

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. 11,100
)
APPLICATION OF TEXACO)
EXPLORATION AND PRODUCTION, INC.)
_____)

ORIGINAL

REPORTER'S TRANSCRIPT OF PROCEEDINGS

EXAMINER HEARING

BEFORE: JIM MORROW, Hearing Examiner

October 13th, 1994
Santa Fe, New Mexico



This matter came on for hearing before the Oil Conservation Division on October 13th, 1994, at Morgan Hall, State Land Office Building, 310 Old Santa Fe Trail, Santa Fe, New Mexico, before Steven T. Brenner, Certified Court Reporter No. 7 for the State of New Mexico.

* * *

STEVEN T. BRENNER, CCR
(505) 989-9317

I N D E X

October 13th, 1994
 Examiner Hearing
 CASE NO. 11,100

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RACHED HINDI

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E X H I B I T S

	Identified	Admitted
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A P P E A R A N C E

FOR THE APPLICANT:

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

* * *

1 WHEREUPON, the following proceedings were had at
2 9:17 a.m.:

3 EXAMINER MORROW: At this time we'll call Case
4 11,100. This is the Application of Texaco Exploration and
5 Production, Incorporated, for downhole commingling in San
6 Juan County, New Mexico.

7 Call for appearances.

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.

11 We represent Texaco Exploration and Production,
12 Inc., and I have one witness.

13 RACHED HINDI,
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 full name and place of
19 residence?

20 A. My name is Rached Hindi. I live in Farmington,
21 New Mexico.

22 Q. Mr. Hindi, by whom are you employed and in what
23 capacity?

24 A. I am employed by Texaco Exploration and
25 Production Company. I am a senior engineer in Farmington.

1 Q. And have you previously testified before this
2 Division?

3 A. No.

4 Q. Could you summarize your educational background
5 for Mr. Morrow?

6 A. I got a BS in mechanical engineering in 1981 from
7 New Mexico State University. I've worked in the oil
8 industry since then, and I am a registered professional
9 engineer in New Mexico.

10 Q. Are you familiar with the Application filed in
11 this case on behalf of Texaco?

12 A. Yes, sir.

13 Q. And are you familiar with the subject well?

14 A. Yes, sir.

15 MR. CARR: Mr. Morrow, we tender Mr. Hindi as an
16 expert witness in petroleum engineering.

17 EXAMINER MORROW: Yes, sir, we accept his
18 qualifications.

19 I didn't understand your first name.

20 THE WITNESS: Rached.

21 EXAMINER MORROW: Spell it for me?

22 THE WITNESS: R-a-c-h-e-d. Last name is Hindi,
23 H-i-n-d-i.

24 EXAMINER MORROW: All right, go ahead.

25 Q. (By Mr. Carr) Mr. Hindi, would you briefly state

1 what Texaco seeks to accomplish with this Application?

2 A. Texaco is seeking authority to commingle the
3 Fulcher Kutz-Pictured Cliffs and the Basin Dakota
4 production in our H.J. Loe Federal "B" Number 2-E well, and
5 that's located in San Juan County, New Mexico.

6 That would be an exception to NMOC Rule 303 --

7 Q. -- A.

8 A. -- A.

9 Q. Do you have the footage location for the subject
10 well?

11 A. Yes, that well is located at 1700 feet from the
12 north line and 1050 feet from the west line of Section 23.
13 That's in Township 29, Range 12 West.

14 Q. Was this Application originally filed for
15 administrative approval?

16 A. Yes, this Application was submitted in August of
17 this year, of 1994, and we had one objection and that was
18 by Alpine Oil and Gas Corporation, and that's why we're at
19 this hearing today.

