

STATE OF NEW MEXICO  
ENERGY, MINERALS AND NATURAL RESOURCES DEPARTMENT

OIL CONSERVATION DIVISION

**RECEIVED**

IN THE MATTER OF THE HEARING CALLED BY  
THE OIL CONSERVATION DIVISION FOR THE  
PURPOSE OF CONSIDERING:

APPLICATION OF OCEAN ENERGY, INC.,  
FOR COMPULSORY POOLING, LEA COUNTY,  
NEW MEXICO

APPLICATION OF DAVID H. ARRINGTON OIL  
AND GAS, INC., FOR COMPULSORY POOLING,  
LEA COUNTY, NEW MEXICO

) APR 10 2003  
)  
) Oil Conservation Division  
)  
) CASE NOS. 13,036  
)  
)  
)  
) and 13,039  
)  
)  
) (Consolidated)

REPORTER'S TRANSCRIPT OF PROCEEDINGS

EXAMINER HEARING

BEFORE: DAVID K. BROOKS, JR., Hearing Examiner

March 27th, 2003

Santa Fe, New Mexico

This matter came on for hearing before the New Mexico Oil Conservation Division, DAVID K. BROOKS, JR., Hearing Examiner, on Thursday, March 27th, 2003, 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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## I N D E X

March 27th, 2003  
 Examiner Hearing  
 CASE NOS. 13,036 and 13,039 (Consolidated)

	PAGE
EXHIBITS	4
APPEARANCES	5
OCEAN WITNESSES:	
<u>DEROLD MANEY</u> (Landman)	
Direct Examination by Mr. Bruce	7
Cross-Examination by Mr. Carr	16
Examination by Examiner Brooks	18
<u>JAMES T. LOWE</u> (Geologist)	
Direct Examination by Mr. Bruce	20
Cross-Examination by Mr. Carr	26
Examination by Examiner Brooks	27
<u>RAYMOND W. PAYNE</u> (Engineer)	
Direct Examination by Mr. Bruce	30
Cross-Examination by Mr. Carr	38
Examination by Examiner Jones	49
Examination by Examiner Brooks	51
Redirect Examination by Mr. Bruce	54
Recross-Examination by Mr. Carr	56
Further Examination by Examiner Brooks	56
ARRINGTON WITNESSES:	
<u>ENICK DIFFEE</u> (Landman)	
Direct Examination by Mr. Carr	58
Cross-Examination by Mr. Bruce	65
Examination by Examiner Brooks	66

(Continued...)

## ARRINGTON WITNESSES (Continued):

BILL BAKER, JR. (Geologist)

Direct Examination by Mr. Carr	68
Cross-Examination by Mr. Bruce	79
Examination by Examiner Brooks	83
Examination by Examiner Jones	85

TONY BEILMAN (Engineer)

Direct Examination by Mr. Carr	89
Cross-Examination by Mr. Bruce	95
Examination by Examiner Jones	98

## OCEAN WITNESS (Recalled):

RAYMOND W. PAYNE (Engineer)

Direct Examination by Mr. Bruce	100
Cross-Examination by Mr. Carr	101

## CLOSING STATEMENTS:

By Mr. Carr	102
By Mr. Bruce	104

## REPORTER'S CERTIFICATE

109

\* \* \*

## E X H I B I T S

Ocean	Identified	Admitted
Exhibit 1	8	16
Exhibit 2	13	16
Exhibit 3	9	16
Exhibit 4	14	16
Exhibit 5	15	16
Exhibit 6	22	26
Exhibit 7	23	26
Exhibit 8	24	26
Exhibit 9	31	37
Exhibit 10	32	37
Exhibit 11	32	37
Exhibit 12	33	37
Exhibit 13	36	37

\* \* \*

Arrington	Identified	Admitted
Exhibit 1	60	65
Exhibit 2	62	65
Exhibit 3	63	65
Exhibit 4	63	65
Exhibit 5	64	65
Exhibit 6	70	79
Exhibit 7	71	79
Exhibit 8	71	79
Exhibit 9	90	95

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## A P P E A R A N C E S

FOR OCEAN ENERGY, INC., and  
NADEL AND GUSSMAN PERMIAN, LLC:

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DAVID H. ARRINGTON OIL AND GAS, INC.:

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P.O. Box 2208  
Santa Fe, New Mexico 87504-2208  
By: WILLIAM F. CARR

\* \* \*

ALSO PRESENT:

WILLIAM V. JONES, JR.  
Petroleum Engineer  
New Mexico Oil Conservation Division  
1220 South Saint Francis Drive  
Santa Fe, NM 87505

\* \* \*

1           WHEREUPON, the following proceedings were had at  
2   3:45 p.m.:

3           EXAMINER BROOKS: Back on the record. At this  
4   time we'll call Case Number 13,036, the Application of  
5   David H. Arrington Oil and Gas, Inc., for compulsory  
6   pooling, Lea County, New Mexico,  
7           and Case Number 13,039, the Application of David  
8   H. Arrington Oil and Gas, Inc. -- I'm sorry, Number 3- --  
9   that's 13,039. 13,036 is the Application of Ocean Energy,  
10   Inc., for compulsory pooling, Lea County, New Mexico.

11           Call for appearances.

12           MR. BRUCE: Mr. Examiner, Jim Bruce of Santa Fe,  
13   representing Ocean Energy, Incorporated. I have three  
14   witnesses.

15           MR. CARR: May it please the Examiner, my name is  
16   William F. Carr with the Santa Fe office of Holland and  
17   Hart, L.L.P. We represent David H. Arrington Oil and Gas,  
18   Inc., and I also have three witnesses.

19           EXAMINER BROOKS: Okay, that's a lot of witnesses  
20   for this time in the afternoon, but let them stand and be  
21   sworn.

22           (Thereupon, the witnesses were sworn.)

23           EXAMINER BROOKS: Okay, I assume that -- Well,  
24   apparently by common consent Mr. Bruce is going first,  
25   which --

1 MR. BRUCE: Yes.

2 EXAMINER BROOKS: -- given the fact that you  
3 filed first, would seem to be appropriate.

4 You may proceed, Mr. Bruce.

5 MR. BRUCE: Thank you.

6 DEROLD MANEY,

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

9 DIRECT EXAMINATION

10 BY MR. BRUCE:

11 Q. Would you please state your name and city of  
12 residence?

13 A. Derold Maney, Houston, Texas.

14 Q. Who do you work for and in what capacity?

15 A. I'm a landman for Ocean Energy, Inc.

16 Q. Have you previously testified before the  
17 Division?

18 A. Yes, I have.

19 Q. And were your credentials as an expert landman  
20 accepted as a matter of record?

21 A. Yes, they were.

22 Q. And are you familiar with the land matters  
23 involved in these Applications?

24 A. Yes, I am.

25 EXAMINER BROOKS: Sorry, could you spell your

1 name?

2 THE WITNESS: D-e-r-o-l-d M-a-n-e-y.

3 EXAMINER BROOKS: Thank you. Proceed.

4 MR. BRUCE: Mr. Examiner, I tender Mr. Maney as  
5 an expert petroleum landman.

6 MR. CARR: No objection.

7 EXAMINER BROOKS: He is so qualified.

8 Q. (By Mr. Bruce) Mr. Maney, could you identify  
9 Exhibit 1 and describe what Ocean seeks in this case?

10 A. This is a land plat, in the orange outline  
11 indicating the unit, and the yellow portion in the west  
12 half of the proposed unit is the Ocean acreage that we  
13 hold.

14 Q. Okay. And do you seek to pool from the surface  
15 to the base of the Mississippian formation?

16 A. Top of the Mississippian.

17 Q. Top of the Mississippian, top -- what? To the  
18 top or is it the top 2- --

19 A. Test the top.

20 Q. Test the top of the -- say, the top 200 feet of  
21 the Mississippian?

22 A. Yes, sir.

23 Q. What is Ocean's proposed well location?

24 A. 660 from the south line and 1980 from the east  
25 line.



1 Q. And Arrington Oil and Gas has a different  
2 location, do they not?

3 A. Yes, they do.

4 Q. And will Ocean's geologist and engineer discuss  
5 the reasons for your proposed location?

6 A. Yes, they will.

7 Q. What is the -- I guess I got the exhibits out of  
8 order, but would you skip over to Exhibit 3 --

9 A. Yes, sir, this is --

10 Q. -- for a minute? And first of all, although we  
11 don't have an exhibit, I don't think, who are the working  
12 interest owners in the 320-acre well unit?

13 A. Ocean Energy, Inc.; McCombs Energy; Nadel and  
14 Gussman; and David H. Arrington Oil and Gas.

15 Q. Okay, and Arrington owns 50 percent?

16 A. Fifty percent, Ocean owns 26.67 percent, McCombs  
17 owns 13.33 percent, and Nadel and Gussman owns 10 percent.

18 MR. BRUCE: Okay. Mr. Examiner, I forget, I am  
19 also entering an appearance today on behalf of Nadel and  
20 Gussman Permian, LLC.

21 EXAMINER BROOKS: Very good.

22 Q. (By Mr. Bruce) Mr. Maney, McCombs and Nadel and  
23 Gussman are in agreement with Ocean --

24 A. Yes.

25 Q. -- on this well location?

1           A.    Yes, we are under an operating agreement.  We've  
2 drilled other wells in the area and under an operating  
3 agreement.

4           Q.    Okay.  Now, before we get to the proposal letter  
5 that you sent to Arrington Oil and Gas, I note that on  
6 Exhibit 1 it shows the east half, east half of Section 8 as  
7 being owned by ExxonMobil.  That is not correct, is it?

8           A.    No, it's not.

9           Q.    That east half, east half is a new state lease  
10 just issued to Arrington Oil and Gas?

11          A.    Yes, it is.

12          Q.    Or owned by Arrington Oil and Gas, I should say?

13          A.    Yes.

14          Q.    Now, how long has -- getting back to Exhibit 3,  
15 how long has Ocean been looking at drilling a well in  
16 Section 8?

17          A.    We first proposed the well to Exxon in November  
18 of 2000.

19          Q.    And at that time the east half, east half was  
20 owned by Exxon?

21          A.    Yes, it was.

22          Q.    Okay, the lease has since expired?

23          A.    Yes.

24          Q.    Okay, then keep on going, please?

25          A.    Okay, we proposed -- Well, excuse me, I sent my

1 first letter in November of 2002 to Exxon requesting a term  
2 assignment, and I followed that up in January of 2002 with  
3 a proposed well.

4 In February -- excuse me, May 28th, Exxon -- we  
5 got a term assignment covering the east half, northeast,  
6 and the southeast of Section 8 and the northwest quarter of  
7 Section 9. And -- that's not right. Section 9, it's the  
8 northeast of the northwest quarter is what we got from  
9 Exxon under the term assignment.

10 And early August, Exxon called and said that they  
11 were concerned as to the lease status of their lease  
12 K5926-1.

13 Q. And that was after you obtained a term assignment  
14 and paid for a term assignment?

15 A. Yes, yes.

16 Q. Okay, go ahead.

17 A. And at that point we withdrew the proposal to our  
18 partners Nadel and Gussman and McCombs, because we didn't  
19 want to drill a well if there was a title issue.

20 And then August 27th, Newfield, who had  
21 production in the west half of Section 8, they wrote a  
22 letter to the State of New Mexico, said the well was shut  
23 in and that they would pay shut-in in April of '03.

24 Q. Okay, and let me interrupt again. The production  
25 in the west half of 8 was on that same lease?

1 A. Yes.

2 Q. The east half, east half of Section 8 and some  
3 acreage in the west half of Section 8 was under the same  
4 lease?

5 A. That's correct.

6 Q. Okay. There was no production in the east half  
7 of Section 8?

8 A. No.

9 Q. Okay.

10 A. No. And about a month later, in September, I  
11 wrote a letter to the State of New Mexico and requested the  
12 lease status and October 8th we got a letter from the State  
13 of New Mexico saying that the lease was expired February  
14 28th.

15 EXAMINER BROOKS: What year?

16 THE WITNESS: '02.

17 EXAMINER BROOKS: '02.

18 THE WITNESS: And in October or shortly  
19 thereafter, I attempted to nominate the lease at the state  
20 sale and was told we needed to wait 60 days, which we did,  
21 and we nominated in December for the January sale.

22 And January 21st the sale was held, and that  
23 lease went for \$130,000 to Doug Schutz who, it's my  
24 understanding, purchased the lease for David H. Arrington.  
25 And we bid up to \$128,000 before we discontinued bidding.

1 Q. Okay. So you have been -- Although there was a  
2 gap between your first two letters, Ocean has been  
3 proposing the well or attempting to drill it for over a  
4 year now?

5 A. Yes.

6 Q. Now, you mentioned you wrote to the State. Did  
7 you also personally visit with personnel in the State Land  
8 Office to discuss the situation of the east half, east half  
9 lease?

10 A. I did, I visited with Jeff Albers.

11 Q. At the Land Office?

12 A. Yes, I did.

13 Q. And so you were quite clear, were you not, that  
14 you wanted to make sure that the State knew what was going  
15 on and that Ocean didn't want to drill on a bad lease?

16 A. Correct.

17 Q. Okay. Now, after the new lease was issued, did  
18 you then propose the well to Arrington Oil and Gas?

19 A. I initially proposed it to Doug Schutz  
20 immediately, and then a day or two afterwards when I was  
21 certain that David H. Arrington Oil and Gas owned the  
22 rights to the lease, I proposed the well to him.

23 Q. And is your proposal letter submitted as Exhibit  
24 2?

25 A. Yes, sir.

1 Q. And the second page of Exhibit 2 is simply a  
2 follow-up letter to Mr. Arrington?

3 A. Yes, it is.

4 Q. Okay, what response did Ocean receive?

5 A. I had a few conversations with Mr. Arrington  
6 about the lease. We talked about us buying the lease but  
7 we couldn't agree on terms. We had already pretty much  
8 reached our limit on what we thought it was worth, and so  
9 we couldn't come to an agreement.

10 Q. In your opinion, has Ocean made a good faith  
11 effort to obtain the voluntary joinder of the interest  
12 owners in the proposed well?

13 A. Yes, we have.

14 Q. And could you identify Exhibit 4 and discuss the  
15 costs of the proposed well?

16 A. Exhibit 4 is the AFE for the well. The dryhole  
17 costs are \$986,400, and the completed well costs,  
18 \$1,700,850.

19 Q. Is this cost in line with the cost of other wells  
20 drilled to this depth in this area of Lea County?

21 A. I believe it is.

22 Q. And does Ocean request that it be designated  
23 operator of the well?

24 A. Yes, we do.

25 Q. Do you have a recommendation for the amounts

1 which Ocean should be paid for supervision and  
2 administrative expenses if the parties cannot come to  
3 voluntary terms?

4 A. Yes, I do, \$6000 per month for a drilling well  
5 and \$600 per month for a producing well.

6 Q. And are these amounts equivalent to those  
7 normally charged by Ocean and other operators in this area  
8 for wells of this depth?

9 A. I believe they are.

10 Q. Do you request that this rate be adjusted  
11 periodically as provided by the COPAS accounting procedure?

12 A. Yes, sir, I do.

13 Q. And was Arrington Oil and Gas notified of this  
14 hearing?

15 A. Yes, they were.

16 Q. And is Exhibit 5 my affidavit of notice?

17 A. Yes, it is.

18 Q. Were Exhibits 1 through 5 prepared by you or  
19 under your supervision or compiled from company business  
20 records?

