

NEW MEXICO OIL CONSERVATION DIVISION  
STATE LAND OFFICE BUILDING  
STATE OF NEW MEXICO  
CASE NO. 10415

IN THE MATTER OF:

The Application of Samuel Gary, Jr.,  
& Associates for a horizontal  
directional drilling pilot project,  
special operating rules therefor, an  
unorthodox surface oil well location,  
an exception to the pool's gas/oil  
ratio limitation factor, simultaneous  
dedication and possibly a nonstandard  
oil proration unit, Sandoval County,  
New Mexico.

BEFORE:

MICHAEL E. STOGNER

Hearing Examiner

State Land Office Building

December 19, 1991

REPORTED BY:

DEBBIE VESTAL  
Certified Shorthand Reporter  
for the State of New Mexico

**ORIGINAL**

## A P P E A R A N C E S

FOR THE NEW MEXICO OIL CONSERVATION DIVISION:

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FOR THE APPLICANT:

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BY: JAMES BRUCE, ESQ.

FOR ENERGY DEVELOPMENT CORPORATION:

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Post Office Box 2265  
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BY: W. THOMAS KELLAHIN, ESQ.

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1 EXAMINER STOGNER: Call the next case,  
2 No. 10415.

3 MR. STOVALL: Application of Samuel  
4 Gary, Jr., & Associates for a horizontal  
5 directional drilling pilot project, special  
6 operating rules therefor, an unorthodox surface  
7 oil well location, an exception to the pool's  
8 gas/oil ratio limitation factor, simultaneous  
9 dedication and possibly a nonstandard oil  
10 proration unit, Sandoval County, New Mexico.

11 EXAMINER STOGNER: Call for  
12 appearances.

13 MR. BRUCE: Mr. Examiner, I'm Jim Bruce  
14 from the Hinkle law firm in Albuquerque  
15 representing the applicant. I have one witness  
16 to be sworn.

17 EXAMINER STOGNER: Are there any other  
18 appearances in this matter?

19 MR. KELLAHIN: Mr. Examiner, I'm Tom  
20 Kellahin of the Santa Fe law firm of Kellahin,  
21 Kellahin & Aubrey appearing on behalf of Energy  
22 Development Corporation. I do not have a witness  
23 today.

24 EXAMINER STOGNER: Energy  
25 Development --

1 MR. KELLAHIN: Corporation.

2 EXAMINER STOGNER: -- Corporation.

3 Any other appearances?

4 Will the witness, please, stand to be  
5 sworn at this time.

6 CRAIG AMBLER

7 Having been duly sworn upon his oath, was  
8 examined and testified as follows:

9 EXAMINATION

10 BY MR. BRUCE:

11 Q. Would you, please, state your name for  
12 the record.

13 A. Craig Ambler.

14 Q. And who are you employed by?

15 A. Samuel Gary, Jr., & Associates, Inc.

16 Q. What is your relationship to the  
17 applicant?

18 A. Land manager.

19 Q. Are you also a part owner?

20 A. I participate in the firm, yes.

21 Q. Okay. Have you previously testified  
22 before the Division?

23 A. Yes.

24 Q. And in what capacity?

25 A. In a similar capacity.

1           Q.     Are you also familiar with the  
2 operations aspects of Samuel Gary, Jr.?

3           A.     Yes, I am.

4           Q.     And as a result of that have you become  
5 familiar as an operations man with some of the  
6 geology and engineering matters pertaining to  
7 this case?

8           A.     Yes. I'm fully familiar with it.

9           Q.     And how long have you been in the  
10 business, in the oil and gas business?

11          A.     Fifteen years.

12               MR. BRUCE: Mr. Examiner, I don't  
13 propose to, other than as an expert landman,  
14 propose to tender Mr. Ambler as an expert  
15 geologist, although he will get into some of  
16 this.

17               I don't think there's really much  
18 dispute about the geology in this area. It's  
19 been gone over in the several hearings regarding  
20 the sands of the shallow unit. But I would just  
21 like to qualify him as a practical operations  
22 manager for his company.

23               EXAMINER STOGNER: As far as a landman  
24 status, Mr. Bruce, I have no problem. However,  
25 there is some aspects here, especially the

1 gas-oil ration limitation factor exception that  
2 is being asked for, that I question your witness'  
3 qualifications.

4 MR. BRUCE: Okay.

5 MR. STOVALL: Could you elaborate and  
6 tell us a little more about what you -- how come  
7 you know anything about it?

8 THE WITNESS: I put it together.

9 MR. STOVALL: Put it together in what  
10 way? Do you make engineering decisions,  
11 operational decisions?

12 THE WITNESS: We make -- yes, I  
13 participate in that decision making.

14 MR. STOVALL: How long have you been  
15 doing that?

16 THE WITNESS: For a long time.

17 MR. BRUCE: Would you describe your  
18 duties at the company and how long you've been  
19 there and what you oversee, et cetera.

20 THE WITNESS: We are a small company,  
21 just Sam and myself, plus a staff of assorted  
22 support personnel. And between the two us we  
23 make all the decisions relative to the  
24 operations, drilling, land, exploration  
25 activities of the company.

1           This project has been -- was originally  
2 with the Gary Williams Company some ten or eleven  
3 years ago. And we have taken over the operation  
4 of it over the past three years and have caused  
5 to be drilled four horizontal wells in the San  
6 Isidro Unit. And we're now proposing the  
7 drilling of this well outside of the unit area.

8           MR. STOVALL: I think, Mr. Examiner,  
9 with respect to the gas-oil ratio question, I  
10 would suggest we wait to see the testimony.

11           If it's simply what has occurred and a  
12 reporting of history, I don't think we've got a  
13 problem with qualification. If it comes to an  
14 analysis of why or engineering calculations, I  
15 think we probably need to look at it and see. I  
16 think that's where we need to see what the thrust  
17 of the testimony is.

18           So as a practical operations person, it  
19 would be my opinion he could probably testify as  
20 to what has happened.

21           MR. BRUCE: Mr. Examiner, to a large  
22 extent, that is what he will be testifying about.

23           MR. STOVALL: He's not rendering an  
24 engineering opinion as such.

25           EXAMINER STOGNER: How long do you



1 propose your testimony will take, Mr. Bruce?

