1 2	ENERGY, MINERALS AND NAT OIL CONSERVA STATE LAND O	NEW MEXICO URAL RESOURCES DEPARTMENT FION DIVISION FFICE BUILDING NEW MEXICO	
3	23 Septe	mber 1987	
4	EXAMINER HEARING		
5			
6	IN THE MATTER OF:		
7	Application of Marat		
8	for compulsory pooli New Mexico.	ng, Lea County, 9222	
9			
10			
11			
12	BEFORE: David R. Catanach, Examiner		
13			
14	TRANSCRIPT OF HEARING		
15			
16			
17	APPEARANCES		
18		Jeff Taylor	
19		Attorney at Law Legal Counsel to the Division	
20		State Land Office Bldg. Santa Fe, New Mexico 8750l	
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24		Santa Fe, New Mexico 87504 and Lawrence D. Garcia	
25		Attorney at Law Marathon Oil Company P. O. Box 3128 Houston, Texas 77253	

STATEMENT BY MR. KELLAHIN

1		
_		5
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24 25		
43		

Appearances in

Examiner,

Other

MR. CATANACH: Call Case 9222.

MR. TAYLOR: The application of

Mr.

CATANACH:

KELLAHIN:

Marathon Oil Company for compulsory pooling, Lea County New

MR.

MR.

1

2

3

5

7

Mexico.

this case?

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1
                                With me is Mr. Jim Gallogly,
   who is counsel for Phillips, member of Texas Bar.
                                MR.
                                     TAYLOR:
                                               How do you spell
   it?
5
                                MR.
                                     GALLOGLY: It's G-A-L-L-O-
   G-L-Y.
            I need to correct the record. I'm a member of the
   Colorado and Oklahoma Bars.
8
                                MR. CATANACH: Mr. Carroll, do
   you have any witnesses?
10
                                MR.
                                       CARROLL:
                                                    Yes,
                                                            Mr.
11
   Examiner, we'll have one witness and that's Mr. Trainer
   himself.
12
13
                                MR. CATANACH: Okay, and Mr. --
14
                                MR. HALL: Two witnesses.
15
                                MR. CATANACH: Okay, can I get
16
   all the witnesses to stand at this time and be sworn in?
17
18
                        (Witnesses sworn.)
19
20
                          PAUL BENEFIEL,
21
   being called as a witness and being duly sworn upon his
22
   oath, testified as follows, to-wit:
23
24
25
```

BARON FORM 25016P3 10., FREE IN CALIFORNIA 800 227 2434 NATIONWIDE 800 42

tion 17. I recommended the perforations and completion procedure. 3 Since that time I've been involved with trying to acquire additional acreage for Marathon in the area and seeing that this area is properly developed. 0 When we talk about this area, can you describe for the Examiner approximately where we are relation to some community, highway, general or topographical feature? 10 This is at the north end of the Vacuum 11 Field and it's northwest of Hobbs, New Mexico, in Lea 12 County. 13 Q The subject of this application is a 14 compulsory pooling request by Marathon. For what particular 15 formation? 16 The Atoka Morrow. 17 Within the area identified on Exhibit 18 Number One, the south half of Section 16, is this area sub-19 ject to any special pool rules? 20 Α No, sir, it isn't. 21 Is this adjacent to or part of any exis-22 ting named pool? 23 It's adjacent to the Vacuum Field. Α 24 0 Marathon's well in Section 17, 25 would be just to the west of the area outlined in the

this time we tender Mr. Benefiel as an expert petroleum engineer.

MR. CATANACH: He is so quali-

4 fied.

Q Let me have you describe for us, Mr. Benefiel, what has been Marathon's plan of exploration and development for Atoka Morrow tests in this general area?

A They'll start in 1986. In 1986 we proposed and finalized plans to drill the Section 17 well, north half of Section 17, and also the Shoe Bar 23 in Section 23.

Those plans were approved for drilling this year. We drilled the Section 17 and also the Section 23 wells in the spring and summer of this year.

Prior to drilling the Section 17 well we sent out requests for farmouts from a number of operators in this area. We sent out farmout requests to all operators except our partners in the Section 17 well.

Q What was the general plan of exploration for this area?

A We felt that a reasonable plan of development was to first drill the Section 17 well and then to proceed into Section 16. We felt that that was the case because we had established production closer to the Section 17 well to the nroth and west, and that due to the risk invol-

to test the Atoka Morrow.

ved in these step-out locations we should first drill a Section 17 well before we proceeded to Section 16. When we look to the producing area to the west of the Section 17 well, approximately where are those producing wells located? To the -- well, to the northwest in Sec-Α tion 7 Marathon operates the State Section 7 Gas Com No. 1, and there's a Mobil operated UU Well in which Marathon also has a substantial working interest. 10 And the intent then was to develop off of 11 those producing wells and progress in a southeasterly 12 fashion with the exploration? 13 Yes, sir. 14 0 When was the well in Section 17 commen-15 ced, do you approximately remember? 16 It took 35 days to -- from start 17 drilling till we released the rig and we released the rig on 18 July 27th, so it started the latter part of June. 19 Of 1987, of this year? 20 1987, yes. Α 21 What is your proposal with regards to the Q 22 drilling of a well in Section 16? 23 We propose to drill a well, a south half Α 24 1980 from the west line and 1980 from the south line unit,

```
Q
                      Do you have a recomendation to the Exam-
1
       as to who should be the operator of the well
2
   drilled in Section 16?
3
                      Yes, sir, I believe that Marathon should
   operate this well.
5
            0
                      And has an effort been made, Mr. Bene-
6
7
   fiel, to obtain the voluntary cooperation of other working
   interest owners in the section for the drilling of this
   well?
                      Yes, sir. As I stated earlier, a number
10
   of the operators in that half section, we requested farmouts
11
   from them earlier in the year and then we sent them an AFE
12
   requesting their voluntary cooperation in the drilling of
13
   this well.
14
                       Let's take a moment and use Exhibit One
15
      a display to have you help us identify for the Examiner
16
   the various owners that are involved, or potentially invol-
17
18
   ved, in Section 16.
            Α
                      Okay. Mr. C. W. Trainer.
19
                      And where is his acreage in the section?
20
            Q
                      He has 3/4s of the southwest guarter and
21
            Α
22
   he also has the southeast of the southeast 40 acres.
                      Okay.
23
            Q
24
            Α
                       Texaco has
                                    40 acres northwest
                                                        of
                                                            the
```

southwest, and Shell has the southwest of the southeast.

24

25

14 1 Marathon has the north half of the southeast 80 acres. 3 Okay, and if we look in the northeast --4 northwest quarter of that section, Phillips has the balance 5 then, has that 160-acre tract. Α Yes. 7 In implementing Marathon's plan of devel-8 opment of this area and furthering exploration efforts, you describe for us, Mr. Benefiel, what has been your own 10 particular expertise and involvement? 11 Okay. Well, I was -- logged the Section 12 17 well and I proposed requesting farmouts from operators in 13 the area. I wrote the AFE for the Section 16 well and since 14 that time I've been trying to obtain voluntary cooperation 15 from the other operators in this half section to participate 16 with Marathon in the well. 17 How owuld you characterize Marathon's 18 success as an operator for wells of this type in this area 19 as contrasted to other operators? 20 Α Marathon has a very good track record 21 this area. 22 Our Section 7 well has recovered about 17

BCF, which is more than any other well producing field.

> just drilled the Section 17 well We

low cost. The CAOF was about 3,000,000 a day, 3500 a day, and our recoverable reserves are estimated to be about 9-1/2 BCF.

So I'd say that our success ratio and our recovery from wells of this type have been exceptional, and I'd say that our track record has been extremely good in this area.

Q You said that you were involved and responsible for the preparation and circulation of the AFE for the subject well in Section 16.

A Yes.

Q Do you have a copy of that AFE with you?

A Yes, sir.

Q And has that been marked as an exhibit?

A Yes, sir, Exhibit Two.

Q All right. Let me have you take Exhibit Number Two and help orient us as to how to read and understand the exhibit.

A The first page is a description of the well, legal location, and expected reservoir properties at this location.

Q Does that first page indicate or represent the necessary signatures and approval by the various Marathon personnel that are responsible for such approvals?

A Yes, sir.

```
1
            Q
                       Let's turn to the second page.
                                                        What is
2
   -- what is indicated on the second page?
3
                      Second page is a number of line items de-
   tailing our expected costs to drill this well.
5
            Q
                      Okay, and as we turn to the last of
   three pages, what is indicated on that pages?
7
                      Further costs to drill, drill the well.
8
            0
                      I note that this originally was marked as
   four sheets for the AFE. What was the second page?
10
                       The second page were proprietary econo-
11
   mics for Marathon.
12
                       Let's start then with page three, which
            second page of this exhibit, and without going
13
       the
   is
14
   through each of the itemized details, would you describe for
15
   us the methodology, the procedure that you go through for
   Marathon in determining, first of all, what numbers to put
16
17
   in here and how those numbers are fair and reasonable?
18
                      A lot of these costs are developed by our
19
   Drilling-Engineering Department. We have a number of en-
20
   gineers who handle our drilling and they developed a lot of
21
   this.
22
                      Completion costs are developed by comple-
23
   tion engineers and who also have a great deal of experience
24
   in completing wells of this type.
25
            Q
                       What is the procedure that you have
```

you have identified for the well are what number on this ex-

BARON TORM 25C16P3 TOLLFREE IN CALIFORNIA BOD 227 2434 NATIONWIDE BOD 227 C

```
18
   hibit?
2
            Α
                       The intangible drilling costs?
3
            0
                       Yes, sir. The total drilling costs --
            Α
                       Okay, the total intangible drilling costs
5
   are $501,000 on this exhibit.
6
                       Okay, and then you've added to that the
7
   drilling costs, tangible, and you get the $564,000 number.
8
            Α
                       Yes,
            Q
                       Okay.
                               What are the estimated completion
10
   costs that are tangible?
11
            Α
                       $156,000.
12
                       Okay, and then the intangible?
             Q
13
                       $221,000.
             Α
14
                        What do you anticipate to be the cost of
             Q
   the surface equipment to be utilized in the well.
15
16
             Α
                       $85,000.
17
                       Okay, giving you a total estimated com-
18
   pleted well cost of what number, sir?
19
            Α
                       $870,000.
20
                       And how does that estimate compare to any
             0
21
   other estimates that you have examined for similar wells?
22
             Α
                        I received -- we received an AFE for Mr.
23
   C. W. Trainer in February of 1986. His total cost to drill
24
   the south half well was $885,600.
25
                        Do you have a copy of that AFE that Mr.
```

BARON 104M 25C16P3 TOLL FREE IN CALIFORNIA 800 227 2434 NATIONWIDE 800 22

23

24

25

1 Trainer sent Marathon? 2 Yes, sir. Α 3 0 Have you marked that as an exhibit? Yes, sir, Exhibit Three. Α 5 Have you made a comparison and a study, Q 6 Mr. Benefiel, of the -- Mr. Trainer's AFE of February of '86 7 versus your estimated costs for this well? 8 Α Yes, sir. Can you describe for us or identify 0 10 significant differences between the two? 11 Α Well, they were within \$16,000 of each 12 other. Marathon's, you know, was a bit lower but I did see 13 that the overhead charges and the supervision and engineering 14 charges seemed to be rather high. 15 In terms of categorizing the expenses 16 into different areas, do you see a significant difference in 17 terms of drilling costs? 18 Α No, not really. Everything falls pretty 19 much into line. 20 Do you have a recommendation to the Q 21 Examiner of what overhead charges you would recommend

A Yes, sir. \$5500 a month while drilling and \$550 a month while producing.

included in any compulsory pooling order that he might issue

against any nonconsenting working interest owners.

20 Q you know, sir, what the overhead Do charges were that apply to the well drilled in Section 17? Those are the charges. Α Have you had other working interest owners agree with you on those charges for that well? And no one has objected to those as being How do the estimated costs you have prepared for the well in Section 17 compare to the actual costs for the well Marathon drilled in Section 17, you know, the one that's producing now, how does that compare to the The actual costs were much lower. The drilling and completion costs were \$697,000 actual and we Have you brought an exhibit that shows us And how has that been marked an

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1 Q Have you obtained management approval for the budgeting and the drilling of the proposed well in Section 16? Yes. 5 And is there any time constraints or time references with regards to the commencement and drilling of that well? 8 Yes. We have to have it drilled and completed before the end of the year or our budgeting -- we have to go all the way through our budgeting procedure 11 again. 12 Let me have you describe for us, 13 Benefiel, what you have recommended as a well program, a 14 drilling program for this well. Have you made such a propo-15 sal? 16 Α Yes. 17 Would you describe for us the method by 18 which you derive at a drilling program or a proposal for a 19 well like this? 20 We based a lot of our proposed drilling 21 program for the Section 16 well on our actual experience 22 with the Section 17 well. 23 Have you reduced your proposed program to 24 an exhibit form? 25

Yes.

23 ٦ Q Do you have that marked as Exhibit Number 2 Five? Yes, sir. Α Let me have you describe for Benefiel, how you derive -- how you propose to recommend to the Examiner a drilling program for this well. 7 Α I'd like to go through this page by page. 8 Let's do that. Α Okay. The first page gives the legal lo-10 cation of the proposed well, the well name, the AFE number. 11 We've already surveyed the location, the 12 surveyed elevations are shown. Our projected total depth and in cooperation with our Geology Department we have the 13 14 estimated formation tops. 15 Okay. 16 Moving on to the second page, we propose 17 DST in the Basal Atoka and mudlogging from 8500 feet to 18 11,500 with two man service continuing to project a total 19 depth of 12,500. 20 It also shows that our mudlogging program 21 will be bid out in order to reduce well costs adn and that 22 we will not be running a log prior to setting intermediate 23 casing. 24 It shows that the log for TD to bottom of 25 intermediate, we propose to run a gamma rav compensated

neutron log and a litho-density tool to surface and to bottom of intermediate a gamma ray dualatero log and a strictly focused log.

Okay, continuing to the third page, we again show that the drilling contractor has not been determined. That bid will be awarded on a low bid basis.

A location will also be awarded on a low bid basis and we proceed down to what size holes we're going to drill for the various casing strings and how those casing strings should be tested.

And finally once we get to TD the logging and running of a production string.

The next page shows the casing program, casing weights, and quantities needed. Casing will also be awarded on a low bid basis, and the casing design.

And continuing on to the next page is the cementing program that we intend to set cement for various stirngs of pipe that will be run.

The next page is the BOP program, a wellhead program. That equipment will also be purchased on a low bid basis.

And lastly is our mud program. We will receive also prices on our mud; we'll perform mud services. Well, the drilling engineer that we have location will perform all mud services, again to reduce the total well

cost.

Q Do you have an opinion, Mr. Benefiel as to whether the drilling program you have recommended for the well is fair and reasonable?

A Yeah, I think it's an excellent drilling program. We estimated 60 days to drill the 17 No. 2 Well. The actual days were only 35, and I think it's an extremely good drilling program.

Q You have discussed a comparison between your proposed AFE, Exhibit Number Two, with costs that you've compared from an AFE received from Mr. Trainer.

Would you describe for us what has been your involvement and the circumstances surrounding Mr. Trainer's proposal to you in '86?

A Yep. Although Mr. Trainer's proposed location at that time didn't fit in with our proposed plan of development, as I said earlier, we wished to drill the 17 No. 2 Well first, after a lot of evaluation we had decided that we would join Mr. Trainer in drilling this well.

When we look at Mr. Trainer's proposal in '86, where had he proposed the location of the well in Section 16?

A 1980 feet from the east line and 660 feet from the south line.

Q And that puts it at a different location

