

1 STATE OF NEW MEXICO  
2 ENERGY, MINERALS AND NATURAL RESOURCES DEPARTMENT  
3 OIL CONSERVATION DIVISION  
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7 IN THE MATTER OF THE HEARING )  
CALLED BY THE OIL CONSERVATION )  
8 DIVISION FOR THE PURPOSE OF )  
CONSIDERING: ) CASE NO. 11180  
9 APPLICATION OF HARVARD PETROLEUM CORPORATION  
10

11 REPORTER'S TRANSCRIPT OF PROCEEDINGS

12 EXAMINER HEARING

13 ORIGINAL

14 BEFORE: David Catanach, Hearing Examiner

15

16 January 5, 1995

17 Santa Fe, New Mexico

18

19 This matter came on for hearing before the Oil  
20 Conservation Division on January 5, 1995, at 2040 South  
21 Pacheco, Santa Fe, New Mexico, before Diana S. Abeyta, RPR,  
22 Certified Court Reporter No. 168, for the State of New  
23 Mexico.

24

25

## I N D E X

January 5, 1995  
 Examiner Hearing  
 CASE NO. 11180

PAGE

APPEARANCES

3

HARVARD PETROLEUM CORPORATION'S WITNESS:

JEFF HARVARD

Examination by Examiner Catanach

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REPORTER'S CERTIFICATE

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## E X H I B I T S

Exhibit 1  
 Exhibit 2  
 Exhibit 3

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A P P E A R A N C E S

FOR THE DIVISION:        RAND CARROLL, ESQ.  
                             Legal Counsel  
                             Oil Conservation Division  
                             2040 S. Pacheco  
                             Santa Fe, New Mexico 87505

FOR THE APPLICANT:       MR. JEFF HARVARD  
                             Harvard Petroleum Corporation  
                             Post Office Box 936  
                             Roswell, New Mexico 88202-0936

1                   EXAMINER CATANACH: We'll call the hearing back  
2 to order at this time and kind of go out of order here.  
3 We're going to call Case 11180, which is the application of  
4 Harvard Petroleum Corporation for an unorthodox oil well  
5 location, Lea County, New Mexico. Are there appearances in  
6 this case?

7                   MR. HARVARD: Yes, there are, Mr. Examiner. My  
8 name is Jeff Harvard. I'm appearing without counsel. I  
9 reside in Roswell, New Mexico. I'm the executive vice  
10 president of engineering and operations for Harvard  
11 Petroleum Corporation.

12                   I offer myself as a witness with the following  
13 background: I have a B.S. in petroleum engineering from the  
14 University of Texas. I've worked in the oil field for the  
15 past 20 years performing various tasks. I'm very familiar  
16 with the facts of this case. At this time I offer myself as  
17 a witness.

18                   EXAMINER CATANACH: Let me get you to get sworn  
19 in, Mr. Harvard.

20                   (Witness sworn.)

21                   EXAMINER CATANACH: And you are considered  
22 qualified to testify, Mr. Harvard.

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

1 EXAMINATION

2 BY EXAMINER CATANACH.

3 Q. And I'll just ask you what you seek in this case?

4 A. Yes, Mr. Examiner, we're seeking an approval of  
5 an unorthodox location for the Angell No. 1 Well in  
6 Lea County, New Mexico. It is located in Unit B, Section 4,  
7 Township 15 South, Range 38 East. And I will call your  
8 attention to Exhibit No. 1, which is a certified plat of the  
9 Angell No. 1.

10 As you will see, the requested location is  
11 located 509 feet from the North line, 2,594 feet from the  
12 East line of Section 4, 15 South, 38 East. This will be the  
13 exact surface and bottom hole location for the Angell No. 1.

14 Q. Let me stop you there, Mr. Harvard. That's not  
15 the location we have described in the advertisement for this  
16 case. Is there a reason that there is a discrepancy in  
17 that?

18 A. Yes, sir. At the time that I applied for this  
19 case, the location had not been surveyed in and it was based  
20 upon a three-dimensional seismic survey and a shot point,  
21 and once we got out on the ground and actually surveyed in  
22 the exact location to the boundaries of the section, that  
23 the distance did move.

