

STATE OF NEW MEXICO  
ENERGY, MINERALS AND NATURAL RESOURCES DEPARTMENT  
OIL CONSERVATION DIVISION

IN THE MATTER OF THE HEARING CALLED BY )  
THE OIL CONSERVATION DIVISION FOR THE )  
PURPOSE OF CONSIDERING: )  
APPLICATION OF CHESAPEAKE OPERATING, )  
INC., FOR COMPULSORY POOLING AND AN )  
UNORTHODOX WELL LOCATION, LEA COUNTY, )  
NEW MEXICO )

CASE NO. 12,392

ORIGINAL

REPORTER'S TRANSCRIPT OF PROCEEDINGS

EXAMINER HEARING

BEFORE: MICHAEL E. STOGNER, Hearing Examiner

May 18th, 2000

Santa Fe, New Mexico

OIL CONSERVATION DIV.  
00 JUN - 1 AM 5:25

This matter came on for hearing before the New Mexico Oil Conservation Division, MICHAEL E. STOGNER, Hearing Examiner, on Thursday, May 18th, 2000, at the New Mexico Energy, Minerals and Natural Resources Department, Porter Hall, 2040 South Pacheco, Santa Fe, New Mexico, Steven T. Brenner, Certified Court Reporter No. 7 for the State of New Mexico.

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## I N D E X

May 18th, 2000  
 Examiner Hearing  
 CASE NO. 12,392

	PAGE
EXHIBITS	3
APPEARANCES	3
APPLICANT'S WITNESSES:	
<u>LYNDA F. TOWNSEND</u> (Landman)	
Direct Examination by Mr. Kellahin	5
Examination by Examiner Stogner	16
<u>ROBERT A. HEFNER, IV</u> (Geologist)	
Direct Examination by Mr. Kellahin	20
Examination by Examiner Stogner	29
<u>LYNDA F. TOWNSEND</u> (Landman, recalled)	
Examination by Examiner Stogner	35
REPORTER'S CERTIFICATE	39

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## E X H I B I T S

Applicant's	Identified	Admitted
Exhibit 1	6	16
Exhibit 2	8	16
Exhibit 3	11	16
Exhibit 4	11, 21	29
Exhibit 5	9	16
Exhibit 6	11	16
Exhibit 7	8	16
Exhibit 8	38	38

\* \* \*

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

## FOR THE DIVISION:

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 Attorney at Law  
 Legal Counsel to the Division  
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 Santa Fe, New Mexico 87505

## FOR THE APPLICANT:

KELLAHIN & KELLAHIN  
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 P.O. Box 2265  
 Santa Fe, New Mexico 87504-2265  
 By: W. THOMAS KELLAHIN

\* \* \*

1           WHEREUPON, the following proceedings were had at  
2           9:20 a.m.:

3           EXAMINER STOGNER: At this time I will call Case  
4           Number 12,392.

5           MS. HEBERT: Application of Chesapeake Operating,  
6           Inc., for compulsory pooling and an unorthodox well  
7           location, Lea County, New Mexico.

8           EXAMINER STOGNER: Call for appearances.

9           MR. KELLAHIN: Mr. Examiner, I'm Tom Kellahin of  
10          the Santa Fe law firm of Kellahin and Kellahin, appearing  
11          on behalf of the Applicant, and I have two witnesses to be  
12          sworn.

13          EXAMINER STOGNER: Any other appearances?  
14          Will the witnesses please stand to be sworn at  
15          this time?

16          (Thereupon, the witnesses were sworn.)

17          MR. KELLAHIN: Mr. Examiner, Chesapeake seeks a  
18          compulsory pooling order from the Division. In addition,  
19          they are drilling this well based upon a 3-D seismic  
20          analysis. The primary objective is the Atoka-Morrow  
21          formation.

22          Mr. Robert Hefner is a geologist and will present  
23          that testimony. It's his desire to have you consider  
24          approving an unorthodox location for the well for reasons  
25          that he will describe to you when he testifies.

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LYNDA F. TOWNSEND,

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

DIRECT EXAMINATION

BY MR. KELLAHIN:

Q. Ms. Townsend, for the record, ma'am, would you please state your name and occupation?

A. It's Lynda Frances Townsend, and I'm a landman for Chesapeake Energy, Incorporated.

Q. On prior occasions, Ms. Townsend, have you testified before the Division as a petroleum landman?

A. Yes, sir, I have.

Q. Has it been your responsibility for your company to first of all determine the ownership, not only within the west half of Section 22, but to become familiar with what you believe to be the working interest ownership in the east half of this section?

A. Yes, sir.

Q. And you've done that?

A. Yes.

Q. In addition, having identified the ownership, was it your responsibility to attempt to consolidate the interest owners for a spacing unit consisting of the west half of Section 22?

A. Yes, sir.

1 Q. And you've gone through that process?

2 A. Yes.

3 MR. KELLAHIN: We tender Ms. Townsend as an  
4 expert petroleum landman.

5 EXAMINER STOGNER: Ms. Townsend is so qualified.

6 Q. (By Mr. Kellahin) Ms. Townsend, let me have you  
7 turn to the package of exhibits that you have compiled, and  
8 let's turn to the tab that's marked Exhibit Number 1. It's  
9 the Division Form C-102. Is the information that you have  
10 added to this display your information?

