

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:)
)
 APPLICATION OF MARATHON OIL)
 COMPANY)
 _____)

CASE NO. 11,088

REPORTER'S TRANSCRIPT OF PROCEEDINGSEXAMINER HEARING

BEFORE: MICHAEL E. STOGNER, Hearing Examiner

September 15th, 1994

Santa Fe, New Mexico

This matter came on for hearing before the Oil
 Conservation Division on Thursday, September 15th, 1994, at
 Morgan Hall, State Land Office Building, 310 Old Santa Fe
 Trail, Santa Fe, New Mexico, before Deborah O'Bine, RPR,
 Certified Court Reporter No. 63, for the State of New
 Mexico.

ORIGINAL

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A P P E A R A N C E S

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By: W. THOMAS KELLAHIN

* * *

1 EXAMINER STOGNER: Hearing will come to order.

2 Call Case Number 11,088, which is the Application
3 of Marathon Oil Company for an unorthodox gas well location
4 in Eddy County, New Mexico.

5 At this I'll call for appearances.

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

10 EXAMINER STOGNER: Are there any other
11 appearances in this matter?

12 Will the witnesses please stand to be sworn?

13 (Thereupon, the witnesses were sworn.)

14 EXAMINER STOGNER: Mr. Kellahin?

15 MR. KELLAHIN: Mr. Examiner, our first witness is
16 a geologic expert from marathon. His name is Curt Miller.

17 Mr. Examiner, we're dealing with the Indian
18 Basin- Upper Penn gas pool. It's a prorated gas pool, on
19 640 gas spacing.

20 This case is to approve a replacement well for
21 the original well on the section, which is now
22 substantially depleted. The new well will be at an
23 upstructure unorthodox location.

24 It has been the custom and practice in the last
25 few years in this reservoir that when there were

1 nonstandard location cases, the offsetting operators would
2 discuss with each other an appropriate penalty.

3 There has been such a discussion in this case,
4 and while it is my opinion that this well would not deserve
5 a penalty, we have acquiesced into the practice of the
6 operators in the pool to accept a penalty on this well. We
7 have negotiated that penalty with the offset operator,
8 Apache.

9 It is a two-part formula which we will discuss,
10 but it's got an acreage encroachment and a productive
11 acreage component. And that will be our presentation.

12 We have a geologic witness to show you the
13 necessity of the location and an engineering witness to
14 talk about the need for a replacement well and to go
15 through the penalty.

16 EXAMINER STOGNER: Thank you, Mr. Kellahin.

17 As in several of these instances where a penalty
18 has been assessed voluntarily -- I think we have in many
19 cases taken several, but I appreciate your going into
20 detail, letting me know how you arrive at that penalty, not
21 -- because it is voluntary, not that it will affect it, but
22 as far as my own information --

23 MR. KELLAHIN: Yes, sir.

24 EXAMINER STOGNER: -- in how a penalty is
25 assessed.

1 MR. KELLAHIN: Our engineering witness has
2 studied those matters, and he will present that to you.

3 CURT MILLER,
4 the witness herein, after having been first duly sworn upon
5 his oath, was examined and testified as follows:

6 DIRECT EXAMINATION

7 BY MR. KELLAHIN:

8 Q. Mr. Miller, for the record, sir, would you please
9 state your name?

10 A. Curt Miller.

11 Q. And where do you reside?

12 A. Midland, Texas.

13 Q. And what is your occupation?

14 A. I'm a geologist for Marathon Oil Company.

15 Q. On past occasions, Mr. Miller, have you testified
16 before the agency as a petroleum geologist?

17 A. Yes, I have.

18 Q. In fact, you testified in one of the wells within
19 this particular section that's involved in this case, is it
20 not?

21 A. That is true.

22 Q. You provided the geologic testimony for the
23 original well in this section?

24 A. Yes. That's the Indian Basin "C" Number 1.

25 Q. And in Section 26. That was intended originally

1 to be a horizontal well, was it not?

2 A. Yes, it was originally. The last time we were
3 here, we were proposing drilling a short-radius horizontal
4 out of that wellbore.

