

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

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

CASE NO. 11,404

APPLICATION OF CHESAPEAKE OPERATING, )  
INC., FOR AN UNORTHODOX OIL WELL )  
LOCATION, LEA COUNTY, NEW MEXICO )

ORIGINAL

REPORTER'S TRANSCRIPT OF PROCEEDINGS

EXAMINER HEARING

BEFORE: DAVID R. CATANACH, Hearing Examiner

**RECEIVED**

October 19th, 1995

NOV 3 1995

Santa Fe, New Mexico

Oil Conservation Division

This matter came on for hearing before the New Mexico Oil Conservation Division, DAVID R. CATANACH, Hearing Examiner, on Thursday, October 19th, 1995, at the New Mexico Energy, Minerals and Natural Resources Department, Porter Hall, 2040 South Pacheco, Santa Fe, New Mexico, Steven T. Brenner, Certified Court Reporter No. 7 for the State of New Mexico.

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## I N D E X

October 19th, 1995  
 Examiner Hearing  
 CASE NO. 11,404

## PAGE

## APPLICANT'S WITNESSES:

<u>MARK HAZLIP</u> (Landman)	
Direct Examination by Mr. Bruce	3
Examination by Examiner Catanach	6
<u>ROBERT HEFNER, IV</u> (Geologist)	
Direct Examination by Mr. Bruce	8
Examination by Examiner Catanach	11

REPORTER'S CERTIFICATE	15
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## E X H I B I T S

Applicant's	Identified	Admitted
Exhibit 1	5	6
Exhibit 1A	5	6
Exhibit 2	6	6
Exhibit 3	9	11
Exhibit 4	10	11

\* \* \*

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

## FOR THE APPLICANT:

HINKLE, COX, EATON, COFFIELD & HENSLEY  
 218 Montezuma  
 P.O. Box 2068  
 Santa Fe, New Mexico 87504-2068  
 By: JAMES G. BRUCE

\* \* \*

1 WHEREUPON, the following proceedings were had at  
2 8:36 a.m.:

3  
4 EXAMINER CATANACH: Okay, at this time I'll call  
5 Case 11,404, which is the Application of Chesapeake  
6 Operating, Inc., for an unorthodox oil well location, Lea  
7 County, New Mexico.

8 Are there appearances in this case?

9 MR. BRUCE: Mr. Examiner, Jim Bruce from the  
10 Hinkle law firm in Santa Fe, subbing for Mr. Kellahin,  
11 representing the Applicant.

12 I have two witnesses to be sworn.

13 EXAMINER CATANACH: Any additional appearances?

14 Will the two witnesses please stand to be sworn  
15 in at this time?

16 (Thereupon, the witnesses were sworn.)

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

20 DIRECT EXAMINATION

21 BY MR. BRUCE:

22 Q. Will you please state your name and city of  
23 residence for the record?

24 A. Mark Hazlip. I live in Oklahoma City, Oklahoma.

25 Q. What is your occupation and who is your employer?

1 A. Petroleum landman with Chesapeake Operating.

2 Q. Have you previously testified before the Division  
3 as a petroleum landman?

4 A. No, I haven't.

5 Q. Would you please outline your educational  
6 employment background for the Examiner?

7 A. I graduated from the University of Texas with a  
8 BA in geology and a BBA in petroleum land management and  
9 have worked as a landman for 11 years with Tenneco, Arco,  
10 Devon and Chesapeake.

11 Q. Does your area of responsibility include  
12 southeast New Mexico?

13 A. Yes, it does.

14 Q. And are you familiar with the land matters  
15 involved in this Application?

16 A. Yes, sir.

17 MR. BRUCE: Mr. Examiner, I would tender Mr.  
18 Hazlip as an expert petroleum landman.

19 EXAMINER CATANACH: He is so qualified.

20 Q. (By Mr. Bruce) Mr. Hazlip, what does Chesapeake  
21 seek in this case?

22 A. We seek an unorthodox location for the Shaw  
23 2-15, to be drilled 2100 feet from the north line and 2310  
24 from the east line of Section 15, Township 17 South, Range  
25 37 East, Lea County, New Mexico.

