

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 NO. 10247  
8 APPLICATION OF MERIDIAN OIL, INC., )  
9 FOR AN UNORTHODOX WELL LOCATION, )  
10 LEA COUNTY, NEW MEXICO )  
11

12 REPORTER'S TRANSCRIPT OF PROCEEDINGS

13 EXAMINER HEARING

14 BEFORE: DAVID R. CATANACH, Hearing Examiner

15 February 21, 1990

16 10:45 a.m.

17 Santa Fe, New Mexico

18 This matter came on for hearing before the Oil  
19 Conservation Division on February 21, 1990, at 10:45 a.m.  
20 at Oil Conservation Division Conference Room, State Land  
21 Office Building, 310 Old Santa Fe Trail, Santa Fe, New  
22 Mexico, before Paula Wegeforth, Certified Court Reporter  
23 No. 264, for the State of New Mexico.

24 FOR: OIL CONSERVATION DIVISION BY: PAULA WEGEFORTH  
25 Certified Court Reporter  
CSR No. 264

## I N D E X

February 21, 1991  
Examiner Hearing

CASE NO. 10247

APPEARANCES

PAGE  
3

APPLICANT'S WITNESS:

TERRY J. HUCHTON

Direct Examination by Mr. Kellahin  
Examination by Examiner Catanach

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REPORTER'S CERTIFICATE

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## E X H I B I T S

APPLICANT'S EXHIBIT

ADMTD

1 through 8

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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  
                             State Land Office Building  
                             310 Old Santa Fe Trail  
                             Santa Fe, New Mexico 87501

FOR THE APPLICANT:       KELLAHIN, KELLAHIN & AUBREY  
                             Attorneys at Law  
                             BY: W. THOMAS KELLAHIN, ESQ.  
                             117 North Guadalupe  
                             Santa Fe, New Mexico 87501

\*   \*   \*

1 EXAMINER CATANACH: At this time we will call  
2 Case 10247.

3 MR. STOVALL: Application of Meridian Oil, Inc., for  
4 an unorthodox oil well.

5 EXAMINER CATANACH: Are there appearances?

6 MR. KELLAHIN: Mr. Examiner, I'm Tom Kellahin of the  
7 Santa Fe law firm of Kellahin, Kellahin & Aubrey, appearing  
8 on behalf of the applicant, and I have one witness to be  
9 sworn.

10 EXAMINER CATANACH: Any other appearances?

11 Will the witness please stand and be sworn?

12 (Whereupon the witness was duly sworn.)

13 TERRY J. HUCHTON,

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

16 DIRECT EXAMINATION

17 BY MR. KELLAHIN:

18 Q. Would you please state your name and occupation?

19 A. Terry Huchton. I'm a reservoir engineer for  
20 Meridian Oil.

21 Q. Mr. Huchton, for the court reporter, will you  
22 spell your last name, please?

23 A. H-u-c-h-t-o-n.

24 Q. Mr. Huchton, on prior occasions, have you  
25 testified before the division as an engineer?

1           A.     No, I have not.

2           Q.     Summarize for us your educational background.

3           A.     I graduated with a bachelor of science degree in  
4 petroleum engineering from Texas A&M University in 1982.

5           Q.     Subsequent to graduation, summarize your work  
6 experience.

7           A.     I worked initially for Superior Oil Company for  
8 two and a half years as a production engineer in their  
9 offshore division, followed by about an approximate  
10 one-year stint with Mobile Oil as a reservoir engineer in  
11 Midland.

12                   I am currently employed by -- for the last five  
13 years by Meridian Oil in Midland.

14           Q.     Describe for us your involvement in this  
15 particular application by Meridian. What have you studied  
16 and what are you proposing to do?

17           A.     What we're wanting to do is get approval for an  
18 unorthodox oil well location in the Shugart Oil Pool.

19           Q.     Have you studied the engineering details and the  
20 geologic aspects of that application?

21           A.     Yes, I have.

22           Q.     To the best of your knowlege, have you made  
23 yourself fully informed on that topic?

24           A.     Yes I have.

25           MR. KELLAHIN: We tender Mr. Huchton as an expert

1 petroleum engineer.

2 EXAMINER CATANACH: He is so qualified.

3 Q. (By Mr. Kellahin) Let me direct your attention,  
4 first of all, to this plat that's marked as Exhibit 1.  
5 Identify for Mr. Catanach the importance or the reason that  
6 you've shaded certain of this acreage in yellow.

7 A. The yellow-shaded acreage are the tracts that  
8 Meridian Oil operates.

9 Q. When we look to the tract in the east half of  
10 Section 3, in what unit letter is the proposed well to be  
11 located?

12 A. It's in Unit Letter P.

13 Q. Within that southwest quarter of Section 3, to  
14 the best of your knowledge, are we dealing with the same  
15 working interest, royalty and overriding royalty owners in  
16 that 160-acre tract?

