

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:)
APPLICATION OF TEXACO EXPLORATION AND)
PRODUCTION, INC., FOR AN UNORTHODOX)
SUBSURFACE GAS WELL LOCATION AND AN)
EXCEPTION TO DIVISION RULE 104.D (3),)
LEA COUNTY, NEW MEXICO)

CASE NO. 12,743

ORIGINAL

REPORTER'S TRANSCRIPT OF PROCEEDINGS

EXAMINER HEARING

BEFORE: DAVID R. CATANACH, Hearing Examiner

November 1st, 2001

Santa Fe, New Mexico

OIL CONSERVATION DIV.
01 NOV 15 PM 2:08

This matter came on for hearing before the New Mexico Oil Conservation Division, DAVID R. CATANACH, Hearing Examiner, on Thursday, November 11th, 2001, at the New Mexico Energy, Minerals and Natural Resources Department, 1220 South Saint Francis Drive, Room 102, Santa Fe, New Mexico, Steven T. Brenner, Certified Court Reporter No. 7 for the State of New Mexico.

* * *

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November 1st, 2001
 Examiner Hearing
 CASE NO. 12,743

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* * *

A P P E A R A N C E S

FOR THE DIVISION:

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 By: WILLIAM F. CARR

* * *

1 WHEREUPON, the following proceedings were had at
2 10:22 a.m.:

3 EXAMINER CATANACH: At this time we'll call Case
4 12,743, which is the Application of Texaco Exploration and
5 Production, Incorporated, for an unorthodox subsurface gas
6 well location and an exception to Division Rule 104.D (3),
7 Lea County, New Mexico.

8 Call for appearances.

9 MR. CARR: May it please the Examiner, my name is
10 William F. Carr with the Santa Fe law firm Holland and
11 Hart, L.L.P. We represent Texaco Exploration and
12 Production, Inc., and I have two witnesses.

13 EXAMINER CATANACH: Any additional appearances?
14 Will the two witnesses please stand to be sworn
15 in?

16 (Thereupon, the witnesses were sworn.)

17 CHARLES R. WOLLE,
18 the witness herein, after having been first duly sworn upon
19 his oath, was examined and testified as follows:

20 DIRECT EXAMINATION

21 BY MR. CARR:

22 Q. Will you state your name for the record, please?

23 A. Charles R. Wolle, W-o-l-l-e.

24 Q. Where do you reside?

25 A. Midland, Texas.

1 Q. By whom are you employed?

2 A. I'm employed by Texaco Exploration and
3 Production, Inc.

4 Q. Mr. Wolle, have you previously testified before
5 this Division?

6 A. Yes, I have.

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

10 A. Yes, they were.

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

13 A. I am.

14 Q. Are you familiar with Texaco's proposal to
15 simultaneously dedicate two Abo gas wells in a 160-acre
16 spacing unit in Section 12?

17 A. Yes, I am.

18 MR. CARR: Are the witness's qualifications
19 acceptable?

20 EXAMINER CATANACH: They are.

21 Q. (By Mr. Carr) Would you initially summarize for
22 Mr. Catanach what it is that Texaco seeks with this
23 Application?

24 A. We seek authorization to recomplete our C.H. Weir
25 "A" Well Number 7, which is located 1985 feet from the

1 south line and 660 feet from the west line of Section 12,
2 Township 20 South, Range 37 East, in Lea County, into the
3 Skaggs-Abo Gas Pool by kicking off in a northern direction
4 and drilling horizontally an approximate distance of 1645
5 feet within an existing nonstandard 160-acre gas spacing
6 unit, such that the resulting producing area extends to
7 within 330 feet from the northern boundary of this unit.

8 We also seek authorization to simultaneously
9 dedicate this nonstandard spacing unit in the Skaggs-Abo
10 pool to the C.H. Weir "A" Well Number 7 and to the existing
11 C.H. Weir "A" Well Number 14, which is located at a
12 standard gas well location 1980 feet from the south line
13 and 1815 feet from the west line of Section 12.

14 Q. Mr. Wolle, what rules govern the development of
15 the Abo formation in this area?

16 A. They're governed by the General Rules of the
17 Division, Rule 104.C These wells provide for a 160-acre
18 spacing unit with wells located 660 feet from the outer
19 boundary of the dedicated unit.

