

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. 12,394

APPLICATION OF ARCO PERMIAN FOR )  
 AMENDMENT OF SURFACE COMMINGLING )  
 DIVISION ORDER PLC-143, EDDY COUNTY, )  
 NEW MEXICO )

ORIGINAL

REPORTER'S TRANSCRIPT OF PROCEEDINGS

EXAMINER HEARING

BEFORE: DAVID R. CATANACH, Hearing Examiner

May 4th, 2000

Santa Fe, New Mexico

00 MAY 23 AM 5:16

OIL CONSERVATION DIV.

This matter came on for hearing before the New Mexico Oil Conservation Division, DAVID R. CATANACH, Hearing Examiner, on Thursday, May 4th, 2000, 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

May 4th, 2000  
Examiner Hearing  
CASE NO. 12,394

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\* \* \*

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

## FOR THE DIVISION:

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 Attorney at Law  
 Legal Counsel to the Division  
 2040 South Pacheco  
 Santa Fe, New Mexico 87505

## 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

\* \* \*

1 WHEREUPON, the following proceedings were had at  
2 9:08 a.m.:

3 EXAMINER CATANACH: At this time we'll call Case  
4 Number 12,394, the Application of ARCO Permian for  
5 amendment of surface commingling Division Order PLC-143,  
6 Eddy County, New 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 ARCO Permian in this  
11 matter, and I have two witnesses.

12 EXAMINER CATANACH: Any additional appearances?

13 Will the witnesses please stand to be sworn in?

14 (Thereupon, the witnesses were sworn.)

15 LEE M. SCARBOROUGH,  
16 the witness herein, after having been first duly sworn upon  
17 his oath, was examined and testified as follows:

18 DIRECT EXAMINATION

19 BY MR. CARR:

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

21 A. Lee Scarborough.

22 Q. Mr. Scarborough, where do you reside?

23 A. Midland, Texas.

24 Q. By whom are you employed?

25 A. ARCO Permian.

1 Q. And what is your position with ARCO Permian?

2 A. I'm a landman for southeast New Mexico.

3 Q. Have you previously testified before this  
4 Division?

5 A. Yes, sir.

6 Q. At the time of that testimony, were your  
7 credentials as an expert in petroleum land matters accepted  
8 and made a matter of record?

9 A. Yes, sir.

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

12 A. Yes, sir.

13 Q. And are you familiar with the status of the lands  
14 in the subject area?

15 A. Yes, sir.

16 MR. CARR: Are Mr. Scarborough's qualifications  
17 acceptable?

18 EXAMINER CATANACH: They are.

19 Q. (By Mr. Carr) Would you briefly summarize for  
20 Mr. Catanach what ARCO seeks with this Application?

21 A. Yes, sir. Rule 309.A requires separate on-lease  
22 metering of oil production, and we seek authorization for  
23 surface commingling where the ownership is diverse.

24 Q. Let's go to what has been marked for  
25 identification as ARCO Exhibit Number 1. Would you

1 identify that for the Examiner?

2 A. Yes, this is Commingling Order PLC-143.

3 Q. And what does this order do?

4 A. It allows production to be allocated to each  
5 lease by separately metering each well.

6 Q. And this is the Oil Conservation Division  
7 approval of a prior ARCO request for lease commingling?

8 A. Yes, sir.

9 Q. And has the BLM also approved the original  
10 proposal for lease commingling?

11 A. Yes, sir, they have.

12 Q. And the difference now is that ARCO proposes,  
13 instead of individually metering these wells, to allocate  
14 production back to these wells based on periodic well  
15 tests?

16 A. Yes, sir.

17 Q. Let's go to Exhibit Number 2. Would you identify  
18 and review that?

19 A. Yes, that's a general land plat showing the two  
20 sections. It also lists the leases, the wells, the tank  
21 batteries and the gathering lines, and our engineer will  
22 review this plat in more detail.

23 Q. From what formations do the subject wells  
24 produce?

25 A. They all produce from the Queen-Grayburg and San

1 Andres, and that out of the Redlake-Queen-Grayburg-San  
2 Andres Pool. There are also some wells that produce out of  
3 the Yeso and the Northeast Redlake Glorieta-Yeso Pool.

