

STATE OF NEW MEXICO

ENERGY, MINERALS AND NATURAL RESOURCES DEPARTMENT

OIL CONSERVATION DIVISION

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

APPLICATION OF RAPTOR RESOURCES, INC.,)
 FOR TWO UNORTHODOX INFILL GAS WELL)
 LOCATIONS AND SIMULTANEOUS DEDICATION,)
 LEA COUNTY, NEW MEXICO)

CASE NOS. 12,623

APPLICATION OF RAPTOR RESOURCES, INC.,)
 FOR AN UNORTHODOX INFILL GAS WELL)
 LOCATION AND SIMULTANEOUS DEDICATION,)
 LEA COUNTY, NEW MEXICO)

12,624

APPLICATION OF RAPTOR RESOURCES, INC.,)
 FOR AN UNORTHODOX INFILL GAS WELL)
 LOCATION AND SIMULTANEOUS DEDICATION,)
 LEA COUNTY, NEW MEXICO)

and 12,625

(Consolidated)

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REPORTER'S TRANSCRIPT OF PROCEEDINGSEXAMINER HEARING

ORIGINAL

BEFORE: MICHAEL E. STOGNER, Hearing Examiner

April 19th, 2001

Santa Fe, New Mexico

This matter came on for hearing before the New Mexico Oil Conservation Division, MICHAEL E. STOGNER, Hearing Examiner, on Thursday, April 19th, 2001, 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.

* * *

STEVEN T. BRENNER, CCR
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April 19th, 2001
 Examiner Hearing
 CASE NOS. 12,623, 12,624 and 12,625 (Consolidated)

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A P P E A R A N C E S

FOR THE APPLICANT:

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By: WILLIAM F. CARR

* * *

1 WHEREUPON, the following proceedings were had at
2 11:00 a.m.:

3 EXAMINER STOGNER: This hearing will come to
4 order. At this time I'll call Case Number 12,623, which is
5 the Application of Raptor Resources, Inc., for two
6 unorthodox infill gas well locations and simultaneous
7 dedication, Lea County, New Mexico.

8 At this time I'll call for appearances.

9 MR. CARR: May it please the Examiner, my name is
10 William F. Carr with the Santa Fe office of the law firm
11 Holland and Hart, L.L.P. We represent Raptor Resources in
12 this matter, and I have three witnesses.

13 EXAMINER STOGNER: Any other appearances?

14 Will the witnesses please stand to be sworn?

15 (Thereupon, the witnesses were sworn.)

16 MR. CARR: Mr. Stogner, at this time I would
17 request that this case be consolidated with the next two
18 cases. The following two cases are Applications of Raptor
19 Resources. Again, they involve additional development of
20 the Jalmat Gas Pool. The same issues are involved in each
21 of the cases and the general reasons supporting the
22 Applications are the same. I would request that they be
23 consolidated for the purpose of testimony.

24 EXAMINER STOGNER: At this time I'm going to call
25 Case Number 12,624, which is also the Application of Raptor

1 Resources, Inc., for an unorthodox infill gas well location
2 with simultaneous dedication, Lea County, New Mexico; and
3 Case 12,625, which is the Application of Raptor Resources,
4 Inc., for an unorthodox infill gas well location and
5 simultaneous dedication, Lea County, New Mexico.

6 Other than the Applicant, are there any other
7 appearances in any of these matters? Then Cases 12,625,
8 12,624 and 12,623 will be consolidated for purposes of
9 testimony today, and if applicable a single order can be
10 issued.

11 MR. CARR: Mr. Examiner, I also have a brief
12 opening statement.

13 EXAMINER STOGNER: Okay, Mr. Carr?

14 MR. CARR: May it please the Examiner, with these
15 Applications Raptor Resources, Inc., seeks authorization to
16 drill five additional wells in the Jalmat Gas Pool. The
17 wells are proposed on three spacing units, and they will be
18 on a density of less than one well per 160 acres. All are
19 infill wells. Four are at unorthodox well locations.

20 And we also are seeking authorization to
21 simultaneously dedicate all wells on the three spacing or
22 proration units which are the subject of these consolidated
23 hearings.

24 As the Examiner is aware, for the past
25 approximately year and a half there have been a number of

1 issues concerning the proper development of the Jalmat and
2 the Eumont gas pool. There's been litigation, there have
3 been industry meetings, and it is our understanding that
4 the basic rules that govern the pool are still under review
5 by the agency.

6 In this case, Raptor Resources will present
7 testimony which we believe meets the standard set by the
8 rules which govern the development of the Jalmat Gas Pool.

9 We also believe our presentation will meet the
10 standards announced by the District Court of Santa Fe
11 County in the Stipulated Declaratory Judgment which was
12 entered on December 15th in the year 2000, which in fact
13 imposed some additional requirements on operators if they
14 decided to develop this pool on a density of wells greater
15 than one well per 160-acre spacing unit.

16 The evidence we're going to present today is
17 going to be organized in this fashion. First, we're going
18 to call John Lawrence. Mr. Lawrence is a petroleum
19 engineer. He is the person at Raptor who is responsible
20 for their redevelopment program of the Jalmat Gas Pool.

21 We're going to call Mr. Lawrence twice, with your
22 permission, first to provide a general background. What
23 he's going to do is review for you why Raptor became
24 interested in redeveloping certain spacing units in the
25 Jalmat Gas Pool. They have drilled 15 wells as part of

1 this program to date. The density is greater than one well
2 per 160 acres. And he is going to review with you the
3 success they have achieved with this program. We're here
4 today seeking authority to continue this effort.

5 I think it's important to note that as we have
6 gone forward with this effort we have attempted to comply
7 with the rules as we understand the rules to be. It's been
8 sometimes, Mr. Stogner, a sort of a continuously moving
9 target. But when we have been in doubt as to what was
10 required of the rules, we have erred on the side, we think,
11 of doing too much. And we will show you exactly what we
12 have done, not only to comply with Jalmat rules but to meet
13 the standards announced by the District Court.

14 Mr. Lawrence is responsible for this program,
15 he's going to review the history of it, he's going to tell
16 you how new locations are selected. He's going to tell you
17 why it is we believe there are bypassed reserves that are
18 available to now be produced, produced not as a rate
19 acceleration but, in fact, as incremental production.

20 And because the Court in its order said that we
21 would show you that we could economically and efficiently
22 produce the reserves, we're also going to show you what our
23 economic criteria are for this redevelopment program.

24 We're then going to call Mr. Keathly. Bill
25 Keathly is providing our land testimony. He was asked to

1 identify the offset owners to each of the subject spacing
2 units and to assure that notice has been provided of this
3 consolidated hearing as required by the rules of the Oil
4 Conservation Division and the Order of the District Court.
5 He will explain how we approached this task and to whom
6 notice has been provided.

7 We're then going to move to the portion of the
8 court order that says we must justify these wells to you.
9 We're going to call Dave Percy, a geologist who's going to
10 review the geology on each of the five locations that we're
11 talking about. He's going to show you that the geological
12 characteristics of the reservoir in these particular areas
13 justify an additional well, and he's going to identify for
14 you intervals which have not been perforated or produced in
15 offsetting properties.

16 Once we've done that, we're going to recall Mr.
17 Lawrence. He's going to show why we believe a well at each
18 of these locations is needed to efficiently and
19 economically develop the reserves. He's going to show you
20 that these are additional reserves, not rate acceleration.
21 And at the end, we submit, we will have complied with the
22 rules of the Division and the Order of the District Court,
23 and we'll ask you to enter orders approving five additional
24 orders in the Jalmat Gas Pool.

