

STATE OF NEW MEXICO
ENERGY, MINERALS AND NATURAL RESOURCES DEPARTMENT
OIL CONSERVATION DIVISION

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

CASE NO. 12,928

APPLICATION OF MEWBOURNE OIL COMPANY)
FOR COMPULSORY POOLING, EDDY COUNTY,)
NEW MEXICO)

ORIGINAL

REPORTER'S TRANSCRIPT OF PROCEEDINGS

EXAMINER HEARING

BEFORE: DAVID K. BROOKS, Hearing Examiner

September 19th, 2002

Santa Fe, New Mexico

OCT 9 11:39 AM '02

This matter came on for hearing before the New Mexico Oil Conservation Division, DAVID K. BROOKS, Hearing Examiner, on Thursday, September 19th, 2002, at the New Mexico Energy, Minerals and Natural Resources Department, 1220 South Saint Francis Drive, Room 102, Santa Fe, New Mexico, Steven T. Brenner, Certified Court Reporter No. 7 for the State of New Mexico.

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Examiner Hearing
CASE NO. 12,928

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A P P E A R A N C E S

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* * *

ALSO PRESENT:

MICHAEL E. STOGNER
Hearing Examiner
New Mexico Oil Conservation Division
1220 South Saint Francis Drive
Santa Fe, NM 87505

* * *

1 WHEREUPON, the following proceedings were had at
2 10:17 a.m.:

3 EXAMINER BROOKS: Case Number 12,928, Application
4 of Mewbourne Oil Company for compulsory pooling, Eddy
5 County, New Mexico.

6 MR. BRUCE: Mr. Examiner, Jim Bruce of Santa Fe,
7 representing the Applicant. I have three witnesses.

8 EXAMINER BROOKS: Before we get started on this
9 one, let's take a five-minute recess. You've got two here
10 to present. Are you going to have the same witnesses in
11 both of them?

12 MR. BRUCE: Same witnesses in both of them.

13 EXAMINER BROOKS: Okay.

14 (Thereupon, a recess was taken at 10:17 a.m.)

15 (The following proceedings had at 10:25 a.m.)

16 EXAMINER BROOKS: Before announcing the recess, I
17 had already called Case Number 12,928, so at this time I
18 will swear the witnesses, if the witnesses will please
19 stand.

20 (Thereupon, the witnesses were sworn.)

21 MR. BRUCE: Mr. Examiner, as a preliminary
22 matter, these two cases involve well units that are right
23 next to each other. So in the first one, especially with
24 respect to the geology, we'll go into some detail, but for
25 the second one we'll try to short-circuit it, since the

1 numbers -- or the geologic testimony is pretty much the
2 same.

3 EXAMINER BROOKS: Okay, is this the file folder
4 here?

5 MR. BRUCE: That's -- Yeah, those are --

6 EXAMINER BROOKS: The one labeled Esperanza "11"
7 State Com Number 1 well?

8 MR. BRUCE: Yes, that's the first case on the
9 docket.

10 EXAMINER BROOKS: Very good. You may proceed.

11 D. PAUL HADEN,

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

14 DIRECT EXAMINATION

15 BY MR. BRUCE:

16 Q. Would you please state your name and city of
17 residence for the record?

18 A. My name is Paul Haden, I live in Midland, Texas.

19 Q. Who do you work for and in what capacity?

20 A. I work for Mewbourne Oil Company as a landman.

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

23 A. Yes, I have.

24 Q. And were your credentials as an expert petroleum
25 landman accepted as a matter of record?

1 A. Yes, they were.

2 Q. And are you familiar with the land matters
3 involved in this Application?

4 A. Yes, I am.

5 Q. And for future reference, are you also familiar
6 with the land matters involved in the second application
7 being heard today?

8 A. Yes, I am.

9 Q. And have you presented a number of exhibits for
10 presentation today?

11 A. Yes, I do have those.

12 MR. BRUCE: Mr. Examiner, I would tender Mr.
13 Haden as an expert petroleum landman.

14 EXAMINER BROOKS: His qualifications are
15 accepted.

16 Q. (By Mr. Bruce) Mr. Haden, could you identify
17 Exhibit 1 and describe what Mewbourne seeks in this case?

18 A. Exhibit Number 1 is a land plat. It shows our
19 proposed spacing unit, which is indicated in yellow border,
20 being the west half of Section 11 of 21 South, 27 East. It
21 also indicates our proposed well location, which is 1010
22 from the south line and 660 feet from the west line of
23 Section 11.

24 Q. What depths do you seek to pool in this
25 Application?

1 A. We seek all depths from the surface through the
2 base of the Morrow.

3 Q. Okay, and that's for 320-acre units?

4 A. Yes, sir.

5 Q. And do you also seek to pool the southwest
6 quarter for 160-acre units?

7 A. Yes, we do, and the southwest southwest quarter
8 for 40-acre units.

9 Q. Mr. Haden, you gave the well location 1010 feet
10 from the south line, I believe?

11 A. Yes, sir.

12 Q. And 660 from the west line?

13 A. Yes, sir.

14 Q. Now, the Application states that the well would
15 be at an orthodox location. This location would be
16 unorthodox for an oil well. What is the reason for that
17 unorthodox location?

18 A. The reason for that is for archaeological reasons
19 and for surface reasons also, the reason being that the
20 Bureau of Land Management recommended that we move our
21 location north.

22 We wanted to put our location 990 from the south
23 and they said, No, you can't do that because there's
24 artifacts there. So we had to move it again to the 1010
25 location --

1 Q. Okay --

2 A. -- which is acceptable to the BLM.

3 Q. Okay, and that just happened recently --

4 A. Yes --

5 Q. -- in the last week or so?

6 A. Right.

7 Q. It wasn't done for a geologic reason?

8 A. No, sir.

9 Q. Okay. And when you said the BLM recommended it,
10 they more or less informed you that that was what you would
11 do?

12 A. Right.

13 Q. Would you identify Exhibit 2 and discuss the
14 ownership in the well unit?

15 A. Exhibit Number 2 describes the ownership in the
16 southwest quarter, southwest quarter of Section 11, which
17 includes all depths. It gives a percentage interest in
18 that 40-acre tract for each of the owners, being Devon
19 Energy, Mewbourne Oil Company and the Estate of Elizabeth
20 Locker, Michael D. Hayes and his wife Kathryn A., and Mark
21 T. Owen and his wife Jami Owen.

22 In the southwest quarter it describes also the
23 ownership for all depths, Devon, Mewbourne, the Locker
24 Estate, the Hayes interest and the Owen interest.

25 In the northwest quarter it describes the

1 ownership below the base of the Bone Spring formation,
2 which Mewbourne Oil Company owns all of that.

3 And then Tract 4 gives a percentage interest in
4 the unit for the west half, which would be Mewbourne Oil
5 Company, approximately 54.22 percent; Devon Energy
6 Production Company, 44.71 percent, approximately; the
7 Estate of Elizabeth Locker, 0.75 percent; Michael D. Hayes
8 and his wife, 0.1875 percent; and Mark T. Owen and his wife
9 Jami, 0.125 percent.

10 Q. Okay. Now, looking at this last list, the west
11 half of 11, have Mr. Owen, Mr. Hayes and the Locker Estate
12 committed their interests to the well at this time?