20 Q. Now, you indicated there was previously approved
21 a nonstandard spacing unit in the Abo formation?

22 A. Yes, sir.

23 Q. And could you provide information on that,
24 please?

25 A. The nonstandard spacing unit, comprised of the

1 south half of the northwest quarter and the north half of
2 the southwest quarter, was approved by Division Order
3 Number R-7179, Case Number 7761, in January 5th, 1983.

4 Q. You have prepared exhibits for presentation here
5 today?

6 A. Yes, I have.

7 Q. Let's go to what has been marked for
8 identification as Texaco Exhibit Number 1. Would you
9 identify this and review it, please?

10 A. This is an orientation map of the area that we're
11 looking at. The Texaco-operated acreage is highlighted in
12 yellow. The proration unit that I just spoke of has the
13 dark boundary around it.

14 The wells that are shown on this map are only the
15 wells that were drilled to a depth of 6800 feet and below.
16 The six wells that have large circles around them are wells
17 that are now producing or have in the past produced from
18 the Abo formation.

19 Q. If we look at this map, first of all, what is
20 shaded in yellow?

21 A. That is the Texaco-operated acreage.

22 Q. And there are also contours on this; it's a
23 structure map. Will those be reviewed by a later witness?

24 A. They will be reviewed by a geological witness,
25 yes, sir.

1 Q. If we look at the section in question, we have
2 how many spacing units in that section?

3 A. There are four spacing units.

4 Q. And would you identify them, please?

5 A. Yes, sir, the spacing unit that I've previously
6 referenced, and immediately to the east of that is another
7 160-acre spacing unit. The north half of the north half of
8 the section is a 160-acre spacing unit that Conoco had an
9 Abo well on, and the south half of the south half of the
10 section is a 160-acre spacing unit that is operated by
11 Texaco where we have an active Abo producing well.

12 Q. That's 100-percent Texaco?

13 A. That's correct.

14 Q. If we go to the north half of the north half,
15 that is the Conoco unit

16 A. That's correct.

17 Q. You're seeking for the bottomhole location to be
18 330 feet from the north line of your spacing unit,
19 encroaching on Conoco; is that right?

20 A. Yes, sir.

21 Q. Their Abo well in the north half, north half,
22 produced from a location 330 feet off that common boundary
23 with the Texaco property to the south; is that correct?

24 A. Yes, sir, their well was located 990 feet from
25 the north line of the section.

1 Q. Is Exhibit Number 2 a copy of the administrative
2 application that was filed in this case?

3 A. Yes, it is.

4 Q. And attached to that are copies of the notice
5 letters that were provided of this hearing, and return
6 receipts?

7 A. That is correct.

8 Q. The original notification to the parties provided
9 information on the location and the bottomhole location of
10 the well, did they not?

11 A. Yes, that is correct.

12 Q. Now, if we look at Exhibit Number 1, is the
13 ownership in the 160 spacing unit to the east of the
14 subject spacing unit common with the ownership in the
15 spacing unit that's the subject of this hearing?

16 A. That is correct.

17 Q. If we go south you've got 100 percent Texaco?

18 A. That is correct.

19 Q. If we go to the west you have a spacing unit. Is
20 the ownership common in that Texaco-operated spacing unit?

21 A. There's a difference in ownership in the east
22 half of Section 11.

23 Q. And who is the additional interest owner in that
24 property, who are they?

25 A. Geodyne has an interest in that which, as it

1 turns out, is the same interest that Geodyne has in the
2 proration unit that we're discussing. And also in the east
3 half of Section 11, OXY has an interest in that.

4 Q. As to Geodyne, have they agreed to participate in
5 the re-entry and horizontal drilling of this well?

6 A. Yes, sir, they have.

7 Q. OXY has the interest in the east half of Section
8 11. Have they been notified of this hearing and the
9 proposal?

10 A. Yes, they have been notified.

11 Q. And the wellbore that we're talking about re-
12 entering is a standard setback from the east half of
13 Section 11, is it not?

14 A. That's correct.

15 Q. So in terms of the notice requirements, we have
16 provided notice as required by the Division Rules to the
17 affected working interest owners in those Texaco-operated
18 spacing units that offset the property where the ownership
19 is different?