17 A. Yes, we are.

18 Q. The proposed well is at an unorthodox oil well  
19 location, is it not?

20 A. Yes, it is.

21 Q. What is your standard well location for a  
22 40-acre tract in this pool?

23 A. It would be -- a standard location would be 660  
24 feet from the south and east lines and no nearer than 330  
25 feet from any lease line or unit boundary.

1           Q.     When we look at the east-west dimension, you're  
2 330 from that site boundary. Is that a standard or an  
3 unorthodox location?

4           A.     That is a standard location.

5           Q.     When we look at the north boundary of your  
6 40-acre tract, it is that direction or dimension in which  
7 you are encoaching?

8           A.     This is correct.

9           Q.     You're about 150 feet too close?

10          A.     That's correct.

11          Q.     In your opinion, will that serve as an  
12 impairment of the correlative rights of anyone that offsets  
13 this spacing unit?

14          A.     No, it will not.

15          Q.     Why not?

16          A.     It doesn't offset anyone closer than the  
17 standard regulations other than ourselves.

18          Q.     And those interest owners that you're offsetting  
19 would participate in this well?

20          A.     Yes.

21          Q.     Have you received any objection from the  
22 offsetting interest owners in Section 2?

23          A.     No, we have not.

24          Q.     Have you notified those people?

25          A.     Yes, we have.

1           Q.     Let's talk now about the importance of the  
2 blue-outlined area. What does that represent?

3           A.     The blue outline, to the best of our knowledge,  
4 represents the area under lease for potash mining by Amax.

5           Q.     With regard to those rules, then, what have you  
6 attempted to do?

7           A.     We have attempted to stay with -- outside their  
8 restrictions on the distance for a well to their mining  
9 operations, which, according to their correspondence, is  
10 one-quarter of a mile.

11          Q.     And who is the potash lessee that you have been  
12 in contact with?

13          A.     It's Amax.

14          Q.     Has Amax approved the proposed unorthodox  
15 location that you're seeking Mr. Catanach to approve today?

16          A.     Yes, they have.

17          Q.     Have you proposed to Amax other locations in the  
18 40-acre tract?

19          A.     Yes, we have.

20          Q.     What was the status of those requests?

21          A.     They were -- the initial request was denied as  
22 being too close to their operations. It was 330 feet from  
23 the south and east lines of Section 3. We moved it to 990  
24 feet from the south and kept it at 330 from the east line  
25 of the same Section, and Amax was agreeable to that



1 location.

2 Q. Were there any other agencies or individuals  
3 that you had to satisfy about your surface location?

4 A. Yes. With that -- with the new location  
5 approved by Amax, the 990 feet from the south and 330 from  
6 the east, the BLM had some topographical problems with that  
7 location which resulted in us moving it an additional 150  
8 feet north.

9 Q. Why didn't you move it farther south as opposed  
10 to going farther north?

11 A. We could not get any closer to the potash mining  
12 operations.

13 Q. To the best of your knowlege, is this proposed  
14 unorthodox surface location the only realistically  
15 available surface location in this 40-acre tract to drill a  
16 well for this pool?

17 A. Yes, it is.

18 Q. Have you also made a comparison of the  
19 subsurface information to determine where you will be in  
20 the pool?

21 A. Yes, we have.

22 Q. Is it going to make a material difference to  
23 Meridian where you are, either at a standard location or at  
24 the unorthodox location, to test for oil production in the  
25 pool?

1           A.     No, it will not.

2           Q.     Have you also examined the cost components to  
3 directionally drill this well to a standard bottom hole  
4 location?

5           A.     Yes, we have.

6           Q.     What is your conclusion based upon that study?

7           A.     Based on that study and our analysis, it is not  
8 economically beneficial to us to directionally drill to a  
9 standard location bottom hole.

10          Q.     Let's go through some of the details of your  
11 display.

12                     Starting with Exhibit No. 2, would you identify  
13 and describe that for us?

14          A.     Yes. Exhibit No. 2 is an approved sundry notice  
15 from the BLM giving approval for the unorthodox well  
16 location at 1140 feet from the south line and 330 feet from  
17 the east line of Section 3, Township 19 south, Range 30  
18 east.

19          Q.     And attached to that what have you enclosed?

20          A.     Some correspondence leading up to both the  
21 sundry notice approval and approval by Amax Corporation for  
22 that same location.

23          Q.     Following the information contained in  
24 Exhibit No. 2, you have marked for introduction  
25 Exhibit No. 3?

1 A. Yes.

2 Q. Identify and describe that.

3 A. Exhibit No. 3 is the correspondence we received  
4 from Amax giving their approval of our location for our  
5 Benson 3 Federal No. 7 well.

