

1 STATE OF NEW MEXICO
2 ENERGY, MINERALS AND NATURAL RESOURCES DEPARTMENT
3 OIL CONSERVATION DIVISION

4 IN THE MATTER OF THE HEARING)
5 CALLED BY THE OIL CONSERVATION)
6 DIVISION FOR THE PURPOSE OF)
7 CONSIDERING:) CASE NOS. 10843
and 10844
8 APPLICATIONS OF MERIDIAN OIL INC.
9 -----

10 REPORTER'S TRANSCRIPT OF PROCEEDINGS

11 EXAMINER HEARING

12 BEFORE: David R. Catanach, Hearing Examiner

13 October 7, 1993

14 Santa Fe, New Mexico

15 This matter came on for hearing before the
16 Oil Conservation Division on October 7, 1993, at
17 Morgan Hall, State Land Office Building, 310 Old Santa
18 Fe Trail, Santa Fe, New Mexico, before Deborah O'Bine,
19 RPR, Certified Court Reporter No. 63, for the State of
20 New Mexico.

I N D E X

October 7, 1993
 Examiner Hearing
 CASE NOS. 10843 and 10844

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A P P E A R A N C E S

FOR THE DIVISION: ROBERT G. STOVALL, ESQ.
General Counsel
Oil Conservation Commission
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310 Old Santa Fe Trail
Santa Fe, New Mexico 87501

FOR THE APPLICANT: KELLAHIN AND KELLAHIN
117 N. Guadalupe
Santa Fe, New Mexico
BY: W. THOMAS KELLAHIN, ESQ.

1 EXAMINER CATANACH: At this time we'll call
2 Case 10843.

3 MR. STOVALL: Application of Meridian Oil
4 Inc. for a high angle/horizontal directional drilling
5 pilot project, an unorthodox oil well location, a
6 nonstandard oil proration unit, a special project
7 allowable, and special operating rules therefor, San
8 Juan County, New Mexico.

9 EXAMINER CATANACH: Appearances in this
10 case?

11 MR. KELLAHIN: Mr. Examiner, I'm Tom
12 Kellahin of the Santa Fe law firm of Kellahin and
13 Kellahin appearing on behalf of applicant, and I have
14 three witnesses to be sworn.

15 EXAMINER CATANACH: Additional
16 appearances?

17 MR. STOVALL: Consolidate at this time?

18 MR. KELLAHIN: Together.

19 MR. STOVALL: Not apart?

20 MR. KELLAHIN: No.

21 MR. STOVALL: Do you want to call the other
22 case?

23 EXAMINER CATANACH: We will at this time
24 consolidate this case and call Case 10844.

25 MR. STOVALL: Application of Meridian Oil

1 Inc. for a high angle/horizontal directional drilling
2 pilot project, an unorthodox oil well location, a
3 nonstandard oil proration unit, a special project
4 allowable, and special operating rules therefor, San
5 Juan County, New Mexico.

6 EXAMINER CATANACH: Appearances in this
7 case? Additional appearances?

8 MR. KELLAHIN: Mr. Examiner, Tom Kellahin.
9 Same appearances. Same witnesses. No opposition.
10 Ready to be approved.

11 MR. STOVALL: According to the special
12 rules which are being drafted but have not yet been
13 adopted?

14 MR. KELLAHIN: Yes.

15 EXAMINER CATANACH: Will you please swear
16 in the witnesses, Mr. Stovall.

17 (Witnesses sworn.)

18 MR. KELLAHIN: Call at this time Mr. John
19 Zent.

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

23 EXAMINATION

24 BY MR. KELLAHIN:

25 Q. Mr. Zent, for the record, would you please

1 state your name and occupation.

2 A. My name is John Zent. I'm a petroleum
3 landman employed by Meridian Oil Inc.

4 Q. On prior occasions have you testified
5 before the Division as a petroleum landman?

6 A. Yes.

7 Q. Pursuant to your employment in that
8 capacity, have you made a study of the land title
9 situations concerning these two cases?

10 A. Yes, sir, I have.

11 Q. Have you identified, and are you prepared
12 to testify to the examiner as to the offset operators
13 that may have an interest in the spacing unit that you
14 propose to develop with each of these two wells?

