

STATE OF NEW MEXICO

ENERGY, MINERALS AND NATURAL RESOURCES DEPARTMENT

OIL CONSERVATION DIVISION

IN THE MATTER OF THE HEARING CALLED BY )  
THE OIL CONSERVATION DIVISION FOR THE )  
PURPOSE OF CONSIDERING: )

CASE NO. 11,433

APPLICATION OF ORYX ENERGY COMPANY FOR )  
AN UNORTHODOX GAS WELL LOCATION AND )  
SIMULTANEOUS DEDICATION, EDDY COUNTY, )  
NEW MEXICO )

**ORIGINAL**

REPORTER'S TRANSCRIPT OF PROCEEDINGS

EXAMINER HEARING

BEFORE: MICHAEL E. STOGNER Hearing Examiner

**RECEIVED**

December 7th, 1995

DEC 21 1995

Santa Fe, New Mexico

Oil Conservation Division

This matter came on for hearing before the New Mexico Oil Conservation Division, MICHAEL E. STOGNER, Hearing Examiner, on Thursday, December 7th, 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.

\* \* \*

## I N D E X

December 7th, 1995  
Examiner Hearing  
CASE NO. 11,433

	PAGE
EXHIBITS	3
APPEARANCES	4
APPLICANT'S WITNESSES:	
<u>ROY C. WOLIN</u> (Geologist)	
Direct Examination by Mr. Kellahin	10
Examination by Examiner Stogner	20
<u>LARRY R. PHILLIPS</u> (Engineer)	
Direct Examination by Mr. Kellahin	22
Examination by Examiner Stogner	32
STATEMENT BY MR. KELLAHIN	35
REPORTER'S CERTIFICATE	38

\* \* \*

## E X H I B I T S

Applicant's	Identified	Admitted
Exhibit 1	11	20
Exhibit 2	13	20
Exhibit 3	15	20
Exhibit 4	16	20
Exhibit 5	18	20
Exhibit 6	23	32
Exhibit 7	24	32
Exhibit 8	26	32
Exhibit 9	27	32
Exhibit 10	30	32
Exhibit 11	31	32
Exhibit 12	37	37

\* \* \*

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

## FOR THE DIVISION:

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

## FOR THE APPLICANT:

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

## FOR CHEVRON USA 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 10:33 a.m.:

3           EXAMINER STOGNER: Hearing will come to order.  
4 Call the next case, Number 11,433.

5           MR. CARROLL: Application of Oryx Energy Company  
6 for an unorthodox gas well location and simultaneous  
7 dedication, Eddy County, New Mexico.

8           EXAMINER STOGNER: Call for appearances.

9           MR. KELLAHIN: Mr. Examiner, I'm Tom Kellahin of  
10 the Santa Fe law firm of Kellahin and Kellahin, appearing  
11 on behalf of the Applicant, and I have two witnesses to be  
12 sworn.

13           EXAMINER STOGNER: Any other appearances?

14           MR. CARR: May it please the Examiner, my name is  
15 William F. Carr with the Santa Fe law firm Campbell, Carr  
16 and Berge. I would like to enter an appearance on behalf  
17 of Chevron USA Production Company.

18           I do not intend to call a witness.

19           EXAMINER STOGNER: Any other appearances?

20           Will the witnesses please stand to be sworn in at  
21 this time?

22           (Thereupon, the witnesses were sworn.)

23           EXAMINER STOGNER: Mr. Kellahin, I understand  
24 that there's a proposed change to this that's going to  
25 require readvertisement?

1 MR. KELLAHIN: Mr. Examiner, if you'll look at  
2 Oryx Exhibit 1 that's in front of you, if you'll look at  
3 Section 17, Oryx had originally proposed the Bogle Flats 13  
4 well out of the north and east corner a distance of 800  
5 feet out of each of those boundaries.

6 In having the well approved by the Bureau of Land  
7 Management, an adjustment was required so that the well now  
8 is staked and approvable at 1020 feet from the north, 750  
9 from the east.

10 Because we are now 50 feet closer to the east  
11 line than originally advertised, I have followed what the  
12 Division normally does, and that's require it to be  
13 readvertised, and I went ahead and filed the Application,  
14 which is on the docket for the 21st.

15 However, we have an agreement with all the offset  
16 operators as to a stipulated penalty. And if you believe  
17 the continuance and readvertisement is not necessary, then  
18 we could dispense with it. If you believe it's necessary,  
19 then I have already done it. But that's the change.

20 EXAMINER STOGNER: Mr. Carr, was Chevron aware of  
21 this change?

22 MR. CARR: Yes, they were, your Honor -- "your  
23 Honor" -- Mr. Stogner, Mr. Examiner. And there is a letter  
24 agreement that has been executed by Mr. Ray Vaden, the  
25 senior land representative for Chevron, and that agreement

1 reflects the location, the new location, stated by Mr.  
2 Kellahin.

3 EXAMINER STOGNER: With that, I'm assuming  
4 there's no objection to go ahead and hear the case today.  
5 The only thing we will not be able to do at this time is  
6 take it under advisement. It will be recalled at the  
7 December 21st, however, and it won't be necessary to hear  
8 any additional testimony. It can be taken under advisement  
9 at that time.

