

1 STATE OF NEW MEXICO
2 ENERGY, MINERALS AND NATURAL RESOURCES DEPARTMENT
3 OIL CONSERVATION DIVISION
4 STATE LAND OFFICE BUILDING
5 SANTA FE, NEW MEXICO

6 23 August 1989

7 EXAMINER HEARING

8 IN THE MATTER OF:

9 Application of Meridian Oil, Inc. for a
non-standard gas proration unit, San
Juan County, New Mexico, and

CASE
9730

10 Application of Meridian Oil, Inc. for a
non-standard gas proration unit, San
11 Juan County, New Mexico, and

CASE
9731

12 Application of Meridian Oil, Inc. for a
non-standard gas proration unit, San
13 Juan County, New Mexico.

CASE
9732

14 BEFORE: David R. Catanach, Examiner
15
16

17 TRANSCRIPT OF HEARING

18 A P P E A R A N C E S
19

20 For the Division:

21 For Meridian Oil, Inc.:

22 W. Thomas Kellahin
Attorney at Law
23 KELLAHIN, KELLAHIN & AUBREY
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CASE 9732

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Meridian Exhibit One, Letter

Meridian Exhibit Two, Forms

Meridian Exhibit Three, Waiver

Meridian Exhibit Four, Plat

Meridian Exhibit Five, Map

1 MR. CATANACH: At this time
2 we'll call Case 9730, application of Meridian Oil, Inc.,
3 for a nonstandard gas proration unit, San Juan County, New
4 Mexico.

5 Appearances in this case.

6 MR. KELLAHIN: Mr. Examiner,
7 I'm Tom Kellahin of the Santa Fe law firm of Kellahin,
8 Kellahin & Aubrey. I'm appearing on behalf of the appli-
9 cant.

10 At this time we'd like for you
11 to call, and we would request that you consolidate for
12 hearing purposes, Case 9731 and Case 9733, along with the
13 hearing in Case 9730.

14 MR. CATANACH: Any objections
15 to that?

16 At this time we'll call Case
17 9731, the application of Meridian Oil, Inc., for a non-
18 standard gas proration unit, San Juan County, New Mexico,
19 and Case 9732, the application of Meridian Oil, Inc., for a
20 nonstandard gas proration unit, San Juan County, New
21 Mexico.

22 Are there appearances in any
23 of these three cases, any other appearances?

24 You may proceed, Mr. Kellahin.

25 MR. KELLAHIN: Mr. Examiner, I

1 have two witnesses to be sworn in this case.

2 MR. CATANACH: Will the wit-
3 nesses please stand and be sworn?

4

5 (Witnesses sworn.)

6

7 MR. KELLAHIN: Mr. Examiner,
8 may the record reflect that Mr. Alexander has already qual-
9 ified as an expert petroleum landman.

10 MR. CATANACH; The record
11 shall so reflect.

12

13

14 ALAN ALEXANDER,
15 being called as a witness and being duly sworn upon his
16 oath, testified as follows, to-wit:

17

18

DIRECT EXAMINATION

19 BY MR. KELLAHIN:

20

21 Q Mr. Alexander, let me ask you to take
22 one of the exhibit packages and perhaps we'll take the
23 first one for Case 9730. Would you go to the last exhibit,
24 which is behind Tab No. 5, let's have you pull that out and
25 we'll display that before the hearing examiner.

26

27 MR. CATANACH: I'm sorry,
28 where are you at?

1 MR. KELLAHIN: Just the last
2 page of the exhibit book. It should be Exhibit Number
3 Five.

4 Q Let's use this display, Mr. Alexander,
5 if you please, as a way to describe for the Examiner what
6 the problem is and what solution you propose for that
7 problem.

8 First of all, let's take a moment and
9 orient the Examiner as to the well names with the Oil
10 Commission case numbers.

11 The first case is 9730 and that applies
12 to which well, sir?

13 A That applies to the Allison Unit No. 133
14 Well.

15 Q And where do we find that on Exhibit
16 Number Five?

17 A You'll see that located in the north
18 half of Section 7 of 32 North, 7 West, and it should have a
19 -- in your booklet it should have a blue outline around
20 that particular unit.

