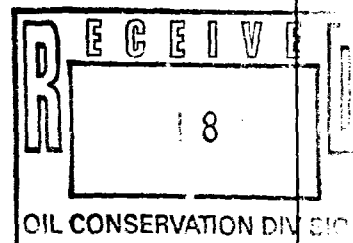


STATE OF NEW MEXICO

ENERGY, MINERALS AND NATURAL RESOURCES DEPARTMENT

OIL CONSERVATION COMMISSION



IN THE MATTER OF THE HEARING)
 CALLED BY THE OIL CONSERVATION)
 COMMISSION FOR THE PURPOSE OF)
 CONSIDERING:)
)
 RULE 303.C HEARING)
 _____)

CASE NO. 11,353

REPORTER'S TRANSCRIPT OF PROCEEDINGSCOMMISSION HEARING**ORIGINAL**

BEFORE: WILLIAM J. LEMAY, CHAIRMAN
 WILLIAM WEISS, COMMISSIONER
 JAMI BAILEY, COMMISSIONER

August 3rd, 1995

Santa Fe, New Mexico

This matter came on for hearing before the Oil Conservation Commission on Thursday, August 3rd, 1995, 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.

* * *

STEVEN T. BRENNER, CCR
 (505) 989-9317

I N D E X

August 3rd, 1995
 Commission Hearing
 CASE NO. 11,353

	PAGE
EXHIBITS	3
APPEARANCES	4
APPLICANT'S WITNESS:	
<u>DAVID R. CATANACH</u>	
Direct Examination by Mr. Carroll	6
Examination by Commissioner Bailey	11
Examination by Chairman LeMay	12
CONOCO WITNESS:	
<u>JERRY HOOVER</u> (Engineer)	
Direct Examination by Mr. Kellahin	15
Examination by Commissioner Weiss	28
Examination by Commissioner Bailey	29
Examination by Chairman LeMay	30
Further Examination by Commissioner Weiss	36
Further Examination by Chairman LeMay	37
Examination by Mr. Carroll	41
Further Examination by Chairman LeMay	44
Further Examination by Mr. Kellahin	46
Further Examination by Chairman LeMay	47
MERIDIAN WITNESS:	
<u>SCOTT B. DAVES</u> (Engineer)	
Direct Examination by Mr. Kellahin	51
Examination by Commissioner Weiss	63
Examination by Commissioner Bailey	71
Examination by Chairman LeMay	72

(Continued...)

STATEMENT ON BEHALF OF POGO PRODUCING COMPANY:

By Mr. Bruce 84

STATEMENT ON BEHALF OF AMOCO:

By Mr. Hawkins 87

REPORTER'S CERTIFICATE 90

* * *

E X H I B I T S

Applicant's	Identified	Admitted
Exhibit 1	7	11

* * *

Conoco		
Exhibit 1	14	27
Exhibit 2	14	27
Exhibit 3	14	27

* * *

A P P E A R A N C E S

FOR THE COMMISSION:

CAROL LEACH
General Counsel
Energy, Minerals and Natural Resources Department
2040 South Pacheco
Santa Fe, New Mexico 87505

FOR THE OIL CONSERVATION DIVISION:

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

FOR NEW MEXICO OIL AND GAS ASSOCIATION;
CONOCO, INC.; and MERIDIAN OIL, INC.:

KELLAHIN & KELLAHIN
117 N. Guadalupe
P.O. Box 2265
Santa Fe, New Mexico 87504-2265
By: W. THOMAS KELLAHIN

FOR AMOCO PRODUCTION COMPANY:

CAMPBELL, CARR & BERGE, 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 1:22 p.m.:

3 CHAIRMAN LEMAY: Call Case Number 11,353, which
4 is the Application of the Oil Conservation Division to
5 amend Rule 303.C, pertaining to downhole commingling.

6 Appearances in Case Number 11,353?

7 MR. CARROLL: Yes, Mr. Chairman, my name is Rand
8 Carroll, appearing on behalf of the Oil Conservation
9 Division. I have one witness to be sworn.

10 CHAIRMAN LEMAY: Thank you, Mr. Carroll.

11 Additional appearances? Mr. Kellahin?

12 MR. KELLAHIN: Mr. Chairman, I'm Tom Kellahin of
13 the Santa Fe law firm of Kellahin and Kellahin, appearing
14 on behalf of the New Mexico Oil and Gas Association;
15 Conoco, Inc.; and Meridian Oil, Inc.

16 I have three witnesses to present.

17 CHAIRMAN LEMAY: Thank you. Mr. Carr?

18 MR. CARR: May it please the Commission, my name
19 is William F. Carr with the Santa Fe law firm Campbell,
20 Carr and Berge. I'd like to enter an appearance in this
21 case for Amoco Production Company.

22 We may have one witness, or we may present a
23 statement, depending on where we are at the end of the
24 other testimony.

25 CHAIRMAN LEMAY: Thank you, Mr. Carr.

1 Those witnesses that will be giving testimony,
2 would you please stand and raise your right hand?

3 (Thereupon, the witnesses were sworn.)

4 CHAIRMAN LEMAY: Mr. Carroll, you may proceed.

5 DAVID R. CATANACH,
6 the witness herein, after having been first duly sworn upon
7 his oath, was examined and testified as follows:

8 DIRECT EXAMINATION

9 BY MR. CARROLL:

10 Q. Mr. Catanach, would you please state your name
11 and your employer and your position with your employer for
12 the record, please?

13 A. Yes, my name is David Catanach. I work for the
14 New Mexico Oil Conservation Division in the Santa Fe office
15 as a petroleum engineer and a hearing examiner.

16 Q. And what do your duties include as petroleum
17 engineer and hearing examiner?

18 A. My duties include the review of administrative
19 applications for exceptions to the rules and hearing some
20 exception cases at public hearings, and that does include
21 downhole commingling applications.

22 Q. And have you testified before the Oil
23 Conservation Commission before and had your qualifications
24 as a petroleum engineer accepted?

25 A. Yes, I have.

1 MR. CARROLL: Mr. Chairman, I offer Mr.

2 Catanach's qualifications as a witness.

3 CHAIRMAN LEMAY: They are acceptable.

4 Q. (By Mr. Carroll) Mr. Catanach, have you prepared
5 proposed changes to Rule 303 that concern downhole
6 commingling?

7 A. Yes, Mr. Carroll, in consultation with some other
8 Division employees I've prepared some minor changes to the
9 303.C Downhole Commingling Rule.

10 Q. And why are these changes being made?

11 A. Some of the changes that are being made were
12 suggested by some industry personnel that we've had some
13 contact with, including Meridian and Amoco.

14 Q. And could we go through what has been marked as
15 OCD Exhibit Number 1, and can you tell the Commission what
16 changes were made and why?

17 A. Okay, probably -- We have just a couple of major
18 changes, and probably it would be best to go over those
19 first.

20 On the first page of Exhibit Number 1, down at
21 the bottom, is item number -- labeled number (vi), or six.

22 What the Division is proposing to do is to delete
23 this requirement, and this is a requirement that in a well,
24 within the zones to be commingled in the well, that the
25 application is automatically set to hearing before a

1 Division Examiner.

2 And what we're proposing to do is eliminate that
3 requirement so that even though there is diverse ownership,
4 industry can apply for administrative approval for these
5 applications. And that required the deletion of that item
6 number (vi), and that was under the paragraph for wells
7 involving oil zones.

8 And on the next page, under item (b) (v), was the
9 same requirement, and that was for wells involving a gas
10 zone. So what we did -- what we're proposing to do is just
11 eliminate that paragraph as well, from that section (b).

12 The next change, the next major change, was on
13 page 3 of that exhibit, and this is contained within
14 paragraph number (10), which now requires that the operator
15 who is applying for a downhole commingling permit notice
16 the Commissioner of Public Lands for the State of New
17 Mexico.

18 That was not previously contained within the
19 Rule, and we've had some discussions with some personnel
20 from the Commissioner of Public Lands office, and we've
21 become aware that they do require that applicants file an
22 application with them for downhole commingling. So we're
23 just adding that to our rules so that the industry is aware
24 that that's a requirement.

25 Paragraph (11) is something new that we're

1 adding, and this is a direct result of the change in the --
2 on page number 1, where we're now going to require that if
3 there is diversity of ownership between the commingled
4 zones, that we're going to require that notice be provided
5 to working royalty and overriding royalty interest owners
6 within both of the zones in the commingled wellbore, and
7 that's going to be for administrative approval.

8 Those are the major changes that we've got
9 proposed for this rule.

10 The other changes are just basically some simple
11 language changes. I can go over those if you'd like.

12 Q. Yeah, if you would, just briefly.

13 A. On the first page, in Section C (1), we're
14 eliminating "oil-oil, gas-gas or gas-oil zones in a well",
15 and we're simply replacing that with "multiple producing
16 zones", and that's kind of to reflect that the Division now
17 is more willing to permit downhole commingling for multiple
18 zones in a wellbore.

19 The next change is in paragraph (iii), about
20 midway down the page. We're just replacing "Neither"
21 zone -- or "Neither" -- for "No" zone, "Neither" being a
22 reference to maybe two zones.

23 Page 2, we're simply -- in paragraph (vi) we're
24 changing -- because of the deletion of paragraphs --
25 previous paragraph (vi), we're going to change that to new

1 paragraph (vi), and changing the words, the language
2 "either" in that paragraph for "any" of the zones.

3 Q. Mr. Catanach, maybe we'll just skip to E on page
4 3 and go over that change, and that will be it for our
5 proposed changes.

6 A. Okay. In paragraph E we've added the language,
7 "from any offset operator and/or interest owner". Before,
8 that was not in there, and we've just added that for
9 clarification.

10 And in the bottom of that paragraph we've added
11 "and [section] 11", which includes the interest owners.

12 And that's basically it.

13 There's one minor change in paragraph G, just
14 "the" for "both".

15 Q. So the purpose of this rule change is to provide
16 for administrative approval rather than having to go to
17 hearing on downhole commingling; is that correct?

18 A. Right, it just gives operators more flexibility
19 and doesn't require what we consider to be sometimes
20 unnecessary expense that the applicants have to come up for
21 a public hearing.

22 Q. But they still -- They're still required to give
23 notice and, if objections are filed, it will go to hearing;
24 is that correct?

25 A. That's correct.

1 Q. Is it your opinion that the approval of these
2 proposed changes to 303 would aid the Division in its
3 statutory mandate to prevent waste and protect correlative
4 rights?

5 A. Yes, I do, and I think it would aid industry and
6 reduce some of the operating expenses maybe industry incurs
7 in obtaining approval for some of these wells.

8 Q. Mr. Catanach do you have anything to add at this
9 time?

10 A. No, I do not.

11 MR. CARROLL: Mr. Chairman, I offer what has been
12 marked OCD Exhibit Number 1 into the record, and that's all
13 I have in this matter.

14 CHAIRMAN LEMAY: Without objection, Exhibit 1
15 will be entered into the record.

16 Questions of the witness? Come on, guys, it's
17 your only chance to get this Examiner here. You're very
18 nice to him.

19 Commissioner Weiss?

20 COMMISSIONER WEISS: I have no questions.

21 CHAIRMAN LEMAY: Commissioner Bailey?

22 EXAMINATION

23 BY COMMISSIONER BAILEY:

24 Q. Are there any plans to consolidate the three
25 different types of forms that industry has to use if their

1 proposed commingling --

2 A. Well, right now, Ms. Bailey, the Division does
3 not have a form that has to be utilized for filling these
4 out, so I haven't had any discussions with the Land Office
5 or the BLM concerning any forms.