```
1
   than the one you're recommending?
2
            Α
                      Yes.
3
                      Mr. Trainer's location would have been in
4
   the southwest of the southeast quarter?
                      That's correct.
            Α
6
                       And what proposed spacing unit did he --
            Q
   the orientation of the spacing unit in the section had he
   proposed?
                       He proposed a laydown unit in the south
10
   half of the section, 320 acres.
11
                       What, if anything, ever came to your
   knowledge with regard to Mr. Trainer's drilling of
12
                                                           this
   well?
13
14
                      Well, on August 20th, I believe it was,
   we received a letter from Mr. Trainer saying that he would
15
16
   be unable to drill this well.
17
                       Was that at a point when Marathon had
18
   agreed to participate and go forward with the drilling of
19
   this well?
20
            Α
                      Yes.
                            That was August 20th of last year.
21
                      Yes, sir. Did you have monies and funds
            0
   budgeted for the drilling of a well in Section 16 in that
23
   time?
24
            Α
                      Yes.
25
            Q
                       And you now propose to go forward with
```

that effort to drill the well in 16.

Yes.

A

Do you have a recommendation to the Examiner as to an orientation for the spacing unit? This is the first well on the section, what is your recommendation as an engineer as to how to orient this first well?

A I believe it should be a south half 320-acre unit.

Q Do you have an engineering basis for that opinion?

A Yes. I have three major reasons. One, the first reason is that I believe that a south half unit is an equitable distribution of the reserves and the southwest quarter and the southeast quarter look a bit better than the northwest quarter and the northeast quarter, and I believe it fair to all parties involved, royalty owners, et cetera, if the best units are included in the same 320-acre unit -- the best acreage is included in the same 320-acre unit.

The second reason I believe a laydown unit is preferable is because the weighted risk opportunity for wells with laydowsn units in the north half and the south half are equivalent. I believe that if you drill standup units that the risk for a west half unit is significantly reduced and the risk for an east half unit is significantly increased and because of that, I believe that

BANCK FORM ZBCI6P3 TOLL FREE IN CALFORNIA BOD 227 2434 NATIONWIDE BOD

major

laydown units are preferable. Let's see, those are the two 2 reasons. 3 I think the third thing you were thinking Q

of had to do with the well location itself. Let me ask you, sir, if you have an engineering opinion with regards to where you prefer to have the well located for drilling the south half section?

I believe it should be in the northeast Α quarter of the southwest quarter.

Do you have an engineering reason for saying so?

Well, as I said earlier, equitable distribution of the reserves and similar risk weighted opportunities for a north half and a south half well.

Q Would that put the well in a location in that south half section that would give you at least the opportunity to have the reasonable ability to drain and develop the entire half section?

> Α Yes.

Now the question of this well has the subject of discussion among all these various working interest owners for some time now.

> Uh-huh. Α

Q Can you describe for us what -- whether

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23

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10

11

12

13

14

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20

21

22

or not Marathon agreed or did not agree to join with Mr. Trainer in 1986?

A Marathon intended to join with Mr. Trainer when his drilling proposal was withdrawn.

Q So the review process on his request for joinder or participation had been completed?

A It was not completed because we didn't join in the well, but it was at a significantly advanced stage.

Q All right, sir. The next area I'd like you to describe for me, Mr. Benefiel, is whether or not you have an engineering opinion with regards to the risk factor penalty that the Examiner has the authority to impose against any nonconsenting working interest owners that do not ultimately agree to participate.

A Yes, I do. Marathon has spent a considerable amount of time and money in order to reduce the risk associated with drilling this well; however, it is a stepout location approximately a mile from established production in this interval and it, you know, essentially it's a wildcat and I think the maximum risk penalty should be assessed.

Do you have an opinion, sir, as to whether or not, if there is a dispute about who the operator is, why, in your opinion, Marathon ought to be designated

and approved as the operator?

A Well, Marathon has along history in this area. We first became involved in 1974 when we joined in the Mobil UU Gas Com.

Since that time we've drilled two of -two wells which we operate and have interest in another
well.

So we have a long established history as a good operator in this area, both in producing and drilling and completion.

Marathon also has established a gas market in this area. We're familiar with the gas market. We sent out bids for our expected gas production from the North Vacuum wells and we received the high bid from -- from one purchaser and we doubt if other operators will be in a position to obtain that good a gas price.

It's also our opinion the gas purchaser has indicated that they would probably be willing to purchase total deliverability from this well and I believe that Marathon could give the partners in the well a better gas price, be able to market their gas and get a better gas price than any of the other operators.

So basically we have a good track record. We have a good knowledge of the gas market and we have a long history and a significant amount of experience in this area.

б

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21 22

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MR. KELLAHIN: That concludes

my examination of Mr. Benefiel.

We'd move the introduction of

his Exhibits One through Five.

MR. CATANACH: Exhibits One

through Five will be admitted as evidence.

Mr. Carroll?

MR. CARROLL: Thank you, Mr.

Examiner.

CROSS EXAMINATION

BY MR. CARROLL:

Q Mr. Benefiel, the proposed location 1980 from the west line and 1980 from the south line, that location falls on Texaco acreage, does it not?

A Yes, sir, it does.

Q In fact, Marathon owns no acreage in the southwest quarter of Section 16, is that correct?

A It is.

Q You have indicated to the Commission that you have made overtures to the other working interest owners in the south half. Can you tell us if you've reached an agreement with Texaco?

A No, sir.

Q A voluntary agreement?

TOLL FREE IN CALIFORNIA BOD 22 - 2434

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Α

O

participate with you as of this date?

Mr.

No, sir, we have not.

Commission that you have tried to obtain voluntary -- a vol-

You have not. Have they flat refused to

To the best of my knowledge, that's true.

Benefiel, the -- you have told

```
beena cover letter with that AFE. Would there
   have been?
                      Yes, sir.
            Q
                      Did you sign the cover letter?
5
                      No, I did not.
            Α
6
                       All right. Did you happen to see
   cover letter that went out?
8
                      I have seen it.
                       All right, and isn't it true that
   particular cover letter requested a response by September
10
   the 11th from these -- from the various working interest
11
   owners?
12
                      Yes, sir, I believe that's true.
13
14
                       And isn't it also true that you in fact
   filed this
               application for forced pooling prior to
15
                                                          that
   September 11th date, did you not?
17
                       Yes.
                              The reason that was done was
18
   because Shell indicated to us that they would not join in
   the drilling of this well.
20
            Q
                      All right, so as of today's date none of
   the working interest owners have agreed to join you in this
21
22
   proposed south half unit.
23
            Α
                      That's correct.
24
            Q
                      Now, Mr. Benefiel, when -- when did you
   determine or make the decision to drill at this particular
```

BANGN FORM ZBC-6Pg. TOLL FMEE IN CALFORNIA BUG 22' 2434 NATIONWIDE BUG A

location, the 1980 by 1980?

A After we saw the log from the State 17 Gas Com No. 2. I believe the drill -- the logging date on that was 27th of July of this year.

Q Right. Mr. Benefiel, have you furnished any of the information that was obtained from this particular well that was drilled in Section 17 to the other working interest parties that would be in this south half unit?

A No, sir, the 60-day limit is up I think the 25th of this month, within a couple of days, and our logs, the logs will be come public knowledge at that time. We felt that we had an ethical obligation not to release the logs, ethical obligation to other partners in our well, not to release the logs until that 60-day limit had expired.

Q You did not try to exact any secrecy of promises from these other owners that you were trying to join or get to join in this south half unit if they -- that question is confused, Mr. Benefiel. Let me -- let me restate it. I'm sorry, I apologize.

Did you attempt to protect the secrecy of these logs by offering to furnish Mr. Trainer, Texaco, or Shell copies of the information from this second 17 well by extracting from them some sort of promise of secrecy or anything such as that?

that Marathon had the intention to join Mr. Trainer.

Was that intention ever expressed to Mr.

Trainer?

A To the best of my knowledge it was not.

All right, you were aware that early in -- around the date that this AFE was prepared, that Mr. Trainer had farmouts in hand from Texaco and Shell, did you not, for the drilling of this south half well?

A Yeah, we received a letter June 20th, 1986, that indicated he did have farmouts.

Q All right, and as of the August 20th date when Mr. Trainer called to tell you that he was going to be unable to drill the well, you had still not indicated to him Marathon's decision or indication that they would join in drilling the well with him.

A That's correct. As I said earlier, it was our -- our orderly plan of development called for a well in Section 17, but if the well was going to be drilled, Marathon would participate with Mr. Trainer in the drilling of the well.

Now, there is another well, you have discussed some of Marathon's wells, to the north and west of this proposed location, I believe up in Section 7 and the Section 17 well. Mr. Trainer and a partner of his, T. H. McIlvain, actually have a well in this same formation to the

		37	
1	south and east of this location, d	o they not?	
2	A They do.		
3	Q And are you fa	miliar where that well is	
4	located?		
5	A Yes. It's an	unorthodox location in the	
6	north half of Section 22.		
7	7 Q All right, ar	d that particular well is	
8	also a very good Atoka gas well, is it not?		
9	9 A Yes.		
10	Q And that well	was drilled prior to Mr.	
11	Trainer's request for you to join in the drilling of a well		
12	that was made in 1986.		
13	A Yes.		
14	Q Now, you have	e talked about Marathon's	
15	time constraints, that you need	time constraints, that you need to drill this well by the	
16	end of the year because of your ow	end of the year because of your own budgetary problems. Are	
17	there any lease expirations that	there any lease expirations that Marathon faces if they do	
18	not drill by the end of the year?		
19	19 A No.		
20	Q So the only to	ime constraints that we're	
21	really looking at here are just N	Marathon's own company con-	
22	straints, is that correct?		
23	A Yes, that has t	to be our viewpoint.	
24	Q Do you have an	approved location for this	
25	well in Section 16?		

```
1
            Α
                      We filed a C-101 and C-102 but we haven't
2
   been awarded a proration unit.
3
                       Are you aware that Mr. Trainer already
4
   has an approved location for drilling in the southwest quar-
5
   ter of Section 16?
6
            Α
                      No, I'm not.
7
            Q
                      Are you also aware that Mr. Trainer had
8
   prepared another AFE for the drilling of this particular
   well that was -- is dated September 10th, 1987?
10
                      I have knowledge of that.
11
                      And that particular AFE of September 10th
12
   is considerably less than the AFE that you have presented
13
   today for your drilling a well in Section 16, is it not?
14
            Α
                      Yes, it is, but I believe it's somewhat
15
   above our actual costs for our Section 17 well.
16
                      You are aware that Mr. Trainer owns over
17
   -- or owns half of the acreage in the entire section,
18
   tion 16, do you not?
19
            Α
                      Yes.
20
                       And all -- Marathon only owns 80 acres,
21
   is that correct?
22
                      That's correct.
            Α
23
                                 MR. CARROLL: Could I have just
24
   a second, Mr. Catanach?
25
                                 MR. CATANACH: Yes.
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your control well?
```

A We have a number of control points and that is one of them, yes.

Q Of these two which do you regard as the primary control?

A The Section 17 well.

Q Okay, and wouldn't it be prudent to locate your Section 16 well as closely as possible to your control point?

A Based on our mapping, we've picked what we feel is the best location for this well and that's shown on Exhibit Number One.

But previously you testified that the risk for a west half standup unit is, your words, significantly reduced, as opposed to an east half standup, isn't that correct?

A Yes. I believe that standup units would result in an inequitable risk distribution for development of this section.

Q I'm sorry, say that again.

A I believe that a standup unit would result in an inequitable risk distribution for development of this section.

Q But if I understood your testimony before, wasn't the thrust of it that there's a greater likeli-

```
hood of recovery of more hydrocarbons with a west half
   standup unit?
3
            Α
                      No, I did not say that. I said that the
   risk was reduced.
5
                      For a west half standup unit?
            Α
                      Yes.
7
                      All right, I understand you.
            Α
                      Okay.
                              I'm trying to make a distinction
   between risk and estimated recovery or reserves.
10
            Q
                       All right, so the record is clear
11
   the risk is lesser in the west half standup unit.
                      The risk is less.
12
13
                       And notwithstanding Marathon's acreage
14
   position anywhere within Section 16, wouldn't it be
15
   prudent to drill a west half standup?
16
                      When I --
            Α
17
                      Setting aside Marathon's interest?
18
                       Yeah, I think to equitably develop this
19
   section in its entirety laydown units should be formed and
20
   laydown wells drilled.
21
                      But a standard well location for a stand-
22
   up west half unit would put you substantially closer to your
23
   control point, would it not?
24
                      Certainly.
25
                           Benefiel, you previously testified
            0
                      Mr.
```

25

42 that you thought Marathon had an ethical obligation to the partners in the well in Section 17. 3 Correct. And that's the reason you cited for not divulging the logs from that well. That's right. 6 Α 7 0 And you understand that these logs required to be filed by -- with the Oil Conservation Division after a period of time? Α Yes. 10 What do you perceive Marathon's ethical 11 obligation to be to the other working interest owners 12 Section 16? 13 Α We would have the same ethical obligation 14 in 16 as we had in 17. 15 if you propose yourself, you hold 16 So yourself out to be an operator of a well in Section 16, 17 don't you owe them the obligation to disclose whatever 18 formation you have geologically, engineering, with respect to your other well you operate? 20 21 When our 60 day limit is up we have every intention of providing that information. 22 So your ethical obligation in your under-23

standing doesn't start until the 60-day limitation.

Excuse me?

		43
1	Q	When does your ethical obligation start?
2	Α	On which well?
3	Q	To disclose to the partners or the other
4	working interest owners in Section 16?	
5	A	At the end of 60 days the other owners in
6	Section 16 will be	privy to the logs for the Section 17 well.
7	Q	But not when you propose a well or when
8	you send out AFEs or when a request is made of you?	
9	A	No, those are two unique two complete-
10	ly separate situations. When you	
11	Q	And indeed excuse me, go ahead.
12	А	When you drill a well you have an ethical
13	obligation to your partners and we're performing that duty	
14	right now.	
15	Q	They're consistent but they're inconsis-
16	tent, is that what you're telling me?	
17	A	No, I'm not telling you that at all.
18	They seem perfectly consistent to me.	
19	Q	Texaco has requested the well information
20	from your 17 well have they not?	
21	A	Yes, they have.
22	Q	And they've been refused, have they not?
23	Λ	That's correct.
24	Q	And they are a working interest owner in
25	the laydown unit for Section 16.	

in

MR. NALL: Nothing further.

Benefiel, did Texaco ever inform you

1

2

3

5

Α

BY MR. KELLAHIN:

Q

That's correct.

Mr.

REDIRECT EXAMINATION

that they were unable to make a decision about participation

with Marathon because you wouldn't give them the information