5 Q. And you subsequently elected to not drill it
6 horizontally, after it was being drilled, I believe?

7 A. That is correct.

8 Q. All right, as part of your geologic study, have
9 you made a continuing study of the facts and circumstances
10 about how best to recover the gas that underlies Section
11 26?

12 A. Yes, I have. And we believe another well located
13 upstructure within our section would help to recover the
14 reserves on our section.

15 Q. Are the conclusions you're about to express --
16 those conclusions, are they personal to you? Does this
17 represent your personal work?

18 A. Yes, it does.

19 MR. KELLAHIN: We tender Mr. Miller as an expert
20 geologist.

21 EXAMINER STOGNER: Mr. Miller is so qualified.

22 Q. (By Mr. Kellahin) To orient the Examiner, Mr.
23 Miller, let's turn to Exhibit 1 and have you identify that
24 for us.

25 A. This is a location map showing the proposed

1 location of the Indian Basin "C" Number 2 within Section 26
2 in relationship with the rest of the fields.

3 As you can see, it is locate about three or four
4 miles south of the south Dagger Draw field.

5 Q. Well, let's show that. I think it can be
6 illustrated on the display.

7 If you'll go north in your township, there is a
8 row of sections on the north end of your township that are
9 short sections, if you will, irregular size? Do you see
10 that?

11 A. Right. That is Township 20-1/2 South, 23 East.

12 Q. And then just north of that is a vertical row of
13 wells?

14 A. Right, that is South Dagger Draw Pool.

15 Q. All right. When we move to the west of your
16 proposed location, generally the gas wells that are shown
17 in that western area, in what pool do they produce?

18 A. Indian Basin-Upper Penn Pool.

19 Q. As we move to the south and east of your
20 location, are we still in Indian Basin-Upper Penn?

21 A. Yes, we are. Several miles to the east and
22 southeast there is the Indian Basin Associated pool.

23 Q. Let's turn now to Exhibit No. 2 and look more
24 specifically at the immediate area.

25 Would you identify Exhibit 2 for us?

1 A. This is a structure map of the Upper Penn, which
2 is a producing formation in the Indian Basin field, with
3 the structure map including the section where we're
4 proposing our unorthodox location in Section 26.

5 Q. All right, let's forget a structure map for a
6 moment and discuss some of the information shown on that
7 display.

8 First of all, let's look at the offset operators.
9 Does this map show the current operators of the offsetting
10 spacing units towards which this well would encroach?

11 A. Yes, it does at the top of each section. Those
12 are labeled.

13 Q. What is the meaning of the indication "MW
14 Petro."?

15 A. MW Petroleum, or also Apache Petroleum would be
16 the same company.

17 Q. All right.

18 A. They are the operator of Section 35, which is
19 offsetting our section.

20 Q. The specific requested well location for your "C"
21 2 well is what, sir?

22 A. The location of that is 990 feet from the south
23 line and 660 feet from the west line.

24 It offsets our operated section 27, and it
25 offsets the MW Petroleum section to the south.

1 Q. Under the pool rules for this pool, what would be
2 a standard well location?

3 A. 1650 feet from section lines.

4 Q. Within Section 26, is there an original well
5 located in the section for this pool?

6 A. Yes, there is, the Indian Basin "C" Number 1 in
7 the northwest quarter of that section.

8 Q. Describe for us what -- as a geologist what
9 causes you to want to replace the "C" 1 with the proposed
10 "C" Number 2?

11 A. The Indian Basin "C" 1 is still capable of
12 producing small amounts of gas with water, and we believe
13 it is very close to the gas-water contact. And we believe
14 if we get updip to that well, we will be able to produce
15 reserves still remaining in the updip portion of that
16 section.

17 And we've seen -- or it's been a practice in this
18 field to do that within other sections operated by Marathon
19 and other operators.

20 Q. Give us a geologic sense of how the reservoir is
21 positioned, particularly with regards to Section 26.

22 A. We believe we have a contour interval here of 100
23 feet, and we believe we can get approximately 100 feet high
24 to the Indian Basin "C" Number 1.