21 A. They were.

22 Q. And in your opinion is the granting of Ocean's  
23 Application in the interests of conservation and the  
24 prevention of waste?

25 A. Yes.

1 MR. BRUCE: Mr. Examiner, I'd move the admission  
2 of Ocean Exhibits 1 through 5.

3 MR. CARR: No objection.

4 EXAMINER BROOKS: One through 5 are admitted.

5 CROSS-EXAMINATION

6 BY MR. CARR:

7 Q. Mr. Maney, if I look at Ocean's proposal, you're  
8 seeking an order pooling the same acreage as David H.  
9 Arrington; is that not correct?

10 A. That's correct.

11 Q. You're proposing a well in the -- what is it, the  
12 southeast of the southeast of this --

13 A. Yes, I believe that's correct.

14 MR. BRUCE: Southwest --

15 THE WITNESS: Sorry --

16 Q. (By Mr. Carr) Southwest, that's right.  
17 Southwest southwest of the spacing unit. Mr. Arrington is  
18 proposing a well up in the northeast quarter?

19 A. Yes.

20 Q. And that's really the difference between the two  
21 proposals other than --

22 A. Yes.

23 Q. -- both wanting to operate?

24 A. Right.

25 Q. I believe you testified that in the proposed



1 spacing unit, the east half of 8, collectively Ocean,  
2 McCombs and Nadel and Gussman would have 50 percent of  
3 whatever well is drilled on that --

4 A. That's correct.

5 Q. You also operate the south half of Section 5,  
6 immediately north of there, do you not?

7 A. That's correct.

8 Q. And there is a well 660 feet off the north  
9 boundary of this standup east-half spacing unit?

10 A. Yes.

11 Q. That's an Ocean well?

12 A. Yes.

13 Q. What is the ownership in the south half of  
14 Section 5?

15 A. Ocean owns 53 percent, McCombs owns 26 percent,  
16 Nadel and Gussman owns 20 percent.

17 Q. What does that total? Is that all of it?

18 A. That's all of it.

19 Q. So you -- The same three partners that have 50  
20 percent in the east half of 8 have 100 percent of the south  
21 half of --

22 A. That's correct.

23 Q. -- Section 5?

24 You proposed the well to Mr. Arrington on January  
25 the 28th. That was the first formal proposal to Arrington?

1 A. Yes.

2 Q. Had not Mr. Arrington faxed a proposal to you the  
3 day before for the same property?

4 A. He may have.

5 MR. CARR: That's all I have, thank you.

6 EXAMINATION

7 BY EXAMINER BROOKS:

8 Q. I want to clarify the ownership on this -- You  
9 gave me the percentages. Arrington owns 50 percent, Ocean  
10 owns 26.67 and McCombs 13.33 and Nadel and Gussman 10  
11 percent?

12 A. Yes, sir.

13 Q. That's -- the unit is all now --

14 A. That's the unit, right.

15 Q. Where is the tract that Arrington owns? Is that  
16 the east half of the east half?

17 A. East half of the east half, yes, sir.

18 Q. And Ocean owns the north --

19 A. We own the west half of the east half.

20 Q. Okay, do you own 50 percent, or what percent do  
21 you own? Do you own a percentage -- an undivided interest  
22 in all of the west half, or --

23 A. Yes --

24 Q. -- is that split up?

25 A. -- that's our 26 percent.

1 Q. Okay, and the others, they also own undivided  
2 interest --

3 A. Yes.

4 Q. -- in the entire west half?

5 A. Yes.

6 Q. So there's no split of ownership between the  
7 tracts in the west half?

8 A. No.

9 Q. Okay. And the vertical limitations are from the  
10 surface to the -- did you say to the top of the  
11 Mississippian?

12 A. Top of the Mississippian.

13 Q. Okay, and what is the pool in which this is  
14 located?

15 A. It is the Atoka-Morrow -- let's see.

16 MR. BRUCE: Mr. Examiner, it's the North Vacuum-  
17 Atoka-Morrow Gas Pool.

18 EXAMINER BROOKS: North Vacuum- --

19 MR. BRUCE: That is in the Application.

20 EXAMINER BROOKS: Okay. And Mr. Carr has put on  
21 here that it's undesignated. Is it within the --

22 MR. BRUCE: It's within a mile, I believe.

23 EXAMINER BROOKS: Within a mile?

24 THE WITNESS: That's right.

25 Q. (By Examiner Brooks) Okay, any other pools that

1 anybody knows of that are affected?

2 A. (Shakes head)

3 Q. And you're asking for a 320-acre unit. Are you  
4 asking for any smaller units in case any other --

5 A. No.

6 Q. -- formations are --

7 A. Not at this time, no, sir.

8 Q. Okay, I believe that's all I have. Oh, maybe I  
9 better get it on the record, because I picked it up off of  
10 your Exhibit 4 here. Exhibit 4 reflects the location --  
11 your proposed location as being 660 from the south and 1980  
12 from the east; is that correct?

13 A. That's correct.

14 EXAMINER BROOKS: Thank you. Nothing further.

15 MR. BRUCE: I have nothing further of this  
16 witness.

17 EXAMINER BROOKS: You may call your next witness.

18 MR. BRUCE: I call Mr. Lowe to the stand.

19 JAMES T. LOWE,

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

22 DIRECT EXAMINATION

23 BY MR. BRUCE:

24 Q. Would you please state your name and city of  
25 residence for the record?

1 A. My name is James T. Lowe, from Spring, Texas.

2 Q. Who do you work for and in what capacity?

3 A. I'm employed by James Tobin Associates in the  
4 capacity as a consulting geologist for Ocean Energy, Inc.

5 Q. Okay. Have you previously testified before the  
6 New Mexico Oil Conservation Division?

7 A. I have not.

8 Q. Would you summarize for the Examiner your  
9 educational and employment background?

10 A. I have a bachelor's degree in geology from the  
11 University of Wisconsin in Milwaukee and a master's degree  
12 from Western Washington University in geology from the  
13 University of Washington.

14 I have 30 years of exploration oil and gas  
15 experience, mostly in the lower 48. Twenty-six of those  
16 have been with Unocal, and the last 15 years of that 26  
17 were in the Gulf Coast and mid-continent areas. The past  
18 two years I have been employed by BP as consulting  
19 geologist for west Texas in the Delaware Basin.

20 Q. Before we move on, there are three geologic  
21 exhibits presented by Ocean today, and they have the name  
22 of Frank Messa on them. Mr. Messa is also an Ocean  
23 geologist, correct?

24 A. Yes, sir.

25 Q. And he's kind of under the weather?

1 A. Yes, sir.

2 Q. Did you actually prepare Exhibits 6, 7 and 8?

3 A. I did.

4 Q. And you have reviewed all the data there, and it  
5 reflects your geologic opinion; is that correct?

6 A. Yes, sir.

7 MR. BRUCE: Mr. Examiner, I tender Mr. Lowe as an  
8 expert petroleum geologist.

9 EXAMINER BROOKS: Any objection, Mr. Carr?

10 MR. CARR: No.

11 EXAMINER BROOKS: So qualified.

12 Q. (By Mr. Bruce) Now, Mr. Lowe, could you identify  
13 your Exhibit 6 and discuss the structure in this area?

14 A. Exhibit 6 is a structure map of the Townsend-  
15 Morton areas on the top Morrow lime. The area shown on the  
16 map is a nine-section map with the section in question,  
17 Section 8, in the middle. The map is a scale of 1-to-3000.  
18 The red dots are currently producing Brunson sand, which is  
19 our primary objective. The contour interval is 100 feet.  
20 The area of Ocean Energy's lease position is colored in  
21 yellow, and the black area outlined in the east of 8 is the  
22 half-section in question.

23 The proposed well of Ocean Energy, the Dirt Devil  
24 8-1, is on the southwest quarter of the east half of  
25 Section 8. The structural position is in a north -- I

1 should say the north end of a nose which goes to the north  
2 from south and is in a relative synclinal position shown by  
3 the contours.

4 The two red numbers above and below are the  
5 current gas production in MCF, and the denominator of that  
6 number is the current gas cum in million MCF on the map.

7 Q. Are the production figures from the Atoka?

8 A. The production figures are from the Brunson-Atoka  
9 sand, yes, sir.

10 Q. Okay. Do you have anything further on this  
11 exhibit, Mr. Lowe?

12 A. No, sir.

13 Q. Let's move on to Exhibit 7. What does that  
14 depict?

15 A. Exhibit 7 is an isopach map of the lower Atoka-  
16 Brunson sand, and it is the net isopach, and it was defined  
17 as shown in the legend below as the net pay greater than  
18 8-percent density porosity, and the black number underneath  
19 that number shown by each well that penetrated the Brunson  
20 sand is the gross sand which has a character of less than  
21 60 API units.

22 Again, the red dots show the producing wells that  
23 have penetrated the Brunson sand and are the same numbers  
24 that were shown on the structure map.

25 The interpretation of the Brunson sand as shown

1 in the lease, shows that there is a relative thick across  
2 Section 8 in the southern portion of that section, and our  
3 location shows the sand is approximately -- they estimate  
4 it to be 40 to 45 feet thick in that zone.

5 The sand channel that the Brunson sand has been  
6 interpreted as extends north-northeast from that location.

7 Q. Now, when you look at Exhibit 6, the southeast  
8 quarter of Section 8 is somewhat structurally higher than  
9 the northeast quarter; is that fair to say?

10 A. Can you say that again, please?

11 Q. The southeast quarter of Section 8 is somewhat  
12 structurally higher than a location in the northeast  
13 quarter?

14 A. That is correct.

15 Q. But the sands appear to be much thicker in the  
16 southeast quarter?

17 A. Yes, sir, they do.

18 Q. And would it be your conclusion that you would  
19 want to stay in the southeast quarter of Section 8 because  
20 of the thicker sand?

21 A. Yes.

22 Q. Okay. Now, keeping your Exhibit 7 in front of  
23 you, could you move on to your Exhibit 8 and discuss the  
24 wells in this cross-section?

25 A. Exhibit 8 is a stratigraphic cross-section



1 through the wells that go through Section 8 and also a  
2 section on either side of Section 8, to the north and to  
3 the south.

4 The cross-section has a scale of 1 inch equals 80  
5 feet vertically, and no horizontal scale. The line shown as  
6 datum top Morrow line is the stratigraphic datum that the  
7 logs, the three wells, were hung on. The yellow portion  
8 across the map is the top and bottom of the Brunson sand as  
9 shown by the correlations in each wellbore. And the red  
10 numbers on each side of the well, on the side of each well,  
11 show the perforations and productive interval and the  
12 cumulative production of the wells surrounding our  
13 location.

14 The cross-section shows dramatically that the  
15 Ocean Energy location will be approximately the same  
16 thickness as the sand in the Marathon Oil Company State  
17 Community Number 2, Section 17, immediately to the  
18 southeast.

19 Q. Okay. There are some pretty good wells to the  
20 south and west of your proposed location, are there not?

21 A. Yes, sir, that is where the contours of the  
22 isopach show that the sand is cleanest and thickest.

23 Q. Okay, and the structural position of your  
24 proposed well is pretty similar to those 10- and 12- and  
25 30-BCF wells to the west, is it not?

1           A.    That is correct.  It's slightly lower, but still  
2           in a relative high structural position.

3           Q.    And from a geologic standpoint, is Ocean's  
4           proposed location in the southwest quarter of the southeast  
5           quarter the preferred location?

6           A.    It would be easiest to drain that sand from that  
7           section, that portion of that section.

8           Q.    Okay.  Again, were Exhibits 6 through 8 prepared  
9           by you or under your supervision?

10          A.    Yes, sir, they were.

11          Q.    And in your opinion is the granting of Ocean's  
12          Application in the interests of conservation and the  
13          prevention of waste?

14          A.    Yes, it is.

15               MR. BRUCE:  Mr. Examiner, I'd tender Ocean  
16          Exhibits 6 through 8.

17               EXAMINER BROOKS:  Any objection?

18               MR. CARR:  No objection.

19               EXAMINER BROOKS:  Ocean 6 through 8 are admitted.

20                               EXAMINATION

21          BY MR. CARR:

22               Q.    Mr. Messa, I just have -- I mean, I'm sorry.  I  
23          just have one question here, really.  Did you work with Mr.  
24          Messa in the preparation of --

25          A.    Yes, I was under his supervision.

1 Q. And in the preparation of this Exhibit, both 6  
2 and 7, the structure map and the isopach, did you use any  
3 information other than subsurface data?

4 A. I used subsurface data for the maps plus prior  
5 maps that were shown to me.

6 MR. CARR: That's all I have, thank you.

7 EXAMINER BROOKS: Well, Mr. Bruce referred to Mr.  
8 Messa as an Ocean geologist. I assume that's with a  
9 capital O.

10 (Laughter)

11 EXAMINER BROOKS: Okay, late in the day.

12 EXAMINATION

13 BY EXAMINER BROOKS:

14 Q. You have a known point here at A, and then you  
15 have a known point at this location over in the west half.

16 A. Of Section 8?

17 Q. Of Section 8.

18 A. Yes, sir.

19 Q. And what is it that makes you think that this --  
20 high on the structure noses up into Section 8 the way  
21 you've shown it, as far as this just being somewhere in  
22 between -- anywhere in between those two known points?

23 A. Well, you can see on my structure map, you can  
24 see that the nose goes from A, which is 8033 feet, to 8162  
25 in that well in question that you just asked for.

1 Q. Right.

2 A. And the next control point to the north are lower  
3 than --

4 Q. Right.

5 A. -- those other two. So I suggest that this whole  
6 structure noses down to the north-northeast and that our  
7 location would be somewhat in between those two.

8 Q. Yeah, the structure is -- There's considerably  
9 less thickness of structure in this Brunson-Atoka in either  
10 of the other two wells shown on your cross-section than  
11 there is in the State Com 17 Number 2 that's down in  
12 Section 17.

13 A. Yes, sir.

14 Q. And your theory is based on the postulate that  
15 the thicker sand continues up into Section 8, and I guess  
16 that's what I'm trying to figure out.

17 A. Okay, and my control --

18 Q. What reasons --

19 A. What do I have for that?

20 Q. -- would cause that thickness to project up into  
21 Section 8 --

22 A. Okay --

23 Q. -- when you don't have that comparable thickness  
24 anywhere else?

25 A. Okay, if you -- A regional review of the Brunson

1 sand in this area shows that these sands tend to accumulate  
2 in the low portions at the top of the Morrow lime  
3 structure. So when you contour the lower Morrow lime  
4 there's this trough, and these sands tend to follow this  
5 trough.

6 And in this case, since this trough is designed  
7 -- or interpreted to go north-northeast, that sandbody  
8 should follow the structural lows.

9 And in fact, if you were to go to the section  
10 northeast of Section 8, you'll see that there are values of  
11 around --

12 Q. You mean Section 4, right?

13 A. Section 4, there are values of 12 and 14 feet of  
14 sand, and I just interpret that channel to at least show  
15 that that sand goes in that direction, because directly to  
16 the west, where A' is, you can see there's a 5-foot net  
17 porosity thickness with a gross of 6. So that tells me  
18 that the channel doesn't go in that direction anymore. So  
19 it must proceed to the east of the A'.