15 A. Yes, sir, I will.

16 MR. KELLAHIN: We tender Mr. Zent as an
17 expert petroleum landman.

18 EXAMINER CATANACH: Mr. Zent is so
19 qualified.

20 Q. (BY MR. KELLAHIN) Let's take the first
21 exhibit book, Mr. Zent. It's the one marked for Case
22 10843.

23 A. Yes, sir.

24 Q. That's the Black Diamond Com 18 #1 well?

25 A. Yes, sir.

1 Q. Turn to Exhibit Tab No. 1 and identify that
2 for us.

3 A. Tab No. 1 is the application filed by your
4 firm on behalf of Meridian Oil Inc. in this
5 application.

6 Q. The other exhibit book is organized in the
7 same chronology of exhibits?

8 A. Yes, sir, it is.

9 Q. Turn to Exhibit No. 2 in the first case
10 book. What does that plat describe?

11 A. This is a nine-section plat of the section
12 surrounding Meridian's proposed drill site of the east
13 half Section 18, Township 30 North, Range 15 West, San
14 Juan County, New Mexico. The center of the plat is
15 the east half of Section 18, and it is shaded in a
16 dark color, which will be the proposed proration
17 unit. Meridian has shaded, had the drafting
18 department shade in a lighter fashion the offsetting
19 operators surrounding the east half of Section 18.

20 Q. How have you determined the status of the
21 offsetting operators to the spacing unit?

22 A. Meridian researched federal, state, and
23 county records to determine the leasehold ownership in
24 the offsetting drill blocks and the drill block for
25 the proposed proration unit.

1 Q. All right. Let's turn now to the Exhibit
2 book for the Black Diamond Com 8-1.

3 A. Yes, sir.

4 Q. In the same fashion, let's turn to Exhibit
5 2 of that exhibit book and have you identify and
6 describe what is contained on that display.

7 A. Exhibit 2 is, again, a nine-section
8 schematic of the area around Meridian's proposed drill
9 block for the Black Diamond Com 8 #1 well, being the
10 west half of Section 8, Township 30 North, Range 15
11 West, San Juan County, New Mexico.

12 The proposed proration unit is shaded in
13 dark color, and the offsetting proration units are
14 shaded in the lighter color. Again, Meridian has
15 researched the federal, state, and county records for
16 leasehold and mineral ownership in the offsetting
17 ownership areas, and we've indicated that ownership
18 below the schematic.

19 MR. KELLAHIN: Mr. Examiner, I have
20 submitted to you separate certificates in each case,
21 and my firm has used the notification list prepared by
22 Mr. Zent. And as of the indicated date, September 15,
23 in both cases, we sent certified mail letters to each
24 of the individuals or companies shown on both lists.

25 Q. To the best of your knowledge, Mr. Zent,

1 has any company or individual that was notified raised
2 any objection to you about Meridian's application in
3 these two cases?

4 A. To my knowledge, no parties have raised
5 objection to this application.

6 MR. KELLAHIN: In addition, Mr. Examiner, I
7 am aware of no opposition to these two cases. That
8 concludes my examination of Mr. Zent.

9 EXAMINATION

10 BY EXAMINER CATANACH:

11 Q. Mr. Zent, within the east half of Section
12 18, is that one or more leases?

13 A. It is two leases. If you look at the plat,
14 the east half of Section 18, there is a large numeral
15 2 indicated on five of the 40-acre proration units.
16 That happens to be a single federal oil and gas lease
17 held by Yates Petroleum Corporation.

18 In the south half of Section 18 as to the
19 southeast quarter, there are also three 40-acre
20 proration units that have the number 1 designation.
21 That is also a federal oil and gas lease that is held
22 jointly by Meridian Oil Inc. and Morgan Energy
23 Corporation from Denver, Colorado.

24 Meridian has a drilling option on the Yates
25 leasehold and are partners again with Morgan Energy on

1 the tract indicated with the number 1.

2 Q. In putting a project of this nature
3 together, do you have knowledge of what the BLM,
4 whether or not they would have to approve something
5 like this in terms of putting the two leases together?

6 A. As in all cases where federal acreage is
7 involved in a single proration unit, the Bureau of
8 Land Management must approve a communitization
9 agreement prior to production. In the event of a
10 successful well in production, Meridian will prepare
11 and circulate a communitization agreement for approval
12 by all working interest owners, all lessees of record,
13 and the Bureau of Land Management.