```
45
1
            Q
                       Did he say he couldn't make up his mind
   because you wouldn't give him data?
            Α
                      No, sir.
                                MR. KELLAHIN: No further ques-
5
   tions.
                                      CATANACH:
                                MR.
                                                    Ι
                                                       have no
   questions of this witness. He may be excused.
9
                        JAMES HAHNENBERG,
10
   being called as a witness and being duly sworn upon his
   oath, testified as follows, to-wit:
11
12
13
                        DIRECT EXAMINATION
   BY MR. KELLAHIN:
14
15
                      Would you please state your name and oc-
16
   cupation.
17
            Α
                       My name is James Hahnenberg and I'm a
   geologist for Marathon.
19
                      Mr. Hahnenberg, would you spell your last
20
   name, please?
21
            Α
                      H-A-H-N-E-N-B-E-R-G.
22
                      Mr. Hahnenberg, would you describe for
23
   the Examiner what has been your educational experience?
24
                      I have a Bachelor of Science degree from
   Central Michigan University.
```

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Q When you undertook the responsibility for developing the geology for the project, what was the status of the development of data that you then began to utilize?

A We had had geologists working in the area for some time and we had made structure maps, Isopach maps, and had cross sections, and had reviewed all the data, all the general (unclear).

Q Did you personally review and authenticate the geologic data and conclusions that were contained in the information given to you when you undertook the responsibility for this project?

A Yes, I have.

Q Subsequent to taking charge of the prospect, what have you done?

A I've continued to review the activity, including drilling of the well, and further revisions to the work, to the geologic maps and interpretation in the area based primarily on the well drilled in Section 17.

I've also evaluated the considerations in the Section 16 well relative to the risk of that well, relative to the best drill -- best drillsite location, and the best drilling unit configuration.

Q You were asked with regards to the well in Section 16 to examine and address issues of risk?

A Yes.

ı you identify for us how you have Q Would located the proposed spacing unit and well location in Section 16? The spacing unit is a south half unit and 5 the proposed location is in the northeast quarter section, or quarter quarter section of the southwest quarter section. 7 0 Would you help us identify so that we can understand the information on the exhibit, the legend that's indicated on the left margin? 10 Yes. The map does incorporate all well control that penetrated this formation in this area. 11 These locations, wells locations are indicte by two symbols, 12 a gas symbol for productive wells and an X symbol for wells 13 14 that have penetrated but do not produce in this formation. 15 I've indicated a nonconformity or non-16 depositional event by a wiggly line. 17 I've indicated where the wells are shaled 18 out by an S/O symbol. 19 Lowest known gas, an OKG symbol. 20 Yellow is Marathon acreage. The red area represents the distribution of the gas production in this 21 22 sand, and the blue represents where this sand is wet. 23 And the drilling unit is indicated by the 24 green tape and the proposed location by the green dot. 25 In the far right corner there is a

I assume that these are all geologists

Two of the people are geologists and one

that have participated in putting information on this

display and making the contour lines for the structure map.

of various names.

individual is a geophysicist.

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A Oh, yes. It's a net pay sand of the same sand that the structure map was made upon, which is the Basal Atoka sand which is productive in this area.

Q And who is Mr. Carlson?

A He's a geologist.

Q And have you supervised and prepared and agreed with the contouring of the net sands in the Atoka pay as depicted on this exhibit?

A Yes, I have.

Q What conclusions and interpretations do you make about the Atoka sand insofar as it underlies Section 16 when you integrate the Atoka Isopach with the structure map?

А The trend of the sand is east/west, roughly east/west, through Section 16. The basis for this interpretation is that from the evidence we have reviewed, this indicates -- we believe it indicates that the distribution of this sand does relate to the structure map; that is, we believe the structure as mapped in this area represents the topography that existed during the deposition of therefor the sand would tend ot accumulate on sand: flank of the structure rather than on the crest of structure, and the sand would tend to parallel the structural strike.

Q Mr. Carroll in a question to Mr. Benefiel

directed his attention to the Humble well in 22. I believe it was identified as the Trainer-McIlvain well. Are you familiar with that?

Yes, I am.

What is the basis for your geologic opinion that there is a break or a discontinuity in the sand between Section 22 and the sand as you have interpreted it for Section 16?

Α This is based primarily on pressure data which would imply a -- some type of permeability barrier between Section 22 and Section 17. The basis for this is that when the McIlvain well was completed last year, it had virtually a virgin pressure in the reservoir.

To the northwest in -- where Marathon operates Section 7, the pressure is considerably depleted and when we drilled Section 17, the Section 17 well, we saw essentially the same pressure that we're seeing depleted, that is, up to the northwest.

Therefore we believe that the well in Section 22 seeing this virgin pressure will indicate would be a different and distinct reservoir from the reservoir to the northwest.

0 I'd like you to begin back earlier about the geologic hypothesis that was developed originally prior to the drilling of the well in 17 and how that

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has evolved with the subsequent drilling.

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Prior to drilling the well in Section 17 we did predict continuation of sands into Section 17, but not having control to the southeast of the productive wells, there is considerable risk and the risk extending into Section 16 would be even greater.

Subsequent to drilling Section 17, interpretation was confirmed in the trend of the sands we did see pay sand in Section 17 similar to what we predicted.

What, if any, involvement did you have as a geologist in the work done for the well in Section 17?

I reviewed and supervised the mapping prior to drilling that well and I also kept close supervision on the results of that well and what was happening while it was drilling.

Did you provide any geologica input or opinions with regards to the location of the well in 17?

Yes, I did.

When we direct our attention to the geology for 16, you said you were asked to address three issues, one of which was the risk involved, the geologic risk involved, in terms of the risk factor penalty that the Examiner has authority to assess against any nonconsenting working interest owners. Have you reached such an opinion?

54 ı Α Yes, I have. 2 Q And what is that opinion? 3 I would recommend the maximum penalty allowed based on the considerable geologic risk for this well. 5 Q Does it reduce in your mind as a geologist the risk factor penalty if the orientation of the spacing unit is other than you have proposed? 8 Α The reduction in risk would be relatively insignificant. 10 In terms of the risk factor penalty? 11 That's correct. 12 So regardless of how we orient the spac-13 ing for Section 16, it is going to be a geologic risk that 14 exceeds the 200 percent penalty. 15 That's correct. Α 16 All right. You were asked to make an as-17 sessment as a geologist as to what your recommendation is as 18 to an orientation of the first spacing unit for this sec-19 Have you reached such an opinion? 20 Α Yes. 21 And what is that opinion? 22 My recommendation is a south half pattern Α 23 this area and the reasons for this are this: 24 does trend east/west through the section and this trend of 25 unit will best fit the trend of the sand. This

result in including only the best acreage in the unit and also what it would do is it would provide wells of equal risk in both drilling units; that is, both the north half and the south half units.

The alternative to a north half - south half pattern, a west half - east half pattern, would be perpendicular to the sand trend through here and it would possibly include poorer acreage equal with the best acreage in the tract, and also this would result in two wells of unequal risk in each of those units.

When we look at Section 16 and simply divide it into its four quarter sections, do you have a geologic opinion as to which of the four quarter sections has the worst potential?

A The northeast quarter of Section 16.

Q When you look at the remaining quarter sections, what in your opinion is an orientation that allows both half sections to more equitably share the potential reservoir as depicted on your net pay sand map?

A It would be a north half - south half pattern.

Q Let's talk about the risk management. If the Division approves a south half orientation and confirms the proposed location as you have suggested, where, in your opinion, would the well for the north half be located?

ì Α The best location in that instance would be in the southeast of the northwest quarter section. 3 Do you have a geologic opinion as which orientation will allow the working interest owners to fully develop the section with two wells? It would be a north half - south half Α pattern. 8 0 If it is a west half - east half pattern, you have a geologic opinion as to whether or not 10 would be an appropriate, equitable allocation of the reser-11 voir? 12 I don't believe it would be. Α 13 And why not, sir? Q 14 Α Because it would tend to include equally 15 in any one drilling unit, would include poorer acreage along 16 with the best acreage in the block. 17 Let me spend some time with you on 18 structure map. 19 You've told us you've integrated your 20 structural interpretations with the Isopach but let's focus 21 specifically on the structure and have you identify for us 22 your structural interpretation and how that affects the risk management of well locations in the Atoka. 23 24 Using the model I described earlier that

structure as we've mapped it influences the deposition

of the sands, we believe we have a better control on the mapping of the structure than we would just solely mapping the sands.

We have through Section 16 east-west trending strike here, structural strike, and we can -- we have more evidence to support the structural interpretation. One line of evidence in the section we have is a a view of the seismic here, which does skirt the eastern edge of Section 16 and it does show north-dipping beds.

Q When you look at Section 16 and look at the structure, if they are standup units with west half - east half, then that orientation would be against the -- or perpendicular to the line of the structure as you see it.

A That's right, it would be against the structural grain.

Q Okay. When we look at the orientation of the spacing units in 17, how were those spacing units oriented?

A It was a north half, north half unit, and this -- the Section 22 well is also in a north half unit.

Q Have other spacing units in the development of the Atoka sand been consistently applied with the grain of the structure as opposed to against or perpendicular to the structure?

A In general I'd say they've been consis-

24 25

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58
   tent with the grain of the structure.
2
                       Do you have a geologic opinion as
   whether or not the south half of Section 16 represents
   orientation that best includes the most productive acres in
   the section?
                      Yes, I do have.
7
                      And what is that opinion?
8
            Α
                      I would say it would include the most
   most of the best productive individual acreage.
10
                                MR.
                                     KELLAHIN: That concludes
11
   my examination of this witness.
12
                                We move the introduction of Ex-
13
   hibits Six and Seven.
14
                                MR. CATANACH: Exhibits Six and
15
   Seven will be admitted into evidence.
16
                                Mr. Carroll?
17
                                MR. CARROLL: Mr. Examiner, if
18
   I might, I would propose to let Mr. Hall go first just to
19
   help shorten -- he has been more responsible for geologic
20
   preparation of the opposition. That way we won't ask -- if
   I have a few questions, then I can ask him those.
21
22
                                MR. CATANACH:
                                                 That would be
```

23

fine. Mr. Hall?

25

0

١ CROSS EXAMINATION BY MR. HALL: 3 Mr. Hahnenberg, you testified that when 4 you were asked to evaluate this prospect one of the aspects 5 you were asked to look at was the best unit configuration. б Taking that aspect, wasn't the primary element to that consideration Marathon's acreage position? 8 No, it wasn't. Α Then why did you show your acreage position on the exhibits if it doesn't matter? 10 For information for this hearing. 11 Let's look at your Isopach map. Do you 12 an opinion as to the thickness of the sand at a loca-13 tion 660 feet from the west line as opposed to 1980 from the 14 west line? 15 It would be -- from the west line? 16 How far from the south line? I mean --17 18 The same distance. 19 It would be essentially the same. 20 Q Aren't you closer to your 50-foot inter-21 val the closer you are to the western boundary? 22 Α Only very slightly. 23 0 How much less slightly? 24 Couple hundred feet. A

How much closer to the well in Section 17

```
are you with your proposed location than you are to the well
    in Section 22?
                       We're about a mile and that well would be
 3
 4
    about another mile and a half, so we would be a mile versus
    two and a half miles.
                        So then geologically the well in 17 is
 6
    your control well, is it not?
 7
             Α
                       That's right.
                        And isn't it prudent as a geologist to
    recommend a location as closely as you can to your control
10
    well?
11
                        We've done that, assuming a south half
             Α
12
13
    pattern.
14
             Q
                        Now assuming a west half pattern would
    put you even closer, doesn't that lead you to conclude it's
15
    even more prudent?
16
                        It would -- the risk reduction would be
17
18
    very slight, moving it only one quarter quarter section to
    the west, would be my opinion.
19
                        But, if I understand the thrust of your
20
    testimony, it's yes, it's more prudent to move it to the
21
22
    west?
             Α
                      It's only slightly -- it's only a slight
23
    risk reduction.
24
25
                        The closer you get away from your con-
```

```
61
   firmation well or your control well, the more interpretive
2
   your geology becomes.
                      That's correct.
3
            Α
                      And your risk increases.
5
            Α
                      That's right.
6
                       In your opinion has the well in Section
   17 been draining the west half of Section 16?
                       I would say no.
8
                      What's the basis of that opinion?
                       Well, it's really an engineering ques-
10
            Α
   tion.
11
            Q
                      Okay, do you have an opinion?
12
            Α
                       I would -- my opinion is that it would
13
   not be draining it.
14
15
                      Okay, and why don't you think so?
                       Just based on the drainage radius with
16
   respect to this area, having talked with the engineers and
17
   they feel, they believe would be the drainage area.
18
19
                      You offered some testimony on the initial
   shut-in pressures for some of the offsets and I thought that
20
   was the basis for your interpretation that there was a dis-
21
   continuity between the structures dedicated to the well in
22
   Section 22 and then to your Section 16.
23
24
                       That's correct.
25
                       Does that have any bearing on your opin-
            Q
```

ion that there is no drainage from the Section 17 well? 2 Not necessarily. You could have pressure reduction and not necessarily drainage of that area. Did you look at the initial shut-in pressures for the wells to the north and the west of the Section 17 well? I'm familiar generally with what they A The virgin pressures were around 5000 pounds and the were. pressures currently are around 2600 pounds. 10 All right, and what was the initial pres-11 sure on the 17 well? 12 Α Very close to the same, 2600 pounds. It's very similar -- very close to the same as the wells up 13 14 in Section 7. 15 0 Earlier you testified that you thought 16 two laydown units in Section 16 would go a long way towards 17 equal sharing of risk in your risk management program, I 18 think you called it. 19 That's correct. That's right. Α 20 Explain to me what you mean by equal 21 sharing of risks and how you have a duty to the interest 22 owners in the north half of share risk equally with them. 23 I would say it's the fairest way to do it 24 because based on information we have right now, a well 25 the east half of Section 16, we'd have to say it would

riskier than it would be anywhere in the west half of Section 16, because, as you mentioned, the points you mentioned, that it would -- any well in the west half of Section 16 would be closer to Section 17, Section 17 productive well.