6 COMMISSIONER BAILEY: That's all.

7 EXAMINATION

8 BY CHAIRMAN LEMAY:

9 Q. Mr. Catanach, any contact at all with the BLM in
10 terms of what they think about this rule or whether they're
11 going to be concurring with what we do in downhole
12 commingling?

13 A. I have not had any discussions with any BLM
14 personnel, Mr. Chairman, so I can't say whether or not
15 they're in favor or against this.

16 CHAIRMAN LEMAY: Any other questions of the
17 witness?

18 If not, he may be excused. Thank you, Mr.
19 Catanach.

20 Mr. Kellahin?

21 MR. KELLAHIN: Mr. Chairman, on behalf of the New
22 Mexico Oil and Gas Association, as Chairman of their
23 Regulatory Practices Committee, we initiated an industry
24 survey with regards to downhole commingling in much the
25 same manner as we did for the prior case.

1 In addition, I called upon my clients, for whom I
2 had presented maybe 50 or 60 downhole commingling cases
3 before the Examiner, to utilize their expertise in
4 broadening the scope of the rule change.

5 In addition, I invited Mr. Carr and his client,
6 Amoco, and particularly Mr. Bill Hawkins, to participate.

7 Mr. Jerry Hoover with Conoco has taken the
8 initiative to be the draftsman for the suggested changes
9 we're about to show you, but they represent the consensus
10 of NMOGA's Rule 303 Committee, and all Committee members
11 are currently present and available to answer questions,
12 should you have any.

13 And for the record, those parties that have
14 participated and shared their talents: Mr. Hoover with
15 Conoco; Scott Daves is an engineer with Meridian in
16 Farmington; Alan Alexander is a landman in Farmington with
17 Meridian; Bill Hawkins and Pam Staley, Amoco technical
18 personnel from Denver, Colorado.

19 In addition, we have utilized Ruth Andrews of the
20 Association to distribute drafts and materials, and as a
21 result have a partial list of responses.

22 We would very much like to do in this case what
23 you have permitted us to do in the last case, and that is
24 to discuss with you broadening the scope of a rule change,
25 to address industry's concern, let us then continue this

1 case to the September docket, and recognize this working
2 Committee as a group of technical people to then talk to
3 Mr. Catanach and other Division employees, as well as BLM
4 people if that's appropriate, so that we can come back to
5 you in six weeks and provide to you what we think is a
6 definitive, final consensus document for your decision.

7 With that introduction, then, I would like to
8 call Mr. Jerry Hoover who will present to you the rule
9 changes.

10 Mr. Alexander will discuss to you the commingling
11 issues from a landman's perspective.

12 Scott Daves has done a great many of these cases
13 as an engineer with regards to economic justifications,
14 additional recoveries from the reservoir enhanced by
15 commingling, and he's come up with Division-approved
16 methodology for allocation of production among commingled
17 zones on a fair and appropriate basis.

18 Mr. Hawkins provides his own expertise in those
19 areas for his company, and he's certainly available.

20 I'll hand out Mr. Hoover's exhibits, but they are
21 worked on by the whole Committee, and they represent a
22 Committee consensus.

23 There are three parts to the handout. One is,
24 Mr. Hoover has taken his handout and provided comments.
25 The other handout is the actual rule change. And finally,

1 he has duplicated the current rule.

2 An additional point of clarification: Jim Bruce
3 as attorney for Pogo filed a prehearing statement with some
4 suggested rule changes. We have assimilated Pogo's
5 comments and suggestions, and they have been incorporated
6 into this Committee's work product, we believe, and I
7 understand from Mr. Bruce that his client endorses the
8 consensus work at this point, under the NMOGA Committee.

9 So don't let that confuse you. Their work is
10 incorporated in ours, and they now concur with our effort
11 at this point.

12 JERRY HOOVER,
13 the witness herein, after having been first duly sworn upon
14 his oath, was examined and testified as follows:

15 DIRECT EXAMINATION

16 BY MR. KELLAHIN:

17 Q. Mr. Hoover, let's have you begin. If you'll give
18 us an overview, if you will, of how the Committee
19 approached the Rule, and give us a highlight of the major
20 subdivisions for which you are requesting a rule change.

21 A. There are several concerns, one of which was the
22 long list of required data, which was split initially in
23 the regulations between references to oil wells and
24 references to gas wells.

25 So our first attempt was -- in that section,

1 which is Section C of this Rule -- was to try to combine
2 that into a single section addressing all wells and to try
3 to hone that down to the basic conditions that should be
4 addressed for all wells, whether oil or gas.

5 Q. Was there agreement among the technical members
6 of your Committee that that could be accomplished?

7 A. Yes.

8 Q. And it could be accomplished without compromise
9 to correlative rights or prevention of waste?

10 A. That's correct.

11 Q. What then did you do?

12 A. The second task, then, was to look into Section
13 D, which was a list of the actual data or information which
14 was required to be attached to an application.

15 In many cases that we've filed with the
16 Commission and have worked with you on recently, we have
17 discovered that many of these do not apply. In some cases,
18 the Commission has gladly given us exception to some of
19 them, in many cases.

20 So we're finding that perhaps a rigid list of
21 data is not necessarily what we need.

22 We need the proper concepts and the requirement
23 of the proper justification for downhole commingling, and
24 that would automatically draw in whatever data and
25 information is required in order to do that.

1 Q. Was there a consensus among Committee members
2 that you could take the individual components of the
3 current Rule and bundle the essential technical information
4 and reduce it, then, to a couple of subdivisions in the
5 Rule that were comprehensive, by which the operator then
6 could make a selection of the appropriate technical data to
7 satisfy the components of the Rule?

8 A. That was exactly the process which we pursued.

9 Q. Under the current administrative approval for
10 downhole commingling, one of the issues that often comes to
11 hearing by necessity is the fact that each zone has a
12 different ownership.

13 Do you concur in what the Division has proposed
14 in terms of addressing those downhole commingling
15 applications in which there in fact is common ownership in
16 both pools or in all multiple pools to be commingled?

17 A. Yes, that's correct.

18 Q. And how did you solve that?

19 A. With the common interest?

20 Q. Yes, sir.

21 A. Our proposal is that where interests are common,
22 that approval be relegated back to the districts in this
23 type of case, without a requirement for notification.

24 Q. The other components of the proposed industry
25 revision would apply whether that application went to

1 Santa Fe or to the District?

2 A. That's correct.

3 Q. But if there's common ownership, it's your
4 request to have that decision put into the District
5 Supervisor's range of authority?

6 A. That's correct.

7 Q. If they're uncommon ownership, then that would
8 come to Santa Fe?

9 A. Yes.

10 Q. All right. One of the major components for
11 commingling is the predicate that at least one of the zones
12 to be commingled must be demonstrated to be uneconomic; is
13 that not true?

14 A. That is correct.

15 Q. In terms of that criteria, have you broadened the
16 scope by which the agency can authorize commingling to
17 include other items?

18 A. We have. And in fact, this idea has been a
19 result of a number of cases which we've brought recently,
20 where justifying on a basis other than a zone being
21 uneconomical has played a large part in some of the recent
22 cases and has been accepted by the Commission.

23 Q. That basis is in fact improving ultimate
24 recoveries from the reservoir?

25 A. That's correct.

1 Q. And correspondingly, being able to do so without
2 impairing correlative rights, disturbing equity under an
3 allocation formula or otherwise causing waste?

4 A. Yes.

5 Q. Other components in a general, broad sense of the
6 proposed rule changes?

7 A. Perhaps we could just very quickly look at the
8 ingredients of C.

9 Q. All right.

10 A. I don't think it will take but a couple of
11 moments to just at least point out what they are.

12 Q. Let's do that.

13 A. This is where we have condensed -- Initially,
14 there was a C (1) (a) and C (1) (b), the first part dealing
15 with oil, the second part dealing with gas.

16 These are what we feel are the five conceptual
17 ideas that should give adequate control. And the first of
18 these simply deals with the recovery of additional reserves
19 and a more efficient process being as legitimate a reason
20 for doing it as the uneconomical. We just discussed that.

21 The second one is a very important one, one
22 which, as Mr. Kellahin said, bundles up a lot of the data
23 and ideas that were contained in the current rule, and that
24 is the discussion of crossflow, that there is no
25 significant crossflow that will result in the loss of

1 reserves or a problem of allocation.

2 The next concept -- The next three concepts, 3, 4
3 and 5, are basically retained out of the current
4 regulations. They deal with fluid-sensitive sands,
5 incompatibilities of fluids, and possible jeopardizing of
6 secondary recovery.

7 Q. Does the rule proposed in industry rule revisions
8 for 303 include a procedure by way an operator can obtain
9 commingling approval for a new well, as initially drilled
10 for commingle purposes?

11 A. Yes.

12 Q. So the concept would be to continue the historic
13 means of commingling by taking an existing well, and
14 commingling other formations to it, and adding in the
15 chance to drill new wells?

16 A. That's correct.

17 Q. Let's go back to your comments, which are
18 written, and have you summarize for us what you see,
19 particularly in northwest New Mexico, in terms of those
20 ageing reservoirs and why it is now appropriate to have a
21 more sophisticated, modern commingling procedures.

22 A. We're finding that many of these established
23 pools are, to a great extent, mature now. We have pretty
24 well finished primary development on most of them, but we
25 recognize there are many gaps and holes and locations

1 within those units that we operate where there are still
2 reserves underground, but they're not economical to drill
3 under the terms that we are now required to drill them --
4 that is, either as single wells to a single pool or as dual
5 completions with multiple pools.

6 We're leaving reserves behind that do not fit an
7 economical basis in those categories, and we're looking for
8 a way to recover the maximum amount of reserves from these
9 pools.

10 Q. Give us a general idea of how the companies in
11 northwestern New Mexico are going through the process of
12 instituting downhole commingling programs.

13 A. We have put a lot of work and study into our
14 drilling programs and have determined that we can extend
15 our development a great deal if we can cut down on our
16 costs, we can drill slimholes, small casings, and downhole
17 commingle these wells, and we're finding development
18 programs that were not there on another basis.

19 Q. Are companies seeking and obtaining Division
20 approval to take areas and have an entire area defined and
21 approved in which then they can initially drill wells on a
22 commingled basis?

23 A. That's correct. Conoco was in an Examiner
24 hearing just last week for such a case.

25 Q. In response to your efforts to consolidate and

1 modernize Rule 303, is there any substantial disagreement
2 among any of the participants on the Committee as to what
3 ultimately was proposed here, when we look at Conoco
4 Exhibit 1?

5 A. I think the Committee has been almost amazed at
6 the unanimity among the group and how close our comments
7 were when we began to put them together, and we just have
8 not had any problems, really, in merging our thoughts and
9 efforts together in this document.

10 Q. I made reference to Pogo's suggestion which the
11 Committee has addressed and integrated. Give us an example
12 of how the Committee has handled those kinds of things,
13 using the Pogo item as an example.

14 A. The one example that Pogo had in theirs was to
15 provide a means for allowable control, and they suggested
16 that we relate that to the -- in a commingled well, we
17 relate the oil allowable to the allowable of the most
18 shallow zone, of the upper zone in a commingle process, and
19 that's one which we incorporated into this document.

20 Q. Just to give us an illustration of how the
21 Committee went about that item, if you'll look at the
22 current Rule 303 which you have handed out and which was in
23 Mr. Catanach's presentation, if you'll look under Rule 303
24 and find sub C, under (1) (a), then, there is a system by
25 which you come up with a combined oil rate on a daily

1 basis, based upon some kind of depth bracket code here.
2 That's all removed out of your proposed rule, isn't it?

3 A. That's correct.

4 Q. How has that been substituted and with what?

5 A. That has been addressed in Section F, if you'll
6 see the proposed rule which we have worked on, and we've
7 taken Section F and simply inserted in that the suggestion
8 that we use the depth bracket allowable for the upper zone
9 of the commingled well as a control point for that.