20 A. That's correct, we have.

21 Q. is Exhibit -- And then that notice is set forth
22 in Exhibit Number 2; is that correct?

23 A. That's correct.

24 Q. Let's go now to the engineering portion of this
25 case, and I would ask you to refer to what has been marked

1 as Exhibit Number 3, identify that and review it for Mr.
2 Catanach.

3 A. Exhibit Number 3 shows information on the six
4 wells that show up on the map as having produced in the
5 Skaggs-Abo Gas Pool in the vicinity of the C.H. Weir "A"
6 Number 7. The tabulation gives the location, the operator,
7 the date of first and last production, cumulative
8 production and the current producing rate.

9 As you will see, there are only two wells that
10 are currently still producing, the C.H. Weir "A" Number 14,
11 which is in the proration unit that we're discussing, and
12 also the M.B. Weir "B" Number 11, which is in the proration
13 unit to the south. Each of those is on Texaco-operated
14 acreage.

15 Q. All right. The next exhibit is a group of
16 production plots. Would you identify that exhibit and
17 review the information on those plots for Mr. Catanach?

18 A. Yes, these are our production plots for the six
19 Abo wells that have produced. The first one is the C.H.
20 Weir "A" Number 14. It was completed in 1983, currently
21 producing about 300 MCF a day. A very small amount of oil
22 is associated with that. It has a cumulative production of
23 about 2.7 BCF, and over the past ten years or so it's got a
24 decline rate of about 5 percent per year. And at that
25 decline rate it will reach an economic limit in about the

1 year 2040.

2 Q. And this is the current producing well on the
3 spacing unit which is the subject of this hearing?

4 A. That's correct.

5 Q. All right, let's go to the next production plot.

6 A. The next plot is the M.B. Weir "B" Number 11,
7 which again is in the spacing unit to the south. It was
8 drilled in 1986.

9 It's currently producing about 180 MCF a day,
10 with a decline rate of about 10 percent over the past 10
11 years. And it will reach its economic limit somewhere in
12 the range of year 2020.

13 Q. And what are the other plots included in the
14 exhibit?

15 A. The other plots are the wells that have
16 previously produced in the Skaggs-Abo Pool in this area,
17 and showing their cumulative production.

18 Conoco's Skaggs "B" Com Number 7 had a cum of
19 just over a billion cubic feet.

20 The C.H. Weir "B" Number 10, it's also currently
21 inactive and it has a cum of about just under 200 million
22 cubic feet.

23 The C.H. Weir "A" Number 12, which is to the east
24 of the proration unit, is shut in. It had a cum of about
25 half a billion cubic feet.

1 And there's a well to the south, the L.R. Kershaw
2 Number 12 that produced for a very short period of time and
3 had a cum of about 169 million cubic feet of gas.

4 All of these wells either have or had during
5 their producing lives similar decline rates. There's
6 nothing significantly different. And again, the only two
7 that are still currently producing are the C.H. Weir "A"
8 Number 14 and the M.B. Weir "B" Number 11, both of which
9 are Texaco wells.

10 Q. When was the Number 14 well drilled?

11 A. The Number 14 was drilled in 1983.

12 Q. And the Number 11?

13 A. 1986.

14 Q. And how far apart are those wells?

15 A. Those are about 1320 feet apart.

16 Q. Is there any evidence of any interference between
17 these two wells?

18 A. No, sir, the initial productions were similar,
19 the decline rates are a little bit different but they've
20 both been very consistent.

21 We don't see any indication of interference being
22 noted in either of these wells.

23 Q. And the information you have on this reservoir,
24 in the wells in this area, do you see any evidence of any
25 interference having occurred between any of these wells?

1 A. No, sir, we do not.

2 Q. If we go now to the well, the Number 7 well that
3 you're requesting authorization to re-enter and
4 horizontally drill, what is the current status of that
5 well?

6 A. That well was a Drinkard producer. It's
7 currently shut in.

8 Q. Any chance that it would ever be returned to
9 production in the Drinkard?

10 A. It was just a marginal producer. It became
11 uneconomic, so I would not anticipate that being the case.

12 Q. If we look at this information on the two wells
13 that you hope to have producing from the Abo on this
14 spacing unit, do you have an opinion on whether or not the
15 Well Number 14 can effectively drain the Abo on the east
16 half of this spacing unit?