13 A. Yes, they have.

14 Q. Okay. And we'll get to your negotiations with
15 Devon in a minute, but what is the current status of their
16 interest?

17 A. As of yesterday, Devon had called our Midland
18 office. They indicated that they did not want to
19 participate in our well, however that they would be
20 interested in some kind of farmout arrangement, of which
21 the specific terms thus far have not been discussed.

22 But we will -- we hope to have a voluntary
23 agreement with them.

24 Q. Okay. Would you identify Exhibit 3 and discuss
25 the course of your negotiations with Devon Energy?

1 A. Exhibit Number 3 is a summary of the various
2 communications, either over the phone or in writing, with
3 Ken Gray, who is Devon Energy's landman.

4 You'll see August 2nd, '02, we proposed the well
5 via certified mail with the AFE enclosed, and we offered
6 also in that letter to acquire their interest via term
7 assignment for cash consideration, and they could retain an
8 overriding royalty interest.

9 You will note that there were numerous calls made
10 to Mr. Gray and some follow-up letters regarding our well
11 proposal.

12 Q. And if you do reach voluntary agreement with
13 Devon, will you notify the Oil Conservation Division as
14 soon as that agreement is reached?

15 A. Yes, we will.

16 Q. Does Exhibit 4 just contain copies of the written
17 correspondence with Devon?

18 A. That's correct.

19 Q. The correspondence which you've just summarized?

20 A. Right.

21 Q. In your opinion, has Mewbourne made a good faith
22 effort to obtain the voluntary joinder of Devon Energy in
23 this well?

24 A. Yes, we believe we have.

25 Q. Will the cost of the proposed well be discussed

1 by the next witness?

2 A. Yes, it will be discussed by our engineering
3 witness.

4 Q. Okay, does Mewbourne request that it be
5 designated operator of the well?

6 A. Yes, we request so.

7 Q. What are your recommendations for the amounts
8 which Mewbourne should be paid for supervision and
9 administrative expenses?

10 A. For drilling rate cost we are requesting \$6000
11 per month, and for a producing well per month we're
12 requesting \$600.

13 Q. And are these amounts equivalent to those
14 normally charged by Mewbourne and other operators in this
15 area for wells of this depth?

16 A. Yes, those rates are...

17 Q. And are they generally equivalent to the Ernst
18 and Young overhead survey rates?

19 A. Yes, they are.

20 Q. Do you request that these rates be adjusted
21 periodically as provided by the COPAS accounting procedure?

22 A. Yes, we do.

23 Q. And although it's marked Exhibit 14, were the
24 various parties notified of this Application by certified
25 mail?

1 A. Yes, they were.

2 Q. And Exhibit 14 is simply my affidavit of notice?

3 A. Right.

4 Q. Were Exhibits 1 through 4 and Exhibit 14 prepared
5 by you or under your supervision or compiled from company
6 business records?

7 A. They were.

8 Q. And in your opinion is the granting of this
9 Application in the interests of conservation and the
10 prevention of waste?

11 A. Yes.

12 MR. BRUCE: Mr. Examiner, I'd move the admission
13 of Mewbourne Exhibits 1 through 4 and 14.

14 EXAMINER BROOKS: Okay, 1 through 4 and 14 are
15 admitted.

16 MR. BRUCE: I pass the witness.

17 EXAMINER BROOKS: I don't think I have any --
18 well, let's see. Do you have -- I don't have pool
19 information in what you've given me. Is it in your
20 Application?

21 MR. BRUCE: It was in the Application, Mr.
22 Examiner, and I was pressed for time. If you don't mind,
23 if tomorrow I could submit the pooling form and give you
24 the pooling information?

25 EXAMINER BROOKS: That would be acceptable.

EXAMINATION

BY EXAMINER BROOKS:

Q. In regards to this aspect of it being an unorthodox location, do I understand it's only an unorthodox location as to the 40?

A. Yes, sir.

Q. And do you know, or should I ask the next witness, what are the applicable pool rules?

A. Well, I know that it's --

Q. Or is it statewide?

A. -- your regular 40, statewide.

Q. It's on statewide.

A. Right.

Q. Okay. And the reason it's unorthodox is because when you get 1010 from the south, you're approximately 210 --

A. You're close.

Q. -- from the north, and --

A. Instead of --

Q. -- yeah, from the north, and --

A. Right.

Q. Okay. And the people that -- the unit that you're encroaching on, then, would be the southwest of the northwest, correct?

A. Right, which we own all of that.

1 Q. You own all --

2 A. All the north --

3 Q. -- the working interest in that --

4 A. Yes, sir, in the northwest quarter we own 100
5 percent.

6 Q. Okay. Now, this is labeled the Esperanza State,
7 and you referred to the BLM. What is the mineral ownership
8 in this area?

9 A. The northwest quarter is federal acreage, and the
10 southwest quarter is state.

11 Q. And there's no fee acreage in this?

12 A. No, sir.

13 Q. So the only royalty interest that would be
14 involved would be overriding royalties?

15 A. Right.

16 Q. And is there a discrepancy in overriding royalty
17 ownership between the northwest southwest and the southwest
18 northwest?

19 A. Yes, the overriding royalty interest ownership is
20 a little bit different.

21 Q. But of course since those people are proposed to
22 be force pooled, I assume they've all been given notice
23 within the people you've notified here --

24 A. Right.

25 Q. -- is that correct?

1 Now, I note -- I believe, at least unless
2 somebody made a mistake in the style, your advertisement
3 does not ask for an unorthodox location; is that right?

4 MR. BRUCE: That is correct, Mr. Examiner, and we
5 decided to move forward for a couple of reasons. I propose
6 that this matter be readvertised for the October 10th
7 hearing, and I will submit a new advertisement.

8 EXAMINER BROOKS: Okay, I was going to ask you
9 how you wanted to proceed under those circumstances.

10 MR. BRUCE: I think that's the proper way, since
11 it was filed as an orthodox location, and it's slightly
12 unorthodox, just because of the surface issues that the
13 BLM, who is the surface owner, made us comply with.

14 EXAMINER BROOKS: But you do have an overriding
15 royalty interest that's in there, according to the
16 testimony?

17 MR. BRUCE: Yeah, there's a couple of ways we
18 could -- I think it should be readvertised, because the
19 advertisement does mention an unorthodox location. At this
20 point I don't know, it might be quite some time before it
21 would be completed as an unorthodox location, so --

22 EXAMINER BROOKS: Well, of course, an alternative
23 would be to just put in the Order that unless it could not
24 be produced from that formation --

25 MR. BRUCE: And I think that would be preferable.

1 EXAMINER BROOKS: -- such time as you -- because
2 I think in addition to readvertising it, you would also
3 have to renote at least the people that were involved in
4 the affected quarter sections.

5 MR. BRUCE: I think because -- I think what I
6 would state in the new advertisement is simply that the
7 well is at an unorthodox location, but not ask for approval
8 of the oil unorthodox location at this time, that it cannot
9 be produced until we get a subsequent administrative order.