25 Q. Why is that significant to you as a geologist?

1 A. Getting further above the gas-water contact, we
2 feel we'll be able to produce essentially water-free at the
3 beginning of the life of that well.

4 Q. There's a dashed blue line on your display?

5 A. Yes, that's an estimated gas-water contact, based
6 on information from our "C" Number 1 Well, and we believe
7 that is a good indication of the remaining potential
8 productive acreage within our section.

9 Q. Give us a short summary of how you interpret the
10 location of that line, not only through Section 26 but the
11 other sections over which that line crosses.

12 A. Okay. Well, in the Indian Basin "C" Number 1, in
13 our well, we ran a production log on that well last year,
14 and we had about a ten-foot interval where all the gas and
15 water was coming from, that specific interval.

16 At that point we thought we had channeling of
17 water from behind pipe from below that zone. We squeezed
18 that off. We think we had a successful squeeze.

19 We're still capable of producing gas and water
20 from that zone. So we believe that basically that
21 producing interval of ten feet is the gas-water contact is
22 within that interval. That projects to minus 3475, the top
23 of the Upper Penn.

24 The shut-in wells are indicated, and the
25 producing wells are indicated with appropriate symbols on

1 the map.

2 Most of the wells, or almost all the wells
3 downdip of that blue line are shut in at this time. Most
4 of the wells updip of that line are still active producers.

5 Q. Give us a quick summary in Section 35 to the
6 south of what has been the depletion strategy, if you will,
7 for that section.

8 A. They originally drilled a well there in the
9 northwest quarter of that section. It began to produce
10 water within the last few years.

11 And they ran a production log on that, which was
12 presented in a previous hearing, where they had a gas --
13 they had two perforated intervals, with one interval at the
14 top producing gas and an interval below that producing
15 mostly or significant quantities of water.

16 Our information is that they attempted a squeeze
17 of that water interval and were apparently unsuccessful,
18 although it was still capable of producing gas from the
19 uppermost set of perforations.

20 At that point they decided to drill a well updip
21 at an unorthodox location in the southwest quarter of that
22 section, indicated on the map. And that is now a producing
23 gas well.

24 Q. Do you have a geologic opinion as to whether
25 approval of your proposed location will provide an

1 opportunity to Marathon to recover its remaining share of
2 recoverable gas within its spacing unit by this well?

3 A. We feel the only way at this point to recover the
4 remaining reserves on our section is to drill the well at
5 an updip location that can drain the remaining reserves.

6 Q. If that well is not drilled, what happens to your
7 remaining reserves?

8 A. We will not be able to recover the remaining
9 reserves on the section.

10 Q. Why not? What happens to them?

11 A. Well, the C-1 at this point, although it's
12 capable of making a small amount of gas, will be -- is shut
13 in at this time.

14 Q. Will the gas remain lost in the reservoir,
15 or is it going to migrate somewhere?

16 A. It should migrate updip.

17 Q. And where will it go?

18 A. Much of it will go to Marathon updip locations in
19 Section 27 and 34, and some will also -- That's where most
20 of the gas should go.

21 The well in the northwest quarter of Section 35,
22 being shut in, would not recover reserves from that area.

23 Q. What's the significance of the hatched lines
24 running in Section 26?

25 A. That is our estimate of the remaining productive

1 acreage within our section. And that is, as noted in the
2 legend below the map, an estimated 415 acres within that
3 area. And that was a number used had in coming up with our
4 proposed penalty factor.

5 Q. You and Mr. Stewart, the engineer for Marathon,
6 in collaboration with each other formulated a penalty using
7 this acreage component?

8 A. That is true.

9 Q. And you and he agreed upon an estimated 415
10 productive acres remaining within your spacing unit?

11 A. Correct.

12 Q. And part of that work represented your geologic
13 input?

14 A. Correct.

15 Q. Let's turn now to your Exhibit Number 3.
16 Identify it for us, and then let's talk about what it
17 shows.

18 A. This is a log display of information on our
19 Indian Basin "C" Number 1, which is the well in the
20 northwest quarter of Section 26, a sonic log on the left,
21 with a production log on the right. The production log was
22 run on 12-15-93.

