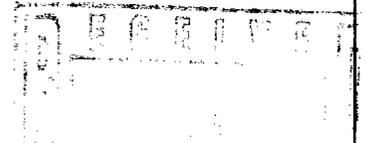


STATE OF NEW MEXICO

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.)
_____)

CASE NO. 11,324

REPORTER'S TRANSCRIPT OF PROCEEDINGS

EXAMINER HEARING

ORIGINAL

BEFORE: MICHAEL E. STOGNER, Hearing Examiner

July 13th, 1995

Santa Fe, New Mexico

This matter came on for hearing before the New Mexico Oil Conservation Division, MICHAEL E. STOGNER, Hearing Examiner, on Thursday, July 13th, 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.

* * *

I N D E X

July 13th, 1995
 Examiner Hearing
 CASE NO. 11,324

	PAGE
EXHIBITS	3
APPEARANCES	4
APPLICANT'S WITNESSES:	
<u>CHUCK SNURE</u> (Landman)	
Direct Examination by Mr. Carr	8
Examination by Examiner Stogner	15
Further Examination by Mr. Carr	18
<u>GARY OBERHANSLEY</u> (Geologist)	
Direct Examination by Mr. Carr	19
Examination by Examiner Stogner	26
<u>PHILLIP W. SMITH</u> (Engineer)	
Direct Examination by Mr. Carr	27
Examination by Examiner Stogner	33
REPORTER'S CERTIFICATE	36

* * *

E X H I B I T S

Applicant's	Identified	Admitted
Exhibit A	11	15
Exhibit B	12	15
Exhibit C	13	15
Exhibit D	14	15
Exhibit E	14	15
Exhibit F	14	15
Exhibit G	22	26
Exhibit H	22	26
Exhibit I	23	26
Exhibit J	23	-
Exhibit K	30	33
Exhibit L	30	33
Exhibit M	31	33

* * *

A P P E A R A N C E S

FOR THE DIVISION:

RAND L. CARROLL
Attorney at Law
Legal Counsel to the Division
2040 South Pacheco
Santa Fe, New Mexico 87505

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 1:05 p.m.:

3
4 EXAMINER STOGNER: Hearing will come to order.
5 Call the next case, Number 11,324.

6 MR. CARROLL: Application of Texaco Exploration
7 and Production, Inc., for a high-angle/horizontal
8 directional drilling pilot project, special operating rules
9 therefor, a nonstandard oil proration unit, and a special
10 project allowable, Rio Arriba County, New Mexico.

11 EXAMINER STOGNER: Call for appearances.

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

15 We represent Texaco Exploration and Production,
16 Inc., in this matter, and I have three witnesses.

17 EXAMINER STOGNER: Any other appearances?

18 Mr. Carr?

19 MR. CARR: Mr. Stogner, as I advised you
20 yesterday, this case was originally filed on June the 2nd,
21 and a hearing on this date was requested.

22 Since that time, administrative procedures have
23 been adopted by the Division.

24 We looked at the administrative procedures, and
25 because there is an offsetting owner who we, based on past

1 experience, suspect would object and then not participate
2 further in the hearing, we felt that the smart thing to do
3 was, since we had prepared it in a hearing format and since
4 we did have this question about an offsetting owner, to
5 come forward to you today and bring the matter, not under
6 the administrative rules, but bring it to you in the
7 hearing format.

8 EXAMINER STOGNER: Okay.

9 MR. CARR: Furthermore, notice letters were sent,
10 they solicited waivers, explained the project, but they did
11 not advise of the hearing date, and they request a
12 prehearing statement.

13 Accordingly, we are sending new notice of a
14 request at the end of this case, and each of the subsequent
15 two cases, that the record remain open until the August 10
16 Examiner Hearing, at which time I can provide an affidavit
17 confirming that appropriate notice has been provided.

18 So we would request that we be permitted to go
19 forward today with these hearings.

20 EXAMINER STOGNER: So 11,324 will need to be
21 continued, but it won't need to be readvertised; is that
22 right?

23 MR. CARR: That's right. And 11,325, the same.

24 11,326, there is an error in the ad. It says
25 Range 3; it should be Range 5.