10 EXAMINER BROOKS: Mr. Stogner?

11 EXAMINER STOGNER: That would be my
12 recommendation.

13 EXAMINER BROOKS: Okay. Do you have any
14 questions of the witness?

15 EXAMINER STOGNER: Yeah, I do have some
16 questions.

17 EXAMINER BROOKS: Go ahead.

18 EXAMINATION

19 BY EXAMINER STOGNER:

20 Q. Mr. Bruce asked you who would be the operator of
21 the well, and you stated Mewbourne.

22 A. Mewbourne Oil Company would be the operator.

23 Q. How about the operator of the spacing units?

24 A. Yes, the west half -- all the spacing units would
25 be operated by Mewbourne.

1 Q. Okay, is there current production in the west
2 half for a deep gas?

3 A. There apparently is a marginal gas well producing
4 from the Wolfcamp formation in the northwest quarter. This
5 is operated by Southwest Royalty Corporation, of which --
6 That's the same company that we had acquired our interest
7 from. Their well is producing very minimal gas. They
8 said, We will plug our well or plug back at such time as
9 you want us to.

10 We told them that there's no need for them to
11 plug their well back until, number one, we encounter
12 Wolfcamp commercial production in our well, which we've
13 agreed that we would not produce our well until we've come
14 to an agreement with Southwest Royalty or their assigns.

15 Q. And that is the only zone currently that there
16 are operations in the west half of that section; is that
17 correct?

18 A. Well, there appears to be a oil well in the
19 southwest northwest quarter. I'm not sure if that's a Bone
20 Spring or a Delaware. Our geologist can tell you more
21 about that. But in the southwest quarter there is no
22 production.

23 Q. Okay, and that would be -- that oil would be, I
24 assume, 40-acre spacing and no, really, effect --

25 A. Yes, sir.

1 Q. -- with what you're asking for today?

2 A. Right.

3 Q. It's my understanding from that answer, the west
4 half for the Wolfcamp currently, if this well is completed
5 there, it would be an infill to that well operated by
6 Southwest and that there's some sort of an agreement where
7 only one operator would be named for the unit?

8 A. Well, actually that's not correct. The Wolfcamp
9 well is spaced as a north-half unit.

10 Q. Oh, that's Wolfcamp oil.

11 A. That's Wolfcamp gas.

12 Q. I'm sorry, what's the spacing unit then?

13 A. 320.

14 Q. Okay, and that's what I was saying --

15 A. Okay, all right.

16 Q. -- 320-acre, west-half dedication.

17 A. Right.

18 Q. If you -- This would be an infill well, your
19 proposed well would be an infill well; is that correct?

20 A. Well, currently they are overlapping proration
21 units.

22 Q. I'm sorry, what do you mean "overlapping"?

23 A. North half is dedicated to this Wolfcamp well,
24 which is in the northwest quarter.

25 Q. Okay, so then --

1 A. Our unit would be a west half.

2 EXAMINER STOGNER: So you're requesting to force
3 pool half of an existing unit? Is that what I'm hearing,
4 Mr. Bruce? This is a little unusual, explain it to me.

5 MR. BRUCE: Okay, Mr. Examiner, there is a north-
6 half Wolfcamp unit. If you look at Exhibit 2, Mewbourne
7 actually owns 100 percent of the working interest in the
8 northwest quarter at this time, in the Wolfcamp.

9 EXAMINER STOGNER: That's already dedicated?

10 MR. BRUCE: It is currently dedicated, and the
11 Southwest Royalties has ensured Mewbourne that at such time
12 as Mewbourne desires to attempt a Wolfcamp completion, if
13 the well is not already abandoned, it will be abandoned in
14 the Wolfcamp.

15 EXAMINER STOGNER: Okay.

16 EXAMINER BROOKS: And you have stated that you
17 have agreed you would not produce this well from the
18 Wolfcamp --

19 MR. BRUCE: Until such time as that well is
20 plugged and abandoned, Mewbourne will not produce in the
21 Wolfcamp.

22 EXAMINER BROOKS: So you would have no objection
23 to that stipulation being included in the order?

24 MR. BRUCE: Not at all.

25 EXAMINER BROOKS: Okay. Mr. Stogner, anything

1 further?

2 EXAMINER STOGNER: I have no other questions of
3 this witness.

4 EXAMINER BROOKS: Very good, the witness may
5 stand down.

6 You may call your next witness.

7 MR. BRUCE: Call Brian Montgomery to the stand.

8 BRIAN M. MONTGOMERY,

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

11 DIRECT EXAMINATION

12 BY MR. BRUCE:

13 Q. Would you please state your name and city of
14 residence for the record?

15 A. Brian Montgomery, Tyler, Texas.

16 Q. And who do you work for?

17 A. Mewbourne Oil Company.

18 Q. And are you a petroleum engineer with Mewbourne?

19 A. I am.

20 Q. Have you previously testified before the
21 Division?

22 A. I have.

23 Q. And were your credentials as an expert engineer
24 accepted as a matter of record?

25 A. They were.

1 Q. And does your area of responsibility at Mewbourne
2 include the Permian Basin of southeast New Mexico?

3 A. It does.

4 Q. And are you familiar with the proposed drilling
5 of the two wells we're here for today?

6 A. Yes, I am.

7 MR. BRUCE: I tender Mr. Montgomery as an expert
8 petroleum engineer, Mr. Examiner.

9 EXAMINER BROOKS: So qualified.

10 Q. (By Mr. Bruce) Mr. Montgomery, if you could look
11 at the AFE, which, Mr. Examiner, is marked Exhibit Number
12 5, could you briefly comment on the AFE and discuss whether
13 these well costs are normal and reasonable for wells of
14 this depth in this area of New Mexico?

15 A. Yes, they are. This is an AFE for the Esperanza
16 "11" Federal Com Number 1, and it's an estimate for the
17 drilling and completion costs associated with an 11,900-
18 foot test to the Morrow. These costs represent a single
19 completion in the Morrow and are in compliance with other
20 wells we've drilled in the area over the last several
21 years.

22 Q. Does this -- Mewbourne has drilled a number of
23 wells in this area --

24 A. Oh, yes.

25 Q. -- over the past number of years?

1 A. In the last 12 months I think we've drilled about
2 four Morrow wells within five miles of these wells.

3 Q. Okay.

4 A. And we use that as a basis for these estimates --

5 Q. Okay.

6 A. -- along with current costs.

7 Q. And how was this AFE prepared?

8 A. It was prepared by our district operations
9 manager Mickey Young and approved by our vice president of
10 operations Monty Whetstoe and also reviewed and approved by
11 myself.

12 Q. Okay. Are these costs based on firm bids from
13 the drilling contractor, et cetera?

14 A. They are. Most of these costs are based on firm
15 bids that we have in hand.

16 Q. And for the record, what are the dryhole and the
17 completed well costs?

18 A. The dryhole costs are approximately estimated to
19 be \$640,000 and the completed costs \$422,500, for a total
20 of \$1,062,500.

21 Q. And what is the depth of this well?

22 A. 11,900 feet.

23 Q. One other thing on this AFE, Mr. Montgomery.

24 This well -- it was originally to be at an unorthodox
25 location, but it has been moved somewhat by the BLM. Will

1 that move to 1010 feet from the south line have any effect
2 on these proposed costs?