23 Essentially what it shows, on the sonic log, the
24 top of the Upper Penn at 7340 feet, the top of dolomite,
25 which is the top of the producing porosity, at 7406.

1 Perforations go down to 7416 feet.

2 The producing interval on the production log, as
3 indicated by the spinner, is from 7406 to 7416. That is
4 that dolomite pay. We believe that that interval is where
5 all of our gas and water has been produced or is producible
6 out of that wellbore. And that's -- we feel the gas-water
7 contact is essentially within that interval.

8 Q. This well was originally permitted as a high
9 angle/horizontal well?

10 A. It was recently permitted as a short-radius
11 horizontal well.

12 Q. Okay. I've shown the Examiner a copy of Order
13 R-10,083, for which the horizontal technology was approved
14 for application in the drilling of that well.

15 Give us a quick summary of what happened.

16 A. Well, we had indication from this production log
17 that channeling behind pipe from a deep horizon, down about
18 7455, below the base of the perforations, that we were
19 channeling water up from there.

20 We attempted to squeeze -- I think Rod Stewart,
21 the engineer might go into a little more detail on the
22 operations of that -- we attempted to squeeze off that
23 water. We believe we had a successful polymer squeeze.

24 And after that squeeze job, we were able to
25 produce approximately 7300 MCF a day and 100 barrels of

1 water flowing in June of '94.

2 We felt at that time that since we did not
3 eliminate all of the water production, that we did not want
4 to go out horizontally within that interval, due to the
5 encroachment of water.

6 Q. The risk in trying to drill horizontally would
7 have been too great a risk?

8 A. Yeah. We feel that, as it was still making
9 water, that the risk of a significant amount of water
10 production in the horizontal was too high.

11 We felt if, on the other hand, we had squeezed
12 off all the water and were able to get a fairly good
13 flowing gas well essentially water free, then at that point
14 we would have drilled out horizontally.

15 Q. Let's have you turn to the production portion of
16 the display and have you make your point about where you
17 believe you're getting water entering to the wellbore.

18 A. Well, we -- All we could really say is the water
19 entry is coming in between 7406 and 7416, and we've chosen
20 the gas-water contact at 7414 feet, which projects to a
21 minus 3475 on the top of the Upper Penn, assuming the
22 porosity comes in at the same level below the top of the
23 Upper Penn within our section.

24 And that's how we arrived at the productive
25 acreage within that area.

1 Q. Your proposed unorthodox location, then, gives
2 you an upstructural position within your spacing unit at
3 which to drill a replacement well and hopefully recover the
4 remaining recoverable gas to which this spacing unit is
5 entitled?

6 A. That is our intention.

7 MR. KELLAHIN: That conclusion my examination of
8 Mr. Miller.

9 We move the introduction of his Exhibits 1, 2 and
10 3.

11 EXAMINER STOGNER: Exhibits 1, 2 and 3 will be
12 admitted into evidence at this time.

13 EXAMINATION

14 BY EXAMINER STOGNER:

15 Q. In your testimony, Exhibit Number 2, the hatched
16 marks that you had mentioned in Section 26 is, the way I
17 understand it, the undrained area?

18 A. Yeah, we believe that the area updip of the gas-
19 water contact would still be producible acreage, and our
20 well, the "C" Number 1 is still capable of some production.
21 It's right on the edge of basically that producible limit.

22 Q. Am I to assume that -- or can I assume -- This
23 shows it on your -- on the particular proration unit in
24 question, but can I show everything back to the south and
25 west of the gas-water contact as being a hatch mark or

1 unproduced or unproducibile area?

2 A. That is very close to being accurate. There are
3 a couple of wells that are slightly updip of that blue line
4 that have been shut in.

5 There's one in the very southwest corner of
6 Section 36 which is about 15 feet updip of it. That well,
7 though, was perforated slightly above the gas-water
8 contact. It was in a very thick, porous interval and
9 appears to maybe have coned water up within that interval.
10 That's an interpretation.