20 EXAMINER BROOKS: Okay, thank you.

21 Does anybody want to follow up?

22 MR. BRUCE: I have no follow-up.

23 MR. CARR: No.

24 EXAMINER BROOKS: Next witness.

25 MR. BRUCE: Call Mr. Payne to the stand.

1                   RAYMOND W. PAYNE,  
2   the witness herein, after having been first duly sworn upon  
3   his oath, was examined and testified as follows:

4                   DIRECT EXAMINATION

5   BY MR. BRUCE:

6           Q.    Would you please state your name and city of  
7   residence for the record?

8           A.    Ray Payne, Houston, Texas.

9           Q.    What is your occupation?

10          A.    Petroleum reservoir engineer.

11          Q.    Who do you work for?

12          A.    Ocean Energy.

13          Q.    Have you previously testified before both the Oil  
14   Conservation Division and Commission as a petroleum  
15   engineer?

16          A.    Yes, I have.

17          Q.    And were your credentials as an expert accepted  
18   as a matter of record?

19          A.    Yes, they were.

20          Q.    Does your area of responsibility include this  
21   part of southeast New Mexico?

22          A.    Yes, it does.

23          Q.    And are you familiar with the geology involved in  
24   this case?

25          A.    Yes, I am.

1 MR. BRUCE: Mr. Examiner, I'd tender Mr. Payne as  
2 an expert --

3 THE WITNESS: Or the engineering, excuse me.

4 MR. BRUCE: Didn't mean to hurt your feelings.

5 THE WITNESS: That's okay.

6 EXAMINER BROOKS: He could be familiar with the  
7 geology too.

8 MR. CARR: We think he's qualified as both.

9 EXAMINER BROOKS: So qualified.

10 Q. (By Mr. Bruce) Up front, Mr. Payne, you know,  
11 there has been a change in ownership. Ocean's well  
12 location is based on geology and engineering regardless of  
13 the leasehold ownership; is that correct?

14 A. Yes, sir, we've had that location spotted for  
15 some time now.

16 Q. Okay. And your conclusion is that the southwest  
17 quarter, southeast location is better from an engineering  
18 standpoint, as well as Mr. Lowe's conclusion that it's  
19 better from a geologic standpoint?

20 A. Yes, sir.

21 Q. Would you identify your Exhibit 9 and discuss its  
22 contents for the Examiner? And perhaps, Mr. Examiner, if  
23 you'd keep, perhaps, one of Mr. Lowe's exhibits out in  
24 front of you, Exhibit 6, say --

25 A. It may be helpful if I had some of those exhibits

1 with me too.

2 Q. Just so that you can see the well or wells he's  
3 talking about.

4 Again, Mr. Payne, could you identify Exhibit 9  
5 and specify for the Examiner where the Texaco 5-1 well is  
6 located?

7 A. Yes, this is the monthly production history for  
8 the Texaco 5-1, located in Section 5, just north of our  
9 proposed unit.

10 EXAMINER BROOKS: That's the A'?

11 THE WITNESS: Yes, that's the start of the --  
12 that's A'.

13 EXAMINER BROOKS: Cross-section.

14 THE WITNESS: Yes, sir.

15 EXAMINER BROOKS: Okay.

16 THE WITNESS: And it shows the cumulative oil  
17 production as of December, 2002, at just under 3000 barrels  
18 of oil and 562 million cubic feet of gas.

19 Q. (By Mr. Bruce) What is Exhibit 10?

20 A. Exhibit 10 is a pressure and cumulative  
21 production history for the same well, the Texaco State 5-1.

22 Q. Okay. And then move on to your Exhibit 11. What  
23 does that depict?

24 A. Exhibit 11 is a decline-curve analysis for the  
25 same subject well, the Texaco State 5-1.



1 Q. What is your conclusion as far as ultimate  
2 recovery from this well?

3 A. Estimated recovery from the Texaco State 5-1 is  
4 1.2, 1.3 BCF of gas, based on the decline curve.

5 Q. Okay. And then what is Exhibit 12?

6 A. Exhibit 12 is a P/Z plot for the same subject  
7 well, and it's -- using the pressure data on Exhibit 10,  
8 it's suggesting an ultimate recovery from this Texaco State  
9 5-1 of 1.1 BCF, which is consistent with the decline-curve  
10 analysis.

11 Q. Okay. Now, on this Exhibit 12 you've got black  
12 diamonds and red squares. What does that depict?

13 A. The black diamonds are the P/Z data. It's shown  
14 in the legend on the right-hand side of the graph, and the  
15 sort of reddish squares are just the pressure from the  
16 buildups.

17 Q. Okay. Now, before we move on to your final  
18 exhibit, in looking at the data from the Texaco 5-1 well,  
19 why does Ocean prefer to drill in the southwest of the  
20 southeast, rather than at a location in the northeast  
21 quarter of Section 8?

22 A. At this time I can't support adequate reserves in  
23 the north part of that unit. So it would be -- I couldn't  
24 justify an economic well.

25 Q. The 5-1 should pay out, shouldn't it?

1           A.    The 5-1 should pay out, but there's not enough  
2 reserves remaining, and your cumulative production from the  
3 5-1 currently is at about .6 of a B, and the ultimate  
4 recovery of that area is going to be 1.2 BCF, so that a new  
5 well sharing in that remaining .6 BCF of gas would not be  
6 economical, as we understand the reservoir today.

7           Q.    And there has been a substantial decline in the  
8 bottomhole pressure of that well, has there not?

9           A.    That is correct, and --

10          Q.    Now, in looking at the production data on Mr.  
11 Lowe's Exhibit 6, there are better wells closer to your  
12 proposed location in the southwest of the southeast than if  
13 you move the well to the north; is that correct?

14          A.    That is correct.

15          Q.    And based on the geology, does your engineering  
16 support the well in the southwest of the southeast?

17          A.    Yeah, based on the reserve study we've done in  
18 that area, the remaining reserves in that area of the  
19 reservoir would support an economic well.

20          Q.    Now, another factor -- and I don't think it's  
21 reflected on these exhibits, Mr. Payne -- in the west half  
22 of Section 9, has there been a well recently drilled there?

23          A.    Yes, there has.

24          Q.    Where was that well located?

25          A.    It's in the northwest quarter section. Ocean has

1 a small interest in that. It's underneath the yellow  
2 square there. That's called the -- It's the Mewbourne Oil  
3 Eureka 9-1.

4 Q. That was drilled by Mewbourne Oil Company?

5 A. That is correct.

6 Q. And Ocean participated in the well?

7 A. Yes, we did.

8 Q. And what were the results of that well?

9 A. It had not sand development. It's also  
10 suggestive that the reservoir is not as extensive in that  
11 area.

12 Q. And that's another reason not to drill in the  
13 northeast quarter of Section 8?

14 A. Absolutely. I'd also point out the Mewbourne  
15 well shown on Exhibit 6, in Section 18, in the northeast  
16 quarter section. It was recently drilled in and amongst  
17 wells that have been produced since the 1970s with these,  
18 you know, 11 BCF of cum and 9 BCF of cum. It found a  
19 bottomhole pressure of only 1000 pounds, yet it looks like  
20 it's going to produce 2.5 BCF of gas.

21 Q. That's the well that has -- the bottom number is  
22 1386 under it?

23 A. Yes, that's the current cumulative production.  
24 The reserve estimate on that well is 2.5 BCF.

25 Q. Okay. So that encourages you to drill at your

1 location also?

2 A. That's right.

3 Q. Let's move on to your final exhibit, Exhibit 13.  
4 There's a lot of data on here. Could you go through that  
5 for the Examiner?

6 A. Yeah, I don't want to go through each and every  
7 well, but what it is is using the data available through  
8 the state reporting system, it just shows pressures versus  
9 time in the area of interest, and it shows that these wells  
10 are in generally producing from a common reservoir. The  
11 reservoir pressures drop in a pretty good trend.

12 Q. Okay, it's what you'd expect to see when you  
13 drill a well out here?

14 A. Yes, I would expect to see partial depletion.  
15 And in fact, the Texaco State 5, referring back to Exhibit  
16 Number 10, the original pressure when it was drilled was  
17 estimated at 3210 pounds average pressure, which is  
18 significantly below the original reservoir pressure of the  
19 area of about 5000 pounds.

20 Q. Okay.

21 A. So even though it was quite a distance away from  
22 any significant production, it had seen some pressure  
23 depletion.

24 Q. Okay. I mean, you would expect pressure  
25 depletion even at your proposed location?

1 A. Absolutely.

2 Q. But on the other hand, geologically and  
3 engineeringwise it would be better than the northeast  
4 quarter where you are closer to a -- not a great well and a  
5 dry hole?

6 A. That's right, the tank is in the south. That's  
7 where the thick sand is at, and that's where the geologic  
8 and engineering data support the most economical well.

9 Q. Were Exhibits 9 through 13 prepared by you or  
10 under your supervision?

11 A. Yes, they were.

12 Q. And in your opinion is the granting of Ocean's  
13 Application in the interests of conservation and the  
14 prevention of waste?

15 A. Yes, sir.

16 MR. BRUCE: Mr. Examiner, I'd move the admission  
17 of Ocean Exhibits 9 through 13.

18 EXAMINER BROOKS: Objection.

19 MR. CARR: No objection.

20 EXAMINER BROOKS: Ocean 9 through 13 are  
21 admitted.

22 Mr. Jones, do you want to take on this witness?

23 MR. CARR: I'd like to --

24 EXAMINER BROOKS: It's in your area of expertise.

25 MR. CARR: Mr. Examiner, I'd also like to cross

1 this witness.

2 (Laughter)

3 EXAMINER BROOKS: Oh, I'm sorry, Mr. Carr, you  
4 get first cut. Go right ahead, I apologize.

5 MR. BRUCE: I object.

6 (Laughter)

7 MR. CARR: I will assume that that does not  
8 reflect on your opinion of my ability to cross-examine this  
9 witness in the least.

10 (Laughter)

11 CROSS-EXAMINATION

12 BY MR. CARR:

13 Q. Mr. Payne, I'd like to direct your attention to  
14 the well in the southeast corner of Section 5. That's the  
15 Ocean Texaco -- what is that, the 5-1?

16 A. Yes, sir.

17 Q. I think you indicated that you had been  
18 interested in drilling down in the southeast quarter of  
19 Section 8 for sometime.

20 A. Yes, sir.

21 Q. Well, your interest down there predated the time  
22 that you actually drilled the well in the south half of  
23 Section 5; isn't that correct? I thought Mr. Messa said it  
24 was back in the end of 2000 that you were actually starting  
25 to --

1           A.    The Texaco well was drilled in 2001.  It was  
2 actually drilling when I hired on with Ocean Energy, and I  
3 personally didn't get involved with that prospect.

4           Q.    It's a fairly good well?

5           A.    It's a fairly good well.  It's -- you know, at  
6 1.2 BCF I would say it's a below average Morrow well.

7           Q.    And producing 267 MCF a day at this time?

8           A.    267 MCF a day, that sounds correct.

9           Q.    It's 660 feet off of the north line of the  
10 spacing unit in the east half of Section 8; is that  
11 correct?

12          A.    Yes, sir.

13          Q.    In your opinion, is the Texaco 5-1 well draining  
14 reserves from the northeast quarter of Section 8?

15          A.    I think that's a possibility, yes, sir.

16          Q.    If I understood the testimony, the location in  
17 the southeast quarter is preferable because it's actually  
18 in a thicker portion of the reservoir; is that correct?

19          A.    Yes, sir.

20          Q.    Isn't the location proposed by Mr. Arrington in  
21 the northeast quarter in a thicker portion of the  
22 reservoir, as mapped, than the Texaco 5-1 well in the south  
23 half of Section 5?

24          A.    No, sir.

25          Q.    Aren't there locations in the northeast quarter

1 that would be thicker?

2 A. No, sir, not to my understanding.

3 Q. How thick is the section in the 5?

4 A. I think we may -- You know, as a reservoir  
5 engineer I define thickness as the container, the average  
6 thickness over the drainage area. The thickness of the  
7 wellbore itself is not as important as the area which I'm  
8 draining.

9 So if you look at the location where we spot the  
10 well, the reservoir is much thicker. That's getting into  
11 the heart of the reservoir and where you'd want to place  
12 your well for optimum drainage purposes. Up in the neck of  
13 the sand where you see the rapid pressure decline in the  
14 Texaco 5 and in that area, suggesting that the reservoir,  
15 although it may be thicker, but it's not as extensive.

16 Q. If we look at the well in the south half of  
17 Section 5 --

18 A. Yes, sir.

19 Q. -- how thick is the formation there?

20 A. In the south half of Section 5?

21 Q. Uh-huh.

22 A. Seven feet, if I recall correctly.

23 Q. And how thick would you say the formation is at  
24 the Arrington location in the northeast of 8?

25 A. I don't know. I don't know where the Arrington



1 location is at.

2 Q. If you -- You haven't compared that location?

3 A. We've looked at several locations and discussed  
4 some locations. The last location I personally was  
5 involved with and discussed with Arrington was not -- if I  
6 recall correctly, was still in the southeast quarter.

7 Q. If we -- You said you had how many feet in the  
8 well in the southeast of 5? Just a minute ago.

9 A. Yeah, I said 7 feet, the map is showing 5 net, 6  
10 gross.

11 Q. Okay. If we look at the northeast of Section 8,  
12 there are areas where they're -- based on Ocean's own  
13 mapping, the formation is at least 30 feet thick; isn't  
14 that fair to say?

15 A. Yes.

16 Q. Okay. And so there are locations in the  
17 northeast which would be substantially thicker than the  
18 location in the 5-1 well? That's all I'm trying to ask.

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

20 Q. Now, when you talked about these wells -- And  
21 that well may be draining down into the northeast quarter;  
22 I believe that was your testimony?

23 A. Yes, sir.

24 Q. You looked over in Section 9 at the Mewbourne  
25 well -- that was a dry hole -- and you said that would

1 further discourage you from developing in the northeast  
2 quarter; is that accurate?

3 A. That's correct.

4 Q. I didn't hear you mention the well that has been  
5 drilled by Texaco in the southwest of Section 4. Did we  
6 discuss that well?

7 A. No, we have not.

8 Q. That's a recent drill, is it not?

9 A. Yes, it is.

10 Q. And it's in the channel -- or in the structure or  
11 the isopach as mapped by Ocean; isn't that true?

12 A. As -- mapped as 12 feet, 14 gross.

13 Q. And isn't that well producing now 2 million a  
14 day?

15 A. I'm not sure what the current production is, but  
16 the reported initial production was 2 million a day, and I  
17 do believe it's a significantly better well than our Texaco  
18 5 well.

19 Q. And it's got about twice as much thickness, based  
20 on your mapping, as your Texaco 5-1?

21 A. Yes, sir.

22 Q. And we could get maybe three times that again by  
23 moving down into the northeast of Section 8; isn't that  
24 right, just in terms of thickness?