11 A. Yes.

12 Q. Let's take a moment and show Mr. Stogner how the  
13 west half of Section 22 is subdivided.

14 A. All right. Mr. Examiner, there are four  
15 different tracts. They're split up in 80-acre tracts.  
16 They consist of the north half of the northwest, south half  
17 of the northwest, north half of the southwest, and the  
18 south half of the southwest.

19 In the first tract, the north half of the  
20 northwest, that is a state lease. Chesapeake owns 100  
21 percent of the interest.

22 In the second tract, which is the south half of  
23 the northwest, that is a fee interest tract. Chesapeake  
24 controls 75 percent of the interest, Bellwether has another  
25 25 percent.

1           In the third tract, which is the north half of  
2 the southwest, Chesapeake controls 62.5 percent of the  
3 interest, Bellwether has 25 percent of the interest, and  
4 Mrs. Sumruld has a 12.5 percent of the interest.

5           In the fourth tract, which is the south half of  
6 the southwest, that is a state tract that was taken by Dale  
7 Douglas. It was assigned into David H. Arrington, Inc.,  
8 who assigned it into Ocean Energy at 50 percent. David  
9 Arrington individually kept a 37.5 and Steve Hollyfield had  
10 a 12.5-percent interest. That is included -- Steve  
11 Hollyfield's interest is included as COI's interest,  
12 because he is going to participate in the well.

13           Q. While we're on this display, let's look at the  
14 east half of the section and identify for Mr. Stogner the  
15 ownership there. The relevance is that we needed to send  
16 notification to those companies because of the proposed  
17 unorthodox well location. So could you describe the  
18 ownership for us in the east half of the section?

19           A. The east half of the section consists of four  
20 tracts also, the first tract being the northwest of the  
21 northeast. That is the Chesapeake Energy tract. We have  
22 that 100 percent.

23           The northeast of the northeast is Marathon. They  
24 own that 100 percent.

25           The south half of the northeast is Texaco, and

1 the southeast quarter is 100-percent Chesapeake.

2 Q. For purposes of the unorthodox location, did you  
3 send notices to Marathon and Texaco of this requested  
4 location?

5 A. Yes, I did.

6 Q. And what if any responses did you receive from  
7 those companies?

8 A. We have gotten waivers back from both of them,  
9 and that is listed as Exhibit 7.

10 Q. Let's turn to your efforts now to consolidate the  
11 west half for a spacing unit. Am I correct in  
12 understanding that the primary geologic target for this  
13 well is the Atoka/Morrow formation?

14 A. Yes, sir.

15 Q. And did Chesapeake cause an AFE to be prepared  
16 for this particular well?

17 A. Yes, they did.

18 Q. And how is that attached among the exhibits for  
19 this hearing?

20 A. That is listed as Exhibit 2.

21 Q. Did you cause this authority for expenditure to  
22 be sent to all the appropriate working interest owners that  
23 would participate in the well?

24 A. Yes, I did.

25 Q. Did you receive any objection from any of these

1 parties as to the AFE?

2 A. No.

3 Q. Let me take these a little out of sequence, Mrs.  
4 Townsend. I'd like Mr. Stogner to be able to see who are  
5 the interest owners involved and what percentages they  
6 have, so if you'll turn with me to Exhibit Tab Number 5,  
7 let's look at that spreadsheet.

8 A. All right.

9 Q. Are you with me?

10 A. Uh-huh.

11 Q. Let's turn down to the summarized tabulation at  
12 the bottom where you're totaling the ownership in the west  
13 half?

14 A. Right.

15 Q. After Chesapeake, let's start down the list, and  
16 show me the current status of your efforts to obtain  
17 commitment of these various individuals or entities.

18 A. All right, Bellwether Exploration Company, we  
19 have made a verbal deal with them but do not have any  
20 signed instrument in hand for a term assignment.

21 Q. Your desire, then, would be to leave them subject  
22 to the pooling order until the final documents are  
23 executed, and then we could simply remove them from the  
24 list?

25 A. Yes, sir.

1 Q. What's the status of Ocean Energy Resources, Inc.?

2 A. Ocean Energy, my last communication with them was  
3 last Monday, I believe. Yes, it was. And he said that  
4 they had received their interest from David Arrington, and  
5 they would certainly do what Arrington did.

6 Q. All right. At this point Ocean has not committed  
7 to a voluntary agreement?

8 A. No.

9 Q. What's the status of your negotiations with Mr.  
10 Arrington?

11 A. We have tried to come to some sort of agreement  
12 but have not reached anything yet. So nothing is even  
13 orally agreed to.

14 Q. All right. And then the last interest, S. and J.  
15 Sumruld?

16 A. Yes.

17 Q. What's the status of that?

18 A. We have a lease out to her. Actually, it is a  
19 lease amendment, that she is just going to add this to her  
20 existing lease. It's adding this particular tract. It's  
21 out to her. She was supposed to have signed it and sent it  
22 back. There again, we do not have that in hand as of yet.

23 Q. So at this point, with the exception of  
24 Chesapeake Operating, Inc., despite your efforts, you do  
25 not have final written commitment from any of these four

1 individuals or companies?

2 A. Exactly.

3 Q. These same individuals and companies, then, would  
4 have interest. In the event the spacing unit is different  
5 for this well, you're still dealing with the same  
6 individuals or companies, right?

