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

IN THE MATTER OF: )  
APPLICATION OF UNION OIL COMPANY OF )  
CALIFORNIA FOR DETERMINATION OF ) CASE NO. 10155  
PERMANENT ALLOCATION OF DOWNHOLE )  
COMMINGLED PRODUCTION AND FOR THE )  
AMENDMENT OF DIVISION ORDER NO. R-6375, )  
AS AMENDED, RIO ARriba COUNTY, NEW )  
MEXICO )  
----- )

REPORTER'S TRANSCRIPT OF PROCEEDINGS

EXAMINER HEARING

BEFORE: DAVID R. CATANACH, Examiner

November 14, 1990  
10:45 a.m.  
Santa Fe, New Mexico

This matter came on for hearing before the Oil Conservation Division on November 14, 1990, at 10:45 a.m. at the Oil Conservation Conference Room, State Land Office Building, 310 Old Santa Fe Trail, Santa Fe, New Mexico, before Susan G. Ptacek, a Certified Shorthand Reporter No. 124 and Notary Public in and for the County of Santa Fe, State of New Mexico.

FOR: OIL CONSERVATION DIVISION BY: SUSAN G. PTACEK  
Certified Shorthand Reporter  
CSR No. 1224

## I N D E X

November 14, 1990  
 Examiner Hearing  
 Case No. 10155

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

FOR THE DIVISION: ROBERT G. STOVALL, ESQ.  
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Oil Conservation Division  
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FOR THE APPLICANT: CAMPBELL & BLACK, P.A.  
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FOR EL PASO NATURAL GAS COMPANY: MONTGOMERY & ANDREWS. P.A.  
Attorneys at Law  
BY: W. PERRY PEARCE, ESQ.  
325 Paseo de Peralta  
Santa Fe, New Mexico 87501

\* \* \*

1 EXAMINER CATANACH: At this time we will call Case  
2 10155.

3 MR. STOVALL: Application of Union Oil Company of  
4 California for the determination of permanent allocation of  
5 downhole commingling and for the amendment of Division  
6 Order R-6375, as amended, Rio Arriba County, New Mexico.

7 EXAMINER CATANACH: Are there appearances in this  
8 case?

9 MR. CARR: May it please the examiner, my name is  
10 William F. Carr, with the law firm Campbell & Black, P.A.  
11 of Santa Fe. We represent the Union Oil Company of  
12 California, and I have one witness.

13 EXAMINER CATANACH: Are there other appearances?

14 MR. PEARCE: May it please the examiner, I am W. Perry  
15 Pearce, Santa Fe office of the law firm Montgomery &  
16 Andrews, appearing in this matter on behalf of El Paso  
17 Natural Gas Company. I do not have a witness.

18 EXAMINER CATANACH: Any other appearances?

19 Will the witness please stand and be sworn in?

20 BILL HERING,

21 the Witness herein, having been first duly sworn, was  
22 examined and testified as follows:

23 EXAMINATION

24 BY MR. CARR:

25 Q. Would you state your full name and place of

1 residence?

2 A. My name is Bill Hering, and I live in  
3 Farmington, New Mexico.

4 Q. Mr. Hering, by whom are you employed and in what  
5 capacity?

6 A. I'm currently employed by Union Oil Company of  
7 California as a district petroleum engineer.

8 Q. Have you previously testified before the New  
9 Mexico Oil Conservation Division?

10 A. No, I haven't.

11 Q. Would you briefly summarize your educational  
12 background for Mr. Catanach?

13 A. I received a degree in 1978 in geological  
14 engineering, a bachelor's degree, from the Colorado School  
15 of Mines.

16 Q. And since that time by whom have you been  
17 employed?

18 A. I've be employed by Union Oil Company of  
19 California.

20 Q. In what positions? What positions have you held  
21 while with Unocal?

22 A. Beginning in 1978 I was working as a geological  
23 engineer up through 1982. Since 1983 to the present I have  
24 be working as a petroleum engineer and my experience has  
25 been in Montana, Wyoming, Colorado and New Mexico.