11 There's also a well in Section 12, at the very
12 southeast corner of the map there, that's again very
13 slightly updip of that blue line. And that well, they
14 perforated a large interval which went below the gas-water
15 contact as shown, and it would be expected to make water.

16 All the other wells outside of the well in the
17 northwest quarter of Section 35 are producible wells.

18 The one in Section 35, in the northwest corner,
19 that well, as evidenced by the production log which MW
20 Petroleum showed in a previous testimony, did have a zone
21 which was capable of producing gas, but they were unable to
22 squeeze off water in another zone that had been perforated
23 below that.

24 So yes, that's a close approximation of the
25 producible acreage throughout the area.

1 Q. In looking at Exhibit Number 3, something that
2 jumps out at me is the top of the dolomite and your
3 gas-water contact, it being somewhat in the same vicinity
4 there.

5 Does that have any effect, or is that gas-water
6 contact -- is it going to come on up into the limestone and
7 shale without being inhibited?

8 A. Well, essentially the limestone and shale path
9 there, which is approximately 66 feet, on that order, the
10 limestone out here is a very tight limestone, nonporous,
11 and will not produce any fluid, as evidenced had by the
12 fact that we have that interval perforated in the well but
13 the spinner shows no flow from that zone at all.

14 We believe that basically the top of the dolomite
15 there, being very close to the gas-water contact, that our
16 well, the "C" Number 1, is essentially right at the
17 gas-water contact.

18 But as we go updip from that and get to the top
19 of the dolomite, up higher from that point, it should be
20 gas-productive and should not make water.

21 Q. Okay. You testified that the well in Section 35,
22 up in the north half of that, it began to produce water.
23 Has that been plugged and abandoned, or is that well still
24 producing?

25 A. I believe that well is shut in. I don't believe

1 it was plugged and abandoned. I'm not really sure of that,
2 but I know it has been shut in.

3 Q. Now, that one is well away from the gas-water
4 contact. What happened there? Do you have any idea or --

5 A. Yes, I do. We have a -- Excuse me, we have a
6 production log that MW Petroleum showed had before the
7 Commission in May of 1993.

8 That production log was run on that well, and
9 they had two zones perforated.

10 A lower zone was where all the water was coming
11 from.

12 They had an upper zone where major gas entry came
13 into the wellbore. That zone, we believe, was above
14 gas-water contact and still is.

15 They were mechanically unsuccessful in squeezing
16 off the water production from the lower set of
17 perforations, and that is our interpretation.

18 So we believe the reason that well is not
19 producing is more of a mechanical nature than the fact of
20 where it is within the structural position.

21 EXAMINER STOGNER: Okay. Any other questions of
22 this witness?

23 He may be excused.

24 Mr. Kellahin?

25 MR. KELLAHIN: Mr. Stewart? Call at this time

1 Mr. Rod Stewart.

2 ROD STEWART,

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

5 DIRECT EXAMINATION

6 BY MR. KELLAHIN:

7 Q. For the record, Mr. Stewart, would you please
8 state your name and occupation?

9 A. My name is Rod Stewart. I'm a petroleum engineer
10 with Marathon Oil company.

11 Q. And where do you reside, sir?

12 A. In Midland, Texas.

13 Q. On prior occasions, have you testified as a
14 reservoir engineer before the Division?

15 A. Yes, I have.

16 Q. Pursuant to your employment in that capacity,
17 have you made a constitution of the facts and circumstances
18 around this case?

19 A. Yes, I have.

20 Q. And based upon that study, do you have certain
21 engineering opinions and conclusions?

22 A. Yes, I do.

23 MR. KELLAHIN: We tender Mr. Stewart as an 10
24 expert reservoir engineer.

25 EXAMINER STOGNER: Mr. Stewart is so qualified.

1 Q. (By Mr. Kellahin) Let's start with the
2 production history on the original well in Section 26.
3 It's the Indian Basin "C" 1 well, Mr. Stewart.

4 If you'll turn to what is marked as Marathon
5 Exhibit 4, if you'll identify the plat for us and then
6 describe the information for us on that display.

