuccessful.

10 Q. But the Morrow is truly just a secondary or
11 salvage sort of a zone in this area; isn't that right?

12 A. Yes, it is. As a matter of fact, we have a
13 Morrow dryhole already in Section 28, so our primary
14 objective is indeed to drill the Devonian.

15 Q. Is Exhibit Number 4 an affidavit confirming that
16 notice of this Application and hearing has been provided to
17 all the offset operators identified on those pages attached
18 to Exhibit 1?

19 A. Yes.

20 Q. In your opinion, will approval of this
21 Application and the drilling of the proposed well be in the
22 best interest of conservation, the prevention of waste and
23 the protection of correlative rights?

24 A. Yes.

25 Q. Were Exhibits 1 through 4 either prepared by you

1 or have you reviewed them and can you testify as to their
2 accuracy?

3 A. Yes.

4 MR. CARR: Mr. Catanach, at this time we would
5 move the admission into evidence of Texaco Exhibits 1
6 through 4.

7 EXAMINER CATANACH: Exhibits 1 through 4 will be
8 admitted as evidence.

9 EXAMINATION

10 BY EXAMINER CATANACH:

11 Q. Has Texaco utilized this type of seismic data to
12 identify Devonian structures in the past?

13 A. Yes.

14 Q. Is it successful?

15 A. In some places, yes.

16 Q. Did you testify that this was a water-drive
17 reservoir?

18 A. Yes.

19 Q. And how do you know that?

20 A. I talked with the engineers working on the
21 project.

22 Q. There's been no production established in this
23 reservoir; is that correct?

24 A. That's correct. There is no Devonian production
25 in this township.

1 However, there is some Devonian production up to
2 the northwest, the Little Lucky Lake field -- that's a
3 water drive mechanism -- and some other Devonian production
4 within a 20-mile radius. Those are also water drive.

5 Q. So they're just guessing by analogy?

6 A. Yes, that's absolutely correct.

7 Q. Okay.

8 A. Just an analogy.

9 Q. Your proposed location represents the highest
10 point on that structure?

11 A. Yes, and also the center of the horst block. We
12 might be able to get, you know, from a strictly structural
13 point, a higher location further to the north, but then we
14 would be too close to the faults, we feel. So a
15 combination of the highest structural point and the center
16 of the horst block.

17 Q. Why is it important to be in the center of that
18 horst block?

19 A. Well, from a risk assessment and the resolution
20 of the seismic, you would like to give yourself the benefit
21 of the doubt and avoid the chance of drilling on the
22 downthrown side of one of those faults, and therefore you
23 would want to drill the center of it.

24 Q. Where is the -- You mentioned a well in Section
25 28 that was a dry Morrow producer, dryhole?

1 A. Yes, it's located in the northeast of the
2 southwest, the 1 B.

3 Q. That was -- That tested nonproductive in the
4 Morrow?

5 A. Yes, it was a -- quite a shaly sand, and
6 nonreservoir quality.

7 Q. What are the chances of this -- your proposed
8 well being a Morrow producer?

9 A. Actually, they're pretty poor because of the well
10 that we already drilled in Section 28.

11 But if the Devonian is unsuccessful, as I stated
12 earlier -- and it is a wildcat, so there is a good element
13 of risk there -- we would like the opportunity to go up and
14 test the Morrow.

15 Q. All of Section 28 is operated by Texaco; is that
16 correct?

17 A. Yes.

18 Q. Okay. Do you know if that's a single lease or
19 what the lease situation is on that?

20 A. It's part of a unit, but I know we do have the
21 entire Section 28.

22 A. There's a dashed line on your Exhibit Number 1.
23 Do you know if that is the unit boundary?

24 A. Yes, that's a unit boundary. It's an old Skelly
25 unit that Texaco used to operate. We still have the deep

1 rights in the entire section of 28.

2 Q. So a portion of the -- If you were to form a
3 south-half Morrow spacing unit, a portion would be in and
4 out of the unit; is that correct, it appears?

5 A. Yes, but that unit is a shallow unit.

6 Q. It doesn't have any effect on the deep rights?

7 A. No.

8 Q. Okay. Did you testify that at the proposed
9 location you were going to encounter 50 to 70 feet of
10 pay --

11 A. From --

12 Q. -- in the Devonian?

13 A. From other wells in the area, they tested, oh,
14 about a 50- to 70-foot zone in the Devonian that they had
15 perf'd, and they were unsuccessful.

16 So from a correlative standpoint, from other deep
17 wells in the township, there appear to be a 50- to 70-foot
18 porosity zone in the upper part of the Devonian.

19 Q. Is that what -- What porosity cutoff is it?

20 A. I don't remember.

21 Q. The other wells that have been drilled in the
22 township have been nonproductive in the Devonian?

23 A. Yes.

24 EXAMINER CATANACH: Okay, I believe that's all I
25 have, Mr. Carr.

1 MR. CARR: We have nothing further in this case,
2 Mr. Catanach.

3 EXAMINER CATANACH: Okay, there being nothing
4 further, Case 11,385 will be taken under advisement.

5 (Thereupon, these proceedings were concluded at
6 10:55 a.m.)

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21 I do hereby certify that the foregoing is
22 a complete record of the proceedings in
the examiner hearing of Case No. 11385.
23 heard by me on 9/21 1988.
24 David R. Catanach, Examiner
Oil Conservation Division
25

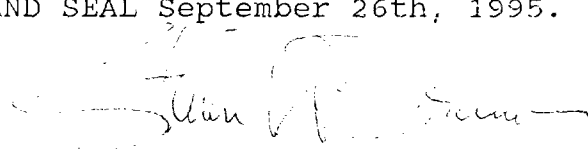
CERTIFICATE OF REPORTER

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

I, Steven T. Brenner, Certified Court 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 September 26th, 1995.



STEVEN T. BRENNER
CCR No. 7

My commission expires: October 14, 1998