1 It's already been caught. And a new ad, I
2 think, has already been prepared for the August 10th
3 hearing.

4 EXAMINER STOGNER: August 10th or July 27th?
5 Well, regardless --

6 MR. CARR: Regardless.

7 Still -- To be certain that we've covered
8 everyone with the notice letters, we're requesting that it
9 all be continued to the August 10 hearing date.

10 EXAMINER STOGNER: Do you wish to consolidate all
11 three matters at this time?

12 MR. CARR: We looked at that, Mr. Stogner. They
13 are not really that close to one another. The testimony
14 will be similar in some respects. The first hearing, we
15 will present everything.

16 As we go through the second two cases, we think
17 we can do those in a somewhat abbreviated fashion by
18 referencing back to the prior presentation.

19 EXAMINER STOGNER: I take that as a "no".

20 MR. CARR: That's a "no", yes, sir.

21 EXAMINER STOGNER: Okay. All right. Well, in
22 that case...

23 Oh, I guess we need to swear the witnesses in.
24 You've got three. Will they please stand at this time to
25 be sworn in?

1 (Thereupon, the witnesses were sworn.)

2 EXAMINER STOGNER: Mr. Carr?

3 CHUCK SNURE,

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

6 DIRECT EXAMINATION

7 BY MR. CARR:

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

9 A. Chuck Snure.

10 Q. And how do you spell your last name?

11 A. S-n-u-r-e.

12 Q. Mr. Snure, where do you reside?

13 A. I reside in Englewood, Colorado.

14 Q. By whom are you employed?

15 A. Texaco Exploration and Production, Inc.

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

17 A. Senior landman.

18 Q. Have you previously testified before this

19 Division?

20 A. No.

21 Q. Would you summarize your educational background
22 for Mr. Stogner?

23 A. I received a BBA in business from Texas Tech
24 University in December of 1975.

25 Q. Since graduation, for whom have you worked?

1 A. I -- since graduation -- I originally started out
2 with First National Bank in Midland, Texas, and then went
3 to work for DeLaney and Reneau, Independent Landmen, in
4 1980, in Midland.

5 In 1987 I went to work for Texaco Exploration and
6 Production, Inc.

7 Q. Has your work since 1980 been as a professional
8 petroleum landman?

9 A. That is correct.

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

12 A. Yes, I am.

13 Q. Are you familiar with the proposed well and the
14 status of the lands in the subject area?

15 A. Yes, I am.

16 MR. CARR: Mr. Stogner, at this time we tender
17 Mr. Snure as an expert witness in petroleum land matters.

18 EXAMINER STOGNER: Mr. Snure is so qualified.

19 Q. (By Mr. Carr) Would you briefly state what
20 Texaco seeks with this Application?

21 A. With this Application, we're seeking approval of
22 a directional drilling pilot project area, which would be
23 in Township 25 North, 3 West, the south-half equivalent,
24 authority to recomplete the existing well, the L.L.
25 McConnell Number 13, on the project area, and that well is

1 located 970 feet from the south line, 1800 feet from the
2 west line. That is the surface location.

3 Q. And that is a standard location?

4 A. Yes, it is.

5 Q. Are you seeking special drilling provisions?

6 A. Yes, we are, we seek to traverse quarter and
7 quarter-quarter section lines with horizontal wellbore
8 within the project area, and to drill within 790 feet of
9 the outer boundary of the project area.

10 Q. You will be forming a nonstandard or irregular-
11 size unit or project area for this well?

12 A. Yes.

13 Q. That will include the entire south half of the
14 section?

15 A. That is correct.

16 Q. Are you asking for a special project allowable
17 for this well?

18 A. Yes, we are requesting that we receive a project
19 allowable, based upon the two 160-acre spacing units within
20 the project area, which can be developed by the traversing
21 of the wellbore -- I mean, of the well.

22 Q. This is an irregular section, is it not?

23 A. Yes, it is.

24 Q. Due to survey variation?

25 A. Yes, that is correct.

1 Q. How many acres are in the proposed spacing unit?

2 A. 335.93 acres.

3 Q. Let's go to the exhibit book. Would you just
4 generally identify this, please?

5 A. Yes, sir, the -- We prepared an exhibit book with
6 Exhibits A through M, and the Exhibit A is the land map of
7 the area.