10 This is the same paragraph that deals with the
11 gas-oil ratio issue and other similar issues.

12 Q. Let's move back up to your proposed E, if you
13 move farther up on the page.

14 A. Yes.

15 Q. Describe for us what's intended here with this
16 subsection.

17 A. E was our attempt to clarify the approval
18 process. Since we are suggesting a change in approval of
19 some of these applications, we tried to outline what we
20 felt like would be a reasonable approach to the approval
21 process.

22 E (1), for instance, speaks to approval of
23 commingling zones with common interest by the District
24 Supervisor, and our suggestion is that in cases like this,
25 that we use the Form C-103, the notice of intention, with

1 all the attached data that this Rule requires, as the
2 format for applying to the District Office.

3 (2) then, paragraph (2) here, takes the non-
4 common interest cases, directs them to the Division
5 Director here in Santa Fe, it carries the language about
6 the time of -- for objections and the receipt of waivers.

7 And then third, we've simply stated, as would be
8 normal anyhow, that any of these can be bumped up to a
9 different level. For instance, the District Supervisor, if
10 he feels like there are extenuating circumstances or
11 problems, he can send this to the Division Director for
12 action, who can then set it for hearing if need be.

13 Q. Do either you or, to your knowledge, any members
14 of the Committee that were involved in the process, have
15 any knowledge of any downhole commingling case generating
16 and having an offset operator and interest owner appear in
17 opposition to the approval of that commingling request?

18 A. I've never been aware of one.

19 Q. Are you recommending any changes to the notice
20 time in which objections, if any, were to be filed under
21 the existing Rule?

22 A. I don't know if there's a change in the timing.

23 Q. It would be consistent with the --

24 A. I think it's consistent.

25 Q. -- typical 20-day notice period --

1 A. Yes, that's correct.

2 Q. -- that we're currently using?

3 All right. Would you like to summarize for us
4 what you're seeking to do and how you would like to go
5 about doing it?

6 A. Yes, I would. We talked about the basic concepts
7 in Section C.

8 I'd like to just very quickly summarize what
9 we're suggesting as the required attachments or data input
10 in Section D, which we have not covered in detail.

11 Skipping past the (1) and (2), which are our
12 usual information, number (3) was a concern for us, and it
13 shows up in other paragraphs, and it deals with this offset
14 operatorship that Mr. Kellahin just brought up. We do not
15 feel that that is necessary, or at least we don't
16 understand why it's necessary.

17 So we would suggest not requiring that in
18 downhole commingling, which of course changes some of the
19 format of the other issues.

20 (3) dealt with a plat that was required, which
21 required all the offset operators to be included on it.
22 We're suggesting that we only send a Form C-102, the
23 acreage dedication plat, showing the acreage to be
24 dedicated to the well.

25 (4), we concur -- In number (4) there, we concur

1 with the Division that in these cases, all of the interest
2 owners -- working, royalty, override -- must be involved in
3 this process. We have consistently done that, even without
4 it being required.

5 (5) is a statement about fluid compatibility. We
6 feel like that in most of the pools in our state, once
7 we've done compatibility tests between pools, they should
8 be consistent for the most part and that this is not
9 necessarily needed with every Application. Once it's been
10 documented, that should be sufficient.

11 There may be some exceptions to that, and we've
12 provided in the language here that if there are exceptions,
13 that can be dealt with.

14 Number (6) is really the heart of the whole
15 thing. You're going -- If you compare this to the other
16 rule, you may be amazed at how much of the specific
17 requirements we did not include.

18 But we feel like item (6) here, which calls for a
19 formula of allocation and a description of the factors or
20 data used, draws in any of that data or information which
21 the Division or the industry is going to have to use in
22 order to arrive at a formula. But instead of having a
23 rigid list that may or may not apply in every case, this
24 simply says we're going to have to furnish enough data in
25 order to convince everybody that it's -- the case is

1 needed. So we feel like this item right here really covers
2 most of that.

3 Then simply in (7) a statement about the value or
4 the added reserves that we hope to recover.

5 And then (8) is the notification which also added
6 the Commissioner of Public Lands to it.

7 I think we've covered most of the other items.

8 Q. All right. How would you like to proceed, then,
9 with regards to providing the Commission with a finished
10 consensus document on a proposed rule change?

11 A. We would like the opportunity to -- Although
12 we've had about four companies involved with this directly,
13 and some others indirectly, we would like the opportunity
14 to get further input from the industry as well as the
15 Division on our basic document, and come back hopefully
16 with a finished document at the next hearing.

17 MR. KELLAHIN: That concludes my questions of Mr.
18 Hoover.

19 We move the introduction of his Exhibits 1, 2 and
20 3.

21 CHAIRMAN LEMAY: Without objection, Exhibits 1, 2
22 and 3 will be admitted into the record.

23 Questions of Mr. Hoover?

24 Commissioner Weiss?

25 COMMISSIONER WEISS: I have a couple.

EXAMINATION

BY COMMISSIONER WEISS:

Q. I'm not familiar with how the industry currently documents crossflow between zones, such as number (2) in your C (2) here.

A. It has been rather legalistically controlled by a pressure limitation.

The current Rule says that there may not be more than a 50-percent variation in the pressures. Sometimes that controls the situation, sometimes that's not really all that significant.

And particularly in the northwest, in all these tight-sand reservoirs, commingling -- I mean crossflow, is not a big issue unless you're going to shut in a well for a year or an extremely long period of time, which we're not allowed to do anyhow, without some action.

So we feel like it's not generally a big issue. It's one we need to speak to and we need to address and convince everybody that it's not a problem. But we've done it in a different way than saying this one parameter is the key control of that, because it's not always the entire issue.

Q. But there's no measurements required?

A. Not up front. We still have to satisfy these concepts dealing with crossflow, which we've put in here,

1 and it may take some measurements in some cases to do that.

2 Let the case determine what data is needed, is
3 the way we're looking at it.

4 Q. And then in number (5), how is that handled? How
5 do you physically present evidence that says that you're
6 not going to jeopardize future secondary recovery
7 operations?

8 A. That's difficult to answer without a specific
9 case. I mean, it's likely to be different --

10 Q. Can you give me an example of a specific case?

11 A. I don't know that I can, off the top of my head.

12 Q. Well, my point is, I wonder why we have these
13 things in there. Nobody pays any attention to them. We
14 don't measure anything. Why do it?

15 A. Well, I think it's something that -- I do think
16 it needs to be in there, and I think it is a concern. I
17 just don't happen to have a case on the top of my head
18 right now that I can present to you.

19 COMMISSIONER WEISS: That's my only comments.

20 Thank you.

21 CHAIRMAN LEMAY: Commissioner Bailey?

22 EXAMINATION

23 BY COMMISSIONER BAILEY:

24 Q. You reference Form C-103, Application --

25 A. Yes.

1 Q. -- notice of intention --

2 A. That's the sundry notice.

3 Q. To what?

4 A. That's the sundry notice.

5 Q. Oh, okay. that's all.

6 A. The one we use so much with the District.

7 EXAMINATION

8 BY CHAIRMAN LEMAY:

9 Q. Mr. Hoover, I guess I have some of the same
10 concerns that Commissioner Weiss has.

11 The C item, following conditions are met, and yet
12 there's no reference to the 50 barrels a day max fluid, no
13 reference to the crossflows being controlled by one zone
14 having no more than 50-percent pressure differential from
15 the other zone, and I'm reading this as saying that there
16 are no standards that you want us to have in the rules to
17 be met, that you will somehow meet some nondefinable
18 standards.

19 I mean, if we can't set those standards up
20 somehow as a default standard that you can argue with, I
21 don't see any standard in there that you're presenting that
22 would be a regulatory standard at all. It's just kind of,
23 Hey, trust us, I think we'll -- we won't crossflow zones.
24 But --

25 A. No, I think if there's a question about

1 crossflow, you know, we may have to present some modeling,
2 we may have to present some data. You can require that
3 under this regulation, depending on what the circumstances
4 in the case are.

5 We have found in many of our recent commingling
6 cases that we've brought to the Division, that a lot of
7 these, what have been absolute standards in the past, are
8 not holding. And the Division has in many cases agreed
9 with us that even though we cannot meet some of those
10 standards, that it still was legitimate to downhole
11 commingle.

12 We're finding that they have not, in this day,
13 been the absolute standards that they may have been at one
14 time.

15 And so we're saying if they don't apply in all
16 cases, then why don't we consider each case on its own
17 merits and its own problems?

18 Q. Well, maybe we're getting -- trying to get --
19 There are different ways. What you're saying is -- what
20 we've said too, or at least the Division said, Let's move
21 this to the administrative approval method, which means if
22 certain conditions are met we'll get that real quick.

23 Then you're coming back and saying, Yes, but why
24 don't we take each individual case as a unique situation?
25 And that would almost say that's still available -- if you

1 don't have the standards met, you can always come and have
2 a hearing.

3 And we've had those cases at the Commission
4 level, and I remember one specific case in the San Juan
5 Basin where the pressure standards weren't met, but the
6 reservoirs were tight enough, offset operators didn't
7 object, and you had yourself a case where that was granted.

8 I have a problem with trying to create a unique
9 situation on every administrative application, because
10 we're not talking about any standards, as I see it.

11 A. Well, we feel like the concepts expressed here --
12 they may sound rather bare at first, but we feel like
13 they're fairly broad in their concepts, and they do provide
14 a lot of control.

15 It just doesn't tell us specifically in every
16 case what should be the determining factor.

17 Q. But what control? I don't see a standard in here
18 on C. I see broad language that says certain conditions
19 will be met. What conditions? No significant crossflow
20 will occur. How do you know it? What condition has to be
21 satisfied so that no crossflow will be met? We don't have
22 that here.

23 A. We're going to have to satisfy you that there
24 will be no crossflow which will result in a loss of
25 reserves or --

1 Q. Well, let's take it one step further. How do you
2 satisfy us?

3 A. It may -- You know, we do a lot of -- a lot of
4 easy, quick modeling, which gives us a good picture of
5 what's going to happen in the wellbore. That's easy for us
6 to present. That's one way of doing it.

7 Q. Do you have an example?

8 A. We presented examples last week in our hearing,
9 when we came, of that exact thing, and spoke about the
10 crossflow. And yes, there was a little crossflow. We
11 showed how it was really not significant and that we would
12 not -- felt like we would not lose reserves. In fact,
13 we're going to gain reserves through the process. That was
14 our main argument last week in here.

15 Q. But isn't that the place for arguments like that,
16 if you do it on an area basis, a regional basis? You have
17 one hearing and you show characteristics of the reservoir,
18 among two reservoirs or three, that even with significant
19 pressure differential you won't get crossflow, you won't
20 lose reserves. Then you have your case there for one large
21 area. But you present it to a hearing examiner, the
22 evidence for that.

23 This other way, as I take it, you're asking an
24 administrative approval at the District level for something
25 that might be fairly involved scientifically.

1 A. That's right, and we would expect to present that
2 data along with the application if it's required.

3 Q. Well, you can see our concerns. You're --

4 A. Yes.

5 Q. -- it's like you're saying -- We're trying to
6 simplify the process, say, if certain conditions are met,
7 you can come to the District Office up here, get quick
8 approval.

9 But then on the other hand you're saying, Yeah,
10 but we've got a unique situation. We'd sure like quick
11 approval, we'd like it easy. But each condition is unique,
12 so it may require some study and some information. We
13 don't have any standards at hand, we don't have any default
14 position. We'll just look at each case as a unique
15 situation.