10 MR. KELLAHIN: Thank you, Mr. Examiner.

11 EXAMINER STOGNER: Just a clarification on  
12 Exhibit Number 1 because we have talked about that.

13 Some of the offset properties show Standard Oil  
14 of Texas. Is that Chevron's properties?

15 MR. KELLAHIN: Yes, your Honor, if you'll turn to  
16 Exhibit Number 2 -- I'm sorry, I've mislabeled the  
17 exhibits, but we will show you an exhibit here that  
18 specifically identifies the ownership. The offset operator  
19 is Chevron, and in some instances the working interest  
20 owner is Marathon. Both those parties have executed the  
21 waiver.

22 The "Standard Oil of Texas" refers to that old  
23 wellbore, but Section 16 is under the control of Chevron.

24 EXAMINER STOGNER: Okay, because that old name  
25 still shows up on this quite a bit, and I just wanted to

1 clarify that --

2 MR. KELLAHIN: Yes, sir, and you'll --

3 EXAMINER STOGNER: -- that Standard Oil of Texas  
4 is essentially Chevron.

5 MR. KELLAHIN: Yes, sir, and you'll be able to  
6 document that when you look at Exhibit Number 5 during the  
7 testimony.

8 EXAMINER STOGNER: Okay. With that, let's -- You  
9 may continue, Mr. Kellahin.

10 MR. KELLAHIN: Let me quickly summarize what we  
11 have done in this case.

12 In Section 17 we are in the Indian Basin-Upper  
13 Penn Gas Pool. That is a prorated gas pool, as the  
14 Examiner knows, and we are continuing with a process of  
15 drilling a second infill well in the 640-acre spacing unit.

16 This is a practice that has been initiated some  
17 time ago by the operators whereby, as water encroachment  
18 continues to occur in the gas reservoir, they seek to drill  
19 what eventually becomes a replacement well for the original  
20 well, and that's what's occurring here.

21 As part of that process, Mr. Carr and I, for our  
22 respective clients, some time ago have developed a practice  
23 for handling these issues, and they are being resolved  
24 outside of disputes in the Examiner hearing room.

25 We have modeled this solution in this case off an

1 order you entered back in January of 1995. It's in Case  
2 11,189. It's Order Number 10,359, and I'll give you a copy  
3 of that for reference.

4 What has occurred between Oryx and Chevron and  
5 Marathon is a method of solution, in this case to resolve  
6 the issues similar to what was accomplished in Case 11,189,  
7 and that is to allow each of the two wells to be  
8 concurrently produced, subject to the spacing unit  
9 allowable.

10 But the entire production for the spacing unit,  
11 then, is subject to a limitation penalty. The limitation  
12 penalty is a two-component penalty. It's based upon  
13 productive acreage within the spacing unit, plus the  
14 distance footage encroachment factor.

15 As part of the stipulation you're about to see in  
16 this case, the parties came to a compromise on the penalty.  
17 The penalty is going to result in a producing allowable of  
18 69.5 percent of a full allowable, and it will have a two-  
19 part formula that Mr. Larry Phillips, the reservoir  
20 engineer, will describe.

21 To satisfy you that we have accomplished this in  
22 a method that prevents waste and protects correlative  
23 rights, Mr. Roy Wolin, the geologist, will describe for you  
24 the circumstances and will lead you through the technical  
25 case.

1           But I wanted you to know that all parties have  
2 stipulated as to a solution, and with your concurrence and  
3 the approval of the Division, then, we would like to drill  
4 and produce the infill well in a manner consistent with  
5 your approvals of other wells in this pool.

6           And with that comment, we'll call Mr. Roy Wolin.

7                           ROY C. WOLIN,

8 the witness herein, after having been first duly sworn upon  
9 his oath, was examined and testified as follows:

10                           DIRECT EXAMINATION

11 BY MR. KELLAHIN:

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

14           A.    My name is Roy Wolin. I work for Oryx Energy as  
15 a staff geologist and have done so for 15 1/2 years.

16           Q.    Mr. Wolin, on prior occasions have you testified  
17 as a geologist before the Division?

18           A.    Yes, four times.

19           Q.    And pursuant to your employment in that capacity,  
20 are you familiar with the geologic facts surrounding the  
21 proposal to drill the Bogle Flats 13 well at the unorthodox  
22 location?

23           A.    Yes, I am.

24           MR. KELLAHIN: We tender Mr. Wolin as an expert  
25 geologist.

1 EXAMINER STOGNER: Mr. Wolin is so qualified.

2 Q. (By Mr. Kellahin) Mr. Wolin, let's turn to  
3 Exhibit Number 1 and have you identify for us what we're  
4 seeing.

5 A. On Exhibit Number 1 there are about five factors  
6 that we should look at.

7 First of all, in Section 17, we see the Bogle  
8 Flats Number 9 well. That is our presently producing well  
9 on the Section 17 tract.