17 A. On the east half or the west half of the spacing
18 unit?

19 Q. I'm sorry, on the west half.

20 A. I don't believe it will. I think by virtue of
21 the fact that we're not seeing any indication of
22 interference between the Number 14 well and the Number 11
23 well to the south, and with their spacing, I think that
24 indicates that we're not effectively draining that entire
25 proration unit.

1 Q. Could you summarize for Mr. Catanach the
2 conclusions you've reached and the reasons that Texaco is
3 seeking authorization to put this second well on this
4 spacing unit?

5 A. There are several reasons for this. One, we have
6 a viable wellbore that we can utilize. We have to wait
7 until the existing well that's producing on that proration
8 unit reaches its economic limit. We're talking about a
9 plus or minus 30-year remaining life.

10 If we want to use the Number 7 well at some time
11 in the future, we'd have to keep this well in a temporarily
12 abandoned status longer than is normally permitted. We
13 don't feel the reserves in the west half of the proration
14 unit are being drained by the existing producer there, so
15 we think we can recover additional reserves from this
16 proration unit by the drilling of the additional horizontal
17 well in Number 7.

18 Q. If you're not allowed to drill the horizontal
19 well in the west half of this spacing unit, in your opinion
20 will reserves be left in the ground that will never be
21 recovered?

22 A. They'll either be left in the ground or deferred
23 to some date well into the future.

24 Q. In your opinion would denial of the Application
25 result in the waste of hydrocarbons?

1 A. Yes, sir.

2 Q. Will approval of the Application otherwise be in
3 the best interest of conservation and the protection of
4 correlative rights?

5 A. Yes, it will.

6 Q. Will Texaco call a geological witness to review
7 that technical portion of this Application?

8 A. Yes, sir.

9 Q. Were Exhibits 1 through 4 prepared by you --

10 A. Yes, they were.

11 Q. -- or compiled at your direction?

12 A. Yes, they were.

13 MR. CARR: At this time, Mr. Catanach, we'd move
14 the admission into evidence of Texaco Exhibits 1 through 4.

15 EXAMINER CATANACH: Exhibits 1 through 4 will be
16 admitted as evidence.

17 MR. CARR: And that concludes my direct
18 examination of Mr. Wolle.

19 EXAMINATION

20 BY EXAMINER CATANACH:

21 Q. Mr. Wolle, the Number 14 well --

22 A. Yes, sir.

23 Q. -- is one of the better producing wells in terms
24 of, I guess, current production, obviously, and cumulative
25 production?

1 A. Yes, it has the highest cumulative production.

2 Q. Have you done any drainage calculations for that
3 well?

4 A. No, I have not. The Abo out here is a series of
5 thin intervals of varying quality, and it's difficult to
6 determine what is effective pay and what is not effective
7 pay. So that makes it pretty difficult to determine a
8 drainage area.

9 The fact that we have wells that are about 1320
10 feet apart, our Well Number 14, Well Number 11, and the
11 wells to the northeast and then Conoco's well to the north
12 at a spacing of 1320 feet indicate that we do have, I
13 guess, continuity, but it's difficult to tell how much is
14 equivalent pay.

15 Q. Now, when you say you haven't seen any
16 interference between these wells, what exactly are you
17 talking about, Mr. Wollé?

18 A. Looking at the performance of particularly Well
19 Number 14, which was drilled in 1983, and when Well Number
20 11, immediately to the south of it, came on, there was not
21 any significant change in its producing characteristics,
22 indicating that -- we have not seen any indication of
23 interference since that time.

24 Both of the wells initially produced half a
25 million to a million cubic feet a day, and we did not see

1 anything to indicate that other wells came on, there is a
2 reduction in production from other wells.

3 Q. Okay, besides the Number 14 and 11, have you
4 looked at other wells to see if there was any interference?

5 A. Yes, nothing seems to show up to indicate that.

6 Q. Now, the Number 7 well has never been tested in
7 the Abo formation, right?

8 A. That's correct.

9 Q. But you've probably looked at the logs for that
10 well and determined that it's potentially productive?

11 A. It's not deep enough.

12 Q. Oh, okay.

13 A. It just goes to the Drinkard.

14 Q. Got you. So you're going to have to drill
15 deeper. And what's the reason for the horizontal drilling?

16 A. We've had some success in other places in Lea
17 County drilling horizontal wells in the Abo to contact more
18 of the reservoir and connect fractures that may be present,
19 so we think we can do a better job with a horizontal well
20 by contacting more of the reservoir, than we can with
21 simply another vertical well.