16 A. There are going to be a few cases where, yes,
17 it's going to take a lot of work. But we hope that this
18 process set up like this is going to release all those very
19 simple cases which there probably would hardly be an
20 questions about, should not be quite so involved.

21 Q. Well, if there's something in the record -- Let
22 me give you a hypothetical example.

23 If in an area you've come to at least the
24 Division level, presented evidence before Examiners and
25 gotten approval to commingle Pictured Cliff and Mesaverde

1 gas in a wellbore, or, what's more common, maybe Fruitland
2 and --

3 A. I see.

4 Q. -- and coal seam gas, I mean the PC and Fruitland
5 Coal seam -- There's been a lot of record established on
6 that, and possibly a reference to that record might be
7 sufficient for administrative cases.

8 But if each case kind of has to stand on its own
9 without a reference, without some body of evidence and
10 certain conditions met, it becomes almost too arbitrary. I
11 don't see how we can work within a system like that.

12 A. Well, you know, we feel like this provides the
13 mechanism whereby, if a case does not fit some routine
14 situation that it, obviously very quickly be passed on up
15 to the Division and probably to a hearing, and full
16 disclosure of lots of data would be forthcoming in that
17 case.

18 But we're having so many now that are truly
19 routine. I mean, you know, we've done hundreds of the same
20 type of thing. And this certainly will help, not to have
21 to provide such a long laundry list of information and data
22 for those types, and we feel like there's adequate
23 safeguard here to separate those and the concepts that are
24 presented in the Rule.

25 Q. Well, how many of those do not meet the current

1 requirements? I mean, all those hundreds you're referring
2 to, most of them -- What? 80, 90 percent meet the
3 qualifications of --

4 A. They probably do. That's why it seems --

5 Q. -- of the pressure and fluid --

6 A. -- redundant, you know, to just keep filing
7 stacks of paper.

8 Q. I -- Yeah, I would maybe tend to -- If they meet
9 those standards.

10 A. Yeah, most of them do.

11 CHAIRMAN LEMAY: Commissioner Weiss?

12 FURTHER EXAMINATION

13 BY COMMISSIONER WEISS:

14 Q. You know, as I look at this and listen to you,
15 the only meaningful condition here is number (1), and the
16 rest is all stuff that somebody's going to -- can argue
17 over.

18 I fail to see how you can argue over whether
19 you're going to shut a well in because it only makes 25 MCF
20 per day or whether you can keep it going if there's another
21 zone that, mixed in, you can get 35, or whatever the number
22 is.

23 If whoever the regulatory person is says, well,
24 wait a minute --

25 A. We felt like the critical issues here were the

1 crossflow and the ultimate-recovery-of-reserves issue. The
2 fluid compatibility thing is a critical barrier that, you
3 know, we certainly can't get rid of, we need to deal with.
4 And those concepts, in our minds, seem to cover the most --
5 the major concerns.

6 Q. Well, I guess if I wanted to cut down the
7 paperwork, I'd only have number (1) and let the regulatory
8 person ask the questions, and then be prepared to answer
9 them. And if the regulatory person has seen the same thing
10 a hundred times in a row, it's unlikely he's going to ask
11 about crossflow.

12 A. Well, possibly not. But I think we certainly
13 need to volunteer justification on some of those.

14 COMMISSIONER WEISS: Just a comment. That's all
15 I had.

16 FURTHER EXAMINATION

17 BY CHAIRMAN LEMAY:

18 Q. Nothing in here addressed the shut-in. What
19 happens when you shut a well in that's commingled? For how
20 long a period of time? Where's the correlative-rights
21 issue? The waste issue, basically?

22 A. Are you talking about in a well in which there
23 may be crossflow? Is that what you're referring to?

24 Q. Well, I don't think you can say there won't be
25 crossflow, will you? I mean, can you actually -- When you

1 have an application can you come before us and say, There
2 won't be any crossflow between those zones?

3 A. Typically in the gas zones northwest, there's
4 going to be some small amount of it, that's true. But they
5 are so tight that you're going to have to shut in for an
6 extremely long period of time, and by that time we're going
7 to have to respond to the State and everybody else about
8 why it's shut in and do something about it.

9 Q. Well, we're talking in long-time with some
10 small -- We have no numbers, no times. You know, that's
11 what we're trying to do with our rules, is say 50 barrels a
12 day, 50-percent crossflow -- a week? Is that too long?
13 Two days too long?

14 A. It may take you a year or two to see reservoir
15 pressure in some of those pools, to see true reservoir
16 pressure.

17 Q. But see where I'm getting at? If you have
18 numerical standards, you can vary from those standards by
19 showing the exception will not cause waste, will not
20 violate correlative rights.

21 When you come and say, Well, we will not have any
22 significant crossflow, we won't leave the well shut in for
23 any prolonged period of time, doesn't that take it from a
24 refutable default position to, Hey, we'll kind of do the
25 right thing out there because we've got some wishy-washy

1 language that we won't hurt anyone?

2 A. No, I think we're obligated to show you why that
3 won't happen, technically.

4 Q. But you just said you can't say how much
5 crossflow will or will not occur? You just said a little
6 bit of crossflow probably will occur.

7 A. Oh, I think we can show that.

8 Q. Isn't it more defensible from your position to
9 say, We've complied with the numerical standards of a
10 regulatory agency, than coming, if you have a case,
11 whatever it may be, correlative rights, waste, and say,
12 Well, we kind of did the right thing there, we -- you know,
13 they kind of told us it was okay because the chances are,
14 there wouldn't be any crossflow, or very little?

15 A. I think we've committed to try and satisfy your
16 concerns on the crossflow issue.

17 Q. Our concerns are numerical standards; that's what
18 I'm trying to say. And there's no numerical standards, no
19 numbers in this thing at all.

20 There's a difference, and I think when you look
21 at regulatory -- good regulatory anything, laws, rules,
22 regulations, if you end up with something that's too loose
23 or too wishy-washy, you really don't have anything. Then
24 you get two people arguing, Well, I think, you know,
25 there'll be crossflow. No, I don't think there will be.

1 You have to satisfy me. Well, that District Supervisor
2 down there was a hard-nosed guy, and he wasn't satisfied,
3 but go to the guy in Aztec, you'll satisfy him easier, or
4 vice-versa.

5 You see? If you have a numerical standard you
6 say, We meet the numerical standard. Or we come before the
7 Commission to show that by exceeding the numerical standard
8 we will not cause crossflow. Do you see the difference?

9 A. Yeah, those are obviously technical questions
10 that we're going to answer for ourselves, and we're going
11 to have to provide that justification to you too.

12 Q. Can you provide them in the suggested rules?

13 A. Then you draw in those other 80 or 90 percent of
14 the applications which that's not even an issue. They all
15 have to meet a certain standard. And then you end up in
16 hearing with all of it.

17 Q. No, I'm saying that if you have these numerical
18 standards, how many times are you looking for an exception
19 to the numerical standards that you'd like to see
20 commingling granted?

21 A. Well, it's becoming a more increasing issue than
22 it has been in the past.

23 Q. But then don't you do it once on an areawide
24 hearing? Like you said, you went in and -- Hey, we don't
25 have any -- we've proved no crossover between these two

1 zones over three townships. Any well in those three
2 townships, you've got automatic commingling authority? You
3 do it once with the record?

4 A. We're looking those directions. We don't have
5 many orders back from the Commission showing that that's
6 always going to work.

7 Q. Is that a possibility?

8 A. I would hope it is.

9 Q. So then you could still work with numerical
10 standards here, with areawide commingling authority, and
11 have a record to justify that areawide commingling
12 authority, rather than being a successful negotiator with
13 the District Supervisor?

14 A. Possibly so.

15 CHAIRMAN LEMAY: That's the only questions I
16 have.

17 Any additional questions?

18 Mr. Carroll?

19 MR. CARROLL: Yes, the Division has a few
20 additional follow-up questions.

21 EXAMINATION

22 BY MR. CARROLL:

23 Q. The first one is a follow-up to a question Mr.
24 Weiss had, and I'm referring to C (1) and the alternative
25 conditions contained in C (1), particularly the second

1 added alternative condition.

2 Now, the first condition necessary to permit a
3 zone or zones to be produced, which would not otherwise be
4 economically producible, that's pretty much a current
5 standard?

6 A. That's correct.

7 Q. And then you're adding, "or result in the
8 recovery of additional reserves through more efficient and
9 economical operation"?

10 A. That's correct.

11 Q. Now, by the nature of downhole commingling
12 operations, operating expenses are reduced, thereby
13 extending the economic life of the well, thereby increasing
14 ultimate recovery.

15 Under that standard, couldn't -- or under your
16 proposed language, couldn't any well drilled or existing in
17 the state qualify for downhole commingling?

18 A. I don't know that I would make that broad a
19 statement.

20 Q. But you could -- It seems like you could read it
21 that way?

22 A. This was aimed to deal particularly with a lot of
23 undrilled locations that simply cannot be justified any
24 other way, and we cannot say, absolutely in every case,
25 that we can declare it uneconomical.

1 But we can say, with a lot of fact, that we will
2 cover a much larger volume of reserves if we can operate
3 initially this --

4 Q. Do you agree that that alternative condition is
5 open to a great deal of interpretation as to exactly what
6 it means and what it could mean?

7 A. It really had not occurred to me that you could
8 take that broad of an interpretation.

9 Q. In the top paragraph, in the paragraph C, how do
10 you address allocation of production in proposed wellbores?

11 A. Well, of course that allocation has to be done
12 after the drilling of the wells and after they're tested.
13 And our proposals to the Division in such cases has been,
14 once we have -- as we've completed each zone, we'll test it
15 and we'll get together with the Division or the District
16 Office, whichever has been designated, and we will agree on
17 an allocation formula for it.

18 Q. And the last question we have is, what is the
19 basis for using the depth bracket allowable for the upper
20 zone as the allowable for the commingled well?

21 A. Well, it was the more conservative of the
22 choices, to use the upper zone as opposed to the lower
23 zone, which might be a larger allowable.

24 MR. CARROLL: That's all the questions I have,
25 Mr. LeMay.

1 CHAIRMAN LEMAY: Just one more.

2 FURTHER EXAMINATION

3 BY CHAIRMAN LEMAY:

4 Q. If you had two zones, and I can think of a couple
5 fields in southeast New Mexico -- Bagley is one, but up in
6 the Tatum Basin we have Pennsylvanian and Devonian oil,
7 Pennsylvanian 10,000, Devonian 12,000 feet -- under your
8 scenario you could commingle those zones and get the
9 Pennsylvanian allowable of 200 barrels a day, 300?

10 A. Yes, the lesser of the two.

11 Q. Which certainly exceeds the 50 barrels a day.

12 A. Yes, it does, and that is one of our problems.

13 This is really one thing we're concerned about,
14 because we're finding, just as our discussion about this
15 number (1), that many of these wells, we're going to be
16 able to anticipate the recovery of many more of the
17 reserves and to be much more efficient in our recovery if
18 we can get to those wells sooner than what this allows, to
19 where we're down -- you know, the wellbores are getting
20 older, they're getting more problems, we're going to lose
21 more of the wellbores if we always have to wait till the
22 very end of the life of the well.

23 So we're finding this may be a more efficient
24 approach, is to get to them a little earlier in the life of
25 the wells, when they're still in good condition.

1 Q. I guess I could visualize that in the San Juan
2 Basin, with long-life gas production.

3 How about short-life Bough C production and
4 Devonian water-drive production?

5 A. I'm not familiar with that particular pool.

6 Q. Well, according to the way these rules are --
7 That's why I asked the question.

8 You could commingle Pennsylvanian gas solution,
9 Devonian water drive, have 200 barrels a day allowable, and
10 call that a commingling operation that would be -- protect
11 correlative rights and prevent waste.