3 A. No, these estimated costs would remain the same.

4 Q. Okay. One other item, and this is perhaps
5 getting a little bit ahead, but it depends on the
6 geologist's testimony. What is your summary of the risks
7 and economics for the drilling of this well?

8 A. After reviewing the geology, which we'll hear
9 next, and an engineering and economic analysis that I have
10 done, I have found and concluded that there is significant
11 risk in drilling Morrow wells in this area, as that's based
12 on our experience, the Morrow being the primary objective
13 and these other horizons that we are asking to be pooled
14 being secondary, and that we would need all horizons to
15 justify, economically, to drill this well.

16 Q. From an engineering standpoint, do you believe
17 the maximum cost-plus-200-percent risk penalty should be
18 assessed in the event a working interest owner goes
19 nonconsent in the well?

20 A. Yes, I do.

21 Q. And again, was Exhibit 5 compiled from company
22 records, and was it reviewed by you for accuracy?

23 A. Yes, it was.

24 Q. In your opinion, is the granting of Mewbourne's
25 Application in the interests of conservation and the

1 prevention of waste?

2 A. Yes, it is.

3 MR. BRUCE: Mr. Examiner, I tender Exhibit 5 into
4 the record.

5 EXAMINER BROOKS: Exhibit 5 is admitted.

6 MR. BRUCE: And I pass the witness, Mr. Examiner.

7 EXAMINER BROOKS: I have no questions of this
8 witness.

9 Mr. Stogner?

10 EXAMINER STOGNER: Nor do I. Will your next
11 witness be an engineer?

12 MR. BRUCE: He is a geologist. This is an
13 engineer, next one will be a geologist.

14 EXAMINER STOGNER: Okay. Well, I'll talk to this
15 one then.

16 EXAMINATION

17 BY EXAMINER STOGNER:

18 Q. Okay, you're requesting 200-percent risk penalty.

19 A. Yes, sir.

20 Q. Let's start from the bottom up. How about Morrow
21 production? Has there been any Morrow drainage from the
22 west half of this section?

23 A. The west half of Section 11 -- we'll get into
24 some more details in the next witness -- has produced very,
25 very small amounts of Morrow. We hope to encounter better

1 productivity in the Morrow.

2 Q. Okay, how many wells have contributed to this
3 production in the Morrow?

4 A. In the west half of 11 --

5 Q. Yes, sir.

6 A. -- two wells.

7 Q. Two wells. So this will essentially be a third
8 completion, total, over X amount of time?

9 A. That's correct.

10 Q. Okay. How about -- Oh, let's see, how about
11 Strawn production? Has there been any Strawn gas
12 production up there? Or in the west half, I should say?

13 A. Yes, very, very small amounts of Strawn gas and
14 water production in the same two deep wells that produce
15 Morrow.

16 Q. Okay, what two wells are you referring to?

17 A. I would refer to them in their location position
18 in Section 11. That would be 11F as in Frank, and 11K.

19 Q. Now the well in K, I believe that was identified
20 as it's currently producing from the Bone Springs; is that
21 correct?

22 A. That's correct.

23 Q. And the one in F is currently producing from the
24 Wolfcamp?

25 A. That's correct.

1 Q. But these two wells have both contributed to
2 Strawn and Morrow production?

3 A. Right, they've been very poor in all of the
4 different zones they've tried, and we certainly hope we can
5 do better.

6 Q. Okay. Now, how about the Wolfcamp? We know what
7 the Wolfcamp is doing in Unit F, but how about the well
8 down to the south there?

9 A. I believe it was tested and produced. There was,
10 in my opinion, a problem with the casing and cementing of
11 that well, and it's my hope that -- that small amount of
12 production leads us to believe there may be significant
13 production still remaining in the section, in the west
14 half.

15 Q. Okay, which leads me up to the 200-percent risk
16 penalty in a spacing unit that has already had some
17 production attributed to only one but two wells.

18 A. Right.

19 Q. I don't know, this seems to be a third well, but
20 still you're asking for 200-percent risk penalty. Without
21 hearing from the geologist, how about an engineering
22 standpoint?

23 A. Sure.

24 Q. Is there any production attributed to some of the
25 lower gas back to the west?

1 A. There is significant gas production from the
2 Strawn and the Morrow to the west. What we feel like on a
3 risk basis, and the difficulty in drilling these deep tests
4 and these high-cost wells, is, from the record -- and I
5 think is clearly seen in Section 11 -- there's a strong
6 likelihood you will not make an economic completion in any
7 one zone, and it's just, in my opinion, extremely risky to
8 drill those.

9 And so with the high risk, I feel like we would
10 be compensated with a risk penalty commensurate with the
11 risk we're taking.

12 EXAMINER STOGNER: That's all the questions I
13 have at this time.

14 EXAMINER BROOKS: Very good, the witness may step
15 down.

16 MIKE BURKE,
17 the witness herein, after having been first duly sworn upon
18 his oath, was examined and testified as follows:

19 DIRECT EXAMINATION

20 BY MR. BRUCE:

21 Q. Would you please state your name for the record?

22 A. My name is Mike Burke.

23 Q. Where do you reside?

24 A. Midland, Texas.

25 Q. Who do you work for and in what capacity?

1 A. I'm a petroleum geologist for Mewbourne Oil
2 Company.

3 Q. And have you previously testified before the
4 Division?

5 A. Yes, I have.

6 Q. And were your credentials as an expert petroleum
7 geologist accepted as a matter of record?

8 A. Yes, they were.

9 Q. And are you familiar with the geology involved in
10 these two Applications we're here for today?

11 A. Yes, sir, I am.

12 Q. And your area of responsibility at Mewbourne does
13 include southeast New Mexico?

14 A. Yes, sir, it does.

15 Q. And have you prepared exhibits evidencing the
16 geology and the geologic risk involved in these two wells?

17 A. Yes, I have.

18 MR. BRUCE: Mr. Examiner, I'd tender Mr. Burke as
19 an expert petroleum geologist.

20 EXAMINER BROOKS: So qualified.

21 Q. (By Mr. Bruce) Mr. Burke, let's start out with
22 your Exhibit 6. Could you identify that for the Examiner
23 and discuss it a little bit and perhaps keep in mind a
24 couple of the questions that Mr. Stogner was asking Mr.
25 Montgomery when you're going through these exhibits?

1 A. Yes, I will. Exhibit Number 6 is a structure map
2 I prepared, and it's the structure at the top of the lower
3 Morrow marker, which is a very good geologic mapping
4 horizon for structure in this area. I'll just briefly talk
5 about the map and the key down there, because other
6 exhibits that I present will be in a similar fashion.

7 Posted above the wells in blue is the subsea
8 elevation at the top of the lower Morrow, that's what I
9 drew my contours from.

10 If the well produced from the Morrow, it will
11 have production in non-italic red script to the right of
12 the well, unless I had to move it a little bit just because
13 of posting and making it more legible.

14 If the well is active in the Morrow, to the left
15 in italicized red script will be the current last monthly
16 rate that I have.

17 So if, for example, you look at the well that's
18 in the south part of Section 3 in the northwest part of the
19 map there, you'll see it has a large gray circle behind it.
20 Those circles are indicating the magnitude of the
21 cumulative Morrow production. And so if there's a large
22 circle behind that well, they're very good cumulative-
23 productionwise from the Morrow. The smaller will be the
24 smaller production.