4 Q. Could you explain to the Examiner how the  
5 ownership differs between the leases involved in this case?

6 A. Yes, sir. ARCO is the only working interest  
7 owner in all four leases, and there are slightly different  
8 royalty burdens on the Section 4 leases, the West Redlake  
9 Federal and the Lago Rosa Federal.

10 Q. And these leases, both of them are federal  
11 leases?

12 A. Yes, sir.

13 Q. And they have a one-eighth federal royalty  
14 burden?

15 A. Yes, sir.

16 Q. And how many individual overriding royalty  
17 interest owners are there in the leases located in Section  
18 4?

19 A. There are in excess of 30.

20 Q. Is Exhibit Number 3 an affidavit confirming that  
21 notice of this Application and hearing have been provided  
22 in accordance with Oil Conservation Division rules?

23 A. Yes, sir.

24 Q. And to whom was notice of this Application  
25 provided?

1 A. All parties owning an interest in the leases.

2 Q. When did ARCO originally provide notice of this  
3 proposal to these individuals?

4 A. March 27th.

5 Q. And then after this matter was set by the  
6 Division for hearing, did we renotify each of these  
7 individuals advising them of today's hearing?

8 A. Yes, sir.

9 Q. And the renotification advising these interest  
10 owners of the hearing is what is covered by ARCO Exhibit 3;  
11 is that correct?

12 A. Yes, sir.

13 Q. The BLM has also been notified?

14 A. Yes, sir.

15 Q. Who are the purchasers of the production from  
16 these commingled properties?

17 A. Elkhorn purchases the gas and Navajo purchases  
18 the oil.

19 Q. And have they been notified of the Application?

20 A. Yes, sir, they have.

21 Q. And would you identify for Mr. Catanach what has  
22 been marked as ARCO Exhibit Number 4?

23 A. These are the consents from the purchasers.

24 Q. Do you have a waiver from both Elkhorn and from  
25 Navajo?



1 A. Yes, sir.

2 Q. Will ARCO call an engineering witness to review  
3 the technical portions of this Application?

4 A. Yes, sir.

5 Q. Were Exhibits 1 through 4 either prepared by you  
6 or compiled under your direction and supervision?

7 A. Yes, sir.

8 MR. CARR: At this time, Mr. Catanach, we would  
9 move the admission into evidence of ARCO Permian Exhibits 1  
10 through 4.

11 EXAMINER CATANACH: Exhibits 1 through 4 will be  
12 admitted as evidence.

13 MR. CARR: And that concludes my direct  
14 examination of Mr. Scarborough.

15 EXAMINATION

16 BY EXAMINER CATANACH:

17 Q. Mr. Scarborough, the lease in the southwest  
18 quarter of Section 4 is -- I'm having a little trouble  
19 identifying these leases. That is Lease Number NM-29,280?

20 A. Yes, sir.

21 Q. Okay. And the one in the north half of Section 4  
22 is what lease?

23 A. LC065478(A). It's marked just above the tract.

24 Q. And that is the Redlake Federal Lease?

25 A. West Redlake, yes, sir, West Redlake Federal

1 Lease.

2 Q. Okay. And there's two separate leases in Section  
3 3?

4 A. Yes, sir.

5 Q. And they would be separated -- I guess each  
6 40-acre tract would be a separate lease?

7 A. Yes, sir.

8 Q. Okay. And you currently have nine wells?

9 A. Yes, sir, nine wells.

10 Q. Do you anticipate any more wells being drilled in  
11 this area?

12 A. No, sir.

13 Q. And these are -- Did you say some of these are  
14 producing from the Queen-Grayburg?

15 A. No, sir, all of them are Queen-Grayburg, just  
16 some of them from Yeso.

17 Q. Was that a different pool?

18 A. Yes.

19 Q. Okay. Is there someplace that identifies where  
20 these wells were producing from?

21 A. No, sir.

22 Q. Okay, could you supply that to me?

23 A. Yes, sir. It's on the engineering exhibit. It's  
24 handwritten on the bottom of -- see what exhibit that is --  
25 Exhibit Number 8.