12 A. I'm not familiar with those two, so I really
13 can't speak to that.

14 Q. Well, I'm just looking for applications of your
15 proposed rules and how they would apply both in the
16 northwest and southeast. Your example certainly fits gas
17 reservoirs.

18 A. And it fits many of our oilfields in the
19 southeast too, which go on 20, 30, 40 years, some of them,
20 especially --

21 CHAIRMAN LEMAY: Any other questions of the
22 witness?

23 MR. KELLAHIN: Couple of follow-up questions, Mr.
24 Chairman.

25 CHAIRMAN LEMAY: Mr. Kellahin?

FURTHER EXAMINATION

BY MR. KELLAHIN:

Q. Was the Committee able to ascertain the scientific basis by which the current Rule's numeric standards are in the book?

A. No, we're not aware of what precipitated these particular standards or why they are the standards.

Q. Are you or, to your knowledge, any of the engineers on the study committee, aware of whether there is a rational scientific basis for the existing numerical standards in the Rule?

A. We're really not aware of those.

Q. Is there any particular scientific basis or understanding about the limitation of production in a commingled fashion, as identified in the current rule? For example, if you're at less than 5000 feet, it's 20 barrels of oil a day?

A. I don't know whether that was an arbitrary thing. I suspect initially it was an attempt simply to draw in those wells very late in their life, to keep them from being shut in, you know, and to be able to extend that late-life production.

But we're finding more and more with our technical study that we feel like we can maximize our recoveries from these pools more if we can come in earlier

1 than that.

2 MR. KELLAHIN: Okay, I have nothing else. Thank
3 you.

4 CHAIRMAN LEMAY: I have one follow-up to your
5 follow-up, Counsel.

6 FURTHER EXAMINATION

7 BY CHAIRMAN LEMAY:

8 Q. Would you say that a rebuttable standard should
9 be what's in the current rules, even though -- It may be
10 arbitrary, but wouldn't any other number that came up that
11 was not defensible be more arbitrary because -- I mean,
12 where are we here? We have numbers, and don't we have to
13 assume those numbers are the best available until proven
14 otherwise, rather than have to defend those numbers versus
15 other arbitrary numbers?

16 A. May I ask for a clarification? "The numbers" we
17 keep talking about, are we --

18 Q. Fifty barrels a day, that's what we're talking
19 about.

20 A. Okay, we're talking about the 50 barrels a day
21 and the pressure --

22 Q. Yeah.

23 A. -- those two numbers?

24 Q. Okay.

25 A. I certainly feel there's adequate justification

1 for doing something with the oil. Pressure may take some
2 more negotiation and thought on our part.

3 Q. My point is, shall we throw out 50 barrels a day
4 because it could have been arbitrary? I mean, attacking
5 the 50 barrels a day without having another number that's
6 scientifically defensible?

7 I've been here a long time. I don't know when it
8 came on.

9 A. Yeah, I don't --

10 Q. Somewhere back there, someone gave some kind of a
11 presentation, 50 barrels a day is a good number. And then
12 what I'm hearing now is, well, 50 barrels a day -- I mean,
13 throw it out because it's probably arbitrary.

14 But what number are you going to put in its
15 place? Don't you have to defend that number you put in its
16 place? Or have no number?

17 A. I don't know. You know, we have given a number.
18 It's obviously higher than the one before, we talked about
19 an allowable.

20 Q. Right.

21 A. Perhaps this needs some further study.

22 I think we definitely need something higher than
23 the bracket that was in the original rule.

24 Q. Why?

25 A. Because we've got to wait for these wells to

1 almost, you know, deteriorate on us before we can get to
2 them.

3 And besides, when you commingle at that point,
4 we're not going to recover near as many of the reserves, or
5 have near as efficient a recovery if we wait that late in
6 the life of many of these wells. So --

7 Q. I guess when we're getting up to the allowable,
8 you're leaving reserves in the ground for two wells that
9 will make the allowable on the uppermost zone?

10 You have 80 barrels a day, let's take that as an
11 example. That's our top -- That's the number that replaced
12 50, as I take it, for shallow commingling.

13 A. Okay.

14 Q. So you're adding 30 barrels a day to the number.
15 And that's just oil. We're not talking about water now.
16 We're talking about before 50 barrels of fluid.

17 A. Uh-huh.

18 Q. You could technically have, I guess, according to
19 this, 80 barrels of oil and 200 barrels of water, and that
20 would qualify for commingled -- or any amount of water.
21 There's no -- Water's not addressed in here. Total fluid
22 isn't addressed, is it?

23 A. No.

24 Q. Do you see the problems that we're talking about
25 here? We're talking about a number that may be very, very

1 high. We don't even define it. We define the oil, we
2 define it as a top allowable, and we're saying it should be
3 higher, but -- Why should it be higher? Because there may
4 be reserves left.

5 How many wells do you know of that 80 barrels a
6 day from one zone is wasteful because you have to produce
7 it separately from a shallow aquifer?

8 A. Well, of course the 80 barrels would cover all --
9 would cover the combined --

10 Q. -- all commingled zones?

11 A. Yeah, all commingled zones.

12 Q. Okay. Yeah. I mean, you might have three or
13 four or five zones making 80 barrels a day.

14 A. We just feel like there are going to be many --
15 there are many cases where we can be more efficient in our
16 recovery if we can start earlier in the life.

17 Q. The majority of cases you bring before us, what
18 percentage exceed 50 barrels a day of fluid that we have --
19 that you want commingling authority on?

20 A. I don't know that I can give you a percentage.
21 They're increasing in number, I do know that. I don't have
22 an exact number to give you.

23 CHAIRMAN LEMAY: Thank you, that's all I have.

24 MR. KELLAHIN: I'd like to continue the
25 discussion on this topic with a reservoir engineer who has

1 dealt with this extensively, Mr. Scott Daves with Meridian.

2 CHAIRMAN LEMAY: All right.

3 MR. KELLAHIN: He resides in Farmington. We'll
4 call him at this time.

5 CHAIRMAN LEMAY: Thank you.

6 SCOTT B. DAVES,
7 the witness herein, after having been first duly sworn upon
8 his oath, was examined and testified as follows:

9 DIRECT EXAMINATION

10 BY MR. KELLAHIN:

11 Q. Mr. Daves, for the record would you please state
12 your name and occupation?

13 A. My name is Scott Daves. I'm a senior engineer
14 with Meridian Oil, and --

15 Q. And where do you reside?

16 A. In Farmington, New Mexico.

17 Q. When and where did you obtain your degree in
18 engineering?

19 A. I graduated from Colorado School of Mines with a
20 degree in petroleum engineering in 1987.

21 Q. Within the current context of your duties at
22 Meridian, have you been involved in a personal way on a
23 professional level with commingling applications by your
24 company in the San Juan Basin?

25 A. Yes, I have.

1 Q. As part of that effort, have you made
2 presentations to the Division Examiners on numerous
3 occasions that dealt with that topic?

4 A. Yes, I have.

5 Q. And as a result of your efforts, has the Division
6 Examiner accepted allocation formulas that dealt with
7 combining Pictured Cliff with Fruitland Coal sands -- coal
8 seam gas and Fruitland regular sand production?

9 A. Yes, I have.

10 Q. In fact, you've been involved in a great many
11 cases where you've examined the issues of pressure
12 differentials, allocations of productions and the various
13 topics that we're talking about now?

14 A. Yes, I have.

15 MR. KELLAHIN: We tender Mr. Daves as an expert
16 reservoir engineer.

17 CHAIRMAN LEMAY: His qualifications are
18 acceptable.

19 Q. (By Mr. Kellahin) Let's deal with the concept.
20 The existing rule has got some default limits in it --

21 A. Uh-huh.

22 Q. -- for which apparently no one knows why they're
23 there and whether there's a scientific basis for those
24 numbers; is that a fair characterization?

25 A. Yes.

1 Q. All right. Was it the intent of the engineers on
2 the Committee to remove default arbitrary rules in the
3 existing commingling procedures and to substitute a
4 regulatory criteria whereby the applicant would be required
5 to submit definitive proof, in whichever engineering and
6 scientific discipline was most appropriate, to satisfy the
7 ultimate conservation criteria of prevention of waste and
8 protection of correlative rights?

9 A. That's correct.

10 Q. That's where you were headed, right?

11 A. Right.

12 Q. Let's talk, for example, of what it means when
13 you as a reservoir engineer are filing an application and
14 you are addressing the issue of crossflow.

15 Is it of significance to you that 50 percent is a
16 benchmark in the Rule now, in terms of --

17 A. Not necessarily, no.

18 Q. Forty percent?

19 A. It's typically going to depend on the reservoirs
20 that we're discussing, the situations with the reservoirs
21 and why 50 percent or any number would be important,
22 primarily because there are ways to allocate production to
23 address crossflow issues, straightforward, either through
24 simulation, material balance methods, decline curve
25 analysis.

1 I mean, the tools are out there to where
2 crossflow is probably not an issue.

3 Q. If the engineer on staff at the Division, the
4 regulator --

5 A. Uh-huh.

6 Q. -- if his ultimate responsibility is to minimize
7 crossflow --

8 A. Uh-huh.

9 Q. -- or accept crossflow so long as equity is not
10 disturbed, if he achieves by approval increasing ultimate
11 recovery from the reservoir --

12 A. Uh-huh.

13 Q. -- then the criteria by which he makes that
14 decision should be based upon the best available science
15 the applicant provides?

16 A. Correct.

17 Q. And when we look at a particular reservoir, what
18 would you as a reservoir engineer submit to the regulator
19 upon which to provide definitive proof that those issues
20 were addressed properly and correlative rights were not
21 compromised?

22 A. That's -- That was the spirit of item D (6), is
23 that a formula for the allocation of production, to each of
24 the commingled zones -- Okay, we've presented this at
25 numerous hearings, that piece, and a description and

1 everything that we follow along there with, and this -- It
2 is broad, but it does cover whatever reservoir we're
3 talking about, or reservoirs, a description of the factors
4 or data in determining such a formula.

5 Like I say, you could default back to reservoir
6 simulation. It could be something as simple as material
7 balance in a gas well. It depends on the set of reservoirs
8 and the set of circumstances as to exactly what you're
9 talking about.

10 Q. All right, let's go through an example. You and
11 I have done a bunch of these.

12 When we look at the economic criteria of the
13 current rule --

14 A. Uh-huh.

15 Q. -- and you're coming in and you've got a Dakota
16 well, an existing Dakota wellbore, which you want to add on
17 a commingle basis the Mesaverde --

18 A. Right.

19 Q. -- what do you do to satisfy the Hearing Examiner
20 about the economic criteria that at least one of those
21 zones must be uneconomic? What do you plot and how do you
22 do it?

23 A. We describe the costs that are involved with most
24 likely either a dual completion or a single well. In this
25 case you would be drilling a new Mesaverde well. You would

1 assess what the reserves are, primarily off offset data,
2 which in the San Juan Basin is fairly sound. And then you
3 would make that determination, is that -- given all the
4 circumstances, is that proposal economic?

5 And then if it isn't, then you're faced with how
6 else -- what other alternatives can I do, and are they
7 sound? Is that a right approach, or do you just default
8 and move on to the next project?

9 But if the other criteria that are out there are
10 the fluid-sensitivity issues, are they addressed, that's
11 probably, in our opinion, a more important issue in that,
12 would you damage a reservoir by doing something like that?

13 And if you said to yourself that you could prove
14 through technical studies and water-compatibility studies
15 and what have you that it is all right, that you can
16 commingle that, that the fluids produced would not damage
17 one another, then you go about looking at the Dakota
18 formation in this case, and you would have proration data,
19 you would have pressure data, you would have the data you
20 would need to either simulate or do material-balance work
21 to identify exactly what those Dakota reserves are within
22 reasonable certainty.