7 A. Yes.

8 Q. The percentage would change as indicated on the  
9 spreadsheet?

10 A. Right.

11 Q. Let's turn back to the documentation in sequence,  
12 then. Identify for us, what is Exhibit Number 3?

13 A. Exhibit Number 3 is the application for permit to  
14 drill.

15 Q. And what is the status of your application for  
16 permit to drill?

17 A. We are waiting for the unorthodox location  
18 approval and --

19 Q. All right.

20 A. -- then this would be turned, yes.

21 Q. All right. Exhibit 4 is Mr. Hefner's geologic  
22 displays.

23 A. Yes.

24 Q. Exhibit 5 we've described. So let's turn now to  
25 the documentation behind Exhibit Number 6 and have you

1 identify and describe what's contained in that portion of  
2 the exhibit package.

3 A. All right. The first letter is dated February  
4 the 22nd. It is to Mr. Dale Douglas. He was the original  
5 purchaser of the state tract in the south half of the  
6 southwest. That is the letter that was sent to him  
7 proposing the well, with the AFE attached.

8 Behind that is a letter from him dated February  
9 the 25th, informing us that he had assigned this out to the  
10 different individuals. The assignment is also attached  
11 with that.

12 Q. And based upon that information, then, you have  
13 proceeded to attempt to negotiate a voluntary solution with  
14 these entities to whom Mr. Douglas has assigned his  
15 interest?

16 A. Yes, and the one individual we have, Mr.  
17 Hollyfield.

18 Q. All right.

19 A. The second letter is to Mr. Jim Enlow with  
20 Bellwether. It is dated February the 25th. It has an AFE  
21 attached. As I said, we have a verbal agreement with them  
22 right now for a term assignment which will match the  
23 proposal that is made in paragraph 4. Rather than leasing  
24 their acreage, we'll just take a term assignment on their  
25 acreage at those terms.

1           The next letter is to Pure Energy Group. It is  
2           dated February the 25th. It mirrors the Bellwether letter.  
3           There's an AFE attached. We do have a signed AFE from Pure  
4           Energy. They will participate in the well.

5           Q.    And that's why Pure Energy does not show on the  
6           tabulation of interest in Exhibit 5?

7           A.    Right.

8           Q.    That interest now is held under the total for  
9           Chesapeake?

10          A.    Right.

11          Q.    So it's been committed?

12          A.    Yes.

13          Q.    All right.

14          A.    The next letter is dated March the 1st, 2000, to  
15          Mr. Derold Maney, the landman for Ocean Energy. There's an  
16          AFE attached with that. As I said earlier, I did have a  
17          phone call with him on Monday of this week, and they will  
18          go along with Arrington, whatever Arrington decides to do.

19                And the following letter is dated March 1st.  
20          It's to Mr. Steve Hollyfield. It has an AFE attached. I  
21          have also attached his signed AFE, where he elects to  
22          participate in the well.

23                And the next letter is just a duplicate of the  
24          Pure Energy Group, but it has the signed AFE for the Pure  
25          Energy with it.

1 Q. So when Mr. Stogner reviews the tabulation of  
2 correspondence behind Exhibit Tab Number 6, then you have  
3 confirmation of sending this proposal to all the companies  
4 for which you intend to have a pooling order issued?

5 A. Yes, sir.

6 Q. Let me touch on two other subjects. One, let's  
7 talk about your belief that this AFE that you have sent  
8 these various parties, the \$1.2 million AFE for completed  
9 well cost --

10 A. Uh-huh.

11 Q. -- how does that compare to your records and  
12 knowledge of the cost of this kind of well that Chesapeake  
13 has drilled in this area?

14 A. This is certainly in line with any other well we  
15 have drilled to this depth. We have just completed the  
16 Boyce Number 1, which is in Section 15 of 16-35. It is  
17 approximately the same depth. Our actual well costs on  
18 that well were \$703,000 dry hole and \$372,000 for a  
19 completed well, for a total of \$1,075,000.

20 Q. And once again, there's been no objection from  
21 any of these parties as to your AFE costs?

22 A. No.

23 Q. Let's deal with the final topic, then. Do you  
24 have a recommendation to Mr. Examiner Stogner for the  
25 overhead rates --

1 A. Yes.

2 Q. -- to be applied in this pooling case?

3 A. We have asked previously for \$6000 drilling rate  
4 and \$600 monthly overhead charges. That was granted to us  
5 in Order Number R-11,327, and we would like to have those  
6 same numbers granted again in this order.

7 Q. And that was the order for the College of  
8 Southwest well?

9 A. Yes.

10 Q. It's in the same township, it's over in Section  
11 17?

12 A. Yes.

13 Q. To the best of your knowledge, those overhead  
14 rates are in line with the last tabulation of overhead  
15 rates that you've looked at for Ernst and Young's  
16 tabulation?

17 A. Yes, sir.

18 MR. KELLAHIN: All right. Mr. Examiner, that  
19 concludes my examination of Mrs. Townsend.

20 With the exception of Exhibit 4, which is the  
21 geologic displays, we move the introduction of Exhibits 1  
22 through 7.

23 EXAMINER STOGNER: Exhibits 1 through 7 or --

24 MR. KELLAHIN: No, sir, 1, 2 and 3 --

25 EXAMINER STOGNER: 1, 2 and 3 --

1 MR. KELLAHIN: -- and then 5, 6 and 7.

2 EXAMINER STOGNER: -- and 5, 6 and 7 will be  
3 admitted into evidence at this time.

4 EXAMINATION

5 BY EXAMINER STOGNER:

6 Q. Did I understand you right to say that the \$6000  
7 and \$600 overhead charges is what's being indicated by the  
8 Ernst and Young survey?