25 At this time, with your permission, we would call

1 John Lawrence.

2 EXAMINER STOGNER: Thank you, Mr. Carr.

3 MR. CARR: And Mr. Stogner, there's a set of
4 exhibits in front of you clipped in a number of small
5 packets, but I think the set before you is complete.

6 JOHN J. LAWRENCE,

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

9 DIRECT EXAMINATION

10 BY MR. CARR:

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

12 A. John J. Lawrence.

13 Q. Mr. Lawrence, where do you reside?

14 A. Midland, Texas.

15 Q. By whom are you employed?

16 A. Raptor Resources.

17 Q. What is your position with Raptor Resources?

18 A. Vice president of engineering.

19 Q. You are the engineer with Raptor who is
20 responsible for the redevelopment program of the Jalmat gas
21 reserves; is that correct?

22 A. That is correct.

23 Q. Have you previously testified before the New
24 Mexico Oil Conservation Division?

25 A. No, I have not.

1 Q. Would you summarize your educational background
2 for Mr. Stogner?

3 A. I graduated with a bachelor of science degree in
4 chemical engineering from Texas A&M University in December
5 of 1980.

6 Q. And since graduation, for whom have you worked?

7 A. I worked for 13 years as a petroleum engineer for
8 Cities Service Oil and Gas. Eventually it became OXY USA,
9 Inc.

10 Q. And when did you start working for Raptor?

11 A. After I left OXY I initiated my own consulting
12 company, which eventually has evolved into Raptor Resources
13 over the last six years.

14 Q. And since graduation have you at all times worked
15 as a petroleum engineer?

16 A. Yes, I have.

17 Q. Are you familiar with the Application filed by
18 Raptor Resources in each of these consolidated cases?

19 A. Yes.

20 Q. And have you made an engineering study of the
21 particular spacing units which are involved with these
22 Applications?

23 A. Yes, I have.

24 Q. And are you prepared to share the results of your
25 work with Mr. Stogner?

1 A. Yes, sir.

2 MR. CARR: At this time we would tender Mr.
3 Lawrence as an expert witness in petroleum engineering.

4 EXAMINER STOGNER: Mr. Lawrence is so qualified.

5 Q. (By Mr. Carr) Mr. Lawrence, would you briefly
6 describe in a general way what it is Raptor Resources seeks
7 with these Applications?

8 A. We seek exceptions to the well-location
9 requirements provided by the special pool rules and
10 regulations for the Jalmat Gas Pool, further, pursuant to
11 the rules governing the Jalmat Gas Pool in the stipulated
12 declaratory judgment issued by the District Court that we
13 will individually review each Application.

14 Q. Are you also seeking authorization to
15 simultaneously dedicate new wells and the existing wells on
16 each of the subject spacing units?

17 A. Yes.

18 Q. You are proposing to go to a well density that is
19 more than one well per 160 acres; is that correct?

20 A. That is correct.

21 Q. Could you generally review the purpose of your
22 initial testimony here today?

23 A. Basically what I plan on doing today is giving a
24 historical overview of the acreage that Raptor possesses in
25 the Jalmat Pool, reviewing the work of two previous

1 operators and also reviewing the work that we have
2 conducted in the field.

3 Q. Are we also then going to review the economic
4 criteria that's employed as you go forward with this
5 program?

6 A. Yes, I will.

7 Q. When did Raptor acquire its interests in this
8 area?

9 A. We purchased the acreage from Clayton Williams
10 Corporation in April of 1999.

11 Q. And what had caused Raptor to become interested
12 in redeveloping Jalmat Gas Reserves?

13 A. I had done some previous engineering work in this
14 particular area and believed that the property and acreage
15 had remaining potential in both the Yates and the Seven
16 Rivers gas formation.

17 Q. Let's go to what has been marked for
18 identification as Raptor Exhibit Number 1. I would ask you
19 to identify this exhibit and explain what it shows.

20 A. This particular plat shows the outlines of the
21 Jalmat Gas Pool. The acreage highlighted in yellow is the
22 acreage that is currently operated by Raptor Resources,
23 Inc. The northern acreage we will refer to will be the
24 State "A" Account 2 leases. The larger plot to the south
25 is primarily the State "A" Account 1 lease.

1 Q. And in each of these -- in the Account 1 and in
2 the Account 2, throughout those areas, you have common
3 working interest ownership, do you not?

4 A. That is correct, we have common working interest
5 ownership that have approved AFEs for the proposed work.

6 Q. And then as we go into this presentation we will
7 show at a later time smaller maps that show each of the
8 subject spacing units which are involved in the individual
9 cases; is that correct?

10 A. That is correct.

11 Q. All right, let's go to what has been marked
12 Raptor Exhibit Number 2. Could you identify this and
13 review it for Mr. Stogner?

14 A. Mr. Stogner, this is a historical production
15 curve of the acreage that Raptor operates. And a couple
16 things that I would like to point out on this particular
17 production curve.

18 From the period of the early 1970s through the
19 late 1980s there was very little, if any, activity on the
20 said acreage. In the late 1980s there was an operating
21 entity out of Midland, Texas, Hal Rasmussen, as well as
22 Clayton Williams, that took over the properties, initiated
23 redeveloping gas wells in the Jalmat Gas Pool on density of
24 less than 160-acre spacing, had significant success. As
25 you can see, they actually took the property up to a peak

1 production in excess of 12 million cubic feet of gas a day.

2 If you look on the established historical
3 production decline, the work that was done by Rasmussen and
4 Williams was actual incremental reserves that were
5 produced. As you can see with the work that was done in
6 the late 1980s and early 1990s, the decline curve from that
7 work mirrors exactly the historical decline from the 1970s,
8 which to me is a very, very strong indication that these
9 are indeed incremental gas reserves that are being produced
10 by taking wells down on tighter density.

11 In conjunction with that you can see that in late
12 1999 and 2000, when Raptor became the operator and we
13 initiated kind of a continuation of the development that
14 Rasmussen and Williams had done previous, we have noticed
15 and had a significant increase in gas production from our
16 efforts, and again feel that those reserves are incremental
17 reserves that are being produced from the properties.

18 Q. To date, how many wells have you actually drilled
19 or recompleted?

20 A. We have actually recompleted, plugged back or
21 drilled approximately 30 wells in the Jalmat Gas Pool in
22 the little over two years that we've owned the property.

23 Q. And how many wells were involved in the
24 Rasmussen-Williams effort?

25 A. There were 56 wells that have been recompleted in

1 their efforts over a two-year time span. Basically, when
2 Clayton Williams took over operations of the property in
3 1991, he discontinued any additional development at that
4 time, and there was no work done on the acreage for
5 approximately ten years until we took over operations.

6 Q. Let's go to what has been marked Raptor Exhibit
7 Number 3, the bar graph. Would you explain what this
8 shows?

9 A. This is a historical summary of the work that had
10 been done by both Rasmussen and Clayton Williams.

11 The bottom line on the bar graph is the estimated
12 ultimate recovery of the particular wells in million cubic
13 feet of gas.

14 On the left-hand column, it's the number of wells
15 that actually will fall in that particular category.

16 For example, when you look on the bottom side of
17 the graph under the number "3", that means that there are
18 12 wells that will produce approximately 300 million cubic
19 feet of gas ultimately from the work that was done back in
20 the late 1980s or early 1990s.

21 And as you can see, there's distribution ranging
22 from on the low side of 100 million cubic feet to four
23 wells that actually will produce in excess of a BCF of gas.

24 Q. And this bar graph represents all of the 50-plus
25 wells involved in the Rasmussen-Williams redevelopment

1 program?