14 Q. You have not done any preliminary BLM
15 discussion?

16 A. No, sir. That is not normal until after
17 production is secured.

18 Q. Have you had a similar type of project in
19 the past?

20 A. Yes, sir, we have in this immediate area.
21 In fact, if we look at the exhibit book for Case
22 10843, being the Black Diamond Com 18 No. 1, on that
23 case you'll notice the west half of Section 20 is
24 shaded. Meridian currently has just completed
25 drilling a well and is currently completing a well

1 with a proration unit, being the west half of Section
2 20. That case was heard by the Commission I believe
3 in July of 1992. The case number and order escape me
4 at this point in time, sir.

5 MR. KELLAHIN: Are you talking about the
6 Com 20?

7 THE WITNESS: Yes, sir.

8 MR. KELLAHIN: Mr. Examiner, it's Case
9 10486. It's order No. R-9702, and it was heard by you
10 back in July of 1992. Here's a copy of that.

11 EXAMINER CATANACH: Okay.

12 Q. (BY EXAMINER CATANACH) Did you say you
13 have approached BLM on that project?

14 A. Yes. We have a communitization agreement
15 that has gone to the Bureau of Land Management for
16 approval within the last two weeks.

17 Q. Has that been approved?

18 A. No, it has not.

19 Q. Do you foresee any kind of problem with
20 that?

21 A. No, sir.

22 Q. Now, do we have a similar type situation in
23 the west half of Section 8?

24 A. Yes. In the west half of Section 8, the
25 numbers indicated No. 3, that is a federal oil and gas

1 lease held by EP Operating Company out of Dallas,
2 Texas. Meridian has a drilling option on that lease.

3 The acreage indicated with a number 2 is
4 also held by Yates Petroleum Corporation. That is
5 also a federal oil and gas lease with a November 30,
6 1993, lease expiration date. Those two leases would
7 be combined to form one proration unit via federal
8 communitization agreement.

9 Q. You've got from EP a farmout agreement?

10 A. It's a farmout, yes, sir. They were
11 involved in our well in Section 20, and we had a
12 farmout on that well. We have a continuing drilling
13 option from EP on their acreage in 8.

14 EXAMINER CATANACH: I have nothing further
15 at this time. The witness may be excused.

16 MR. KELLAHIN: Mr. Examiner, at this time
17 we'll call Meridian's geologist in these two cases,
18 Mr. Paul Basinski.

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

22 EXAMINATION

23 BY MR. KELLAHIN:

24 Q. Would you please state your name and
25 occupation.

1 A. Paul M. Basinski, senior staff geologist,
2 Meridian Oil.

3 Q. Mr. Basinski, on prior occasions have you
4 testified before the Division as a petroleum
5 geologist?

6 A. No, I have not.

7 Q. Summarize for us your education.

8 A. I received a bachelor's in geology from the
9 State University of New York at Buffalo in 1975. I
10 received my master's in geology from the University of
11 Nevada Reno, Mackey School of Mines in 1978. I went
12 to work for Chevron immediately following graduation
13 for a number -- for several years. Then I worked for
14 Tesoro Petroleum, then under Grace Petroleum where I
15 was the last nine years, and I started with Meridian
16 Oil about six months ago.

17 Q. Describe for us your specific area of
18 responsibility for Meridian.

19 A. I'm responsible for area 4, which is
20 inclusive of the wells that we're going to talk about
21 today.

22 Q. Are both these wells within the area
23 designated or affected by what is described as the
24 Horseshoe Gallup Oil Pool?

25 A. That is correct.

1 Q. Are you in that general vicinity?

2 A. That is correct.

3 Q. Can you tell us where that is? Where do we
4 go to find it on the ground?

5 A. We're approximately 4-1/2 to 5-1/2 miles
6 northeast of the Town of Waterflow.

7 Q. Where are you in relation to the power
8 generation plant up there in the Four Corners area?

9 A. We're immediately to the west of the power
10 plant.

11 Q. Within this geologic setting of the Gallup
12 in this formation, can you give us a visual picture, a
13 word description of the environment that this
14 production is contained in?

15 A. We're proximal to Horseshoe Gallup field
16 where production has been established from the Tocado
17 Sands. Those sands exhibit good matrix porosity and
18 permeability. They're up on the Four Corners platform
19 area.

20 Our proposed wells are immediately
21 Basinward of that production. In this position those
22 porous and permeable sands have become tighter and
23 more shaley; hence, matrix porosity and permeability
24 is quite low.

25 The Waterflow zone, which is the objective

1 in the two horizontal wells, is a widespread
2 contiguous unit throughout the area.