9 A. It is the Q3 number on the Ernst and Young. The  
10 overhead is \$5900 and something. I'm sorry, I can't  
11 remember the exact number.

12 The Q3 -- and this is under the New Mexico  
13 heading. Thank you. Yes, Q3 is at \$5938, and then the  
14 monthly overhead is showing \$650 on the Q3.

15 Q. And what date is that, that you're showing?

16 A. This is 1999 to 2000, Ernst and Young. That's  
17 the only date that's on here, on this fixed-rate overhead  
18 survey.

19 Q. I'm still a little confused about this new  
20 format.

21 MR. KELLAHIN: So are we, Mr. Examiner, I can't  
22 figure it out.

23 Q. (By Examiner Stogner) What is the Q3?

24 A. I do not know.

25 Q. So -- But you're basing it on some --

1           A.    It's got to be close to the median number,  
2    though.  If they've got the lowest to the highest in the  
3    median number and that falls in between the median and the  
4    high, I believe, does it not?

5           Q.    You've got a minimum, a maximum --

6           A.    Uh-huh.

7           Q.    -- mean, medium, Q1, Q3, not necessarily in that  
8    order.  I thought you might be able to explain to me what  
9    this means.

10          A.    I wish I could.

11                   EXAMINER STOGNER:  I'll take administrative  
12    notice of the Ernst and Young 1999-2000 Fixed Rate Overhead  
13    Survey.  You can have that back.  I do have a copy of that  
14    downstairs, I do not have it with me.

15          Q.    (By Examiner Stogner)  You referred to Order  
16    Number R-11,327, where overhead charges of \$6000 --

17          A.    Right.

18          Q.    -- and \$600 respectively was previously given.  
19    When was that order issued, about what date?

20          A.    We heard it on January the 20th, it was issued  
21    the 9th of March.

22          Q.    Do you remember what those overhead charges were  
23    based on?

24          A.    I believe it was -- We looked at Ernst and Young  
25    at the time -- I don't believe it was this particular form;

1 I believe it was the other form -- plus joint operating  
2 agreements in that area from some other operators and what  
3 we have charged prior to that time.

4 EXAMINER STOGNER: Anything else we need to think  
5 about on those overhead charges?

6 MR. KELLAHIN: Mr. Stogner, I'm uncomfortable  
7 about the new Ernst and Young report. I can't figure it  
8 out. They don't do it by county any more, they don't do it by  
9 depth. And one possibility is to pool the industry and  
10 develop our own database for determining what those rates  
11 are. I know that there's other schedules published and  
12 available in the industry, and it may be a project for us  
13 to look at.

14 But based upon what we know now in the College of  
15 Southwest case, this is as close as we can get to what we  
16 think is a reasonable range of overhead rates in the area  
17 for wells like this.

18 I'm at a loss like you. I can't figure out what  
19 they've done to their new schedule?

20 EXAMINER STOGNER: Who would do such a polling?

21 MR. KELLAHIN: Well, the Oil and Gas Association  
22 or the Petroleum Landmen's Association or the Independent  
23 Association, all of whom could be asked. I would think  
24 that they would have an inventory of expertise and  
25 knowledge about overhead rates. And they may have a

1 greater number of examples than are tabulated by Ernst and  
2 Young, and maybe it would be a nice little project for them  
3 to do.

4 EXAMINER STOGNER: You mean somebody like, maybe  
5 like the Regulatory Practices Committee, something like  
6 that?

7 MR. KELLAHIN: I guess so.

8 EXAMINER STOGNER: You mean a worthwhile project  
9 for a group like that to maybe undertake?

10 MR. KELLAHIN: That would be my suggestion, Mr.  
11 Examiner.

12 EXAMINER STOGNER: That would actually be doing  
13 something that would benefit not only the industry but this  
14 group and this particular panel such as hears these kind of  
15 cases?

16 MR. KELLAHIN: Yes, sir, it would help us.

17 EXAMINER STOGNER: Interesting concept.

18 Q. (By Examiner Stogner) Care to comment as far as  
19 the yearly or an annual adjustment Is that needed in this  
20 instance?

21 A. I'm sorry?

22 Q. An annual adjustment to this?

23 A. Many times, many accounting -- They go by the  
24 COPAS, and it is increased every April by about 4 percent,  
25 4-point-something percent. We don't necessarily follow

1 those guidelines. There are companies that do. I think  
2 maybe in some instances, we may. I just don't know. That  
3 would take -- I'd have to look through it.

4 But that is the normal increase that many  
5 companies go by.

6 Q. What are you seeking?

7 A. Really, that is not necessarily -- I don't have  
8 that much control over that, as far as the increases in the  
9 JOAs.

10 EXAMINER STOGNER: Okay. Well, with that I'll --  
11 don't have any other questions.

12 THE WITNESS: Thank you.

13 MR. KELLAHIN: Mr. Hefner, it's your turn.

14 EXAMINER STOGNER: Mr. Kellahin?

15 MR. KELLAHIN: Thank you, Mr. Examiner.

16 ROBERT A. HEFNER, IV,

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

19 DIRECT EXAMINATION

20 BY MR. KELLAHIN:

21 Q. Mr. Hefner, for the record, sir, would you please  
22 state your name and occupation?

23 A. My name is Robert Hefner, and I'm a geologist for  
24 Chesapeake Energy in Oklahoma City. I'm responsible for  
25 their Permian Basin efforts.