23 And from that point on you could, in fact,
24 allocate out exactly what the Dakota would be every month
25 through the life of the well, all the way through the life

1 of the well, until the Dakota zone is actually technically
2 abandoned. And whether crossflow occurred or not through
3 the Dakota, you have actually, using technical standards,
4 allocated those reserves properly.

5 Q. And in fact, that's what we've often done in
6 presentations before the Hearing Examiner for which those
7 applications have been approved?

8 A. Exactly.

9 Q. Okay. And what you're talking about is taking
10 that information, writing a summary --

11 A. Uh-huh.

12 Q. -- attaching the calculations, the plots of
13 economics --

14 A. Right.

15 Q. -- showing the decline curves, putting that in an
16 envelope and moving it towards an administrative approval
17 process?

18 A. That's correct.

19 Q. All right. When we look at how to allocate
20 production and/or achieve an economic threshold, we often
21 plot items of cumulative gas production --

22 A. Uh-huh.

23 Q. -- in addition to rate?

24 A. Right.

25 Q. Describe for the Commission in a summary fashion

1 how we address that issue. For example, we may have zones
2 separately tested --

3 A. Uh-huh.

4 Q. -- each of which would have an initial rate that
5 was well above what might be characterized to be
6 uneconomic?

7 A. Uh-huh.

8 Q. And yet you as a reservoir engineer can calculate
9 over time that despite the high rate, in a very short
10 period you're going to have a small cumulative gas
11 production recovery from that wellbore?

12 A. That's correct.

13 Q. And using those two components as criteria for
14 approval, you've achieved approval, have you not?

15 A. That's correct.

16 Q. All right.

17 A. In fact, we've testified in those types of cases.

18 Q. Isn't that a better way to go about achieving
19 commingling approval than to simply go down by rote and
20 check off an arbitrary sheet on what is supposed to be sent
21 in, in terms of pressure or rate?

22 A. That's correct.

23 Q. Describe for us how you go about the allocation
24 process, then. I think a quick example might be
25 conventional PC commingled with coal gas. Show us how you

1 do that one.

2 A. Typically, what we have testified to in the past
3 is -- the basic formula is the total production minus the
4 known production over the allocated production, in the case
5 of the Pictured Cliffs or Dakota, minus that amount gives
6 you the production from the other zone, and that's worked
7 quite well with the Fruitland Coal.

8 It would work equally well with the Mesaverde or
9 the Gallup or any of those formations within the San Juan
10 Basin, with known standards.

11 Q. When we talk about adding an additional method
12 for approval, which is to allow the approval to increase
13 ultimate recovery, even though both zones may have not
14 reached an uneconomic threshold, that is your proposal
15 within this Committee for inclusion for approval?

16 A. That's correct.

17 Q. Describe for us what you're thinking.

18 A. Typically, given pipeline pressures in the San
19 Juan Basin, the reservoirs would deplete at a certain rate,
20 and then as they near the pipeline -- as the reservoir
21 pressure nears the pipeline pressure, you're going to run
22 into production problems that will basically at some point
23 render the well uneconomic.

24 By being able to commingle and capture the
25 additional production, you're typically faced with a new

1 set of production levels that would allow you to compress
2 the well. That's a typical example of where you would be
3 able to extend the life out considerably over dealing with
4 pipeline pressures.

5 And where that really becomes an issue is in
6 cases where your wellbore integrity is going to become a
7 problem further on. That gives you the economic incentive
8 to maintain those wellbores considerably longer than you
9 would otherwise.

10 Q. Are there examples that have been presented where
11 each zone is still economic but one or both zones produces
12 sufficient liquids to give the operator difficulty in
13 unloading the well and producing the liquids and the gas?

14 A. Yes.

15 Q. That would be a situation where you can't achieve
16 commingling approval in the administrative process, isn't
17 it?

18 A. That's correct.

19 Q. And yet to have it denied or have it go to a
20 hearing compromises ultimate recovery, doesn't it?

21 A. That's correct.

22 Q. Describe for us what you achieve in a wellbore
23 that's exposed to a liquid-loading problem that you can
24 remedy if you're allowed to commingle and then lift the
25 combined stream of hydrocarbons and fluids.

1 A. That follows very much along the same lines that
2 I was talking about by allowing yourself an additional
3 lift.

4 Another example would be a Dakota-Gallup
5 commingle where there's no economic way you could -- or
6 there might be an economic way where you could pump off a
7 Gallup well, yet you're producing fluids from the Dakota,
8 so you're faced with a dual completion in which the physics
9 of that wellbore would not allow you to adequately lift
10 both fluid columns.

11 So by leaving a single string of tubing and
12 putting the well on compression or on a pumping unit,
13 you're actually able to do that, whereas otherwise in a
14 dual configuration there's no possible way you could do
15 that.

16 Q. Within the regular course of doing your business,
17 as well as other reservoir engineers for their company,
18 isn't it a matter of rather routine engineering to develop
19 the summaries, the narratives and the displays, as well as
20 the data to support approval for downhole commingling?

21 A. Yes.

22 Q. Do you see any reason to come to a hearing to
23 accomplish that when you could simply submit it in writing
24 in an administrative application?

25 A. No, I -- No, I think that the Division people and

1 the District people are very sophisticated in how they look
2 at these, they've seen enough examples to where they
3 understand what's going on, and they know what data is out
4 there and what data is required, and that that doesn't
5 preclude them from asking additional questions as in a
6 hearing setting or asking for additional data as in a
7 hearing setting. It just eliminates the hearing setting
8 itself.

9 Q. Under the proposed industry rule, then, the
10 regulator always has the prerogative to set the matter for
11 hearing?

12 A. That's correct. I think we stated that through
13 items E (1), (2) and (3), to where if it just cannot be
14 resolved, if the data -- if it appears to the Division or
15 the District Supervisor it's not adequate, that you can
16 call the hearing and default that out.

17 Q. Under this proposed industry rule, can the
18 regulator ask for more information?

19 A. Yes.

20 Q. Can the regulator simply deny the application?

21 A. Yes, if he feels that the issues that are out
22 there -- and probably the key issues still are a statement
23 of fluids that are involved -- would create a damage
24 situation within the reservoirs, then he has that option to
25 deny it.

1 Q. If the flexibility of the procedure allows the
2 applicant and the agency to handle these kind of issues in
3 an administrative way, is that not more efficient for you
4 as well as the agency?

5 A. Considerably.

6 MR. KELLAHIN: I have no further questions of Mr.
7 Daves.

8 CHAIRMAN LEMAY: Questions of the witness?
9 Commissioner Weiss?

10 COMMISSIONER WEISS: Yes, I have a couple of
11 questions.

12 EXAMINATION

13 BY COMMISSIONER WEISS:

14 Q. Typically, how does Meridian address this issue?
15 Do you use simulation, material balance, or do you use
16 decline curve analysis?

17 A. We approach it, depending on the set of
18 circumstances, with any of those or all of those.

19 Q. Okay, typically?

20 A. Typically, material balance is the preferred
21 method, and then decline curve analysis.

22 Q. Okay, so you might say that's one and two, huh?

23 A. Uh-huh.

24 Q. And then typically, what's the recovery factor
25 when you come in for a commingling permit? How much -- Are

1 you late in the life of the reservoir?

2 A. Yes, typically these are -- while not, quote,
3 salvage, they're near-salvage operations.

4 Q. So you've made 90 percent of the production or
5 something?

6 A. Typically, right.

7 Q. Well, bearing that in mind, material balance,
8 which is fine, or decline curve, which, as I suspect, a lot
9 of people would use --

10 A. Uh-huh.

11 Q. -- why not write that in here for C, under (1),
12 show a decline curve, then your typical recovery factor,
13 and then, you know, a blind man with a stick could see that
14 -- So what? You know, whether you did or not, it's not
15 going to hurt much. For engineering purposes, if a
16 person's worrying about future reserves, well, if you've
17 already covered 90 percent of them --

18 A. That would probably be a good example of one that
19 -- a formula for the -- going back here to D (6), a formula
20 for the allocation, yeah, that would be your decline curve,
21 and you would describe those pieces that are involved.

22 Now, if you come up with a decline curve and
23 you're using more than just decline curve analysis, then
24 you would address those issues in there.

25 Q. I think that might answer some of the

1 Commission's concerns about specific -- you know, 50
2 barrels or 50 pounds or something.

3 A. Uh-huh.

4 Q. If there's something -- This, to me, is all
5 touchy-feely, frankly, and -- I don't know, you can say
6 what you want.

7 A. Uh-huh.

8 Q. But what you're saying is real, and I think that
9 perhaps should be included in the Rule.

10 A. There may be cases on a new drill proposed type
11 well where we've testified in these before, where that
12 decline curve that you would put out there -- I mean, what
13 is the basis for putting a decline curve on a new drill
14 well where you have no idea --

15 Q. I don't see how you could ask for commingling on
16 a well before you drill it, especially up there.

17 A. A typical case would be where, say, a Pictured
18 Cliffs initial 160 was abandoned, okay, either through the
19 life of a well, or they drilled it, they tested it and they
20 walked away from it. We've done all of those cases.

21 Okay, now you have a general feel for what the
22 reservoir pressure is in the Pictured cliffs, true. So
23 then with that -- Or you can test that directly and find
24 out what the reservoir pressure is within that 160-acre
25 proration unit, drill block, what have you. So you have a

1 good feel for what those reservoir parameters are, what
2 those reserves are.

3 Okay, now, you have no idea with the Fruitland
4 Coal that you would propose to commingle it with. So what
5 you do have is, you have some data, you have offset data,
6 you have other pieces that you can test and allocate an
7 initial production point from.

8 But to go in and give a straight-out decline
9 curve without that data actually testing the reservoir,
10 looking at the log characteristics, the reservoir
11 pressures, those kinds of things, you have no idea what
12 those reservoir conditions are until you've actually tested
13 that reservoir --

14 Q. That's a good point. As I recall, I remember --

15 A. -- we've testified on that.

16 Q. -- Meridian coming in here and requesting
17 permission to drill deviated wells to get these abnormal
18 pressure pockets 300 or 400 feet away --

19 A. Uh-huh.

20 Q. -- which is certainly within the area that you're
21 talking.

22 A. Right.

23 Q. So let's just say that you forecast an IP of 250
24 MCF a day for your commingling exercise --

25 A. Okay, for the Pictured Cliffs?

1 Q. For whatever --

2 A. Okay.

3 Q. -- and it comes in at a million.

4 A. Right. Then what you would be dealt with there
5 is, yeah, you have a million-a-day rate -- and we've
6 testified on this too -- initially. But what you would
7 ultimately have is a very steep decline within that
8 reservoir, because if the reservoir pressure is only 200
9 pounds --

10 Q. Let's say that after the end of a year that steep
11 decline is typically not there. I think that's a tough
12 call. If you can sell it to them, great. But you'd have
13 trouble selling it to me.

14 A. How else would you account for the reserves on a
15 small reservoir, tight or moderately tight or normal sand-
16 type conditions, that only has a small -- I mean, the
17 physics and the numbers that would go into calculating
18 those reserves are going to make it small simply because of
19 the reservoir pressure.

20 How else could that reservoir have any more gas
21 than what you've calculated it to be on that 160-acre drill
22 block?

23 Q. Well, maybe the answer is, you know, if the well
24 comes in at a million, you don't commingle it.

25 A. But your reserves are going to show you that it's

1 still uneconomic to produce it that way.

2 Q. Well, then when it gets down to where it's at
3 that point, commingle it. Come in after that, in this
4 administrative procedure. Is that not in the ballpark? Is
5 that hard to do?