22 Also, we will get into the northern part of that
23 proration unit, if you would, and better drain the reserves
24 that are in that area of the unit.

25 Q. The well in Section 11 is no longer producing; is

1 that correct?

2 A. That's correct, yes, sir.

3 Q. And the well, the Conoco well, in the north half
4 of Section 12 is no longer producing?

5 A. That's correct.

6 Q. Are those wells essentially depleted, in your
7 opinion?

8 A. Yes, sir. The Conoco well was shut in back in
9 1996, and the well in Section 11 was shut in last year.

10 Q. Okay, the Conoco well was shut in in 1996?

11 A. 1996, yes, sir.

12 Q. The well in 11 was shut in last year?

13 A. Yes, sir.

14 Q. Aside from the area you've shown here, is there a
15 larger area that encompasses the Skaggs-Abo Gas Pool?

16 A. There are other wells in that pool, and I don't
17 have any information on those. I was focusing on the area
18 in question, yes, sir.

19 Q. Where is this in relation to the pool, to the
20 larger pool?

21 A. I think those wells are to the southwest, but I'm
22 not certain of that.

23 Q. Okay. Do you have any idea how much you might be
24 able to recover by recompleting the Number 7 well?

25 A. Based on the performance of the other wells that

1 have produced or are producing, I'd anticipate in the --
2 half a billion cubic feet up.

3 There's quite a variance in the cumulative
4 production from those wells, but I think that is a
5 reasonable expectation.

6 Q. Now, that's based on what, the Number 10 well?
7 What it recovered, or -- or what are you basing that on?

8 A. Okay. Looking at Number 14, the Number 11, the
9 Number 12 well and the Conoco well up to the north, Number
10 11 is a relatively low rate -- or, excuse me, a low cum.
11 The others are much higher.

12 Q. That's considerably lower than -- Well, that's
13 about half of what some of these wells recovered? Some of
14 these wells are around the 1 BCF recovery?

15 A. Conoco's well was about a BCF. Our Number 14 is
16 about 2.7 BCF, and our M.B. Weir "B" Number 11 to the south
17 is 1.8 BCF, and our Weir "A" Number 12 is right at half a
18 billion.

19 Q. Okay. And it's your opinion that those reserves
20 are probably not going to be recovered by the 14 well?

21 A. That's correct.

22 EXAMINER CATANACH: Okay, I have no further
23 questions.

24 MR. CARR: At this time, Mr. Catanach, we call
25 Mr. Villalobos.

1 A. I started working with Getty Production back in
2 1981. 1984 we merged with Texaco, and I've been working
3 the Permian Basin mid-continent for the last 20 years.

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

6 A. Yes, sir, I am.

7 Q. And are you familiar with the area which is the
8 subject of this Application?

9 A. Yes, sir, I am.

10 Q. Have you made a geological study of the area
11 which is involved in this case?

12 A. Yes, sir, I have.

13 Q. And are you prepared to share the results of that
14 work with the Examiner?

15 A. Yes, I am.

16 MR. CARR: Are the witness's qualifications
17 acceptable?

18 EXAMINER CATANACH: They are.

19 Q. (By Mr. Carr) Let's refer initially back to
20 Exhibit Number 1, the structure map, and I would ask you to
21 review the geological information that is shown on this
22 exhibit.

23 A. Yes, sir. What we have here is a structural map
24 on the top of the Abo, which is found at approximately 6900
25 feet in this area. This is the Skaggs-Abo Pool, located

1 about five miles southeast of Monument, New Mexico.

2 And basically what this structure on top of the
3 Abo shows is an anticlinal feature with about 90 feet of
4 structural closure. And our strategy, basically, with
5 going after the Abo is to complete with an open-hole type
6 of method which we think is more beneficial, as well as to
7 apply horizontal technology to intersect as many fractures
8 within the Abo formation as possible. We think that on the
9 crest of this structure, we think we'll have fracturing
10 involved with our Abo formation.

11 Q. And when you do your horizontal drilling, you're
12 using an open-hole completion?

13 A. That's correct, yes, sir.

14 Q. Let's go to Exhibit Number 5, the A-A' cross-
15 section. There's a trace for the cross-sections on Exhibit
16 Number 1, is there not?