25 If you look to the right of the well I'm speaking

1 of, it says 8.75, and that means the well has made 8. --
2 excuse me, 8.57, has made 8.57 BCF of gas. The 2.4 is 2400
3 barrels of oil, and the 8.1 below that is 8100 barrels of
4 water.

5 Then to the left in the italicized script, 5.95
6 is the last monthly rate I had for the Morrow in the
7 commercial services, which is going to be May, that means
8 it's made nearly -- it's made about 6 million cubic feet
9 that month, with zero oil and zero water.

10 And then below it says "Morrow" just to kind of
11 highlight that it's active in the Morrow, and then the year
12 that it began producing.

13 So that's kind of an explanation of what's posted
14 around the wells.

15 Q. Looking in particular at the west half of Section
16 11, the well in the southeast of the northwest of Section
17 11 no longer produces from the Morrow; is that correct?

18 A. That's correct.

19 Q. And it's produced just under 1/2 of a BCF of gas?

20 A. That's correct.

21 Q. And then the well in the northeast of the
22 southwest again is no longer producing from the Morrow and
23 has produced what, .06 BCF?

24 A. That's correct.

25 Q. Okay.

1 A. And what --

2 Q. Go ahead, Mr. Burke.

3 A. What I'm trying to indicate here -- and I'll show
4 you another exhibit in a moment that will clarify it even
5 better -- is that the wells to the west, at the crestal
6 position of this anticlinal feature, have much better
7 production from the Morrow than the wells as you fall back
8 to the west -- or east, excuse me, and downdip, as a
9 general rule. And this is because the wells to the west
10 are producing from both the middle Morrow section and the
11 lower Morrow section, and the lower Morrow section has a
12 tendency to become high water cut as you move off the
13 structures, but it's also the high-permeability and high-
14 volume reservoirs in this area.

15 So with that explanation, I'd like to have you
16 look at Exhibit Number 7, which is a cross-section I've
17 prepared, A-A' on the map. And what I'm trying to
18 demonstrate here, if you'll look at the well on the left-
19 hand side of the map, that well is in an updip position or
20 more crestal than the other two wells on the cross-section.

21 And if you'll look at the density neutron log on
22 that well, if you'll look in the depth track, you will see
23 that I've marked in red perforations. And these
24 perforations are both in the lower Morrow and the upper
25 Morrow -- or middle Morrow. And this was a 2.63-BCF-type

1 well, which is a pretty good well. It's now been plugged
2 out.

3 That horizontal line in the middle, going through
4 the cross-section, the top lower Morrow sands, that's
5 actually what I mapped the structure on, for the structure
6 on the last exhibit.

7 Q. Now, one thing on this map. You color these
8 sands and you also note them as orange, pink, et cetera.
9 Those are internal Mewbourne designations, are they not?

10 A. They are, and I will have an exhibit that will
11 reference these colors in a moment, because I actually
12 isopach the blue sand, the orange sand, the pink and the
13 green, all as individual reservoirs with individual water
14 contacts.

15 Q. Go ahead, Mr. Burke.

16 A. Okay. As you look to the middle well on the
17 cross-section, moving downdip, this well was drilled by
18 J.M. Huber. If you'll -- in the depth track of the lateral
19 log -- excuse me, I've got the -- can I call your attention
20 -- I've got the headers on the second well backwards. The
21 lateral log is on the left and the density log is on the
22 right. I missed that, I apologize.

23 If you'll look in the depth track of the well on
24 the left, though, I've marked the drill stem test intervals
25 in this well. When Huber drilled the well, they drill stem

1 tested, they tested gas in the middle Morrow. And then
2 down deeper they drill stem tested and tested gas and water
3 in the lower Morrow. And when they completed the well,
4 they completed only in the middle Morrow blue sand up
5 there, because they felt like there would be a high water
6 cut if they completed in the lower Morrow.

7 And as a result of only completing in the middle
8 Morrow sands, you can see that this well has only made
9 about 640 million cubic feet of gas before being abandoned
10 in the Morrow. So as you move down -- I'm just trying to
11 solidify the point that as you move downdip in a location
12 similar to, you know, where we're planning to drill down
13 here, you begin to lose production from the lower Morrow
14 sands and you have to count, really, on the middle Morrow
15 sands for your production from the Morrow.

16 The far right well on the cross-section is a well
17 that was drilled, you know, back in 1974 by Coquina. This
18 well did some extensive testing, and we investigated pretty
19 extensively the OCD records on this and what we found was
20 that in this particular well the lower Morrow was wet, just
21 as it was there in the Huber well, and they had a behind-
22 casing channel in the well that gave them some significant
23 problems with completion all through the life of the well.

24 They did try to complete in this green sand that
25 I have marked in the perforations of the density track

1 here, but due to water encroachment from the lower Morrow,
2 the production wasn't good. This thing, well, only made 56
3 million cubic feet of gas from the Morrow formation before
4 they recompleted to the Bone Springs. They tried to dual
5 it in the Morrow and the Strawn, and the Strawn was not a
6 good producer either. It made 53 million.

7 And the blue sand that produces, you know, just
8 to the south was a little bit tighter and they didn't even
9 try a completion in it. A lot of the reasons why we're
10 drilling this well at a location here is that we feel like
11 there have been probably some reserves that were not
12 captured by this well, had they not have had the casing
13 problem downhole, and that's our primary objective, and
14 that's what we're going after in this well.

15 Q. But looking at the two closest wells to your
16 proposed well, they were both uneconomic in the Morrow?

17 A. The well in 14 with 640 million cubic feet of gas
18 is right at the economic margin. The wells, two wells to
19 the north, are clearly in the Morrow -- Well, the 457-
20 million well in the north part of 11 is approaching payout
21 status at current prices. And that's just a rule-of-thumb-
22 type thing too, with the well costs we have.

23 But there are a good many wells downdip to us
24 that you can see have penetrated the Morrow, because I have
25 subsea elevations showing that they did that, and they were

1 essentially dry in the Morrow. But again, there's an
2 occasional well downdip to where we're drilling that is
3 good.

4 There's a well in Section 12 that completed from
5 the Morrow. It made 1.7 BCF from the Morrow, and it's at a
6 downdip position to where we're drilling and was completed
7 only in the middle Morrow.

8 So with that explanation of that exhibit, I'd
9 like to have you look at my Exhibit Number 8, which is
10 actually an isopach map of the blue sand on the cross-
11 section. And I've got a little more detailed annotation
12 here, if you can see. I have four sands colored on the
13 cross-section in the middle Morrow, and if it was
14 perforated in the blue you'll see a blue color around the
15 well symbol, if it was perforated in the green there will
16 be a green color, or a pink or an orange, corresponding
17 with the cross-section. These maps are from my general
18 prospecting maps of the area, based on my geologic study.

19 If the well was shot in the lower Morrow it will
20 have a square around there, and that would mean any lower
21 Morrow wells. And again you see most of the wells back to
22 the west have a square around them, and --

23 Q. -- those are the better wells?

24 A. -- and those are the better wells, updip to us.
25 This is a gross sand interval. Now, the nets in here are

1 very difficult to isopach accurately at the current well
2 density. That is one of the big risks in the middle
3 Morrow, is, you can encounter a thick sand in this area and
4 yet have very low porosity and permeability to make it
5 where it's a marginally economic well. But in the same
6 sense you do occasionally encounter high streaks of perm in
7 these middle Morrow sands, and they can be quite good.