10 The updip proposed location is located to the  
11 northeast of that. That wellbore is located in a position  
12 of 1020 from the north line and 750 from the east line. As  
13 you can see, based upon the contours in green on Exhibit 1,  
14 this represents an updip position on the Upper Penn  
15 reservoir of Indian Basin field.

16 Q. What's the geologic basis upon which Oryx seeks  
17 to drill the infill well in Section 17?

18 A. The basis is that as the Number 9 has begun to  
19 cut water we would prefer to go updip to it and gain 85  
20 feet of structure.

21 Q. Is that infill well necessary in order for Oryx  
22 to have an opportunity to recover its share of recoverable  
23 gas underlying its spacing unit in the Indian Basin-Upper  
24 Penn Gas Pool?

25 A. Yes, we believe it is, especially since when the

1 wells begin to cut above a water figure of 200 barrels a  
2 day, they tend to water out. And even though they're  
3 capable of producing gas, we don't have the facilities out  
4 there in terms of the electricity to do the high-volume  
5 lift necessary to produce that gas.

6 Q. Were you involved with negotiating with Marathon  
7 and Chevron concerning the productive acreage within  
8 Section 17?

9 A. Yes, I was.

10 Q. In coming to that solution, describe for the  
11 Examiner what geologic values are shown on Exhibit 1 that  
12 are relevant to that discussion.

13 A. There are two values on geologic Exhibit Number 1  
14 that are relevant to it, the first one being the heavy blue  
15 line which represents the present gas-water contact of the  
16 Upper Penn reservoir, which is at approximately minus 3100  
17 feet subsea.

18 And the second major factor is represented by the  
19 west fault on our tract 17, and the position of that fault  
20 determines how many productive acreage that we have in  
21 tract 17.

22 So between those two, we have approximately 617  
23 productive acres.

24 Q. How have you determined the approximate location  
25 of the gas-water contact?

1           A.    Based upon production in the offset wells.

2           Q.    And how did you determine the approximate  
3 location of this controlling fault boundary on the west  
4 side of the spacing unit?

5           A.    Based upon the top of the subsea tops for the  
6 Upper Penn in the offset wells.

7           Q.    Okay.  Let's turn now to the issue of the Bogle  
8 Flat Number 13's well location.  We described to the  
9 Examiner that it had originally been staked at a different  
10 position, and then relocated.

11                    If you'll use Exhibit Number 2, summarize for us  
12 what has occurred and what the status is of that relocated  
13 well location.

14           A.    Essentially what happened was that the original  
15 proposed location of 800 foot from the north and 800 from  
16 the east line of Section 17, it was staked at that  
17 location, and a day later Barry Hunt of the Bureau of Land  
18 Management came out and requested that we move the location  
19 423 feet essentially due south, based upon topography  
20 constraints.  That location was staked.

21                    When we went back and did the analysis on the  
22 cost, the cost of kicking a wellbore, a deviating wellbore,  
23 400 feet, made the well uneconomical.

24                    So essentially what we did is, with Barry Hunt of  
25 the Bureau of Land Management, we went out again and got

1 the most northerly location that we could, based upon  
2 topography, and that location is the stated location of  
3 1020 from the north line and 750 from the east line.

4 Q. After the first page of your summary of Exhibit  
5 2, what is stapled to Exhibit 2?

6 A. Essentially what we have stapled to Exhibit 2 is  
7 the actual proposed location of 1020 and 750, approved by  
8 the Oil Conservation Division.

9 Q. Then following that there's a location-  
10 verification topographic map?

11 A. That is correct. The first one in print, you  
12 see, shows the new location of 1020 and 750, and the one  
13 done in handwritten shows the original location of 800 by  
14 800 and shows you the topographic constraint of the  
15 hillside that created the location change.

16 Q. And the last -- this vicinity map attachment,  
17 what does that --

18 A. It's a general map showing the direction to  
19 Carlsbad and the location of the wellbore.

20 Q. At this point do you believe that Oryx has  
21 satisfied all the surface limitation -- or requirements of  
22 the Bureau of Land Management to have this well drilled as  
23 it is now requested by the Division?

24 A. Yes, I believe so.

25 Q. Okay. Let's turn to the cross-section and look

1 at A-A', which is marked as Exhibit Number 3. Let's take a  
2 moment and unfold that display.

3 Help us use this display, Mr. Wolin, Exhibit  
4 Number 3, to illustrate what you are describing to the  
5 Examiner as the necessity for drilling the Number 13 well.

6 A. Essentially, cross-section A-A' represents a  
7 cross-section showing our Number 9 Bogle Flats producing  
8 well in Section 17, the proposed location, the Bogle Flats  
9 13, and, to the east, the Chevron Bogle Flats Number 5  
10 well, the closest offsetting producer to it.

11 And what you see is, we have a structural cross-  
12 section, showing the top of the Upper Penn dolomite in this  
13 area. And you can see that essentially our Bogle Flats  
14 Number 9 would be downdip to the proposed 13 location, and  
15 Chevron's Bogle Flats Unit Number 5 is essentially flat  
16 with our Bogle Flats Number 9.