1 Q. On prior occasions, Mr. Hefner, have you  
2 testified as a petroleum expert before the Division?

3 A. Yes, I have.

4 Q. And you've done so in compulsory pooling cases,  
5 have you not?

6 A. Yes, sir.

7 Q. Have you been responsible for developing the data  
8 and, with the assistance of other Chesapeake technical  
9 personnel, determining what, in your opinion, is an  
10 appropriate location for this well?

11 A. Yes, I have.

12 Q. The primary objective for this well is the Atoka-  
13 Morrow formations or intervals?

14 A. Yes, sir.

15 Q. When you look at the opportunity in this section  
16 for such a well in those formations, and within context of  
17 a compulsory pooling case, do you have a recommendation as  
18 to whether it's appropriate in this case to have the  
19 Division award a 200-percent risk factor penalty?

20 A. Yes, I do, because there has been no established  
21 Atoka-Morrow production in this township.

22 Q. Let me have you turn to Exhibit Tab 4. Let's  
23 look beyond the written summary, and let's start with this  
24 Atoka structure map as a locator map. And let me ask you  
25 some questions before we get into the details of it.

1           We've got a nine-section plat, and it's coded  
2 with various types and kinds of wells. Do you see that,  
3 Mr. Hefner?

4           A.    Yes.

5           Q.    When you talk about any established production in  
6 either the Atoka and the Morrow intervals, on this map are  
7 there any of those wells?

8           A.    No, there are not.

9           Q.    Were do we have to go off this map to find  
10 established Morrow or Atoka production?

11          A.    You have to go six miles to the west.

12          Q.    Okay. Let's deal with other potentials. Is  
13 there any reasonable probability to expect that you might  
14 have any Strawn at this location?

15          A.    It's highly unlikely. The well that we're  
16 closest to in this particular unit was drilled by Champlin  
17 in 1968, in the southwest quarter of Section 22, and it  
18 penetrated the Strawn and the Strawn was thin and tight.

19          Q.    So the dryhole symbol to the south of your  
20 location was a Strawn attempt that failed?

21          A.    That's correct.

22          Q.    For reference, let's identify for Mr. Stogner  
23 where on this map there is producing Strawn oil wells.

24          A.    All right. There is a producing Strawn well  
25 known as the Smith in Section 15 that's in the southeast of

1 the southwest. Arrington recently drilled a well called  
2 the Yellow Humpy that's in the north half of the southwest  
3 of 15. My understanding is, when they drilled that, that  
4 they found it to be in a depleted condition by the Smith  
5 well.

6 And then they attempted another well in Section  
7 16 in the southeast, called the Royal Humpy, and I'm told  
8 that they found there a thin oil column on top of water,  
9 and that has been put on a pump.

10 And then we had attempted a couple of Strawn  
11 tests, two of them in 16. Both of those failed, one known  
12 as the Salbar and the other known as the Blackmon.

13 And we also tried a Strawn test in 21 with a  
14 vertical borehole that failed. And then we tried a  
15 directional, trying to get out of water, and that produced  
16 maybe 1000 barrels and then died.

17 So the Strawn has been a very risky objective in  
18 this area.

19 And then there's a local structural feature known  
20 as the Lovington nose that's off to our east, that plunges  
21 to the south, and up on top of that feature the Strawn is  
22 very thin and nonproductive.

23 Q. Okay. Let's deal now with the Atoka-Morrow.  
24 You're aware, are you not, Mr. Hefner, that if the spacing  
25 unit's the west half, your well will be in the northeast

1 quarter of that spacing unit, and that Division Rule 104  
2 requires standard locations to be 660 feet from the side  
3 boundaries of that 160-acre portion of the spacing unit,  
4 correct?

5 A. Correct.

6 Q. As proposed, your location is just to the south  
7 of that east-west fault, so that you're on the upthrown  
8 side of the fault --

9 A. Correct.

10 Q. -- and if that location is approved, then, by my  
11 calculation it shows that you're going to be 368 feet from  
12 the south line of that quarter section and 488 feet from  
13 the east line of that quarter section.

14 A. That's correct.

15 Q. All right. Let's talk about the objective. If  
16 you attempted to put this well in the northeast quarter,  
17 north of the fault, what is your concern?

18 A. The concern is that we'd be structurally too low,  
19 and it would probably be tight and/or wet.

20 Q. Okay.

21 A. We have one control point in the -- that had some  
22 actual sand in it, in Section 15, that was tight and  
23 calculated wet.

24 Q. So when we look at the northeast quarter section,  
25 it is your geologic opinion that there is no standard

1 location in that quarter section that Chesapeake would  
2 choose to drill for a well in these intervals?

3 A. That is correct.

4 Q. Okay. Let's look at the southwest southwest  
5 quarter. Your objective is to stay south of the fault but  
6 as close to the fault as you can, for what reason, sir?

7 A. If you go -- If you continue to the south and get  
8 further away from that fault, you'll gain structure. And  
9 when you gain structure, you lose your Atoka-Morrow  
10 interval thins. And the more thinning that occurs, the  
11 higher the risk of finding the depositional system that  
12 we're targeting.