21 Q In Case 9731 we're dealing with which of
22 the Allison Unit wells?

23 A We're dealing with the Allison Unit No.
24 124 Well.

25 Q And then finally for Division Case 9732,

1 which of the Allison Unit wells does that apply?

2 A That applies to the No. 103 Well.

3 Q Within the exhibit package books you
4 have specifically detailed Commission Form C-102 plats
5 showing the acreage and the well location for each of the
6 wells?

7 A That's correct.

8 Q Before we go to those, let's use this
9 Exhibit Five as a method to describe, first of all, what --
10 what is the problem you're seeking to solve?

11 A We have three existing wells and they're
12 located in the northern part of the Township 32 North, 6
13 West, and 32 North, 7 West, which contains nonstandard ir-
14 regular sections, governmental sections, and we do need to
15 construct units since we cannot form regular 320 acre units
16 all the way across the township, and we do need nonstandard
17 proration units to dedicate as close as proximate that we
18 can to 320 acres for each of these Fruitland coal wells.

19 We do not have a unit dedicated for each
20 of these wells at this point in time.

21 Q The irregular shaped and sized sections
22 is a result of governmental surveys?

23 A That's correct.

24 Q Along the northern portion of this town-
25 ship?

1 A That is correct.

2 Q Have you solved that problem for other
3 producing formations other than the Fruitland coal gas
4 formation?

5 A Yes, we have. There are existing pro-
6 ration units for both the Mesaverde and the Dakota forma-
7 tions in this area.

8 Q When we look at the Allison 103 Well for
9 Case 9732, does that particular shaped nonstandard prora-
10 tion unit form, and has it been approved by the Division,
11 for other formations?

12 A Yes, sir, it has. It's been approved
13 for the Dakota formation.

14 Q When we look at the next nonstandard
15 unit to the east, the Allison 124 Well, has that been
16 previously approved as a nonstandard unit for any other
17 formation?

18 A Yes, sir, for the Mesaverde formation.

19 Q And then finally looking at the Allison
20 133, has that been approved for any other formation as a
21 nonstandard unit?

22 A Yes, it has been approved for the Mesa-
23 verde formation.

24 Q From a landman's perspective, Mr. Alex-
25 ander, why are you recommending to the Examiner that we use

1 the same nonstandard units as units for the Fruitland coal
2 gas production?

3 A I would recommend that we use it be-
4 cause we already have the rights and equities established
5 in most of these units. We do have Mesaverde production in
6 this unit and we have Division orders already set up and in
7 place for that formation and it would be a very simple
8 matter and it would follow quite well for the other working
9 interest owners to use the same units for the Fruitland
10 coal, also.

11 Q During the course of administrating
12 these nonstandard units for either Mesaverde or Dakota
13 production, have you received as the operator for those
14 wells any objection from any royalty or working interest
15 owners about the shape of those units?

16 A No, sir, we have not.

17 Q It seems to have worked in the past for
18 those other formations?

19 A That's correct.

20 Q Have you stranded, isolated, or omitted
21 acreage that might otherwise be dedicated to a producing
22 coal gas well?

23 A We have not.

24 Q The solution, then, is one that fits one
25 spacing unit to another so there in fact is no isolated

1 acreage?

2 A That's correct.

3 Q Or acreage that's omitted from partici-
4 pation in some Fruitland coal gas well.

5 A That's correct.

6 Q In making the solution or arriving at a
7 solution on the various shapes, is the total number of
8 acres dedicated to each of the nonstandard units compar-
9 able?

10 A Yes, they are comparable. They're not
11 identical and they are, of course, not 320, since it is
12 nonstandard, but they are very close to 320 and they are
13 all comparable sized units.

14 Q Let's go through some of the specifics
15 now of the exhibit book for 9730 and have you simply turn
16 to the exhibits behind display Tab No. 1. What have you
17 shown here?