17 On the bottom of the cross-section, you see the  
18 tilted gas-water contact at minus 3100 feet. In the  
19 Chevron well, which is cutting only two barrels of water a  
20 day, you see that the perms are open actually below that  
21 minus 3100 feet. But there's not an excessive amount of  
22 porosity there.

23 In our well, you see that we're cutting almost 50  
24 barrels of water a day, even though our perms are located  
25 higher than the Chevron well. And essentially this is

1 caused by the encroachment of water into our wellbore.

2 Q. There will still be recoverable gas left under  
3 your spacing unit in the reservoir, but you can't access it  
4 with the Number 9 well because of its structural position?

5 A. That is correct.

6 Q. And the replacement well or the infill well  
7 allows you to move upstructure, away from the encroaching  
8 water, and have an opportunity, then, to recover some of  
9 your remaining recoverable gas?

10 A. That is correct.

11 Q. All right. Let's turn to Exhibit Number 4, then,  
12 and have you describe that for us.

13 Mr. Wolin, you have provided in Exhibit Number 3  
14 a visualization of the reservoir in an east-west direction.  
15 Exhibit Number 4 gives us a little different perspective as  
16 we look northeast-southwest. Help us understand what  
17 you're illustrating.

18 A. Essentially what I'm illustrating in this cross-  
19 section, again, I have included the -- our Bogle Flats  
20 Number 9 well, our currently producing well, the proposed  
21 location, the Bogle Flats Number 13, and again, a Chevron  
22 well located updip in Section 9, the Bogle Flats Number 3.

23 Again, you can see we have -- The darkened line  
24 represents the top of the Upper Penn dolomite, and again  
25 you can see at the base we have the minus 3100 gas-water

1 contact.

2 As is indicated, you can see that we will gain  
3 about 85 foot of structure in our Bogle 13 well, thereby  
4 recovering reserves we will not be able to recover with our  
5 Bogle 9, and also we'll essentially still be about 20 foot  
6 downdip to the Bogle Flats Number 3 well for Chevron.

7 And I think you can also see on this cross-  
8 section that most of the perforations in the Chevron well  
9 are well above the known gas-water contact.

10 Q. All right. Let's look at your relationship to  
11 the other spacing units. In Section 9, up to the  
12 northeast, that's a Chevron-operated well?

13 A. That is correct.

14 Q. And they are withdrawing recoverable gas with a  
15 single well on that spacing unit at this point?

16 A. At top allowable, that is correct.

17 Q. As we move over west of that to Section 8,  
18 Chevron is the operator of Section 8?

19 A. That is correct.

20 Q. And what has been their method of producing that  
21 spacing unit?

22 A. They had one well, the Bogle Flats Number 6,  
23 again, a top-allowable well for that proration unit, and  
24 they have just recently drilled the Bogle Number 12, to  
25 replace what appears to be some gas decline in that well.

1           So essentially they'll have two orthodox  
2 locations producing in that tract.

3           Q.    The Section 8 spacing unit, then, is a top-  
4 allowable producing spacing unit?

5           A.    It should be after the second well comes on.

6           Q.    All right.  And you need your Number 13 well in  
7 order to have a chance to compete against gas withdrawals  
8 that are occurring north of your spacing unit?

9           A.    That is correct.

10          Q.    Okay.  Let's turn to the information you have to  
11 verify the offset operators and interest owners.  If you'll  
12 turn to the summary attached as Exhibit 5, Mr. Wolin,  
13 identify for us what you have submitted.

14          A.    Essentially Exhibit 5 represents an analysis that  
15 was done for our land department of the offset operators,  
16 or offset leases, surrounding our Bogle Flats Number 9 and  
17 the proposed Bogle Flats Number 13 well.

18          Q.    Have you satisfied yourself that all the  
19 operators around your spacing unit have been notified?

20          A.    I have.

21          Q.    In addition, the operators as to which this well  
22 encroaches have been notified?

23          A.    That is correct.

24          Q.    If you'll turn to the last sheet that's attached  
25 to Exhibit 5, there's a summary with regards to those

1 sections; is that not true?

2 A. That is correct.

3 Q. All right. And to the best of your knowledge,  
4 and to those technical people with Oryx that do this work,  
5 this is accurate and correct?

6 A. That is correct, this represents a summary of the  
7 producing offset properties.

8 Q. Okay. As part of this process, were you involved  
9 in discussing with Chevron as operator, as well as  
10 Marathon, the offsetting interest owner, how to resolve the  
11 issue with regards to any production limitation on the  
12 subject infill well?

13 A. Yes, I have been.

14 Q. Did you obtain the approval of Chevron and  
15 Marathon as the offset interest owners to allow you to  
16 simultaneously produce both the Number 9 and 13 well?

17 A. Yes, we have.

18 Q. And they have approved you to produce those wells  
19 concurrently?

20 A. That is correct.

21 Q. Have you reached some compromise solution with  
22 regards to a stipulation as to the maximum rate at which  
23 you'll produce the spacing unit?