2 A. That is correct.

3 Q. What success rate did they achieve with these
4 wells?

5 A. Based on our economic criteria, they had a
6 greater than 90-percent success rate from their work. And
7 I think when you look at this and then you look at the
8 incremental wedge of production from the previous exhibit,
9 you can see that that is, in fact, incremental production
10 recovered from their efforts.

11 Q. Let's go to what's been marked for identification
12 as our Exhibit Number 4. Would you identify this and
13 explain it?

14 A. This particular exhibit contains the 15 most
15 recent recompletions that Raptor Resources has done on the
16 acreage. The 15 wells that we have reworked have had an
17 average initial potential of 377 MCF of gas per day. And
18 it's just kind of a historical -- it shows what zones and
19 intervals and the location of the particular wells and the
20 initial potentials from those particular wells.

21 Q. All right. I'd like you to take out Exhibits 5
22 and 6. And using these exhibits and the information on
23 Exhibit 5 for the State "A" A/C 1 Number 127 well, using
24 this material, I would like you to explain to the Examiner
25 how you go about -- what criteria Raptor uses in selecting

1 new locations in the Jalmat Gas Pool?

2 A. Mr. Stogner, what we typically do on each one of
3 these particular locations is that we will go and look at
4 the eight offset wells to the particular location in
5 question. We'll go back in and research when the well was
6 drilled and completed, what intervals the particular well
7 was completed in, what size of stimulation was actually
8 done on that particular well, and then also we have in the
9 table a cumulative gas production from the offset wells to
10 that particular location.

11 We use this in conjunction with a geological
12 interpretation in trying to determine net feet of pay for a
13 particular location as our criteria for additional
14 development.

15 Q. What does Exhibit Number 5 show us?

16 A. Exhibit Number 5 are the particular wells that
17 offset well location Number 127. 127 -- and this is in the
18 State "A" Account 1 lease, which was a good well, not one
19 of our best wells, that was originally completed with an IP
20 of 527 MCF of gas per day.

21 What we did when we were evaluating this location
22 was again go to the offsets -- north, south, east, west and
23 the diagonal offsets -- and look at the prior histories of
24 those wells, and then we would look at cross-sections that
25 were created to evaluate the net feet of pay thickness in

1 there and determined if it was a viable candidate to come
2 back in and either redrill or potentially plug back in the
3 given location.

4 Q. And the treatment employed at the time the well
5 was initially drilled and completed was a factor as well,
6 was it not?

7 A. That is correct. That is correct, yes. When you
8 look on this table, there are a number of wells that were
9 completed back in the early 1950s that either had utilized
10 natural-type completions or very small fracs, and they did
11 not open up all the potential pay intervals that we have
12 identified through our efforts out there.

13 As you can see, a number of the wells in this
14 particular table were just completed in the Yates, and very
15 few of them had actually any completions in the Seven
16 Rivers formation.

17 Q. We're talking about three spacing units, one 480
18 acres in size, one 520 and one standard 640-acre unit.
19 With these units under the pool rules, the wells should be
20 back 990 feet from the outer boundary.

21 Is the information that you've shown us on the
22 127 the kind of analysis that you made that has resulted in
23 four of these five wells being closer than 990 feet to the
24 outer boundary of the spacing unit?

25 A. Yes, it is. And the basis for that, a number of

1 these wells -- in fact, almost all of them, were originally
2 drilled to the base of the Queen formation and were
3 originally classified as oil wells, which the setbacks were
4 660 feet off the lease lines.

5 And so in order to maintain 1320-foot well
6 spacing we have indicated that we'd like to have the
7 location 660 feet off the corresponding lease lines.

8 EXAMINER STOGNER: Now I'm going to stop you
9 right there, Mr. Carr.

10 MR. CARR: Yes, sir.

11 EXAMINER STOGNER: Go back and ask that question
12 again, because I want to make sure, I don't want anybody to
13 mislead --

14 MR. CARR: Uh-huh.

15 EXAMINER STOGNER: -- be misled in any way about
16 what the current rules and regulations say. And I heard
17 something there that was not quite true --

18 MR. CARR: All right --

19 EXAMINER STOGNER: -- and I'll give you a chance
20 to --

21 MR. CARR: -- my understanding of the rules is
22 that the larger the spacing unit, the greater the setback,
23 that all of these fall within a category where a well
24 should be 990 from the outer boundary, because the smallest
25 one is 480 acres. If that's wrong, that's my

1 misunderstanding.

2 EXAMINER STOGNER: Okay, let's go back and make
3 sure. Who is your expert on the rules?

4 MR. CARR: I'm the expert, unfortunately, on the
5 rules. I looked at the rules --

6 EXAMINER STOGNER: You mean Raptor doesn't have
7 anybody here that is?

8 MR. CARR: Well, Raptor has relied on me to
9 interpret the rules for them. That's what I was hired to
10 do.

11 EXAMINER STOGNER: But Raptor's made a bunch of
12 Applications over the years.

13 MR. CARR: Correct.

14 EXAMINER STOGNER: You're telling me that you
15 were the only one in those, that --

16 MR. CARR: No --

17 EXAMINER STOGNER: -- you were not involved in --

18 MR. CARR: No.

19 EXAMINER STOGNER: -- they went along without
20 having an expert that knows what the rules --

21 MR. CARR: No, they have used -- Internally, they
22 have interpreted the rules. But as to this case, Mr.
23 Stogner -- because we have had trouble, you know that --

24 EXAMINER STOGNER: And that's why I want to make
25 sure --

1 MR. CARR: -- and I have stepped in, and
2 yesterday I checked the rules, and the table that I saw in
3 R-8170 told me that we needed to be back 990 from the outer
4 boundary.

5 EXAMINER STOGNER: Okay, well, let's make sure.

6 MR. CARR: Okay.

7 EXAMINER STOGNER: Up to 600 acres, 990-990. But
8 how about a standard 640? What's the setback? "A gas well
9 in the Jalmat Gas Pool to which 640 acres is dedicated
10 shall be located no closer than 1650 feet to the outer
11 boundary of the section."

12 MR. CARR: All right, then I'm in error on that,
13 and that is my error.

14 Nonetheless, each of these, Mr. Stogner, is
15 unorthodox toward the outer boundary.

16 EXAMINER STOGNER: Okay. I wanted to make sure
17 that --

18 MR. CARR: Correct.

19 EXAMINER STOGNER: -- we're clear --

20 MR. CARR: Right.

21 EXAMINER STOGNER: -- not only for me and you at
22 this time --

23 MR. CARR: No.

24 EXAMINER STOGNER: -- and the people here at the
25 hearing but anybody else that reads the transcript --

1 MR. CARR: Correct.

2 EXAMINER STOGNER: -- or anybody that --

3 MR. CARR: Well --

4 EXAMINER STOGNER: -- I make the recommendation
5 to, we want to make sure that --

6 MR. CARR: No, you're right, and I grabbed the
7 Byram book and looked at that table, and I knew we were
8 over what was shown in the table, and it said 990-990, and
9 that's what I worked with, but --

10 EXAMINER STOGNER: I'm real surprised one of your
11 witnesses didn't jump up and correct me today. So we'll
12 just keep that under --

13 MR. CARR: All right.

14 EXAMINER STOGNER: -- under consideration.

15 MR. CARR: All right. Are you ready for us to
16 proceed, sir?

17 EXAMINER STOGNER: Yes.

18 Q. (By Mr. Carr) Mr. Lawrence, the District Court
19 in its Stipulated Declaratory Judgment directed operators
20 to show that proposed wells are necessary to efficiently
21 and economically drain proration units.