6 A. You're --

7 Q. I'm saying just complete the one zone, produce
8 it, you get that, okay --

9 A. Well, then it would be economic, so you would
10 have not really -- if you had enough reserves to make that
11 well economic -- Do you see what I'm trying to say?

12 Q. Well, regardless of the reserves, just on the
13 rate.

14 A. No --

15 Q. You can't --

16 A. -- we've been down this path before. You cannot
17 have an economic wellbore just off an initial rate. A
18 tight gas sand, a tight dolomite, will give you a
19 tremendous rate initially, and then it goes on a rapid
20 decline.

21 And yet you -- In order to do what you're talking
22 about, you maybe only have 200 MMCF of total reserves left
23 in that reservoir, so now what you're asking me to do is to
24 come back out in a year and add that other zone where it
25 really wasn't economic to stop at that point.

1 Q. You're saying that my scenario, where I want you
2 to get a completion rig out there and do it again, is not
3 justified if the reserves of the one zone is --

4 A. Correct.

5 Q. -- 200 million?

6 A. Correct. And we've testified on where those
7 economic limits are.

8 And then you would go ahead -- Under the
9 circumstances that I was talking about, you would go ahead
10 and add the zone during your initial completion process.
11 So you save yourself the rig moves and all the problems --

12 Q. Yeah, I guess you could sell that.

13 But no matter what, I like your examples and the
14 way you present things much better than I -- I followed
15 what you said.

16 A. Right. But you're leaving a lot of it -- And I
17 understand, Mr. LeMay's concerns about standards, but how
18 many reservoirs do we really have within this state? We
19 have numerous reservoirs, numerous conditions, numerous
20 fluids.

21 You've got to give some level of discretion to
22 those people that make the decisions. One, the engineers
23 that would propose it, you know, hopefully they're
24 technically astute enough they're not going to want to go
25 do something that doesn't make sense.

1 And the issues as far as fluid compatibilities,
2 that's probably more of an issue, in my opinion as a
3 reservoir engineer, than is the crossflow issue. The
4 crossflow issue, there's technology out there to address
5 those issues and to allocate fairly and to defend that as
6 needed. But, you know, if I was to look at one of these
7 cases and I recognize right away the fluid compatibility
8 was not right, that's when I stop.

9 Q. Right, a prudent person would.

10 A. Right, and I think we all assume that.

11 So what we're saying is that the Division people
12 and the District people are astute enough to recognize
13 these issues too and to ask the right questions on the
14 right reservoirs and the right combinations of reservoirs,
15 rather than have a set of standards that really don't fit
16 anything, per se.

17 You know, I mean, you're either forced with
18 defining limits for every single reservoir out there, or
19 you're leaving it to industry and the OCD and the District
20 and the Division people to define those criteria, per case,
21 you know, when we've gone through all these issues where
22 we've defined them for specific examples, and those become
23 very clear and then every single one after that is almost
24 cookie-cutter in a sense, provided you meet those initial
25 criteria of fluid compatibilities.

1 COMMISSIONER WEISS: Thank you.

2 CHAIRMAN LEMAY: Commissioner Bailey?

3 EXAMINATION

4 BY COMMISSIONER BAILEY:

5 Q. With the increase in primary recovery from the
6 wells --

7 A. Uh-huh.

8 Q. -- through allowance of this commingling, what
9 impact would you see on the formation of secondary recovery
10 units? Would they be delayed to the point where there
11 would not be enough reserves to make it economical?

12 I'm trying to make an extension. You know,
13 what --

14 A. Right.

15 Q. -- impact is this going to have on these units?

16 A. Typically in a secondary recovery set of
17 circumstances, given a sand or whatever, you're faced with
18 several decisions. One -- And in some senses, they're
19 economic decisions. Is it more prudent for me to forego
20 commingling and go through a secondary recovery and model
21 that accordingly? Are you with me on that?

22 Q. Yes --

23 A. Okay.

24 Q. -- you're --

25 A. Now, the other case that you have is, rather than

1 go through a secondary recovery flood and all of those type
2 issues, what you're faced with is, could I as an
3 alternative be able to commingle to allow additional lift
4 or additional reserves that way?

5 You have two choices, or several choices, there.
6 And really, you're going to look for -- and it's going to
7 be in the State's best interest and really the operator's
8 best interest to pick the right choice.

9 And you're not going to want to go do one over
10 the other unless it really makes sense. I don't know if
11 that answers your question or not.

12 But you may be set up with two different
13 reservoirs that you could commingle and flood at the same
14 time also. I mean, there's a myriad of choices that you
15 could be faced with.

16 COMMISSIONER BAILEY: Thanks.

17 EXAMINATION

18 BY CHAIRMAN LEMAY:

19 Q. Mr. Daves, I have some questions here concerning
20 some of the previous witnesses' comments, and I just --

21 A. Uh-huh.

22 Q. -- wondered, you mentioned -- there are some
23 known standards -- Let's talk about the San Juan Basin --

24 A. Okay.

25 Q. -- because I think your experience there is more

1 than in the Permian Basin, isn't it?

2 A. Yes.

3 Q. Given that you -- Could you model some standards
4 for various reservoirs in the San Juan Basin?

5 Agreed, if we have one default standard for all
6 the State, that certainly doesn't fit each unique
7 circumstance.

8 But if there's a case before the Commission and
9 we have certain parameters, fluid compatibility between the
10 Dakota and Gallup or whatever --

11 A. Uh-huh.

12 Q. -- and it's shown to be compatible, can you
13 extend that, those standards, throughout the Basin or to a
14 large area?

15 A. We addressed that -- I'm glad you asked that. We
16 addressed that issue early in our discussions. And in
17 looking at a Permian Basin-type pool, it's a small pool.
18 It may be several hundred acres or several thousand acres.

19 When you look at the Basin Dakota or the
20 Fruitland Coal Pool, they're enormous. They cover dozens
21 and dozens of townships of land. And as you look at those
22 reservoirs, and in Meridian's opinion, what we've done is,
23 we've made studies where we know it makes sense to make
24 that study, and we've stepped out gradually, looking at the
25 boundaries.

1 So I think in here we talked about that, and
2 that's part of those factors that would determine an
3 allocation and whether it makes sense. I think we --

4 MR. KELLAHIN: It's in (5), isn't it, Scott?

5 THE WITNESS: Yeah, section (5) here. Because we
6 were concerned about that as well. We didn't want pool --
7 wide-open rules for the San Juan Basin. That's insane.

8 MR. KELLAHIN: You're looking at --

9 THE WITNESS: Yeah.

10 MR. KELLAHIN: -- the second page, it's under D
11 (5) --

12 THE WITNESS: Right, I think the part here --

13 MR. KELLAHIN: -- the top of the page.

14 THE WITNESS: -- that makes sense -- "Documented
15 proof of compatibility is only involved in the first well
16 requesting the commingling of the same combination of
17 pools" -- this would be for southeast New Mexico, typically
18 -- "provided that the characteristics of or the conditions
19 in each of the reservoirs to be commingled are
20 substantially the same as the documented compatibility."

21 I may be three sections away, but I'm referring
22 back to the specific data where I tested it, and I'm
23 confident that the reservoirs are continuous and the same
24 issues are there.

25 Now, if I move 20 miles away before I did any of

1 that, I would want to know those cases, and then I would
2 want to present the documentation as needed.

3 Q. (By Chairman LeMay) Well, we're talking about an
4 administrative process for commingling --

5 A. Uh-huh.

6 Q. -- I don't think we're talking about something
7 else --

8 A. Right.

9 Q. -- where we're trying to get some clarification
10 as Commission members --

11 A. Right.

12 Q. -- as what cases can be approved
13 administratively, and then referring to what standards for
14 approval.

15 A. Uh-huh.

16 Q. I mean -- And if you have a standard in the
17 record that says in these townships Gallup and Dakota
18 fluids are compatible, wouldn't that be something that
19 could be referred to in a commingling application, so you
20 don't have to present all that again?

21 A. Exactly.

22 Q. In other words, establishing standards, reservoir
23 standards?

24 A. Right.

25 Q. And those reservoir standards, how far they can

1 be projected -- You just said it varies, I guess. But at
2 least testimony, I would assume, could incorporate how far
3 you could project those standards?

4 A. Right. Would it necessarily need to be
5 testimony, or could it be part of the data in an
6 application, the first time?

7 Q. Well, the first time -- The advantage of a
8 hearing the first time is, you do have the back and forth,
9 you have a lot of experts, you have a lot of testimony --

10 A. Right.

11 Q. -- there's a lot of information that can be
12 gained in the hearing process that can't be obtained in
13 some kind of a -- I'd call it a negotiated settlement --

14 A. Right.

15 Q. -- with the District Supervisor.

16 But, you know, understand what I mean. That's a
17 one-on-one discussion there that other people don't benefit
18 by.

19 A. We recognize that, and part of the spirit of what
20 we put in here in this E (1) through (3) is, let's say
21 Frank Chavez -- we approached him with a commingle that we
22 wanted to do, and he recognizes there's a lot of technical
23 questions.

24 Well, he could defer it to the Division Director
25 directly, right away, and then if the Division Director

1 isn't comfortable with it, then we do bring it to the
2 hearing.

3 So we're allowing that process to occur, and I
4 think it should occur. As we gain further and further
5 understanding of the reservoir, that knowledge needs to be
6 spread so that we don't make mistakes like that.

7 Q. Could you think of, as a reservoir engineer
8 familiar with the San Juan Basin, a number of cases, four,
9 five, six, that would combine most of the commingling
10 possibilities that you would like to undertake in the San
11 Juan Basin?

12 A. There's probably in the neighborhood of eight to
13 ten.

14 Q. Eight to ten cases?

15 A. Yes.

16 Q. And that would probably cover all cases in the
17 San Juan Basin?

18 A. Possibly.

19 Q. If you had eight to ten hearings and established
20 that kind of criteria, then your administrative process,
21 wouldn't it be easier than you're even suggesting here?

22 A. Uh-huh, yes.

23 Q. And you have a matter of record --

24 A. Right.

25 Q. -- and you could refer to the cases.

1 A. Yes, provided that case fit that criteria.

2 Q. Yeah. And then how would you know if the case
3 fit that criteria?

4 A. That's a good question. From an engineering
5 standpoint, you would look at the proximity initially, what
6 that is, what your fluids are that you're looking at
7 commingling, do they meet back to the same standards that
8 were presented in the hearing prior to that?

9 Q. Would that necessarily be available at the
10 District level, or would that be more in tune with what the
11 engineers here in Santa Fe have?

12 A. I'm not sure how we store records within the
13 State.

14 Q. Well, no, what I meant is, in terms of -- as
15 operational procedure --

16 A. Right.

17 Q. -- I know your recommendation is to have this
18 approved at the District level.

19 A. Right.

20 Q. But with test cases, a lot of that information is
21 available here. It's not available at the District.

22 A. Right, okay.

23 Q. That was all.

24 A. Uh-huh.

25 Q. I mean, that's where I was coming from in that

1 question.

2 A. And there again, you know, maybe this isn't as
3 clear as it could be, but what we're recommending here is
4 that in those cases, that the District Supervisor is
5 confronted with one of those cases, that he default that
6 and we do bring it to hearing.

7 If he feels that the data's not there and that
8 he's not comfortable with it, then that's probably a really
9 good idea to bring it, either in the San Juan Basin or in
10 the southeast part of the state.