6 Q. The No. 7 well is the subject of the application  
7 before the examiner today?

8 A. Yes, it is.

9 Q. The No. 9 well is what?

10 A. That's a proposed location that we are -- we are  
11 not ready to drill at this time.

12 Q. It's a different well, different subject?

13 A. Yes. Yes, it is.

14 Q. So it's the No. 7 well that's the topic of this  
15 case?

16 A. Yes, it is.

17 Q. All right. Let's turn now to Exhibits No. 4 and  
18 5, and let me have you display those together in front of  
19 you.

20 I direct you first to Exhibit No. 4. Did you  
21 have Mr. Catalano, the Meridian geologist, assist you in  
22 preparing an analysis of the structure as well as the sand  
23 isopach for the Queen sand in this pool?

24 A. Yes, sir.

25 Q. And have you personally studied the information?

1           A.     Yes, I have.

2           Q.     To the best of your knowlege, is it accurate and  
3 correct?

4           A.     Yes.

5           Q.     Direct the examiner's attention to your proposed  
6 location in Section 3. How have you identified that?

7           A.     It's identified on both of these maps with an  
8 arrow and -- a dark black arrow and a hollow circle with  
9 "proposed location."

10          Q.     The standard location, then, would be farther  
11 south than the proposed location?

12          A.     Yes. It would be roughly equivalent to the well  
13 bore that has on the structure map in Section 2 a 534  
14 marked on it. It would be roughly parallel to that well  
15 bore.

16          Q.     That well out of the southwest of the southwest  
17 of 2 is what you're describing?

18          A.     Yes.

19          Q.     Who operates that well?

20          A.     That's Arco's.

21          Q.     When you look at the structure, is there a  
22 material difference in structural position between the  
23 standard location offsetting the Arco well and the proposed  
24 unorthodox location?

25          A.     No, none of significance to us.

1           Q.     You don't perceive any disadvantage, then, to  
2 moving to the unorthodox location?

3           A.     No, we don't.

4           Q.     Look at the sand map with me. It's  
5 Exhibit No. 5.

6           A.     (Witness complied.)

7           Q.     What is your assessment of the relative merits  
8 of the two possible positions in the 40-acre tract when you  
9 compare the unorthodox location to the closest standard  
10 location?

11          A.     By just comparing the two locations to one  
12 another, there is no benefit -- or one has no additional  
13 advantage over the other. They are roughly equivalent.

14          Q.     In your opinion, are there recoverable oil  
15 reserves in the Queen sand of this pool that would not be  
16 otherwise produced unless the examiner approved this  
17 unorthodox location?

18          A.     That is correct.

19          Q.     Let's examine now the information you have  
20 compiled concerning the possibility of drilling this well  
21 vertically compared to drilling it directionally.

22          A.     All right.

23          Q.     We've marked those two displays as Exhibits 6  
24 and 7. The straight hole is 6 and the AFE on the  
25 directional well is 7?

1           A.     That is correct.

2           Q.     Summarize the important differences for us in  
3 the two AFEs.

4           A.     The important differences are in several of the  
5 assumptions made. Of course, as mentioned, Exhibit No. 6  
6 is the well cost estimate for a vertical well, and our  
7 drilling department has assumed a footage contract for that  
8 well.

9                     And getting down to the bottom line, the total  
10 drilling cost estimate for a suspended well cost is  
11 \$162,000 for a vertical well.

12          Q.     Did you specifically ask them to construct for  
13 you an AFE that would show you their estimate of cost to  
14 directionally drill this well from the proposed unorthodox  
15 surface location to the closest standard bottom hole  
16 location?

17          A.     Yes.

18          Q.     With what result? What did they tell you?

19          A.     The result of that is Exhibit No. 7. They  
20 provided us a well cost, as you see here.

21                     The difference between it and Exhibit No. 6 is  
22 an assumption of a day-work drilling contract plus  
23 additional cost and fees associated with directional  
24 drilling.

25          Q.     For wells of this type, what is your estimate of

1 the magnitude of recoverable oil reserves for a well?

2 A. There is no significant difference.

3 Q. What's the oil volume you intend to recover with  
4 the well at this location? Do you have an assessment of  
5 the reserve potential?

6 A. I do not.

7 Q. When we look at the cost component itself,  
8 though, you've got a \$92,000 figure attributable to the  
9 directional drilling services?

10 A. Yes.

11 Q. Can you break that out for us more specifically?  
12 What's involved in that cost?

13 A. That will be the cost for the down hole tools  
14 and supervision of those -- of the operations while we are  
15 drilling directionally.

16 Q. Your assessment and conclusion, then, is that it  
17 is a significant expense, and it's -- does not make the  
18 project attractive if you have to add the additional costs  
19 of directional drilling?

20 A. This is correct.

21 Q. Going back for display purposes to either the  
22 isopach or the cross -- the structure map, what wells does  
23 Meridian operate in the pool?