1 Q. Would you please identify Exhibit 1 for the  
2 Examiner?

3 A. Yes, Exhibit 1 is a land plat which shows the 80-  
4 acre proration unit for the proposed well. It shows where  
5 the location would be.

6 Q. What formation will this well test?

7 A. It will test the Strawn formation.

8 Q. Do any special pool rules apply?

9 A. Yes, the Humble City-Strawn Pool is in effect for  
10 this proposed well.

11 It calls for 80-acre spacing and also calls for a  
12 well to be located within 150 feet of the center of the  
13 quarter-quarter section.

14 Q. As a result, your location is further to the west  
15 and south than allowed by the pool rules; is that correct?

16 A. Yes, sir.

17 Q. What is the reason for the requested location?

18 A. The reason for the location change is geological,  
19 and we brought our geologist to discuss that.

20 Q. Who are the offset operators or lessees?

21 A. Exhibit -- Well, BTA is to the west of us, as you  
22 can see on the Exhibit 1.

23 To the south is -- OXY USA owns the largest  
24 interest by far, and we've got a list which is on Exhibit  
25 1A, which shows the remaining interest owners.

1 Q. Okay. Was written notice of this Application  
2 provided to the interest owners listed on Exhibit 1A?

3 A. Yes, sir.

4 Q. And is the certificate of mailing of Mr. Kellahin  
5 submitted as Exhibit 2?

6 A. Yes, sir.

7 Q. And this contains the certified return receipts  
8 of the mailing to these parties; is that correct?

9 A. Yes, it does.

10 Q. In your opinion, is the granting of this  
11 Application in the interests of conservation and the  
12 prevention of waste?

13 A. Yes, sir.

14 Q. And were Exhibits 1, 1A and 2 prepared by you or  
15 compiled from company records?

16 A. Yes, they were.

17 MR. BRUCE: Mr. Examiner, I would tender Exhibits  
18 1, 1A and 2 into evidence.

19 EXAMINER CATANACH: Exhibits 1, 1A and 2 will be  
20 admitted as evidence.

21 EXAMINATION

22 BY EXAMINER CATANACH:

23 Q. Mr. Hazlip, the BTA acreage to the west, is that  
24 solely owned by BTA?

25 A. Yes, sir.

1 Q. Does that acreage contain any producing wells in  
2 the Strawn formation?

3 A. There was a well that's, I believe, being  
4 completed right now, up in the northwest corner, where you  
5 see the location noted.

6 Other than that, I don't know of any Strawn wells  
7 in that quarter section.

8 Q. It looks like in that south half of Section 15  
9 there's three dry holes. Were those all Strawn tests?

10 A. My geologist tells me yes, they were.

11 Q. Okay. That acreage is owned -- the majority is  
12 owned by OXY?

13 A. Yes, sir. They have about 41-percent interest in  
14 it.

15 Q. And the rest is split among the various interest  
16 owners you have on Exhibit 1A?

17 A. Yes, sir.

18 Q. And all of these interest owners, plus BTA, were  
19 notified of this Application?

20 A. Yes, sir.

21 Q. Have you received any kind of communication with  
22 these interest owners?

23 A. No, sir.

24 EXAMINER CATANACH: That's all I have of the  
25 witness.

1                   ROBERT HEFNER, IV,  
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 for the record?

7           A.    My name is Robert Hefner.

8           Q.    And who do you work for and in what capacity?

9           A.    I'm a geologist with Chesapeake Operating.

10          Q.    Have you previously testified before the Division  
11 as a geologist?

12          A.    No, I have not.

13          Q.    Would you outline your educational and work  
14 background?

15          A.    Yes, I will. I have a bachelor of science in  
16 geology and have been employed in the industry for 15 years  
17 in that capacity, working for various majors and  
18 independents, Amoco, GHK, Vestage, and now Chesapeake, and  
19 I'm responsible for Chesapeake's Permian Basin activity.