1 Q. Exhibit Number 8.

2 A. Those are the individual leases, and I think that  
3 the producing zone is marked at the bottom.

4 Q. Okay, got it. Thank you.

5 A. Yes, sir.

6 MR. CARR: Mr. Catanach, the Yeso Pool is the  
7 northeast Redlake Glorieta-Yeso Pool.

8 Q. (By Examiner Catanach) So talking about the  
9 interest ownership, is it different in each of the leases?

10 A. The percentage of ownership -- the names are the  
11 same -- the overriding royalty interest owners -- The  
12 listing is the same in Section 4; it's just that their  
13 division of interest is different. And it's not as complex  
14 in Section 3. There's only one overriding royalty interest  
15 owner in the leases in Section 3.

16 Q. Is the interest different in the two leases in  
17 Section 3?

18 A. I believe the override is the same in both leases  
19 in Section 3. It's the same.

20 Q. But the interest overall, is it exactly the same  
21 in the two leases in Section 3?

22 A. Yes, sir.

23 Q. Okay. But the two in Section 4 are different,  
24 and then the -- The two leases in Section 4 are different  
25 from the one in 3?

1 A. Yes, sir.

2 Q. Okay. And you notified all interest owners in  
3 all four of the leases?

4 A. Yes, sir.

5 Q. Did you have any contact with any of them, or did  
6 any of them voice any objection to this?

7 A. No.

8 Q. No.

9 Q. And all the interest owners are listed on Exhibit  
10 Number 3; is that correct? Notification list?

11 A. Yes, sir, they are.

12 EXAMINER CATANACH: Okay, I have nothing further  
13 of this witness.

14 MR. CARR: At this time we call Dennis Braaten.

15 DENNIS BRAATEN,

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

18 DIRECT EXAMINATION

19 BY MR. CARR:

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

21 A. Dennis Braaten.

22 Q. Would you spell your last name?

23 A. B-r-a-a-t-e-n.

24 Q. Where do you reside?

25 A. Midland, Texas.

1 Q. By whom are you employed?

2 A. ARCO Permian.

3 Q. Mr. Braaten, what is your position with ARCO  
4 Permian?

5 A. I'm a production facility engineer.

6 Q. Have you previously testified before this  
7 Division?

8 A. No, sir.

9 Q. Could you summarize your educational background  
10 for Mr. Catanach?

11 A. I've got a BS in geological engineering in 1979  
12 from the University of North Dakota.

13 Q. And since graduation, for whom have you worked?

14 A. ARCO Permian for 20 years.

15 Q. And at all times as a petroleum engineer?

16 A. Yes, sir.

17 Q. Are you familiar with the Application filed in  
18 this case on behalf of ARCO?

19 A. Yes, sir.

20 Q. And are you prepared to review the engineering  
21 portions of the Application with Mr. Catanach?

22 A. Yes.

23 MR. CARR: Mr. Catanach, we tender Mr. Braaten as  
24 an expert witness in petroleum engineering.

25 EXAMINER CATANACH: He is so qualified.

1           Q.    (By Mr. Carr) Mr. Braaten, would you summarize  
2   how ARCO proposes to handle the commingling of production  
3   from the subject leases? You might want to refer to  
4   Exhibit Number 2.

5           A.    Lee reviewed some of this, but we'll be  
6   continuing to do much of what was originally proposed in  
7   the original commingling application. We'll be selling and  
8   storing oil in Section 3, the metering methods will still  
9   be the same.

10           As Lee indicated, the major difference between  
11   the current proposal and the original commingling order is  
12   that we're moving from allocation by well test rather than  
13   individually metering each individual well.

14           Q.    And why is ARCO seeking this authorization for  
15   this change?

16           A.    These wells have declined substantially to less  
17   than 30 barrels a day, and separation equipment can be used  
18   in other leases to lower development costs.