20 Q. What interest does Alpine actually have in the
21 subject spacing unit?

22 A. Zero.

23 Q. Could you provide Mr. Morrow with a brief history
24 of the well?

25 A. The well was originally completed in 1981 in the

1 Dakota. It has 4-1/2-inch, 10.5-pound casing.

2 It was completed as a single producer in the
3 Dakota until 1992, when we additionally completed it into
4 the Fulcher Kutz-Pictured Cliffs, and it is currently a
5 dual completion, but it has logged off since late 1993.

6 Q. And both zones are logged off?

7 A. Yes, sir.

8 Q. And so the well sits waiting for additional
9 equipment and approval from this Division to downhole
10 commingle?

11 A. Yes, sir.

12 Q. Have you prepared, or has there been prepared
13 under your direction, certain exhibits for presentation
14 here today?

15 A. Yes, they're these, Exhibit Number 1.

16 Q. Let's go to Exhibit Number 1. Would you just
17 identify that initially?

18 A. This is our Application for exception to NMOC
19 Rule 303-A. It's to downhole commingle our H.J. Loe
20 Federal B Number 2-E in the Fulcher Kutz-PC and Basin
21 Dakota Pools.

22 MR. CARR: Mr. Morrow, we're presenting as our
23 Exhibit 1 the very Application that was filed seeking
24 administrative approval. We have numbered the pages for
25 reference as we go through this testimony.

1 Q. (By Mr. Carr) Initially could you identify, Mr.
2 Hindi, the acreage that is dedicated to the well?

3 A. It's on a 160-acre proration that's located in
4 the northwest corner of Section 23, which is in Township 29
5 North, Range 12 West, San Juan County, New Mexico.

6 Q. And what is the status of the land?

7 A. It is a federal lease.

8 Q. Would you turn to what has been marked pages 5
9 and 6 of Exhibit 1, and using this identify for the
10 Examiner the offsetting owners?

11 A. Well, this plat just shows all of the offset
12 owners we have in Basin Dakota: Amoco Production Company,
13 Meridian Oil Company and Conoco and Southland Royalty also.

14 In the Pictured Cliffs our offset operators are
15 R&G Drilling Company, Southland Royalty Company and Alpine
16 Oil and Gas Company and Roddy Production Company,
17 Incorporated.

18 Q. So Alpine's interest only is an offset operator
19 in the Fulcher Kutz in Section 24?

20 A. Right.

21 Q. Okay. When you originally filed this Application
22 for administrative approval, did you provide by certified
23 mail this Application to each of those offsetting owners?

24 A. Yes, we did, and we received back the green slips
25 from the certified mail indicating that they did receive

1 the Application.

2 Q. And copies of those green slips are included in
3 this Application, are they not?

4 A. Yes, sir.

5 Q. Let's go to Page 12 of this exhibit. Could you
6 identify what is shown on page 12?

7 A. Page 12 shows a wellbore diagram of the H.J. Loe
8 Federal B Number 2-E and how it's currently completed as a
9 dual producer in the Fulcher Kutz-PC and Basin Dakota.

10 We have 2-3/8-inch tubing, up which the PC is
11 producing, and 1-1/4-inch tubing that the Dakota is using,
12 inside 4-1/2-inch casing.

13 Q. And if the Application is granted, what do you
14 propose to do to the well?

15 A. We propose to commingle the production, that is,
16 run 2-3/8-inch tubing down to the Dakota perfs, put it on
17 pump and effectively reduce the bottomhole pressure for
18 both the PC and the Dakota intervals.

19 Q. Is the ownership in each of the zones you're
20 trying to commingle common?

21 A. Yes.

22 Q. Both working interest and royalty interest?

23 A. Yes.

24 Q. You've conducted productivity tests on this well?

25 A. Yes. Of course, the Dakota had been producing

1 since 1981, and we've gotten some pretty good tests from it
2 since 1981.

3 In 1992, when we completed into the Pictured
4 Cliffs, we produced it individually until we got steady
5 production, so we have a good test on it as individual.