11 Q. Okay.

12 A. I guess in a sense we're placing a lot of
13 responsibility on the District Offices.

14 Q. That tends to be a concern that I would have,
15 because a lot of that expertise is here.

16 A. Right.

17 Q. The case history is here.

18 A. Uh-huh.

19 Q. The experience with the Examiners is here.

20 Unfortunately, the District Supervisors don't hear these
21 kinds of cases.

22 A. Right.

23 Q. I'm not saying that they're excluded from that
24 knowledge, but --

25 A. Right.

1 Q. -- you know.

2 A. Uh-huh.

3 CHAIRMAN LEMAY: Any other questions of the
4 witness?

5 If not, he may be excused. Thank you very much.

6 MR. KELLAHIN: May I have just a moment, Mr.
7 Chairman?

8 CHAIRMAN LEMAY: Do you want to take a quick
9 break?

10 MR. KELLAHIN: No, sir, I think I can handle
11 this --

12 (Off the record)

13 MR. KELLAHIN: Maybe we'd better have a five-
14 minute break, Mr. Chairman.

15 CHAIRMAN LEMAY: Let's take ten.

16 (Thereupon, a recess was taken at 2:56 p.m.)

17 (The following proceedings had at 3:12 p.m.)

18 CHAIRMAN LEMAY: We're back with Case 11,353.
19 Mr. Kellahin?

20 MR. KELLAHIN: Mr. Chairman, during the break I
21 have discussed with members of our Rule 303 Committee their
22 desires on suggesting to the Commission a method and a
23 procedure for processing our request.

24 We very much appreciate the opportunity to have
25 you consider additional rule changes within the context of

1 Rule 303.

2 And here's what we would propose: That the
3 Commission take action to grant relief under certain
4 conditions of the existing Rule whereby, if an applicant
5 satisfies all the other conditions of the current rule but
6 is required to come to a hearing because of a difference in
7 ownership in the spacing units for the combined production,
8 that he be permitted to file those types of cases
9 administratively for approval, and that in addition you
10 order a change in the notice rules whereby notice is no
11 longer required to offset operators, and that notice is
12 made to all interest owners, including royalty, overrides
13 and working interest, within the spacing units for which
14 they would share in the costs or the production from that
15 wellbore.

16 In addition, we would seek to have you authorize
17 this NMOGA Rule 303 Committee to meet with the appropriate
18 Division personnel, representatives of the State Land
19 Office, the Bureau of Land Management, and that we would
20 report back to you at the September hearing with what we
21 hope are a more definitive rule change, suggestion to you,
22 whereby we have documented and supported for the
23 Commission's review the documentation to satisfy these
24 various issues.

25 I was incomplete in the notice. The notice goes

1 to the internal spacing unit owners only if the ownership
2 is uncommon. It really wouldn't matter if there's common
3 ownership, quite frankly, and so I wasn't clear in
4 expressing to you the fact that notice needs to be in cases
5 where within the spacing unit there is no common ownership
6 in the two pools to be commingled.

7 That's our request, Mr. Chairman.

8 CHAIRMAN LEMAY: Fine. Commissioner Weiss?

9 COMMISSIONER WEISS: I have no comments.

10 CHAIRMAN LEMAY: Do you have any comments, any --

11 COMMISSIONER BAILEY: No.

12 CHAIRMAN LEMAY: I'd just like to suggest two
13 things. I think the Commission will honor your request.
14 But let's bring it back in October, and let's bring in some
15 independents to -- It sounds to me like the group being
16 NMOGA is fine, they have independents in there too, and I'd
17 like to get that input as long as we're looking at some, I
18 think, significant changes in some of the standards. And
19 by the time you contact BLM and discuss it with staff, I
20 think you'll need till October to get that thing ironed
21 out. So --

22 MR. KELLAHIN: Those members of our Association
23 would have been contacted and consulted with anyway, Mr.
24 Chairman.

25 CHAIRMAN LEMAY: I recognize that, but in the

1 drafting stage, I think it's important that you have some
2 representation there from the independents.

3 MR. KELLAHIN: Thank you.

4 CHAIRMAN LEMAY: So -- And as I understand it,
5 you have no problem -- In fact, you're recommending that we
6 implement parts of this as soon as possible, so take under
7 consideration the testimony that we have to date, to issue
8 partial rulings in this case.

9 MR. KELLAHIN: Yes, Mr. Chairman, that's correct.

10 CHAIRMAN LEMAY: Anything else? Anyone else have
11 anything to say concerning this case?

12 Mr. Carroll?

13 MR. CARROLL: Yes, Mr. Chairman. If it would aid
14 the Commission, I would -- There's been some question as to
15 where the numbers in current Rule 303.C -- how they came
16 about. I would ask the Commission to take administrative
17 notice of Case Number 4104.

18 MR. KELLAHIN: That was before you were born?

19 MR. CARROLL: Close. And that's Order Number
20 R-3845. There's about 30 to 40 pages of transcript in that
21 case that sets up the scientific basis for the current
22 numbers that are in Rule 303.C.

23 CHAIRMAN LEMAY: Thank you. I would pass that
24 notice on to the NMOGA Committee that --

25 MR. KELLAHIN: We've got that transcript, Mr.

1 Chairman, chiseled in stone, and the tablets were too heavy
2 to bring.

3 CHAIRMAN LEMAY: Well, please use it. Thank you.
4 Mr. Bruce?

5 MR. BRUCE: Mr. Chairman, I'm here today on
6 behalf of Pogo Producing Company. I'd like to make a quick
7 handout and a brief statement.

8 Mr. Chairman, last Friday Pogo submitted the
9 proposal I just handed out, making some incremental
10 changes, or proposed incremental changes, in Rule 303. At
11 the time, we were unaware of NMOGA's effort and so we were
12 kind of operating in a vacuum.

13 Most of what -- I think all of what we submitted
14 was encompassed within the changes Mr. Hoover discussed.

15 As I said, although we were proposing incremental
16 changes and NMOGA was proposing a comprehensive rule
17 change, I think both proposals have common aims. It's,
18 one, make it easier to file for administrative approval of
19 downhole commingling and, number two, allow it earlier in
20 the life of a well.

21 Pogo believes these proposals will reduce
22 operating costs, making operations in New Mexico more
23 economical.

24 Pogo's proposals were based primarily on its
25 activity in the Delaware Basin in southeast New Mexico, in

1 artificially lifted oil wells. In many of those pools you
2 have good Delaware pools underlain by relatively poor Bone
3 Spring pools, and frankly we have been looking at doing
4 this on a poolwide basis in a couple of pools.

5 For instance, in some of these areas you'll have
6 Bone Spring pools, reserves, of 30,000-plus barrels in a
7 well. Producing rates are about 25 barrels of oil per day.
8 Frankly, no one would really drill to the Bone Spring
9 alone.

10 And what we are looking at would be allowing
11 downhole commingling of the Delaware and Bone Spring, early
12 in the life of a well, to expedite recovery from those
13 wells and add incentives for operators to drill in those
14 areas in New Mexico.

15 We've sat here and listened to the Commission
16 mention several concerns. Number one, you mentioned
17 crossflow. Obviously, if we have artificially lifted
18 wells, oil wells, we don't think that's a problem. And
19 that's one of our proposals. And we would require the
20 operators to show that they had the capacity to lift the
21 additional, not only oil, but additional water that would
22 be produced.

23 You mentioned doing this on a case-by-case or a
24 pool-by-pool basis, and we may do that, and you may see a
25 case from us pretty soon.

1 Now, one thing in the Delaware is, you often have
2 the Delaware formation continuous across wide areas, and
3 there may be three or four Delaware pools in an area, but
4 they're really producing from the same interval, different
5 operators and different pools. So if you're doing it for
6 one, it really would be more applicable not only for that
7 one particular Delaware pool, but perhaps three or four
8 Delaware pools in an area.

9 The problem with that is, of course, if you're
10 just coming in for one pool but you require three or four
11 pools to be joined together to do that downhole
12 commingling, I mean, you're asking one operator basically
13 to do the work for all the other operators in the area, and
14 that's why we're looking for a statewide change.

15 Now, as far as increasing the commingled
16 allowable, I think there's one reason -- Before, it was
17 only two zones. Now you're allowing commingling for three
18 or more zones, and we think just on that basis alone,
19 perhaps, the commingled depth bracket allowable should be
20 increased.

21 Secondly, we concur with NMOGA's statement that
22 the commingled allowable should be the depth bracket
23 allowable for the uppermost zones. We do not believe any
24 waste will occur as a result of the increased allowable,
25 the increased oil allowable. And again, the aim is to make

1 it easier and more economical for the operator to
2 commingle, so long as there is no reservoir damage. And we
3 believe that under the current requirements of the Rule,
4 you know, we're required to prove that and can prove that.

5 The other change we've proposed is that we
6 don't -- Currently, the rule requires a 24-hour
7 productivity test within 30 days of the application. In
8 many of these areas, or many of these pools, Pogo will test
9 the lower zone for 30 or 60 days, or one zone, or maybe
10 longer. We believe that should be sufficient, rather than
11 going back in, spending the extra money to do that extra
12 productivity test. It's really an economic matter.

13 As I said, Pogo thinks the rule changes proposed
14 by NMOGA contain good ideas, and we agree that it should be
15 referred to a committee of the OCD and of the operators to
16 work out standards acceptable to the Commission.

17 The main thing we urge is to make additional
18 changes, in addition to those that have been proposed by
19 Division staff, in order to make it easier to apply for and
20 obtain downhole commingling approval administratively.

21 If -- As Mr. Kellahin suggested, if there are
22 areas that parties agree on, we ought to make those
23 incremental changes to the rules as soon as possible, to
24 benefit operators in the State and then move on to look at
25 perhaps a comprehensive change to the Rule.

1 Thank you.

2 CHAIRMAN LEMAY: Thank you, Mr. Bruce.

3 Additional statements in the case?

4 MR. HAWKINS: Bill Hawkins with Amoco.

5 CHAIRMAN LEMAY: Yes, Mr. Hawkins?

6 MR. HAWKINS: We've had a lot of discussion today
7 on the merits of downhole commingling and changing the
8 rules, and I didn't want to spend a lot of time with you,
9 but I would like to share a few comments.

10 We participated in the NMOGA task force to
11 propose some changes to you on the commingling rules.
12 Amoco is undergoing a significant commingling and
13 recompletion program this year, and we expect to continue
14 to do that, given the number of wellbores that we have in
15 the San Juan Basin.

16 I think the filing application process has been
17 more significant this year than it's been in the last five
18 or ten years combined, and it looks to me like that there's
19 a significant improvement that can be made in the filing
20 process and the data that needs to be filed.

21 We've looked at states in the Rocky Mountain area
22 that have similar pools to the San Juan Basin. Filing
23 requirements for commingling are much simpler than in New
24 Mexico.

25 So I think what we want to tell you is that we

1 want to be a part of the process. We strongly encourage
2 the Commission to look at streamlining and simplifying this
3 process and hopefully helping all of the operators in the
4 State to be able to improve the ultimate recovery of the
5 reservoirs they're developing.

6 And that's it.

7 CHAIRMAN LEMAY: Thank you, Mr. Hawkins.

8 Additional statements, comments in the case?

9 We shall take this case under advisement and
10 continue it until the October hearing.

11 Thank you.

12 (Thereupon, these proceedings were concluded at
13 3:25 p.m.)

14 * * *

15

16

17

18

19

20

21

22

23

24

25

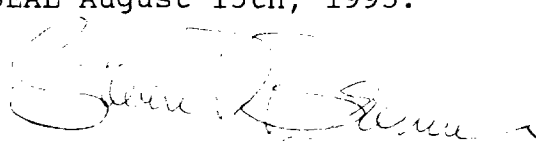
CERTIFICATE OF REPORTER

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 Commission 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 August 15th, 1995.



STEVEN T. BRENNER
CCR No. 7

My commission expires: October 14, 1998