25 A. Well, again, you were talking about the thickness

1 at the wellbore where you're looking at the drainage in the  
2 area. My reserve estimates of that well in my data is  
3 somewhat limited on the Texaco Shoe Bar 4-2, suggests that  
4 it's draining those reserves rather rapidly.

5 If you look at the production plot on -- I'm  
6 showing on Exhibit 11, you'll note that you have a  
7 significant change in the decline curve in the second half  
8 of 2002. That was the result of the production from that  
9 Shoe Bar 4-2 well.

10 Q. So do you believe that -- In that Shoe Bar 4,  
11 that's the well in Section 4?

12 A. Yes, I think we would have --

13 Q. That could also be draining from the northeast;  
14 isn't that right?

15 A. Yes, sir, I do believe that's possible.

16 Q. Now, have you made any estimate of the pressure  
17 that might be available to a well in the northeast quarter  
18 of Section 8?

19 A. Current operations on the Texaco 5 as the well  
20 was producing -- It's not currently producing 260 MCF a  
21 day. I misspoke. We performed an acid -- what we call an  
22 isotrol treatment on the well this week to try to enhance  
23 the production to the best of our ability.

24 During that operation we noted a shut-in tubing  
25 pressure, fluid in the well, of 650 pounds. I have not

1 confirmed that with a dip in pressure, but if that is  
2 accurate then my current reserve estimates of 1.2 BCF may  
3 be optimistic.

4 Q. Okay.

5 A. So bottom line, your answer to the question what  
6 the pressure is, I think it could be 600 pounds.

7 Q. In the northeast quarter?

8 A. Yeah, 600 to 1500 pounds would be my range.

9 Q. Now, if we look at your Exhibit 10 -- this is on  
10 your well, the 5-1 -- you initially encountered a 2981-  
11 pound pressure in that well; is that right?

12 A. Yes.

13 Q. And what is the bottomhole pressure in the Well  
14 4? Do you know what that would be?

15 A. It was reported to me when they drilled it, it  
16 was reported at 2400 pounds.

17 Q. Now, if we then look at your plots for the wells,  
18 I believe this plot -- it's Exhibit 13 -- is for wells down  
19 to the south and west of your location, your proposed  
20 location?

21 A. Yes.

22 Q. What is the current pressure range for those  
23 wells?

24 A. Can you ask that question again, please?

25 Q. If I look at the curve, it seems to me that if I

1 go over and start looking at the wells that are depicted on  
2 Exhibit 13 --

3 A. Yes, sir.

4 Q. -- these are the wells basically south and  
5 southwest of the spacing unit --

6 A. Yes, sir.

7 Q. -- we're talking about --

8 A. Yes, sir.

9 Q. -- and those pressures have dropped down to what?  
10 About 900 pounds?

11 A. Yes, sir.

12 Q. And so we have 900 pounds down offsetting your  
13 location and we have something in the neighborhood of 2000  
14 pounds offsetting the Arrington location?

15 A. My best estimate, I believe I said, was somewhere  
16 between 600 and 1500 pounds, in our -- in the offset to --

17 Q. You would agree with me that there are  
18 substantially higher pressures north?

19 A. 600 to 1500. They could be lower or could be,  
20 you know, 1500 --

21 Q. We only have your numbers.

22 A. Right.

23 Q. You have 900 south and you have what, 1600 north?

24 A. That's the high side.

25 Q. And -- I'm just asking you for your numbers.

1 What are they?

2 A. I believe I said that I felt that the pressures  
3 in the north half of that unit, in my opinion, would be  
4 somewhere between 600 pounds and 1500 pounds. It could be  
5 substantially higher --

6 Q. Do you have anything --

7 A. -- 900 pounds.

8 Q. Do you have anything to support a 600-pound  
9 pressure north of this unit, north of this spacing unit?

10 A. Yes, sir, the shut-in tubing pressure on the  
11 Texaco State 5 that we just collected a few days ago is  
12 suggestive of the lower pressure.

13 Q. Okay.

14 A. And I'd like to also add that the -- you know,  
15 pressure in itself, it's just not the only measure of the  
16 reserve potential. It's the size of the reservoir. A  
17 thousand pounds pressure in a bigger tank will yield a lot  
18 more reserves than a 1000-pound pressure in a smaller part  
19 of the reservoir.

20 Q. Wouldn't you agree that a well with 30 feet of  
21 pay as mapped at the same pressure as a well with five to  
22 six feet of pay as mapped would produce substantially more?

23 A. Not necessarily.

24 Q. Let me ask you this. If no well is drilled in  
25 the northeast quarter, the reserves in the northeast

1 quarter are going to be drained, are they not? By some  
2 other well?

3 A. I believe that's correct.

4 Q. And the only other well would be the Ocean-  
5 operated well in Section 5, and the Texaco-operated well in  
6 Section 4; isn't that right?

7 A. No, I don't think that we've ever testified that  
8 it would -- Currently I could not economically justify a  
9 well in that northern --

10 Q. I'm not -- I'm asking you if --

11 A. That doesn't mean that we're not going to -- that  
12 a well won't be --

13 Q. If you don't understand my question, tell me and  
14 I'll restate it. But my question is this: It was my  
15 understanding that you said if no other wells are drilled  
16 north of this spacing unit, that reserves will be drained  
17 from the northeast quarter of Section 8; is that right?

18 A. Yes, sir.

19 Q. And if there are no other wells drilled up there  
20 to drain those reserves, there are only two; isn't that  
21 right?

22 A. No, I believe the well that we're proposing to  
23 drill would also drain those reserves.

24 Q. Is that north of the northeast quarter?

25 A. No, sir. The location that we're proposing would

1 also --

2 Q. I'm not asking you about your location. I'm  
3 asking you about the northeast quarter. And if there are  
4 no other wells, what wells will drain those reserves?

5 A. Reserves from the northeast quarter?

6 Q. Yes, sir.

7 A. Yes, I believe the well we're proposing will  
8 drain the reserves, as well as those wells to the north in  
9 Section 5 and Section 4.

10 Q. So you're saying a well 660 out of the southwest  
11 quarter of this unit will drain the northeast quarter as  
12 effectively as a well 660 feet from the line?

13 A. No, not necessarily.

14 Q. Well then, what are you saying?

15 A. I think that you can drain some of those  
16 reserves, as demonstrated by the original pressure on the  
17 Texaco 5 was at 3200 pounds when it was drilled, and there  
18 was no other well over a mile away when that well was  
19 drilled. Yet, you know, nearly 50 percent of the reserve  
20 potential had already been drained. So yes, these wells  
21 can drain over a large area.

22 If you locate your wellbore in a very thick  
23 portion of the well where your abandonment pressures are  
24 very low, I think that you could potentially recover  
25 significantly more reserves than what we will in the Texaco



1 5.

2 Q. Let me ask you this. If you are designated  
3 operator and prevail in this case, is Ocean prepared to  
4 drill two wells in the east half of Section 8?

5 A. Currently I couldn't justify an economic well in  
6 that quarter section.

7 MR. CARR: That's all I have, thank you.

8 EXAMINER BROOKS: Well, Mr. Jones, I'll let you  
9 go ahead of me.

10 EXAMINATION

11 BY MR. JONES:

12 Q. I'll be brief here. This Texaco State 5-1 in  
13 about the third quarter of '02 took a drastic hit on their  
14 reserves, I can tell. And you're saying that was the  
15 effect of the Chevron Shoe Bar 4-2?

16 A. Yes, sir. That well was completed and brought on  
17 line in May of 2002.

18 Q. Okay. Is that because of proximity, or is that  
19 because of heterogeneity, in other words, maybe a  
20 southwest-northeast permeability trend there or --

21 A. I'm not -- I couldn't -- I'm not aware of any  
22 permeability preferences in one direction or the other.  
23 The sand, when you catch it, is very permeable. We've got  
24 rotary sidewall cores, and our Texaco 5 well is suggesting  
25 5 millidarcies of permeability.

1           So I think it's -- you know, when you catch it,  
2 even a thin sand -- We've got examples of four or five foot  
3 of sand producing 11 BCF and 40 foot of sand producing 5  
4 BCF. So I think it's more important to be near or close to  
5 the tank, the big part of the sand, for you to maximize  
6 your reserve recovery.

7           Q.    Okay. Speaking of that, there's some other red  
8 intervals colored in on this cross-section. Are there  
9 other Atoka and possibly even Morrow intervals that you  
10 might get preferably by drilling in the southeast quarter  
11 versus the northeast quarter?

12          A.    I have not been made aware of any potential  
13 significant reserve accumulations in any other sand other  
14 than the Brunson. I know the Fat Lady does pay to minor  
15 quantities in the area, but it's not been considered in our  
16 economic evaluation.

17          Q.    So you don't ever plan on -- That State 5 Number  
18 1 had a significant -- it did have some of that sand in the  
19 upper Atoka show up. So is that -- and it didn't seem to  
20 show up as much in the wells to the south and the west.  
21 Can you possibly anticipate, if you did drill up in the  
22 north and the east, that you might hit -- have a better  
23 chance of getting that?

24          A.    I have not see any geologic interpretation on it,  
25 and the completions that I'm familiar with for that sand

1 are very limited reserve potential. But that could --  
2 Pending that geologic interpretation, that could encourage  
3 us to drill there.

4 Q. And there's no other bailout zones that would  
5 preferentially convince you to drill where you're at, like  
6 maybe the Abo? Because the North Vacuum-Abo is real close  
7 to where you're --

8 A. We're down off --

9 Q. -- a few miles away, I guess.

10 A. Yeah, we're down off the structure here, so --

11 Q. Okay.

12 A. -- all these reservoirs would be stratigraphic  
13 traps. And again, I'm not -- This is the only target that  
14 I've been made aware of.

15 EXAMINER JONES: Okay, pass. That's all of my  
16 questions.

17 EXAMINATION

18 BY EXAMINER BROOKS:

19 Q. Mr. Carr asked you about drainage from the  
20 northeast quarter, and you said that it could be drained by  
21 -- the Texaco 5-1 could be drained by the Shoe Bar 4-2, and  
22 it could also be drained by your proposed Dirt Devil 8-1.

23 A. Yes, sir.

24 Q. Which make sense to me. But Mr. Carr then also  
25 asked if a well that's 660 feet from the line wouldn't

1 drain a lot more than a well that's -- what? Almost half a  
2 mile from the line, at 1980 feet from the line. And that  
3 also seems to make sense to me.

4 But it seemed to me you had an explanation of why  
5 you thought that might not necessarily be true, that the  
6 Texaco 5-1 might not necessarily drain substantially more  
7 from the northeast quarter than what the well down in the  
8 southeast quarter -- I didn't really follow that  
9 explanation, so I wanted to try again.

10 A. Okay, well -- and I probably wasn't very clear.

11 Q. Well, I'm not very knowledgeable, so...

12 A. These reservoirs, you can take them to very  
13 abandonment pressures. We're talking about trying to --  
14 You know, our expected bottomhole pressure in our well is  
15 -- if we get 1000 pounds, we'll be very happy. And to be  
16 successful, we're going to need to have an abandonment  
17 pressure that's below 100 pounds, p.s.i.

18 So if you can catch a good, high-permeable, high-  
19 quality sand, you can deplete the reservoir to a much, much  
20 lower abandonment pressure. If you have a thin well that  
21 maybe is not as permeable, then your abandonment pressures  
22 are much, much higher, such that you would be able to  
23 produce more reserves out of the reservoir. I don't know  
24 if that was any clearer or not, but I can try it again.

25 Q. Okay, what you're saying is, because you

1 anticipate higher permeability down in the southeast  
2 that --

3 A. It's a combination of thickness and permeability  
4 both. If you have 5 millidarcies of perm and only 2 foot  
5 of sand --

6 Q. Right.

7 A. -- you're at the economic rates that you can  
8 produce the well, and you have to shut it in because the  
9 well becomes uneconomic. But if you have 40, 50 foot of  
10 sand with that same permeability, then you can continue to  
11 produce the well at economic rates for much longer and, in  
12 effect, have a much lower abandonment pressure.

13 Q. And because you can continue to produce the well  
14 at the lower pressures -- Is that what you're saying?

15 A. Yes, sir.

16 Q. Because you can continue to produce the well for  
17 a longer period of time as the reservoir pressure goes  
18 down, then maybe you can draw more out of that reservoir  
19 than a well that will reach economic limit sooner?

20 A. Yes, sir, and the well is located closer to the  
21 tank, to the big part of the reservoir where the majority  
22 of the production is currently being produced.

23 Q. And what you're saying is, because the zone is  
24 thicker and the permeability is higher, then even at lower  
25 pressures you can continue to produce that well before you

1 reach the point where the lifting costs exceed what you're  
2 producing?

3 A. Exactly.

4 EXAMINER BROOKS: Okay, I think I understand the  
5 logic of that.

6 Any follow-up, anyone?

7 MR. BRUCE: I have a question or two, Mr.  
8 Examiner.

9 EXAMINER BROOKS: Go ahead.

10 REDIRECT EXAMINATION

11 BY MR. BRUCE:

12 Q. I just want to clarify something, Mr. Payne.  
13 Based on the geology, you think the reservoir is there in  
14 the northeast quarter?

15 A. Yes, sir.

16 Q. But based upon the pressure, et cetera, you can't  
17 economically justify drilling the well in the northeast  
18 northeast?

19 A. Certainly not at this time.

20 Q. And looking at your Exhibit 11, which is your  
21 decline curve, your well is obviously being affected by the  
22 well in Section 4; is that correct?

23 A. Yes, sir.

24 Q. And so if you drill another well there, you'll  
25 have basically three wells, oh, a couple of thousand feet

1 apart, combined, from each other?

2 A. Yes, that's correct.

3 Q. I mean, basically three wells in the space of 120  
4 acres or so, or maybe even less?

5 A. Yeah.

6 Q. And if you drill in the southeast quarter you  
7 don't have that same well concentration, do you?

8 A. No, sir.

9 Q. So you would hope to have, number one, thicker  
10 reservoir, based on the geology, and you would not be  
11 affected as much by the pressures; is that fair to say?

12 A. Well, the pressures are going to probably -- may  
13 be as low or possibly even lower, but the reservoir should  
14 be a lot thicker in that area, which will more than  
15 compensate for that lower pressure.

16 Q. And that's evidenced by the Mewbourne well?

17 A. Absolutely, correct. In the current production,  
18 all those wells to the south are producing, and producing  
19 in greater quantities than our Texaco 5 well is, and  
20 they've been on line for 20, 30 years. So that's very  
21 suggestive that the tank is to the south, not to the north.

22 MR. BRUCE: Thank you.

23 MR. CARR: I just want to follow up on one thing  
24 that Mr. --

25 EXAMINER BROOKS: Go ahead.

## RE CROSS-EXAMINATION

BY MR. CARR:

Q. Mr. Payne, you said that it wouldn't be wise to put a well in the northeast quarter, because then you'd have three wells in fairly close proximity to each other producing these reserves; is that right?

A. That would -- I think that -- Currently, that's my understanding of the reservoir, that's correct.

Q. Would Mr. Arrington share in any of the reserves without that third well?

A. Excuse me, say that question again.

Q. Would Mr. Arrington share in any of the reserves produced without that third well?

A. Certainly he would. He's got reserves in the well that we're proposing to drill.

Q. So he gets a share of what you get out of the southeast quarter, while the reserves in the northeast are drained by wells to the north?