17 A. Yes, sir, there is, it's A-A', labeled right on
18 the map. It's south to north.

19 Q. Okay, let's go to that cross-section. I'd ask
20 you to review the information on that exhibit for the
21 Examiner.

22 A. Yes, sir. Basically what we have here is a
23 structural cross-section with a minus 3500 feet subsea
24 datum. The top of the Abo is roughly between 6900 and 6950
25 here. Basically what I'm trying to show with this cross-

1 section is the continuity of the Abo formation.

2 I'm also trying to show the heterogeneity that is
3 involved with the Abo formation, a lot of clean dolomitic
4 stringers with 6- to 10-percent porosity, as well as a lot
5 of tight, organic-rich siltstones and shales interbedded
6 throughout the 600 to 700 foot of Abo formation.

7 Another thing that I want to point out on this
8 map is the caliper. You can see in just about all of the
9 wells the erratic nature of the caliper, just going back
10 and forth. While drilling in some of the wells close by
11 we've seen a lot of torque in our bit. And other wells,
12 the sonic indicates what we think is fracturing.

13 And in this cross-section specifically, we think
14 this caliper is indicating fracturing on the crest of this
15 Skaggs-Abo Pool.

16 Q. With that fracturing you, in fact, have a very
17 good candidate for using the technology you've been
18 employing in the Abo, and that is with the open-hole
19 horizontal wellbore to intersect as much of the reservoir
20 as possible?

21 A. That's correct, this will be the fifth time we
22 apply this technology in the Central Basin Platform in New
23 Mexico, and we think this horizontal lateral will intersect
24 a lot of heterogeneity, a lot of different type of pay, as
25 well as encounter more fracturing.

1 Q. Mr. Villalobos, let's go now to Exhibit Number 6,
2 cross-section B-B', the east-west cross-section. What does
3 this show you?

4 A. Basically all I wanted to show here was -- This
5 is B-B', and it's basically a west-to-east cross-section.
6 And basically all I'm trying to show here is the continuity
7 of the Abo formation across the area of interest.

8 Q. What is Exhibit Number 7?

9 A. Exhibit Number 7 is a well path provided by our
10 directional driller, and it basically shows what we intend
11 to do. We'll drill about ten feet below the Drinkard and
12 encounter the Abo, and then we're just going to kick off a
13 lateral and hopefully intersect as much pay as possible, as
14 well as get into some nice fractured intervals.

15 True vertical depth is about 7600 feet, which is
16 the lowermost part of the pay within the Abo.

17 Q. And you'll kick off in a northerly direction and
18 go about how far, do you think?

19 A. Our target is to go approximately 1645 feet in a
20 northerly direction.

21 Q. What conclusions can you reach from your
22 geological study of this area?

23 A. The conclusions that I've reached based on my
24 geological study is that the Abo formation is continuous,
25 it's a heterogeneous reservoir, we believe there will be

1 fracturing on the crest of the structure, and it's a
2 continuous zone across the area where we think our
3 horizontal technology as well as our open-hole completion
4 method will allow us to make a commercial well here.

5 Q. In your opinion, is the additional well necessary
6 to effectively produce the Abo reserves under this spacing
7 unit in the west half of Section 12?

8 A. Yes.

9 Q. In your opinion, will approval of the Application
10 and the drilling of this well result in the recovery of
11 additional reserves?

12 A. Yes, it will.

13 Q. Would use of this wellbore void the need for
14 drilling an additional or an unnecessary well at a later
15 time?

16 A. Yes, I think it will, yes.

17 Q. And otherwise will the approval of the
18 Application be in the best interest of conservation, the
19 prevention of waste and the protection of correlative
20 rights?

21 A. Yes, sir, I think it will.

22 Q. Were Exhibits 5 through 7 prepared by you?

23 A. Yes, sir, they were.

24 MR. CARR: Mr. Catanach, at this time we move the
25 admission into evidence of Texaco Exhibits 5 through 7.

1 EXAMINER CATANACH: Exhibits 5 through 7 will be
2 admitted as evidence.

3 MR. CARR: And that concludes my direct
4 examination of Mr. Villalobos.

5 EXAMINATION

6 BY EXAMINER CATANACH:

7 Q. Mr. Villalobos, the Abo in this area -- the
8 produced intervals within the Abo, there are several
9 different producing intervals?