6 After that, we've had production tests on both of
7 them individually since they're -- it's a dual completion.

8 Q. Are the results of those production tests set
9 forth on pages 8 and 9 of Exhibit Number 1?

10 A. Yes.

11 Q. Do both of these zones now require artificial
12 lift?

13 A. Yes.

14 Q. Have you been able to establish a production
15 decline curve for each of these zones?

16 A. Yes, we have.

17 Q. Is that information set forth on pages 10 and 11
18 of this exhibit?

19 A. Yes, sir.

20 Q. Could you review that briefly for the Examiner?

21 A. Dakota formation is declining at about a 5.13
22 exponential per year. It has like 188,000 GOR, which makes
23 it a gas well.

24 The Pictured Cliffs formation had produced at
25 about 150 MCF a day, but as I say, they're currently both

1 logged off due to inadequate bottomhole pressure.

2 Q. All right. Let's go to pages 13 and 14 of the
3 exhibit. What is this information?

4 A. These are tests which were conducted to ascertain
5 the bottomhole pressure of the Dakota and PC.

6 Q. What are the pressure differentials that you see
7 between the zones?

8 A. We see that the Dakota bottomhole pressure
9 conducted on a seven-day shut-in test is 450 p.s.i.g, and
10 the Pictured Cliffs bottomhole pressure is 249 p.s.i.g.,
11 conducted on a 72-hour shut-in test.

12 Q. In your opinion, will these pressure
13 differentials result in any downhole migration between
14 zones?

15 A. No.

16 Q. Alpine contacted the Division and expressed
17 concern about a potential for cross-flow under various
18 conditions, including changes in line pressure. You've
19 seen that letter, have you not?

20 A. Yes, sir.

21 Q. If any of those conditions occur, would you
22 anticipate any cross-flow even then to occur?

23 A. No, sir.

24 Q. In your opinion, will there be any compatibility
25 problems with the proposed commingling of fluids in this

1 wellbore?

2 A. No, production analyses on the production have
3 been conducted and they indicate no incompatibilities.

4 Q. And those analyses are contained on pages 15 and
5 16 of Exhibit 1, are they not?

6 A. Yes, sir.

7 Q. You previously talked about filing -- or
8 providing copies of this Application to each of the
9 offsetting owners. Was notice also provided to the Bureau
10 of Land Management?

11 A. Yes, sir.

12 Q. And copies of return receipts are contained on
13 pages 18 and 19?

14 A. Yes, sir.

15 Q. Is Exhibit Number 2 a copy of an affidavit
16 confirming that additional notice was provided to each of
17 these owners following the filing of the objection by
18 Alpine?

19 A. Yes, sir.

20 Q. And did that notice advise each of those owners
21 that in fact a hearing would be held on the Application on
22 this date?

23 A. Yes, sir.

24 Q. Mr. Hindi, how do you recommend that the
25 production be allocated between the zones in this well?

1 A. It would be allocated based on their individual
2 productions, as evidenced by their individual tests.

3 Q. And what would the percentage allocation be, by
4 zone?

5 A. For the Pictured Cliffs it would be 55 percent of
6 the total production. The Dakota would entail 45 percent
7 of the total gas production.

8 Q. And that's the gas production?

9 A. Right.

10 Q. What about the oil?

11 A. Oil, Pictured Cliffs would be zero, based on its
12 prior oil production, and the Dakota would entail a hundred
13 percent of the oil production.

14 As for water, the Pictured Cliffs would have 89
15 percent of the total production, and the Dakota would have
16 11 percent of the total water production.

17 Q. As you have indicated, Alpine owns no interest in
18 the subject spacing units. Therefore, in your opinion,
19 could their correlative rights be impacted in any way by
20 these proposed allocation formulae?

21 A. No, sir.

22 Q. In your opinion, will approval of this
23 Application result in the increased recovery of
24 hydrocarbons?

25 A. Yes.

1 Q. And why is that?

2 A. We'll be able to reduce the hydrostatic head or
3 bottomhole pressure for both zones and therefore be able to
4 lift not only what they were lifting before but probably
5 more, due to the reduced back pressure on these formations.