Therefore, two laydown units would provide wells to both drilling units that would be as close as possible in equal distance to the productive will in Section 17; therefore I feel that it would be fairest to all the working interest owners to have wells of equal risk, equal drilling risk.

Q Marathon has no ownership interest in the north half of 16, does it?

A That's correct.

Q There's no other contract with any other operators in that section, there is nothing --

17 A No.

10

11

12

13

14

15

16

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19

21

22

23

Q -- that would give rise to the duty to share risk with them, is there?

20 A No.

Q In your opinion would a well in the northeast of the southwest interfere at all with the production from a well in the southeast of the northwest?

A It's possible. Again I'm not an en-25 gineer, so it's really more of an engineering type question.

```
64
1
  It's --
2
                       You said there were more equal risks
            Q
3
   lying across that line if you had two laydown units.
                      Correct.
5
                      When you first -- were you involved with
   the prospect in Section 17 at all?
7
            Α
                      Yes, I was.
8
            0
                       Didn't you first propose two standup
   units for that section?
10
            Α
                      Did anyone in Marathon to your knowledge?
11
            Q
                      Not that I'm aware of.
12
            Α
13
                      Okay. Nothing further.
14
                                MR. CATANACH: Mr. Carroll?
15
16
                        CROSS EXAMINATION
17 BY MR. CARROLL:
18
                       I don't know if I've gotten your
   straight, Hahnenberg?
19
20
                      Correct.
            Α
21
                      Excuse me, I'm sorry, I didn't write it
22
   down very clearly.
23
                      Mr. Hahnenberg, in looking at Exhibit
24 Six, your structure map, you show the basic structure of
25
   the, I guess that's the Morrow, is it not, underneath? Or
```

reservoir.

of the gas out overall in the reservoir.

```
65
   is it --
                       Well, it's the, what we call the Basal
3
           which is, some people call the Atoka Morrow sand,
   which is the pay sand in this area.
5
                      All right, now --
                      It's in the Atoka section.
7
                       Okay.
                               Now your structure map does
   show or provide any reason for an impermeable barrier giving
   rise between these two orange bubbles, so to speak, that
10
   you've got on your map, do they?
11
                      That's correct.
                                        The rationale for
12
   permeability barrier is not based on the structure but based
13
   on the stratigraphy.
14
            Q
                      All right. Now, you have, I believe, in
15
   your testimony, I believe that you've stated that you feel
16
   that the well in Section 17 has been drained by the wells
17
   that you show, I guess, up in Section 7, 12, and 18, is that
18
   not true?
19
            Α
                      No, I said that the pressure was depleted
20
   in this area.
21
                      All right, how -- do you have an opinion
            0
22
   as to how the pressure was depleted in this area?
23
                       Because of withdrawal throughout
            Α
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You have less gas and less gas to push the rest

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                      All right, so that in effect these other
            Q
   gas wells that are in the Atoka formation are draining Sec-
3
   tion 17, is that correct?
                      I would say that's hypothetical.
5
                      Hypothetical, but some how the gas pres-
   sure got -- is lower, is that true?
7
                      Some, that's right.
8
                       Now, the gas pressure that -- have you
   done an examination of what the virgin pressure was in these
   other wells up in these other sections?
11
                       As far as the information that we have,
        and the information we have is mostly in our wellls,
12
   yes,
   well actually, and some of the reported pressures in some of
   the other wells.
14
15
                       All right, and isn't it true that
16
   virgin pressure is very comparable to the Humble well
   in Section 22?
17
18
            A
                      That's right.
19
                      That's correct, isn't it?
            Q
20
                      Uh-huh.
            Α
21
                       Have you done any analysis of the gas to
22
   determine whether or not that they're from different pools
23
   as opposed to the gas in 22 as opposed to the gas
24
   Section 17?
25
            Α
                      No, I have not.
```

And in fact, other than your statement that there was a difference in gas pressures, you have no other real basis for drawing this impermeable barrier between Section 16 and Section 22.

A That's correct.

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Now, if a geologist was looking at this and determined that there was no impermeable barrier and, in fact, included that Humble well within this channel sand, this is a channel sand we're talking about, kind of like a river channel, is it not, or similar to it?

A I would disagree. I would say it's probably -- it's more likely to be a marine bar, shallow marine bar.

Q All right.

A And we really don't see erosion, the type of erosion you would expect from a channel sand in this area.

Q Whether you have a channel sand or a bar sand, you're talking about one contiguous sand which produces gas generally.

A Well, this is probably -- we have it mapped as a single sand; however, you do see on some of the electric logs indications that this action may represent more than one bar, even where we haven't mapped; therefore, the distribution of any one genetic unit, particularly any

 one marine bar, would actually be smaller than we've shown on here; however, we've chosen to combine these because it's impossible to separate them out geologically.

What that would indicate, then, is that you could have a series of marine bar build-ups as we've shown here, and you it's very possible you could have another marine bar developing in the southeast which would include the Humble well, or the McIlvain well, as it's called, in Section 22.

Now, you made a statement in the early part of your testimony that you have included in this south half unit of Section 16, what you consider to be the best acreaged in Section --

A That's correct.

Q -- 16, is that correct?

A That's correct.

Q Well, if you've included the best acreage out of the section, how can the south half be equal to the north half?

A It's not. It's not going to be because the northeast quarter is a quarter has -- has poor reservoir quality rock.

But what we have done is we've included acreage of nearly equal value throughout the unit. If you had a standup, two standup units, you would be -- the work-

25

unit is a standup, is it not?

1 ing interest owners that had the better acreage would be forced to carry the working interest owners that had the poor acreage, and we view that as -- as inequitable and unfair. 5 I see. So what you're telling me is that because Marathon owns acreage in the east half and none in 7 the west half, that if you divided that acreage up eastwest, that if you weighed out the best acreage on some sort of valuation, that Marathon would end up being in the prora-10 tion unit that would have the poorest amount of productive 11 acreage. 12 It would force us to carry the poorer ac-13 Our unit actually has the best potential. 14 Mr. Hahnenberg, you show a dry hole in Q 15 Section 23 on your maps, do you not? 16 Α Yes. 17 That is the ARCO well. 0 18 Well, it's marked as a penetration, not 19 necessarily a dry hole. ARCO is still working to complete 20 that well. 21 0 Marathon was a working interest owner in 22 that well, was it not? 23 Α That's correct.

And in fact that particular proration

```
70
1
                     Yes, it is.
            Α
2
                      And that particular standup unit goes
   against the grain of the structure, does it not?
                      Really it's the edge of the map and the
   structural grain is subject -- is fairly interpretive.
   There really, the control in that area is very limited, so
   it's quite hypothetical in that area.
8
                       And at least at the time that well was
   drilled, which it was projected to drill the Atoka gas sand,
10
   was it not?
11
                      Yes, it was.
12
                       The thinking then was drill a well at a
13
   location that would get closest to a good producing well,
14
   was it not?
15
            Α
                      Yes.
16
                                MR.
                                      CARROLL: That's all I
17
   have, Mr. Catanach.
18
                                MR. CATANACH: Anything further
19
   of this witness?
20
                                MR. HALL: Follow-up.
21
22
                       RECROSS EXAMINATION
23
   BY MR. HALL:
24
                       Mr. Hahnenberg, looking back at
25
   Exhibit Seven, would be believe me if I told you that a well
```

location 660 feet from the west line of Section 16 would be about 1320 closer to the line than the line you proposed?

A I'll --

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3

5

6

11

12

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14

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16

17

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19

20

21

22.

23

24

Q Can you accept that?

A I'll accept your word.

Q Now, considering that distance, let's look at some of the other completions on your maps, completions in the Atoka shown to be productive in the Atoka.

Aren't there wells within 320 -- 1320 feet of those completions that are in fact dry holes? For instance the ARCO well we talked about?

A Yes.

Q And aren't there other wells, say, up in Section 6?

A No, that looks -- that looks to be further away to me.

I might add, the well in Section 23, if you notice, the only established production near that was only one well. The location we're stepping out is a larger developed area, so the continuity of the sand we know has, where it's been developed, large distribution. The sand at the -- excuse me, the well to the southeast is only one control point for that particular sand, so we have much less knowledge about its distribution which did increase the risk in that well in Section 23.

```
1
            Q
                        Again the risk is such as was
                                                         present
   when the Mobil well in Section 12 was drilled, considering
   its proximity to the Shell well in Section 1.
                       Pardon?
                               Will you rephrase the question?
5
   Will you repeat the question?
6
            Q
                       Wasn't that risk also present when
7
   Mobil well
               in
                    Section 12 was drilled, considering
                                                             its
8
   proximity to the well in Section 1?
            Α
                       Yes.
10
                       And likewise the well in Section 7.
11
                       To a lesser degree.
            Α
                       To a lesser degree --
12
13
                      Well, I'm saying -- the two wells in Sec-
            Α
   tion 7?
15
                      Either one.
            Q
16
            Α
                       I'm not following the question.
17
                       The dry hole in Section 12 is not
   further from the producing well in Section 7 than it is the
19
   well in Section 11.
20
                       That looks to be correct.
21
                       Yeah, just by eyeballing it, it seems to
22
   be within 1320 feet, does it not?
23
            Α
                       (Not clearly understood.)
24
                       The point is that still geologically it's
         prudent to locate as closely as you can to a proven
```

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73
  producer.
                      Yes, it is.
2
            Α
3
            Q
                      All right.
                                MR. HALL: Nothing further.
5
                                MR. CATANACH: Any more ques-
  tions of the witness?
7
                                MR. KELLAHIN: Yeah, boy, I've
  got to have them here, I think, you know.
8
                       REDIRECT EXAMINATION
10
  BY MR. KELLAHIN:
11
                      Is the sole substance of what you do as a
12
   geologist to get to the closest next location to a well that
   you pick?
                      No. There are many --
15
                      Is that what you're telling me?
16
            0
17
                      There are many other considerations.
18
                       All right. Mr. Hall has asked you to
19 place -- play closeology with him. Is that the simplistic
   function that you get paid money to perform?
21
                       No, it's much more involved than that.
   Anybody could take a ruler and measure the distance from
23
   wells.
24
                       And in fact closeology doesn't always
            Q
   work very well, does it?
```

That's right. Α ١ Q And you want to show us an example 2 that in Section 23 and 22? 3 Yes, the Humble well and the ARCO well. 4 All right. As a geologist, then, how do 5 you integrate the human desire to crowd up against a good 6 well with the functions that you went to school to perform? A Well, we look at all the data we have and 8 we come up with our best interpretation and try and pick what we believe, based on that information, to be the best 10 possible drilling site. 11 And have you applied that in picking this 12 location in Section 16? 13 Α Yes, we have. We considered many, many 14 types of data, electric log data, seismic data. We even 15 have dipmeter data in Section 17 well, which supports our 16 idea that the sand is trending to the east and southeast, 17 and integrating all this, this is, we believe, the best in-18 terpretation you could come up with. 19 MR. KELLAHIN: Nothing further. 20 MR. CATANACH: The witness may 21 be excused. 22 Let's take a 10 or 15 minute 23 break. 24

N

2

(Thereupon a recess was taken.)

3

MR. TAYLOR: We're back in

5 order, back in session.

MR. KELLAHIN: All right.

7

8

6

STEVE DANIELS,

being called as a witness and being duly sworn upon his
lo oath, testified as follows, to-wit:

11

12

14

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22

23

DIRECT EXAMINATION

13 BY MR. KELLAHIN:

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

16 A Steve Daniels, landman with Marathon Oil
17 Company.

Q Mr. Daniels, have you previously testified as a landman for Marathon Oil Company before the Oil Conservation Division?

A Yes, sir, I have.

Yes, sir.

Q And were you responsible as Marathon's landman for an attempt to obtain voluntary participation for the well to be drilled in Section 16 that Marathon proposed?

25

A

```
1
                                MR.
                                     KELLAHIN:
                                                 We
                                                    tender Mr.
   Daniels as an expert petroleum landman.
3
                                MR.
                                     CATANACH:
                                                He is so quali-
   fied.
                       Let me separate these out into the ef-
            Q
          you have made to each of the working interest owners
   in the south half of 16 and let me have you start, Mr. Dan-
   iels, with whether or not you have made efforts to have
   Shell Western E & P, Inc., participate with their acreage in
10
   the south half?
11
                      Yes, sir, I have. On the --
12
                       If you tabulated as an exhibit, which
   we've marked as Exhibit Number Eight, copies of correspon-
13
14
   dence and telephone notes that you've had with representa-
15
   tives or personnel of Shell Western?
16
                      Yes, sir.
            Α
17
                       Did you compile from your files the
18
   formation that is put together as a single exhibit of sev-
19
   eral pages and marked as Exhibit Number Eight?
20
                      Yes, sir, I did.
21
                      Let me have you summarize for us what has
            0
22
   been your effort to obtain voluntary joinder by Shell?
23
            Α
                      Okay.
                              By letter dated June 17th, 1987,
24
   we requested a farmout from Shell covering their interest in
25
   the southwest quarter southeast quarter of Section 16.
```