22 Could you refer to Raptor Exhibit Number 7 and
23 give an overview of the economic considerations involved in
24 your determinations to drill one of these wells?

25 A. Exhibit Number 7 is a table that basically

1 identifies the cost for Raptor to drill a new well in the
2 Jalmat Gas Pool. That capital expenditure is approximately
3 \$315,000. Based on the previous exhibit that showed an
4 average initial potential of 377 MCF per day, that would
5 give us an estimated ultimate recovery of approximately 590
6 million cubic feet from that particular well location.

7 Utilizing a \$5 MCF gas price, which is right now
8 a little below actual market conditions, it takes
9 approximately 73 million feet of gas to be produced from
10 that particular well to pay out the capital expenditure.

11 Running a sensitivity case, utilizing a \$2.50-
12 per-MCF price, it takes approximately 155 million cubic
13 feet of gas to be able to pay out your capital expenditure
14 for the particular well in question.

15 Q. In your opinion, can the wells that you're
16 proposing be economically drilled?

17 A. Yes, they can.

18 Q. Could you explain to us -- To what do you
19 attribute your ability to access and produce additional
20 reserves under these tracts in the Jalmat Gas Pool?

21 A. Based on our evaluation, we feel that some of the
22 older wells were inadequately treated, some used natural
23 completions, some used small frac jobs, not all the zones
24 were opened up to be able to effectively develop the entire
25 reservoir. Some of the wells actually were completed open

1 hole in the procedure they used at that point in time to be
2 able to shoot nitro and open up the reservoir. I don't
3 think it was effective in opening up the entire pay
4 interval.

5 Previous operators in this field, when they were
6 plugging back from the Queen formation to go into the Yates
7 Pool, typically a lot or a majority of the Seven Rivers gas
8 sands that are in existence in here.

9 And based on those reasons, that's why we feel
10 there's additional reserves to recover, plus we have found
11 that there a number of sand members that are lenticular in
12 nature, and so they are not continuous from well to well,
13 even on tighter density.

14 Q. What conclusions generally has Raptor reached
15 from its study of the Jalmat Gas Pool?

16 A. We feel there are substantial reserves to be
17 recovered from these particular efforts, based on the work
18 that Rasmussen-Williams has done, the work that we have
19 done, and a look at the historical production curves off
20 the property, that these are indeed incremental reserves
21 recovered from our efforts.

22 Q. What would have been the daily production rate
23 from the acreage that you redeveloped in your 2000
24 redevelopment program?

25 A. Had we not done anything on the property after

1 purchasing from Clayton Williams, the property would be
2 producing approximately 3 to 3.1 million cubic feet of gas
3 a day. Current daily production is in excess of 7 million
4 cubic feet a day from our work efforts.

5 Q. Will Raptor now call witnesses that will address
6 each of the three spacing units which are the subjects of
7 these Applications and demonstrate that the proposed
8 additional wells are necessary to produce recoverable
9 reserves under these spacing and proration units?

10 A. Yes, we will.

11 Q. Were Exhibits 1 through 7 prepared by you or
12 compiled under your direction?

13 A. Yes, sir.

14 MR. CARR: At this time we'd move the admission
15 into evidence, Mr. Stogner, of Raptor Exhibits 1 through 7.

16 EXAMINER STOGNER: Exhibits 1 through 7 will be
17 admitted into evidence at this time.

18 MR. CARR: And I pass the witness for cross-
19 examination.

20 EXAMINATION

21 BY EXAMINER STOGNER:

22 Q. On your Exhibit Number 4, now, this shows --
23 These are all new completions or -- okay, new drills or new
24 recompletions.

25 A. Yes, sir.

1 Q. How many are actual new drills?

2 A. One, two, three, four of the locations are new
3 drills.

4 Q. Okay, which ones are those?

5 A. That would be the Numbers 127, 128 and 129 in
6 Account 1, and then the State A/C 2 Well Number 75.

7 Q. 127, 128, 129, Number 75, and what was the other
8 one?

9 A. That was it, the State A/C --

10 Q. Just those four?

11 A. Yes, sir.

12 Q. And the other recompletions were what kind of
13 wells?

14 A. Typically they were wells that either had been
15 temporarily abandoned or were uneconomical, very marginal,
16 Langlie-Mattix Queen wells that we would plug back and set
17 a retrievable bridge plug and come back up the hole and
18 complete in the gas interval.

19 Q. Did these wells typically -- the production
20 dropoff or the production rates, did you see a typical
21 dropoff that kind of mirrors what you tried to show in
22 Exhibit Number 2, or did they have virgin characteristics
23 out there?

24 A. We've seen a tremendous variation with how they
25 responded in the variation in pressures.

1 Q. How about some of the higher producers, in
2 particular the Number 25 and Number 34, which -- Those
3 would be classified as nonmarginal, would they not?

4 A. That's correct.

5 Q. Okay, what did those show?

6 A. Basically we had what we felt were almost virgin-
7 type pressures that we were recovering the gas from. I
8 think another indication of the success we've had in here
9 is that the IPs that we have had on our wells have been
10 equal to or better than the results from previous efforts.

11 Q. Okay, when I look at Exhibit Number 5, you show
12 this for the Number 127, which also appears in Exhibit
13 Number 4.

14 A. That's correct.

15 Q. Okay. Now, 127 initially came on in October of
16 2000; is that correct?

17 A. That's correct.

18 Q. And when you say "current rate", this is current
19 rate as of -- ?

20 A. As of in the last 30 days.

21 Q. Thirty days, okay.

22 When one reviews Exhibit Number 5, one thing that
23 seems to pop out the most is the pay interval. Now, does
24 that also reflect the perforations?

25 A. That is correct. That is the actual interval

1 that has been perforated. It's not a top-to-bottom pay
2 thickness, that's the actual productive interval in that
3 particular well.

4 Q. What's the typical -- Well, for this Well Number
5 127, how many perforations per foot, or do you go in there
6 and actually get kind of scientific and -- 10 feet here, 30
7 feet here? Because you've got a -- I don't know, what? A
8 550-foot interval?

9 A. Right. Typically we have no more than 20 to 25
10 perforations on a given wellbore.

11 Q. So you're very particular?

12 A. Very selective.

13 Q. Okay, selective first. When I look at your 1952
14 and 1953 completion dates, can one typically look at those
15 and say that was an open-hole completion, or did those have
16 perfs also?

17 A. It can be a combination of -- Sometimes they were
18 open-hole completed, sometimes there were perforated
19 intervals, and we have a combination now.

20 Q. Okay. What are some of your older wells? Do
21 they go back to the 1940s?

22 A. Yes, sure do.

23 Q. Any back to the 1930s?

24 A. Not that I'm familiar with. I know we have a
25 number that are back to the 1940s but I'm not familiar with

1 any firsthand that date to the 1930s.

2 Q. Okay. What time period does the open holes tend
3 to go away, or that type of completion?

4 A. Oh, I don't think any open-hole completions have
5 probably been done since the early 1960s.

6 Q. Okay. When I look at your Exhibit Number 1, now,
7 the yellow-shaded markings is -- ?

8 A. That's the Raptor acreage.

9 Q. Is Raptor acreage. Now, the areas that we're
10 talking about here today -- Okay, well, let me go back.
11 Referencing Exhibit Number 1, in looking at your yellow
12 markings here in this particular pool, you have essentially
13 two areas that look like they're correlative to each other.
14 Are all of these within that lower big area that Raptor
15 operates? And that looks like it's -- I can't see the --
16 Township 23 South, 36 East, or do you have some up above in
17 the township to the north about --

18 A. No, this is all the acreage that we operate.

19 Q. Okay. But where are the cases that we're talking
20 about today?

21 A. Two of the particular cases are in Section 11,
22 which would be the section up to the north that stands out
23 by itself. And then there are three locations that are
24 down on the State "A" Account 1 lease to the south. Two of
25 them are kind of on the west central portion of the area in

1 yellow, one is back to the southeast portion of the
2 acreage.