6 Q. And because of this, is it fair to assume that
7 the value of the commingled production will exceed the
8 values of production from these individual zones?

9 A. Yes, sir.

10 Q. In your opinion, will approval of the Application
11 be in the best interests of conservation, the prevention of
12 waste and the protection of correlative rights?

13 A. Yes, sir.

14 Q. Were Exhibits 1 and 2 either prepared by you, or
15 have you reviewed them and can you testify as to their
16 accuracy?

17 A. Yes, sir.

18 MR. CARR: At this time, Mr. Morrow, we would
19 move the admission of Texaco Exhibits 1 and 2

20 EXAMINER MORROW: 1 and 2 are admitted.

21 MR. CARR: And that concludes my direct
22 examination of Mr. Hindi.

23 EXAMINER MORROW: Where is Number 2? I don't --

24 MR. CARR: That is just the notice of affidavit.
25 It should be attached, the last --

1 EXAMINER MORROW: It's on the back, in back.

2 MR. CARR: Yes, sir. And there's an affidavit
3 right ahead of those letters, somewhere.

4 EXAMINER MORROW: Oh, okay, yeah. Maybe -- Yeah,
5 okay.

6 EXAMINATION

7 BY EXAMINER MORROW:

8 Q. Is the same acreage assigned to both the Dakota
9 and the --

10 A. -- and the Pictured Cliffs? Yes, sir.

11 Q. -- and the Pictured Cliffs?

12 The Dakota is normally 320, is it not?

13 A. Normally, but in this instance you can drill on
14 160s, or infill to 160.

15 Q. But usually when you infill to 160 you leave the
16 320 assignment in place; is that not correct, or is it?

17 A. I don't understand the question.

18 Q. Well, I think in the Basin Dakota the infill
19 drilling authorization allows you to drill a second well on
20 320. It doesn't really authorize you to go down to 160-
21 acre spacing.

22 A. Right, it leaves it at 320, but it's still an
23 infill well there.

24 Q. Okay. So really, this is -- Is this the second
25 well on a 320 for the Basin Dakota, or is it a single 160?

1 A. I'm not sure.

2 Q. Okay. If you would furnish me that information,
3 I would appreciate it.

4 Is this -- All this is federal?

5 A. Yes, sir.

6 Q. Regardless, the whole section --

7 A. Yes, sir.

8 Q. -- is federal?

9 Are the rates shown on the production test, are
10 those daily rates or monthly rates, or what is the
11 situation there?

12 A. Which page are you referring to?

13 Q. These on page --

14 A. Those are monthly rates as of, I think --

15 Q. -- page 8 and 9.

16 A. As of August, 1993, those were the monthly rates.
17 So you'd have to divide those by 30 to get the daily rates.

18 Q. One of them is for the sixth month and one of
19 them is for the ninth month, I believe?

20 A. Right.

21 Q. Was there any reason why you furnished separate
22 months there, or do you know?

23 A. No reason, sir. That's about the time they
24 started logging off.

25 Q. Well, these are flowing tests; is that correct?

1 A. Yes, sir.

2 Q. And I believe you indicated that you would -- it
3 would be necessary to pump --

4 A. Right.

5 Q. -- artificially lift --

6 A. That's why we want to commingle them, so that we
7 can put them on artificial lift.

8 Q. Okay. Do you expect -- I assume you testified
9 that you expect the increase in production would be
10 proportional to the volumes that you propose to use for
11 allocation; is that --

12 A. Right, the increase in production would be
13 allocated in the same way, percentagewise, that the current
14 production is.

15 Q. Okay. What kind of increase do you anticipate?

16 A. I expect 60 to 100 MCF a day increase, total
17 increase, above the total of the individual productions to
18 date, were they producing.