A. No, I think I testified that I believe that our well can drain those reserves.

MR. CARR: Thank you.

## FURTHER EXAMINATION

BY EXAMINER BROOKS:

Q. Now, let me get this clear. Are you suggesting that even though -- Are you suggesting that regardless of



1 the fact that it may not be worth the drilling costs of two  
2 additional wells, are you suggesting that if you drilled  
3 two additional wells, that they would actually result in  
4 less production than --

5 A. No, sir.

6 Q. -- less total production than from the existing  
7 well plus one more?

8 A. No, I'm referring to economics.

9 Q. Okay, so --

10 A. No, you're absolutely correct.

11 Q. -- you're not suggesting that there would be  
12 reservoir damage or depletion of drive pressure or anything  
13 like that as a result of drilling two wells in this unit?

14 A. No, sir, ultimately I think all those reserves  
15 will be drained adequately from the existing wells in and  
16 out of our unit, and an additional well would only increase  
17 the recovery under that tract but not improve the economics  
18 of that tract.

19 Q. Yeah, so all of the reserves will be drained from  
20 out of the northeast quarter, but some of them will be  
21 drained by wells located off of that quarter section?

22 A. Yes, sir, they will.

23 EXAMINER BROOKS: Any follow-up from anybody?

24 MR. BRUCE: I have no further questions, and that  
25 ends my direct case.

1 EXAMINER BROOKS: Mr. Jones?

2 EXAMINER JONES: No.

3 EXAMINER BROOKS: Very good. Mr. Carr, you may  
4 call your first witness.

5 MR. CARR: At this time we call Enick Diffiee.

6 EXAMINER BROOKS: Off the record.

7 (Off the record)

8 MR. CARR: May it please the Examiner, much of  
9 our presentation is consistent with what was previously  
10 presented, and we will try to move this along and not just  
11 repeat things that have been previously said.

12 EXAMINER BROOKS: That will be appreciated.

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

16 DIRECT EXAMINATION

17 BY MR. CARR:

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

19 A. Yes, my name is Enick Diffiee. And Mr. Examiner,  
20 that's spelled E-n-i-c-k D-i-f-f-e-e.

21 Q. Mr. Diffiee, where do you reside?

22 A. Roswell, New Mexico.

23 Q. By whom are you employed?

24 A. I am a self-employed independent petroleum  
25 landman.

1 Q. And what is your relationship to David H.  
2 Arrington Oil and Gas in this matter?

3 A. I work for Arrington on a consulting basis.

4 Q. Have you previously testified before the New  
5 Mexico Oil Conservation Division?

6 A. I have.

7 Q. At the time of that testimony, were your  
8 credentials as an expert in petroleum land matters accepted  
9 and made a matter of record?

10 A. Yes.

11 Q. Are you familiar with the Applications filed in  
12 this case by Mr. Arrington and by Ocean?

13 A. Yes, sir.

14 Q. Are you familiar with the status of the lands in  
15 the area which is the subject of this Application?

16 A. I am.

17 MR. CARR: We tender Mr. Diffie as an expert in  
18 petroleum land matters.

19 MR. BRUCE: No objection.

20 EXAMINER BROOKS: So qualified.

21 Q. (By Mr. Carr) Would you briefly state what  
22 Arrington seeks with this Application?

23 A. They're seeking an order pooling all minerals  
24 from the surface to the base of the Mississippian formation  
25 under the following described acreage, which lies in

1 Section 8, Township 17 South, Range 35 East, in Lea County,  
2 and the lands would be the east half for all formations  
3 and/or pools developed on a 320-acre spacing, which  
4 includes the Undesignated North Vacuum-Atoka-Morrow Gas  
5 Pool, and also the northeast quarter for all formations  
6 and/or pools developed on 160-acre spacings, the proration  
7 unit to be dedicated to the Pink Cahill State "8" Well  
8 Number 1, and this well will be drilled at a standard gas  
9 well location, being 1300 feet from the north line and 990  
10 feet from the east line, which is Unit H of Section 8.

11 Q. Mr. Diffie, have you prepared exhibits for  
12 presentation here today?

13 A. Yes.

14 Q. Would you refer to what's been marked as  
15 Arrington Exhibit Number 1 and identify that?

16 A. Yes, we've prepared a plat, and I'll draw your  
17 attention to the east half of Section 8. You'll see  
18 colored in yellow, being the east half of the east half,  
19 the oil and gas lease that was recently acquired by  
20 Arrington in January of 2003 from the State of New Mexico.  
21 The 320 acres would also consist of the west half of the  
22 east half, and the west half of the east half if also State  
23 of New Mexico oil and gas leases.

24 Q. Mr. Diffie, you were present for Mr. Maney's  
25 testimony concerning the ownership in the area?

1 A. Yes.

2 Q. Do you have any disagreement or anything that --  
3 in terms of your presentation that would differ from the  
4 ownership as presented by Mr. Maney?

5 A. I agree with Derold's ownership as to the west  
6 half of 8. I would just simply make the point that in the  
7 south half of Section 5 I show Texaco to still own a 25-  
8 percent interest in that lease. But for the sake of this  
9 hearing, I'll agree with Mr. Derold Maney's ownership of  
10 100 percent.

11 Q. Mr. Arrington doesn't own anything in the south  
12 half of 5?

13 A. He does not.

14 Q. Let's go to what's been marked as Exhibit 2.  
15 Could you identify that, please?

16 Before we do that I want to ask you, if we are  
17 -- if Mr. Arrington gets a pooling order, at this point in  
18 time have you been able to reach an agreement with any  
19 other interest owner in the spacing unit?

20 A. Arrington, of course, owns 100 percent in the  
21 east half, east half. And of course we're at a dispute  
22 covering the west half of the east half.

23 Q. And the owners in the west half are standing with  
24 Ocean on their proposal. We have our 50 percent in the  
25 east half?

1           A.     That's my understanding.

2           Q.     Okay.   Could you go to what has been marked as  
3     Exhibit Number 2 and review that for the Examiner, please?

4           A.     Yes, Exhibit 2 is a copy of the certified letter  
5     that was dated January 27th of 2003, in which the Pink  
6     Cahill State "8" Number 1 well was proposed.   The location  
7     of this well initially was 1980 from the north line and  
8     1990 from the east line, and the well was proposed to a  
9     total depth of 12,800 feet, and the proration unit was  
10    identified as being the east half of Section 8.

11                   And also as a part of the package was a copy of  
12    the AFE that had been prepared by Arrington's technical  
13    staff, and a copy of the AFE is also attached for your  
14    review.

15                   Then of course McCombs Energy, LLC, was sent a  
16    well proposal along with an AFE, and Nadel and Gussman  
17    Permian, LLC, was sent a letter again proposing the well,  
18    attached with an AFE.

19                   Then I bring your attention to a letter dated  
20    February the 28th of 2003, and this is a letter from  
21    Arrington's office stating that they would like to amend  
22    the location of the well to again a standard location of  
23    1300 feet from the north line and 990 feet from the east  
24    line.   And as the letter states, we felt like that we were  
25    in a competitive position as to the reserves that existed

1 from the south half of Section 5 extending south into the  
2 northeast quarter of Section 8. And letters, of course,  
3 were sent to Nadel and Gussman and McCombs Energy.

4 Q. Mr. Arrington acquired the lease on the east half  
5 of the east half of 8 at the state lease sale January 21st  
6 of this year, did he not?

7 A. Correct.

8 Q. And then he proposed the well January the 27th,  
9 2003?

10 A. Yes, and it's my understanding that not only was  
11 it sent by certified mail, but the letter was also faxed on  
12 the same day.

13 Q. Let's go to what has been marked as Exhibit  
14 Number 3. Would you just identify that, please?

15 A. Yes, this is the AFE proposed for the Pink Cahill  
16 State Number 8.

17 Q. And what are the costs as reflected on that AFE,  
18 both drilling and total?

19 A. The dryhole cost, \$923,850, and the completed  
20 well cost of \$1,401,360.

21 Q. Is Arrington Exhibit 4 a copy of the accounting  
22 procedures for joint operations from -- the standard COPAS  
23 form?

24 A. Yes.

25 Q. Does this form provide for the periodic

1 adjustment of overhead and administrative costs?

2 A. It does.

3 Q. Does Mr. Arrington requests that if he prevails  
4 in this case that the order authorize the adjustment of  
5 these costs in accordance with these COPAS procedures?

6 A. Yes.

7 Q. And have you made an estimate of the overhead and  
8 administrative costs while drilling this well and also  
9 while producing it, if it is a success?

10 A. Yes, it would be \$6000 per month and \$600 a  
11 month, and according to our recent review of the 2002/2001  
12 Ernst and Young survey these amounts are below the average  
13 and median cost for wells drilled to this depth.

14 Q. These are also the figures that are being  
15 proposed by Ocean?

16 A. That's correct.

17 Q. So there's no dispute as to overhead costs?

18 A. Absolutely.

19 Q. Does Mr. Arrington seek to be designated operator  
20 of the well?

21 A. Yes, he does.

22 Q. Is Exhibit Number 5 an affidavit confirming that  
23 notice of this hearing has been provided in accordance with  
24 the Rules and Regulations of the Oil Conservation Division?

25 A. Yes, sir.



1 Q. Mr. Diffie, were Arrington Exhibits 1 through 5  
2 either prepared by you or have you reviewed them and can  
3 you testify as to their accuracy?

4 A. Yes.

5 MR. CARR: At this time we'd move the admission  
6 of Arrington Exhibits 1 through 5.

7 MR. BRUCE: No objection.

8 EXAMINER BROOKS: Arrington 1 through 5 are  
9 admitted.

10 Mr. Bruce?

11 CROSS-EXAMINATION

12 BY MR. BRUCE:

13 Q. Mr. Diffie, just a couple of questions. Do you  
14 know why the well location was changed from 1980 feet from  
15 the north line to, I believe, 1300 feet from the north  
16 line?

17 A. You know, our technical staff, being present, is  
18 going to give you a more in-depth discussion of that, Mr.  
19 Bruce. But I know it was, again, based on the competitive  
20 nature of having, you know, the thought that reserves were  
21 being drained by the well located in the southwest quarter  
22 of Section 5.

23 Q. Now, Mr. Diffie, if Arrington Oil and Gas signed  
24 a JOA with Ocean as soon as Ocean's well is drilled, it  
25 could propose a well in the northeast of the northeast,

1 could it not, under the usual JOA?

2 A. It could happen.

3 Q. And do you recognize that under a force pooling  
4 order, a force pooling order only applies to one well?

5 A. I agree.

6 Q. And so even under a force pooling order they  
7 could propose a second well in the northeast of the  
8 northeast, could they not?

9 A. Under the terms of the standard JOA they could.

10 MR. BRUCE: Thank you, that's all I have.

11 EXAMINATION

12 BY EXAMINER BROOKS:

13 Q. Well, first of all, I need to clarify about this  
14 location. What is the location that you are currently  
15 proposing?

16 A. It would be the location of 1300 feet from the  
17 north line and 990 feet from the east line, Unit H.

18 Q. Okay, so the distance from the east line remains  
19 the same?

20 A. Yes, sir.

21 Q. But you're moving it 680 feet further north?

22 A. That's correct.

23 Q. Now, you said something about a letter in here  
24 that proposed the new location, and I couldn't find it  
25 while you were going through these. Can you tell me where

1 that is?

2 A. Yes, sir, attached as Exhibit 2 there are a  
3 number of letters, and if you would turn to the very back  
4 you will see the letter to McCombs Energy, and that's a  
5 letter dated February the 28th of 2003, and that's where  
6 we, in the first paragraph --

7 Q. Okay.

8 A. -- call your attention, "Based on this  
9 determination...Arrington...is revising the well proposal  
10 to a standard of 1300 from the north line and 990 from the  
11 east line."

12 Q. I see that, yes. Okay.

13 Mr. Carr asked you, does Mr. Arrington seek to be  
14 designated the operator, and you answered yes. Would it  
15 not be more correct to say that David H. Arrington Oil and  
16 Gas, Inc., seeks to be nominated as operator?

17 A. That would be correct.

18 EXAMINER BROOKS: Thank you.

19 Mr. Jones?

20 EXAMINER JONES: (Shakes head)

21 EXAMINER BROOKS: Very good, no questions.

22 Any follow-up?

23 MR. CARR: (Shakes head)

24 EXAMINER BROOKS: You may step down.

25 THE WITNESS: Thank you.

1 MR. CARR: At this time we'd call Bill Baker.

2 BILL BAKER, JR.,

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

5 DIRECT EXAMINATION

6 BY MR. CARR:

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

8 A. Bill Baker, Jr.

9 Q. Mr. Baker, where do you reside?

10 A. I reside in Midland, Texas.

11 Q. By whom are you employed?

12 A. David H. Arrington Oil and Gas, Inc.

13 Q. What is your position with David H. Arrington Oil  
14 and Gas, Inc.?

15 A. I am the exploration manager.

16 Q. Have you previously testified before this  
17 Division and had your credentials as an expert in petroleum  
18 geology accepted and made a matter of record?

19 A. Yes, sir, I have.

20 Q. Are you familiar with the Application filed in  
21 this case on behalf of Mr. Arrington?

22 A. Yes, sir, I am.

23 Q. On behalf of David H. Arrington Oil and Gas, Inc.

24 Are you also familiar with the Application filed  
25 in these consolidated cases by Ocean?

1 A. Yes, sir, I am.

2 Q. Have you made a geological study of the area  
3 which is the subject of this Application?

4 A. Yes, sir, I have.

5 Q. And are you prepared to share the results of your  
6 work --

7 A. Yes, sir, I am.

8 Q. -- with the Examiner?

9 A. Yes, sir.

10 Q. Mr. Baker, what's the primary objective in the  
11 Arrington well?

12 A. The primary objective of this, sir, will be the  
13 lower Atoka-Brunson gas pay sand.

14 Q. So it's the same for both wells that are at issue  
15 here today?

16 A. Yes, sir, it's going to be the same sand.

17 Q. And as you go through your presentation, is it  
18 your position that a well is needed in the northeast  
19 quarter to protect this acreage from drainage from wells to  
20 the north?

21 A. Absolutely, yes, sir.

22 Q. If Ocean prevailed, Arrington could propose under  
23 a standard JOA a well in the northeast quarter; is that not  
24 correct?

25 A. Yes, sir, we certainly could.

1 Q. And what would happen?

2 A. We would end up having to operate the well down  
3 and then tender operations to Ocean.

4 Q. And once you drill the well you would then have  
5 to give up operations?

6 A. Yes, sir, we would.

7 Q. And is that an acceptable proposal to David H.  
8 Arrington Oil and Gas?

9 A. No, sir, it is not.

10 Q. Let's take a look at what has been marked as  
11 Arrington Exhibit Number 6. Would you identify this and  
12 review it, please?

13 A. Yes, sir, Arrington Exhibit Number 6 is a  
14 structure map on the top of the lower Morrow limestone out  
15 here. This is a well-recognized regional structural  
16 horizon out here that the majority of the geologists use as  
17 a structural horizon. The lower Atoka-Brunson sand sits  
18 almost directly on top of the lower Morrow limestone, so  
19 basically you could say that the structure of the lower  
20 Morrow limestone influenced the depositional patterns of  
21 the lower Atoka-Brunson pay interval.

