

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 YATES PETROLEUM )  
CORPORATION FOR DOWNHOLE COMMINGLING, )  
EDDY COUNTY, NEW MEXICO )

CASE NO. 11,991

ORIGINAL

REPORTER'S TRANSCRIPT OF PROCEEDINGS

EXAMINER HEARING

BEFORE: DAVID R. CATANACH, Hearing Examiner

July 23rd, 1998

Santa Fe, New Mexico

98 AUG - 6 AM 7:54  
OIL CONSERVATION DIV.

This matter came on for hearing before the New Mexico Oil Conservation Division, DAVID R. CATANACH, Hearing Examiner, on Thursday, July 23rd, 1998, 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

July 23rd, 1998  
Examiner Hearing  
CASE NO. 11,991

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\* \* \*

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

## FOR THE APPLICANT:

CAMPBELL, CARR, BERGE and SHERIDAN, P.A.  
 Suite 1 - 110 N. Guadalupe  
 P.O. Box 2208  
 Santa Fe, New Mexico 87504-2208  
 By: WILLIAM F. CARR

## ALSO PRESENT:

MARK W. ASHLEY  
 NMOCD Environmental Geologist  
 2040 South Pacheco  
 Santa Fe, New Mexico 87505

\* \* \*

1           WHEREUPON, the following proceedings were had at  
2   11:41 a.m.:

3           EXAMINER CATANACH: At this time we'll call Case  
4   11,990, which is the Application of Yates Petroleum  
5   Corporation for downhole commingling, Eddy County, New  
6   Mexico.

7           Call for appearances in this case.

8           MR. CARR: May it please the Examiner, my name is  
9   William F. Carr with the Santa Fe law firm Campbell, Carr,  
10   Berge and Sheridan. We represent Yates Petroleum  
11   Corporation in this matter, and I have two witnesses.

12           I would request that the record reflect that the  
13   witnesses have previously been sworn and qualified in the  
14   immediately preceding case, that they remain under oath and  
15   their qualifications as a landman and engineer remain  
16   accepted and a matter of record.

17           EXAMINER CATANACH: That is acceptable, Mr. Carr.

18           MR. CARR: Mr. Catanach, I also would like to  
19   call to your attention that there are certain interest  
20   owners in Section 6 who we failed to timely notify. We've  
21   previously discussed this. Notice has been sent to  
22   everyone, and at the end of the hearing we would request  
23   that the case be continued for two weeks, at which time the  
24   required notice period will have run.

25           EXAMINER CATANACH: Okay.

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CHARLES MORAN,

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

DIRECT EXAMINATION

BY MR. CARR:

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

A. My name is Charles Moran.

Q. Mr. Moran, would you briefly state what Yates Petroleum Corporation seeks to accomplish with this Application?

A. We are applying to commingle the Morrow, Atoka and upper Penn formations in the Martin "ARH" Number 1 well, located 1980 from the south, 1980 from the east, in Section 27, Township 17 South, 26 East.

Q. Did Yates initially file an administrative application seeking authorization for this downhole commingling?

A. Yes, we did.

Q. And were you also advised on this one by the Division that it didn't meet the requirements for administrative approval?

A. Yes, we were told it did not meet the requirements of 303.C- --

Q. Again, there are questions concerning the difference in pressures in the zones and the potential for

1 crossflow; is that right?

2 A. Yes.

3 Q. Let's go to what has been marked as Yates Exhibit  
4 Number 1. Would you identify that and review it for Mr.  
5 Catanach?

6 A. This is a land plat centered around Section 27 of  
7 Township 17 South, 26 East. It is identifying the spacing  
8 unit of the Martin well and the surrounding Morrow-Atoka-  
9 upper Penn formation spacing units, surrounding the well.

10 Q. Could you identify from this exhibit the  
11 offsetting units that are operated by Yates Petroleum  
12 Corporation?

13 A. Yes, the well spacing in Section 21 is operated  
14 by Yates Petroleum Corporation, 22 -- both wells in Section  
15 22 are operated by Yates Petroleum Corporation. The one  
16 identified as the Berry Number 1 in Section 23 is operate  
17 by Yates Petroleum Corporation. The well in the north half  
18 of Section 26 is operated by Yates Petroleum Corporation.  
19 The well in the north half of Section 35 is operated by  
20 Yates Petroleum Corporation. And the well in Section 33 is  
21 operated by Yates Petroleum Corporation.

22 The only other two wells not operated by Yates  
23 Petroleum are the well in the south half of 26; it's  
24 operated by a company called Gothic Energy. And the well  
25 located in the north half of Section 34 is operated by

1 Western Oil Producers.

2 Q. And it's the interest in Section 26, Gothic  
3 Energy, that your attorney failed to timely notify; is that  
4 right?

5 A. Yes.

6 Q. Notice has now been provided, however?

7 A. Yes, notice has been provided and sent to them.

8 Q. And to all other offsets who are affected by this  
9 Application?

10 A. Yes.

11 Q. Will Yates call a technical witness to review  
12 that portion of this case?

13 A. Yes, we will.

14 Q. Could you just briefly identify Exhibit Number 2,  
15 please?

16 A. Exhibit Number 2 is just the offsetting wells and  
17 the associated operate and the well location, or the well  
18 spacing for the well.