19 Q. 60 to 100 MCF?

20 A. Yes, as a result of reduced bottomhole pressure.

21 Q. On the bottomhole pressure data, what page was
22 that again?

23 A. That's on 13 and 14.

24 Q. Okay, on page 13 the pressure -- Let's see,
25 that's -- That's from both zones, I guess, is it not?

1 A. Well, that is --

2 Q. Upper and lower completion?

3 A. Right.

4 Q. Are those -- Were those surface-measured
5 pressures? Is that --

6 A. Yes, sir.

7 Q. And on the second page, the --

8 A. The second page is just for the Pictured Cliffs.

9 Q. The other one is logged off, I assume --

10 A. Yes.

11 Q. -- or dead.

12 Well, did you furnish some bottomhole pressures?

13 A. No, we just have surface pressures indicating the
14 bottomhole pressures.

15 Q. Okay.

16 A. We calculated the bottomhole pressures, given the
17 surface pressures.

18 Q. Okay, sir. In this package did you have those
19 percentages set out somewhere?

20 A. Yes, sir.

21 Q. What page is that?

22 A. They're on the Application, which is --

23 MR. CARR: They're on page 3 of the Application.

24 THE WITNESS: Page 3.

25 EXAMINER MORROW: Okay.

1 MR. CARR: Paragraph 9.

2 EXAMINER MORROW: Okay. For the record, we'll
3 enter the Alpine letter that was received, dated October
4 7th, which stated Alpine's opposition and -- I guess rather
5 than opposition it was merely, or rather could be
6 characterized better as a request for clarification on
7 several questions that Mr. Grandin, who signed the
8 letterhead...

9 Q. (By Examiner Morrow) And you indicated that you
10 didn't expect any cross-flow when water was pumped off or
11 you had reduced line pressure or installation of a
12 compressor, and I believe your data indicated there's
13 already a compressor installed.

14 A. Right, regardless of the back pressure on these
15 wells, there won't be any cross-flow.

16 Q. All right. And I also wanted to be sure that the
17 production rates of Pictured Cliffs and Dakota established
18 by the Application are represented to actual rates for
19 respective zones, and I believe your tests indicate that
20 that should be the case?

21 A. Yes, sir.

22 EXAMINER MORROW: Do you have anything more?

23 MR. CARR: We have nothing further, Mr. Morrow.

24 EXAMINER MORROW: All right. Case 11,100 will be
25 taken under advisement.

1 THE WITNESS: Thank you.

2 EXAMINER MORROW: Thank you, sir.

3 (Thereupon, these proceedings were concluded at
4 9:37 a.m.)

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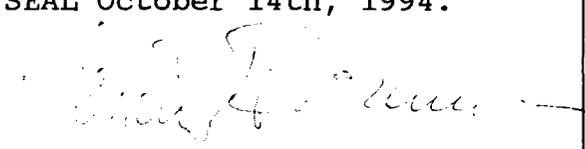
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STATE OF NEW MEXICO)
) SS.
 COUNTY OF SANTA FE)

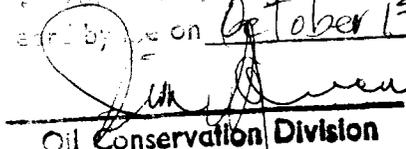
I, Steven T. Brenner, Certified Court Reporter and Notary Public, HEREBY CERTIFY that the foregoing transcript of proceedings before the Oil Conservation Division was reported by me; that I transcribed my notes; and that the foregoing is a true and accurate record of the proceedings.

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 14th, 1994.


 STEVEN T. BRENNER
 CCR No. 7

My commission expires: October 14, 1998

I do hereby certify that the foregoing is
 a true and accurate transcript of the proceedings in
 Case No. 1110,
 dated on October 13, 1994.

 Examiner
 Oil Conservation Division

STEVEN T. BRENNER, CCR
 (505) 989-9317