22 On this particular map right here, I have shown  
23 all the lower Atoka-Brunson pay producers will be colored  
24 in orange. I have also indicated our proposed proration  
25 unit, being the east half of Section 8. I have indicated

1 Arrington's acreage in the east half of the east half of  
2 Section 8 is shaded in yellow. I've also indicated that  
3 there will be a cross-section, which is Exhibit Number 8  
4 that I will get to shortly, that will be labeled cross-  
5 section A-A'.

6 This particular map basically shows that  
7 Arrington's location of the Pink Cahill State Number 1 will  
8 be located on the west side of a structural re-entrant. It  
9 is my belief that this structural re-entrant was part of  
10 the influence, depositional influence, of the lower Atoka-  
11 Brunson interval that I'll show.

12 Q. Mr. Baker, let's go to the isopach map --

13 A. Okay.

14 Q. -- and let's also at the same time take out the  
15 structure map, so let's look at Arrington Exhibits 7 and 8  
16 together.

17 A. Okay, Arrington Exhibits 7 and 8 will actually be  
18 a net-interval isopach of the lower Atoka-Brunson interval,  
19 and then Exhibit Number 8 is a cross-section A-A'.

20 And prior to actually looking at the isopach, Mr.  
21 Examiner, I would like to just go through the cross-section  
22 first to familiarize yourself with the pay horizon. I know  
23 that Mr. Lowe and Ocean have already been through it, so  
24 we'll be basically looking at the same productive interval,  
25 but I will go through this cross-section first so that

1 you'll be familiar, and then we'll take a look at the  
2 isopach.

3 If you'll start on the left-and side of Exhibit  
4 Number 8, cross-section A-A', this well is located in the  
5 west half of Section 8, and this is the Mobil Oil Corp  
6 State Number 1 "NN". This particular well was drilled in  
7 September of 1976. The well has produced a total  
8 cumulative of 11.2 BCF and 112,000 barrels of oil.

9 My last reported rate on this well was 3 MCF of  
10 gas per day in February of 2002. At that time we showed an  
11 estimated bottomhole pressure in this well of approximately  
12 300 pounds. And that is by *Dwight's* information that our  
13 reservoir will follow up with in his testimony a little bit  
14 later.

15 It is my understanding that this well has now  
16 been P-and-A'd, and this particular well was actually the  
17 well I believe that was holding the acres that Mr.  
18 Arrington leased later in January.

19 If you'll notice that it has an Atoka-Brunson  
20 interval -- and I'm sorry for the scale on this, Mr.  
21 Commissioners, it is a little bit small. But we basically  
22 showed 7 net feet of pay sand over a gross interval of  
23 about 10. And like I said, this well has made 11.2 BCF and  
24 has 300 pounds of bottomhole pressure.

25 Now, as you move to the right I am going to show



1 what we call a permeability barrier there, and I will  
2 discuss this a little bit later and the reasons for this in  
3 just a little bit. But basically I want to show a perm  
4 barrier between this particular sand and the wells located  
5 up in Section 4 and 5.

6 As you continue on this cross-section, you're  
7 going to see the proposed location for Arrington's Pink  
8 Cahill "8" Number 1, and this location is at a current  
9 location of 1300 feet from the north line and 990 from the  
10 east line.

11 We originally proposed the well at 1980 from the  
12 north line and 990. It was after multiple discussions with  
13 the Ocean technical staff, as well as getting with our  
14 technical people and our engineers and doing some  
15 sophisticated engineering, we determined that we actually  
16 felt like we needed to be closer to the wells in Section 4  
17 and 5. And that was the reason why we sent a subsequent  
18 well proposal to Ocean, revising the location, is, we felt  
19 like we were being drained from wells in Sections 4 and 5,  
20 and we actually needed to be up closer to those wells.

21 Now, my original intent was to not be right up on  
22 the line for the very reason of sticking three wells,  
23 basically, in a 160-acre pattern. I was actually trying to  
24 back off enough to still be in what I considered to be a  
25 commercial geological position and encounter and recoup

1 unique reserves to Mr. Arrington's acreage down here.

2 So that is the reasoning behind where our  
3 proposed location is at and why we moved the location.

4 If you will move on, as you move to the cross-  
5 section, you will see Ocean Energy's Texaco State Number 1  
6 in Section 5. And this well was drilled in August of 2001,  
7 and basically they encountered approximately -- I have it 6  
8 and 8 feet, I believe they had it as 5 and 6 feet, of net  
9 pay in here. You can tell by the log characteristic that  
10 it's definitely a channel sand. It's got a fining-upward  
11 sequence; this is very indicative of a channel sand.

12 They IP at the well at 1.16 million cubic feet of  
13 gas per day at a flowing tubing pressure of 1400 pounds.  
14 We got the bottomhole pressure from Mr. Messa and Mr.  
15 Payne. They shared the information with us, and we got the  
16 estimated bottomhole pressure, 3200 pounds. I show that  
17 they've made a current cumulative of about .54 BCF, and I  
18 actually show their well making 550 MCF a day as of  
19 November, 2002.

20 I should also state for Mr. Payne's ego here that  
21 we actually show an EUR here of 1.1 BCF out of this well,  
22 and I think that coincides very closely with what Mr. Payne  
23 actually showed for this particular well.

24 But as you move on across to the Texaco, we show  
25 in Section 4 the Texaco E&P Shoebar "4" Number 2, and I

1 believe this well was drilled by Texaco as a direct result  
2 of Ocean's well drilled in Section 5. It's also my  
3 understanding that Ocean Energy doesn't have an interest in  
4 this particular well.

5 This well was drilled in 4-10 of 2002. They  
6 perforated the well, and as you can see, first of all, they  
7 encountered a much thicker interval. They actually got  
8 about 16 feet of sand. I show 11 feet of actual net pay in  
9 here. They perforated it and tested a rate of 2 million a  
10 day. Once again from Ocean's technical staff, we got the  
11 bottomhole pressure of approximately 2800 pounds. To date  
12 we show a total cumulative of .34 BCF, and I show the well  
13 in November of 2002 producing at a rate of 2.5 million  
14 cubic feet of gas per day and four barrels of oil. And we  
15 actually show an EUR of this particular well of 2.1 BCF.

16 As you continue on to the last well in the cross-  
17 section, this was Mewbourne's well, and this was most  
18 recently drilled, in February of 2003. And this particular  
19 well is a dry hole.

20 And as you can see, I have chosen -- They  
21 actually encountered some sand here. I discussed it with  
22 Mr. Messa, I don't know if specifically whether he  
23 considers this Brunson or not. I do not. I consider this  
24 an overbank deposit that's slightly higher in this section  
25 than the Brunson interval. If you'll look, it's actually

1 got a coarsening-upward sequence here. It looks different  
2 on the logs. No matter what, it was tight. They didn't  
3 have hardly any gas show in it. I don't recall whether  
4 they ran a drill stem test on it or not, but they did not  
5 complete the well in it.

6 EXAMINER BROOKS: You're talking about the well  
7 in Section 9?

8 THE WITNESS: Yes, sir, the Eureka State Number  
9 "9" well.

10 So basically, this pretty much shows what I  
11 consider to be the pay horizon that we're going after in  
12 this immediate area. And it was because of the Ocean well  
13 and the Texaco well that Mr. Arrington went to the state  
14 land sale in January. And basically we had actually gone  
15 out and scouted the Texaco well and the Ocean well and knew  
16 in January that the Texaco well was still producing in  
17 excess of 2 million a day. Okay?

18 With that, we felt that this was some pretty good  
19 acreage. And I mean this, by my standards -- and I'm an  
20 old Texas Oil and Gas geologist -- this is an old TXO  
21 corner shot, as we'd call it. Okay?

22 We went to the state land sale, and Mr. Arrington  
23 purchased the acreage. We were aware of Ocean being the  
24 other interest owners in here. And we felt because of  
25 depletion and because of what the Texaco well is producing,

1 what the Ocean well is producing, that we needed to propose  
2 a well as soon as possible, because with every day of their  
3 production we're losing reserves.

4 I know Mr. Payne was hesitant to say it's  
5 draining from the northeast quarter, but we know  
6 preferential permeability trends, that well is going to  
7 drain from the northeast quarter. And so right now, even  
8 as we speak here today, sir, we're being drained in our  
9 position.

10 Q. (By Mr. Carr) Mr. Baker, if there is no well in  
11 the northeast quarter, you will be drained?

12 A. Yes, sir.

13 Q. What would a well in the northeast quarter cost,  
14 based on your AFE estimate?

15 A. \$1.4 million.

16 Q. And is Mr. Arrington prepared to drill a well and  
17 spend \$1.4 million to obtain his share of the reserves from  
18 the northeast quarter of the section?

19 A. Yes, sir, we definitely are. Yes, sir.

20 Q. Do you believe that the location proposed by  
21 Ocean in the southwest of the southeast is a poor location?

22 A. I simply believe that it's got a geological shot,  
23 but they will have a bottomhole pressure, we're estimating,  
24 in the 500-pound to 600-pound bottomhole pressure range.

25 Q. If Mr. Arrington is designated operator of the

1 east half, is he also prepared to drill a well at that  
2 location?

3 A. Yes, sir, we are.

4 Q. Are you prepared to make a recommendation to the  
5 Examiner as to the risk penalty that should be assessed  
6 against any interest owner who doesn't voluntarily  
7 participate in the well?

8 A. Yes, sir, I am.

9 Q. And what is that?

10 A. Two hundred percent, the maximum.

11 Q. And what do you base that on?

12 A. Based on that fact there is -- This is the  
13 Morrow, this is the Atoka-Morrow, it's risky, and Mewbourne  
14 found that out very shortly. So we can drill a dry hole.

15 Q. In your opinion, will granting this Application  
16 be in the best interests of conservation, the prevention of  
17 waste and the protection of correlative rights?

18 A. Yes, sir, I think so.

19 Q. How soon does David H. Arrington Oil and Gas plan  
20 to spud this well?

21 A. As soon as possible, sir.

22 Q. Were Exhibits 6 through 8 prepared by you?

23 A. Yes, sir, they were.

24 MR. CARR: I move the admission into evidence of  
25 Arrington Exhibits 6 through 8.

1 EXAMINER BROOKS: Objection, Mr. Bruce?

2 MR. BRUCE: I have no objection?

3 EXAMINER BROOKS: Arrington 6 through 8 are  
4 admitted.

5 Mr. Bruce?

6 CROSS-EXAMINATION

7 BY MR. BRUCE:

8 Q. Okay, just a few questions, Mr. Baker. What is,  
9 or was the virgin pressure in this reservoir?

10 A. More than likely, the virgin pressure in this  
11 reservoir was probably around 4000 pounds.

12 Q. You don't think 5000 pounds is a more accurate  
13 number?

14 A. No, sir, I have drilled probably 30 wells in this  
15 area, I've done extensive -- drilled from 1435 all the way  
16 down through 1735, and the highest I've seen in the Brunson  
17 was one well that was drilled by Kukui, and it had 4600  
18 pounds. The majority -- normal pressure gradient in this  
19 area would give you a 4000-to-4200-pound bottomhole  
20 pressure.

21 Q. I hand you what's Ocean Exhibit 13. Do you  
22 disagree with the 5000-pound pressures on the --

23 A. No, sir, you can't disagree with two points of  
24 control at 5000 pounds.

25 Q. Regardless of whether it's 4000 or 5000, looking

1 at your Exhibit 7, your isopach --

2 A. Yes, sir.

3 Q. -- if there's permeability barriers, then why was  
4 -- the first well drilled in this -- you've got a  
5 permeability barrier to the south and a permeability  
6 barrier to the north, then why is the first well drilled in  
7 that little reservoir at 3200 p.s.i.?

8 A. Because that I have found -- and I have seen this  
9 in two or three different wells -- these permeability  
10 barriers are basically where the sands get down to probably  
11 less than five feet. But it means the sand doesn't  
12 completely go away. So you're going to see some pressure  
13 movement across it.

14 I've actually offset a well that had 800 pounds  
15 and had 2600 pounds, and there was no way to explain that  
16 well other than some tight sand in there.

17 I'm not saying that there's not some  
18 communication across here, but these are fine to medium-  
19 grain sands. And actually -- We talk about great  
20 permeability. It's got great porosity and very low perm.

21 We create the perm. If you'll look at all these  
22 wells out here, the majority of these great big, thick  
23 ones, nowadays we have to frac these wells, and Yates has  
24 shown that over and over again, to create that perm.

25 Q. Now, based on the testimony you just gave, the



1 Chevron well in Section 4 --

2 A. Yes, sir.

3 Q. -- has better net thickness, does it not?

4 A. Yes, sir, it sure does.

5 Q. And it started out with a lower pressure --

6 A. Yes, sir.

7 Q. -- than the 5-1, but it has better reserves --

8 A. Yes, sir.

9 Q. -- in your opinion?

10 A. Yes, sir.

11 Q. Doesn't that prove what Mr. Payne was saying,

12 that if you have the thicker reservoir, that's more

13 determinative than the pressures?

14 A. Well, it certainly can be, but I'm not concerned  
15 really about Ocean's location to the south as I am -- as  
16 getting in my share of the reserves in the northeast  
17 quarter.

18 Q. Well, isn't -- Ocean's location, which also  
19 affects you in the southwest of the southeast, couldn't you  
20 say the same thing, that that's being drained by the wells  
21 in Sections 17 and 18?

22 A. Actually, Mr. Bruce, me and our reservoir  
23 engineer determined that that well should have been drilled  
24 10 years ago. That would have been a very good location.  
25 So yes, sir, it's drained. And it's continuing to be

1 drained.

2 Q. Okay. So the northeast quarter is being drained  
3 and the southeast quarter is being drained?

4 A. Yes, sir.

5 Q. That's all I have -- One other question.

6 On your Exhibit 6 -- I need new bifocals -- the  
7 well name, it looks like it's the Fink Cahill?

8 A. No, sir, that's Pink. You do need new bifocals,  
9 Mr. Bruce.

10 (Laughter)

11 THE WITNESS: That's Pink. Yeah, you did that on  
12 purpose.

13 MR. CARR: May it please the Examiner --

14 MR. BRUCE: No, no, we're not going into well  
15 names again, Mr. Carr.

16 MR. CARR: -- the last time Mr. Bruce and I had  
17 an issue with well names we finally agreed that when Mr.  
18 Arrington named a well the Red Eyed Squealy Worm it was  
19 being named after Mr. Bruce.

20 (Laughter)

21 MR. CARR: We are prepared today to stipulate  
22 that that was not true. The Fink well is --

23 (Laughter)

24 EXAMINER BROOKS: Well, it's getting late in the  
25 afternoon.

1 THE WITNESS: Yes, sir.

2 EXAMINATION

3 BY EXAMINER BROOKS:

4 Q. Mr. Baker, you said you thought there was a  
5 permeability barrier between the well that's over in the  
6 west half of Section 8 and the wells up in the north, and I  
7 can understand why you would think that. But what makes  
8 you think it is located across the east half of Section 8,  
9 the way you've drawn it?