13 Q. Okay. So if you're trying to find a standard  
14 location in the southwest quarter, what's the advantage of  
15 the unorthodox location over any standard location for that  
16 quarter section?

17 A. Well, you're -- On the upthrown block, you're at  
18 the structurally lowest position on that upthrown block.

19 Q. And as you go higher on structure, then the  
20 reservoir thins and you potentially lose reservoir?

21 A. That's correct.

22 Q. Let's look at that illustration. Have you  
23 prepared another display for Mr. Stogner that will attempt  
24 to illustrate what you're talking about in terms of  
25 structural position?

1 A. Yes, sir.

2 Q. Do you have a copy of that?

3 A. I do.

4 Q. Before we talk about the two-well cross-section,  
5 let's find where those wells are. And if you'll go back to  
6 your structure map --

7 A. Yes.

8 Q. -- find the two wells for us.

9 A. Okay, the well that's on the left, known as the  
10 Clydesdale, is in Section 15, and it's in the northeast of  
11 the southeast of Section 15. It went deep enough to  
12 penetrate the Atoka-Morrow section.

13 And then the only other well that was up on the  
14 Lovington nose that went deep enough to penetrate the  
15 Atoka-Morrow section is the well known as the State CA, and  
16 it's in the southwest of the southeast of 23.

17 And those are our two control points for this  
18 structural feature using subsurface.

19 Q. And as we look at that comparison, then, describe  
20 for us the points you want Mr. Stogner to see.

21 A. On the well on the left, known as the State CA,  
22 this well is up on top of that local structure known as the  
23 Lovington nose. And you can see there that color from that  
24 green down to the bottom of the yellow represents your  
25 entire Atoka-Morrow section. And so you can see that is

1 very thin on top of the feature.

2 And then as you come off the structural feature  
3 down to the Clydesdale state, if you look at the same  
4 equivalent interval from the green to the yellow, you've  
5 picked up some additional white at the base of that, which  
6 is your Morrow section being added, which is completely  
7 missing on top of the structural feature. So this is an  
8 old structural feature in which there was no Morrow  
9 deposited up on top of that structural nose. And that  
10 structural nose plunges off to the north and gains  
11 structure coming to the south.

12 And then simultaneously as you go downplunge or  
13 to the north, the throw on those faults coming off of that  
14 structural feature diminish. And so the throws on those  
15 faults increase as you come to the south.

16 Q. Does having the availability of the 3-D seismic  
17 data to help you locate the structure, plus having an  
18 unorthodox location available to you, diminish the risk to  
19 less than the maximum 200 percent?

20 A. No, there's still a substantial amount of risk  
21 involved in those type of tests.

22 Q. And in terms of any reasonable probability of a  
23 backup or a salvage zone uphole, in all reasonable  
24 probability you're not going to have one in this wellbore?

25 A. The risk is very high. The only Wolfcamp wells

1 in this nine-section plat are those two wells in Section  
2 23, and this State well produced about 80,000 barrels out  
3 of the Wolfcamp, and the other well in 23 only produced  
4 1300 barrels. So they're not -- And then all the other  
5 wells have not seen productive Wolfcamp, so the risk is  
6 high on both of them.

7 Q. Describe for me in a summary fashion, Mr. Hefner,  
8 the process by which Chesapeake and you have developed the  
9 seismic data and then interpreted it to display this  
10 configuration of up- and downthrown positions on this  
11 structural system here with the faults.

12 A. Well, as you come into that feature known as the  
13 Lovington nose, there's a lot of faults that splay off of  
14 that structural feature. And so what we're trying to show  
15 on this particular plat are the main one, the main faults  
16 that are splaying off of that feature.

17 And since we do have at least one known point in  
18 that Clydesdale well in 15 that did have some sand, that's  
19 highlighted yellow on the cross-section, although it's thin  
20 and doesn't have very -- The porosity is low, and the water  
21 saturations are very high. So we know if we have any hope  
22 of finding that productive, we have to get structural  
23 higher.

24 But then we know that if we get up on top of the  
25 Lovington nose, that our entire -- we lose our Morrow

1 section completely, and decreases the probability of  
2 finding any Atoka deposition on top of there, or at least  
3 reservoir-quality-type deposition. And so you need to stay  
4 off of the main fault coming off that Lovington nose, and  
5 that's why we stepped down to that other fault block. But  
6 we don't want to step down again and get down in the same  
7 level that that Clydesdale well was drilled, nor do we want  
8 to go further south, away from our control point.

9 Q. Based upon your analysis, then, Mr. Hefner, is it  
10 your geologic opinion that the proposed location is  
11 necessary in order to have a suitable position in the west  
12 half of Section 22 to drill the Atoka-Morrow well?

13 A. Yeah, it is our belief that it will give us the  
14 highest probability of attempting to be successful here.

15 MR. KELLAHIN: That concludes my examination of  
16 Mr. Hefner, Mr. Stogner.

17 We move the introduction of his geologic  
18 exhibits, which are behind Exhibit Tab Number 4.

19 EXAMINER STOGNER: Exhibit Number 4 will be  
20 admitted into evidence at this time.

21 EXAMINATION

22 BY EXAMINER STOGNER:

23 Q. You talked about the Wolfcamp production over in  
24 Section 23, Mr. Hefner. What pools are those in? Are  
25 those oil wells, gas wells? What's the spacing?