19           Q.    Have other leases in this area been approved for  
20   commingling and allocation by well test?

21           A.    Yes, there's several cases. 11,845, 11,846,  
22   11,847, 12,061 and 12,155 are ones that I've identified.

23           Q.    Let's go to what has been marked as ARCO Permian  
24   Exhibit Number 5 -- it's entitled "Proposed Redlake Area  
25   Commingle by Well Test..." -- and I'd ask you to review the

1 information on this exhibit for Mr. Catanach.

2 A. This exhibit is similar to the prior exhibit that  
3 we talked a little bit about but gives a little more detail  
4 associated with how the oil and gas will be metered and  
5 sold.

6 The next exhibit probably is a better example of  
7 what we will be talking about.

8 Q. All right, let's go ahead, then, and I'd ask you  
9 to review Exhibit Number 6.

10 A. All right. Exhibit Number 6 shows the satellite  
11 battery location that will be taking care of the five wells  
12 located in Section 4, the Lago Rosa and West Redlake  
13 leases. We will have oil, gas and water separated in a  
14 production separator. The gas will be sold and allocated  
15 back to each of these five wells.

16 Oil will flow to the central tank battery from  
17 this satellite and be combined with oil from the Section 3  
18 wells and sold and allocated back based on well tests.  
19 Water will flow to the central battery and then pump to the  
20 Empire Abo unit.

21 Q. And that's what happens at the satellite battery,  
22 correct?

23 A. Yes, sir.

24 Q. All right, let's go to the central battery site,  
25 Exhibit Number 7. Will you review that?

1           A.    All right. The central battery site has got two  
2 parts, essentially, one that's just like the satellite  
3 battery, the production and test facilities. Oil, gas and  
4 water will be combined in the production separator, gas  
5 will be sold at this site from the four wells in the  
6 Section 3 leases. Oil will be combined with the oil from  
7 the Section 4 leases to oil tanks and sold through LACT  
8 unit and then allocated back based on well tests. Water  
9 will be metered and then pumped to Empire Abo Unit.

10          Q.    Identify ARCO Exhibit 8.

11           A.    All right, this is a listing of well tests for  
12 the -- well, 12 months' history well tests for the nine  
13 wells in the area. Production rate varies from 26 down to  
14 five barrels of oil per day. As Lee mentioned, three of  
15 the four -- three of the wells are downhole commingled in  
16 Yeso and San Andres, and oil from both zones is very  
17 similar, and it's currently commingled and being sold  
18 together to Navajo via LACT unit.

19          Q.    Mr. Braaten, are you familiar with the Division's  
20 manual for installation and operation of commingled  
21 facilities?

22           A.    Yes, sir, and these facilities are designed in  
23 conjunction with that manual.

24          Q.    And these are the same facilities that were  
25 previously approved by Division Order Number PLC-143?



1 A. Yes, sir.

2 Q. Could you explain to Mr. Catanach how the  
3 production will be measured and allocated back to the  
4 individual well?

5 A. We'll have two well testers, one for each of the  
6 test sites, essentially, and they'll be equipped to measure  
7 oil, gas and water. Gas will be metered through an orifice  
8 meter, oil will be metered with turbine meters.

9 Monthly oil sales volume will be allocated back  
10 based on NMOC procedures, multiplying the total sales of  
11 the well volume for a well divided by the well tests for  
12 that well -- excuse me, multiplying the total sales by the  
13 well test volume and then dividing by the total volume of  
14 all the wells.

15 Q. At this time, do you anticipate any production  
16 being used for lease operations either on or off the lease  
17 itself?

18 A. We're cold-treating, so no. And we've got  
19 electric pumping units, so...

20 Q. Will the royalty be reduced in any way by the  
21 proposed commingling?

22 A. No, sir.

23 Q. Could you summarize for Mr. Catanach the benefits  
24 that will result from approval of this Application?

25 A. The biggest thing is, we'll be operating less

1 equipment, five less separators, so that will reduce our  
2 operating costs and eventually extend our economic life on  
3 these leases, and that will result in increased recovery  
4 and eventually additional revenue for working interest  
5 owners, royalty interest owners and overriding royalty  
6 interest owners.