```
had proposed to drill a 12,500 foot Atoka Morrow test at a legal location in Section 16.
```

Farmout terms were that Texaco would deliver a 70 -- I mean, excuse me, Shell would deliver a 75 percent net revenue interest lease and retain an override equal the difference between existing burdens and 25 percent.

In addition, at payout of the well they would have the opportunity to convert that override to 25 percent working interest at payout.

What, if any, response did you get on that inquiry from Shell?

A On June the 7th, I mean, excuse, me, July 7th, 1987, I had a call, which on the second page of Exhibit Eight, the second reference, I had a call from John Goforth with Shell and he requested that Marathon furnish him an AFE.

- Q And did you do that?
- No, sir, I didn't.
- 20 Q Okay.

8

10

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12

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A I advised him that we were seeking farmout and not participation from Shell.

By letter dated July 24th, 1987, Marathon received a letter from Shell advising that they were not interested in farming out their acreage in the southwest quar-

ter southeast quarter of Section 16. 2 In response to Mr. Goforth's letter July 24th, what then did you do, Mr. Daniels? Upon further evaluation of this prospect, 5 Marathon by letter dated August 12th, 1987, requested that Shell either participate in the well or to farmout their acreage to Marathon. 8 Marathon had proposed to drill a 12,500 foot Atoka Morrow test, to be located 1980 feet from the 10 south line and 1980 feet from the west line of Section 16. 11 And at that time, then, you provided 12 Shell with the requested AFE? 13 That is correct. 14 All right, and what, if any, response did 0 15 you get from Shell for your efforts to seek participation in 16 the drilling of the well? 17 By letter dated August 19th, 1987, they 18 advised they would not be interested in participating or 19 farming out their interest at this time. Therefor, a no 20 thanks letter. 21 Did you receive any inquiries or corres-22 pondence from Shell seeking any other information from you 23 other than the AFE which you submitted to them? 24 No, sir. Α 25 Q Did they ask you for proposed operating

```
79
   agreements?
                      No, sir.
            Α
                       Did they ask you for geologic informa-
   tion?
5
                      No, sir.
            Α
            0
                     Did they ask you to supply any type of en-
7
   gineering data?
8
            Α
                      No, sir.
                      As a result of having received the refus-
10
   al from Shell to either farmout or participate, then what
11
   did you do?
12
                      I, what I did, I circulated Shell's let-
            Α
13
   ter to our management and they reviewed it and advised that
14
   we should proceed with forced pooling proceedings for a
15
   south half location in Section 16.
16
                       Having realized the necessity
17
   force pool Shell's acreage, did you instigate or continue
   with efforts to get any of the other working interest owners
19
   to participate, farmout, or work some arrangement with you
20
   on the drilling of the well?
21
                      Yes, sir, we continued to negotiate.
22
                      All right, let's talk about the efforts
23
   that were made with regards to Texaco.
24
                       The Texaco acreage is the 40-acre tract
25
   in the northeast of the southwest quarter?
```

```
1
                      Yes, sir, that's correct.
            \Lambda
                       And it says PRP, held -- does that mean
2
            Ç
   held by production?
                      It should be HPP, held by production.
                      All right. Let me turn to the package of
   exhibits marked as Exhibit Number Nine. Does this represent
   correspondence, notes of telephone conversations, that you
   had from and to representatives of Texaco?
                      Yes, sir, it does.
10
                      And was the subject an initiation on your
11
   part to get voluntary participation or farmouts for the well
   in the south half of the section?
12
13
                      Yes, sir, it was.
14
                      Describe for us what you did.
15
            Α
                       As we did with Shell, by letter dated
16
   June 17th, 1987, we requested a farmout of their interest in
17
   the northeast southwest quarter of Section 16.
18
                      These proposed farmout terms
                                                       were
                                                            the
19
   same which were offered in the Shell letter.
20
                      All right, what, if any, response did you
21
   get from Texaco to your June 17th letter?
22
                      By letter dated July 14th, 1987,
            Α
23
   advised that they were not interested in farming out their
24
   acreage at this time.
25
                       Up to this time did Texaco request
```

BARON FORM 25016P3 TOLLTHEE IN CALIFORNIA 800 227 2434 NATIONWIDE BOD 247 OF

1 Who were you talking to when you called Q Texaco? Who is the individual? His name, the landman there was Mr. Curtis Smith. Did Mr. Smith advise you in the phone conversations that Texaco had decided not to participate with Marathon in their proposal? Not at that time. He said that they were still evaluating the proposal. 10 When were you finally notified by Texaco 11 that they had determined they would not partipate with Marathon in the drilling of the well as you proposed it? 13 Α On September 21st I called and he advised 14 that Texaco has not going to participate in the well. 15 О Let's talk about what other efforts you 16 made for the balance of the working interest owners in 17 the section. 18 I believe the only other working interest 19 owner left is Mr. Trainer's interest? 20 That is correct. What I've done, Α 21 outlined -- basically I've attempted to obtain voluntary 22 joinder from Mr. Trainer, on the first page of Exhibit -- or Exhibit Number Ten, the first page of Exhibit Ten --23 24 I don't want you to read all the corres-

pondence or telephone notes, Mr. Daniels, but let me get a

feel for some of the basic efforts that were made. Let's have you identify what was your initial contact with Mr. Trainer in order to solicit his participation or farmout with regards to Marathon's well?

A On June 17th, 1987, we requested that Mr. Trainer farmout his interest in Section 16 to Marathon for the drilling of a 12,500 foot Atoka Morrow test. These were the same terms which we had previously requested of Texaco and Shell.

Q All right, after sending the June 17th letter to Mr. Trainer, what was the next contact you had with Mr. Trainer?

A On page three of Exhibit Number Ten there's a telephone conversation on June 26th, 1987, in which I talked to Mr. Trainer and he advised that he would wait until he sees the results of the -- of our North Vacuum State 17 Com No. 2 Well before making a decision to farmout.

Q What was the next contact and correspondence with him?

A Okay, if you would, skip a page to there's an August 12th, 1987, letter in which we proposed or requested Mr. Trainer either to participate in our proposed test or farmout his interest in the south half of Section 16 to the proposed test.

Q All right, what then is the next contact

A On September the 2nd, 1987, if you'll go back to page three of Exhibit Ten, there's a telephone conversation where I advised Mr. Trainer that Marathon had proceeded with forced pooling proceedings for the south half of Section 16 and advised him that the hearing would be held on September 23rd, 1987.

Q When did Mr. Trainer ultimately advise you that he was not going to participate with Marathon or farmout his acreage to Marathon?

In a telephone conversation on September 16th, 1987, I talked to Mr. Trainer and he advised that -- I just asked him basically the status, you know, of our request, and he said, well, we didn't hear from you a year ago so I really haven't paid that much attention to your August 12th letter, and we basically also discussed that he wanted to operate a well in the south half of Section 16 with he having a 50 percent interest and Marathon, of course, having 25 percent working interest.

He advised that he would be at the attorney -- at the September 23rd hearing and his attorney would
be either Mr. A. J. Losee or Mr. Ernest Carroll, and also he
said that he, you know, as far as not having a response, is
that we didn't -- Marathon didn't break our back to answer
his proposal a year ago and therefore that he didn't see why

he should break hish neck to answer ours.

Q During any of these conversations with Mr. Trainer did he either in writing or in communications to you say that he could not make up his mind about participation in the well in Section 16 after you had completed the well in 17?

A I --

Q Let me start over. Look at the entry on June 26. Mr. Trainer says he's awaiting the results of the drilling of the Marathon well in 17. All right?

A Okay.

Q From then until September 16th did Mr.

Trainer request of you any information from Marathon about teh prospect?

A I talked with him one time and in our conversation I advised him, if you would like to see, you know, if you'd like to ask any questions of our geologist concerning our proposed well, that, you know, that I could give him our geologist's name, and he requested, well, will they show me the information from the State 17 Com No. 2, and I advised him that I was not sure.

Q Did Mr. Trainer advise you that he needed more time to make a decision about your proposal in the south half of 16?

A No, sir.

```
1
            Q
                      Did he specifically request from you
   engineering data with regards to that well in 17?
                      No, sir.
                      Were -- were you involved as the Marathon
5
   landman when Mr. Trainer was proposing his well in the south
   half of 16 in 1986?
7
            Α
                      Yes, sir, I was.
8
            0
                       Approximately when did Mr. Trainer advise
        that he wanted Marathon's participation and had at that
10
   point obtained the cooperation of both Texaco and Shell?
11
                       On June 23rd, 1986.
12
                       After that date did Mr. Trainer contact
   you and ask you when Marathon was going to make a decision?
13
14
            Α
                        I believe it was at that point, June
   23rd, 1986.
15
16
                        After that point what was the next
17
   respondence you received from Mr. Trainer?
18
                            Trainer had written a letter dated
                        Mr.
19
   August 20th, 1986, to Shell and Texaco and I believe we re-
20
   ceived it on August 27th, 1986, stating that he would be un-
21
   able to drill the well.
22
                       Did Mr. Trainer advise you of any reasons
23
   why he was not able to drill the well?
24
                       No, sir.
             Α
25
             Q
                        Did the letter to Shell and Texaco
```

to the record.

```
you saw identify or explain any reason why he wasn't
   to drill the well?
                      No, sir.
                      Between June 23rd of '86 and August 20th,
5
   '86 letter, did Mr. Trainer call you and ask you for a deci-
   sion by Marathon?
            Α
                      Not that I can remember (unclear).
8
                       Did Mr. Trainer ever advise you that he
       any time delays in Marathon making a decision during
10
   that period of time?
11
            Α
                      No, sir, he did not.
12
                      Did Mr. Trainer ever tell you that, I've
13
   got everybody signed up, you got to hurry and do this or we
14
   just can't do it at all?
15
                      No, sir.
16
                       As far as you know, he just pulled the
17
   plug and walked away.
18
                      That is correct, sir.
19
                                MR. KELLAHIN: Mr. Examiner, I
20
   have marked as Marathon Exhibit Eleven the affidavit showing
21
   certification that we have mailed return receipt cards and
22
   received them back from the three working interest owners,
   showing that notice was sent more than 20 days prior to
```

hearing date, and we would asked that that be introduced in-

```
1
                                That concludes my examination
  of Mr. Daniels.
                                We would move the introduction
   of his Exhibits Eight, Nine, and Ten.
5
                                MR.
                                     CATANACH: Exhibits Eight,
   Nine, and Ten, and Exhibit Number Eleven will be admitted
   into evidence.
8
                        CROSS EXAMINATION
10
   BY MR. HALL:
11
                      Mr. Daniels, let me just ask you a couple
  of brief questions here.
12
13
                      Let's refer back to your Exhibit Number
   Nine. That is the correspondence from Marathon to Texaco.
14
15
                      Page three of that exhibit is dated -- a
16
   letter dated August 12, 1987. Isn't that the first time
17
   that Marathon had offered Texaco an opportunity to partici-
18
   pate in a well, anything other than a farmout?
19
                      Yes, sir, that is correct.
            Α
20
            0
                       Okay. Now let's look at the following
   two pages.
                They are pages three and four of you four sheet
   AFE, and I believe that's the same as your Exhibit Two, is
   it not? If you want to look at Exhibit Two I can show you
23
   mine real quick.
```

25 A Yes, sir, it is.

```
1
            0
                     And on the face of Exhibit Two there is a
   stamp and it indicates sent to working interest owners
   approval on August 13, 1987. I assume again that that is
   the first time, although that does not necessarily square
   with the August 12th date. Do you know when Texaco was
   first sent the AFE?
7
                      Mr. Hall, if you will notice -- no, I
            Α
   don't.
                     You do not know? The 12th or 13th,
            Q
                                                           one
10
   of the two.
11
                      Yes, sir.
            Α
                     Okay. Were you involved with the deci-
12
   sion to seek a forced pooling application before the OCD in
13
14
   this matter?
15
                      Yes, sir, I was.
            Α
16
                      When was that decision made?
            Q
17
                      It was made on August 31st, 1987.
            Α
18
                      What's the significance of that date?
19
                       We had received a letter from Shell ad-
            Α
20
   vising that they would not participate or farmout to Mara-
21
   thon and this was their second turndown letter in a matter
22
   of a couple of months. Let me look and see the exact date
23
   on the -- actually Shell's letter is dated August 19th,
24
   1987, and if you can read there at the bottom at the right-
25
   hand corner, we received it on August 24th. Marathon re-
```

ceived it on August 24th, 1987.

So when we received Shell's letter, I routed it through our management and they -- they advised to proceed with forced pooling proceedings.

Q Now you said -- now you said August 31 was the date that the decision was made.

A Yes, sir.

And I assume you're familiar enough with the OCD rules to know that notice to the affected interest owners would have had to have gone out just immediately, is that not correct?

A That is correct.

Q All right. All right. Prior to that are you also familiar enough with the OCD rules to know that a case has to be advertised and the time to call in for an advertisement would have been several days if not weeks prior to August 31st of 1987?

MR. KELLAHIN: I'm going to object about this witness being asked those kinds of questions. I think they constitute questions for you to resolve. I'm not going ot let him express an opinion about whether or not he had complied or not complied with Division rules and regulations.

He has simply told Mr. Hall what he did and what he did not do. To ask this question

for the legal opinion as to whether that was proper or adequate is beyond the scope of this witness' expertise.

Q Let me ask you another question. When did you contact Mr. Kellahin and advise him to proceed with the pooling?

A I -- I don't have that date. I would think it would be August the 31st, 1987.

Q Did you have communications with Mr. Kel-lahin prior to that time?

MR. KELLAHIN: I would object. That's an attorney/client privilege. That's gets us nowhere.

MR. HALL: It is not a privilege. It's a question of fact. We're not inquiring as to the attorney's state of mind, his impressions, or legal opinions. It's strictly factual. We think it's a primary issue in this case that Marathon did not make a bona fide effort to secure voluntary joinder. That question is directly probative of that issue and I'm entitled to know.

MR. KELLAHIN: That issue is not relevant in this case, Mr. Catanach. There is not a party here that has asked for more time in this proceeding.