8 Q. And then the second page of the exhibit is also a
9 list or index of the material --

10 A. Yes, the second page is an index of the list of
11 exhibits.

12 Q. Let's go to Exhibit A, the land plat, and I would
13 ask you to review the information on this exhibit for Mr.
14 Stogner.

15 A. The area in yellow on Exhibit A represents -- in
16 Section 31, represents 100-percent Texaco working interest
17 lease.

18 It is a federal lease, and the red dot in the
19 southwest quarter of Section 31 represents the existing
20 L.L. McConnell Number 13 well.

21 Q. This shows existing Gallup wells in the area?

22 A. Yes, it does.

23 Q. Could you identify for Mr. Stogner what in fact
24 will be the project area for this well?

25 A. The project area will be the south half of

1 Section 31, which is approximately 335 acres.

2 Q. Are offsetting operators also indicated on this
3 exhibit?

4 A. Yes, they are.

5 Q. What is the current status of the L.L. McConnell
6 Well Number 13?

7 A. The current status, the L.L. McConnell Number 13
8 is currently producing from the Gallup formation. It's a
9 marginal producer.

10 Q. Let's go now to Exhibit B. Would you identify
11 this?

12 A. Yes, Exhibit B is a well location and acreage
13 dedication plat, or form C-102.

14 Q. And on this plat, the existing well is shown 1980
15 from the west, 970 from the south line of Section 31; is
16 that right?

17 A. 1800 feet from the west and 970 feet from the
18 south, yes.

19 Q. What is the original drilling unit assigned to
20 this vertical well?

21 A. The original drilling unit assigned was the
22 southwest quarter of Section 31.

23 Q. And in what pool is it completed?

24 A. It is known as the West Lindrith Gallup Pool.

25 Q. And that's on 160-acre spacing?

1 A. Yes, sir, that's correct.

2 Q. And the rules provide for 330-foot setbacks?

3 A. That is correct.

4 Q. In this Application, we're going to attempt to
5 keep the wellbore 790 feet from the outer boundary of the
6 unit?

7 A. Yes, that's correct.

8 Q. So on this exhibit, if we were to show the
9 drilling or producing window, it would be 790 feet back
10 from the boundaries of the south half of this section?

11 A. Yes, sir.

12 Q. What is the ownership of the acreage that will be
13 dedicated to this well?

14 A. The ownership is federal oil and gas lease, and
15 it is common. Texaco owns 100 percent of the working
16 interest, and royalty interest is federal.

17 Q. And the current development status of this
18 acreage in the Gallup?

19 A. Currently, the one existing well, the L.L.
20 McConnell Number 13 in the southwest quarter.

21 Q. And so that's the only well in this outline?

22 A. Yes, sir, that's correct.

23 Q. All right, let's go to Exhibit Number C, or
24 Letter C. Could you identify this, please?

25 A. Yes, sir, this is an offset operator plat that

1 identifies in a little closer detail, the offset operators
2 from our subject well.

3 Q. Let's go to Exhibit D. What is this?

4 A. Exhibit D is a listing of all of the offset
5 operators, names and addresses.

6 Q. Were each of these individuals notified of this
7 Application by certified mail?

8 A. Yes, they were.

9 Q. And is Exhibit E copies of the return receipts
10 showing, in fact, that each of these offsetting operators
11 received the letter notifying --

12 A. Yes, that is correct.

13 Q. In that letter you requested a waiver, did you
14 not?

15 A. Yes, sir, and the letter is dated May 25th, 1995,
16 and it is Exhibit F.

17 Q. Does Exhibit F contain both the waiver of Dugan
18 and Apache Corporation?

19 A. Yes, it does.

20 Q. Has a waiver been obtained from Mr. Gould?

21 A. No, it has not. We have not received one.

22 Q. Were Exhibits A through F prepared by you or
23 compiled under your direction?

24 A. Yes, they were.

25 MR. CARR: At this time, Mr. Stogner, we move the

1 admission into evidence of Texaco Exhibits A through F.

2 EXAMINER STOGNER: Exhibits A through F will be
3 admitted into evidence.

4 Q. (By Mr. Carr) Mr. Snure, will Texaco call
5 geological and engineering witnesses to review the
6 technical portions of this case?