24 A. Yes, we have.

25 Q. And what is that number?

1 A. .695, or 69.5 percent of the total allowable.

2 Q. So that would be the allowable portion of a full  
3 unpenalized allowable?

4 A. That is correct.

5 Q. Do you recommend to the Division Examiner that he  
6 adopt and approve the stipulated production limitation for  
7 your spacing unit?

8 A. Yes, I do.

9 MR. KELLAHIN: That concludes my examination of  
10 Mr. Wolin.

11 We move the introduction of his Exhibits 1  
12 through 5.

13 EXAMINER STOGNER: Are there any objections?

14 MR. CARR: No objection.

15 EXAMINER STOGNER: Exhibits 1 through 5 will be  
16 admitted into evidence.

17 EXAMINATION

18 BY EXAMINER STOGNER:

19 Q. Is that gas-water contact, is that pretty well  
20 defined? Could it be marked on this -- on the maps  
21 provided on both of your cross-sections?

22 A. It actually is marked, Mr. Examiner, on the maps.  
23 It's just, unfortunately, on the blue-line Ozalid it  
24 doesn't come out very well. I think if you'll look in  
25 Section 15 you'll see, it says "gas-water contact".

1 Q. Oh, yeah.

2 A. And there's a hachured line. Unfortunately, the  
3 reproductive method was not very good here.

4 Q. And that water contact is moving to the north  
5 from Section 20 --

6 A. That is correct, either from the -- north from  
7 Section 20, or it's actually the northwest from Section 21.

8 Q. Now, that line would represent total watered out,  
9 from the --

10 A. -- hachured line.

11 Q. Yes, from the top of the Upper Penn dolomite on  
12 down?

13 A. That is correct.

14 Q. A hundred percent watered out.

15 A. That is correct.

16 Q. Do you have any idea, or -- Well, perhaps I need  
17 to ask the engineer what the rate of that water-gas contact  
18 is moving.

19 A. I think you'd have to ask the engineer on that.

20 Q. Do you know some kind of a water cut or water  
21 production from the three offsetting -- I want to say the  
22 three closest offsetting Chevron wells? Are they  
23 substantially lower than the Bogle Flats Number 9 or  
24 higher?

25 A. Substantially lower. In fact, only a couple

1 barrels a day from the offset Number 5 well.

2 Q. Okay. Was there something magical about the 800  
3 -- the original 800 feet from the north and east line  
4 number?

5 A. No, I don't believe, Mr. Examiner, there's  
6 anything magical about it. It's just been a standard  
7 location -- It's like a half location from the orthodox  
8 1650-1650, so we're used to dealing with that 800 by 800,  
9 and a precedent has been set as to allowables in the past.  
10 That was the only reason that location was chosen.

11 EXAMINER STOGNER: Okay. If there's no other  
12 questions for this witness, you may be excused.

13 MR. KELLAHIN: Mr. Examiner, we would call Larry  
14 Phillips. Mr. Phillips is a reservoir engineer.

15 LARRY R. PHILLIPS,  
16 the witness herein, after having been first duly sworn upon  
17 his oath, was examined and testified as follows:

18 DIRECT EXAMINATION

19 BY MR. KELLAHIN:

20 Q. Mr. Phillips, would you please state your name  
21 and occupation?

22 A. Larry Ray Ware Phillips. I'm a reservoir  
23 engineer with Oryx Energy.

24 Q. On prior occasions, Mr. Phillips, have you  
25 testified before the Division?

1 A. Yes, I have.

2 Q. And have you been involved with Mr. Wolin in  
3 analyzing the technical aspects of drilling an infill well  
4 in Section 17?

5 A. Yes, I have.

6 Q. Were you responsible for calculating the proposed  
7 production limitation for the spacing unit?

8 A. I was.

9 Q. In addition, have you prepared and summarized  
10 data with regards to the production in Section 17, as well  
11 as the relevant production that offsets you?

12 A. Yes, I have.

13 MR. KELLAHIN: We tender Mr. Phillips as an  
14 expert reservoir engineer.

15 EXAMINER STOGNER: Any objections?

16 MR. CARR: No objection.

17 EXAMINER STOGNER: Mr. Phillips is so qualified.

18 Q. (By Mr. Kellahin) Let's turn to the topic of  
19 having you summarize the request, Mr. Phillips. If you'll  
20 turn to Exhibit Number 6, summarize for us what you're  
21 seeking to do.

22 A. First of all, we are requesting the unorthodox  
23 location at 750 feet from the east line, 1020 from the  
24 north line, in Section 17 of Township 22 South, Range 23  
25 East.

1           We were further requesting the allocation factor  
2 of .75 by our calculations. We would note that the  
3 agreement has been reached with offset operators on a  
4 slightly different allocation factor, prior to coming to  
5 this meeting.

6           Q.    So when you and Mr. Wolin were making the  
7 allocation factor penalty calculation using the precedent  
8 established by the Division, you came up to a 75-percent  
9 allowable?

10          A.    Correct.

11          Q.    As a result of settlement negotiations with  
12 Chevron and Marathon, you have voluntarily agreed to  
13 further reduce your allowable so that if approved by the  
14 Division you could produce 69.5 percent of that allowable?