2 MR. BRUCE: Fifteen minutes maximum.

3 MR. KELLAHIN: Mr. Examiner, may I ask  
4 a point of order?

5 EXAMINER STOGNER: Mr. Kellahin, go  
6 ahead.

7 MR. KELLAHIN: In comparing the notice  
8 of hearing and the docket with the application  
9 filed by the applicant, I must profess some  
10 confusion, and perhaps Mr. Bruce could state  
11 precisely what his client seeks to accomplish  
12 today.

13 Specifically the docket talks about the  
14 possibility of a 597-acre proration and spacing  
15 units be dedicated to the wells. I have  
16 questions if that is their intent in terms of how  
17 the allowable is assigned for the horizontal  
18 well.

19 MR. BRUCE: Mr. Kellahin, we only seek  
20 a west-half or effective west-half unit, not the  
21 entire section.

22 MR. KELLAHIN: So if I look at the  
23 application, that correctly states what you're  
24 trying to do?

25 MR. BRUCE: Yes, sir.

1 MR. KELLAHIN: And the gas-oil ratio of  
2 1,000 to 1 is something you still seek to do?

3 MR. BRUCE: Yes.

4 EXAMINER STOGNER: Okay. So the  
5 nonstandard proration unit, other than the west  
6 half, is no longer a point of issue?

7 MR. BRUCE: Correct.

8 MR. KELLAHIN: What is the requested  
9 allowable level for the horizontal well in the  
10 west half?

11 MR. BRUCE: It would just be whatever  
12 the standard is for that pool, 320-acre unit,  
13 about 4500 feet.

14 MR. KELLAHIN: It's based upon the  
15 statewide depth bracket oil allowable for 320  
16 spacing?

17 MR. BRUCE: Yes, sir.

18 MR. KELLAHIN: Okay. Thank you.

19 EXAMINER STOGNER: And that was under  
20 special rules; is that right, Mr. Bruce?

21 MR. BRUCE: Yes, the Rio Puerco-Mancos  
22 oil pool.

23 EXAMINER STOGNER: It's based on 320?

24 MR. BRUCE: Yes, sir.

25 EXAMINER STOGNER: So there will be no

1 additional --

2 MR. BRUCE: We are not asking for an  
3 increased allowable.

4 EXAMINER STOGNER: Thank you, Mr.  
5 Kellahin.

6 Are there any other points of order at  
7 this point before we continue on?

8 In that case, Mr. Bruce, why don't you  
9 go ahead and proceed, and we'll take it from  
10 there.

11 Q. (BY MR. BRUCE) Mr. Ambler, we've  
12 already mentioned that we are designating a west  
13 half unit of Section 4 for this well. What about  
14 the surface location of the well? What are you  
15 requesting?

16 A. We are requesting the surface location  
17 would actually be physically, as an exception  
18 location, be located 330 feet from the south line  
19 and 1600 feet from the west line.

20 Q. 1650?

21 A. Yes.

22 Q. The horizontal wellbore itself would  
23 fit within the normal setback requirements for  
24 this pool, would it not?

25 A. Yes, it would.

1           Q.       You are also requesting a GOR of 1,000  
2 to 1. What is the standard for this pool?

3           A.       500 to 1.

4           Q.       Now, you are also -- well, let's move  
5 on to Exhibit 1, and would you describe that for  
6 the Examiner.

7           A.       Exhibit No. 1 is a land plat showing  
8 the respective lease ownership in the surrounding  
9 area. The main highlight of the plat would be,  
10 of course, our location is Section 4 relative to  
11 its location to the San Isidro Unit located to  
12 the west.

13                   I think you can see from the map, the  
14 location, the orientation of our well, which  
15 we're calling the Orquidea 4-1H, and the relative  
16 sands to the two wells which were drilled in the  
17 San Isidro Unit, being the Johnson 7-3 well and  
18 the San Isidro 12-10 well.

19           Q.       Over to the west?

20           A.       Over to the west.

21           Q.       Okay. Now, there's also just to the  
22 north of your proposed surface location, there is  
23 a dot. What is that well?

24           A.       That is the 4-14 Johnson well, which is  
25 currently shut-in and in fact has been shut-in

1 since about 1984.

2 Q. What is the unit for that well?

3 A. South half of Section 4.

4 Q. What proposal do you make regarding the  
5 simultaneous dedication?

6 A. What we would propose is to leave the  
7 Johnson 4-14 well shut-in and that it would not  
8 be produced from the Mancos at any time while our  
9 proposed new well was being produced. In other  
10 words, we would only produce one well from the  
11 Mancos formation.

12 Q. Okay. Why do you not want to  
13 permanently plug and abandon it at this time?

14 A. Well, the well has potential future  
15 value for us as an injection well. Up to this  
16 point -- this is getting ahead of ourselves a  
17 little bit -- but the gas in the entire area is  
18 flared.

19 There's not a gas market, or in fact  
20 there's not even a gas line in economic proximity  
21 to any of the wells out here. There's been a  
22 great deal of discussion, in fact testimony over  
23 the years, as to the adequacy or the need for  
24 reinjecting the gas into the Mancos for tertiary  
25 recovery.

1           At this time we've been able to --  
2     unable to justify that; however, at some point in  
3     the future should that become something that is  
4     necessary or desirable, then that would be a  
5     wellbore which could be utilized for that  
6     purpose.

7           Q.     Okay. Would you identify Exhibit 2 for  
8     the Examiner.

9           A.     Exhibit 2 is an affidavit regarding  
10    notice to the offset owners, which has been  
11    signed by myself, including a list of the  
12    addresses and the names of the offset owners.  
13    And the top of the letter was sent to each one.

14          Q.     Now, looking at Exhibit 1, there's a  
15    San Isidro Unit to the north and to the west.  
16    Who is the operator of that well?

17          A.     Originally the operator was Samuel  
18    Gary, Jr., & Associates, Inc. And pursuant to a  
19    farm-out agreement that we had made with Veteran  
20    Exploration, we have turned over the operations  
21    to Veteran Exploration.

22          Q.     It looks like most of the other offsets  
23    to Section 4 are -- oh, there's one on this  
24    federal tract?