18 A This is a copy of the letter dated
19 August 1st, 1989, that we received from Mr. Stogner in-
20 forming us that due to the nature of the proration units
21 that we would have to set those for hearing instead of
22 obtaining them by administrative approval.

23 Q In each of these three cases Meridian
24 originally applied for administrative approval of nonstand-
25 ard units?

1 A That's correct.

2 Q Have you satisfied yourself that the
3 well locations for each of these wells are at orthodox,
4 standard well locations?

5 A They are except for the No. 103 Well,
6 which we have an approved nonstandard location.

7 Q And that, a copy of the NSL order ap-
8 proving that location is attached in the exhibit book?

9 A That's correct.

10 Q Having filed these administratively, Mr.
11 Alexander, what did you do about notifying any offsetting
12 operator of your nonstandard unit?

13 A The only offsetting operator that we had
14 with these three applications would have concerned the No.
15 133 Allison Well.

16 The other two wells are fully within the
17 Allison Federal Unit and the offset operator, of course,
18 would be the unit operator, who is El Paso Natural Gas Com-
19 pany.

20 Q Take a moment and using Exhibit Number
21 Five in the exhibit book, show us how we find the outer
22 boundary of the Allison Unit that applies to this area.

23 A The outer boundary of the Allison Unit
24 is denoted by the hatched marking that you will see, a
25 series of dashes, long and short dashes. I believe that it

1 is quite evident, that you can pick it out.

2 Q Each of these three spacing units, then,
3 falls within the Allison Unit operated by Meridian?

4 A That is correct.

5 Q Are there different participating areas
6 within this unit that will affect each of these wells?

7 A The Allison Unit is a participating area
8 type unit. We do have the Mesaverde participating area es-
9 tablished and we are currently working on the Fruitland
10 coal; however, that participating area is for regulatory
11 purposes in that the Allison Unit was amended many years
12 ago and it is currently a fixed interest unit for the
13 working interest owners from the surface to the base of the
14 Dakota. So there is no difference among the working inter-
15 est owners as to when a well would be drilled and when it
16 would be included in a participating area.

17 Q Let's identify the interest owner that
18 received notification, Mr. Alexander, that is a party other
19 than Meridian or El Paso. What -- what is that entity?

20 A That entity is Tiffany Oil and Gas, lo-
21 cated in Farmington, and they offset the Allison No. 133
22 Unit and it's an extreme offset. I'm not sure we were even
23 required to notify them but they are in portions of Section
24 23 on the Colorado side of the border.

25 Q Did you receive a waiver back from Tif-

1 fany?

2 A Yes, we did.

3 Q And is that waiver included in your
4 exhibit book?

5 A It is included.

6 Q Where will we find that in the exhibit
7 package?

8 A That would be located under Tab Number
9 Three, and it is the first sheet, I believe you'll find in
10 there. It is an executed waiver from Tiffany Gas Company.

11 Q Have you received any objection from any
12 of the working interest owners or royalty owners that off-
13 set you or participate in this property to approval of
14 these units?

15 A We have not.

16 Q Without going through each of the exhi-
17 bit books, let's use the exhibit book for 9730 and have you
18 identify the rest of the information.

19 Behind Tab Number Two, what have you in-
20 cluded, Mr. Alexander?

21 A We've included the New Mexico Oil Con-
22 servation Commission Form 101, which is an application to
23 drill.

24 We've included their From C-102, which
25 is the basic plat of the acreage.

1 Q And this will give the dimensions of the
2 lots, the acreage, and the well location?

3 A That is correct.

4 We've included a Form C-103, where ap-
5 propriate, which would be a sundry notice to correct or
6 update information. In the case of the No. 133 Well, we
7 had a C-103 included which would show our revised location
8 of the well and an approval from the Aztec office.

9 Behind Tab Three we have, as we have
10 previously discussed, we have shown the offset operators
11 and the offset operator plats, and in the case of the Alli-
12 son No. 103 Well we have also included the approved NSL for
13 the location for the Allison No. 103 Well.