7 A. Yes, they will.

8 MR. CARR: That concludes my direct examination
9 of Mr. Snure.

10 EXAMINATION

11 BY EXAMINER STOGNER:

12 Q. Okay, the interest of Carolyn Clark Wiggin,
13 that's in care of Dugan Production Corporation?

14 A. Yes.

15 Q. I was trying to read on Exhibit Number F -- Is
16 that an officer of Dugan Oil Corporation that signed it, or
17 do you know who signed it?

18 A. No, she's not -- Apparently she has some
19 connections with Dugan Production Corporation in
20 Farmington, and I guess they handle some administrative
21 matters for her.

22 I'm not sure exactly what the connection is.
23 However, she does receive her mail, any sort of notices, in
24 care of Dugan.

25 Q. Are you familiar with the person who signed

1 Exhibit F?

2 A. Carolyn Wiggin --

3 Q. Oh, is that Carolyn Wiggin's signature?

4 A. Yes, that's Carolyn Wiggin's signature, yes.

5 Q. Oh, okay. Mine's a little bit --

6 A. It's -- Yeah, it's Carolyn Wiggin by Carolyn
7 Wiggin.

8 Q. Okay, the Joseph Gould interest, they're to
9 the east?

10 A. Yes, sir.

11 Q. And there's some producing wells on that -- in
12 that section --

13 A. Yes, sir, that's correct.

14 Q. -- operated by Joseph Gould?

15 A. Yes, sir, there's the Phillips 32 Number 5 and
16 the Number 3 and the Number 1, are the names of the three
17 wells listed on that particular exhibit, which is Exhibit
18 C.

19 Q. Now, the properties shown on Exhibit A, is that
20 one solid or one single Texaco lease, or is it a unit, or
21 what are you depicting with the yellow?

22 A. With the yellow, that's several -- that's a
23 couple of -- Actually, it's three federal leases.

24 You have the -- what we call the C.W. Roberts
25 lease in Section 17 and 18; you have what we call the Lydia

1 Rentz leases in Section 19 and 20; and what we deem the
2 L.L. McConnell leases in 29, 30 and 31. And of those, we
3 own 100 percent of the working interest in all of those
4 properties.

5 Q. Okay. So the 29, 30 and 31, that's all one
6 single lease?

7 A. Yes, sir.

8 Q. With identical ownership?

9 A. Yes, sir, that's correct.

10 That is Federal Lease Number SF-079602.

11 Q. SF-079602?

12 A. Yes, sir.

13 Q. Now, the Texaco letter, Exhibit F, and -- Yeah,
14 Exhibit Number F, dated May 25th, this is the same
15 notification letter that Mr. Carr referred to that wasn't
16 adequate or --

17 A. That's the same letter that he referred to, yes.

18 Q. Okay. And what was it lacking that you have to
19 -- How does the one you sent out differ than this?

20 A. Where we in the second paragraph of this letter
21 indicated to them their options, i.e., please sign the
22 waiver if they had no objections; if there was an
23 objection, it had to be filed with the NMOCD in writing
24 within 20 days from receipt of this notice. That is the
25 language we use in this letter, as opposed to referencing a

1 specific hearing date.

2 EXAMINER STOGNER: And you will provide a copy of
3 that, Mr. Carr?

4 MR. CARR: Yes, we will, with an affidavit
5 confirming that notice requirements have been pulling that.

6 EXAMINER STOGNER: And I guess only one other
7 letter was sent, and that was to the Gould --

8 MR. CARR: That is right.

9 THE WITNESS: That's correct.

10 EXAMINER STOGNER: Okay, I have no questions
11 of --

12 MR. CARR: I have one follow-up question.

13 FURTHER EXAMINATION

14 BY MR. CARR:

15 Q. Have you reviewed the proposed horizontal well
16 with the Bureau of Land Management?

17 A. Yes, we have.

18 Q. And have they approved the sundry notice --

19 MR. CARR: All right, that's all I have.

20 EXAMINER STOGNER: You may be excused.

21 MR. CARR: At this time I would call Gary
22 Oberhansley.

23 EXAMINER STOGNER: And that is spelled
24 O-b-e-r-h-a-n-s-l-e-y?

25 MR. OBERHANSLEY: Yes.

1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20
21
22
23
24
25

GARY OBERHANSLEY,

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

DIRECT EXAMINATION

BY MR. CARR:

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

A. Gary Oberhansley.

Q. And where do you reside?

A. In Aurora, Colorado.

Q. Mr. Oberhansley, by whom are you employed?

A. Texaco E&P.

Q. And what is your current position with Texaco?

A. I'm a geologist with Texaco.

Q. Have you previously testified before the Oil Conservation Division?

A. No.

Q. Would you briefly review for Mr. Stogner your educational background?

A. I received a master's degree at Brigham Young University in 1980.

EXAMINER STOGNER: You're going to have to speak up a little bit.