15          A.    That's correct.

16          Q.    And then finally you're requesting to produce the  
17 wells concurrently under the reduced allowable?

18          A.    Yes.

19          Q.    All right, sir. Let's turn to Exhibit 7 and have  
20 you show the Examiner how you went about the method by  
21 which you've calculated the penalty.

22          A.    It's a two-part formula, which obviously you've  
23 seen before, based on productive acreage. Based on Mr.  
24 Wolin's maps, we had 617 productive acres, out of 640,  
25 which is 96 -- nearly 96.5 percent of the section.

1           The other part of the formula is the distance  
2 ratio method. We took both distances, 750 divided by the  
3 1650 legal distance. That gave us 45 1/2 percent. The  
4 1020 divided by the 1650 was 61.8 percent. The average of  
5 those two is nearly 54 percent. Then the average of the  
6 two pieces of the equation gave us our 75 percent.

7           This is what we faxed to Marathon and Chevron and  
8 worked from to come to the compromise.

9           Q. The technical debate that occurred among the  
10 companies was discussions about the location of the  
11 controlling west boundary fault line, was it not?

12          A. That's true.

13          Q. And they had a slightly different opinion than  
14 you had with regards to that issue?

15          A. Correct.

16          Q. And rather than bring that dispute to the  
17 Division, the parties have simply stipulated as to a level  
18 that satisfies their concern?

19          A. That's correct.

20          Q. All right, let's talk about the data that's  
21 available for these wells. If you'll turn to Exhibit  
22 Number 8 let's look at your production curves for the area.

23          A. Okay. If I may give the Examiner a larger copy  
24 to look at --

25          Q. Yes, sir, please. You're going to hand the

1 Examiner the same Exhibits 8, 9 and 10, but they're on a  
2 larger size and therefore the data is easier to see?

3 A. That's correct.

4 Q. All right. On Exhibit Number 8 you've got four  
5 wells displayed. Help us find the wells now on Exhibit  
6 Number 1, so we're all looking at the same issue.

7 A. Okay. Of course, it's not to scale, but they are  
8 schematically located as they are in reality. Our well is  
9 the bottom left corner. To the north would be the Bogle  
10 Flats A 6. In the upper right corner is the Bogle Flats  
11 Unit 3. And bottom right, Bogle Flats Unit 5.

12 Q. All right. What's important on the display to  
13 you?

14 A. If you look at the production curves, both of the  
15 wells to the east, the Bogle Flats Unit 3, the Bogle Flats  
16 Unit 5, the red curve is the gas. Those are still very low  
17 water production, and they've been producing at allowable  
18 for a long time.

19 Since we've gone to the 6500, approximately, MCF  
20 a day allowable, they've been able to maintain that full  
21 allowable all along once they got their facilities in  
22 shape.

23 Just to the north of the Bogle Flats Unit 9, in  
24 the A 6 well, you can see that the water has recently come  
25 up -- *Dwight's* has some months missing, but you can see

1 that it has gone from about two to three, jumped to ten,  
2 and now they're looking at nearly 100 barrels a day. And  
3 their production has come from the full allowable of about  
4 6500, down to about 4500 now.

5 So they have now drilled the second well in an  
6 orthodox location to be able to maintain their allowable.

7 Oryx, on the other hand, has had to deal with  
8 considerably more water. Up until recent times, about 20  
9 barrels a day on the average, as far as *Dwight's* was up to  
10 date, we were in the 80 to 90 range. Now we're looking at  
11 about 150 barrels of water per day. Production is down  
12 around 2500, 3000 MCF per day.

13 Q. This illustrates your conclusion, then, about the  
14 necessity of the infill well, the Number 13 well?

15 A. Yes.

16 Q. That you're no longer able to compete  
17 successfully with the existing 9 Well and need to have the  
18 additional well in order to capture your share of the  
19 remaining gas reserves?

20 A. That's correct.

21 Q. Let's turn to Exhibit Number 9 and look at your  
22 pressure-versus-cum gas plot. Again, you set up the wells  
23 in the same orientation?

24 A. Yes.

25 Q. Describe for us those issues that are important

1 to you.

2 A. You can see that the current pressure -- I  
3 believe that the last time pressures were reported -- and  
4 this again was pulled from *Dwight's* data -- was 1994.

5 So if you look at the cums, currently there's  
6 probably about 2 BCF more than these plots are showing for  
7 each of the wells, except for ours, which has been  
8 producing at about 3000 a day. So there's about 1.1 BCF  
9 more on the cum there.

10 You can see that as far as in-place gas, we're  
11 all very similar, pressures are very similar.

12 So you can see that if we continue to operate the  
13 same as we have, where we're producing about half of what  
14 the offsets are producing, pressure in the area is going to  
15 continue to decline the same.

16 Our cum is going to continually lag behind, to  
17 the tune of about a BCF a year. Actually, slightly over.  
18 So we feel the need for the second well, while we're going  
19 to take a penalty, will at least make up some of that  
20 deficit that we're experiencing.

21 Q. When you look at these pressure plots, there's a  
22 data point typical of all four wells that falls below the  
23 pressure decline line. Do you see that?

