STATE OF NEW MEXICO ENERGY, MINERALS AND NATURAL RESOURCES DEPARTMENT 1 OIL CONSERVATION DIVISION STATE LAND OFFICE BUILDING 2 SANTA FE, NEW MEXICO 3 18 January 1989 4 5 EXAMINER HEARING 6 IN THE MATTER OF: 7 Application of Meridian Oil, Inc. for CASE 8 an unorthodox oil well location, Eddy 9577 County, New Mexico. 9 10 11 BEFORE: Victor T. Lyon, Examiner 12 13 TRANSCRIPT OF HEARING 14 APPEARANCES 15 16 For the Division: 17 For Meridian Oil, Inc.: W. Thomas Kellahin 18 Attorney at Law KELLAHIN, KELLAHIN & AUBREY 19 P. O. Box 2265 Santa Fe, New Mexico 87504 20 21 22 23 24 25

		2
1		
2	INDEX	
3		
4	BRET S. HERRING	
5	Direct Examination by Mr. Kellahin	3
6	Cross Examination by Mr. Lyon	11
7		
8		
9	EXHIBITS	
10		
11	Meridian Exhibit One, Structural Map	5
12	Meridian Exhibit Two, Type Log	7
13	Meridian Exhibit Three, BLM Form 3160	7
14	Meridian Exhibit Four, Waiver	10
15		
16		
17		
18		
19		
20		
21		
22		
23 24		
24		
23		

Г

3 1 MR. LYON: The hearing will 2 come to order. 3 We'll next call Case 9577. 4 Application of Meridian Oil, 5 Inc., for unorthodox oil well location, Eddy County, New 6 Mexico. 7 Appearances? 8 MR. KELLAHIN: Mr. Examiner, 9 I'm Tom Kellahin of the Santa Fe law firm of Kellahin, 10 Kellahin & Aubrey, appearing on, behalf of the applicant, 11 and I have one witness to be sworn. 12 13 (Witness sworn.) 14 15 MR. LYON: Proceed, Mr. Kella-16 hin. 17 MR. KELLAHIN: Mr. Examiner, 18 my witness is a reservoir engineer. He's from Midland, 19 Texas. His name is Bret Herring, H-E-R-R-I-N-G. 20 21 BRET S. HERRING, 22 being called as a witness and being duly sworn upon his 23 oath, testified as follows, to-wit: 24 25 DIRECT EXAMINATION

4 1 BY MR. KELLAHIN: 2 Mr. Herring, would you please state your Q 3 name and occupation? 4 Yes, sir. Bret Stephen Herring. I'm a А 5 reservoir engineer for Meridian Oil in Midland, Texas. 6 Mr. Herring, have you on past occasions Q 7 testified as a reservoir engineer before this Division? 8 Yes, sir. А 9 0 And pursuant to your employment as an 10 engineer have you made a study of the engineering facts 11 surrounding this application by your company? 12 Yes, sir. А 13 MR. KELLAHIN: We tender Mr. 14 Herring as an expert reservoir engineer. 15 MR. LYON: Mr. Herring is 16 qualified. 17 Mr. Herring, --Q 18 MR. KELLAHIN: Well, by way of 19 introduction, Mr. Examiner, this case was originally filed 20 administratively by Meridian Oil, Inc., and be letter dated 21 December 19th Mr. Stogner advised my client that they were 22 not eligible for administrative approval of this applica-23 tion, and he cause this matter to be set for today's hear-24 ing docket. 25 Pursuant to having the matter

5 1 set for hearing, then, Mr. Herring has brought with him 2 certain exhibits and made certain studies about his well. 3 Let me start, Mr. Herring, by having you Q 4 simply identify for us Exhibit Number One. What are we 5 looking at, sir? 6 А Yes, sir, Exhibit Number One is a struc-7 ture map of the San Andres. The acreage that you see out-8 lined in red is Meridian's acreage. The green dot that you 9 see in Tract 2-A is the Well No. 33 with the red arrow 10 pointing to it. 11 0 You identified the red outline as being 12 Meridian acreage. Specifically what are we looking at? 13 А This is called the Robinson-Jackson 14 Unit. 15 Q And this is a unit operation for produc-16 tion from the Grayburg formation? 17 А Grayburg and San Andres, yes. 18 Q The well location that is shown on the 19 display is offset not only by other unit production but 20 there is production to the north outside the unit? **21** А Yes, sir, there is. 22 Q Who operates and controls that produc-23 tion? 24 Α This production is controlled and oper-25 ated by Marbob.