10 A. Yes, sir, that is my thinking. I think in the
11 past people have focused on the clean dolomitic part within
12 the top 200 feet. I believe the lowermost 400 feet have
13 pay as well, based on -- This will be the eighth well where
14 we've targeted the Abo in this area that I've been involved
15 with.

16 We've run FMIs, we've run sonic logs, and I
17 believe that the lowermost part of the Abo has thin -- and
18 I'm talking one- to two-foot-thick intervals that have oil,
19 based on this FMI, these FMIs -- we've run a couple -- as
20 well as the mudlogs that we've had in these eight wells
21 we've drilled here.

22 Q. Well, was the Number 14 well --

23 A. Yes, sir.

24 Q. -- was it just perforated in the upper portion of
25 the Abo?

1 A. For the most part, yes, sir. If you look on
2 cross-section A-A', that darkened interval, maybe seven,
3 eight feet thick, high-porosity stringer, that's what the
4 focus was in the 1970s, 1980s when they were going after
5 the Abo, early 1980s.

6 Q. So that well was never perforated in the lower
7 portion of the Abo?

8 A. Yes, it was --

9 Q. Oh, it was?

10 A. -- it was, it was.

11 Q. So eventually they came back in and tried to --

12 A. And commingled with this -- I don't think
13 commingled is the right word, but added this upper Abo pay.
14 The difficulty with the Abo is, when we run cement through
15 it we just have done a very poor job. We've run several
16 cement bond logs. The cement is always in the porous
17 intervals, and then the shaly, organic siltstones don't
18 have nothing behind it. So trying to frac, we don't know
19 where those fracs are going.

20 So the thinking here is to drill to the top of
21 the -- drill through the Abo, run gravel, run sand, protect
22 our formation from cement and just try acid and keep the
23 fractures and the pay relatively pure.

24 Q. Why is it necessary to take the horizontal
25 portion of that wellbore all the way as far north as you

1 plan to take it? That's only going to be 330 feet, I
2 understand, from the boundary of that spacing unit?

3 A. Yes, sir.

4 Q. Why is that necessary? Why couldn't you go to a
5 legal 660 setback?

6 A. We have a wellbore design path in place to just
7 go 660, if that's all we are required. What I did when I
8 did my studies, I noticed several wells closer than 660 to
9 those lease lines, and I thought it was something that we
10 could also do. I knew we would be at the Commission for a
11 simultaneous dedication hearing, so we thought we'd attempt
12 it.

13 Also when we design, or when we propose our
14 wellbore designs, I give myself some leeway, even though
15 the technology has come a long way. Sometimes we encounter
16 problems and we don't get all the way where we should,
17 things get expensive. I like to design a little bit longer
18 than what I think for cost purposes, and I also like to
19 give myself some leeway -- If we've encountered a lot of
20 pay as we get to wellbore number four, and I think there's
21 additional risk going deeper, I will stop it short.

22 So I give myself leeway. We were going to be at
23 the Commission, so I thought I'd go 330, based on the
24 Conoco well and the Number 10 well. But --

25 Q. So there's not really a real geologic reason why

1 you need to take it that far?

2 A. That's correct, and we're prepared to not go as
3 far.

4 EXAMINER CATANACH: Okay, I think that's all I
5 have, Mr. Carr.

6 MR. CARR: That concludes our presentation in
7 this case.

8 EXAMINER CATANACH: Okay, there being nothing
9 further in this case, Case 12,743 will be taken under
10 advisement.

11 (Thereupon, these proceedings were concluded at
12 10:57 a.m.)

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I, _____, do hereby certify that the foregoing is a true and correct copy of the original as the same appears in the files of the _____, Case No. 12743, dated 4/20/01.

 Examiner
 Conservation Division

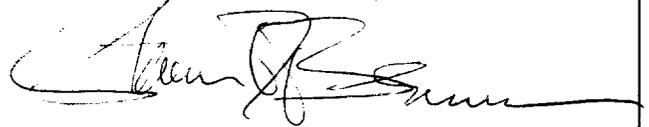
CERTIFICATE OF REPORTER

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 November 6th, 2001.



STEVEN T. BRENNER
 CCR No. 7

My commission expires: October 14, 2002