24 A. Uh-huh.

25 Q. What happened? They all responded to the same

1 event. What was the event? Is that when the Marathon gas  
2 plant went down or --

3 A. Well these are taken at various times over the  
4 years. They're not consistent -- You can't tie it to a  
5 particular event.

6 Q. All right. So the fact that that dot occurs in  
7 each well is not necessarily triggered by a common event?

8 A. Right. And they're not all measured. Some are  
9 calculated from wellhead pressures. If there's fluid that  
10 has stayed in the hole as these wells have started making  
11 water, some of the bottomhole pressures are going to be  
12 calculated wrong.

13 Q. Can you conclude from this data whether or not  
14 these wells are, in fact, in communication with each other?

15 A. I think it's real evident that they are.

16 Q. So the effect of production in one well is going  
17 to have an impact on an adjoining well?

18 A. Yes.

19 Q. We discussed with the Examiner earlier, at least  
20 I did, the Division Case 11,189, in which Oryx obtained  
21 approval early in January of this -- at a January hearing,  
22 approved in May of 1995, for the infill drilling of the  
23 Conoco State Well Number 2.

24 Have you prepared an exhibit that demonstrates to  
25 the Division the results of the issuance of that order?

1 A. Yes, we -- If you'll look at that plot there.

2 Q. That's Exhibit 10?

3 A. Yes.

4 Q. All right.

5 A. The red is the Conoco State 1, the purple is  
6 Conoco State 2, and then the green is the total of the two.

7 You can see that as we were able to drill the  
8 Conoco State 2, we were able to get production back up to  
9 4000 MCF a day from that well, which is still not full  
10 allowable, because we took a penalty there. But it  
11 certainly is much better than the 1.5 to 2 MCF a day we  
12 were experiencing.

13 From the time we had requested -- from the time  
14 of the hearing until we actually were -- got the approval  
15 and were able to drill the well, we actually lost the  
16 Conoco State Number 1. The water just got too much to  
17 handle, and we weren't able to keep it going that whole  
18 time.

19 But we have done work, swabbing the well in, and  
20 when we do that, we can get it to produce at 1000 MCF a  
21 day. Then if the plant goes down, the water is allowed to  
22 build back up, we lose the well again, have to swab it back  
23 in. Obviously, that's not economical.

24 But because of the ruling that we could produce  
25 these concurrently, we have proven to ourselves that this

1 is a viable option, if we can make the economics work.

2 And as a result of your ruling and the chance to  
3 produce these concurrently, we are negotiating with the  
4 other people out there in Indian Basin, looking at disposal  
5 options to try to handle the water, looking at the costs of  
6 getting electricity to the unit so that rather than having  
7 to bring a swab rig out every time the well goes down, we  
8 can have a unit sitting there that we can pump the well off  
9 and keep it pumped off.

10 So there is some capital involved in being able  
11 to maintain this type of activity.

12 We believe, in our negotiations to try to do  
13 that, that it is a viable and probably economical option,  
14 and we hope to come to some consensus with other operators  
15 about how to do that out here so that we can maximize the  
16 total production from Indian Basin.

17 Q. Your last exhibit, Mr. Phillips, is Exhibit 11.  
18 Does this represent the stipulated agreement between  
19 Chevron, Marathon and Oryx with regards to the production  
20 limitation to be assigned to Section 17 with the approval  
21 of the Division?

22 A. Yes, this exhibit contains two letters, one  
23 signed by each representative of -- one from Marathon, one  
24 from Chevron.

25 Q. Will approval of your Application, with the

1 stipulated production limitation, afford an opportunity to  
2 Oryx to continue to recover its share of recoverable gas in  
3 the Indian Basin-Upper Penn Pool?

4 A. Yes.

5 Q. And we may do that without causing waste and  
6 without impairing the correlative rights of the other  
7 interest owners?

8 A. That's correct.

9 MR. KELLAHIN: That concludes my examination of  
10 Mr. Phillips.

11 We move the introduction of his Exhibits 6  
12 through 11.

13 EXAMINER STOGNER: Any objections?

14 MR. CARR: No objection.

15 EXAMINER STOGNER: Exhibits 6 through 11 will be  
16 admitted into evidence.

17 EXAMINATION

18 BY EXAMINER STOGNER:

19 Q. Mr. Phillips, in looking at Exhibits Number 6 and  
20 7 now, you have proposed through the same method that was  
21 utilized in Exhibit -- I'm sorry, not in Exhibit, but in  
22 Order Number R-10,359, you came up with an average penalty  
23 of 75 percent. What portion of that -- or was it the total  
24 proportion, that Chevron disagreed to, or how come you  
25 all -- or what factor brought the 69.5 percent --

1           A.    It could be the location of that fault.  If it  
2 were to slide a little bit to the east, that would take  
3 away acreage, obviously, if you refer back to this Exhibit  
4 1.  With the spacing of the west out there, it is not real  
5 definite, the placement of that fault.  So the compromise  
6 is just between we think the fault's here, and they think  
7 the fault's there.