25          A.     There is an unleased federal, yes.

1 Q. But other than that it's Gary Williams  
2 Oil Producer; is that correct?

3 A. That is correct.

4 Q. What is the relationship of Samuel  
5 Gary, Jr., to Gary Williams Oil Producer?

6 A. Samuel Gary, Jr., is the attorney in  
7 fact for Gary Williams Oil Producer and operates  
8 all of their properties in New Mexico.

9 Q. But on Exhibit 2 you notified a number  
10 of people. Who are those people?

11 A. Those are partial interest owners with  
12 Gary Williams Oil Producer in the surrounding  
13 sections.

14 Q. So besides the operators, you also  
15 notified working interest owners?

16 A. Yes, all the working interest owners.

17 Q. Why don't you move on to Exhibit 3 and  
18 describe the reason that you seek to drill the  
19 north-south well and in fact have the stand-up  
20 unit.

21 A. Exhibit 3 is a seismically-generated  
22 time map. It's a time-structure map built on top  
23 of the Gallup B formation, which is in the middle  
24 of the Gallup section which we have identified as  
25 a target exception that we'll be drilling

1 horizontally in.

2           It's a regional map. We've gone to  
3 this level to kind of explain the overall geology  
4 relative to the San Isidro Unit to the west.  
5 Although the unit outline isn't in here, maybe if  
6 you refer back to your land plat at the same  
7 time, you can picture where the unit outline is.

8           This map was actually built prior to  
9 the drilling of the two most recent Veteran wells  
10 within the unit. And I should point out that the  
11 most recent well was drilled in Section 7.  
12 That's the Johnson 7-3 well, actually drilled  
13 across the section line into Section 6. And we  
14 intend to stay on this same fault trend that the  
15 successful horizontal wells have been drilled on  
16 in this area.

17           The structure map, if you look at it  
18 conceptually, what we're trying to show here is  
19 that down to the basin to the northwest, and we  
20 have a large basement fault that we believe is  
21 setting up this structural configuration to where  
22 we go from relatively flat-sloping beds to  
23 steeper-dipping beds and then back flat again,  
24 back as you head into the basin back up to the  
25 northwest.



1           And the idea is that that slope change  
2 causes a series of Listric normal faults, which  
3 are referred to in the nomenclature on the  
4 northeast side of the map, which are relief  
5 faults as this causes a drape fold over this old  
6 basement feature.

7           And these relief faults, we believe,  
8 put the Mancos in extensional fracture  
9 orientation to where we would like to orient or  
10 direct our well going, drilling down-dip to the  
11 basin across some of these relief faults and dip  
12 changes.

13         Q.       Perpendicular to the faults?

14         A.       Perpendicular to the faults.

15         Q.       Is that what Veteran has done on its  
16 successful wells in the unit?

17         A.       Veteran has done that on three of their  
18 wells. The fourth well, which also is not shown  
19 on this map. If you look in Township 20 North, 3  
20 West, Section 15, they reentered what is referred  
21 to as the San Isidro 15-7 well and drilled it  
22 lateral to the fault system. And they drilled it  
23 actually to the southwest and tried to drill  
24 parallel to the faults.

25               And they made a completion there, but

1 it's not an economic completion at this time.

2 Q. It's not as good as the wells that were  
3 drilled from the north-northwest?

4 A. That were drilled perpendicular to the  
5 fault system, that's correct.

6 Q. And is this basically the same geology  
7 that was presented by Samuel Gary, Jr., in cases  
8 10099 and 10100?

9 A. Yes, it is.

10 Q. Would you, please, move on to Exhibit 4  
11 and just briefly discuss the contents of that  
12 exhibit.

13 A. Exhibit 4 is our drilling prognosis for  
14 the manner in which we propose to drill the  
15 well. As stated before, you may want to refer  
16 back to the plat which is the third page back. I  
17 think you can get a feel for the picture of why  
18 we've got our surface location 330 feet from the  
19 south line, 1600 feet from the west line.

20 The intent is to build angle from the  
21 surface down to the top of the Mancos formation.  
22 We anticipate entering the top of the Mancos A at  
23 a legal location, although I can't tell you the  
24 exact offset, but we're looking for about between  
25 450 and 500 feet of build to get to our target

1 entry point, which would put us around 800 feet  
2 from the south line, which would be a legal  
3 location.

4 And then we want to drill a direction  
5 north, 12-and-a-half degrees west to the end  
6 point. At this time we're anticipating  
7 approximately 3800 feet of lateral, although if  
8 oil flows are entered or any other mechanical  
9 difficulties, we would not drill the entire  
10 length of that that we've got proposed on this  
11 plat.

12 Q. Is this plan similar or virtually  
13 identical to the drilling plans for the Veteran  
14 wells in the San Isidro Unit?

15 A. Yes, it is.

16 Q. Well, let's move on to your proposal  
17 for an increased GOR. Could you explain the  
18 practical reason for that increase?

19 A. Yes. As I stated earlier in my  
20 testimony, there's not currently a gas pipeline  
21 connecting any of the wells on this map. There's  
22 been some 40 oil wells drilled out here, and it's  
23 never been an economic venture to bring in a gas  
24 line.

25 The line runs -- it's not on here-- but

1     it runs to the north approximately six miles from  
2     our location along the main county road that goes  
3     into Cuba. And it's a high pressure line. And  
4     the cost -- you'd be looking at compressing two  
5     different stations. And the cost to lay into  
6     that line exceeds the value of the gas that has  
7     currently been flared out here in the past.

8             And at this time we would like to  
9     proceed with the same ruling that was granted in  
10    the San Isidro Unit, which I believe was an  
11    increased GOR of 1,000 to 1.

12            Q.     Do you know what Veteran is doing with  
13    the gas from its wells in the unit?

14            A.     Veteran is continuing to flare the gas,  
15    although at this time they are looking at perhaps  
16    putting in a small gathering system and stripping  
17    some of the liquids off of some of the wells that  
18    have a little higher Btu content.

19            Q.     Finally, would you move on to Exhibit 5  
20    and discuss it for the Examiner.

21            A.     Exhibit 5 is submitted as a reference  
22    point to give you an idea of the zones that we're  
23    identifying in our drilling program. This is an  
24    electric log from the 4-14 well. And you can see  
25    the sub-sea intervals for the A, B, and C marker

1 of the Mancos formation.