3 We'll have individual plats that we'll show later
4 that kind of identify those areas.

5 Q. Okay. Referring now to Exhibit Number 2, a
6 couple of things stand out to me on this. Maybe you can
7 clarify this to me.

8 When I look at the early 1960s, from 1960 to
9 about 1970, production looks -- Gas production looks
10 relatively consistent, almost a straight line. What was
11 going on there, and what do you feel that represents?

12 A. Well, there was some ongoing work as wells, you
13 know, would become uneconomical for lower horizons that
14 they would plug back in and complete in the gas, depending
15 on what market conditions existed at that point in time.
16 There were a significant number of conversions done back in
17 the 1970s when you see that spike, production increases
18 there starting approximately the year 1970.

19 Q. There seems to be a trend each year, and that
20 doesn't make much sense because whenever I see a year
21 represented, does that usually correspond with January?

22 A. That's correct, that would be the start of that
23 particular year.

24 Q. And the production is down. I thought the
25 production would be up during the heavy use area or times

1 in January, as opposed to summertime.

2 Where did this market go for this gas?

3 A. It currently goes into the Sid Richardson system
4 right now.

5 Q. Okay, where did it go at the time, then, the
6 1960s, that's represented here?

7 A. I'm not familiar historically what they did with
8 it at that point, no.

9 Q. When did you start working out here, then?

10 A. In this particular area?

11 Q. Yes.

12 A. I've worked off and on in this area for 20 years.

13 I had several assignments with Cities Service and OXY
14 working this particular area, and then I've worked this
15 area pretty extensively for about the last three or four
16 years.

17 Q. Okay, so you're more familiar with the area from
18 1980 on?

19 A. That is correct.

20 Q. Okay, the big increase that occurred in 19- --
21 well, it looks like from 1990 to 1991 or even before then,
22 that was not Raptor, that was Rasmussen?

23 A. That is correct. He initiated his development
24 beginning in 1989, and basically all the work was done over
25 an approximate three-year time frame, and then after 1991

1 all work was discontinued at that time and there was a
2 change of operator to Clayton Williams.

3 Q. Okay. Now, what kind of work was being done?
4 Was that new drill, recompletion?

5 A. It was a combination. The majority of the work
6 were plugback/recompletions, but there were infill wells
7 that were drilled. Typical in this area, wells that were
8 drilled back in the 1940s, 1950s, there have been wells
9 that have been plugged and abandoned, and some of those
10 locations have been redrilled.

11 Q. And there hasn't been any problem selling the gas
12 that is produced out of these areas?

13 A. Not at all.

14 Q. Okay.

15 A. In fact, there's tremendous demand for it right
16 now.

17 Q. Okay, how about five years ago?

18 A. I don't think there's been any curtailment-type
19 issues. They've been able to sell all the gas that I'm
20 aware of since the late 1980s. There have been no problems
21 with shutting in any of the gas at all; it's all been
22 marketed.

23 Q. So far as the pipeline takes, there's not a
24 problem of it not being able to take or the compression or
25 cutting back --

1 A. No, there's no -- And in fact, actually the
2 gathering system is capable of handling 20 million cubic
3 feet of per day, and we're producing in excess of 7, so
4 there's plenty of availability.

5 EXAMINER STOGNER: Okay, I have no other
6 questions of Mr. Lawrence at this time. But you're going
7 to recall him?

8 MR. CARR: I'm going to recall Mr. Lawrence at a
9 later time to present additional information of a more
10 specific nature.

11 EXAMINER STOGNER: Okay.

12 MR. CARR: At this time, Mr. Stogner, we call
13 Bill Keathly to the stand.

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

17 DIRECT EXAMINATION

18 BY MR. CARR:

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

20 A. Bill R. Keathly.

21 Q. Mr. Keathly, where do you reside?

22 A. In Midland, Texas.

23 Q. By whom are you employed?

24 A. I'm self-employed.

25 Q. And what is your relationship with Raptor

1 Resources, Inc.?

2 A. I was employed by Raptor as a consultant to
3 identify the ownership in all of the 640-acre sections
4 offsetting the proration units covered by this area.

5 Q. You've also done additional work for Raptor in
6 the past few months, have you not --

7 A. Yes, I have.

8 Q. -- past year?

9 A. Yes.

10 Q. Have you previously testified before this
11 Division?

12 A. No, I have not.

13 Q. Could you summarize your educational background?

14 A. I have a BA in accounting from Oklahoma State
15 University.

16 Q. And when was your degree received?

17 A. January of 1962.

18 Q. And following graduation, for whom have you
19 worked?

20 A. I worked 37 years with Conoco, primarily in the
21 accounting, and in the latter years during the completion
22 regulatory that was necessary after wells were permitted.

23 Q. Are you familiar with the Applications filed in
24 each of these cases on behalf of Raptor Resources, Inc?

25 A. Yes, sir.

1 Q. And are you familiar with the status of the
2 ownership of the lands and the areas which are the subject
3 of these Applications?

4 A. Yes, sir.

5 Q. All right, Mr. Keathly, let's go first to the
6 Application for the State "A" A/C 1, Wells Number 130 and
7 131. Would you explain to the Examiner in this case, Case
8 12,623, what it is that Raptor seeks?

9 A. We seek the addition of two unorthodox infill gas
10 wells to the existing orders covering the nonstandard
11 proration unit and the simultaneous dedication of all the
12 Jalmat production in this 520-acre nonstandard unit.

13 Q. All right, what is Raptor Exhibit Number 8?

14 A. Number 8? Oh, Exhibit Number 8 is a copy of the
15 order of the Division for Hal Rasmussen, Case 9775, Order
16 Number R-9073.

17 Q. And is this the order -- and there are attached
18 amendments to that order, but is this the order that
19 actually approved the 520-acre nonstandard spacing and
20 proration unit which is the subject of today's hearing?

21 A. Yes.

22 Q. And is that approved by Paragraph 8 of Exhibit A
23 to this order?

24 A. Yes.

25 Q. Let's go to what has been marked as Raptor

1 Exhibit Number 9. Would you identify this, please?

2 A. Exhibit Number 9 is the C-102 plat for the
3 proration unit that is in question.

4 Q. And this is actually the plat that was filed for
5 the Well Number 130; is that correct?

6 A. Yes, sir.

7 Q. And the Well 130 is actually in the southeast
8 southeast of Section 9?

9 A. That is correct.

10 Q. And this spacing unit actually crosses two
11 sections. The southeast southeast of Section 9 is actually
12 what? If this were a full section it would be the
13 southeast of the southwest; is that right?

14 A. That's correct.

15 Q. And it's indicated 130.

16 The other well is the 131; it's in the 40 acres
17 north of there?

18 A. That is correct.

19 Q. And each of the wells in the spacing unit,
20 including the proposed new wells, are identified on this;
21 is that correct?

22 A. That is correct.

23 Q. Is Mr. Lawrence going to present a table which
24 shows the status and the producing capabilities of each of
25 the wells on this spacing and proration unit?

1 A. To the best of my knowledge, yes.

2 Q. The wells that are shown here, the Application
3 contained a description of each including its API number
4 and the producing status of the well, did it not?