6 1 Q When we look to the development that 2 Marbob has had in their acreage to the north of you, how 3 many wells do they have in the offsetting 40-acre spacing 4 units to you for this formation? 5 In the three 40-acre tracts offset, Α 6 they've got 9 total wells, so it would 5 wells in the 7 southeast guarter of the southeast guarter; 3 wells in the 8 southwest quarter of the southeast quarter; and 3 wells in 9 the southeast quarter of the southwest quarter. 10 The wells shown on the display are only 0 11 the Grayburg wells? 12 Yes, sir. А 13 0 When we look in the 40-acre tracts 14 within your unit, first of all in the 40-acre tract imme-15 diately to the east, do you have an existing producing well 16 there? 17 А Yes, sir, the No. 1 Well and also the 18 No. 21 Well. 19 0 And as we look to the offsetting 40-acre 20 tract immediately to the west of your location, do you have 21 any producing wells in this reservoir in that 40-acre 22 tract? 23 А Yes, sir, there is one well, the No. 2 24 Well. 25 Q Why have you chosen, or why has Meridian

7 1 chosen, a well at this particular unorthodox location, Mr. 2 Herring? 3 Well, if you'll pull up Exhibit Two and А 4 lay the structure map and the type log, which is Exhibit 5 Two, side by side, this will kind of help explain this 6 story. 7 Referring back to the No. 1 Well, it was 8 originally completed in the Jackson formation which lies 9 above the Keely, which are both sand members of the San 10 Andres formation. 11 What we wanted to do was go in and 12 deepen the No. 1 Well to the Keely formation. After in-13 vestigation it was felt that the wellbore integrity of the 14 No. 1 Well wasn't conducive to deepening the No. 1 Well to 15 the Keely, so the decision was made to go ahead and drill 16 for the Keely formation. 17 This was all well and good, but manage-18 ment wanted a hole card, I guess you could say, and wanted 19 to be able to produce the Jackson formation as a fall-back 20 sand. Subsequently, what we were trying to do was maximize 21 the distance away from the No. 1 Well and the No. 2 Well, 22 which both have produced from the Jackson Sand. 23 That's why this location was -- was 24 chosen. 25 Let's turn to Exhibit Number Three and Q

8 1 have you identify and describe that exhibit. 2 Yes, sir, this if Form 3160, Department А 3 of Interior, Bureau of Land Management, Well Completion or 4 Recompletion Report Log, and then the second page to that 5 is the plat that accompanies this. 6 Well, let's look for a moment at the Q 7 plat. A standard location for a Grayburg Jackson well on a 8 40-acre tract is what footage location? 9 А The rules dictate 330 off any lease line 10 of a quarter quarter section. 11 0 So as we look at the distance from the 12 wellbore to the north boundary of the spacing unit, that 13 distance is 385 feet? 14 А Yes, sir. 15 Q So you're standard as to that line. 16 Oh, yes, sir. А 17 Q And you're standard as to the west and 18 south lines. 19 А Yes, sir. 20 0 When we look at the east line you're 21 unorthodox as to that line. 22 А Yes, sir. 23 Q In fact, you're what, 5 feet off of that 24 line? 25 А Yes, sir.