20          Q.    And are you familiar with the geology pertaining  
21 to this Application?

22          A.    I am.

23          Q.    And have you prepared a couple of exhibits for  
24 submission today?

25          A.    I have.



1 MR. BRUCE: Mr. Examiner, I tender Mr. Hefner as  
2 an expert petroleum geologist.

3 EXAMINER CATANACH: Mr. Hefner is so qualified.

4 Q. (By Mr. Bruce) Mr. Hefner, would you identify  
5 Exhibit 3 and discuss the Strawn geology in this area?

6 A. Yes, Exhibit 3 is a map of Section 15 showing all  
7 Strawn penetrations by the various operators.

8 Underneath each of the well symbols is annotated  
9 a subsea depth for the top of the Strawn, and underneath  
10 that number is a thickness, a gross thickness, for the  
11 Strawn interval.

12 The blue isopach that's exhibited in the  
13 northeast quarter is a map of the thickness of Strawn  
14 porosity, and it shows three areas of maximum reservoir  
15 growth in the Strawn.

16 The southwestern growth is where the proposed  
17 location is, and that location has been chosen because the  
18 Harding well, lease name Shaw, was a Strawn producer that  
19 was produced until 1985 and produced a little over 417,000  
20 barrels of crude oil from the Strawn.

21 There's some risk with depletion by drilling that  
22 growth that's just to the south of that location.

23 And the mound growth in the southeast quarter is  
24 not as definitive in interpretation and would entail more  
25 risk in drilling that one.

1           And so the reason we're here today for the  
2           unorthodox location to drill the southwest mound growth.

3           Q.    So in other words, you want to stay away from the  
4           Harding Oil well?

5           A.    Yes, sir.

6           Q.    And the southwest feature is the most distinct?

7           A.    It is.

8           Q.    Okay.  What is Exhibit 4?

9           A.    Exhibit 4 is a stratigraphic cross-section that  
10          is drawn through the wells that are the closest to the  
11          proposed location.

12                It also exhibits the relationship between  
13          nonreservoir Strawn and reservoir development in the  
14          Strawn.  It goes from the north side, from nonreservoir  
15          Strawn in the Humble City State, over to the Shaw well,  
16          which produced from the Strawn and exhibits algal-mound  
17          growth, through the proposed location, and then on to the  
18          south where you're back out of reservoir development in the  
19          Strawn, back to nonreservoir rock and the Shipp 1-15.

20          Q.    Are these mounds, algal mounds, generally limited  
21          in areal extent?

22          A.    Very limited, in general, through the whole play.  
23          In the Lovington area, the average field size is three  
24          wells and usually less than 160 acres.

25          Q.    Okay.  Now, the Examiner asked a question about

1 the BTA well in the northwest quarter, northwest quarter,  
2 of the section. Is that correct, that it is now being  
3 completed in the Strawn?

4 A. Yes, that's an active drilling location. I'm not  
5 sure of the status of that location.

6 Q. Okay. And in your opinion, would that well, if  
7 successful, be in a different porosity pod than your well?

8 A. Yes, sir, it would.

9 Q. In your opinion, is the granting of this  
10 Application in the interests of conservation and the  
11 prevention of waste?