7 A. Exhibit Number 4 is a historical production plot
8 of the Indian Basin "C" Number 1, which was the original
9 well on the section in question.

10 The well was basically producing as a typical
11 Indian Basin gas well up until 1990. It started making
12 water in 1990.

13 Water production continue to increase to over 100
14 barrels a day earlier this year. As Curt testified to, we
15 felt like there was some mechanical integrity questions
16 with the cement in that well.

17 Prior to being able to move on the well and drill
18 a short-radius lateral, the well died. It loaded up with
19 water and was unable to produce gas because of the water
20 production.

21 Q. Do you see any opportunity to substantially
22 prolong the life of this well and recover any more gas from
23 this reservoir?

24 A. We did do a Palmer squeeze on the channel, as
25 Curt alluded to. We felt like we placed the Palmer and the

1 Palmer set in the channel behind pipe.

2 We brought the well back on. It was making
3 approximately 700 MCF a day and about 100 barrels of water
4 on test, so it wasn't 16 going into any gas gathering
5 system. It was basically vented to the atmosphere.

6 Q. Show us at what time on the -- the point in time
7 on the display that you're describing.

8 A. That would be about one month past the last point
9 on the plot.

10 Q. Okay. Please continue.

11 A. So the well is actually capable of producing, but
12 not in economic quantities, much less into the gathering
13 system in Indian Basin.

14 Q. Have you determined it's appropriate for this
15 section to replace, then, the "C" Number 1 well with
16 another well?

17 A. Yes.

18 Q. How did you go about deciding where to locate the
19 replacement well?

20 A. Essentially, we looked at the structure of the
21 Upper Penn, and we wanted to move upstructure. We didn't
22 want to get too close to the lease lines for penalty
23 reasons, and at the same time we wanted to be far enough
24 upstructure where we could recover the majority of the
25 reserves on the section.

1 Q. Have you found such a location within Section 26
2 that accomplishes those objectives?

3 A. Yes, we have.

4 Q. And what is the footage location for that well?

5 A. It would be 990 feet from the south line, and 660
6 feet from the west line of the said section.

7 Q. All right. Let's look at Exhibit 5. Would you
8 identify that for us?

9 A. Exhibit 5 is a nine-section map showing the wells
10 on the adjacent sections to the proposed well.

11 By each well is a hundred list of the current gas
12 rates if the well is still productive, and the cumulative
13 production from the wells as of -- I believe this is
14 through December of last year.

15 Q. Are there examples on this display of the
16 circumstance that has arisen in Section 26?

17 A. There is actually two examples on this display in
18 Section 35, operated by Apache, and in Section 36, operated
19 by Oryx.

20 Q. Describe those for us, starting with Section 35.

21 A. In Section 35, Apache, MW Petroleum, originally
22 had the Number 1 well. It produced roughly 35 BCF before
23 they had the problems alluded to by Mr. Miller.

24 They redrilled the Number 2 well in the southwest
25 corner. It's currently producing about 6.3 million cubic

1 feet of gas a day and has cum'd roughly 1.5 BCF.

2 I think that well was drilled in -- It came on
3 line about November of last year.

4 Q. How about Section 36?

5 A. In Section 36, once again, the first well in the
6 north half of the section cum'd about 16 BCF. It ceased to
7 produce in June of 1985.

8 They redrilled the Number 2 well in the very
9 southwest corner of the section. It produced about 2 BCF
10 before it was depleted in November of '91.

11 Q. Are there other examples within the pool where
12 the operators have been successful in replacing the
13 original well with an updip replacement well?

14 A. Yes. If you look at Exhibit Number 2, which is
15 Mr. Miller's structure map, there is not only the wells in
16 Section 35 and 36, but as you move south in Section 1 and
17 in Section 12, along that row of sections. Also in Section
18 13, which is one more location south, there was a similar
19 play.

20 Q. Have you summarized this information in the form
21 of a tabulation?

22 A. Yes, I have.

23 Q. Let's turn to Exhibit 6 and look at that summary.

24 A. Exhibit 6 is a list of the five updip replacement
25 wells that were drilled in unorthodox locations in the

1 immediate vicinity of the C2.