19 Q. Were Exhibits 1 and 2 prepared by you?

20 A. Yes.

21 MR. CARR: At this time, Mr. Catanach, we would  
22 move the admission into evidence of Yates Petroleum  
23 Corporation Exhibits 1 and 2.

24 EXAMINER CATANACH: Exhibits 1 and 2 will be  
25 admitted as evidence.

1 MR. CARR: And that concludes my examination of  
2 Mr. Moran.

3 EXAMINATION

4 BY EXAMINER CATANACH:

5 Q. Mr. Moran, do you know when that notice was sent?

6 A. It was sent as soon as I discovered that it was  
7 not sent properly, and I believe it occurred last week,  
8 last Thursday.

9 MR. CARR: It was July the 16th.

10 THE WITNESS: July 16th.

11 EXAMINER CATANACH: So that will give us enough  
12 time for 20 days --

13 MR. CARR: Yes.

14 EXAMINER CATANACH: -- for the next August  
15 hearing?

16 MR. CARR: Yes, it will.

17 EXAMINER CATANACH: Okay. Are you going to  
18 provide --

19 MR. CARR: I will at that time provide a notice  
20 affidavit with return receipts and a letter, confirming  
21 that the 20-day period was complied with.

22 EXAMINER CATANACH: Sounds good. I have nothing  
23 further.

24 MR. CARR: And at this time we would recall  
25 Morris Keith.



1 A. Yes, sir.

2 Q. So you have revised this exhibit?

3 A. Yes, sir.

4 Q. And can you testify that the information set  
5 forth on this exhibit is now correct?

6 A. Yes, sir.

7 Q. Could you review the general characteristics of  
8 each of the zones you propose to downhole commingle?

9 A. Yes, the bottom zone, the Morrow zone, was  
10 originally perforated, tubing to convey perforating, and we  
11 immediately measured bottomhole pressure at 3476. Five and  
12 three-quarter million, or 5775 MMCF later, we remeasured  
13 bottomhole pressure at 1186. So it was a very severely  
14 limited Morrow zone that depleted from 3476 to 1186 with  
15 less than 6 million feet of gas.

16 The Atoka zone was moved to next. It's extremely  
17 low permeable and a tight reservoir. It didn't make any  
18 gas on tests, or it made an insignificant amount of gas on  
19 tests, about 45 MCFD on an adjusted 24-hour basis.

20 We immediately moved up and tested the upper  
21 Penn, which bottomhole pressure indicates that it's both a  
22 severely limited reservoir and extremely low perm too, and  
23 the pressure on it is less -- just a little bit less than  
24 1905 MCFD -- or p.s.i., I'm sorry, p.s.i.

25 Q. All of these zones are capable of only marginal

1 production; is that right?

2 A. Yes, sir.

3 Q. Let's go to what has been marked as our Exhibit  
4 Number 4, the wellbore diagrammatic sketch. And using  
5 this, could you review for Mr. Catanach how the well is  
6 completed and the perforations in each zone?

7 A. Yes, the bottom Morrow zone and the Atoka are  
8 both under a common bridge plug at 8250.

9 The Atoka zone was tested for less than a day.  
10 It was extremely marginal after an acid breakdown.

11 The upper Penn was perforated and is currently  
12 producing right now.

13 Q. And is the upper Penn the only zone in the well  
14 that currently is producing?

15 A. Yes, sir. And there's not any potential for any  
16 other zone to be added in this well. This is it on this  
17 one.

18 Q. What are the recent producing rates for this well  
19 from the upper Penn?

20 A. 7-14-98, the Penn made zero oil, zero water, and  
21 42 MCF.

22 Q. And what is the date on that, did you say?  
23 7-14-98?

24 A. Yes, sir.

25 Q. And is that set out on Exhibit Number 5?

1 A. Yes.

2 Q. And what is Exhibit Number 5?

3 A. Exhibit Number 5 is just a tabular form of the  
4 production.

5 You can see the three days there in mid-December  
6 of 1997 where the Morrow made its 5.7 million.

7 And then it was allowed to pressure up for a  
8 period of about two months there, hoping that something  
9 would happen, and then the recompletion phase started.

10 And the last page is the upper -- the last two  
11 pages, two and a half pages, is the Strawn production, or  
12 upper Penn.

13 Q. Okay. What were the oil, gas and water rates for  
14 the last production from the Atoka and the Morrow prior to  
15 -- or I guess it's the upper Penn and the Morrow, prior to  
16 shutting in the well?

17 A. The Morrow production, zero oil, zero water and  
18 41 MCF on 2-5-98.

19 The Atoka is a six-hour test, adjusted to  
20 24-hour. No oil, no water, and 45 MCF gas per day.

21 Q. Okay, and what is the BTU content for the gas  
22 produced from the upper Penn?

23 A. The upper Penn measures 1212 BTU.

24 Q. Could you review the original pressures  
25 encountered in these wells, in each of the -- in this well,

1 in each of the subject formations?