2 At this time we are proposing to drill  
3 a high-angle well at 83 degrees across all of  
4 these markers, the A, B, C, and in fact the D  
5 marker, which is not shown on this. And the  
6 purpose of that is to simply intersect what we  
7 hope are good, producing fractured intervals.

8 At this time it's difficult for us to  
9 examine or evaluate which of the Mancos zones has  
10 contributed in this area any more prolifically  
11 than any other zone. So that's why we've  
12 proposed to drill across and test all of them.

13 Q. In your opinion is the granting of this  
14 application in the interest of conservation and  
15 the prevention of waste?

16 A. Yes, it is.

17 Q. And were Exhibits 1 through 5 prepared  
18 by you, under your direction, or compiled from  
19 company records?

20 A. Yes, they were.

21 MR. BRUCE: Mr. Examiner, at this time  
22 I move the admission of Exhibits 1 through 5.

23 EXAMINER STOGNER: Exhibits 1 through 5  
24 will be admitted into evidence.

25 MR. KELLAHIN: Mr. Examiner, I have

1 some questions.

2 EXAMINER STOGNER: Yes, Mr. Kellahin.

3 EXAMINATION

4 BY MR. KELLAHIN:

5 Q. Mr. Ambler, as a landman, can you  
6 summarize for me the tract configurations in  
7 Section 4?

8 A. Yes. The south half of Section 4 is  
9 dedicated to the 4-14 well, as I have previously  
10 testified. And the north half of Section 4 is  
11 not dedicated to the well. The ownership between  
12 the two tracts, the north half and the south  
13 half, is different.

14 Q. Can you summarize for us what Energy  
15 Development Corporation's interest is in this  
16 section?

17 A. In the south half they own  
18 approximately 1.8 percent working interest, and  
19 in the north half they owned approximately 5.6  
20 percent.

21 Q. In the existing vertical well in the  
22 southwest quarter, what is the current status of  
23 that well?

24 A. It's shut-in.

25 Q. Has it been perforated in the Mancos?

1 A. It is openhole completion.

2 Q. In the Mancos?

3 A. Yes.

4 Q. Did you ever obtain production out of  
5 the Mancos in the vertical well?

6 A. Yes.

7 Q. Is there a cumulative oil production  
8 number for that well?

9 A. Yes, there is. It's less than 10,000  
10 barrels, in the ballpark.

11 Q. Yes, if you please. The current status  
12 of the well is what?

13 A. Shut-in.

14 Q. Why is it shut-in?

15 A. The well is non-economic to produce.

16 Q. What is the plan then for the  
17 horizontal well? Can it be characterized as a  
18 replacement well for the vertical well in the  
19 Mancos formation?

20 A. I'd hate to call it a replacement  
21 well. I think we're looking at enhancing the  
22 production from this area from that section.

23 Q. Describe for me how you would allocate  
24 the production in the horizontal well with the  
25 west-half owners versus the production in the

1 vertical well with the south-half owners. What's  
2 your plan?

3 A. Our plan is to leave the south-half  
4 well continued to be shut-in. And the allocation  
5 would be amongst the working interest owners who  
6 participate in the drilling of the well going in  
7 the west half.

8 Q. For the horizontal production?

9 A. For the horizontal production. There  
10 would be no allocation from the vertical well  
11 because it would not be produced.

12 Q. Okay. I see from Exhibit 4 you have a  
13 drilling plan. Can you go ahead and describe for  
14 us the completion plan.

15 A. The completion plan at this time is to  
16 drill -- first of all, let me explain the  
17 drilling plan, and that is to drill down to the  
18 top of the Mancos, set nine-and-five-eighths-inch  
19 casing and drill out with a foam air mist, which  
20 is the technique which has been used in the  
21 field.

22 And the current completion plan would  
23 be to a run a slotted liner all the way to the  
24 end of the hole, although frankly with some new  
25 information we've gathered in other areas, if



1 hole conditions permit, we would potentially  
2 openhole complete it.

3 Q. Upon what other information gathered  
4 from other areas do you base that prognosis on?

5 A. The potential for frac'g in the future  
6 has had higher success in openhole than slotted  
7 liners.

8 Q. Have you yet consolidated on a  
9 voluntary basis 100 percent of the working  
10 interest ownership in the west half of the  
11 horizontal well?

12 A. 100 percent of the working interests in  
13 the west half are covered under an operating  
14 agreement. The operating agreement covers the  
15 entirety of Section 4.

16 In terms of have we asked for or  
17 received formal drilling approval for the  
18 drilling of this well from all of the owners  
19 under the operating agreement, no. And the  
20 reason for that is we first wanted to come to  
21 this hearing and get approval to drill it. And,  
22 in fact, we're still waiting on permitting from  
23 the BLM. We're waiting on an archeological  
24 permit.

25 So until those things are in place, you

1 have a 30-day time period in which to drill the  
2 well after it's been proposed. And until we have  
3 all our permits in place and we're ready to go,  
4 we're really not in a position to propose the  
5 drilling of the well.

6 Q. Your 30-day period is triggered by the  
7 operating agreement in Section 4?

8 A. Yes.

9 Q. Let me ask you some questions about the  
10 gas-oil ratio. You said that the -- I forgot the  
11 name of the operator.

12 A. Veteran Exploration.

13 Q. Veteran Exploration in this pool has  
14 obtained an increase in the gas-oil ratio for  
15 their wells?

16 A. Yes.

17 Q. From 500 to 1,000?

18 A. Yes.

19 Q. Have you reviewed those cases that they  
20 presented?

21 A. I was present at, I believe, two of  
22 them.

23 Q. Do you recall whether or not those  
24 cases contained engineering testimony or reports  
25 to determine whether or not there is a waste of

1     reservoir energy --

2             A.     Yes.

3             Q.     -- by increasing the gas-oil ratio from  
4     500 to 1,000?

5             A.     We had a certified engineer present at  
6     the initial hearing, and he gave his testimony  
7     concerning that.

8             Q.     And your plan then would be to follow  
9     that course of action introduced in the pool by  
10    the other operator?