24 A. We operate the wells directly -- all of the  
25 wells in the north half -- the east half of Section 3.

1           Q.     So if you look at the displays and see the  
2 acreage shaded --

3           A.     Yes.

4           Q.     -- there's a shading to some of the acreage --  
5 do those represent acreage that Meridian is operating?

6           A.     That's correct.

7           Q.     And in some instances you've drilled dry holes,  
8 have you?

9           A.     Yes, we have.

10          Q.     The closest producing well that Meridian  
11 operates to this 40-acre tract is which one?

12          A.     Currently it's the -- it's the one in the  
13 southeast quarter of the northeast quarter. We are  
14 currently testing the well in the northeast quarter of the  
15 southeast quarter.

16          Q.     When we look to the southwest of the northeast  
17 quarter of Section 3, there is -- it looks like a dry hole  
18 symbol.

19          A.     Yes. That's a recent well that we drilled in  
20 the area that was dry.

21          Q.     Okay.

22          A.     As recent as this year.

23          Q.     So there is some element of risk involved in  
24 locating the wells for developing oil production out of the  
25 east half of Section 3?



1 A. Yes.

2 MR. KELLAHIN: I think that concludes my examination.  
3 We move the introduction of Exhibits -- there should be a  
4 notice application somewhere at the end of this,  
5 Exhibit No. 8.

6 MR. STOVALL: There is.

7 MR. KELLAHIN: Ah, bingo. Exhibit No. 8 is the  
8 certificate of mailing and notification to all possible  
9 offsetting interest owners, and with the inclusion of that  
10 Exhibit No. 8, we move the introduction of Exhibits 1  
11 through 7.

12 EXAMINER CATANACH: Exhibits 1 through 7 will be  
13 admitted as evidence.

14 MR. KELLAHIN: In addition, we'd like to move the  
15 introduction of Exhibit 8.

16 EXAMINER CATANACH: And Exhibit 8 will be admitted as  
17 evidence.

18 (Whereupon Applicant's Exhibits 1 through 8 were  
19 admitted into evidence.)

20	EXAMINATION
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21 BY EXAMINER CATANACH:

22 Q. Mr. Huchton, is that right?

23	A. Huchton.
----	-------------

24 Q. Huchton. Okay. Did I understand you correctly  
25 to say that all of the east half of Section 3 is common

1 ownership?

2 A. It's operated by Meridian Oil.

3 Q. Is it common working interest ownership, though?

4 A. Yes, and in the fact that we now own El Paso  
5 Exploration.

6 Q. I guess what I'm getting at specifically, is the  
7 tract, the 40-acre tract, that you're encroaching to toward  
8 the north -- is that owned by the same interest owners who  
9 own the --

10 A. Oh, yes.

11 Q. -- southwest -- southwest -- southeast  
12 southeast? Sorry.

13 A. Yes, sir.

14 Q. What was the objection by the BLM to the  
15 proposed location of 990 from the south and 330 from the  
16 east?

17 A. They felt we were encroaching too close to a  
18 surface drainage problem, a gully, and it's a topographical  
19 problem with that.

20 Q. Do you have an opinion as to whether the well at  
21 this proposed location will effectively drain that  
22 40-acre proration unit?

23 A. Yes, I believe it will.

24 EXAMINER CATANACH: I have no further questions of the  
25 witness. He may be excused.

1                   Is there anything further in this case?

2           MR. KELLAHIN:  No, sir.

3           EXAMINER CATANACH:  There being nothing, Case 10247  
4 will be taken under advisement.

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6           (The foregoing hearing was concluded at the  
7 approximate hour of 11:05 a.m.)

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3 STATE OF NEW MEXICO )  
4 ) ss.  
5 COUNTY OF SANTA FE )

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7  
8 REPORTER'S CERTIFICATE

9 I, PAULA WEGEFORTH, a Certified Court Reporter and  
10 Notary Public, DO HEREBY CERTIFY that I stenographically  
11 reported these proceedings before the Oil Conservation  
12 Division; and that the foregoing is a true, complete and  
13 accurate transcript of the proceedings of said hearing as  
14 appears from my stenographic notes so taken and transcribed  
15 under my personal supervision.

16 I FURTHER CERTIFY that I am not related to nor  
17 employed by any of the parties hereto, and have no interest  
18 in the outcome hereof.

19 DATED at Santa Fe, New Mexico, this 20th day of March,  
20 1991.

21  
22  
23 My Commission Expires:  
24 September 27, 1993

PAULA WEGEFORTH  
Certified Court Reporter  
CSR No. 264, Notary Public

25 I do hereby certify that the foregoing is  
a complete and correct transcript of the proceedings in  
the Examiner hearing of Case No. 10247,  
heard by me on February 21, 1991.

David J. Catamb, Examiner  
Oil Conservation Division