5 A. Yes, except for the Well Number 100, which has
6 been plugged.

7 Q. And what was missing on that?

8 A. The API number, and we located that at the OCD
9 office yesterday.

10 Q. And what is that number?

11 A. That number is 30-025-09279.

12 Q. Now with that map, let's go to the next exhibit,
13 Exhibit Number 10, and I'd ask you to explain what Exhibit
14 10 is and...

15 A. Exhibit 10 is the offset operator plat showing
16 all of the offsets in each of the 640 acres that offset the
17 proration unit in 9 and 10. The proration unit is outlined
18 in red and is not colored in.

19 Q. All right. If we look at the exhibit, it's color
20 coded --

21 A. That is correct.

22 Q. -- was every operator on this plat notified of
23 this Application?

24 A. Yes, sir.

25 Q. Were they provided a copy of the Application?

1 A. Yes, sir.

2 Q. Now, if we look at the Raptor acreage that is
3 shaded in sort of a beige or brown, the spacing unit is
4 offset all the way around by Raptor-operated property; is
5 that correct?

6 A. That is correct.

7 Q. Is the working interest identical in the tracts
8 that offset this property that is operated by Raptor with
9 the working interest within the spacing unit?

10 A. Yes.

11 Q. In the east half of 17 there is a Raptor
12 Resources tract. Is there any additional working interest
13 owner in that tract that doesn't own interest in the other
14 properties?

15 A. Yes, Hal Rasmussen owns a five-percent interest
16 in that tract, and he was notified.

17 Q. In deciding in what area notice would be
18 provided, how did you go about that?

19 A. I used a basis of doing every operator in the
20 entire 640s that surrounded the area.

21 Q. So if there was a 640 that was included in the
22 spacing unit, you treated that as if that whole section
23 were included?

24 A. That's correct.

25 Q. And then you did all the 640-acre spacing units

1 all the way around?

2 A. That is correct.

3 Q. Let's go to Exhibit Number 11. Is this an
4 affidavit that confirms that notice has been provided to
5 each of these owners in accordance with the rules of the
6 OCD?

7 A. That is correct.

8 Q. And we have attached to that affidavit the notice
9 letter, and behind that Exhibit A, a list of the
10 individuals to whom notice was provided?

11 A. Yes.

12 Q. And then behind that we have return receipts; is
13 that correct?

14 A. That is correct.

15 Q. If we look at the return receipts, there is no
16 return receipt from Doyle Hartman; is that correct?

17 A. That is correct.

18 Q. Have you checked the address that was used, to
19 confirm that that, in fact, is the address to which
20 certified mail has been sent and received in the past?

21 A. Yes, I have.

22 MR. CARR: Mr. Stogner, we also called Mr.
23 Condon, attorney for Mr. Hartman, to advise him that the
24 notice letter had been mailed. We don't know why we have
25 not received the receipt back from Mr. Hartman.

1 Q. (By Mr. Carr) Now, Mr. Keathly, let's go to the
2 next group of exhibits that are clipped together. These
3 are for Case 12,624, and they involve the Well Number 133;
4 is that right?

5 A. That is correct.

6 Q. And what is Exhibit 12?

7 A. Exhibit 12 is again the plat showing the
8 proration unit.

9 Q. It shows all the wells --

10 A. All the wells.

11 Q. -- including any well that's been plugged and
12 abandoned in the Jalmat?

13 A. That's correct.

14 Q. And the well which is the subject of this
15 Application is the well in the northwest of the northwest?

16 A. That's true.

17 Q. What is the next exhibit, Exhibit 13?

18 A. Exhibit 13 is the offset operators plat, which
19 shows the Raptor proration unit in white, outlined in red.

20 Q. Have all the interest owners identified on this
21 exhibit been notified of this Application?

22 A. Yes, they have.

23 Q. And is the working interest in the Raptor tracts
24 which offset the subject spacing unit identical to that
25 within the spacing unit?

1 A. Yes, sir, that is correct.

2 Q. And is Exhibit Number 14 an affidavit confirming
3 that notice of this hearing has been provided in accordance
4 with the rules of the Oil Conservation Division?

5 A. Yes, it is.

6 Q. And again, the only person for whom we do not
7 have a return receipt is Mr. Hartman; is that right?

8 A. That is correct.

9 Q. All right, Mr. Keathly, let's go now to the next
10 group of exhibits. These are the exhibits for Case 12,625
11 and involve the Wells 79 and 80. Would you identify
12 Exhibit Number 15?

13 A. Number 15 is again the C-102 plat comprising the
14 640-acre proration unit, showing all wells that are in that
15 proration unit.

16 Q. And the subject wells are identified on this
17 exhibit?

18 A. That is correct.

19 Q. What is Exhibit 16?

20 A. 16 is again the offset operator plat showing the
21 Raptor acreage in white, outlined in red.

22 Q. And have all the interest owners identified on
23 this property been notified of this Application?

24 A. Yes.

25 Q. And is the working interest in any offsetting --

1 Is there any offsetting Raptor --

2 A. No, sir, there is not.

3 Q. All right. Is Exhibit Number 17 an affidavit
4 confirming that notice of the Application has been provided
5 to each of these owners in accordance with the rules of the
6 Division?

7 A. Yes, sir.

8 Q. Mr. Keathly, will Raptor call geological and
9 engineering witnesses to explain the reasons behind the
10 proposal to drill wells at each of these locations?

11 A. Yes, sir.

12 Q. Were Exhibits 8 through 17 either prepared by you
13 or compiled at your direction?

14 A. Yes, sir.

15 Q. Have you reviewed them and can you testify as to
16 their accuracy?

17 A. Yes, sir.

18 Q. In your opinion, have you provided notice as
19 required by the Rules of the Division and the Order dated
20 December 15th, 2000, of the District Court of Santa Fe
21 County?

22 A. Yes, as best I understand it.

23 MR. CARR: Mr. Stogner, at this time we move the
24 admission of Raptor Exhibits 8 through 17.

25 EXAMINER STOGNER: Exhibits 8 through 17 will be

1 admitted into evidence at this time.

2 MR. CARR: And that concludes my direct
3 examination of Mr. Keathly.

4 EXAMINATION

5 BY EXAMINER STOGNER:

6 Q. Mr. Keathly, whenever you were preparing your
7 Exhibits 14 and 16 and 10 -- these are the ones that show
8 the offset operators and are done up in color --

9 A. Yes, sir.

10 Q. -- how did you determine who the operator was?
11 What kind of search did you do?

12 A. I searched the files in Hobbs, I further
13 researched the online system within the ONGARD system and
14 verified who the operators were and where the wells were
15 located.

16 Q. Which wells?

17 A. Whichever ones were -- I searched primarily for
18 the Jalmat wells.

19 Q. Okay. Now, the wells shown on these maps, does
20 that necessarily indicate Jalmat production, or does this
21 show all wells within --

22 A. It shows all wells within the section --

23 Q. Okay.

24 A. -- whether they're Jalmat or not.

25 Q. And if you found an operator of a Jalmat well,

1 how did you determine how much acreage to shade?

2 A. I shaded the acreage that was owned by the
3 operator in that area, whether they be Jalmat or not.

4 Q. So you did it by lease?

5 A. Yes, sir. I went over to Hobbs and went through
6 their well file section by section.

7 Q. But you looked at the lease and not necessarily
8 the dedicated acreage; is that correct?

9 A. I tried to look at dedicated acreage also, to
10 make sure I was not leaving something out.

11 Q. Now, you've submitted a C-102 for each packet.

12 A. Proration unit, yes, sir.

13 Q. No, a C-102 is for each well. Which wells were
14 you submitting a C-102 for?

15 A. We used the Well 130 to cover 130 and 131.

16 Q. Which exhibit is that?

17 A. That is Exhibit 9, sir. The 102 has the well
18 number, but within the proration unit we have both 130 and
19 131 spotted, and we used that same format for wells 79 and
20 80.