10 A. Geological discretion, sir. There's no  
11 particular basis that I have at that. We feel -- I think  
12 us and Ocean both agree that that sand -- This main big  
13 body was fed from the same feeder system --

14 Q. Right.

15 A. -- but I'm saying because of the pressure  
16 differential between -- I mean, even the 3200 pounds is  
17 substantially higher than what the bottomhole pressure in  
18 this big tank that Mr. Payne talked about. There has to be  
19 something in between there, in my opinion, that is causing  
20 that pressure to be there.

21 Now, whether that perm barrier is there, it could  
22 be at the Pink Cahill, and that would add to my 200-percent  
23 risk, and I'd just drill a dry hole because that perm  
24 barrier moved up to there.

25 Q. Yeah. You've drawn -- Your contour map looks

1 very similar the other gentleman's, but your isopach looks  
2 very, very different. Can you give me any supporting data  
3 for -- or reasoning for why you think that these  
4 thicknesses are more nearly in accord with the way you've  
5 drawn them, which is quite different from the way Mr. Messa  
6 drew them?

7 A. Well, actually, I believe that pretty much  
8 industry standard is, drill this Brunson interval -- It's  
9 been the main target out here for the last five years.

10 Q. Right.

11 A. And I've probably looked at a half a dozen other  
12 geologists' interpretations. As a general rule, we all  
13 believe these are pretty much north-south-trending systems.

14 The one exception is, when you get down to the  
15 Vacuum system right here, there is actually a huge high  
16 that sits just south, and there's a fault system, and all  
17 these things fed into here and slammed up against this  
18 Morrow high in here, and that's what kind of reworked these  
19 sands almost in an east-west or northwest-southeast  
20 pattern, is they were reworked along here.

21 Q. Now, that high would be south of these wells in  
22 Section 16, 17 --

23 A. Yes, sir, I mean, it's just south of it off this  
24 map right here. Everything really climbs dramatically, so  
25 that this was -- I mean, you kind of had a roll over here,

1 and then it really climbed up --

2 Q. Right.

3 A. -- and I think that's what's banked all this sand  
4 up against here, and it kind of changed it. And I believe  
5 in Mr. Messa's interpretation, Mr. Lowe, they chose to take  
6 their sand -- I went north with mine through 5 and 6, and  
7 they chose to continue on in a northwest pattern, is the  
8 main difference, in the big, thick sand, as he said, and  
9 out that way.

10 There's no particular rhyme or reason. I  
11 actually stayed within the constraints of these wells up  
12 here in 31. I also have 1000 pounds bottomhole pressure,  
13 and the reserves are only a BCF out of some pretty thick  
14 wells up here.

15 So once again, that might lead me to believe that  
16 it was more tied to Mr. Payne's tank than something  
17 separate, you know.

18 That's just the discretion of each geologist as  
19 to how he wants to explain it and interpret it.

20 EXAMINER BROOKS: Okay. Mr. Jones?

21 EXAMINATION

22 BY EXAMINER JONES:

23 Q. Mr. Baker, the trend you have for the -- in  
24 Section 8 up to Section 4, that little lens of sand, that's  
25 -- Does that go along with your regional geologic

1 prediction of the Morrow meandering sands, or -- and have  
2 you seen that in other areas?

3 A. Well, Mr. Commissioner, that's a good question.  
4 There is areas where these things appear to get down as low  
5 as a quarter to a half a mile wide, and some of them I've  
6 got up in 16-35, in Sections 10 up there, and 14, appear to  
7 be a mile and a half wide.

8 But also up there the well control is so thick  
9 you can't put dry holes in between them, but yet you've got  
10 pressure differentials in there.

11 So once again, this thing could be a little bit  
12 wider. We know it can't be much wider to the east,  
13 Mewbourne proved that. There is a little discretion. This  
14 thing could balloon out a little bit more to the north and  
15 the west as you head on up that way.

16 The fact that Texaco's well only encountered 16  
17 feet -- This is actually more normal thickness as you move  
18 north.

19 The Brunson is typically a 15- -- 10-, 12-, 15-  
20 foot interval, until you get down in this area here where  
21 you get this big pod of sand that Mr. Payne actually talked  
22 about.

23 So once again, that's hard to answer. I've seen  
24 them both.

25 Q. And these perm barriers are -- So some of this

1   Morrow is -- you're talking secondary changes into actual  
2   original deposition, so perm barriers could be some kind of  
3   secondary silts coming through?

4       A.   There might be. One thing about the Atoka-  
5   Brunson that we have seen, as a general rule, is that this  
6   is a very fine- to medium-grained sand. And as you  
7   approach the edge wells, I mean, it almost gets silty.  
8   Well, now we really haven't seen evidence of major clay  
9   deposits. We have seen evidence of, believe it or not,  
10   some dolomite recrystallization in some cores that we took  
11   up north.

12           So there's possibility of some secondary stuff  
13   going on in here. I can't say that happens everywhere  
14   consistently, we've just seen it periodically. And I've  
15   seen over and over -- I mean, there's a well directly north  
16   off this map here in Section 4 that has 800 pounds. And  
17   then you've got the two wells in 4 and 5 where Ocean and  
18   Texaco drilled that once again came in with high pressures  
19   again.

20           The well up there that had 800 pounds was a Yates  
21   well. Well, Arrington drilled a well north of it, the  
22   Palomino Midge, that had 2600 pounds. And  
23   stratigraphically they're the same.

24       Q.   And these pressures pretty much build up over the  
25   same amount of time?

1           In other words, if it's extremely low  
2 permeability in some cases -- which is probably not the  
3 case with the Morrow, right? You would have to run along  
4 the --

5           A.    Right, right.

6           Q.    -- like slopes, Abo or something. Okay.

7           The source for the Morrow, what was that?  
8 Mississippian or something?

9           A.    Well, no, sir, we don't actually believe it was  
10 Mississippian. We believe that -- There's two theories of  
11 the source, and the majority of the theories are that this  
12 stuff was sourced from the north somewhere, and that these  
13 were just part of a large distributary system coming down  
14 from the north.

15           There's a new system -- or a new theory now,  
16 that's actually saying that part of this was an erosional  
17 material coming off of the Vacuum high, coming from south  
18 of us, going off to the north. Okay? And that's simply  
19 because the number of wells starting to be drilled out in  
20 here suggests almost two possible depositional systems.

21           EXAMINER JONES: Okay, that's all I had. Thank  
22 you very much.

23           EXAMINER BROOKS: Anything further?

24           Next witness.

25           MR. CARR: At this time we call Tony Beilman.



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

4                                    DIRECT EXAMINATION

5     BY MR. CARR:

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

7             A.     Yes, my name is Tony Beilman. My last name is  
8     spelled B-, as in boy, e-i-l-m-a-n.

9             Q.     Where do you reside?

10            A.     I reside in Dallas, Texas.

11            Q.     By whom are you employed and in what capacity?

12            A.     I'm retained by David Arrington Oil and Gas,  
13     Inc., as a petroleum engineer and operations supervisor.

14            Q.     Have you previously testified before the New  
15     Mexico Oil Conservation Division?

16            A.     I have not.

17            Q.     Would you summarize for the Examiners your  
18     educational background and review your work experience?

19            A.     Yes, I received a bachelor of science degree from  
20     New Mexico Tech in Socorro in 1982. I was employed by  
21     Phillips Petroleum Company as a reservoir engineer for 12  
22     years, and then at that time I was given the opportunity to  
23     start a consulting firm called Trinity Engineering, and  
24     that's currently where I am now.

25            Q.     Are you familiar with the Applications filed by

1 Ocean and Arrington in these consolidated cases?

2 A. Yes, I am.

3 Q. Have you made an engineering study of the area  
4 which is the subject of these consolidated Applications?

5 A. Yes, I have.

6 Q. And are you prepared to share the results of your  
7 work --

8 A. Yes, I am.

9 Q. -- with the Oil Conservation Division?

10 MR. CARR: Are the witness's qualifications  
11 acceptable?

12 EXAMINER BROOKS: Yes, they are -- Any objection,  
13 Mr. Bruce?

14 MR. BRUCE: No, sir.

15 EXAMINER BROOKS: They are acceptable.

16 Q. (By Mr. Carr) Mr. Beilman, would you identify  
17 and review Arrington Exhibit 9?

18 A. Yes, this is very similar to the exhibit that Mr.  
19 Payne presented, and basically we assumed and got the same  
20 data, and it's a bottomhole-pressure-versus-time. And what  
21 I tried to show on this plot was the bottomhole pressure of  
22 all of the wells to the west of our proposed location,  
23 dipping down into Section 18 and 17, and then also compare  
24 those bottomhole pressure versus time to the wells in  
25 Section 5 and 4.

1 Q. And what does this show us?

2 A. It shows that -- as everybody has pretty much  
3 stated, that the wells to the -- in Section 7, 18 and 17  
4 experience a lot less bottomhole pressure than the wells in  
5 Section 4 and 5.

6 As you'll note, it's kind of interesting, because  
7 it looks like the wells in Section 7, 18 and 17 are  
8 basically producing from one large tank, and bottomhole  
9 pressure seems to be somewhere around 500 pounds.

10 Q. If we look at the isopach, which is marked  
11 Arrington Exhibit 7 --

12 A. Okay.

13 Q. There are a number of wells in Sections 16, 17,  
14 18 and 7 that have produced for some period of time.

15 A. That's correct.

16 Q. For about -- How long has this particular Atoka-  
17 Morrow reservoir been produced?

18 A. Well, the earliest production -- bottomhole  
19 pressure numbers and production numbers run in the late,  
20 oh, 1972, 1973 vintage, all the way into new wells being  
21 drilled, and -- we've got some new wells drilled in the  
22 1980s. But it's been basically been producing 30 years.

23 Q. If there were not some sort of permeability  
24 restriction or barrier somewhere in the center of the  
25 spacing unit, in the east half of Section 8, would you

1 still expect to see bottomhole pressures in the wells that  
2 have recently been drilled in 5 and 4 in the 2000- to 3000-  
3 pound range?

4 A. I would expect to see a substantial -- less  
5 pressure than what we're seeing now. This perm barrier  
6 that Bill refers to, I really refer to it as a perm  
7 restriction. I don't know that it -- It just could be a  
8 lower perm number than what we might be seeing in the heart  
9 of the channel. It could be --

10 Q. At what rate is it your understanding that the  
11 Ocean Texaco State 5 Well Number 1 in the south half of 5 -  
12 - at what rate is that well producing?

13 A. As of December, it looked like it was doing about  
14 460 MCF a day.

15 Q. Do you have an opinion as to whether or not that  
16 well will be draining reserves from the northeast of  
17 Section 8?

18 A. Yes, I do, I believe that the reserves in the  
19 northeast of Section 8 are being drained by that well.

20 Q. In your opinion, if a well is not drilled in the  
21 northeast of Section 8, will those reserves be drained by  
22 wells offsetting it to the north?

23 A. Yes.

24 Q. Let's go to what has -- I think at this time, Mr.  
25 Beilman, I'd ask you to take out our AFE which has been

1 marked as Arrington Exhibit 3, and the Ocean AFE which has  
2 been marked as their Exhibit Number 4.

3 A. Okay.

4 Q. And I'd like you to look at these two and first  
5 of all tell me what the differences are between the AFE  
6 figures for completed wells at the proposed locations.

7 A. Okay, the difference -- the completed well cost  
8 for the well that Ocean proposed is basically \$1.7 million  
9 to drill that well. Our proposed well and our AFE  
10 reflecting our proposed well is \$1.4 million. So basically  
11 \$300,000 difference between the two wells.

12 Q. And have you been able to ascertain what the  
13 differences are?

14 A. Yes, I have. If you look at certain categories,  
15 primarily the rental category, in our AFE we show \$19,000  
16 of rental equipment. If you look at Ocean's AFE they're  
17 showing \$157,000. So there's a big difference there.

18 There's a difference in the location cost. They  
19 show \$74,000 for a location, we show \$32,000. And I think  
20 our numbers are even a little bit high.

21 We just built a location for Steve's Hopper about  
22 five miles north of this that was -- \$15,000 was our cost,  
23 so... And there's some minor differences in some of the  
24 others.

25 And there's one other big difference, and that's

1 on the tangible equipment, the production equipment. We  
2 show \$30,000 and they show \$60,000, I believe.

3 Q. Are the costs in the Arrington AFE based on your  
4 actual experience for similar wells?

5 A. Yes, we just completed or drilled a well about  
6 four miles north of this called the Double Hacklepea, and  
7 those numbers reflect the numbers that we're using in here.  
8 We also, just -- about halfway down on a well called the  
9 Steve's Hopper just outside of Lovington, and again this  
10 AFE was commensurate with the bids that we received on the  
11 Steve's Hopper, which we just got the 1st of February,  
12 so...

13 Q. Do you consider the costs on the Ocean AFE to be  
14 reasonable for wells in this area?

15 A. I think it's a little bit high.

16 Q. If you were to participate in the Ocean well, as  
17 opposed to the Arrington well, with a 50-percent interest  
18 like Mr. Arrington, in fact, it would cost you \$150,000  
19 more to pay your AFE share, just to avoid being pooled;  
20 isn't that right?

21 A. That's correct.

22 Q. Was Exhibit 9 prepared by you?

23 A. Exhibit 9 was prepared by me, yes.

24 MR. CARR: At this time we move the admission of  
25 Arrington Exhibit 9.

1 MR. BRUCE: No objection.

2 EXAMINER BROOKS: Nine is admitted.

3 MR. CARR: That concludes my direct.

4 EXAMINER BROOKS: Mr. Bruce?

5 CROSS-EXAMINATION

6 BY MR. BRUCE:

7 Q. Just a couple of questions. Do you have  
8 Arrington Exhibit 7 in front of you, Mr. Beilman?

9 A. Yes, I do.

10 Q. Have you done a volumetric calculation on the  
11 reserves in that small reservoir in the northeast of 8 and  
12 stretching into 5 in Section 4?

13 A. We started to, but the problem was we didn't know  
14 what the boundaries were and what size acreage to put into  
15 the volumetrics to determine what the volumetric size of  
16 that reservoir would be.

17 Q. So what kind of reserves do you need to justify  
18 drilling a well?

19 A. A BCF would probably do. I think it would be  
20 more of a function of what the deliverabilities of those  
21 wells would be, and drilling a well in the heart of the  
22 channel, much like the Chevron well, would increase the  
23 deliverability, and so obviously the payout would be a lot  
24 quicker.

25 Q. But you can't tell me if there's a BCF of

1 reserves in the northeast quarter?

2 A. No, I can't tell you that. That's why we're  
3 willing to risk drilling the well.

4 Q. Just eyeballing this map, would it show a BCF of  
5 reserves in the northeast quarter?

6 A. You need -- If you're going to do the  
7 volumetrics, you need about 400 to 500 acres of a reservoir  
8 to equate giving a BCF to Ocean's well, giving a BCF to us,  
9 and giving 2 BCF to Chevron's well or Texaco's well.

10 Q. Does this look like it has 500 acres in this  
11 reservoir?

12 A. Well, I'm not going to -- I didn't planimeter it,  
13 so I don't know.

14 Q. Okay. As to the pressure data, you agree with  
15 Mr. Payne that the virgin pressures were about 5000, do you  
16 not?