12 A. It is.

13 Q. And were Exhibits 3 and 4 prepared by you or  
14 under your direction?

15 A. They were.

16 MR. BRUCE: Mr. Examiner, I would tender Exhibits  
17 3 and 4 into evidence.

18 EXAMINER CATANACH: Exhibits 3 and 4 will be  
19 admitted as evidence.

20 EXAMINATION

21 BY EXAMINER CATANACH:

22 Q. Mr. Hefner, what do you gain in terms of drilling  
23 your proposed location, as opposed to a standard location?

24 A. We're wanting to get away from the Harding Shaw  
25 because of risk of depletion, although the interpretation

1 in itself has some risk to it, but there's hope that we  
2 might be able to get into some virgin reservoir by drilling  
3 that growth that's exhibited on Exhibit 3 in the southwest  
4 of the northeast quarter there.

5 Q. According to your interpretation, would your well  
6 encounter a greater thickness in that reservoir?

7 A. It will be -- Our interpretation is that it will  
8 be thicker than what was seen in the Shaw.

9 The relationship of the effect of permeability in  
10 these reservoirs is not fully known. The Harding Shaw well  
11 was completed in the top 35 feet where it had porosity  
12 development, and the relationship of that throughout the  
13 entire thickness of this mound is unknown.

14 Q. So the Shaw well encountered about 35 feet of net  
15 pay; is that --

16 A. Yes, sir.

17 Q. Okay. According to your interpretation, you'll  
18 encounter greater than 80 feet of net pay at your proposed  
19 well location?

20 A. Yes, sir.

21 Q. If you were drilling at a standard location  
22 within that quarter-quarter section, would that be reduced?

23 A. It would be reduced. And there's a possibility  
24 that we might get into nonreservoir-quality rock.

25 The Shaw Federal well that was drilled in the

1 southeast of that northeast quarter, you'll note its gross  
2 thickness of 199 feet, which is a lot thicker than some of  
3 the other nonreservoir Strawn thicknesses, and suggesting  
4 that you had some mounding. But that mounding there was  
5 ineffective. And there's some risk that we could get into  
6 that situation again.

7 Q. Is it your opinion that these three mounds are  
8 all in communication?

9 A. That's really unknown. The drilling of this well  
10 will afford us further information to make that assessment.

11 Q. Is it your belief that as you drop sort of  
12 offstructure there, you start to lose permeability and --

13 A. Yeah, you do.

14 Q. -- reservoir quality?

15 A. Yes, sir.

16 Q. And what information did you use to generate your  
17 isopach map?

18 A. We have a 3-D seismic survey over this area, and  
19 that was utilized in developing this interpretation.

20 Q. Is that Shaw well still producing?

21 A. No, it was plugged in 1985, in June of 1985, or  
22 it's been inactive since June of 1985. I'm not sure of the  
23 actual physical state of that wellbore.

24 Q. Does your 3-D seismic give you pretty good  
25 indication of the thickness of the reservoir?

1           A.    It's calibrated back to well control, and that's  
2   our intent in the interpretation. The porosity development  
3   has additional risk to its interpretation.

4           EXAMINER CATANACH: I think that's all the  
5   questions I have, Mr. Bruce.

6           MR. BRUCE: I have nothing further.

7           EXAMINER CATANACH: This witness may be excused.

8           And if there's nothing further in this case, Case  
9   11,404 will be taken under advisement.

10           (Thereupon, these proceedings were concluded at  
11   8:55 a.m.)

12                           \* \* \*

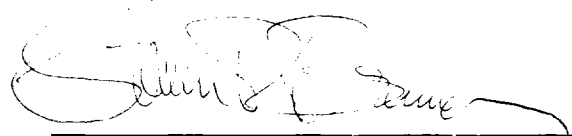
# CERTIFICATE OF REPORTER

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.

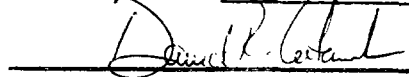
WITNESS MY HAND AND SEAL October 24th, 1995.



STEVEN T. BRENNER  
 CCR No. 7

My commission expires: October 14, 1998

I do hereby certify that the foregoing is a complete record of the proceedings in the Examiner hearing of Case No. 11406, heard by me on October 15 19 95.

 , Examiner  
 Oil Conservation Division