THE WITNESS: I received a master's degree at Brigham Young University in 1980.

Q. (By Mr. Carr) And what was that degree in?

1 A. In geology.

2 Q. And since graduation, for whom have you worked?

3 A. For Texaco.

4 Q. And at all times you've been employed as a
5 geologist?

6 A. Yes.

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

9 A. Yes, I am.

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

12 A. Yes, I have.

13 MR. CARR: We tender Mr. Oberhansley as an expert
14 in petroleum geology.

15 EXAMINER STOGNER: Mr. Oberhansley is so
16 qualified.

17 Q. (By Mr. Carr) Could you initially describe the
18 general characteristics of the Gallup-Dakota formation in
19 this area?

20 A. Okay. The Gallup formation is interbedded
21 siltstone, sandstone and shale. The sandstones represent a
22 northwest-trending linear offshore sandbar.

23 The sands are -- and siltstones are very well
24 cemented, there's very low porosity. The porosity ranges
25 from five to eight percent, in fact, in some cases, even

1 lower than five percent.

2 And the permeability is very low, less than .1
3 millidarcies.

4 It's -- because it's -- the high cementation,
5 it's a very brittle formation, and its production is
6 related to fractures, naturally occurring fractures.

7 The Dakota formation, again, is interbedded
8 sandstones, siltstones and shales. The upper portion of
9 the Dakota represents offshore bars to marine shore
10 environment, and the lower sandstones are basically fluvial
11 in nature.

12 Porosity in the Dakota sandstone ranges from 5 to
13 15 percent, and the permeability is from .1 to .5
14 millidarcies. It is also fracture-enhanced.

15 Q. We're in the West Lindrith Gallup-Dakota Pool; is
16 that right?

17 A. Yes, that's correct.

18 Q. And so both the Gallup and Dakota formations by
19 definition have been combined?

20 A. Yes.

21 Q. With this Application and with this proposed
22 horizontal well, which of those two members of this pool
23 are you actually focusing on?

24 A. We're focusing on the Gallup formation only.

25 Q. Let's go to what's been marked as Texaco Exhibit

1 G. Would you identify that for Mr. Stogner and then review
2 the information shown on this exhibit?

3 A. Okay, this is a structure map based on the top of
4 the Gallup formation. The contour intervals are ten foot.

5 This shows a gentle dipping direction to the
6 north-northeast of the structure.

7 I would also comment that the top of the Gallup
8 formation will be referenced to the cross-section that's on
9 Exhibit J.

10 And the location of the well, again, is in the
11 southwest quarter of Section 31.

12 Q. Basically, what does this show you about the --
13 How does this relate to the proposed well?

14 A. That we don't expect any structural complications
15 in this well. We'll be drilling to the eastern direction,
16 and again there won't be any structural problems.

17 Q. Structurally, you go downdip about how many feet
18 with this one?

19 A. We'll be going down about 40 to 60 feet.

20 Q. Let's go now to the next exhibit, Exhibit H.

21 Would you first identify this and then review the
22 information on this exhibit for the Examiner?

23 A. That is an isopach map that covers the interval
24 we call the Upper and Lower Perforated Zone of the Gallup
25 formation. Again, this is made reference to the cross-

1 section, on Exhibit J, so this will be a total isopach
2 thickness.

3 Q. So basically, you've combined both the Gallup and
4 Dakota in this isopach; is that right?

5 A. No, this is only Gallup --

6 Q. Okay.

7 A. -- and -- Gallup formation.

8 Q. Now, if we look at this, can you tell us
9 generally what the thickness of the Gallup is in this area?

10 A. In this area, the Gallup ranges from 300 to 400
11 -- to 340 feet thick.

12 Q. Do you have a suitable formation here for a
13 horizontal drilling project?

14 A. Yes, we do.

15 Q. Do you foresee any complications in being able to
16 maintain the horizontal portion of the wellbore within the
17 Gallup formation?