1           A.    They're oil wells, and I assume -- I did not  
2 check that out, but they're on -- I think these, you know,  
3 transition going from east to west on the spacing of the  
4 Wolfcamp. There's a Wolfcamp well in Section 17 that's on  
5 160s, and I think these are on 40s on this direction.

6           I may be -- I think the field that these were put  
7 in was really called the Penn Field, rather than the  
8 Wolfcamp. And so the nearest -- quote, unquote -- Wolfcamp  
9 would be the 160-spaced field.

10          Q.    What field was that again?

11           MR. KELLAHIN: The 160 Wolfcamp, Mr. Stogner?

12           EXAMINER STOGNER: Yes, sir.

13           MR. KELLAHIN: It's in the North Shoe Bar  
14 Wolfcamp. Here's the Division page on that. It's off to  
15 the west.

16           EXAMINER STOGNER: So that would not be affected  
17 by this?

18           MR. KELLAHIN: As best we can tell, it's not. It  
19 appears to be more than a mile.

20           THE WITNESS: Those Wolfcamp wells have been  
21 plugged, and so those rules have expired.

22           MR. KELLAHIN: The ones in 23, Mr. Hefner, those  
23 are plugged wells now?

24           THE WITNESS: Yeah, so I guess the operating  
25 rules would be the ones.

1           EXAMINER STOGNER:  Sorry, what rules would have  
2 expired?

3           THE WITNESS:  I assume that the field rules that  
4 apply to those wells have expired with those being plugged.

5           Q.  (By Examiner Stogner)  Why would that be?

6           A.  Oh, I don't know.  That was an assumption on my  
7 part that that's how the Oil Conservation Division  
8 handled --

9           Q.  Well, why would you assume that?

10          A.  Well, since it would be no longer applicable,  
11 since they're not producing.

12          Q.  So any subsequent wells in a pool that had  
13 special pool rules would not be applied; is that what  
14 you're telling me?

15          A.  I thought they had to be active, so the wrong --  
16 my hearing that, my assumption was incorrect.

17          Q.  Well, I'm asking you where you got this  
18 assumption.

19          A.  It was --

20          Q.  I mean, it disturbs me that an operator would  
21 come in this State, come in here as an expert witness,  
22 would assume something like that.

23          A.  My source --

24          Q.  Well, yeah, you are wrong --

25          A.  -- of information was wrong --

1 Q. -- on that, and a pool rule stays --

2 A. -- stays in effect, even after they've been  
3 plugged down.

4 Q. Yes, sir.

5 A. Okay.

6 Q. Okay, now, I'm looking at Exhibit Number 4, the  
7 interoffice memorandum, when it talks about Chesapeake is  
8 the only offset operator to the south, now that would hold  
9 true for the Morrow. But you're going to be drilling it --  
10 This was spaced on 40 or 160 acres, you're going to be next  
11 to people who haven't -- Am I to assume they are led to  
12 believe that this is a standard location for a 40, an 80  
13 and a 160?

14 A. I have not had the conversations with those  
15 people, and so I'd have to defer that to Ms. Townsend.

16 EXAMINER STOGNER: Ms. Townsend --

17 MS. TOWNSEND: Yes, sir.

18 EXAMINER STOGNER: -- were the people which  
19 you're force pooling, were they made aware of the actual  
20 location of this well?

21 MS. TOWNSEND: Yes.

22 EXAMINER STOGNER: They were?

23 MS. TOWNSEND: In the letter it shows the  
24 footages, and the reason the footages are off a few feet in  
25 the proposal letter that was sent to them is, that was

1 before it was actually surveyed, and it was surveyed on the  
2 XYs and that's the difference in the footages.

3 EXAMINER STOGNER: Okay, now, what letter are you  
4 referring to?

5 MS. TOWNSEND: In their proposal letter, under  
6 Exhibit 6, where it says in the first paragraph,  
7 "Chesapeake hereby proposes to drill the captioned well to  
8 a total depth of 12,650' to test the Morrow formation. The  
9 well will be drilled at an unorthodox location..." and it  
10 gives the footages in the west half.

11 EXAMINER STOGNER: Ms. Townsend, do you feel that  
12 this February 22nd letter, even though you talk about the  
13 depth, testing the Morrow, do you think that makes it clear  
14 to them that they are an unorthodox location encroaching up  
15 on their acreage, should this well be completed on 40, 160  
16 or 80?

17 MS. TOWNSEND: I'm sorry, could you please ask me  
18 again?

19 EXAMINER STOGNER: Do you feel that this February  
20 22nd letter to these people that have an interest in the  
21 southwest corner -- quarter, of this section, who would be  
22 parties of interest, that you are offsetting with an  
23 offsetting with an unorthodox location, if it's spaced on  
24 40, 160 or 80, do you feel that this notice is applicable  
25 and adequate?

1 MS. TOWNSEND: This notice is not. If we drilled  
2 to the Atoka and came back up to a different location, it  
3 would be re-proposed to them, and at that time they would  
4 either have the chance to participate or to go nonconsent  
5 or whatever.

6 I mean, if we go back out there -- If we have to  
7 plug the Atoka --

8 EXAMINER STOGNER: How would Ms. Sumruld join  
9 in --

10 MS. TOWNSEND: She would lease to us. She owns  
11 minerals, and we have a lease out to her. She would be in  
12 our interest, she would be covered under our interest.