11            A.     Yes.

12            Q.     They continue to flare the gas that  
13    they produced from their horizontal wells?

14            A.     Yes.

15            Q.     So they have wells that are actually in  
16    production?

17            A.     Yes. And I might point out that EDC is  
18    a partner in at least one of those wells.

19                   MR. KELLAHIN:   Okay. Thank you, Mr.  
20    Examiner.

21                   EXAMINER STOGNER: Thank you, Mr.  
22    Kellahin.

23                   MR. STOVALL:   Mr. Bruce, before we get  
24    started here -- well, let me ask the witness a  
25    question.

## EXAMINATION

BY MR. STOVALL:

Q. The structure map, Exhibit 3, it says interpretation was by R. R. Ray. Who is R. R. Ray?

A. Randy Ray is a consulting geophysicist.

Q. Okay. So what you've testified to today is really his -- what he has advised your company as far as the geologic?

A. That's correct.

MR. STOVALL: Mr. Bruce, I'm going to recommend -- technically that evidence is pretty weak because of the lack of geologic qualification, but you do have a record in the other cases. I believe you were counsel for Veterans and Sam Gary.

MR. BRUCE: What I'd like to do if necessary, Mr. Stovall, would be to refer to or or incorporate if necessary the testimony in Cases 10099, 10100 and 10332, which was -- that last case was the one that amended the special operating rules.

MR. STOVALL: That was the 7-3 case; is that correct?

MR. BRUCE: Yes, sir.

1 MR. KELLAHIN: Excuse me, Mr. Bruce.  
2 Please do the numbers again.

3 MR. BRUCE: 10099, 10100, and 10332.

4 MR. STOVALL: Just for information and  
5 for the record, I personally remember the basic  
6 thrust of those cases. And it was talked about,  
7 this flection line, and the reasons for going  
8 across it.

9 Let me make sure I have one thing that  
10 I also remember from those cases, Mr. Bruce.  
11 There is some question about the boundaries of  
12 the unit. Are these the accurate boundaries as  
13 reflected on here?

14 THE WITNESS: Yes.

15 MR. BRUCE: Unfortunately, I have  
16 personal knowledge of that. And yes, those are  
17 the correct boundaries of the pool. They have  
18 not been changed to date from the prior  
19 hearings.

20 MR. STOVALL: Mr. Examiner, upon Mr.  
21 Bruce's request, I think that there is evidence  
22 submitted by technically qualified witnesses  
23 which would corroborate the testimony today, and  
24 I would recommend that we go ahead and  
25 incorporate those records.

1           EXAMINER STOGNER: I'm going to  
2 incorporate those three cases, being 10099,  
3 10100, and 10332 at this time and make it a part  
4 of the record in this particular instance.

5           If I remember right, this Exhibit 3, it  
6 was actually introduced as an exhibit in one of  
7 the previous cases, was it not?

8           MR. BRUCE: Something similar to it. I  
9 don't know if it was that exhibit.

10          EXAMINER STOGNER: Was it prepared by  
11 the same individual?

12          MR. STOVALL: I think we'll have to  
13 look. I think the record will speak for itself  
14 on that.

15          MR. BRUCE: I can find out pretty  
16 quick. I don't have that one with me right  
17 today.

18          MR. STOVALL: I don't think we need an  
19 answer from the witness since those records are  
20 incorporated.

21          EXAMINER STOGNER: Let's go off the  
22 record for just a little bit.

23                (A discussion was held off the record.)

24                       EXAMINATION

25 BY EXAMINER STOGNER:

1 Q. Obviously you have personal knowledge  
2 of the previously-drilled horizontal wells over  
3 in the unit, the San Isidro Unit. Have any of  
4 those wells, the production, has the GOR gone  
5 over 500 Mcf?

6 A. The production from the most recent 7-3  
7 well, I believe, is over 500, yes.

8 Q. How about the 12-10?

9 A. The 12-10 has been under 500 so far.

10 Q. As far as the 7-3, how long has that  
11 well been producing?

12 A. Since September of 91.

13 MR. BRUCE: It was completed on  
14 September 10.

15 EXAMINER STOGNER: September 10.

16 Q. (BY EXAMINER STOGNER) So there's  
17 really not that much production history to date.  
18 Are we seeing that GOR go down --

19 A. No.

20 Q. -- at a fast rate or rise?

21 A. It's been relatively constant so far.

22 Q. At between 5 and 1,000 somewhere?

23 A. Well, yeah.

24 Q. How about the production history on  
25 this horizontal well compared to the vertical

1 wells in there as far as the GOR goes, have there  
2 been some of the vertical wells that have  
3 produced over 500?

4 A. Yes.

5 Q. Did they go down slowly or -- well, of  
6 course, they had a limit on them and you couldn't  
7 go over that.

8 A. Right. The GOR -- the vertical wells  
9 that have GOR over the limit have been shut-in.  
10 And several of the wells -- or substantially  
11 over -- and they have been shut-in for years  
12 because of that.

13 FURTHER EXAMINATION

14 BY MR. STOVALL:

15 Q. Are you familiar with the federal rules  
16 as far as classifying a well as an oil well or a  
17 gas well?

18 A. Yes.

19 Q. It's different for the state. It's not  
20 simply a GOR --

21 A. Yes.

22 Q. -- Limitation; is that correct?

23 A. That's correct.

24 Q. Because there is no gathering system in  
25 the area to produce the gas into a line, has



1     there been any problem with the BLM as far as the  
2     flaring of gas from what we might call oil wells  
3     but they call gas wells?

4           A.     They've granted an exemption, and it  
5     ran up until December 1 -- was my last knowledge  
6     of the current exemption that they've had. It  
7     was my understanding they were going to grant  
8     another six months' exemption from the entirety  
9     of the unit.

10          Q.     Are they classifying those as oil wells  
11     out there?

12          A.     Yes.

13                 MR. STOVALL: Mr. Bruce, you see, we  
14     have a problem with the GOR request in this case  
15     because within the unit there is one correlative  
16     rate situation. We've been through this  
17     discussion many times before. We are outside the  
18     unit.

19                 And there may be some more technical  
20     issues as to the impact of a higher GOR. I'm  
21     not sure how strongly you feel, if you would like  
22     to leave the case open and try to address those  
23     or --

24                 MR. BRUCE: Let me discuss it with my  
25     witness, and I will give you a letter by early

1 next week on whether we wish to dismiss that  
2 portion of the case or wish to present additional  
3 testimony.