3 Q. Let's turn to the structure map that's
4 located behind exhibit tab No. 5 in the exhibit book
5 for the Com 18-1 well. Let's use that illustration
6 and have you describe the structural setting for the
7 two wells.

8 A. We're situated on the northwest corner of
9 the San Juan Basin immediately Basinward of the Hog
10 Back monocline. The two wells exhibit dip to the
11 southeast of approximately 8 degrees in the case of
12 the 8-1 well and approximately 3 degrees for the 18-1
13 well.

14 The map that we see in Exhibit No. 5 is
15 contoured on the top of the Gallup, and the contour
16 interval is 100 feet.

17 Q. My copy of that display is color-coded in
18 that the spacing units are outlined in green and in
19 pink. Is yours marked that way?

20 A. Yes.

21 Q. What's the significance of that color code?

22 A. The two pink boxes represent the orders
23 that we received for exception locations previously.
24 In the west half of Section 20, that was the unit for
25 the Meridian 20-1 Black Diamond well, and immediately

1 to the north of that is the spacing unit for the Black
2 Diamond 17-1 well.

3 The two green boxes represent the
4 exceptions that we're seeking today.

5 Q. Of the two cases already approved as
6 horizontal wells, you have drilled the No. 20 well?

7 A. That's correct.

8 MR. KELLAHIN: Mr. Examiner, the order
9 number for the 17-1 is going to be R-9691, and it was
10 also entered by you based upon a hearing held in June
11 of 1992.

12 Q. What's the plan, the concept, the objective
13 in a horizontal well or wells in these spacing units?

14 A. The concept is that in this more Basinward
15 position in the Waterflow and Tocito sand pay, where
16 you have less matrix porosity and permeability, the
17 vertical wells to date have not proven to be
18 commercially viable. The concept is through
19 horizontal drilling technology to traverse the
20 formation over the lateral distance of several
21 thousand feet, 3,000 to 4,000 feet, thereby
22 encountering natural fracturing which has been
23 responsible for the marginal vertical production in
24 the immediate vicinity to date.

25 By drilling the horizontal well, a greater

1 number of fractures will be intersected in the
2 wellbore, thereby allowing the wellbore to efficiently
3 drain the 320 acres.

4 Several cores from vertical wells in the
5 immediate vicinity have indicated that fracturing is
6 quite pervasive in the Waterflow zone, which is the
7 objective for both wells.

8 Q. If you'll turn with me to the Exhibits
9 behind Exhibit Tab No. 4, and let's talk about the
10 illustration first. Describe for us what you're
11 attempting to illustrate here.

12 A. This is a cartoon of the geological
13 situation that we're attempting to display. On the
14 bottom of each cartoon, there are some vertical
15 fractures represented. And the concept is on the
16 left-hand side, a vertical well has been drilled and
17 not intersected a significant number of these
18 fractures, whereas the high-angle well on the right is
19 directed so that its azimuth will be perpendicular to
20 the azimuth of the trending fractures, thereby
21 encountering the maximum number in the Waterflow
22 zone.

23 These fractures would not have been
24 encountered in a vertical well, and thereby a
25 commercial well is potentially possible in this

1 situation.

2 Q. With regards to a spacing unit, what do you
3 propose to form for a project spacing unit?

4 A. We propose 320-acre stand-up units.

5 Q. And that would consist then of eight,
6 40-acre tracts or spacing units within this pool or
7 subject to this pool?

8 A. That is correct.

9 Q. How would you propose to calculate the
10 oil-producing allowable for the project area?

11 A. It is a simple function of the state
12 allowable times the number of 40's that will be cut by
13 the wellbore, which is five, thereby yielding a 400
14 barrel a day allowable.

15 Q. Is that an allowable request that's
16 consistent with the prior two orders entered by
17 Division in this area for these types of wells?

18 A. Yes.

19 Q. Lets go now to the schematic that's shown
20 as Exhibit No. 3. It shows a producing drilling
21 window with a 330 setback from the side boundaries of
22 the 320-spacing unit?

23 A. That's correct.

24 Q. What is the plan for the well? Are you to
25 be located at a standard location then within that

1 setback?

2 A. Yes, we will.

3 Q. What has caused you to determine where to
4 start within the spacing unit and what direction to
5 proceed?

6 A. Surface outcrop work from the nearby
7 producing or mining coal operations from the Fruitland
8 indicate butt cleat orientation to the
9 northeast-southwest, and this orientation has
10 frequently been found to indicate open fracture
11 azimuth in deeper horizons.