18 A. No problem at all.

19 Q. Okay, let's go to Exhibit I. Identify this and
20 review it for Mr. Stogner.

21 A. This is an isopach map that's based on the Upper
22 Perforated Zone, again made reference to on the cross-
23 section, Exhibit J. It shows the thickness of that zone.

24 This is also the zone that will be -- we've
25 proposed our horizontal section in. It exhibits, again, a

1 thickness of between 115 feet to 120 feet thick, and again,
2 the well location. Where the well is located, we expect to
3 have at least 120 feet thick, in that Upper Zone.

4 Q. All right, let's go now to the cross-section.
5 Let's first go to the index map. Could you review the
6 information shown on the index map --

7 A. Okay.

8 Q. -- and then we'll move to the cross-section
9 itself?

10 A. The index map shows that we will be re-entering
11 the McConnell Well Number 13 and drilling into a
12 direction -- On this index map it shows a target zone. The
13 target zone is to the east-northeast.

14 Q. And it's the area shaded in red on the index map?

15 A. Yes, it is.

16 Q. Now, the case is advertised as drilling a well in
17 an easterly direction --

18 A. Right.

19 Q. -- going slightly north of due east, right?

20 A. Yes, and we would like to get more to the center
21 of the quarter section.

22 Q. You will, however, be able to stay at least the
23 790-foot setback --

24 A. Yes.

25 Q. -- back from the outer boundary of the project

1 area; is that correct?

2 A. Yes, we will.

3 Q. And this is the approximate location of the
4 azimuth?

5 A. Yes, this is just the target zone.

6 Q. Okay. Now, what does this cross-section show
7 you?

8 A. This cross-section shows the Gallup formation,
9 what we have -- I have referred to as the Upper Perforated
10 Zone and the Lower Perforated Zone. They're shaded in
11 yellow, separated a shale interval in between.

12 And it shows the -- The red line here shows the
13 borehole direction, and we've tied the cross-section
14 between what's shown on the index map, between the Texaco
15 McConnell 13 well, to the Gould Phillips 32-3 well.

16 On this cross-section I've indicated the footage
17 distance from the wellbore, on the McConnell 13 well. We
18 plan to drill 2500 feet to the east direction. And again,
19 it's in the Upper Zone.

20 Q. Now, Mr. Oberhansley, If you were asked to
21 identify a well log that could be used as a type log for
22 the project area, which well log would it be?

23 A. It would be the McConnell 13 Well.

24 Q. And is that -- the entire log on file with the
25 Oil Conservation Division?

1 A. Yes, that log should be.

2 Q. What do you hope to achieve with this horizontal
3 drilling project?

4 A. Because of the fractured nature of the Gallup
5 formation, we expect to achieve maximum intersection of
6 fracturing and to be able to increase our production in the
7 Gallup formation.

8 Q. And what geologic conclusions have you been able
9 to reach about this project?

10 A. First of all, we have an adequate thickness of
11 the formation zone that we are targeting, the structure,
12 there's no complication, we feel like we'd be able to drill
13 that with no problem, and we would like to, again, maximize
14 the fracturing and increase our production.

15 Q. Were Exhibits G through I prepared by you?

16 A. Yes, they were.

17 MR. CARR: At this time, Mr. Stogner, we move the
18 admission into evidence of Texaco Exhibits G through I.

19 EXAMINER STOGNER: Exhibits G through I will be
20 admitted into evidence.

21 MR. CARR: And that concludes my direct
22 examination of this witness.

23 EXAMINATION

24 BY EXAMINER STOGNER:

25 Q. Is the Lower Perforated Zone fractured like the

1 Upper Perforated Zone, or are they two completely different
2 intervals, or --

3 A. Basically they are similar. The fracturing is
4 similar to -- We've identified about a 50-foot shale
5 section that's in between, that we would -- we decided not
6 to do any of the horizontal drilling through. That's
7 basically why we kept in the Upper Zone.