14 Q When we look behind Tab Four, what have
15 you put in the exhibit book at that point?

16 A Tab Four is a plat, a land plat, showing
17 existing Mesaverde or Dakota proration units in the imme-
18 diate area of the three cases we're hearing today.

19 The plat behind the Mesaverde plat is a
20 plat showing the current Fruitland Coal units that have
21 been established in this area.

22 Q Do you have an opinion, Mr. Alexander,
23 as to whether the Division can approve these applications
24 and do so without violating correlative rights of any of
25 the affected parties?

1 Q Okay. Does the boundary of the Allison
2 Unit extend only to the top of Sections 9 and 10, is that
3 correct?

4 A No, sir. That was intended to show the
5 Colorado/New Mexico border. The Allison Unit actually ex-
6 tends to the row of sections north of that.

7 Q And is it bounded on the west by Sec-
8 tion, the western edge of Section 9?

9 A In New Mexico that is correct. I be-
10 lieve it extends up and is bounded by Section 23 in Colo-
11 rado, directly north of that as you'll see on the plat.

12 Q So there are -- there are no other af-
13 fected offset operators besides Tiffany, is that correct?

14 A Yes, sir, that's correct. The remainder
15 of the proration units are bounded and actually, as I said,
16 even on the 133 Well, the Allison Unit actually is the sur-
17 rounding tracts surrounding that proration unit, too, but
18 Tiffany is close enough that we went ahead and notified
19 them as a precaution.

20 Q Has the -- have these nonstandard pro-
21 ration units proved to be an efficient way to produce this
22 acreage?

23 A Yes, sir, and the reason, more particu-
24 larly is, again, this is a fixed interest unit and the
25 division of acreage probably is not as important when

1 you're in a fixed interest unit, as long as you have a
2 proper allocation and acreage per well. The actual shape
3 of it is really not that important in my opinion.

4 MR. CATANACH: That's all the
5 questions I have of this witness. He may be excused.

6
7 PATRICK W. BENT,
8 being called as a witness and being duly sworn upon his
9 oath, testified as follows, to-wit:

10
11 DIRECT EXAMINATION

12 BY MR. KELLAHIN:

13 Q Would you please state your name and
14 occupation?

15 A Patrick Bent, Senior Staff Reservoir En-
16 gineer for Meridian Oil.

17 Q Mr. Bent, on prior occasions you've tes-
18 tified before the Division as a petroleum engineer, have
19 you not, sir?

20 A Yes, I have.

21 Q And on behalf of your company you have
22 made a review of the geology and the engineering that ap-
23 plies to the three nonstandard proration unit wells that
24 are the subject of this hearing?

25 A Yes, particularly the engineering, that

1 is correct.

2 MR. KELLAHIN: We tender Mr.
3 Bent as an expert petroleum engineer.

4 MR. CATANACH; He is so qual-
5 ified.

6 Q Mr. Bent, let me use for illustration
7 purposes Exhibit Number Five in the case book for Case
8 9730.

9 Were you asked to study to determine
10 whether or not there were any adverse consequences in terms
11 of developing the Fruitland coal gas reservoir using these
12 particular nonstandard proration units as the acreage to be
13 dedicated to these three wells?

14 A Yes, sir.

15 Q In making that study, Mr. Bent, to what
16 purpose did you utilize the Fruitland coal thickness map
17 that's shown as part of the information on this exhibit?

18 A We used that in determining estimated
19 recoverable reserves.

20 Q You'll have to speak up just a little
21 bit, Pat.

22 Do you see any reason from an engineer's
23 perspective not to use the nonstandard unit solutions that
24 have been previously adopted either for the Dakota forma-
25 tion or the Mesaverde formation?

1 A No, I do not.

2 Q In terms of location of the wells in
3 each of the spacing units, do you have a logical and con-
4 sistent pattern that will hopefully give you the 320-acre
5 spacing that's required for those wells?

6 A Yes, we feel we do, or as near to 320 as
7 possible.

8 Q Describe for us, when we look at our
9 spacing units, the various thicknesses of any of the coal
10 that we see displayed on the net thickness map. What are
11 the ranges of thickness present?