1 Q. How long have you been in the Farmington office?

2 A. I've been in the Farmington office for  
3 approximately three years.

4 Q. Does your geographic area of responsibility  
5 include supervision of the Rincon Unit?

6 A. Yes.

7 Q. Are you familiar with the application filed in  
8 this case?

9 A. Yes.

10 Q. Are you familiar with the Rincon Unit Well No.  
11 164?

12 A. Yes.

13 MR. CARR: We tender Mr. Hering as an expert witness  
14 in petroleum engineering.

15 EXAMINER CATANACH: He is so qualified.

16 Q. (By Mr. Carr) Mr. Hering, would you briefly  
17 state what Unocal seeks to accomplish with this hearing  
18 today?

19 A. Unocal seeks to receive an order regarding the  
20 reallocation of Dakota and Gallup formation production in  
21 Rincon Unit No. 164, which was approved for downhole  
22 commingling in 1980.

23 Q. That was by Order NO. R-6375?

24 A. That's correct.

25 Q. Have you prepared certain exhibits for

1 presentation in this hearing?

2 A. Yes.

3 Q. Would you refer to what has been marked as  
4 Unocal Exhibit No. 1, identify that exhibit and review it  
5 for the examiner?

6 A. Exhibit 1 is a location map and on this map you  
7 will see a dash line which represents the outline of the  
8 Rincon Unit. It is a Federal Unit located in Rio Arriba  
9 County, New Mexico. Shown in the black solid line is an  
10 outline of the Dakota participating area. Might also  
11 mention that this unit lies entirely within the  
12 Basin-Dakota Pool. Shown in the hashed lines is the  
13 Largo-Gallup Pool, and the dotted lines outlying the  
14 320-acre proration unit on which the Rincon Unit 164 is  
15 located, there are three other wells in the pool outside of  
16 the Rincon Unit 164 that are also commingled in the Dakota  
17 and the Gallup, and those are the Lindrith 13, 14 and 24  
18 wells.

19 Q. Those are in the Largo-Gallup Pool?

20 A. That's correct.

21 Q. The Rincon Unit 164 well is not within the  
22 pooling but within a mile of the pool boundaries; is that  
23 correct?

24 A. That's correct.

25 Q. Are there special rules in effect for the

1 Largo-Gallup Pool?

2 A. It is spaced 320 acres.

3 Q. Anything further with Exhibit No. 1?

4 A. No.

5 Q. Let's go to Exhibit No. 2 and I ask you to  
6 identify and review this for Mr. Catanach.

7 A. Exhibit 2 is a well bore schematic. On the left  
8 is shown current and normal operations of the well. The  
9 Gallup is located at a depth from 6211 to 6562, and the  
10 Dakota from 7050 to 7254. On the right is the  
11 configuration of the well during a February 1990 test, and  
12 I will be getting into more detail on that later.

13 Q. I'd like you now to review the events which have  
14 resulted in this matter coming for hearing today. You may  
15 want to start by referring to Exhibit No. 3; and if you  
16 could just chronologically summarize for Mr. Catanach how  
17 we appear to get here today?

18 A. Okay. Exhibit No. 3 is the order from the  
19 division that allowed downhole commingling, and that order  
20 was issued in June of 1980. On the second page of the  
21 order, you will see that under item No. 2 that the  
22 applicant shall consult with the supervisor in the Aztec  
23 district office of the division and determine an allocation  
24 formula for the allocation of production to each zone in  
25 the subject well.



1 Referring now to Exhibit No. 4, this letter  
2 represents the allocation formula that was proposed by  
3 Frank Chavez, the district supervisor, in the Aztec office.

4 Q. When did you Unocal -- this is all an  
5 application of El Paso Natural Gas Company. When did  
6 Unocal take over operation of this well?