8 Q. In referring to your structure map on Exhibit G,
9 Is your fractured intervals in here -- do they run
10 perpendicular to the -- essentially the bedding of the --

11 A. Yes, we have four wells in this area that have
12 fracture identification logs, and the fracturing is
13 basically in a north-south direction.

14 Q. So with that east well you plan to --

15 A. -- maximize the fracture.

16 EXAMINER STOGNER: I have no other questions of
17 this witness.

18 MR. CARR: At this time, Mr. Stogner, we would
19 call Phillip Smith.

20 PHILLIP W. SMITH,

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

23 DIRECT EXAMINATION

24 BY MR. CARR:

25 Q. Mr. Smith, would you state your name for the

1 record?

2 A. Phillip W. Smith.

3 Q. And where do you reside?

4 A. I reside in Littleton, Colorado.

5 Q. By whom are you employed?

6 A. By Texaco Exploration and Production,
7 Incorporated.

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

9 A. I am a petroleum engineer for Texaco.

10 Q. Have you previously testified before this
11 Division?

12 A. No.

13 Q. Would you review your educational background for
14 Mr. Stogner?

15 A. I have a BS degree in petroleum engineering from
16 Texas Tech University in 1979.

17 Q. Since graduation, by whom have you been employed?

18 A. Out of college I was employed by Getty Oil
19 Company until the time which Getty and Texaco merged, and
20 since then I've been employed by Texaco.

21 Q. And at all times you've been employed as a
22 petroleum engineer?

23 A. Yes, I have.

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

1 A. Yes.

2 Q. Are you familiar with the proposed well?

3 A. Yes, I am.

4 MR. CARR: I would tender Mr. Smith as an expert
5 petroleum engineer.

6 EXAMINER STOGNER: Mr. Smith is so qualified.

7 Q. (By Mr. Carr) Mr. Smith, has horizontal drilling
8 on a project area such as this been previously approved by
9 the Division in this formation?

10 A. Yes, there are several orders that have been
11 approved. However, they're quite far away. All of those
12 have been in the Gallup that we have looked at, but this
13 will be the first in this pool.

14 Q. In each of those cases are you looking at a
15 similar formation, a highly fractured formation?

16 A. Yes, we are.

17 Q. There have been none previously approved in the
18 West Lindrith Gallup-Dakota Pool?

19 A. No.

20 Q. Generally just summarize the reason for the
21 Application.

22 A. We want to extend the life of the West Lindrith
23 Gallup-Dakota Oil Pool and to increase recoveries from that
24 pool.

25 Q. What is the cumulative production to date from

1 the West Lindrith Gallup-Dakota Oil Pool?

2 A. Approximately 259 BCF of gas and approximately
3 19.8 million barrels of oil as of December of 1994.

4 Q. Let's go to what has been marked Texaco Exhibit
5 K. Could you identify that, please?

6 A. Exhibit K is a wellbore sketch showing the L.L.
7 McConnell Number 13. It has 8-5/8-inch casing set at 305
8 feet, cement has been circulated.

9 It also has 5-1/2-inch casing set at 8091 feet.
10 Cement was circulated out of the DV tool, DV tool at 5934.
11 Also, cement was circulated out of the back side to the
12 surface.

13 Q. And this well is currently only a marginal
14 producer?

15 A. Yes, it is.

16 Q. All right. If you would turn to what has been
17 marked Exhibit L, referring to this exhibit, explain to Mr.
18 Stogner what it is Texaco proposes to do.

19 A. Texaco wishes to squeeze off the existing perms,
20 come in and mill a 40-foot section out of the casing and
21 kick off and drill a short-radius horizontal well,
22 approximately 2500 feet out.

23 Q. What are you going to do with the lower zones in
24 the well?

25 A. The lower zones will be squeezed off.

1 Q. And can you give us the vertical depth to the top
2 and bottom of the Gallup formation or the Gallup-Dakota
3 formation, in the area?

4 A. The top of the Gallup-Dakota is at 6868, and the
5 bottom should be approximately 8000 feet.

6 Q. And you're going to go through the casing and
7 build to what angle?

8 A. Approximately 87 degrees.

9 Q. And the kickoff point is at what depth?

10 A. Kickoff point would be at 6790.

11 Q. And you would penetrate the Upper Gallup Zone at
12 what depth?

13 A. Penetrate the Upper Gallup at estimated 6868 true
14 vertical depth.

15 Q. And then go about 2500 feet, you said, from there
16 vertically?

17 A. Yes, that's correct.

18 Q. All right, let's move to Exhibit M. Can you
19 identify this and just summarize the drilling procedures
20 that will be employed?