21 Q. Now, I show that you have signed each one of the
22 C-102s and the date on it is March 17th. Now, have these
23 been submitted to the District Office?

24 A. No, sir, they have not.

25 Q. They have not. Now, when I look at these C-102s

1 -- and this is going to be submitted to the District, and
2 not only for the well that you are applying for, that the
3 C-102 represents, you're showing the other wells. Are
4 these other wells just there for representation, or are
5 they going to be simultaneously dedicated?

6 A. Simultaneously dedicated.

7 Q. How about a P-and-A'd well? Why would you -- Can
8 you -- I --

9 A. You cannot dedicate a -- The P-and-A wells were
10 put there for reference.

11 Q. Okay, for reference. So they can be taken out?

12 A. Yes.

13 Q. Okay. If I remember right, there's quite a few
14 P-and-A'd wells represented on the advertisement today.

15 A. That's correct.

16 Q. Now, when you prepared your notification, which
17 address did you use? Did you process that -- I mean, did
18 you get that off the well files in the Hobbs office?

19 A. Those that I did not already have I got off of
20 that, or I checked various other locations for the
21 addresses. Most of them we had used several other times.

22 The one for Mr. Hartman had been used in a
23 previous one, and a return receipt was received from him on
24 that one.

25 Q. Okay. Now, in Exhibit Number 10 you show that a

1 Hal J. Rasmussen was -- Is he still operating?

2 A. Yes, sir, he has a light blue section down in 16,
3 which would be Unit Letter O.

4 Q. Now, the address that you used for Mr. Hartman in
5 Midland, have you successfully sent correspondence to Mr.
6 Hartman before to this address?

7 A. Yes, sir, I have.

8 Q. Have you sent to an address in Tulsa -- I mean,
9 in Dallas before?

10 A. No, sir, I have not used the Dallas office.

11 EXAMINER STOGNER: That's all the questions I
12 have of Mr. Keathly based on what you have presented him
13 here today as identifying the offset operators. With that
14 I have no other questions of Mr. Keathly.

15 MR. CARR: And Mr. Stogner, I do have a return
16 receipt from Mr. Hartman at that address, if you would like
17 it for the record.

18 EXAMINER STOGNER: You know, that wouldn't be a
19 bad idea to put that on the record.

20 MR. CARR: This is a letter we sent to Mr.
21 Hartman in March of this year at that address, and it was
22 received.

23 EXAMINER STOGNER: I know Mr. Hartman has a
24 Dallas address, and I've been involved with an issue before
25 where a Midland address and a Dallas address was at issue.

1 MR. CARR: And with your permission, at this time
2 we would call our geological witness, Mr. Dave Pearcy.

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

6 DIRECT EXAMINATION

7 BY MR. CARR:

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

9 A. David B. Pearcy.

10 Q. Mr. Pearcy, where do you reside?

11 A. Midland, Texas.

12 Q. By whom are you employed?

13 A. I'm self-employed. I'm a geological consultant,
14 and I've been asked by Raptor to assist in their
15 redevelopment program at Jalmat.

16 Q. Have you previously testified before the New
17 Mexico Oil Conservation Division?

18 A. Yes, I have.

19 Q. At the time of that testimony, were your
20 credentials as an expert in petroleum geology accepted and
21 made a matter of record?

22 A. Yes.

23 Q. Are you familiar with each of the Applications
24 filed in these consolidated cases?

25 A. Yes.

1 Q. Have you made a geological study of the area
2 which is the subject of each Application?

3 A. Yes, I have.

4 Q. Are you prepared to share that work with Mr.
5 Stogner at this time?

6 A. Yes.

7 MR. CARR: Are the witness's qualifications
8 acceptable?

9 EXAMINER STOGNER: They are.

10 Q. (By Mr. Carr) Mr. Percy, let's first go to the
11 geology that relates to the Application in Case 12,623, the
12 State "A" A/C 1 Wells 130 and 131, and I would ask you to
13 first refer to what has been marked as Raptor Exhibit 18
14 and review that for the Examiner.

15 A. Exhibit 18 is a structure map on the top of the
16 Yates sand in the vicinity of Section 9 where the proposed
17 Well Number 130 is located in the southeast quarter.
18 Contour interval here is 100 feet.

19 The general configuration is downdip to the west
20 and undulating structure on top of the Yates.

21 Q. What data did you use in constructing this
22 structure map?

23 A. I attempted to use all the logs that I could
24 locate, both in libraries and in Raptor's files, but in
25 many cases I ended up using a sample top. I also found a

1 wide disparity of kinds and vintages of logs, which made it
2 sometimes a little bit difficult to get something
3 consistent.

4 Q. Generally describe the formation in the area of
5 this well, the 130.

6 A. Okay, the gross interval of the Yates sand can be
7 found in all the wells throughout this area, although there
8 are a lot of variations from well to well, as far as the
9 pay quality and performance.

10 Generally, as we'll be proving later on, these
11 sands are lenticular in nature, and they do again vary
12 quite a bit from well to well. We're able to correlate
13 much easier in the north-south direction than east-west.
14 As you go particularly down at the west you find a lot of
15 stratigraphic variation where the sands will tend to
16 thicken.

17 Again, these reservoirs are highly heterogeneous
18 in both the Yates and Seven Rivers, and often do not have
19 individual sands extending for long distances.

20 Q. Did you prepare isopach maps of the formations at
21 issue?

22 A. No, I did not.

23 Q. And why not?

24 A. I struggled with isopach maps for some time and
25 found them difficult to construct, again because of the

1 different vintages and different kinds of logs. Throughout
2 the Account 1 area, where there have been now 129 wells
3 drilled, I was only able to find ten modern density neutron
4 logs that I felt fairly confident, where I could make some
5 net-pay picks.

6 So again dealing with logs, the poor quality,
7 variable quality, different kinds, I ended up just
8 presenting this structure map as the best representation of
9 the area. Any kind of isopach map which I might have
10 prepared I found quite subjective.

11 Q. Let's go to Exhibit 19. What is this?

12 A. Exhibit 19 is a cross-section, three-well cross-
13 section. You see on the map I have shown the line of
14 section A-A', running west to east. The left-hand map in
15 this case is the Well Number 12, which was drilled in the
16 1940s and ultimately was completed in the uppermost section
17 that's shown with the red perforations through the Yates
18 sand.

19 There were perforations within the Seven Rivers
20 interval, as I've also shown on the cross-section. Some of
21 the hole was not logged at all, as you'll notice, and these
22 perforations in the Seven Rivers in this well were found
23 nonproductive. Although there was an initial potential of
24 gas, in checking some of the old records, there was never
25 any kind of significant production of gas from the Seven

1 Rivers.

2 Next well to the right, of course, is the
3 location for the Number 130, which is the due east offset
4 to the Number 12.

5 And then I jogged to the south to the Ares State
6 well, which will be the south offset to the proposed
7 location, and I'm showing a few perforations which were
8 made down near the bottom of this well, which were ascribed
9 to the Langlie-Mattix field.

10 The Yates production in this well has been shown
11 again with the red bar near the top, and I want to point
12 out only parts of the Yates sand were ever perforated in
13 this well. They did never complete the entire Yates
14 section.

15 On the right-hand side of the cross-section is
16 the Number 127 which Mr. Lawrence has referred to earlier.
17 You can see from the red dashes on here the intervals where
18 we have made perforations in this well, and we now believe
19 we're getting contribution from the entire Yates and Seven
20 Rivers section, which is included in the Jalmat Pool.