8 And really that's all for Exhibit Number 8.

9 And I'd like for you to look at Exhibit Number 9,
10 which is just another isopach map. We feel like we have
11 two prospective sands in this prospect. This is an isopach
12 map of the green sand, which is on the cross-section, and
13 we feel like, you know, there's a possibility that it could
14 produce better in the well that's in the south part of
15 Section 11. It certainly looks good on the logs. And
16 barring, you know, limited permeability in here, we feel
17 like this is prospective.

18 So we have two Morrow sands in the middle Morrow
19 that we're going after in this area, with a little bit of
20 discrepancy on why they did not produce as well here as
21 they have in some other wells in the area, and the
22 discrepancies being that they had, you know, some bad
23 cement in the well in Section 11 there.

24 Q. But looking solely at the Morrow, Mr. Burke,
25 there are good wells to the west, but as you go to the east

1 they become significantly less productive?

2 A. That's correct.

3 Q. And therefore the risk in the Morrow is
4 substantial?

5 A. That's right, as you move downdip it becomes more
6 risky. And you know, we don't have the luxury of having
7 real good undrained reservoirs in the lower Morrow at this
8 point in the development of the field. And we do,
9 fortunately, have a little more well control than the
10 people that originally drilled the wells and a little
11 better completion technology, so what we're doing is really
12 trying to spot these wells in areas where we feel like
13 there's a good chance that we will not be drained and a
14 chance that we'll encounter good reservoir.

15 Q. Okay. Well, let's move on to your next set of
16 exhibits and talk about some of these other zones in the
17 area.

18 A. Certainly. Exhibit Number 10, as opposed to the
19 maps I've shown you before -- the maps before only showed
20 wells that went to a depth of 10,000 foot or greater and
21 only showed you production from the Morrow -- Exhibit
22 Number 10 are all the wells in the area, irregardless of
23 depth, and it has the production from the various zones on
24 a well-by-well basis.

25 If you look at the key down there at the bottom

1 of the map, I've posted the data just as I had posted it on
2 the previous exhibits with, you know, the active zone, with
3 the cumulative production on the right and the latest
4 monthly production I have on the left.

5 And then there's a difference in this one in that
6 I've color-coded the various zones with the Morrow being
7 the red circles or partial circles around the wells with
8 red script next to them, the Atoka would be the purple
9 partial circles around the wells with purple script, and so
10 forth, up and down the well.

11 And of course there's a lot of information here,
12 and I'm not going to delve into it on the map, but I'll
13 certainly answer questions if you have them.

14 But I'd like you to look at my next exhibit,
15 Exhibit Number 11, which is really just a summary in
16 numbers of what is depicted on Exhibit Number 10. What
17 I've done here is looked at the nine sections on a zone by
18 zone basis and added up the cumulative production by zone
19 and given you an average and a median, to give you an idea,
20 you know, to give you a fair idea of what's going on with
21 wells in this area in all the zones.

22 Q. Let's start at the bottom at the Morrow and work
23 our way up.

24 A. Certainly, and you can see that there have been
25 14 completions in the Morrow in this nine-section area,

1 average depth 11,400, the average production is 2.8 BCF
2 with 1700 barrels of oil and 20,000 barrels of water, and
3 the median is nearly 2.4 with 1000 barrels of oil and
4 nearly 5000 barrels of water.

5 Certainly if you can hit the median or the
6 average in a well in this area, you've done very well. But
7 again, I would like to point back to the early exhibits
8 that showed that the better wells are skewed off to the
9 west, higher updip, and we don't anticipate really hitting
10 the median or the average, either one, because we really
11 don't feel like the lower Morrow is going to be productive,
12 but we feel like we, you know, certainly have the
13 opportunity of making a well in the BCF-type range, plus or
14 minus.

15 If you look at the other zones up the hole, the
16 Atoka, three completions in the area, clearly you take the
17 average, you can't economically drill a 10,700-foot well
18 for 236 million cubic feet of gas.

19 If you look at the Strawn, the Strawn's average
20 is good, it's nearly .9 BCF. But if you look at the median
21 there, which is nearly 75 million, that's indicating that
22 half the wells made less than that and half the wells made
23 more than that. So there's some real good wells out there,
24 and there's a bunch of stinkers.

25 And I'll show you an exhibit later that will show

1 you how in the Strawn, like unto the lower Morrow, the
2 better producers are updip to the west, on top of the
3 anticlinal feature, and as you move downdip you get wet and
4 it's not any good.

5 The Wolfcamp we feel like is a viable objective
6 out here with an average of 350 million nearly and 16,000
7 barrels from 9500 feet.

8 Q. You wouldn't drill simply to test the Wolfcamp,
9 however?

10 A. I don't think after you threw geological risk
11 with the lenticularity of the Wolfcamp you would drill
12 strictly for that. All of these Wolfcamp completions are
13 subsequent recompletions of Morrow wells or duals with a
14 well drilled to the Morrow, so...

15 The Bone Springs and the Delaware, they have some
16 pretty good numbers. You know, you've got in the Bone
17 Spring a half a BCF-plus and 20,000 barrels as an average
18 at 5600 feet.

19 And then the Delaware, you know, 200 million
20 cubic feet with 41,000 barrels. Those wells, if you'll
21 look back at Exhibit Number 10, are in the northeast part
22 of the map in Sections 1 and in the north part of 12 and
23 even actually extending into the northeast part of Section
24 11 and the eastern part of Section 2. The better wells are
25 huddled together there, and there's a shallow structural

1 anticline there that sits up this, that's not reflected in
2 the deep structure.

3 So we really don't feel like that where we're
4 planning to drill, over in the western part of Section 11,
5 we're going to do very well from the Bone Springs or the
6 Delaware, certainly not like the averages over there. If
7 you look at the well producing in the south half of 11 in
8 the Bone Springs, that well went on line in 1994 and has
9 only made, according to the numbers that I have here, 8300
10 barrels of oil, and it's making 25 barrels per month. So
11 it's not ever going to even approach the average-type
12 numbers that you see in the good field to the northeast
13 there.

14 So -- And then you have the upper Permian.
15 That's that shallow Yates production that's located back
16 down on the southwest part of the map in Section 15. I've
17 never studied that formation other than just to recognize
18 that it's there, so...

19 Q. The wells on this Exhibit 11, Mr. Burke, these
20 are the producers only. This would not include dry holes
21 in the area, would it?

22 A. This is -- No, this is every well drilled.

23 Q. This is every well --

24 A. No, no, no. No, excuse me, the map shows every
25 well -- On Section 11 it's only the producers, but --

1 Q. Okay.

2 A. -- wells that did not produce from these
3 formations --

4 Q. They weren't averaged in?

5 A. -- are not included in that -- No.

6 Q. Okay. Why don't you move on to your Exhibit 12,
7 then, and discuss the Strawn production which, on your
8 Exhibit 11, looks fairly reasonable?