12 A From the two isopach lines shown from
13 about, approximately 25 to 20 feet of net coal thickness.

14 Q Based upon your experience with the
15 Fruitland coal gas wells, does a thickness ranging from 20
16 to 30 feet, within that range is there a material differ-
17 ence in the quality of the gas wells that produce in rela-
18 tion to the thickness?

19 A No, sir, not that much of a difference.

20 Q If you had the opportunity to redo the
21 spacing units and the well locations, would you select any
22 other solution than what has been presented in the hearing
23 today?

24 A Not at this time. To follow the Mesa-
25 verde and Dakota convention would be our solution again.

1 Q From an engineering aspect you see no
2 problems with continuing the solution for these spacing
3 units and have that applied in the Fruitland coal gas?

4 A No. Due to the spacing of the wells we
5 feel that the number of wells allocated will efficiently
6 drain the acreage allocated and due to the fact that it's
7 unitized, correlative rights will be protected.

8 Q Okay.

9 MR. KELLAHIN: That concludes
10 my examination of Mr. Bent, Mr. Catanach, we would at this
11 time move the introduction of Meridian's Exhibits One
12 through Five in each of the three cases.

13 MR. CATANACH: Exhibits One
14 through Five in Cases 9730, 9731 and 9732 will be admitted
15 as evidence.

16

17

CROSS EXAMINATION

18 BY MR. CATANACH:

19 Q Mr. Bent, where were your -- where your
20 Dakota and Mesaverde wells located in relation to the pro-
21 posed coal wells within -- pretty close?

22 A On the 103, I believe that's the Mesa-
23 verde in the north -- or the southeast corner, and the
24 Dakota just offset as the 103.

25 Q The Mesaverde is just offset to the 103?

1 A Yes, I believe it's a twinned location.

2 MR. KELLAHIN: That informa-
3 tion is shown, is it not, Mr. Bent, on the --

4 A Behind Tab 4.

5 MR. KELLAHIN: -- behind Tab 4
6 in the exhibit book in Exhibit Book 9732? Is that what
7 you're looking at, sir?

8 A Yes.

9 MR. KELLAHIN: Let's look at
10 that for a moment. In Case 9732 we're looking at the plat
11 behind Tab 4, and there's -- the hot pink or the --

12 A That's correct.

13 MR. KELLAHIN: -- dot there,
14 what does that show? That's the --

15 A That's the location of the Fruitland
16 well, the No. 103.

17 MR. KELLAHIN: Okay, where --
18 where is the Dakota well?

19 A I believe in the southeast corner of the
20 unit, Section 10, in the square.

21 MR. KELLAHIN: On this dis-
22 play, then, the gas well symbol with the square around it
23 is a Dakota well?

24 A I believe so.

25 MR. KELLAHIN: All right, and

1 when we look at a gas well symbol with a circle around it,
2 is that the Mesaverde well?

3 A That's -- that's correct.

4 MR. KELLAHIN: And the Exa-
5 miner can find a relationship of those wells by examining
6 this plat in each of the exhibit books?

7 A That is correct.

8 Q Then is it your opinion that these pro-
9 posed coal locations will effectively drain each of these
10 proration units?

11 A I think with the spacing that we have
12 for the wells in the northernmost row of sections, that
13 those wells will effectively and efficiently drain the
14 acreage involved.

15 MR. CATANACH: I have no fur-
16 ther questions of the witness. He may be excused.

17 Anything further in these
18 cases?

19 Being nothing further, Case
20 9730, 9731 and 9732 will be taken under advisement.

21

22 (Hearing concluded.)

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C E R T I F I C A T E

I, SALLY W. BOYD, C. S. R. DO HEREBY 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 W. Boyd CSR

I do hereby certify that the foregoing is a complete record of the proceedings in the Examiner hearing of Case No. 9730, 9731, 9732 heard by me on August 23, 1989.

David R. Cetera, Examiner
Oil Conservation Division