2 As I, you know, pointed out on the structure map,
3 these are the five wells I pointed out.

4 Basically what you see from this exhibit is that,
5 one, the new wells do recover additional gas reserves, but
6 those additional reserves are nowhere near on the order of
7 the reserves the original well recovered.

8 The Section 36 Lowe State Number 2, the
9 replacement well recovered roughly 1.9 BCF, has a two-year
10 life, as compared to the original well in that section
11 which produced like 17 BCF.

12 Q. Have you discussed with the offset operator,
13 Apache, the penalty factor or the allowable factor that
14 would be applied for your well?

15 A. Yes, I have.

16 Q. Have you reached a stipulation with Apache
17 concerning a personality level for your location?

18 A. Yes, we have.

19 Q. Describe for us the method by which you went
20 about realizing an ultimate penalty for the well.

21 A. We basically looked at our productive acreage
22 that Mr. Miller showed on his structure map, and we also
23 looked at Apache structure maps, which are very similar in
24 character as far as the contouring. And we came up with an
25 acreage factor of .65 that Apache was agreeable to.

1 Q. All right. Just so we keep the arithmetic
2 correct, that would be a 35-percent penalty?

3 A. Right.

4 Q. All right. And so, subtracting from 100 you get
5 a .65 acreage factor for this well that goes into its
6 portion of the proration schedule, and it would be able to
7 produce, then, 65 percent of the allowable?

8 A. That's correct.

9 Q. In addition to a productive acreage component,
10 were there any other factors or components used in the
11 calculation?

12 A. We looked at drainage areas. The assumption we
13 made basically was that the state has agreed that a 1650-
14 foot offset is reasonable to protect correlative rights.

15 And so we looked at, if you had a 1650-foot
16 drainage area, how much of that falls outside of the
17 section? And it comes out in the .65 range also.

18 Q. All right. So you've tried various components,
19 factors and multipliers, and you get somewhere in the range
20 of .65 as the allowable?

21 A. That's correct.

22 Q. And is that generally consistent with the
23 methodology applied by the Division in arriving at other
24 penalties for wells that are at nonstandard locations in
25 this pool?

1 A. In general, I think productive acreage has been
2 the overriding factor in the cases I've looked at.

3 Q. Okay. And you and Apache have stipulated to this
4 allowable or acreage factor for this well?

5 A. That's correct.

6 Q. And has that been reduced to writing?

7 A. Yes, it has.

8 Q. Let's turn to Exhibit 7. Does that represent the
9 stipulation?

10 A. That's correct.

11 Q. And is this a stipulation that was executed by
12 you on behalf of your company?

13 A. That's correct.

14 Q. And then there's a signature, a concurrence line,
15 at the second page. And who is that signed by?

16 A. That's signed by Sissy Leonard.

17 Q. And Miss Leonard is representing that she's
18 signing on behalf of her company?

19 A. That's correct.

20 Q. In your opinion, will approval of this
21 Application, with this stipulation of the penalty, provide
22 Marathon the opportunity to recover its share of the
23 remaining recoverable gas in this spacing unit and do so in
24 a way that it can protect correlative rights?

25 A. That's correct.

1 MR. KELLAHIN: That concludes my examination of
2 Mr. Stewart.

3 We move the introduction of his exhibits, and
4 they are numbered 4 through 7.

5 EXAMINER STOGNER: Exhibits 4 through 7 will be
6 admitted into evidence.

7 EXAMINATION

8 BY EXAMINER STOGNER:

9 Q. Mr. Stewart, again, elaborate to me why a
10 location at 1650-1650 wouldn't accomplish what you're
11 trying to do with this particular well.

12 That's 1650 from the south and 1650 from the
13 west --

14 A. Right.

15 Q. -- which would be the closest standard location,
16 correct?

17 A. That's correct.

18 As the water encroaches from the east towards the
19 west, you know, the water is moving through the formation
20 and leaving trapped gas reserves behind.