7 A. Unocal took over operations in May of 1986 of  
8 the entire Rincon Unit.

9 Q. Then can you explain what happened when you were  
10 reviewing the information on this particular well?

11 A. In late 1987 we discovered that there was a  
12 discrepancy between the production allocation formula and  
13 the way that -- and the production that was being reported  
14 to us on the monthly gas volume statements supplied to us  
15 by El Paso Natural Gas Company.

16 Q. What did you do at that time?

17 A. We notified El Paso of the discrepancy and since  
18 January of 1988 production has been split in accordance  
19 with the order.

20 Q. All funds attributable to production from this  
21 well have been placed in suspense?

22 A. That's correct. At the time we discovered the  
23 problem, we placed all payments to overriding royalty  
24 owners and to working interest owners in suspense. We have  
25 been paying royalty to the state during this time period.

1 Q. Since this time have you been attempting to  
2 reconcile numbers concerning the production from this  
3 particular well?

4 A. Yes. We've been in touch with El Paso Natural  
5 Gas Company, the prior operator, requesting information for  
6 the time period prior to us taking operatorship, and we  
7 haven't been able to secure documents. El Paso has  
8 informed us that they have made payments correctly.  
9 However, we are not able to verify that at this point in  
10 time.

11 Q. Since you took over operations in 1986, do you  
12 have information from which you can determine how  
13 production has been allocated and how it should be  
14 allocated? I'm talking now just about the time period  
15 since Unocal took over operation of the well.

16 A. Yes, as I mentioned the information has now been  
17 supplied correctly to us on the monthly gas volume  
18 statements that we are receiving from El Paso.

19 Q. Why are you bringing this matter to hearing?

20 A. Well, our main concern is the fact that we are  
21 the operator of the Rincon Unit, and it's incumbent upon us  
22 to sort this out. We are wanting to provide this  
23 information publicly to our royalty owners. We have  
24 notified them by mail, and also to our working interest  
25 owners. Our intent is to correct the split back to May of

1 1986 when we assumed operatorship of the unit; but as I  
2 mentioned earlier, we don't have information for the time  
3 period prior.

4 Q. Let's go down to what is marked as Unocal  
5 Exhibit No. 5. I would ask you to identify that and review  
6 it for Mr. Catanach?

7 A. Exhibits 5A and 5B are both similar graphs.  
8 They show the recorded percent Dakota relative to total gas  
9 production from the well. So what I am showing here is a  
10 percentage of gas production attributable to the Dakota  
11 formation. And on this you can see the line labeled "state  
12 order production split 31 percent."

13 Q. So under that order 31 percent of the gas  
14 production was to be attributable to the Dakota?

15 A. That's correct.

16 Q. And we can see that prior to that time it  
17 appears that production may not have been so allocated?

18 A. That's correct.

19 Q. Prior to 1988 when production -- since which  
20 production has been properly allocated. What was the  
21 source of the information Unocal was receiving that  
22 resulted in the allocation between May of '86 and the first  
23 of 1988?

24 A. Again, we were using the monthly gas volume  
25 statements provided to us by El Paso Natural Gas Company.

1 They meter all production on our unit.

2 Q. Let's go now to the second page of Exhibit 5.

3 A. This represents a situation with oil production,  
4 and, again, the state order production split is shown here  
5 as being 31 percent.

6 Q. After Unocal took over operations there are a  
7 couple spikes where apparently 100 percent of the  
8 production was attributable to the Dakota. How did that  
9 occur?

10 A. Those were errors that were done by one of our  
11 clerks, and they were basically trying to reconcile  
12 differences with past production, and we have since that  
13 time corrected that.

14 Q. Mr. Hering, when we look at these two exhibits  
15 together, and we look at the information on gas production,  
16 Unocal apparently -- from this Unocal corrected the  
17 allocation the first of 1988. When we look at figures on  
18 oil production, the allocation was corrected soon after  
19 Unocal took over operations of the well, with the exception  
20 of a couple of months.