13 EXAMINER STOGNER: I guess I don't see that. If  
14 you're going to be in the northwest quarter, how is she  
15 going to have an interest in the northwest quarter?

16 MS. TOWNSEND: Well, some of these people  
17 won't --

18 EXAMINER STOGNER: And that's what I'm saying --

19 MS. TOWNSEND: -- right. It will be only the  
20 people that are in that location.

21 EXAMINER STOGNER: So is this notice adequate to  
22 Ms. Sumruld?

23 MS. TOWNSEND: Ms. Sumruld does own in the  
24 northwest quarter. She is under lease. We are --

25 EXAMINER STOGNER: Excuse me, whoa, whoa, whoa.

1 Mr. Kellahin, maybe we need to have Ms. Townsend come up  
2 here and take the stand. I don't want her getting some  
3 instructions from somebody from the audience that we have  
4 no --

5 Sir, why don't you step down. Ms. Townsend, why  
6 don't you come back up here? You were the expert witness  
7 at this time.

8 MS. TOWNSEND: Yes, sir.

9 EXAMINER STOGNER: You were the one that  
10 presented evidence as far as land matters.

11 LYNDA F. TOWNSEND (Recalled),  
12 the witness herein, having been previously duly sworn upon  
13 her oath, was examined and testified as follows:

14 DIRECT EXAMINATION

15 BY EXAMINER STOGNER:

16 Q. Ms. Sumruld has what interest in the northwest  
17 quarter?

18 A. All right, we already have her leased in the  
19 northwest quarter. Remember when I told you that she was  
20 giving us a lease amendment that would add this additional  
21 acreage to her original lease?

22 Q. Okay, so -- I wasn't aware of that. So her  
23 interest, as far as the northwest, she is a joinder?

24 A. Yes.

25 Q. But you're force-pooling her interest that's down

1 in the north half of the southwest quarter?

2 A. Exactly.

3 Q. And hopefully you will get an amendment that has  
4 all of her interest in it?

5 A. Right.

6 Q. Okay, what I'm trying to establish here is, you  
7 know the notification rules when it comes to unorthodox  
8 locations.

9 A. Right.

10 Q. You being a landman know that better than I do.  
11 I'm just an engineer. So I'm trying to establish to myself  
12 that that notification, pursuant to the new notification  
13 rules, is adequate should this well be on 40 or 160 or 80  
14 acres, because that's what you're asking for today.

15 A. Right.

16 Q. You're asking for an unorthodox well location in  
17 all zones; is that correct?

18 A. Uh-huh.

19 Q. Okay, now how about the Arrington interest? Do  
20 they have any interest up in the northwest quarter?

21 A. No, they do not. I have talked with them and  
22 they, along with Ocean, are very aware of the fact that if  
23 we do not make an Atoka well they will have no interest.

24 Q. But you will be offsetting some property by as  
25 much as 280 feet, encroaching up on some property that they

1 have an interest. There again, you are aware of the  
2 notification rules. So please make me understand that this  
3 notification to them is adequate.

4 MR. KELLAHIN: Well, Mr. Stogner, it's my  
5 preference that you not approve the unorthodox location for  
6 those zones that would be potentially unorthodox for 160  
7 acres or for those pools that have special rules. For  
8 example, some of them require locations with 150 feet of  
9 the center of a quarter quarter.

10 I think the notice is not sufficient. And rather  
11 than speculate on uphole potential, it would be my  
12 preference to simply wait till the well is drilled and file  
13 an application with you later to recomplete out a shallower  
14 zone, if that's unorthodox, and we'll send the notices. I  
15 think that's fair.

16 EXAMINER STOGNER: Okay, so I agree with you, Mr.  
17 Kellahin, I don't think the notice is sufficient,  
18 especially in light that your expert witness in geology  
19 tends to think that the spacing and pooling goes away.

20 So I agree with you in this instance.

21 So at this point the unorthodox location request  
22 is going to be in effect just for the Atoka and Morrow --

23 MR. KELLAHIN: Yes, sir.

24 EXAMINER STOGNER: -- at this point; is that  
25 correct?

1 MR. KELLAHIN: Yes, sir, that's what we're  
2 seeking. And that's what our data demonstrates. We don't  
3 have data on the other zones.

4 EXAMINER STOGNER: Thanks for clarifying that for  
5 me. That eliminates about 25 questions.

6 Well, with that I don't have any other questions  
7 of either witness.

8 Is there anything further in this matter?

9 MR. KELLAHIN: I have an Exhibit 8, Mr. Examiner,  
10 which is the notification of hearing. We provided notice  
11 to all the parties to be pooled, and in addition we  
12 provided notice to the interest owners in the west half of  
13 the section concerning the deep gas location exception.  
14 I'm not aware of any objection from any of these parties.

15 We would ask that you admit Exhibit Number 8.

16 EXAMINER STOGNER: Exhibit Number 8 will be  
17 admitted into evidence at this time.

18 With that, this matter will be taken under  
19 advisement, and let's take a 15-minute recess.

20 (Thereupon, these proceedings were concluded at  
21 10:15 a.m.)

22 \* I hereby certify that the foregoing is  
23 a complete record of the proceedings in  
24 the Examiner hearing of Case No. 12392  
25 heard by me on 18 May 1990.

*[Signature]*, Examiner  
of Conservation Division