24 Q. It appears that the new location is probably a  
25 little less than orthodox than the location described in the

1 advertisement for this case. And usually, in a situation  
2 like that, we don't require readvertisement of the case, so  
3 just proceed from there.

4 A. Thank you, Mr. Examiner. The reason Harvard is  
5 requesting approval of this unorthodox location is for  
6 geologic and geophysical reasons. I'll call attention to  
7 Exhibit No. 2. Exhibit No. 2 is a structure map of the  
8 Wolfcamp structure, and it also has outlined, in yellow,  
9 Harvard's leasehold position. Harvard Petroleum Corporation  
10 is the leasehold owner of all the mineral interests in  
11 Section 4. The minerals in Section 4 were leased under one  
12 oil and gas lease. They are all contiguous. We are also in  
13 the process of closing on our acquisition of the SE 1/4 of  
14 Section 33 above, and it is also outlined in yellow on  
15 Exhibit No. 2.

16 Again, as I said, Exhibit 2 is a structure map on  
17 the top of the Wolfcamp formation. This structure map is  
18 based upon well control and a 3-D seismic interpretation.  
19 The 3-D seismic was acquired in 1993 as part of a large 46  
20 square mile shoot by Halliburton Geophysical. We bought  
21 approximately five square miles of this shoot and  
22 interpreted this particular area of the shoot.

23 A note on that. The northern limit of the  
24 three-dimensional shoot was the township line, so we did not  
25 or were not able to image Section 33 or the wells in Section

1 33. Those wells in Section 33 are key to the prospect and  
2 to the reasoning for this request of an unorthodox location.

3 And if you will call your attention to Exhibit  
4 No. 3, which is a cross-section of the three wells located  
5 in the S 1/2 of the S 1/2 of Section 33. Those three wells  
6 are the Dickinson Cattle Company No. 1, which is located 660  
7 from the South line, 1,980 from the West line; the Dickinson  
8 Cattle Company No. 2, which is located 660 from the South,  
9 560 from the West; and the Dickinson Cattle Company No. 3,  
10 which is 660 from the South, and 1980 from the East line.

11 The Dickinson Cattle Company No. 1 was the first  
12 well drilled by Reading & Bates in 1982. It was drilled  
13 down to a total depth of 13,360 feet to test the Devonian  
14 formation. They did not find a productive interval there  
15 and plugged back to the Wolfcamp formation, which they had  
16 tested at the time they drilled through it. And in that  
17 test, the Wolfcamp flowed 263 barrels of oil to the surface.  
18 The well was IP flowing at 306 barrels of oil a day and 92  
19 barrels of water, natural, on a 26/64 choke. From May of  
20 1982, through December of 1993, that well has produced over  
21 226,000 barrels of oil and 4.4 million barrels of water.  
22 The well is currently shut in at this time.

23 The Dickinson No. 2 well was drilled shortly  
24 after completion of Dickinson No. 1 and came in 32 feet low.  
25 It was plugged and abandoned. The Dickinson No. 3 well was

1 drilled shortly after the Dickinson No. 2, and came in even  
2 lower, at 56 feet -- 56 feet lower.

3           Based upon this well control information, plus  
4 our three-dimensional seismic interpretation, we have  
5 located the Angell No. 1 well in the position shown and  
6 requested to obtain the optimum structural position and  
7 recover the most hydrocarbons possible. Based upon our  
8 interpretation, we are anticipating a structural advantage  
9 of approximately 150 feet to the Reading & Bates Dickinson  
10 Cattle Company No. 1 well.

11           It is my opinion that granting this application  
12 is in the best interest of conservation and the prevention  
13 of waste. I request at this time that Exhibits 1 through 3  
14 be admitted as evidence, and we'll answer any questions.

15           EXAMINER CATANACH: Okay, Exhibits 1, 2 and 3  
16 will be admitted as evidence in this case.

17

18           Q.     Again, your geophysical indicates that you'll  
19 gain 150 feet of structure from the No. 1 well?

20           A.     Yes, sir.

21           Q.     Mr. Harvard, the direction the well is  
22 encroaching on is toward the west. What's the significance  
23 of moving the actual location more towards the west in this  
24 quarter section?