4 THE WITNESS: I'd like to speak to  
5 that. I've always found it difficult to testify  
6 before this Commission for a GOR exception prior  
7 to drilling a well. I find that I like to drill  
8 the well first and find out what our  
9 circumstances are.

10 MR. STOVALL: In other words, is this  
11 going to be a high GOR well?

12 THE WITNESS: Exactly.

13 MR. STOVALL: If it's not, there's no  
14 point in --

15 THE WITNESS: Exactly.

16 MR. STOVALL: Which would mean you  
17 would have to dismiss it so you could get an  
18 order so you could drill a well and then file the  
19 GOR change?

20 MR. BRUCE: That's correct.

21 EXAMINER STOGNER: Obviously, there is  
22 some reason why somebody hasn't come in and asked  
23 for the GOR to be increased other than 500 cubic  
24 feet per barrel. That might be another  
25 possibility. It sounds like there's enough

1 information out there that that could be a  
2 possibility -- is get that raised in the pool  
3 rules as a whole.

4 MR. BRUCE: I think they're gathering  
5 more information. Like Mr. Ambler said, there's  
6 now three producing horizontal wells in the  
7 unit. I would say by maybe sometime in 1992  
8 there might be sufficient information because I  
9 believe most of the vertical wells are shut-in.

10 THE WITNESS: Yes.

11 MR. STOVALL: Let me ask you a  
12 question, Mr. Ambler, just in general with  
13 respect to this.

14 Q. (BY MR. STOVALL) If I'm correct, the  
15 Rio Puerco-Mancos pool has been a pretty spotty  
16 pool in terms of getting commercial production;  
17 is that correct, out of traditional vertical  
18 wells?

19 A. Yes, that's correct. There are, I  
20 would guess, maybe five commercial wells out of  
21 forty that have been drilled.

22 Q. Geographically it's a fairly large  
23 pool?

24 A. Very large, yes.

25 Q. Is there anybody out there besides

1 Veteran and Sam Gary that's actively developing  
2 the pool right now?

3 A. Meridian Oil, I believe, has made  
4 application to this Commission. And in fact just  
5 completed the well south approximately six miles  
6 from our proposed location.

7 Q. Is that a horizontal?

8 A. Yes.

9 Q. Did they get a GOR exception?

10 A. They asked for one. I don't know if  
11 they got it or not.

12 Q. It sounds to me like this is really  
13 becoming a pool that almost has to be developed  
14 horizontally to be successful and that it can  
15 be -- some wells can be successful if you get the  
16 right place for that well; is that correct?

17 A. Yes. If you look at the drilling  
18 history, I think for all practical purposes,  
19 vertical drilling ceased in approximately 1984.  
20 And it wasn't until the emergence of horizontal  
21 drilling that any new activity has come to bear  
22 in this pool.

23 EXAMINER STOGNER: It might be time now  
24 to increase those unit rules to include the  
25 pool.

1           MR. STOVALL: I think -- I mean just as  
2 a suggestion -- I would say that your idea to  
3 drill the well and find out what you've got maybe  
4 would make sense. As I said, you would need to  
5 dismiss the GOR portion.

6           Q.       (BY MR. STOVALL) How much acreage does  
7 Gary Williams have an interest in? Just looking  
8 at this map, it's quite a bit?

9           A.       100,000 acres.

10          Q.       100,000 acres?

11          A.       Yes.

12          Q.       The unit is about 18,000, if I  
13 remember?

14          A.       Yes.

15          Q.       So that's a substantial portion of the  
16 pool. So you're going to be pretty active out  
17 there, presumably, if you have some success, I  
18 would guess?

19          A.       Yes, that's right. I'd say ourselves  
20 and Meridian and Veteran are really the three  
21 owners within the pool. There's some unleased  
22 federal. But that's the nature of the operators  
23 out there.

24               MR. STOVALL: Is this deja vu all over  
25 again, Mr. Bruce? We talked about getting some

1 area-wide --

2 MR. BRUCE: I don't want to hear it.

3 MR. STOVALL: The purpose is that, you  
4 know, if you guys will do the homework and come  
5 up with something, come up with some area rules  
6 so you don't have to come in for exceptions every  
7 time you do something.

8 THE WITNESS: We talked about this at  
9 breakfast.

10 MR. STOVALL: The Division is at a  
11 point where it's starting to work on developing  
12 some generic horizontal drilling rules. But  
13 there's no reason you couldn't have special pool  
14 horizontal drilling rules as well.

15 THE WITNESS: That could certainly make  
16 a lot of sense.

17 EXAMINER STOGNER: Especially in your  
18 instance because there's some other things within  
19 those pool rules that any generic rules that we  
20 might come up with, like crossing the section  
21 lines.

22 THE WITNESS: Correct.

23 EXAMINER STOGNER: We're going to have  
24 this every time you want to drill outside the  
25 unit area.

1           MR. STOVALL: I think Mr. Ambler and I  
2 have had this discussion before.

3           THE WITNESS: Yes, we have.

4           MR. STOVALL: Let's move on to a  
5 different -- do you want to dismiss the 500 --  
6 the GOR portion at this time?

7           THE WITNESS: That would be acceptable.

8           MR. BRUCE: Yes.

9           MR. STOVALL: Okay. We have another  
10 little problem. I think Mr. Kellahin kind of  
11 touched on some of the questions of changing the  
12 orientation of the proration unit.

13           And after the discussion, Mr. Stogner  
14 and I remembered why it was advertised the way it  
15 was advertised is there is a problem with, you  
16 know, taking some people out and putting some new  
17 people in a proration unit. So when we  
18 advertised it, we intentionally added the  
19 potential of a full-section proration unit so  
20 that you didn't have that equity problem.

21           The folks in the south half paid for  
22 the -- I've forgotten. What's the number of the  
23 well?

24           MR. BRUCE: 4-14.

25           MR. STOVALL: 4-14.

1 Q. (BY MR. STOVALL) That's correct;  
2 right?

3 A. Not necessarily.

4 Q. Would you like to expand on that  
5 answer?

6 A. The current owners in the south half  
7 are -- most of them are successors in interest to  
8 the original participants in that well.