2 A. Yes, the Morrow zone was measured immediately  
3 after perforating at 3476.

4 The Atoka zone was not DST'd, nor was it  
5 measured, pressure, anytime during operations. However,  
6 our geologist assured us that the pressure, you know,  
7 adjusted to a common datum is the same.

8 We did a buildup on the Atoka and showed an  
9 original pressure of 2100 and a current pressure of 1900,  
10 and this occurred about -- I believe about 4 million feet  
11 of gas ago.

12 Q. Do you anticipate any crossflow between the  
13 formations in this well?

14 A. No, sir. Academically, there may be some  
15 crossflow, but permeabilities are so low that I don't  
16 believe it would be a significant amount of gas if it were  
17 to happen.

18 Q. So to the extent there is any, it's a negligible  
19 amount?

20 A. Yes, sir.

21 Q. Is the bottomhole pressure of the lowest zone  
22 more than 50 percent of the bottomhole pressure of the  
23 highest pressure zone, adjusted to a common datum?

24 A. Yes.

25 Q. And what are those figures?

1           A.    I show the upper Penn at .2321 p.s.i. per foot,  
2 and the Morrow at 1186 of .1379 p.s.i. per foot.

3           Q.    I mean, the crossflow is negligible.  Is there  
4 any potential for any lost reserves that will result from  
5 the downhole commingling?

6           A.    No, sir.

7           Q.    Do you anticipate any problems with  
8 incompatibilities of any fluids in this well?

9           A.    No.

10          Q.    Let's go to Exhibit Number 6, your decline curve,  
11 and I'd ask you to review that.

12          A.    Yes, this is a Cartesian production plot, history  
13 of the well, and again you can see there leading off the  
14 big Morrow that came in with a high pressure and high IP  
15 immediately deplete.  That purple buildup there from 12-22-  
16 97 to 1-26-97 [sic] is a pressure buildup, just a daily  
17 reading of the shut-in Morrow zone.  And then you can see  
18 production was resumed, with the red line being gas  
19 production.

20                    It immediately depleted, and on 3-25-98 the Atoka  
21 and Morrow were both placed under an RBP, and the upper  
22 Penn was completed and is currently producing.

23          Q.    Will the value of the production after  
24 commingling be equal to or exceed the value of production  
25 from the formations if produced separately?

1           A.    Yes.

2           Q.    If commingling is approved, in fact, Yates will  
3 be able to produce zones that are currently shut in; is  
4 that right?

5           A.    Yes.

6           Q.    How do you propose to allocate the production  
7 between the pools after commingling?

8           A.    Because there is no oil production, we've  
9 assigned an oil-production allocation the same as gas,  
10 simply for record-keeping purposes.

11                   And we've got a test, three tests on the zones,  
12 on 2-5-98, 3-24-98, 4-27-98, 43.8 percent allocated to the  
13 upper Penn, 29.4 percent allocated to the Atoka and 26.8  
14 percent allocated to the Morrow zone.

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

19           A.    Yes.

20           Q.    Were Yates Exhibits 3 through 6 prepared by you  
21 or compiled under your direction?

22           A.    Yes.

23                   MR. CARR: At this time, Mr. Catanach, we would  
24 move the admission into evidence of Yates Petroleum  
25 Corporation Exhibits 3 through 6.

1 EXAMINER CATANACH: Exhibits 3 through 6 will be  
2 admitted as evidence.

3 MR. CARR: And that concludes my direct  
4 examination of this witness.

5 EXAMINATION

6 BY EXAMINER CATANACH:

7 Q. Mr. Keith, that allocation is based on -- is that  
8 based on the latest test that you have from the upper Penn?

9 A. It's based on the test from 4-22-97.

10 Q. 22. That rate is lower at this point?

11 A. Yes.

12 Q. Might it be more accurate to use the current  
13 rate?

14 A. Well, sir, this is such a marginal well out  
15 there, and the -- what fluctuates the rates is the line  
16 pressure, and so we would anticipate that at such time when  
17 the line pressure goes down 40 pounds, you can see the  
18 production will come back up to a little bit. But we could  
19 absolutely adjust it.

20 EXAMINER CATANACH: Okay. I have nothing further  
21 in this case, Mr. Carr.

22 MR. CARR: That concludes our presentation, Mr.  
23 Catanach.

24 EXAMINER CATANACH: Okay, so we'll continue this  
25 case to August 6th, and you'll provide notice --

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MR. CARR: -- a notice affidavit at that time.

EXAMINER CATANACH: Okay.

MR. CARR: That's all we have.

EXAMINER CATANACH: Okay.

(Thereupon, these proceedings were concluded at  
11:57 a.m.)

\* \* \*

I do hereby certify that the foregoing is  
a complete record of the proceedings in  
the Examiner hearing of Case No. 1199,  
heard by me on July 23 1987.  
David Catanach, Examiner  
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 July 25th, 1998.



STEVEN T. BRENNER  
 CCR No. 7

My commission expires: October 14, 1998