8           Q.    Okay, so it was based on something, as opposed to  
9 just arbitrary?

10          A.    Yes.

11          Q.    Okay.  When does Oryx propose to begin -- Or, I'm  
12 sorry, let me rephrase that.

13                    When would be the earliest possible date Oryx  
14 would be able to move a rig out on that location and start  
15 drilling?

16          A.    We have it planned for March, but we could move  
17 much quicker than that.  Our management would like us to  
18 move quicker.

19          Q.    Has it been -- has the staking been -- Or I guess  
20 the process through the BLM, has that been completed for  
21 APD purposes?

22          A.    Yes.

23          Q.    When did Oryx and Chevron get together on this?  
24 Or how long have you been talking with Chevron?

25          A.    Mr. Wolin has actually been the one talking to

1 them. But it's just been over the last month.

2 Q. It's interesting on Exhibit Number 10, I wasn't  
3 expecting that Conoco State Well Number 1 to water out so  
4 quickly.

5 A. Well, we were -- I don't know if you remember  
6 many of the exhibits from that hearing, but the wells have  
7 all acted very differently, on how fast the water comes,  
8 how long people can keep nursing them once water hits in  
9 any significant amount.

10 We were hoping to keep it going. What really  
11 hurts is when you have a plant shut down for several days.  
12 Then it's expensive to go get that well back on. And for  
13 rates of 1000, 1200 MCF a day, it's hard to justify that  
14 expense as often as it has been coming up.

15 Q. How does the Bogle Flats Unit Number 9 well's  
16 production -- What's the similarity between that and the  
17 Conoco State Number 1? Do you feel it's a better well? Is  
18 it -- It looks like a pretty flat production curve.

19 A. It's better located than the Conoco State Number  
20 1. It's higher on the structure. So we feel like  
21 hopefully it will act differently than the Conoco State and  
22 be able to continue producing at the 2-to-3 MCF a day for  
23 some time.

24 Q. Are you starting a little earlier on the Number 9  
25 proposed infill well as you -- than what you did with the

1 Conoco State Number 1 well?

2 A. Yes.

3 Q. But I guess the similarities -- or is it safe to  
4 say the similarities -- most of those wells, if not all of  
5 the wells in this pool, like what you stated, once that  
6 water encroachment begins, it's there and it's hard to  
7 restrict it or --

8 A. Right. I don't know of anyone that's had much  
9 success in shutting off the water. It tends to come to the  
10 same permeable streaks that the gas is going to come to.

11 EXAMINER STOGNER: Any other questions of this  
12 witness?

13 MR. KELLAHIN: No, sir.

14 EXAMINER STOGNER: You may be excused. Thank  
15 you.

16 Anything else further in this matter?

17 MR. KELLAHIN: Just a short comment, Mr.  
18 Examiner.

19 It's my understanding that Oryx is prepared to  
20 spud the well and that the only remaining decision to  
21 receive is the approval of the Division for the location  
22 with the stipulated penalty.

23 I've been involved in the case since October, and  
24 part of our motive in reaching a stipulated penalty was to  
25 avoid presenting you with a complicated dispute in the

1 hearing process, and thereby with the stipulated result  
2 hopefully expedite your action in this matter so that we  
3 could drill the infill well as soon as reasonably possible.  
4 If it would aid you, I'd be more than happy to prepare a  
5 draft order.

6 If there's anything else we might do to expedite  
7 the processing, I would be more than happy to try.

8 EXAMINER STOGNER: Other than the continuation  
9 and readvertisement issue for notification purposes, an  
10 order will not be issued prior to December 21st, but I will  
11 take you up on your early Christmas gift and the --

12 MR. KELLAHIN: All right, sir, we'll have it for  
13 you after the re-hearing of the notification.

14 That's all I have, Mr. Examiner. Thank you.

15 EXAMINER STOGNER: Thank you.

16 If there's nothing else further in Case Number  
17 11,433, then this case will be taken -- I'm sorry, will not  
18 be taken under advisement until it is called again at the  
19 December 21st hearing.

20 (Off the record)

21 MR. KELLAHIN: Mr. Examiner, I apologize. There  
22 is an Exhibit 12 which is my certificate of notice. With  
23 your approval, I'll submit that to you.

24 EXAMINER STOGNER: Okay, let's make sure we're  
25 back on the record, on Case Number 11,433.

1           The issuance of Exhibit Number 12, which is a  
2 certification of mailing, compliance with Order Number  
3 R-8054, this exhibit will now be admitted into evidence.

4           With that, we will continue.

5           Thank you, sir.

6           (Thereupon, these proceedings were concluded at  
7 11:19 a.m.)

8                           \* \* \*

9  
10  
11  
12  
13  
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 Division 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.

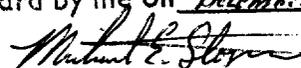
WITNESS MY HAND AND SEAL December 10th, 1995.



STEVEN T. BRENNER  
 CCR No. 7

My commission expires: October 14, 1998

**I do hereby certify that the foregoing is a complete record of the proceedings in the Examiner hearing of Case No. 11433, heard by me on December 7 1995.**

  
 \_\_\_\_\_, Examiner  
 Oil Conservation Division