9 Q. All right. Presumably any transfer,  
10 the economic consequences were based upon that  
11 investment?

12 A. Correct.

13 Q. At this time you have no plans to  
14 produce that 4-14 well; is that correct?

15 A. That's correct.

16 Q. But you do see some potential for it as  
17 a possible injector of either water or gas?

18 A. Just gas.

19 Q. Just gas?

20 A. There is no water production from the  
21 field.

22 Q. Okay. So it wouldn't make sense to  
23 flood it, would it? How would you deal with the  
24 equities at that point? I mean, presumably if  
25 you didn't have that plan, you could abandon the



1 well and abandon the proration unit and then come  
2 in with a new proration unit and solve an equity  
3 problem?

4 A. Well, if you abandon the well -- it's  
5 the only producing well in the lease -- and you  
6 would have more than an equity problem.

7 Q. I hear you. If you're given a  
8 west-half proration unit for this well and the  
9 southeast quarter is essentially taken out of  
10 production --

11 A. Arguably, it's out of production now  
12 and has been.

13 Q. Well, but legally it's still in.  
14 They've still got a -- they've got a legal  
15 interest in it. I think we've got a problem with  
16 having two proration units which encompass some  
17 common acreage but not all.

18 A. The same thing happened in the  
19 permitting of the 7-3 well.

20 Q. Refresh me on that one. I think that  
21 was -- I think we changed that. I think we  
22 addressed that issue in the 7-3, if I'm not  
23 mistaken?

24 A. Well, you changed the spacing of the  
25 6-16 well from the south half to the east half so

1     that you could drill the well.

2           Q.     The 6-16 is the one in the southeast  
3     quarter; right?

4           A.     Yes.

5           Q.     So that left the 6-16 folks with a  
6     proration unit to go with their well?

7           A.     Yes, it did.

8           Q.     And they were also unit owners?

9           A.     Yes, they were.

10          Q.     I think that made a difference.

11                 Effectively what you're asking us to do  
12     is take the southeast quarter folks out of the  
13     well that they paid for. Who would get -- let's  
14     assume you inject gas into the 4-14; who would  
15     get the oil that was produced?

16          A.     Let me reverse that. Let's assume we  
17     assigned the entire section as the proration  
18     unit --

19          Q.     Uh-huh.

20          A.     -- which is where you're probably  
21     heading.

22          Q.     Not necessarily. I'm looking for an  
23     alternate solution.

24          A.     We'd be willing to do that if the  
25     Commission so desired because the relative change

1 in ownership is the same across the north half  
2 and the south half. Whether you allocate the  
3 west half or entire section, it's going to be the  
4 same for the participation in that well.

5 And you continue to have the owners in  
6 the southeast quarter participating on the same  
7 basis that they would be on the west half as if  
8 they were in the entirety of the section.

9 Q. I think you lost me on that last little  
10 phrase.

11 MR. BRUCE: Mr. Examiner --

12 MR. STOVALL: If you're on the west  
13 half, the southeast owners are out.

14 MR. BRUCE: Mr. Stovall, Mr. Ambler can  
15 clear this up, but Section 4 is one federal  
16 lease. Ownership is uniform in the north half,  
17 and it's uniform in the south half.

18 Q. (BY MR. STOVALL) Okay. So what you're  
19 saying is that if you form a full section  
20 proration unit for the 4-1H, the people in the  
21 south half are going to have the same percentage  
22 of production as if you form a west half  
23 proration unit for the 4-1H; is that correct?

24 A. That's what I'm saying, yes.

25 Q. Would you have any objection to after

1     you drill, so you can hold the lease -- back up a  
2     second. The people in the south half are going  
3     to have a different ownership in the west half  
4     than they have in the south half obviously?

5             A.     Yes.

6             Q.     Is it entirely different ownerships?

7             A.     It's the same people just different --

8             Q.     Different percentages?

9             A.     Yes.

10            Q.     You haven't considered making a full  
11     section unit or something?

12            A.     Well, it is under an operating  
13     agreement. It theoretically could be, yes.

14            Q.     One, I think it's not going to be  
15     possible to have two overlapping proration units  
16     in the same pool.

17            A.     That's acceptable.

18            Q.     I think that's a problem. So it either  
19     means you're going to have to abandon the south  
20     half, which means you're going to have to have  
21     some agreement with the south-half owners,  
22     however you want to do that in an equity legal  
23     sense, or go to a full section.

24            A.     I prefer to go to a full section.

25            Q.     Although you didn't ask for it, we

1     advertised it that way.

2                 EXAMINER STOGNER:   Then that brings in  
3     the issue about increased allowable.

4                 MR. STOVALL:   It does raise the  
5     allowable.   I haven't gotten to that yet.

6                 Q.       (BY MR. STOVALL)   Presumably if you got  
7     a full section proration unit, you'd want a full  
8     section allowable, I assume, subject to the  
9     acreage ratio?

10                A.       Of course.

11                MR. STOVALL:   Mr. Kellahin, any  
12     response to that or comment concerning that?

13                MR. KELLAHIN:   We haven't done that for  
14     the horizontal wells, bumping their allowables,  
15     unless the horizontal portion of the well crossed  
16     all of the quarter sections or portions of the  
17     spacing units.

18                EXAMINER STOGNER:   Now you know why we  
19     haven't come up with general rules.   Everybody  
20     keeps asking, and now we see why.

21                MR. KELLAHIN:   So this would be a  
22     different solution.   I can't comment on the  
23     full-section proration unit because of my  
24     discussions with Mr. Bruce I was under the  
25     impression it was a south-half west-half

1 solution. And I simply need to ask my client if  
2 it matters to them to dedicate the full section.

3 But I raise with you my concern that if  
4 you give it twice the allowable, that will be a  
5 different solution than you have allowed others  
6 to do.

7 MR. BRUCE: We don't necessarily need  
8 the increased allowable. We would be willing to  
9 live on the regular 320-acre allowable even if  
10 the entire section is dedicated to the well.

11 THE WITNESS: Would we be allowed to  
12 drill a second well in the proration unit and  
13 have an allowable for that well also?

14 EXAMINER STOGNER: We'd have to have  
15 another hearing.

16 MR. STOVALL: Yes. Again, you're  
17 right. This is probably one of the more  
18 difficult parts of the horizontal well thing.  
19 The technical side of the horizontal well is  
20 pretty easy.