```
Everyone has turned down Marathon. That is not an issue in
   this case.
                                MR.
                                     HALL:
                                             Well, the fact is
   they didn't offer participation until August 12th, and we
5
   suspect simply because of the advertisement requirements of
   the OCD they didn't really mean it.
7
                                MR.
                                     KELLAHIN:
                                                 Mr.
                                                      Hall
                                                            can
8
   speculate and guess on what he suspects and it's still
                                                           not
   relevant, Mr. Examiner.
10
                                MR. HALL:
                                           But true.
11
                                MR.
                                    CATANACH:
                                                 I'll have to
   agree with Mr. Kellahin on these subjects.
12
13
                                MR. HALL: So the ruling is?
14
                                     TAYLOR:
                                               The objection is
                                MR.
15
   sustained.
16
                                              In that case, we'd
                                MR.
                                     HALL:
17
   ask the examiner to take administrative notice of when Mr.
   Kellahin called the OCD or directed correspondence their way
19
   requesting that this matter be advertised. I'm sure
20
   record will show that it was sometime prior to Marathon's
21
   offer to allow Texaco to participate in the well.
22
                                 I have nothing further.
23
   you.
24
                                      KELLAHIN:
                                                 The record will
                                 MR.
   reflect, Mr. Examiner, the case file shows it was filed on
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93
1
   September 1st, after efforts were made to obtain voluntary
2
   joinder.
3
                                MR.
                                      HALL:
                                              Just so counsel
   understands we're not speaking of the application.
                                                            I'm
5
   speaking of the request for advertisement.
6
                                MR.
                                      KELLAHIN:
                                                  Now I'm not
7
   going to leave that confused.
8
                                He's not going to sit here and
9
   get you that confused.
10
                                There was no oral request
                                                           for
11
   any kind of advertising. The first contact with this
12
   Division is the written request and application. I don't
13
   know how he practices his cases but I don't call them in. I
14
   hand carry them over here and they're date stamped and
15
   whatever the date stamp is, I suspect it's September 1st.
16
                                MR. CATANACH: That is correct.
17
                                MR.
                                     KELLAHIN: That's my first
18
   ocntact with you on this subject.
19
                                MR.
                                     HALL:
                                             Has
                                                  Mr. Kellahin
20
   been sworn?
21
                                MR.
                                     CATANACH: Mr. Carroll, do
22
   you have any questions of the witness?
23
                                MR.
                                     CARROLL: Yes, just one, I
   think.
25
```

```
94
1
2
                        CROSS EXAMINATION
   BY MR. CARROLL:
                      Mr. Daniels, in looking at your exhibit
   marked Number Nine, on the very last page you have some pen-
   cilled notes of a conversation held on Monday of this week,
   is that true.
8
                      Yes, sir, that's correct.
                      And the last entry is Curtis advised that
   Texaco was going to back C. W. Trainer for the formation of
10
   a west half of Section 22. Is that correct?
11
12
                      Yes, sir, that is correct.
                       So in fact Texaco has indicated to Mara-
13
   thon that they wanted a west half or a standup proration
   unit in Section 16.
16
                      That is correct.
17
                                MR. CARROLL: That's all
18 have.
19
20
                        CROSS EXAMINATION
21 BY MR. CATANACH:
22
            Q
                      Mr. Daniels, I'm a litle curious on one
```

23 point.

Cn your Exhibit Number Ten --

A Yes, sir.

```
1
                    -- the June 17th entry, Marathon reques-
            0
   ted a farmout of C. W. Trainer's interest in all of Section
         That includes the northeast quarter. You stated that
   Marathon believes the northeast quarter isn't productive or
   is the poorest acreage in the unit. Why were you willing to
   farm that out, or to obtain that acreage?
7
                      That's what our geological recommendation
            Α
   was, to -- to get that. I, as far as to try to get a farm-
   in of that. As far as the reason, that's basically all --
10
   what I've got. That's what my management wanted us to do.
11
                                MR. CATANACH:
                                                 That's all I
12
   have.
13
                                The witness may be excused.
14
                                MR.
                                     KELLAHIN:
                                                 That's all I
15
   have.
16
                                MR.
                                    CATANACH:
                                                 That's all you
17
   have.
18
                                Mr. Carroll?
19
                                MR. CARROLL:
                                                   Right,
                                                            Mr.
20
   Examiner, we'd call C. W. Trainer.
21
22
                          C. W. TRAINER,
23
   being called as a witness and being duly sworn upon
24
   oath, testified as follows, to-wit:
25
```

DIRECT EXAMINATION

3 BY MR. CARROLL:

Q Mr. Trainer, would you for the record state your full name?

A C. W. Trainer, T-R-A-I-N-E-R.

Q Mr. Trainer, what is your occupation or how do you make your living?

A I'm an independent oil producer, promoter, engineer, in southeast New Mexico.

Q Do you have an actual engineering back-ground, Mr. Trainer?

A Yes, I am a graduate of University of Texas, 1948, electrical engineer, Bachelor of Science.

Q Do you have any work experience in the oil patch?

A Before the -- worked on drilling rigs as a kid and geophysical companies; worked for Continental on the way through college in land surveying, and then worked for Schlumberger nine years as an engineer and five of that years was manager at Hobbs for Schlumberger; quit in 1956 and the past thirty-one years I've been down and around in southwest Louisiana, drilling wells and producing oil, oil and gas.

Q Does your experience actually include the

```
operation of oil or gas wells in southeast New Mexico?
                      Yes, I'm an operator.
2
            \circ
                       All right.
                                     And that's some thirty-one
3
   years you've been doing that, is that correct?
                      Right.
            Α
5
                       In fact with respect to the area in ques-
   tion, do you have any -- and of course we're talking about
7
   the proposed well, an Atoka gas well -- have you had any ex-
   perience in this area with Atoka gas wells?
            Α
                      Yes.
                             The well in Section 22, operated by
10
       H. McIlvain, is my deal and I worked on it almost twenty
11
   years, really, and McIlvain's furnished the money and we've
12
   had them operate it, but we actually are joint operators in
13
   fact of the well.
                       Did you in fact participate in the day to
15
   day drilling of that well and in the decision making process
16
   with respect to how that well was to be drilled?
17
                       You bet.
18
                       And completed.
19
                       I'm the biggest owner in it.
20
                       All right. Now, with respect to the own-
21
   ership in Section 16, you do own 120 acres out of the west
   half, is that not true?
23
                       That's true.
24
                       And with respect to the east half of that
25
```

```
1
   section, you have 360 acres, is that correct?
                      No. 200.
2
3
                      Excuse me, 200, I'm sorry, you're cor-
   rect.
                      320 all told.
                      320 all told. And in fact, the unit that
7
   is being proposed by Marathon, you would have -- own 50 per-
   cent of, is that correct?
                      That's right.
10
                       And in the unit that you're -- that -- I
   take it by your appearance here at the hearing, you are op-
11
   posing Marathon's application.
12
            Α
                      Yes, I'd like to drill in the west half,
13
   drill the best well because it's close to that good well.
14
15
            Q
                       All right.
                                    Now your ownership in the
   west half would only be approximately 37-1/2 percent, is
16
   that correct?
17
18
            Α
                      I'd rather have that in a good well.
19
                      All right, so your motivation today for
   appearing and opposing Marathon is not to get a larger piece
20
   of a well but in fact to get a better well.
21
22
            Α
                       To get a better well. That's where you
23
   make your money.
                      Now, Mr. Trainer, the -- you have in fact
24
25 had conversations with the other working interest owners
```

```
99
1
   the west half, is that not true?
2
            Α
                      True.
3
                      Concerning this drilling of a well in the
            0
   west half.
5
            Α
                      True.
6
                       And the other two working interests are
            Q
7
   Phillips and Texaco, is that correct?
8
            Α
                      True.
9
                       Phillips is appearing here today and has
            0
10
   agreed with you to allow you to operate a well.
11
                       They're ready to drill.
            Α
12
                       And we have also heard testimony today
13
   from Mr. Daniels where he's been informed by Texaco that
14
   they were going to back you in the drilling of a well,
15
   that correct?
16
                        That's right. I haven't had -- Texaco
17
   hasn't turned me down but they haven't told me as much as
18
   they told Daniels.
19
                       All right, they've had more conversation
20
   with them than you have.
21
            Α
                       Well, I haven't pushed them like he has.
22
            Q
                       All right, and in fact Texaco has earlier
23
   farmed out that acreage to you.
24
                        Yes, they'd farmed out to me (unclear)
             Α
25
   last year.
```

FORM 250:6P3

Q Now, you -- have you gone so far as ١ seek from the Oil and Gas Commission a location for the 2 drilling of a well in the west half? 3 Yes. I staked the Betty State No. 1, 4 1980 from the south and 660 from the west and dedicated 5 west half on the plat. All right, going to exhibits we have mar-7 ked as 1-A and 1-B, Trainer exhibit, would you identify what 8 that exhibit is? Α It's an application for permit to drill 10 the other one is the well location and acreage dedica-11 tion plat for that well we were just talking about in the 12 west half. 13 Q Is this an approved application to drill? 14 Α Yes, it says right here at the bottom. 15 Q Okay, and what date was that application 16 approved? 17 Α August -- approved, August 24th, 1987. 18 All right. Do you feel that the location 0 19 that you have approved, 1980 from the south and 660 from 20 the west, is the best possible location for drilling an Ato-21 ka test in Section 16? I pray it is and I believe it is. Α 23 All right. 24

There's some difference.

Α

```
Q
                     Okay. I'm going to show you what I have
1
marked as Trainer Exhibit Two. Would you identify for the
Hearing Examiner what Exhibit Two is?
                      It's an AFE for this well that Phillips
  asked for when I sent them that one that Marathon showed as
  considered.
           Q
                      All right, what is the date of this
7
  particular AFE?
           Α
                     September 10, '87.
9
                     All right. Now this particular AFE,
10
   there has been an earlier exhibit that was presented by
11
  Marathon, which was an exhibit of yours, or excuse me, an
   AFE of yours dated February 16th, '86. Is that correct?
13
                     That's correct.
           Α
14
                      The AFE that we are now looking at,
15
   Trainer Exhibit Two, is considerably -- the amounts shown
        for the dry hole and the completed costs
                                                          are
17
   considerably less, is that not true?
18
                     Yes, it is.
           Α
19
                      You've also had a chance to look at
20
   Marathon Exhibit Number Two, which was their AFE for their
21
  well that they propose in Section 16. Have you had a chance
22
   to look at that exhibit?
23
           Α
                     Yes, I looked at it. It's not -- it'a
24
   good AFE.
25
```

All right. But it is considerably higher 0 1 than your AFE of September 10th. 2 А That's my business; I'm supposed to drill 3 cheaper. All right. Now, Mr. -- the actual AFE is Q shown to be prepared by an H. Gene Lee, H. E. Gene Lee. is Mr. Lee? 7 Gene is a graduate engineer, lives in 8 Roswell. He owns 10 percent of the McIlvain Well, or he's a partner in it with me, and he will be a partner in this, 10 but he'll do the field work. He's the well expert and that 11 was a tough job over there in Section 22, because Humble had 12 spent several million dollars and gave up on it and left it 13 there for us, and we almost gave up a couple of times, too. 14 Gene's a good man; knows what he's doing. 15 right, so Mr. Lee who's prepared Q All 16 these -- this AFE has had direct experience with your McIl-17 vain Well in Section 22, then. 18 Right. Α 19 And will participate with you in the 20 aid you in the drilling of the well that you propose to 21 drill in the west half. 22 He'll spend some of his own money. A 23 All right. Q 24 CARROLL: I would pass the MR. 25

```
103
  witness.
                               MR. CATANACH: Mr. Kellahin?
2
                               MR. KELLAHIN: Thank you, Mr.
3
  Catanach.
5
                       CROSS EXAMINATION
  BY MR. KELLAHIN:
           Α
                      Mr.
                          Trainer, who is designated as the
8
  operator of the well in Section 22 that you said you had the
  majority interest in?
                      (Unclear) McIlvain Oil and Gas, whatever
11
   it is --
12
                                A SPECTATOR: Properties.
13
                     Yeah, Properties.
14
                       The original AFE that you sent to Mara-
15
   thon back in February of '86 proposed a well location in,
16
   let's see, I believe it was in the southwest of the south-
17
   east quarter of Section 16 with a south half dedication.
                      I really believe that would be all right
19
  but I think it was in the southeast of the southwest, but it
20
   doesn't matter, they're about equal. I'd usually rather
21
   they're on my own lease.
                                A SPECTATOR: That's right.
23
            Α
                      I believe that's correct.
24
                       I show you a copy of that AFE that Mr.
            Q
25
```

15

16

17

18

19

20

21

22

23

24

25

```
Lee prepared for you back in February of '86.
                     Okay, that's fine.
           Α
2
                      That footage location corresponds to the
3
  southwest of the southeast?
                     Yes, it does.
5
                     Okay, and you have said that the south-
  west of the southeast is about as good as the southeast of
   the southwest?
                     Well, excepting it's a quarter of a mile
9
  further from that good well. At the time we did this the
10
  Marathon well in 17 wasn't drilled, Mr. Kellahin, and we
  were trying to get close to our good well in 22.
12
13
```

I still believe in closeology.

Your decision -- you've answered question, it appears to me, and you correct me if I'm wrong, that there the only decision based upon where this well is to be located in Section 16 is a location as close as you can get to the western boundary of that section.

I sure wouldn't want to say that wasn't important because if we drill a dry hole over there to the east we'll be sorry.

C Your proposal, then, would move this to as far west as you can and you don't attribute any significance to the producing well that you have in Section 23?

> Α Oh, yes, I do, you bet, but I -- there's

```
feet of sand down there and 48 over there in 17 and it
1
   gets thin in between.
                        You have not prepared any
                                                       geologic
3
   presentation in support of your position in this
                                                      hearing,
   have you, sir?
5
            Α
                      Well, I didn't bring any to show you. I
   have some ideas.
                      All right. Now, your original applica-
            Q
8
   tion for permit to drill, which you have marked as Exhibit
        that shows us at a location 660 from the west line and
   One,
10
   that puts you up in the northwest of the southwest quarter.
11
            Α
                      Okay.
12
                      Have you had subsequent correspondence or
13
   telephone conversations with the Oil Conservation Division's
14
   office in Hobbs with either Mr. Jerry Sexton or any of
15
   employees concerning any amendment to this application for
16
   permit to drill?
17
                      Well, this permit to drill, no, but with
            Α
18
   this hearing coming up --
19
                      Yes, sir.
            0
20
                       -- I mailed in a location to Jerry to
21
         the southeast of the southwest for a south half loca-
22
   tion.
23
                      Okay.
            0
24
```

Α And it's down there in Hobbs but he can't

25