9 A. Okay, this -- What I'm trying to show you here,
10 this is a Strawn structure map that I've created based on
11 the top of the Strawn formation. And what I've posted on
12 this map, very similar to the Morrow, is, I've actually
13 posted Wolfcamp, Strawn and Atoka production in a similar
14 fashion to the earlier maps. The Strawn will be in blue,
15 the Wolfcamp will be in green and the Atoka will be in a
16 kind of a purple color.

17 And I've also posted the gray dots that show
18 relative magnitudes of the wells. And of those three
19 formations, which are shallow objectives in the area, again
20 you see back to the west as you move updip on this
21 anticlinal feature, the better wells are found there. And
22 actually the dots in Section 10 that are the largest, the
23 production has come from the Strawn. One is a 2.3 BCF and
24 one is a 3.75 BCF.

25 Q. And again, those are high on the structure?

1 A. And they are high on the structure. So the
2 Strawn, as with the Morrow, is highly structurally
3 controlled in the area. You need to be updip out of the
4 water, and I'll demonstrate that on the next exhibit,
5 Exhibit Number 13, cross-section B-B'.

6 If you look at the well on the far left in the
7 Strawn formation, in about the middle of the well log I
8 have the perforations marked in the depth track of the
9 density log in the main Strawn formation, the main Strawn
10 porosity colored in blue, and this is a very good, you
11 know, Strawn-type well in the updip position. It's made
12 2.3 BCF of gas and 23,000 barrels of oil. It's made a lot
13 of water also, 121,000 barrels of water.

14 As you move downdip to the right on the cross-
15 section, this well attempted a completion in the Strawn,
16 you know, as a dual with the Morrow. But the cumulative
17 production in here is terrible. It's 34,000 MCF gas, or --
18 yeah, 34,000 MCF of gas and 843 barrels of oil is all they
19 got out of it. And even though we don't have anything in
20 the record, just based on how the resistivities are
21 dropping moving downdip in this log, we feel like that this
22 was much wetter here.

23 And then if you go to the well even further to
24 the right on the cross-section and further downdip, this
25 well has not even been attempted in the Strawn. And it's,

1 at the current time, producing in the lower part of the
2 Strawn or Atoka, those two -- that area of the section gets
3 somewhat confused.

4 But even in that interval you can see the
5 production has not been good. That well has made 85,000
6 MCF of gas and has been on line for -- since 1994. So it's
7 clearly not -- you know, not a very good well.

8 Also at the top part of the cross-section,
9 looking left-to right, you can see I've colored in the
10 green, the Wolfcamp porosity interval. These stringers of
11 carbonate in here are very lenticular. They come and go
12 very rapidly on top of the porosity, varying greatly from
13 location to location. But there is some good production in
14 the area if you more or less stumble into it, you know.

15 The well in the center part of the cross-section,
16 which is in the north part of Section 11, you know, that's
17 been not a bad Wolfcamp-type well. 603 million cubic feet
18 of gas and nearly 20,000 barrels of oil. It's certainly a
19 good secondary objective.

20 So what I'm trying to demonstrate on this cross-
21 section is the lenticularity of and the risk of these
22 various other shallow formations, and that clearly from our
23 analysis of the area, the optimum way of reducing waste in
24 drilling wells in this area is to drill for the Morrow,
25 which is your primary objective and where you have the best

1 opportunity to make an economic well, and then as you
2 encounter these other zones, which you hope you encounter
3 one or two of them, you at subsequent times either
4 recomplete to these wells [sic] or, if they're good enough,
5 you can dual-complete in these zones. But you could not
6 drill a well, based on the history of the area, for these
7 zones alone.

8 Q. So looking at your exhibits, the Morrow is
9 clearly the primary objective?

10 A. That's correct.

11 Q. And the Wolfcamp would be, really, the --

12 A. Our second- --

13 Q. -- main secondary objective. But due to the
14 variability of production from the wells and the fact that
15 you're moving offstructure, there is significant risk?

16 A. Yes.

17 Q. And would you recommend the maximum cost-plus-
18 200-percent penalty?

19 A. Yes, I do. I think there's sufficient risk in
20 here to do that.

21 Q. Were Exhibits 6 through 13 prepared by you or
22 under your supervision?

23 A. Yes, they were.

24 Q. And in your opinion, is the granting of this
25 Application in the interests of conservation and the

1 prevention of waste?

2 A. Yes, I do.

3 MR. BRUCE: Mr. Examiner, I move the admission of
4 Mewbourne Exhibits 6 through 13.

5 EXAMINER BROOKS: Six through 13 are admitted.

6 MR. BRUCE: And I pass the witness.

7 EXAMINATION

8 BY EXAMINER BROOKS:

9 Q. Let's see, Exhibit 6, the size of the bubbles
10 around the wells represents -- and the figures, the
11 production figures on the exhibit, represent oil
12 production; is that correct?

13 A. Right, and the size of the bubbles is a relative
14 magnitude. In other words, just the larger wells have the
15 larger gray bubbles and the smaller wells have the smaller
16 gray bubbles, so you can quickly identify where the good
17 ones --

18 Q. Yeah, these bubbles are in direct proportion to
19 the amount of cumulative gas production; is that correct?

20 A. That's correct.

21 Q. And the Exhibit Number 12 is the same for the
22 Strawn?

23 A. Well, actually there, what I did was, I -- with
24 the software that I use in the area, I created the same
25 type of bubble scheme for the Strawn, the Morrow and the

1 Atoka, and I overlaid them all onto the map, and the
2 biggest bubble shows up, the way the software works.

3 Q. Oh, okay.

4 A. So for the most part, yes, it does represent the
5 Strawn, but the data for this map -- If there would have
6 been a huge Wolfcamp well it would have had a huge bubble
7 around it.

8 There's just not a Wolfcamp map that even comes
9 close to the 3.7 BCF of the well in Section 10 there, so --

10 Q. Well, that explanation pretty well explains what
11 had caught my eye here, which was that it appeared that --
12 on Exhibit Number 12, that the proportionality between the
13 well at B and the next well to the left on the cross-
14 section, which was the one in the northwest quarter of
15 Section 11, that --

16 A. It doesn't look right.

17 Q. Yeah, it doesn't look right.

18 A. It should be smaller down there.

19 Q. But that is not Strawn production?

20 A. No, that's --

21 Q. The Strawn figures are .84 for the well at B and
22 .03 --

23 A. That's correct.

24 Q. -- which is a very large discrepancy there, and
25 that circle, then, is a result of the Morrow production in

1 that well?

2 A. Atoka.

3 Q. Atoka.

4 A. And the reason that bubble ended up bigger
5 proportionally than you would think it would is because
6 overall the Atoka production is so bad in the area that a
7 bad Atoka dot on this software ends up being bigger than a
8 bad Strawn dot.

9 Q. Now, the Morrow is your primary objective in this
10 well, correct?

11 A. Yes, sir.

12 Q. And are all of these formations secondary
13 objectives, or what do you --

14 A. Yes, I would say that, because our -- we've, you
15 know, studied this area extensively and we can't seem to
16 justify a Strawn-only or Wolfcamp-only or Atoka-only type
17 of well in this offstructure acreage.