21 Because we've kind of thrown it at you,  
22 it wasn't in your application, I'd just as soon  
23 that you take some time and discuss with your  
24 client the ramifications. I think it could go  
25 either way. I think you could abandon the

1 south-half proration unit, do whatever equity  
2 adjustment was necessary in the 4-14 well as far  
3 as ownership of the wellbore and, you know, if  
4 the north-half folks have to pay the south-half  
5 folks for it or whatever, that's not our issue --  
6 and come up with a west-half proration unit.

7           You can't have both. I think that's  
8 safe to say. You can't have two proration units  
9 overlapping. And discuss -- again discuss the  
10 options. I guess it's because Sam Gary has been  
11 rather, I'm going to say adventuresome,  
12 innovative, creative. It seems to be you that  
13 has run into this problem more than once.

14           THE WITNESS: Yes, that's correct.

15           MR. STOVALL: I think that perhaps is  
16 to your credit as much as anything because of the  
17 fact that you're out there doing something that  
18 may be good from an energy standpoint, from a  
19 production standpoint, but it's novel from a  
20 regulatory standpoint.

21           THE WITNESS: That's correct.

22           MR. STOVALL: So my recommendation, Mr.  
23 Examiner, would be that we at least give them  
24 some time here today to make a decision as to  
25 what you want to do.

1           Again, the way we advertised it, I  
2 think we can go with the full section and give  
3 you a chance to talk to Kellahin about that  
4 because it was the Division that threw the  
5 wrinkle into that that you folks didn't  
6 anticipate.

7           Tell us what you want to do a little  
8 later. Give yourself a few minutes to talk to  
9 your client. I know that I don't want to get  
10 your decision on the witness stand without having  
11 a chance to kind of think it through, if that's  
12 acceptable to you.

13           THE WITNESS: That's all right.

14           MR. STOVALL: We'll hold the case open  
15 until later today -- I mean, later today may mean  
16 ten minutes -- to make a decision. And then you  
17 tell us whether -- you know, what solution you  
18 would like, assuming that we grant the horizontal  
19 well.

20           Again, it appears to me the options are  
21 to abandon the south half, go with the west half,  
22 or the standard allowable, or abandon the south  
23 half go with the full section, and then reach  
24 some agreement as to the allowable.

25           Again, do you know why it should be --



1 THE WITNESS: Can we abandon the south  
2 half upon the completion of the new well?

3 MR. STOVALL: Oh, yes. We would let  
4 you keep the wells so you could hold your lease.

5 THE WITNESS: Then I'll answer your  
6 question now. If we can do that, I would propose  
7 that that's what we do. We'd abandon the south  
8 half proration unit simultaneously with the  
9 completion in the production from the new  
10 west-half dedicated unit.

11 EXAMINER STOGNER: And re-dedicate to  
12 the west half.

13 THE WITNESS: Yes.

14 MR. STOVALL: You'll take care of  
15 working out the equity with the south-half owners  
16 in the 4-14 and whatever the ownership of the  
17 wellbore itself?

18 THE WITNESS: Yes.

19 EXAMINER STOGNER: Similar to BTA, if I  
20 remember right.

21 MR. STOVALL: We've had a long stretch  
22 of dry, boring hearings. It certainly has  
23 changed quickly, hasn't it?

24 Mr. Kellahin, any response to that? I  
25 mean, do you have any problem with that? It's

1 kind of what you expected when you came in,  
2 wasn't it?

3 MR. KELLAHIN: My client concurs with  
4 what Mr. Ambler has suggested in his last  
5 comment -- is that we would prefer it to be  
6 characterized as a replacement so that the  
7 south-half vertical well holds the south half,  
8 but that it is replaced then with the horizontal  
9 well in the west half.

10 My client's request is that the  
11 horizontal well not be in competition with a  
12 vertical well.

13 MR. STOVALL: Then that then gives you  
14 the flexibility to go with an east-half second  
15 well and get the allowable for that.

16 MR. KELLAHIN: Yes.

17 EXAMINER STOGNER: Okay. There again,  
18 when I talk about that BTA, what occurred on  
19 that, that particular order didn't go into effect  
20 until that second well -- in your particular  
21 case, the horizontal well starts producing -- at  
22 which time the south half would become the west  
23 half. And that's what I'm hearing; is that  
24 correct?

25 THE WITNESS: Yes.

1 MR. STOVALL: Assuming this map is  
2 accurate, you could probably catch that flecture  
3 again in the east half of Section 4?

4 THE WITNESS: That's correct.

5 EXAMINER STOGNER: My golly, you can  
6 even re-enter that 4-14 and go up to the south  
7 and east and come in for a 640.

8 MR. STOVALL: We appreciate Sam Gary  
9 being so innovative and helping us get to these  
10 solutions to problems. And I have nothing  
11 further.

12 EXAMINER STOGNER: Does anybody else  
13 have anything further in this case?

14 This case will be taken under  
15 advisement.

16 (The proceedings were concluded.)  
17  
18  
19

20 I do hereby certify that the foregoing is  
21 a complete record of the proceedings in  
22 the Examiner hearing of Case No. 10415,  
23 heard by me on 19 December 1991.

24 Michael E. Stogner, Examiner  
25 Oil Conservation Division

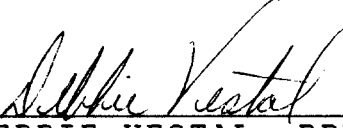
## 1 CERTIFICATE OF REPORTER

2  
3 STATE OF NEW MEXICO )  
4 COUNTY OF SANTA FE ) ss.

5  
6 I, Debbie Vestal, Certified Shorthand  
7 Reporter and Notary Public, HEREBY CERTIFY that  
8 the foregoing transcript of proceedings before  
9 the Oil Conservation Division was reported by me;  
10 that I caused my notes to be transcribed under my  
11 personal supervision; and that the foregoing is a  
12 true and accurate record of the proceedings.

13 I FURTHER CERTIFY that I am not a  
14 relative or employee of any of the parties or  
15 attorneys involved in this matter and that I have  
16 no personal interest in the final disposition of  
17 this matter.

18 WITNESS MY HAND AND SEAL DECEMBER 27,  
19 1991.

20  
21  
22   
23 \_\_\_\_\_  
24 DEBBIE VESTAL, RPR  
25 NEW MEXICO CSR NO. 3