```
approve both of them --
1
                      All right.
            Q
2
            Α
                      -- (unclear) the southwest quarter is
3
   both of them.
                      I see.
            Q
5
                      But at least the flag is flying out there
6
       I would want to drill one of those two and I want to be
7
   the operator of the well. I don't want Marathon spending my
   money.
9
                      Now, maybe I don't supposed to say that,
10
   but that's the way it goes and my preference is to drill the
11
   one that I've laid here and said I want to drill, but we
12
   don't know how this hearing is going to come.
13
                       But regardless of your preference
14
   fact is that on after the approval of that location on Aug-
15
   ust 24th, you have subsequently filed --
16
            Α
                      No, that's not --
17
                      -- again, you sought to amend this, Mr.
            C
18
   Trainer.
19
                      No, no, no, no, no. I beg your par-
            Α
20
   don.
21
                       You just told me you did.
            Q
22
                      No, I told you I staked them at the same
            Α
23
           I took them in there at the same time and Jerry will
   time.
```

tell you that, he was here a minute ago.

But not subsequently, at the same time. 1 Q So you have on file down at the District 2 Office an alternative application for permit to drill? 3 Α It's stamped in but it's not been proces-4 sed because, I told you, I mean --5 But that -- I'm sorry, I didn't mean to interrupt you. 7 Α I think I'm through. 8 Q Okay. That alternative application 9 that's on file with Mr. Sexton is for a south half dedica-10 tion --11 That's right. Α 12 -- and for a well to be located where \circ 13 Marathon proposes to locate it. 14 No, it's located a quarter mile No. 15 south of where Marathon's is. I think the sand goes south 16 instead of north like he's drawn it. 17 But I'd rather drill it where I'm showing 18 you. 19 Things happen awful fast in this hearing 20 business, it seems like. 21 In response to Mr. Carroll's questions 22 awhile ago, he was talking to you about the orientation of 23 the spacing unit for the section. 24

Α

25

Uh-huh.

Q And I believe your words was -- were to 1 the effect that it makes a better orientation if you stand 2 it up versus lay it down. Those aren't any of my words. Well, I'm trying to recall what you said about what --Another man's words, but not mine. 7 Do you have a preference about orienta-Q 8 tion of the unit? Α Well, I want to drill the location that's 10 approved right here on this exhibit, and if you dedicated a 11 section to it or 80 acres or the north half of the south 12 half, the most important thing to me is to drill where the 13 sand is and get a good well. 14 Now in order to drill there you have to 15 have the west half of the section or have an unorthodox or 16 nonstandard unit. 17 I'm trying to understand your priorities 18 and how you made --19 My priorities --Α 20 -- your decision --Q 21 -- is to get the best well. 22 Q -- and your priority is to put that well 23 as close as you can to the western boundary. 24

I believe I've got a better chance to get

```
109
   the best well if I drill it there, and that's what I'm in
   business to do.
            С
                       And the orientation of the spacing unit
3
   is not of concern to you --
                      No.
            Α
5
                      -- only insofar as one orientation --
6
                       Why don't you give me my half section
            Α
7
   just scattered like it is on the lease, like the --
                      Why don't you let me ask you the question
            Q
9
   and maybe we'll get through this.
10
                      I'm sorry.
            Α
11
                       The -- the orientation of the spacing
12
   unit is not the deciding factor, is it?
13
                      Not to me. Not to me.
14
                       So you don't care what orientation
15
   going to be the most equitable in dividing the acreage in
16
   this section?
17
                      I didn't say that. I said my first pri-
18
   ority is to get the best well. Now then, don't tell me what
19
   I don't care, because I do.
20
                       The orientation -- the location
                                                             you
21
   picked can be approved as a south half dedication with a
22
   hearing to approve an unorthodox location.
23
                      Would you like to do that?
            Α
24
                      I'll be happy to try.
25
```

25

110 (Not clearly understood). Α 1 You want to call time out and let's 0 2 it? 3 Will Marathon let me operate it? Α I don't know. You want to take a recess 5 and we'll find out? MR. CARROLL: Mr. Examiner, I 7 think this is beginning to get -- to deteriorate. This is just a baiting contest between Mr. Kellahin and Mr. Trainer. I think Mr. Trainer has expressed his opinion, number 10 priority. Mr. Kellahin has never asked a second question, 11 what are the second and third and fourth priorities. 12 MR. KELLAHIN: I apologize, Mr. 13 Examiner. I was responding to the witness' answer and I ap-14 ologize, Mr. Trainer. I didn't mean to aggravate you. 15 What is the arrangment as you have it now 16 Phillips Petroleum concerning the voluntary participa-17 tion in the west half? 18 I have their solumn word that they'd like 19 to drill the well. They have approved my AFE and let me be 20 the operator and pay their part. They haven't given me 21 letter. We haven't signed a contract. I'll present them an 22 operating agreement to check and look at, but we're dealing 23

in good faith and I think we have bona fide deal, but you

know, we may fall out of bed, and it's all subject to what

comes out of here. We might not be able to get things set.

```
Oh, I understand, you do not see --
            Q
1
            Α
                       I feel like we have a deal with Phillips.
2
   Now, I think
3
            0
                       You don't see any impediment to comple-
4
   tion of that transaction.
5
            Α
                       No.
6
                       If that transaction is completed is Phil-
7
   lips going ot be the operator or are you to be the operator,
   Mr. Trainer?
                       I'm to be the operator.
10
            Q
                       When we talk about the cost of the well
11
   you have proposed an AFE that I believe you've introduced as
12
   an exhibit.
13
                       Uh-huh.
14
                        When you look at that estimate and com-
15
   pare it to the estimate Marathon has given you, can we both
16
   conclude that those AFEs represent reasonable estimates of
17
   what it might cost to drill this well?
18
                       Well, now you're talking about Marathon's
19
        is quite a bit more than mine, but their man testified
20
   they in fact drilled their well cheaper.
21
                       Yes, sir.
            Q
22
                       And I don't doubt it at all.
            Α
23
                       All right.
24
            Α
                       And I, in fact, will probably drill mine
25
```

```
cheaper. To answer your question, I think they're both good
   AFEs, just like I said awhile ago.
                      Now I can tune mine up some more. I bet
   he can tune his up some more, you know.
                      All right. Do you have available to you,
        Trainer, a gas market for production that would be de-
   Mr.
   rived from the well if it's drilled as you propose?
                      More than likely. I've built two pipe-
   lines to two different gas markets for the one I have there
10
   in Section 22, besides the existing market. So I have more
11
   markets than Marathon does.
12
                      Does that market include all the produc-
13
   tion from the well?
14
                      Well, it's a 6-inch line.
15
                       Or just the operator or your share of
            Q
16
   that production?
17
                       No, it's all of it, the owners of
            Α
18
   well own the lines.
19
                       Do you know whether or not you have a
20
   contractual commitment at this point from any purchaser for
21
   gas to be produced from Section 16?
22
                      Should I tell him what we have, Gordon,
            Α
23
   or not?
24
                      I don't want you to -- let me try again,
            Q
25
   Mr. Trainer.
```

		113
1		I don't want to know who it is. I don't
2	want to know the p	rice of it. I just want you to tell me if
3	there is a	
4	A	Well, we've got what I think is a sweet
5	deal, 'cause I bui	lt it, you know.
6	Q	Mr. Trainer, I have reviewed the reports
7	at the Cil Conserv	ation Division trying to get the number of
8	wells that you operate in New Mexico.	
9		Do you know offhand?
10	A	Producing wells?
11	Q	Yes, sir, how many producing wells?
12	A	Eleven.
13	Q	You have eleven producing wells?
14	A	You want me to name them?
15	Q	No, I don't really think so. What is
16	A	I try not to operate as much as I can and
17	let somebody good like George operate it and hold his hand,	
18	because I don't want to be as big as Texaco, but I'm a good	
19	operator.	
20	Q	The proposed commencement data for the
21	well, do you have a specific commencement date to suggest	
22	for the well?	
23	A	It would be nice to say November 15th.
24	I'd like to get it	drilled. I (unclear) spend money.
25	Q	So there's a firm commitment date that

```
you could commence the well, by November 15th?
2
                       I said I'd like to commence it by Novem-
   ber 15th. Isn't that good enough?
                      Well, I'm concerned about whether or not
   there's a specific commitment or a time frame in which --
                      The lease is not running out --
                      -- to drill the well.
8
                       I have the money to pay my part but I'm
            Α
   not sure Phillips will send their part or where we're going
   to be to make it, you know, so let's say that November 15th
11
   is the spud date, commence date, but don't make me take an
12
   oath.
13
                      Thank you.
            Q
14
                                MR. CATANACH: Are there other
15
   questions of this witness?
16
                                MR. CARROLL: I do.
                                                        Could I
17
   ask just a couple, just very shortly.
18
                                MR. CATANACH:
                                               Sure.
19
20
                       REDIRECT EXAMINATION
21
   BY MR. CARROLL:
22
                      Mr. Trainer, I want to try to clear
23
   any misconception. You have reviewed the geological work
24
   that's been prepared by Phillips, have you not?
25
                      Oh, yes. Uh-huh.
            Α
```

```
117
                      Yes, I am.
            Α
2
                                MR.
                                      HALL:
                                              Is this
                                                        witness
   qualified as an expert geologist?
                                MR. CATANACH: He is.
5
            Q
                      Mr. Halle, I take it you've examined the
   geology in the area, have you not?
7
                      Yes, I have.
            Α
8
                       And you're aware of Marathon's proposed
   location?
10
                      Yes.
11
                      And you are also aware of Mr. Trainer's
12
   proposed location 660 and 1980?
13
                      Yes, sir, I am.
14
                      Okay. How -- why don't yuou explain how
15
   you first became aware of Mr. Trainer's proposal?
16
                       I heard a rumor that he had staked a lo-
17
   cation and called him on the telephone to find out where it
18
          This is in an area that we had been studying since
19
   Marathon proposed their well back in late '86 in 17, and
20
   upon our evaluation of that well we forecast other, other
21
   locations offsetting the Marathon well in 17 and one of them
22
   was this same location that Mr. Trainer has proposed in Sec-
23
   tion 16, and that, that location was proposed to Phillips
24
   management in April of this year.
25
                      Now, by the way, with respect to Mara-
```