7 Q. In your opinion, will approval of this  
8 Application and the lease commingling and production from  
9 the wells that are involved with this Application be in the  
10 best interest of conservation, the prevention of waste and  
11 the protection of correlative rights?

12 A. Yes, sir.

13 Q. Were ARCO Exhibits 4 through 7 either prepared by  
14 you or compiled under your direction?

15 A. Yes, sir.

16 MR. CARR: Mr. Catanach, at this time we would  
17 move the admission into evidence of ARCO Permian Exhibits 4  
18 through 7.

19 EXAMINER CATANACH: Exhibits 4 through 7 will be  
20 admitted as evidence.

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

23 EXAMINATION

24 BY EXAMINER CATANACH:

25 Q. It appears from your production data that these

1 wells are pretty well -- that, first of all, they are  
2 marginal, and the producing rates are pretty consistent at  
3 this time; is that correct?

4 A. Yes, sir. The wells that were recompleted in the  
5 San Andres a little later in time are producing at a  
6 slightly higher rate, but decline rates -- because they've  
7 only been on line for a couple of years -- or a year,  
8 excuse me, but they'll be declining pretty rapidly -- or  
9 they're continuing to decline rapidly.

10 Q. Now, according to your diagrams, is the gas going  
11 to be sold directly from the satellite battery?

12 A. Yes.

13 Q. So there will be two separate gas sales?

14 A. Two gas sales points.

15 Q. And how frequently do you propose on testing the  
16 wells?

17 A. Monthly well tests.

18 Q. And how long does that last?

19 A. Our standard well tests are 24 hours, but  
20 typically pumpers leave wells in test for longer than 24  
21 hours to ensure they got good, consistent data.

22 Q. Have you guys gotten federal approval to do this?

23 A. Yes, sir, we have. I've got a copy if...

24 MR. CARR: Mr. Examiner, we have an approved  
25 federal Form 3160-5, which approves this proposed

1 commingling, and I'd be happy to offer it as ARCO Exhibit  
2 9.

3 EXAMINER CATANACH: Okay. Exhibit 9 will be  
4 admitted as evidence.

5 Q. (By Examiner Catanach) Are there going to be any  
6 further recompletions out here?

7 A. We don't anticipate any. The Yeso was not  
8 productive enough to deepen any of these wells, and as Lee  
9 mentioned, we ran economics this year, kind of -- on  
10 drilling that fourth well on that one tract, and it did not  
11 look economic either.

12 Q. Are there any wells that might be candidates for  
13 downhole commingling?

14 A. No, because we've downhole -- Well, the one well  
15 that we actually applied for downhole commingling, and we  
16 left the bridge plug in the hole, so it's only in the San  
17 Andres and we will probably pull that bridge plug at some  
18 point and downhole commingle the Yeso. We've actually  
19 gotten approval to do that already.

20 Q. That's still not a problem because you're still  
21 well-testing that --

22 A. Yes.

23 Q. -- and then it's allocated back on percentage?

24 A. Right.

25 EXAMINER CATANACH: I have no further questions

1 of this witness.

2 MR. CARR: That concludes our presentation in  
3 this case.

4 EXAMINER CATANACH: Okay, there being nothing  
5 further, Case 12,394 will be taken under advisement.

6 (Thereupon, these proceedings were concluded at  
7 9:30 a.m.)

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I do hereby certify that the foregoing is  
a complete record of the proceedings  
the Examiners hearing of Case 12394  
heard by me on May 11, 1960  
David R. Catnach, State Game  
Off Conservation Division

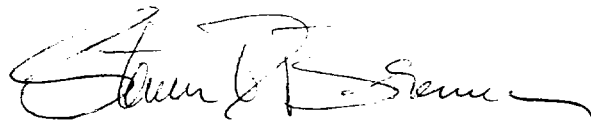
## CERTIFICATE OF REPORTER

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 May 10th, 2000.



STEVEN T. BRENNER  
CCR No. 7

My commission expires: October 14, 2002