12 Furthermore, the 20-1 Black Diamond well
13 vertical pilot exhibited a fracture azimuth in an
14 analogous northeast-southwest direction. Hence, the
15 proposed trajectory of the well to the southeast will
16 encounter the maximum number of these fractures.

17 MR. KELLAHIN: Mr. Examiner, we propose to
18 honor a site boundary setback of 330, which would be
19 consistent for a vertical well on a 40-acre tract.
20 We're seeking approval for unorthodox locations
21 insofar as the lateral or the producing interval of
22 the well would cut internal setoffs for the 40-acre
23 tracts.

24 Q. Describe for us the status of the well that
25 was drilled, the 20-1 well. Where do we stand on that

1 well?

2 A. The well is currently under completion. We
3 are running an emulsion breaker at this point. We
4 believe we damaged the formation well drilling, and
5 we're in the process of cleaning up the well.

6 Q. In your opinion as a geologist, is it
7 necessary to have these two additional project areas
8 in which to test the feasibility of high
9 angle/horizontal wells in this particular formation?

10 A. Our experience has been that one project
11 will not condemn the concepts. The geology is fairly
12 complex. The drilling situation and completion
13 technology is still being developed, and one wellbore
14 is not sufficient to be able to adequately evaluate
15 the geology. Hence, we are seeking additional wells
16 so that we can continue on our learning curve.

17 MR. KELLAHIN: That concludes my
18 examination of Mr. Basinski.

19 EXAMINATION

20 BY EXAMINER CATANACH:

21 Q. Are there several producing zones within
22 the formation?

23 A. Within the Niobrara, in the immediate
24 vicinity, specifically Horseshoe Gallup field, there
25 are two sand members that are productive. There's an

1 upper Tocito sand and a basal Tocito sand in the
2 location of these two proposed two wells. That basal
3 sand is not developed. It's totally shaled out.

4 The upper sand with matrix porosity and
5 permeability that's productive in Horseshoe Gallup is
6 quite a bit siltier and tighter. And that's our
7 objective for these two wells.

8 Q. That's what you're referring to as the
9 Waterflow?

10 A. That is the Waterflow zone.

11 Q. Have these areas been developed by vertical
12 wells?

13 A. There have been several vertical wells.
14 The most proximal to the two proposed horizontal wells
15 is in the northwest of Section 17. It's the BMG
16 Harrington No. 1. In that well, four hole cores were
17 cut through the Waterflow in basal Tocito section.

18 It demonstrated the tight, fine-grained,
19 sandy nature of the upper zone in the absence of the
20 lower sand zone. Fractures were identified from those
21 cores, and the cores were bleeding oil. The well was
22 subsequently completed and produced 24,000 barrels of
23 oil before its abandonment in April of 1985.

24 EXAMINER CATANACH: I don't have anything
25 else of the witness. He may be excused.

1 MR. KELLAHIN: Mr. Examiner, we'd call at
2 this time Mr. Eric Bauer. Mr. Bauer is the drilling
3 engineer for Meridian that's responsible for these two
4 wells.

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

8 EXAMINATION

9 BY MR. KELLAHIN:

10 Q. Mr. Bauer, for the record, would you please
11 state your name and occupation.

12 A. My name is Eric R. Bauer. I'm a drilling
13 engineer for Meridian Oil.

14 Q. On prior occasions, Mr. Bauer, have you
15 testified as a drilling engineer with regards to this
16 type of well?

17 A. Yes, I have.

18 Q. Are the drilling programs for drilling and
19 completing these two wells designed in a similar
20 fashion?

21 A. Yes, they are.

22 Q. Are there any material differences between
23 the two programs for these wells?

24 A. No material differences.

25 MR. KELLAHIN: We tender Mr. Bauer as an

1 expert drilling engineer.

2 EXAMINER CATANACH: Mr. Bauer is so
3 qualified.

4 Q. (BY MR. KELLAHIN) Let me have you turn to
5 the last display in the exhibit book, Mr. Bauer.
6 We've been working with the one for the Black Diamond
7 Com 18-1. If you go to the Exhibit 6 of that book,
8 it's an illustration of the design program for the
9 well. Why don't you start at the surface for us and
10 take us through the illustration and explain how you
11 propose to have this well drilled?