21 What is the reason for this discrepancy? Why  
22 was it that you were able to correct the oil figures before  
23 you were able to correct the gas?

24 A. Unocal's operator of the unit handles  
25 disposition of the oil, so we gauge the tanks and record

1 the volumes, and handle it from that point.

2 Q. So as to the oil production, from the beginning  
3 you were allocating in accordance with the OCD order?

4 A. That's correct.

5 Q. Let's go now to Exhibit No. 6. Would you review  
6 this for the examiner?

7 A. Exhibit 6A is a cumulative gas production plot  
8 versus time, and on this is shown what was reported as  
9 Gallup production and what should have been reported as  
10 corrected Gallup production. This cumulative production  
11 began in 1981, which was the time of first production from  
12 the Gallup formation.

13 Q. This page shows that in fact too much gas was  
14 allocated to the Gallup formation?

15 A. That is correct. As a matter of fact, an amount  
16 of 198 million cubic feet was misallocated.

17 Q. Now, let's go to the second page of this  
18 exhibit.

19 A. This exhibit shows essentially the same  
20 information, however it's from the perspective of the  
21 Dakota formation.

22 Q. Let's now go to Exhibit No. 7 and review that,  
23 please?

24 A. Exhibit 7 is similar to Exhibit 6, however it  
25 deals with the oil production. Again, we have an imbalance

1 here, the difference being 3,433 barrels. That difference  
2 is between what was reported and what should have been  
3 reported for the Gallup formation.

4 Q. So in this situation we have too much oil being  
5 attributed to the Dakota?

6 A. Right, we have the opposite situation.

7 Q. As this is corrected, there may be a  
8 counterbalancing affect to some extent?

9 A. Correct.

10 Q. Before we go on, Mr. Hering, the source of your  
11 information is what?

12 A. The source of the information has been the New  
13 Mexico Oil and Gas Engineering Committee annual reports.

14 Q. So you're working here with production figures?

15 A. That's correct.

16 Q. They don't necessarily reflect payment data?

17 A. That's correct.

18 Q. Let's move now to Unocal Exhibit No. 8.

19 Identify that please and explain to Mr. Catanach what this  
20 shows.

21 A. Exhibit 8 is the result of production tests that  
22 we conducted in February of 1990. During that test we  
23 isolated the two formations with a production packer and  
24 produced each zone for a period of two weeks into the sales  
25 line through a sales meter. The average gas production for

1 the Dakota was 96 Mcf per day, and the average Gallup  
2 production was 1,006 Mcf per day.

3 Q. So basically this was just a test where you  
4 segregated the zones and flowed them for a period of two  
5 weeks?

6 A. That's correct.

7 Q. Page 2 of this exhibit?

8 A. Page 2 has to do with the oil production from  
9 the well. As you can see, there was no oil production from  
10 the Dakota, whereas there was 6.7 barrels of oil per day  
11 production from the Gallup.

12 Q. Are you prepared to make a recommendation to the  
13 examiner as to how the production from the Dakota and  
14 Gallup in the Rincon Unit No. 1 should be allocated?

15 A. Yes.

16 Q. Is that recommendation set forth on Exhibit No.  
17 9?

18 A. Yes, it is.

19 Q. Would you review that for the examiner, please?

20 A. Exhibit No. 9 basically refers to the results of  
21 the February 1990 production test. And as a result we're  
22 proposing a 91 percent allocation of gas production to the  
23 Gallup formation, and a 9 percent allocation to the Dakota  
24 formation. With respect to the oil, we recommend that 100  
25 percent of the oil be allocated to the Gallup formation.

1 Q. When do you recommend that this new allocation  
2 be effective?

3 A. I recommend that it be made effective the 1st of  
4 the month following the date of the test.

5 Q. So March 1, 1990?

6 A. March 1.

7 Q. And if you obtain this order, then what will  
8 Unocal do to assure that the people have been correctly  
9 paid?

10 A. Well, basically it's an accounting problem, but  
11 we intend to correct all imbalances back to the time when  
12 we first assumed operatorship of the unit.