17 A. I don't know about the virgin pressures. I can  
18 tell you what the pressures were on the Chevron well and  
19 the pressures that were reported by Ocean.

20 Q. Well, what does Exhibit 9 show?

21 A. Exhibit 9 shows the pressures that were reported  
22 to the State off of the Chevron well and off of the Ocean  
23 well.

24 Q. Okay, but what does it show for the New Mexico DK  
25 State Com well?



1           A.    Well, you're right, I'm not going to dispute  
2 whether it was 4000 or 5000 pounds. I'm not going to  
3 argue --

4           Q.    Okay.

5           A.    -- it could very well be that.

6           Q.    Now you mentioned the well cost. What well did  
7 you mention that Arrington drilled for \$1.4 million?

8           A.    The Double Hacklepea.

9           MR. BAKER: Peacock.

10           THE WITNESS: I mean Double Peacock. And we have  
11 the Steve's Hopper Number 1 being drilled now.

12           Q.    (By Mr. Bruce) Were the Double Hackle Peacock  
13 costs that you must mentioned taken off the drilling  
14 report?

15           A.    Taken off of actual accounting.

16           Q.    Okay. Were you in charge of drilling Arrington's  
17 Mustang Midge 28-1 well?

18           A.    I was not.

19           Q.    Do you know what the final well costs were on  
20 that well?

21           A.    I do not.

22           Q.    Do you know what the AFE was for that well?

23           A.    I do not.

24           MR. BRUCE: That's all I have, Mr. Examiner.

25           EXAMINER BROOKS: Mr. Jones?

## EXAMINATION

BY EXAMINER JONES:

Q. Let me get your last name one more time.

A. It's Beilman, and it's spelled B-, as in boy,  
e-i-l-m-a-n.

Q. Okay, you probably knew some of our other  
Examiners here at New Mexico Tech.

A. Yeah, actually Mr. Stogner was one of my --

Q. You have my condolences.

(Laughter)

Q. I hope you've had lots of therapy.

Considering -- I think that was a good question  
about the volume in that -- mapped, as Mr. Baker has mapped  
that reservoir, coming up into Section 4 and seeing if  
three wells, especially considering two of them have  
already produced for a while, can actually -- I understand,  
though, that Mr. Baker's map can be expanded or contracted,  
so -- But you really do think you could drill a well there  
and pay it out and still make money?

A. We feel like we can, yes.

Q. Okay, and -- but you also -- it looks like you  
could also drill a well in the south part of that 320 acres  
and get into the big tank that way?

A. Absolutely.

Q. And these pressure charts that you have,

1 bottomhole pressures, that State 5 square yellow dot, what  
2 well is that?

3 A. That's the Ocean well.

4 Q. Okay, that's the Ocean well. And that's --

5 A. No, I'm sorry, that's the TMBR/Sharp well.

6 Q. TMBR/Sharp. Where is that?

7 A. It's way up there on the north part of Section 5.

8 Q. Okay. It looks like somebody ought to be  
9 drilling around that one, huh?

10 Okay, so basically from your pressure chart it  
11 looks like that they did get into some higher pressures?

12 A. That's what we feel.

13 Q. So that's a part of your -- one of your big  
14 arguments here?

15 A. That's what our concern and argument is, you  
16 know, typically we want to crowd up to where there's some  
17 pressure to work with.

18 EXAMINER JONES: Okay, Mr. Brooks?

19 EXAMINER BROOKS: I don't really think I have  
20 anything to add to your questions, Mr. Jones.

21 Anybody have some follow-up?

22 MR. CARR: I do not.

23 EXAMINER BROOKS: Very good.

24 MR. CARR: That concludes our presentation in  
25 this case, although I believe Mr. Bruce wants to close.

1 EXAMINER BROOKS: Well, given the hour, you  
2 know --

3 MR. BRUCE: I do have a closing, although I go  
4 after Mr. Carr's. But I would like to recall, if he could  
5 sit right here, Mr. Payne to the stand to ask something.

6 EXAMINER BROOKS: Yeah, the witness may stand  
7 down, Mr. Beilman may stand down.

8 RAYMOND W. PAYNE (Recalled),  
9 the witness herein, having been previously duly sworn upon  
10 his oath, was examined and testified as follows:

11 DIRECT EXAMINATION

12 BY MR. BRUCE:

13 Q. Mr. Payne, you heard Mr. Beilman testify about  
14 the AFE, did you not?

15 A. Yes, sir.

16 Q. Are you familiar with the Arrington-operated  
17 Mustang Midge 28-1 well?

18 A. The 28-1 well was drilled in this general area,  
19 in the same type of target to a partially depleted sand,  
20 the same depth, same casing program, very similar well.

21 Q. What was the AFE for that well?

22 A. The AFE was for \$1.4 million.

23 Q. And what was the actual cost of that well?

24 A. Well, the drilling report showed \$1.4 million,  
25 but the actual costs were \$1.7 million, which compares

1 almost exactly to what our AFE is written for.

2 MR. BRUCE: Thank you.

3 MR. CARR: I have just one question, if I could.

4 EXAMINER BROOKS: Go ahead.

5 CROSS-EXAMINATION

6 BY MR. CARR:

7 Q. I just can't figure out what you plan to rent for  
8 \$157,000.

9 MR. BRUCE: Me.

10 (Laughter)

11 MR. CARR: Then it's a very bad deal.

12 MR. BAKER: That's the blow-out equipment.

13 Q. (By Mr. Carr) Do you know what's included in  
14 that category?

15 A. Could I see the exhibit, please? I don't know if  
16 I'll be able to answer your question, but I'll give it a  
17 shot.

18 Q. There's \$57,000 listed in rental equipment. Do  
19 you know what that figure could cover?

20 A. Yeah, half of that looks like it's for drilling  
21 and half of it's completions. And typically rental  
22 equipment includes things -- You know, sometimes the rig  
23 doesn't have BOPs on it. I don't know if we've got a drill  
24 stem test that we might have in here for some rental  
25 equipment. I'm going to defer that. I really don't know.

1 MR. CARR: That's all I have.

2 THE WITNESS: But yeah, the overall gross cost, I  
3 think, is comparable to what the operators are drilling in  
4 the area.

5 EXAMINER BROOKS: Okay, there's some kind of  
6 convention between counsel about closing statements. I  
7 guess, Mr. Carr, you --

8 MR. CARR: May it please the Examiner, Mr. Bruce  
9 always cites it as the Carr rule when he wants to go last,  
10 and I always hear that as, I have something to say that I  
11 don't want to let you refute.

12 EXAMINER BROOKS: Well, of course, you know, I  
13 spent 12 years on the bench, and we always let one party  
14 open and close, but being here is a little different. But  
15 you guys are here so often I want you to get along, so  
16 we'll follow the Carr rule.

17 MR. CARR: Being put at that disadvantage,  
18 knowing that he has something to say that he doesn't want  
19 me to respond to, I'm prepared to go forward.

20 EXAMINER BROOKS: Go ahead.

21 MR. CARR: May it please the Examiner, as a  
22 member of the New Mexico Bar this year, we have a film on  
23 professionalism that we're asked to review. And after  
24 listening to it for two hours the only thing I can remember  
25 is that a federal judge announces that the highest calling

1 of a lawyer is to make clear that which is clear.

2 I didn't know what that meant until I got here  
3 today, but it seems to me certain things are clear.

4 You can play with the geology all you want. Both  
5 geologists basically see a northeast-southwest sort of  
6 trend across the east half of Section 8. And both see that  
7 there are reserves under the northeast quarter. Both agree  
8 without additional drilling these reserves are going to be  
9 drained.

10 I think it's clear that these reserves are going  
11 to be produced either by a new well, which Mr. Arrington  
12 proposes to drill, or it's clear that they're going to be  
13 produced by the two wells to the north of there, one owned  
14 by Texaco, one 100-percent owned by Ocean and its partners.  
15 I think it's clear they would rather have 100 percent of  
16 those reserves than the 50 percent they would get out of  
17 the well in the northeast quarter.

18 It's also clear that unless the well drilled by  
19 Arrington is drilled as proposed by Arrington, he's going  
20 to be denied the opportunity to receive his share of the  
21 reserves under this tract, no matter how many there are.  
22 He's willing to spend \$1.4 million to get his share. He  
23 doesn't own an interest in the wells to the north. And yet  
24 without the well he proposes, they get it all.

25 And I also think its clear under the Oil and Gas

1 Act that it is your duty to afford him that opportunity.  
2 And if you deny him that, you are outside your statutory  
3 mandate. I think it's clear why they want to drill a well  
4 on this acreage as far away as they can get it from the  
5 better wells to the north. By authorizing that with an  
6 order designating Ocean operator, I submit, you impair the  
7 correlative rights of Mr. Arrington, the largest owner in  
8 the spacing unit. That's what I think is clear in this  
9 case.

10 On the facts of this case, Arrington is the  
11 largest owner. Arrington acquired the property within a  
12 week, was prepared to go forward with drilling a well. He  
13 has lower AFE costs. Those are the costs, no matter what  
14 happened on another well, that Ocean will pay their share  
15 of to participate. And he has a location that, if it isn't  
16 drilled, is going to be drained by wells owned by others.  
17 More than that, he's willing to drill both wells. That's  
18 what they've testified to here today.

19 On these facts, to meet your statutory duty to  
20 protect correlative rights, you must grant the Application  
21 of Arrington and deny the Application of Ocean.

22 EXAMINER BROOKS: Mr. Bruce?

23 MR. BRUCE: Mr. Examiner, let's get out of the  
24 way a couple of things that I disagree with. I don't think  
25 it's as clear as Mr. Carr says, although on one point we



1 agree. First of all, operatorship. That's going to be  
2 determined by the well location we choose. We don't need  
3 to argue over that.

4 Secondly, regarding the AFE, an AFE is simply  
5 that, an estimate. Based on the testimony of Mr. Payne,  
6 the last well that Arrington was in with Ocean cost about  
7 \$1.7 million. Both are fair reasonable. If it is too  
8 expensive there's always a chance later under a pooling  
9 order to challenge the well costs. That's of no  
10 importance.

11 Let's make another thing clear, is that Ocean  
12 isn't out here to drain reserves off of Arrington's  
13 acreage. At one point Ocean had a hundred percent of the  
14 east half, and it was willing to drill a well.

15 What happened? The operator of the well in the  
16 west half of Section 8 ceased producing that well and the  
17 lease terminated. That was long before Arrington had an  
18 interest in this section. It could -- It was willing to go  
19 forward last summer and drill the well. And you may not  
20 remember this, Mr. Examiner, but we actually came up here  
21 for a pooling case against Exxon because we had trouble  
22 getting the term assignment out of them.

23 We force-pooled this acreage once, and we were  
24 willing to drill. And then we were told by Exxon, after  
25 Ocean had spent tens of thousands of dollars for a term

1 assignment, that hey, they lease is no good.

2 Also, they do not have an interest. Ocean and  
3 Nadel and Gussman and McCombs do not have an interest in  
4 the Section 4 well, the Chevron Shoe Bar well. They are  
5 being affected by that well too, but they were willing to  
6 go drill the southwest quarter of the southeast quarter  
7 nine or ten months ago, and they believe that was the  
8 correct decision then, and it's the correct decision now.

9 Now, there are certain things you should take  
10 into account. Under Commission Order R-10,731-B, which  
11 sets forth some of the factors, I think you have to look at  
12 certain factors. One of them is interest ownership in the  
13 well. In this case, although Ocean's interest is split up,  
14 it's 50-50. Nobody has a priority there.

15 EXAMINER BROOKS: Now, there wasn't -- I don't  
16 recall anything in the evidence about the McComb interest.  
17 Are they a -- have they signed over --

18 MR. BRUCE: Yes, Mr. Maney testified that McCombs  
19 owns a portion of the interest that we call Ocean.

20 EXAMINER BROOKS: Okay, go ahead.

21 MR. BRUCE: And they are subject to a JOA.

22 Another factor to look at is time spent in  
23 getting this prospect going. While frankly all these wells  
24 that you're looking at here today were set up by the Ocean  
25 Texaco "5" Number 1 well in the southeast southeast of

1 Section 5, they drilled that well, that set up the interest  
2 for Chevron to drill its well, and it also set up the  
3 interest for Ocean to continue drilling in Section 8. They  
4 obviously have been out here for quite some time now, under  
5 Mr. Maney's testimony, at this point two years, trying to  
6 get a well drilled. That factor is in their favor.

7 As a matter of fact, a review of the Division  
8 records, which I asked the Examiner to incorporate, will  
9 show that Ocean has an APD for this well. I think it might  
10 have lapsed at one point, or it expired under the one year  
11 and they renewed it. So they have had an APD out here to  
12 drill this well for quite some time. That's another factor  
13 in their favor.

14 But when you come right down to it, you do have  
15 to look at the geology and engineering.

16 EXAMINER BROOKS: As I recall, that's what the  
17 Commission Order says is the most important thing.

18 MR. BRUCE: It is the most important. And I  
19 think what you have to look at -- And we understand why  
20 Arrington is interested in drilling the well. But if you  
21 look at their exhibits, there's just not enough reservoir  
22 -- there's too much risk to drill in the northeast quarter.  
23 The southeast quarter has thicker sand, a better pressure  
24 regiment. It's the best location, and if you compare that  
25 with the new Mewbourne well drilled, I think, in Section

1 18, it confirms Mr. Payne's engineering study. Simply put,  
 2 I think you have to drill the best location first. That  
 3 location is in the southeast quarter of Section 8.

4 Once that well is drilled, if Arrington wants to  
 5 propose a second well he can certainly do so, but let's  
 6 drill the best location first. Please approve Ocean's  
 7 Application.

8 EXAMINER BROOKS: Well, would this be a case,  
 9 gentlemen, when the order providing for additional wells  
 10 form might be put into use?

11 MR. BRUCE: I believe it could be.

12 EXAMINER BROOKS: Since it's clear that everybody  
 13 has some interest -- obviously Arrington much more than  
 14 Ocean, but everybody has some interest in more than one  
 15 location.

16 MR. BRUCE: Rather than coming back here and  
 17 fighting over another one, I don't see why not.

18 EXAMINER BROOKS: It seems to make sense.

19 Okay, if there's nothing further, Case Number  
 20 13,036 and Case Number 13,039 will be taken under  
 21 advisement.

22 (Thereupon, these proceedings were concluded at  
 23 5:55 p.m.)

I do hereby certify that the foregoing is  
 a complete record of the proceedings in  
 the Examiner hearing of Case No. \_\_\_\_\_  
 heard by me on \_\_\_\_\_ 19\_\_\_\_.

\* \* \*

24 \_\_\_\_\_, Examiner  
 25 Oil Conservation Division

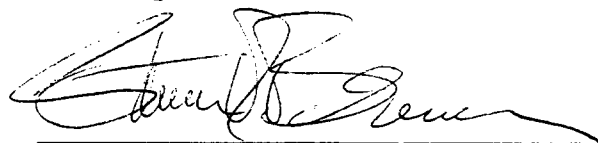
## CERTIFICATE OF REPORTER

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 April 7th, 2003.



STEVEN T. BRENNER  
CCR No. 7

My commission expires: October 16th, 2006