12 A. Okay. My well plan is to drill 12-1/4 inch
13 hole to 300 feet, then set 9-5/8 casing, drill out
14 with mud 8-3/4 inch hole to a kick-off point noted
15 down on the illustration of 3472 -- or excuse me -- to
16 a point of 4120 which is our pilot hole TD; forgive
17 me. And at that point we will analyze the basal
18 Tocito, run some logs, and try to fine-tune our
19 azimuth.

20 At that point, we will plug back to our
21 kick-off point with a cement plug to 3472, build angle
22 at 12 degrees per 100 foot to 87 degrees. One again,
23 this is with mud. And we will set our 7-inch casing
24 at 4197 measured depth, which is 3949 foot TVD.

25 At that point I will run in the hole a

1 steerable motor assembly and drill to about 88
2 degrees, using an air mist system and 4-3/4 inch
3 tools. I will then at the TD of the well, which is
4 estimated at 7747-foot measured depth or 4,000 foot
5 total vertical section, run a 4-1/2 plugged and perf'd
6 liner.

7 Q. Once you've drilled the well, describe for
8 us your completion plan. What do you propose to do?

9 A. Once we drill the well, we'll move that rig
10 off and move on a smaller rig, and it will be in
11 charge of the operations to mill the plugs out of the
12 liner and put a chemical wash on the formation and
13 swab it.

14 Q. Give us a summary, Mr. Bauer, of the
15 procedures used for the Black Diamond Com 20 well that
16 is currently under completion process. What did you
17 do when you drilled that well? What kind of design
18 program did you use?

19 A. The design program is very similar to these
20 18 and 8-1 wells. The only difference is the size of
21 pipe that I ran. In the 20-1, I drilled a little
22 larger hole and set 7-5/8 inch casing around the
23 build. In these two wells I'm proposing 7 inch.
24 Those were the only differences.

25 Q. Did you encounter any kind of mechanical

1 difficulty or drilling problems with that well that
2 would be of concern to the Division Examiner as he
3 approaches the next two wells and the subject of these
4 two hearings?

5 A. No, I did not. There were no problems.

6 MR. KELLAHIN: That concludes my
7 examination of Mr. Bauer, Mr. Catanach.

8 We move the introduction of all of
9 Meridian's exhibits in each of these two cases.

10 EXAMINER CATANACH: These exhibits -- is it
11 1 through 6, Mr. Kellahin?

12 MR. KELLAHIN: 1 through 6 in Exhibit Book
13 10843, and the same number in the other case.

14 EXAMINER CATANACH: Okay.

15 MR. KELLAHIN: And then the certificates
16 would be added as Exhibit 7, and I'll have them marked
17 accordingly.

18 EXAMINER CATANACH: Exhibits 1 through 6
19 and 7 in each of these cases will be admitted as
20 evidence.

21 EXAMINATION

22 BY EXAMINER CATANACH:

23 Q. Mr. Bauer, on the No. 20 well, how far did
24 you drill that well?

25 A. To a total vertical section of 3623.

1 Measured depth was approximately 7000 to 8000 feet,
2 7798, in fact.

3 Q. Was that about what you had proposed to do
4 on that well?

5 A. Yes, it was.

6 Q. And you propose to take these wells about
7 the same distance?

8 A. That's correct.

9 Q. I believe the previous testimony was that
10 the wellbore should traverse five, 40-acre units; is
11 that correct?

12 A. That's correct.

13 Q. Each well?

14 A. Each well.

15 EXAMINER CATANACH: I have nothing further,
16 Mr. Kellahin.

17 MR. KELLAHIN: That concludes our
18 presentation in these cases, Mr. Examiner.

19 EXAMINER CATANACH: Okay. There being
20 nothing further, Cases 10843 and 844 will be taken
21 under advisement.

CERTIFICATE OF REPORTER

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

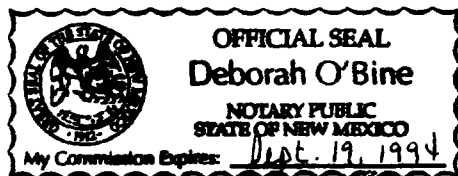
I, Deborah O'Bine, Certified Shorthand Reporter and Notary Public, HEREBY CERTIFY that I caused my notes to be transcribed under my personal supervision, and that the foregoing transcript is a true and accurate record of the proceedings of said hearing.

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 16, 1993.

Deborah O'Bine

DEBORAH O'BINE
 CCR No. 63



October 7
David R. Catana
 10/13/93
 93