21 A location of 1650-1650, even though based on Mr.
22 Miller's structure map it would gain you some structure, at
23 the time that waters out it would probably not have
24 recovered all the reserves left on that lease, or a
25 reasonable amount of them.

1 In lieu of drilling a location at 1650-1650, you
2 know, we're asking for an unorthodox location so that we
3 have a better chance without having to drill a third well
4 on the lease to capture those reserves.

5 And I think that the Exhibit Number 6 shows that
6 these replacement wells are not barn-burner wells, in
7 general. And they're not -- You know, you're not really
8 impinging or infringing upon offset lease operators as far
9 as drainage.

10 Q. Now, the well Number 1, is that shut in, plugged
11 and abandoned?

12 A. Yes, it's currently shut in.

13 Q. Is Marathon going to plug and abandon that well
14 before this one is drilled, or what's the plans for it?

15 A. Generally, we don't plug and abandon the wells.
16 The well would go on a temporarily abandoned status.

17 Q. Will it ever come back on production?

18 A. I doubt it.

19 Q. Okay.

20 A. It may be -- You know, there may be other utility
21 in the future for that wellbore.

22 Q. Okay. So you're proposing a 65-percent acreage
23 factor for the proration unit and not just for this
24 particular well?

25 A. That is correct.

1 EXAMINER STOGNER: Okay. I have no other
2 questions of this witness. You may be excused.

3 MR. KELLAHIN: I believe I handed you a copy of
4 the certificate of notice. It should be marked as Exhibit
5 8. If not, I will mark one. It's my certificate.

6 And the only party to notify was Apache, and they
7 obviously have participated and have agreed to the
8 stipulation.

9 EXAMINER STOGNER: Exhibit 8 will be admitted
10 into evidence also.

11 MR. KELLAHIN: That concludes my presentation,
12 Mr. Examiner.

13 EXAMINER STOGNER: Mr. Kellahin, I have an
14 administrative question for you.

15 MR. KELLAHIN: Yes, sir.

16 EXAMINER STOGNER: What is your opinion of Order
17 Number R-10,083 as far as its effectiveness?

18 Would that need to be essentially held in
19 abeyance, or just let it go as is? That was the horizontal
20 well approval for the Number 1.

21 MR. KELLAHIN: I must tell you, I don't know what
22 the -- I would assume the district would have received some
23 type of sundry notice to change procedures for the well and
24 would have at least approved or would show in their file
25 some kind of change in operation.

1 I don't know that you have to act on the
2 horizontal.

3 EXAMINER STOGNER: The reason, I was thinking --
4 I mean, the horizontal application is still approved out
5 there. -- some modern miracle, the Number 1 well was to be
6 drilled horizontal, would that have any effect on the 65-
7 percent acreage factor assigned to the proration unit?

8 MR. KELLAHIN: I'll have to speak with Marathon.
9 I suspect that they're going to tell me I can advise you in
10 writing that there's no reason to keep that order in place,
11 and we might simply enter a supplemental order vacating it,
12 if you want to.

13 EXAMINER STOGNER: Or place it in abeyance. If
14 it should come up in the future, then we can look at it
15 appropriately at that time. I would appreciate something
16 in writing from you all on that.

17 MR. KELLAHIN: I'll check into it.

18 EXAMINER STOGNER: Anything further in case
19 11,088?

20 MR. KELLAHIN: No, sir.

21 EXAMINER STOGNER: This case will be taken under
22 advisement.


23 * * *
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CERTIFICATE OF REPORTER

STATE OF NEW MEXICO)
) ss.
 COUNTY OF SANTA FE)


I, Deborah O'Bine, Certified Court Reporter and Notary Public, HEREBY CERTIFY that the foregoing transcript of proceedings before the Oil Conservation Division was reported by me; that my notes were transcribed under my supervision; 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.



 DEBORAH O'BINE
 CCR Number 63

I do hereby certify that the foregoing is a complete record of the proceedings in the Examiner hearing of Case No. 11080, heard by me on 15 Sept 1994.


 _____, Examiner
 Oil Conservation Division