13 Q. And after that accounting adjustment is made  
14 then everyone will have been paid based on the allocation  
15 formula that was in effect based on Mr. Chavez' letter  
16 until March 1, 1990, when the new test data was available,  
17 and then they will be paid based on the allocation formula  
18 you are recommending today?

19 A. That's correct. Our intent is to abide by all  
20 division orders.

21 Q. Would Unocal request that the order provide for  
22 an administrative procedure whereby subsequent adjustments  
23 in the allocation formula, if necessary, can be handled  
24 simply by contacting the district supervisor and changing  
25 the formulation in consultation with him?



1 A. Yes.

2 Q. Let's go down to Exhibit No. 10, and I will ask  
3 you to explain to Mr. Catanach what this exhibit is and  
4 what it shows.

5 A. Exhibit 10 is a production plot showing rate  
6 versus time. The well was originally completed in the  
7 Dakota in 1969. In 1980, late 1980, the Gallup was  
8 perforated and since that time both zones have been  
9 downhole commingled. What I have shown on this plot is a  
10 Dakota projection as what the Dakota would have done had we  
11 not commingled the well. It is interesting to note here  
12 that while this projection predicts approximately 60 Mcf  
13 per day production, the test actually revealed over 90 Mcf  
14 per day for the Dakota. So I feel that commingling has  
15 been beneficial to the recovery of gas from the Dakota  
16 formation.

17 Q. This shows commingling results in the production  
18 of gas that otherwise wouldn't be recovered?

19 A. That is correct.

20 Q. Is Exhibit No. 11 an affidavit from Campbell &  
21 Black confirming that notice has been provided to all  
22 interest owners in the subject well?

23 A. Yes.

24 Q. In your opinion, Mr. Hering, will approval of  
25 this application enable Unocal to correct the

1 miscalculation of production that has occurred since you  
2 took over operations, and will otherwise be in the best  
3 interest of conservation and prevention of waste and the  
4 protection of correlative rights?

5 A. Yes.

6 Q. Were Exhibits 1 through 11 either prepared by  
7 you or have you reviewed them and can you testify to their  
8 accuracy?

9 A. Yes.

10 MR. CARR: At this time, Mr. Catanach, we would move  
11 the admission of Unocal Exhibits 1 through 11.

12 EXAMINER CATANACH: Exhibits 1 through 11 will be  
13 admitted as evidence.

14 (Applicant's Exhibits 1 through 11  
15 were admitted in evidence.)

16 MR. CARR: That concludes my direct examination of Mr.  
17 Hering.

18 EXAMINATION

19 BY EXAMINER CATANACH:

20 Q. Mr. Hering, this well has been commingled since  
21 it was drilled; is that correct?

22 A. It has been commingled since January of 1981.  
23 It was originally completed as a Dakota producer.

24 Q. Is it your opinion that the original allocation  
25 formula was incorrect?

1           A.       It's my understanding that the original  
2 calculation was based upon actual production tests.  
3 However, those tests are not applicable to the current  
4 situation.

5           Q.       As I understand it, the problem is that the --  
6 the well was previously operated by El Paso up until 1986.  
7 Did they report production as per the allocation formula?

8           A.       No, they didn't. Again, I'm referencing the  
9 production reports in the New Mexico Oil and Gas  
10 Engineering Committee reports.

11          Q.       Are the interest owners common in the two units?

12          A.       No, they're not.

13          Q.       Do you know if El Paso paid the interest owners  
14 as per the allocation formula?

15          A.       We don't know that. We have been unable to  
16 secure any sort of data relating to that.

17          Q.       I see. Now, you took the well over, or Union  
18 took the well over, in 1986.

19          A.       Correct.

20          Q.       And it was not until 1988 that you discovered  
21 the discrepancy?

22          A.       It was late 1987.

23          Q.       Late 1987. So there is a time period in which  
24 Union Oil did not report production correctly and probably  
25 didn't pay the interest owners correctly?