25           A.     The significance is to obtain the optimum



1 structural position on the top of the Wolfcamp in order to  
2 drain the maximum amount of hydrocarbons possible. As  
3 Harvard is the leasehold owner of the affected NW 1/4, we  
4 have -- are not protesting the encroachment of that location  
5 on this NW 1/4.

6 Q. Your Wolfcamp structure map indicates that that  
7 structural high may in fact extend a little bit to the east  
8 there. You believe it's critical to move that location as  
9 far west as you have?

10 A. We believe that, again, the location is at the  
11 optimum position. With the advantage of having the  
12 three-dimensional seismic survey, we believe that it is in  
13 our best interest to drill the most optimum position based  
14 upon that seismic interpretation. We could go ahead and  
15 drill to the east. Based upon our interpretation, then we  
16 would be potentially downdip. And moving to the east, as  
17 you can kind of see from our structural map, it does fall  
18 off significantly as you do move to the east. That is again  
19 exhibited by the difference between the No. 1 Dickinson  
20 Cattle Company and the No. 3 Dickinson Cattle Company where  
21 you have 56 feet of drop in structure in that short interval  
22 there.

23 So we believe that in the interest of recovering  
24 the maximum amount of hydrocarbons available and preventing  
25 any kind of waste of unrecovered reserves, that the location

1 that we have requested is the optimum location.

2 Q. Have there been any Wolfcamp wells drilled in the  
3 N 1/2 of Section 4?

4 A. No, sir, there have not. There have been no  
5 wells drilled in Section 4.

6 Q. The proposed proration unit is the NW of the NE.  
7 Is it possible that the bottomhole location of that well  
8 may, in fact, drift so it's in a different proration unit,  
9 maybe in the NE of the NW?

10 A. I would have to say that is possible. We will  
11 run a bottomhole survey to determine the exact bottomhole  
12 location for our information and, as well, that information  
13 will be presented to the commission. I do not anticipate  
14 that much of a deviation; however, I cannot guarantee that  
15 we will not deviate, that the well will not deviate over  
16 into the NE 1/4.

17 Q. Did you say you will run a directional survey?

18 A. Yes, sir.

19 Q. It's not too significant even if that well is in  
20 that next quarter section, you could potentially dedicate  
21 that 40 acres to the well?

22 A. Yes, sir, that is correct.

23 Q. And as I understand it, all of the interest  
24 ownership within Section 4 is common?

25 A. Yes, sir, it is.

1           EXAMINER CATANACH: I don't believe I have  
2 anything further for you, Mr. Harvard. Do you have anything  
3 further to add?

4           A. No, sir, I do not. I would request we do have a  
5 rig available and rig availability is a little bit critical  
6 at this time, and would request a response as soon as  
7 possible at your convenience, please, sir.

8           EXAMINER CATANACH: We'll do our best.

9           MR. HARVARD: Thank you.

10          EXAMINER CATANACH: Thank you, Mr. Harvard.  
11 There being nothing further, Case 11180 will be taken under  
12 advisement.

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## 1 CERTIFICATE OF REPORTER

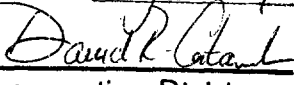
2 STATE OF NEW MEXICO )  
3 ) ss.  
4 COUNTY OF SANTA FE )

5 I, Diana S. Abeyta, Certified Shorthand Reporter  
6 and Notary Public, HEREBY CERTIFY that I caused my notes to  
7 be transcribed under my personal supervision, and that the  
8 foregoing transcript is a true and accurate record of the  
9 proceedings of said hearing.

10 I FURTHER CERTIFY that I am not a relative or  
11 employee of any of the parties or attorneys involved in this  
12 matter and that I have no personal interest in the final  
13 disposition of this matter.

14  
15 WITNESS MY HAND AND SEAL, January 24th, 1995.  
16  
17

18   
19 DIANA S. ABEYTA  
CCR No. 168

20  
21 I do hereby certify that the foregoing is  
22 a complete record of the proceedings in  
23 the Examiner hearing of Case No. 11180,  
24 heard by me on January 5 1995.  
25 , Examiner  
Oil Conservation Division