18 Q. Now, the well in the northwest quarter, what
19 formations does that produce from?

20 A. In the northwest of Section 11?

21 Q. Right.

22 A. That well -- It's got a pretty extensive history
23 on that production map that I've done. That well was
24 originally dualled in the Strawn and the Morrow. It made
25 .47 BCF out of the Morrow, and then it made .03 BCF out of

1 the Strawn.

2 The Strawn is weak there because you're pretty
3 far downdip and there's a high water cut.

4 Those zones were depleted over time, and then it
5 was recompleted to the Wolfcamp back -- I'm not sure about
6 the date, it was some years ago. And from the Wolfcamp it
7 made .6 of a BCF and 19,300 barrels of oil. And it's still
8 producing, not hardly any oil but about -- it looks like
9 about 560 MCF per month, which is not a lot of gas.

10 Q. No, the previous witness characterized it as very
11 small production.

12 A. Right.

13 Q. 560 MCF per month would be just a little under 20
14 MCF per day, so it would be in the marginal category.

15 A. It's pretty weak.

16 Q. Okay, the Wolfcamp is the only formation from
17 which it's currently producing; is that correct?

18 A. Yes, sir.

19 Q. Now, the well in the northeast of the southwest,
20 the previous witness testified as to what it -- That well
21 is currently producing oil, correct?

22 A. In the Bone Springs, yes, sir.

23 Q. Okay. Now, has that produced from the deeper
24 formations in the past?

25 A. Yes, sir.

1 Q. You said it had. And which formations has it
2 produced from?

3 A. That well, as with the well just north of it, was
4 originally dualled in the Morrow and in the Strawn, and the
5 production figures on it for the Morrow are .05 BCF and
6 1700 barrels of oil, and the production figures on the
7 Strawn -- Excuse me, I just gave you the numbers for the
8 Strawn. .05 BCF for the Strawn and 1700 barrels of oil.
9 And then for the Morrow, .04 BCF and 6300 barrels of oil.

10 And this is a well that is on the right-hand side
11 of the deep cross-section that had a good-looking middle
12 Morrow sand, the green sand, that they perforated and
13 attempted to complete, but had very poor results that we
14 attributed to a bad cement job in that well. And there
15 were some notes in the OCD files that talked about them
16 trying to squeeze it off and having limited success.

17 And actually, that well was later tried in the
18 Atoka with poor results, .03 BCF and 8300 barrels of oil,
19 and then eventually completed to the Wolfcamp and where it
20 produces -- Excuse me, I said that wrong. It produced from
21 the Wolfcamp later on at .04 BCF and 6300 barrels of oil,
22 which is poor, and now it's in the Bone Springs where it's
23 producing. It's made 8000 barrels and makes 25 barrels per
24 month.

25 So it's had an extensive number of completions,

1 and none of them really have ever -- even the cumulative of
2 all of them probably would never have paid for the drilling
3 of the well and the subsequent cost of workovers and things
4 of that nature.

5 Q. Okay, your correction was that that was in the
6 Wolfcamp and not in the Atoka --

7 A. Yes, sir.

8 Q. -- is that correct?

9 A. I spoke out of turn.

10 Q. Okay. Now, the well in the northeast northwest
11 of 14, what has it produced from?

12 A. That well was originally -- It's on the cross-
13 section. They drilled to the lower Morrow but drill-stem
14 tested water out of it, and they completed in the middle
15 Morrow in the blue -- what I have mapped as the blue sand
16 there, which should be Exhibit -- well, it's the blue-sand
17 Exhibit. And it made 640 million cubic feet of gas and
18 depleted.

19 And they recompleted to what they call the Atoka
20 in 1994, which -- it's in the lower part of the Strawn or
21 the upper Atoka, there's a questionable correlation there.
22 But in either case, since 1994 it's made less than a tenth
23 of a BCF of gas, and currently producing at about a million
24 cubic feet of gas per month.

25 Q. So it's now completed in the Atoka?

1 A. Yes, sir.

2 Q. Okay.

3 A. And it's very poor there.

4 Q. And those are the only two formations that one
5 has produced from, the Morrow and the Atoka?

6 A. Yes, sir.

7 Q. Now, there's been a lot of activity in this area.
8 Since you're drilling another well, I assume that under
9 your interpretation, you don't believe that the reserves in
10 this area are depleted?

11 A. Not completely. We've drilled two nearby wells
12 here.

13 Last year we drilled a well in Section 15. If
14 you'll look down there, there's a red dot in about the
15 center of the section. And that well in the first eight
16 months or so has made about 320 million cubic feet of gas.
17 And back in May when I looked at the production, it was
18 producing at nearly 77 million cubic feet a month, which is
19 still a pretty good rate.

20 There's a well further to the south in Section 23
21 that we drilled for the Morrow where we found it was not
22 completely depleted in the middle Morrow also, and we made
23 a good completion.

24 Q. What would you characterize as being the
25 principal risk factors in this well?

1 A. The principal risk factors here are, since the
2 middle Morrow is our primary objective, and really without
3 feeling like we have a good chance of making a well in
4 there, the primary risk factor is depletion of that
5 reservoir from offset wells, and secondly, finding good --
6 sufficient permeability and porosity in that sand lens to
7 give us a well that will make a BCF or so instead of a well
8 that will do, you know, half a BCF or less.

9 You know, there's a lot of questions to be
10 answered on the magnitude of depletion in various areas
11 here, because many of these wells were completed in the
12 lower and the upper Morrow, and it's all been commingled
13 over time, and it's hard to tell, you know, based on the
14 current data, the magnitude of depletion in some of these
15 middle Morrow reservoirs.

16 We do extensive testing when we drill a well, we
17 take a lot of RFT's and things like that to try to
18 understand more fully how much depletion has taken place
19 and whether there's going to be enough gas, you know, in a
20 particular sand lens that we've isopached to drill another
21 well for it.

22 EXAMINER BROOKS: Very good. Mr. Stogner?

23 EXAMINER STOGNER: No other questions.

24 MR. BRUCE: I have nothing further in this
25 matter, Mr. Examiner.

1 EXAMINER BROOKS: Very good. Okay, then Case
2 Number 12,928 is the one we just heard, and that one will
3 be taken under advisement.

4 (Thereupon, these proceedings were concluded at
5 11:30 a.m.)

6 * * *

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12 I do hereby certify that the foregoing is
13 a complete record of the proceedings
14 the Examiner hearing of Case 12928
15 heard by me on Sept 19, 2002.
16 David K. Brooks
17 Oil Conservation Division
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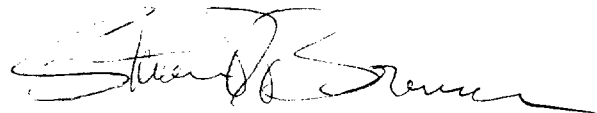
CERTIFICATE OF REPORTER

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

I, Steven T. Brenner, Certified Court Reporter and Notary Public, HEREBY CERTIFY that the foregoing transcript of proceedings before the Oil Conservation Division was reported by me; that I transcribed my notes; and that the foregoing is a true and accurate record of the proceedings.

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

WITNESS MY HAND AND SEAL September 21st, 2002.



STEVEN T. BRENNER
CCR No. 7

My commission expires: October 14, 2002