21 A. Exhibit M is more or less an analysis -- or not
22 an analysis but a synopsis of our proposed horizontal
23 drilling. It is an analysis that states that we will
24 squeeze off the existing perforations, mill out a 40-foot
25 section, and then from there kick off and drill a short-

1 radius horizontal lateral to extend approximately 2500
2 feet.

3 Q. Using the proposed drilling techniques, will
4 Texaco be able to keep the wellbore within the setbacks
5 from the outer boundary of the dedicated acreage as
6 required by OCD rules and regulations?

7 A. Yes.

8 Q. Do you anticipate that the acreage actually
9 dedicated to this well will in fact be drained by the
10 horizontal wellbore?

11 A. Yes.

12 Q. Do you expect there will be any excess drainage
13 from any offsetting tract?

14 A. No, I do not.

15 Q. If this, in fact, is a successful well, what
16 would you estimate its remaining producing life to be?

17 A. Approximately 19 years.

18 Q. Will Texaco run a directional survey on the well
19 once it has been drilled?

20 A. Yes.

21 Q. Will you advise the Commission or the Division
22 when that survey is to be run and provide a copy of the
23 survey to the OCD?

24 A. Yes, we will.

25 Q. How soon does Texaco plan to commence the

1 drilling of the well?

2 A. Early September.

3 Q. Now, Mr. Smith, in your opinion will approval of
4 this Application be in the best interests of conservation,
5 the prevention of waste and the protection of correlative
6 rights?

7 A. Yes.

8 Q. Were Exhibits K through M either prepared by you
9 or compiled under your direction?

10 A. Yes.

11 MR. CARR: At this time, Mr. Stogner, we move the
12 admission into evidence of Texaco Exhibits K through M.

13 EXAMINER STOGNER: Exhibits K through M will be
14 admitted into evidence.

15 MR. CARR: And that concludes my direct
16 examination of this witness.

17 EXAMINATION

18 BY EXAMINER STOGNER:

19 Q. After the horizontal well is drilled, will that
20 be cased or tubed, or is it going to be open-hole?

21 A. It will be open-hole.

22 Q. Okay. Any stimulation?

23 A. If it will not come in naturally, then yes, there
24 will be a small acid job to try to clean up any mud buildup
25 that there would be on the hole itself.

1 Q. No fracturing or anything?

2 A. No, none planned.

3 Q. Have you been involved in some of the other
4 Gallup horizontal wells out in the northwest New Mexico
5 area?

6 A. No, I have not.

7 Q. You have not. Anywhere else in the Rocky
8 Mountain area?

9 A. Not personally, no, sir.

10 Q. Why was the Lindrith Gallup considered a good
11 candidate by Texaco for this project?

12 A. Because of the fracturing. We felt that the
13 Gallup, because of its intensity in fractures, would be a
14 very good candidate for a horizontal pilot.

15 Q. But nobody's ever done one out there in the pool
16 before?

17 A. Not in this pool that we know of.

18 Q. Now, the actual kickoff portion with the short
19 radius, will that be done with a mud logger or a surface --

20 A. The actual kickoff portion, if you'll refer to
21 Exhibit M, let's see, kickoff: "Run gyro and orient
22 motor..." So... "Kick-off motor with a 2.5- to 3-degree
23 bent sub".

24 Q. So it will be with a mud motor assembly?

25 A. Yes.

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.

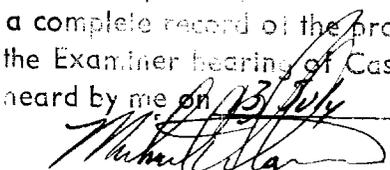
WITNESS MY HAND AND SEAL July 20th, 1995.



 STEVEN T. BRENNER
 CCR No. 7

My commission expires: October 14, 1998

I do hereby certify that the foregoing is a complete record of the proceedings in the Examiner hearing of Case No. 11324 heard by me on 13 July 1995


 _____, Examiner
 Oil Conservation Division