```
thon's first proposal for the Section 17 well, did they ever
   at any time propose standup drilling units for that section?
                      Yes, sir, the AFE, when it originally
   came, was proposed as a standup proration unit and
5
   changed by a later -- a letter later in time to a laydown
   north half.
                      In any event, Phillips was considering a
            0
   well in the west half of Section 16 as far back as --
            Α
                      April.
10
                      -- spring of '86?
11
                      Yes.
12
            Q
                      Why does Phillips prefer a standup loca-
13
   tion?
14
                       I think the standup proration units give
   you two better locations in that section. Mr. Hahnenberg's
15
16
   map is very similar to mine and it shows a thick running
17
   through the center of the section and two wells, say,
18
   Trainer's proposed location in the northwest of the south-
   west and a second well in the northwest of the southeast,
   would both be drilled into the thickest part of the sand and
   drain most reservoir most equitably.
22
            Q
                       Do you feel in your opinion that a well
23
   in the west half poses less risk than a well dedicated to a
   laydown south haf drilling unit, a standard location well
   laydown?
```

A Yes, I do.

Q And what methodology did you utilize to determine that that was so?

A We -- I Isopached the sands and used other trends from the Shoe Bar Field and from the dipmeter that was run in the Marathon well in Section 17, and projected this sand trend about south 60 degrees east. That brings the thickest, thickest part of that sand right into this location.

The thickness appears to change very rapidly in these wells and the closer you are to a well with good sand in it the safer you are.

Q So proximity to a proven producer is important; in fact, isn't it highly important?

A It has to be that much safer, yes.

Q Now you were -- you were here today to hear Mr. Hahnenberg's testimony, were you not?

A Yes, I was.

And he testified to the effect that in Section 16 if you squared that section off into quadrants, into fours, all things were more or less equal and a laydown unit would help them manage their risk, so to speak, and give everybody in Section 16 a fair shot at producing their fair share of minerals.

MR. KELLAHIN; I'm going to ob-

MOTHER ACTION AND THE REST OF CALL COMMAND ACTIONS

ject to the way he posed the question, Mr. Catanach. I do
not believe it was our geologist' testimony that each of the
four quarter sections were comparable.

He made specific reference to
the northeast quarter section being the worst of the four,

MR. CATANACH: Rephrase the question, Mr. Hall.

and I would object to the way he's formed the question.

Q What did you understand Mr. Hahnenberg's testimony to be, the thrust of it?

A I understood him to -- to say that the south half was better, but I don't believe his map shows that.

Q What do you believe his map to show?

A I believe that actually the north half and the south half are equal but locations that would be applied to the north and south half probably would not be as efficient at draining this reservoir as a north/south or two standup proration units.

Q So if, as you say, all things being equal, then doesn't closeology become very important?

A I believe so. I think that's what they're doing. They're "closeology-ing" as much as they can with their lease. They can't -- if they use a standup east half, they can't get as close as they are. They're going

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        feet further west by proposing a laydown than
   could by a standup.
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            Q
                      Do you have anything further to add?
            Α
                      No, sir.
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                                MR. HALL: We pass the witness.
б
                                MR. KELLAHIN: No questions.
7
                                MR.
                                      CARROLL:
                                                 I have
                                                             no
   questions.
9
                                      Examiner, I, excuse me, I
                                 Mr.
10
   forgot to move admission of my two exhibits. I would now
11
   move them to --
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                                MR. KELLAHIN: No objection.
13
                                MR. CATANACH: How many were
14
   there, two?
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                                MR. CARROLL: Well, there was
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   actually three, Exhibits One-A and One-B and then Exhibit
17
   Two.
18
                                MR.
                                     CATANACH: Okay, Trainer
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   Exhibits One-A, One-B, and Two will be admitted into evi-
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   dence.
21
                                I have no questions of the wit-
22
   ness.
23
                                MR. HALL: Call Bill Mueller to
24
   the stand.
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WILLIAM J. MUELLER,

being called as a witness and being duly sworn upon his oath, testified as follows, to-wit:

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DIRECT EXAMINATION

BY MR. HALL:

8 Q For the record state your name, your emplace of employment and responsibility. ployer,

10 Okay. I'm William J. Mueller. I spell 11 it M-U-E-L-L-E-R, Reservoir Engineering Supervisor for Phil-12 lips Petroleum Company, Permian Basin Region, in Odessa, 13 Texas.

14 And you --Q

15 Α My area of responsibility is the 16 area which encompasses all of southeast New Mexico. 17 I have three reservoir engineers within this area.

All right. Also you are familiar with the lands that are the subject of this application?

А Yes.

21 And you've testified before the OCD be-22 fore?

23 Yes. Α

> Mueller, have you conducted an en-Mr. gineering study of the subject area?

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22

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12-1/2 percent.

1 Α The subject area has been, yes, studied by engineers under my supervision. 3 All right, why don't we -- why don't you tell me the results of your study? 5 Α Can I go -- want me to just go by exhi-6 bits? 7 0 Yeah. 8 I'd like to --Α 9 Q Do you want to start with Exhibit A? 10 Yeah, let's start with this one. 11 Exhibit One just shows the south half 12 Section 16, being the subject of the hearing today, outlined 13 in orange. 14 It shows a red arrow pointing to the well 15 that has been referenced here many times today, and that's 16 the Marathon State Com No. 2. That well actually exists on 17 Phillips acreage and the working interest distribution of 18 that well is Marathon is operator with 37.5 percent. 19 lips has 25 percent interest. Mobil has 25 and Chevron has

So we are a working interest owner in that well. It's nice and prolific. And that's really the main purpose of Exhibits 2, 3, and 4, is I think the examiner ought to get a chance to see what this peach looks like, since everybody's been talking about it.

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And you're speaking of the well in
            Q
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   tion 17?
2
                      Yes.
3
                      All right, why don't we first take Exhi-
           which I marked B-1, B-2, B-3, why don't you identify
5
   those?
            Α
                       Okay.
                               Exhibit B is a Schlumberger
7
   compensated neutron density on the Marathon Oil Company
   operated State 17 Com No. 1.
                      Many years -- over the last few years I
10
   think the examiner has probably seen that neutron density
11
   separation is very characteristic of a clean gas sand,
12
   ticularly when it exceeds over 5 percent separation.
                                                            This
13
   log indicates almost 12 porosity units separation between
14
   the neutron and the density, which is classic textbook.
15
   Boy, it's a beauty.
16
            Q
                       Let me ask you how you obtained these
17
   logs.
18
            А
                      As a working interest owner we had access
19
   to all the logs and data on this well.
20
                      You get them from Marathon?
            Q
21
                      Yes.
            Α
22
                      Let's look at Exhibit C. Would you iden-
            0
23
   tify that?
24
            Α
                      Exhibit C is a Schlumberger --
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1
                      I'm sorry, let's call it B-2, I believe.
            Q
2
                      Okay,
                             B-2
                                   is
                                        а
                                            Schlumberger
                                                           run
3
   dualatero log,
                   microspherically focused log for the
                                                          same
   well, and here again it shows the same essentially 50 feet
   of good, clean sand, but here we see, you know,
   resistivity profile that's highly characteristic of a highly
   permeable, low water saturation gas sand with RT's in
   neighborhood of 1000 ohms and, as I say, spherically focused
   log down around 20 ohms, containing good permeability.
10
                      The B-3 Exhibit is just a computer pro-
11
   cessed log of the same raw data in the field, and here
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shows that the porosity is in the neighborhood of about 14 percent with water saturation averaging less than 10 percent.

Q Would an operator generally want to get close to a well with logs like this?

A Oh, yeah, everybody would.

Q Let's look at Exhibit --

A Okay.

Q -- look at Exhibit C.

A Okay, Exhibit C is a -- just a copy of the daily report detail on this well furnished us by Marathon as a working interest owner in the well, and as the log showed in reality it happened to be what it was on August the 7th, they perforated 46 feet of this sand. It immediate-

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24 25 750 psi. They shut the well in for three hours and

They took a 5-1/2 hour test and it shows 2.7-million a day, 1400 pounds tubing pressure.

ly kicked off and flowed at a rate of 3.2-million a day

shut-in tubing pressure snapped up to 1600 pounds.

The continuation of this report shows that on a 4-point calculated open flow the well tested highest rate of 3.07-million a day with 1357 psi. has a calculated open flow of 9-million, 9.4-million a day.

And its shut-in tubing pressure is shown on the second page there of 1703.2 psia, or 1690 psig.

All right, let's look at Exhibit D. does that exhibit show?

Exhibit D shows colored in yellow Α Phillips ownership in the northwest quarter of Section 16. It shows the standup or west half proration unit that Phillips believes it has a right to participate in, or should be allowed to participate in, and the Trainer location being 1980 from the south and 660 from the west.

The data on this exhibit shows the cumulative production to 1-1-87, and as is noted here, there are Atoka Morrow wells out here that have cumed 13-billion and 16.7-billion up in Section 7. There are wells -- a well in Section 8 that has cumed 10.2-billion. There's a well

EMB-250-663

the north -- well, I'll say north half of the west of 18 that's cumed 9.9-billion, and then we have the new Marathon well in Section 17.

Now what is of particular interest here is the Marathon well has a shut-in tubing pressure of 1690 psi initial completion and tubing pressures recorded on the surrounding wells in 1986 are 1750, 1909, 1325. So the Marathon well has already suffered considerable drainage in this high productivity sand.

Q Now, let me ask you, you were here today to hear Marathon's evidence, were you not?

A Yes.

And you heard their testimony with respect to the pressures for the well in Section 17 and the wells to the north and west. Did you? Were you here for that?

A Yes. I believe he testified it had not suffered drainage. I would disagree with that.

Q Okay, and why is that?

A Because of the pressure.

Q Likewise, would the acreage underlying the west half of Section 16 possibly suffer drainage by the well in 17?

A Oh, it definitely will. With 46 feet of pay like that, that baby can drain the whole of what, Lea

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County, if you want.
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Q Let's look at Exhibit E, if you'd identify that and explain what that shows.

A Okay. Exhibit E is the same plat only this time I've posted what is called the highest monthly average production for 1987.

In other words, due to, I guess, proration out there, some wells are shut-in some months and others produce, but you can see that the well in the west half of Section 7 produces at a rate of over 5-million a day. The well in the -- excuse me, in the east half of 7 is over 5-million a day. The west half of 7 is about 1-million a day. The well north in Section 8 is about 1.1-million, and then we have the new Marathon well in Section 17 at a calculated open flow of 9.4-million a day, and that -- and the calculated open flows in New Mexico are wellhead deliverability.

Q All right, what does this tell you about drainage?

A It tells me that that Marathon well can drain substantial acreage and that --

Q What do all of these exhibits tell you with respect to the proposed locations on either a standup drilling unit or a laydown drilling unit?

A I think all these locations show that you

have to drill at the least risk; that the location with a standup unit and 660 from the west line affords substantially less risk than a location further away because a location 660 from the west line would exist at 3960 feet from the Marathon well, and a location 1980 from the west line would be 1320 feet further, or 33-1/3 percent greater distance away from a known good well.

And on, as we -- Marathon's exhibits show that there are many dry holes out there right now located in 1320 foot distance from good wells, and so this one does, too, you can see the dry hole in Section 12, and see a well right north that's producing 2-million a day; the two wells in Section 18, one of them with no current production is already abandoned and the other well producing at a rate of 3/4 of a million a day and previous exhibits showed in 18 one well only cumed .1-billion cubic feet and the other one had cumed 9.3.

So 1320 feet thins very quickly.

Q All right, let's look at Exhibit F and why don't you explain that?

A Exhibit F is just -- it takes the previous plat and puts names on the well locations.

Q Anything further you wish to add?

A The only thing I would say is that Phillips believes that it, you know, to protect its correlative

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   rights it needs the right to participate in the standup
   unit.
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                      Our acreage is in the west half and that
   is definitely the lowest risk, best acreage available right
5
   now.
6
                      So in your opinion would the granting of
7
   Marathon's application be in the best interest of conserva-
   tion, protection of correlative rights, and prevention of
   waste?
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            Α
                      No.
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                                MR. HALL: Pass the witness.
12
   Just a minute.
13
                      Did you or someone at your direction pre-
14
   pare Exhibits A through F?
15
            Α
                      Yes.
16
                                MR. HALL: We'd move their ad-
17
   mission and pass the witness.
18
                                MR. CATANACH: Phillips --
19
            Α
                      Well, excuse me. F was prepared by Rick
20
   Halle.
21
            Q
                      Do you agree that it's accurate?
22
                      Yes, I do.
            Α
23
                                MR. CATANACH: Phillips Exhi-
24
   bits A through F will be admitted into evidence.
25
                                Mr. Kellahin?
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MR. CARROLL: No questions.

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CATANACH: I have no ques-

tions of the witness. He may be excused.

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Would counsel like to make

closing statements at this time?

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MR. HALL: Briefly, Marathon's

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come to you with an application for pooling. Statute Sec-

tion 70-2-17 and 18 are very clear. They set out the statu-

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tory requisites which the Examiner must find before a pool-

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ing order can issue.

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Of those elements Marathon has

Secondly, I think the geologic

is that they afforded all

They didn't meet

13 failed to prove at least two.

that statutory requirement.

14

the other affected interest owners an adequate opportunity

to voluntarily join in the well. Informatin has shown that

they were forcing a farmout on the interest owners and not

until some time immediately before the hearing proceedings

were commenced did they even think about offering a partici-

pation to the other working interest owners. In fact, we

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engineering proof is fairly convincing that the only

don't believe that the offer was serious.

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reason they're proposing a laydown unit is because that's

the only way they can get close to proving that producer.

Their acreage position is solely in the east half of Section

16. A standup won't do it for them.

That's not a geologic consideration, that's an acreage situation. That's not enough to allow you to find sufficient evidence to pool them.

That's all I have.

MR. CATANACH: Mr. Carroll.

MR. CARROLL: Mr. Catanach,

I would only -- the only thing that I would add is that besides the considerations that Mr. Hall has brought to your attention, I think of the equities here.

Mr. Trainer owns half of the acreage in this Section 16. He has been, as he told you today, he's been working this particular prospect for nine years. Mr. Trainer has already gone out and has staked a location. Mr. Trainer is a capable operator. He has one of the better wells in this area. I think that the equities here is that the standup type proration units will actually provide a better sharing. I draw your attention to the fact that while Marathon says it's a better -- it's more equitable, they kept saying they put the best acreage in the south half and those statements just in my mind do not coincide.

What they're doing is if they

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put two -- the wells that -- we're not going to get a fair equity with respect to all of the ownership in the entire section.

Based on all those considerations, I think that Mr. Trainer at least as opposed to Marathon is just as capable, is just the same, he has the same experience, he is knowledgeable in this area because of his amount of ownership in this section, and the fact that the geology that this Commission has seen does show that the best location is closer to that west section and since, in Marathon's words, this is more or less a wildcat, should allow the best shot to be taken, and that, I think, Marathon may agree that they want the best shot but want the best shot that they can be involved in it, and just because they own in that -- that section, they do not own in the west half and that's something that we just can't change, and I don't think this Commission should be forced to change the ownership out there. I mean you have to take it as it falls, and we should make our decision based on, when all the other things are equal, the fact that we do have knowledgeable operators. We have good geology and everything, that then we should go with the way this acreage is owned and the most sensible location or the most sensible alignment of the proration unit would be to stand up.

MR. CATANACH: Mr. Kellahin?

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This case has been presented to you in the format of a forced pooling cases, but as I think you quickly saw, this is not a forced pooling case, this is a different creature.

It's an effort by competing interests to obtain and seek an advantage over well locations.

This is more like an unorthodox well location hearing in substance than it is a forced pooling case.

From my perspective I think it is Marathon who has been the pioneer in this area. They are the ones that are developing and extending the known production in the Atoka Sand.

They explained very carefully to you what their plan of development was over the last few years and it was an orderly progression using the well in 17 and then developing the acreage in Section 16.

We believe that Mr. Trainer prematurely proposed a well in Section 16. he jumped the gun on everybody, trying to get operations for the well; didn't matter to him how it was oriented, he wanted to operate the well.

I think he was finally persuaded that he ought to wait the results of the well in 17 and he unilaterally abandoned his efforts to form a voluntary unit in 16. He pulled the plug on August 20th of 1986 without any further inquiry as to forming a voluntary unit.

As Mr. Mueller has pointed out to you, the well in 17 is quite a peach. It will drain all of Lea County, and that's exactly the problem.

We have come to you to have you exercise some of the fundamental rules of conservation in order that all of us have an equitable share in how Section 16 is fully developed.

Mr. Hall directs your attention to the forced pooling statute. I will dismiss that very quickly for you. I think we've complied with requirements of the forced pooling statute. There's not a party in here that's cried for some more time. No one has said that they need more time to process a review.

In fact, this is not a forced pooling case. It's a question for you to exercise your judgment on how to orient the units.

The only geologic evidence displayed for you in the form of an exhibit is what we've given you, and I think they speak very eloquently about what you ought to do.

If you stand these units up, you require the owners in the southeast quarter to carry the

 northeast. As much as Section 17 well is a peach, everyone else is trying to get rid of that prune over there in the northeast quarter. That's the question. Who has to carry the worst acreage. If you stand them up you can't fully develop the section. It makes the east half undesireable. You don't allocate the reserves contiguous with the way they're laid out on the display; however, if you lay them down, you give the opportunity for two wells. Not only will it support a well in the south half but it certainly doesn't preclude Phillips from drilling a well in the northeast -- northwest quarter.

Mr. Mueller is complaining about a well in the northeast quarter, you know, he wants his acreage to contribute. There is absolutely no reason he can't drill a well in the northwest quarter.

So as I said before, I think it's a question that is complicated by the fact that we spaced these type of wells on 320 acress. Rectangular shaped spacing units are very difficult to deal with. It creates an inequity where you consistently lay them down. If you get into the next section, you change the orientation, you create an unfair advantage because wells in the south half of Section 16 now can crowd up against the west boundary. That's not going to help us develop reserves in Section 16.

137 1 think the logical way to do We 2 it is to grant the forced pooling application, resolve the question then of the orientation of the unit, and I suspect there will be no one going nonconsent under that order. 5 They're all going to flock in here and we'll have voluntary participation. 7 Trainer doesn't have any Mr. 8 trouble with the cost of the well. We think Marathon's a prudent operator. That's not the issue. 10 The issue is how to fairly 11 allocate the reserves that are projected in that section and 12 the only exhibit before you is the one we've given you, and 13

We think that's the way you ought to do it. We recommend that you do so.

our witness says in his opinion you divide the producting

potential in this section by laying those units down.

Thank you.

MR. CATANACH: Thank you. Ιs there anything further in Case 9222?

If not it will be taken under advisement.

(Hearing concluded.)

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CERTIFICATE

SALLY W. BOYD, C.S.R., DO HEREBY CERTIFY that the foregoing Transcript of Hearing before the Oil Conservation Division (Commission) was reported by me; that the said transcript is a full, true, and correct record of the hearing, prepared by me to the best of my ability.

I do hereby certify that the foregoing is a complete record of the proceedings in the Examiner hearing of Case No. 2200, heard by me on Sect 23

Examiner Oil Conservation Division