9 1 Q All right. That location, then, puts 2 you in the 40-acre tract that's shown as Unit B, I be-3 lieve, in that spacing unit? 4 А Yes, sir, Unit B. 5 Q The offsetting well in which -- towards 6 which you are encroaching, is also a Robinson-Jackson Unit 7 operated well? 8 Yes, sir, it is. Α 9 Q Are you aware of any correlative rights 10 issue raised by locating a well at this point? 11 No, sir, I'm not. А 12 In terms of geology and reservoir en-Q 13 gineering, Mr. Herring, does the drilling of this well 14 provide an opportunity to test for reserves that might not 15 otherwise be recovered? 16 А Yes, sir, it was up dip from the two 17 offset wells there to the southeast and southwest of this 18 well. Also we noticed activity on the Marbob lease, where 19 they increased their density on their 40-acre tracts and 20 were seeing fairly good results. The wells were coming in 21 maybe 40 to 50 barrels a day. 22 Q The Commission allows the multiple use 23 of wellbores in a 40-acre spacing oil pool, does it not? 24 А Yes, sir, it does. 25 Q You simply get a 40-acre oil allowable

10 1 and you have to allocate that among the wells on that 2 spacing unit? 3 Yes, sir, you do. А 4 There are existing within that spacing Q 5 unit other locations that would be standard locations 6 within the drilling window, would they not be? 7 Yes, sir. А 8 0 But the question -- the objection is 9 what, sir? 10 objection was to maximize the dis-А The 11 tance away from the two wellbores that were -- the two 12 wellbores being the No. 1 Well and the No. 2 Well. 13 Q A standard location, then, would put you 14 within the area of drainage influence of the existing 15 wells? 16 А Yes, sir, it sure would. 17 Q And the proposed unorthodox location at 18 least attempts to avoid the prior drainage of those wells. 19 Yes, sir, it does. А 20 Q Do you have anything else to present, 21 Mr. Herring? 22 А Yes, sir, we've got Exhibit Four, which 23 is a waiver of objection from Marbob Energy Corporation 24 dated December 19th, 1988. 25 Q Does that conclude your presentation?

11 1 А Yes, sir, it does. 2 MR. KELLAHIN: Mr. Examiner, 3 we move the introduction of Meridian Oil, Inc's Exhibits 4 One through Four. 5 Is there objection? MR. LYON: 6 Exhibits One through Four will be admitted into the record. 7 8 CROSS EXAMINATION 9 BY MR. LYON: 10 Mr. Herring, did anybody in the Division Q 11 explain to you why that your original application couldn't 12 be handled administratively? 13 Well, the way it was explained to us is А 14 that it was not a standard 40-acre location, that being 330 15 off either quarter quarter section line. That was the only 16 explanation that we received. 17 I suspect that the problem with your Q 18 original application, I think you were proposing to drill 19 1320 feet from the east line? 20 Yes, sir. Α 21 Q We just have an abhorrence of people 22 drilling on the quarter quarter section line, because then 23 it's not completed in any unit and so forth and we gener-24 ally prefer that you locate at least 10 feet away from that 25 line.

12 1 Referring to Exhibit One, the wells with 2 the circle around them are your injection wells? 3 Yes, sir. А 4 Do you show the injection well on Mar-0 5 bob's operation in the same manner? 6 А No, sir, I don't. They have, out of the 7 three tracts that I described, they have no injection on 8 those three tracts. 9 I see. So you are not injecting off-0 10 setting your common property line. 11 А No, sir. 12 (Unclear) Q 13 А No, sir. 14 That's all the MR. LYON: 15 questions I have. 16 MR. KELLAHIN: That concludes 17 our presentation, Mr. Examiner. 18 LYON: A11 right, the MR. 19 witness may be excused and we'll take the case under ad-20 visement. 21 22 (Hearing concluded.) 23 24 25

CERTIFICATE SALLY W. BOYD, C. S. R. DO HEREBY I, CERTIFY that the foregoing Transcript of Hearing before the Oil Conservation Division (Commission) was reported by me; that the said transcript is a full, true and correct record of the hearing, prepared by me to the best of my ability. Sally les, Boyd CSR I do heres as in that the foregoing is a complete record of the proceedings in the Examiner hearing of Case No. 2577. neard by me on Jan 18 19 89 Oil Conservation ., Examiner Division