1           A.       That's correct. And again, we were taking our  
2 data from the El Paso Natural Gas monthly volume  
3 statements.

4           Q.       And it's your intent that that will be  
5 corrected?

6           A.       Yes.

7           Q.       Based on the old allocation formula?

8           A.       That's correct.

9           Q.       And the new allocation formula you request goes  
10 into effect March 1, 1990. That will also be corrected  
11 from March 1st to the present time?

12          A.       That's correct.

13          MR. STOVALL: Is your accounting department going to  
14 be busy for the next few months?

15          Q.       (By Examiner Catanach) Is this well currently  
16 being pumped or is it flowing?

17          A.       It flows.

18          Q.       Mr. Hering, do you have any explanation as to  
19 why there is a discrepancy in the original allocation  
20 formula and the one you have now come up with?

21          A.       You're talking about the old order that was  
22 entered and what our production tests are now showing?

23          Q.       Right. Do you know why that's different? Do  
24 you have any explanation as to why that may be different?

25          A.       Not really other than possibly our test more

1 accurately reflects the long-term status of the well, and  
2 the initial test may have been too short in duration.

3 Q. Have either of the zones been worked over at any  
4 point during the history of the well?

5 A. No, they haven't been.

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

7 MR. CARR: We have nothing further in case this, Mr.  
8 Catanach.

9 MR. STOVALL: Mr. Pearce, you entered your appearance  
10 on behalf El Paso. Does El Paso wish to offer any  
11 explanation as to --

12 MR. PEARCE: No, sir.

13 MR. STOVALL: -- anything? Does El Paso have any  
14 action planned or anything as far as you know or where are  
15 they?

16 MR. PEARCE: El Paso has done some record checking.  
17 As the witness testified, it appears that, in fact, payment  
18 may have been made correctly during this period of time.  
19 We're going back and looking through some very old payments  
20 records on that unit. To the extent that this case seeks  
21 to change the allocation formula based on a new test, El  
22 Paso certainly doesn't have any input into that. The  
23 initial allocation formula was based on a test. If a new  
24 test shows something different, we think the  
25 reestablishment of reallocation formula for that well is

1 appropriate. We don't have as much information about the  
2 payment history as we would like, but I don't know that  
3 that impacts the current case.

4 MR. STOVALL: I have nothing further.

5 EXAMINER CATANACH: The witness may be excused.

6 Anything further in this case?

7 MR. CARR: Nothing further, Mr. Catanach.

8 EXAMINER CATANACH: Case 10155 will be taken under  
9 advisement.

10 (Whereupon, the hearing was concluded.)

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1 STATE OF NEW MEXICO )  
 ) ss.  
2 COUNTY OF SANTA FE )

## REPORTER'S CERTIFICATE

5 I, Susan G. Ptacek, a Certified Shorthand Reporter and  
6 Notary Public, do HEREBY CERTIFY that I stenographically  
7 reported the proceedings before the Oil Conservation  
8 Division, and that the foregoing is a true, complete and  
9 accurate transcript of the proceedings of said hearing as  
10 appears from my stenographic notes so taken and transcribed  
11 under my personal supervision.


12 I FURTHER CERTIFY that I am not related to nor  
13 employed by any of the parties hereto, and have no interest  
14 in the outcome thereof.

15 DATED at Santa Fe, New Mexico, this 10th day of  
16 December, 1990.

17

18

My Commission Expires:  
19 December 10, 1993

  
\_\_\_\_\_  
SUSAN G. PTACEK  
Certified Shorthand Reporter  
Notary Public

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I do hereby certify that the foregoing is a complete record of the proceedings in the Examiner hearing of Case No. \_\_\_\_\_ heard by me on \_\_\_\_\_ 19\_\_\_\_.

\_\_\_\_\_, Examiner  
Oil Conservation Division