21 Q. Now, Mr. Stogner had asked about how Raptor is
22 going about perforating in the individual wells. This 127
23 is a good example, showing how you selectively go after
24 individual --

25 A. That's correct, you can see individual

1 perforations that we attempt to make in each one of the
2 sands, because we believe each sand has the potential to
3 contribute pay that may or may not be producing in the
4 offset wells.

5 Q. Mr. Percy, what conclusions can you reach about
6 a well at the proposed location of the Number 130?

7 A. I want to point out that the Yates sand does thin
8 from left to right across the area so that we do have more
9 Yates sands and better Yates sands, we believe, in the
10 Number 12 and the proposed 130, as compared to the Number
11 127.

12 Also want to point out that the entire Yates
13 interval was not perforated in the Ares State, which is due
14 south of the Number 130, and the Seven Rivers has been
15 largely ignored in these other two wells besides the 127,
16 as well as most of the wells in the area, and we believe
17 that substantial reserves will be recovered by the Number
18 130 from both the Yates and Seven Rivers sands.

19 Q. Let's go to what has been marked Raptor Exhibit
20 20. Would you identify that? Is this the same structure
21 map that you presented a few minutes ago for the Well
22 Number 130?

23 A. That's correct, that same top of Yates sand
24 showing in this case cross Section B-B', which generally
25 runs from north to south through the proposed Well Number

1 130 and down again to the Number 127.

2 Q. All right, let's go to that cross-section,
3 Exhibit 21.

4 A. This section shows that the far left-hand well,
5 the Number 100, which is due north offset to the proposed
6 Well Number 131, was again perforated in the Yates and in
7 the upper part of the Seven Rivers only. They had
8 overlooked in this well, we believe, a lot of reserves and
9 the rest of the Seven Rivers that is still included in the
10 Jalmat zone, perhaps because of some earlier bad
11 experiences like the Well Number 12 we cited earlier.

12 Of course we have the proposed well, which is the
13 next one, the bar shown there.

14 And then we move over to the east, the Number 56.

15 This is one well where they again attempted to complete in
16 some Seven Rivers Sands but were completely unsuccessful in
17 establishing production in this well, and without testing
18 the Yates sands, this well was plugged and abandoned, again
19 going to the Well Number 127 that you've seen earlier, on
20 the far right-hand side, with the perforations that Raptor
21 has made there.

22 Q. And what conclusions from a geologic point of
23 view can you reach about a well at the location proposed
24 for the State "A" Account 131 well?

25 A. We again want to point out that that the Seven

1 Rivers has been largely unexploited in this area, although
2 we found it to be productive in the Number 127. Again,
3 these cross-sections are stratigraphic, hung on the top of
4 the Yates, but the structure on the top of the Seven Rivers
5 is not that different between these wells, and in spite of
6 some of the bad experiences prior operators had, the Seven
7 Rivers is, indeed, productive.

8 I want to again point out that the Yates sands
9 are thicker in the vicinity of the Well Number 100 and
10 proposed Well Number 131, such that there are bound to be
11 some of these Yates intervals of sand that we have not
12 contacted in the Number 127 and therefore we'll be unable
13 to drain it in that wellbore.

14 Q. Do you need to drill both the 130 and 131 on this
15 spacing unit?

16 A. We certainly do, in order to contact all the
17 Yates and Seven Rivers prospective sand intervals.

18 Q. All right, let's go to the geological
19 presentation in Case 12,624, and I'd ask you to review the
20 information that you have prepared that relates to the
21 State "A" Account 1 Well Number 133, Exhibit 22.

22 A. That's right, I have prepared a similar structure
23 map on top of the Yates and in cross-section to help
24 support our position for the Number 133 wellbore.

25 Q. Do you want to move from that to the cross-

1 section immediately, or do you --

2 A. Yes, I want to point out cross-section C-C',
3 again on this top of Yates structure. The Yates is a less
4 dramatic of a structure in this area on the far east side
5 of Raptor's property. And again, this cross-section runs
6 generally north-south direction, and I have again included
7 one of the newer wells, Number 128, at the north end of the
8 section.

9 If I may refer to the cross-section, the Number
10 128 is on the left-hand side, again showing the
11 perforations that Raptor has made in each one of the sands
12 within the Yates and the Seven Rivers. We believe that a
13 hole is necessary in or very close to each one of these
14 sands in order to produce all the reserves that are within
15 both the Yates and the Seven Rivers interval.

16 We then proceed to the Number 133 location and
17 thence to the well immediately south of the 133, which is
18 the old Number 53, where there were perforations made
19 throughout the Yates and Seven Rivers interval. This is
20 one of the exception wells, which happen to be deeper in
21 the area.

22 I included this in the cross-section because the
23 additional control, although again I want to point out that
24 the Seven Rivers was largely overlooked in this area as
25 well, so that we expect the 133 will be able to produce

1 significant reserves from the Seven Rivers sands as well as
2 the Yates sands.

3 Q. And are these reserves that without this well are
4 not going to be recovered?

5 A. That's correct, any reserves within the area of
6 the 133 are largely going to be overlooked. The other
7 wells, as Mr. Lawrence will soon show, in the area are
8 producing at generally low rates, and if we do not drill
9 this well at the 133 location we'll be losing some
10 reserves.

11 Q. All right, let's go to the geological information
12 for Case 12,625, and I'd like you to present the
13 information that relates to the State Account 2 Wells 79
14 and 80, and I'd ask you to start with Exhibit 24.

15 A. Exhibit 24 is, again, the top of the Yates in the
16 vicinity of Section 11, where both 79 and the 80 wells are
17 proposed. Cross-section D-D' has an elbow to it. Again,
18 it takes in the well immediately north of the Number 79 and
19 the well immediately east of the 79. In this area too, as
20 I'll show, we have a lot of discontinuities and
21 heterogeneities in the reservoir that will require the
22 drilling of the Number 79.

23 I'd also like to point out at this time that the
24 well that's at point D on the cross-section is in the
25 Eumont field, and it's located 660 feet from the Raptor

1 lease line. It's a Eumont gas well that I'll show in a
2 cross-section. It is completed in Yates and Seven Rivers,
3 and this is one that would present a correlative-rights
4 problem where Raptor will need to drill this well at
5 location 79 in order to protect their gas.

6 Q. All right, are you ready to go to the cross-
7 section?

8 A. The cross-section shows the well immediately
9 north, which is the State N Number 5, currently operated by
10 OXY. The perforations that were made in this well range
11 from in the Tansil above the purple line there, through the
12 Yates and down through most of the Seven Rivers, although
13 there are a few feet down at the bottom which they did not
14 drill to actually penetrate into the Eunice Pool. There is
15 a twin well there which was completed in the Eunice Pool.

16 We go then to Number 79. Again, we need to drill
17 this well to protect our rights.

18 And then the eastern well, the Number 15, shows
19 that perforations were only made in the upper two-thirds of
20 the Yates sand, and no perforations were ever made in the
21 Seven Rivers in this well. So this is another case where
22 you have substantial reserves in the Seven Rivers that we
23 will lose and never produce unless we drill the location
24 for the Well Number 79.

25 Again, discontinuities of the zones. You can see

1 that the sands thicken in this case toward the Number 15,
2 within the Yates, and we just believe that there are some
3 other zones within the Yates that we'll find that have not
4 been affected by the OXY N 5, and just need to get that
5 well drilled as soon as possible.

6 Q. All right, Mr. Percy, let's go to the
7 information on the Account 2 Well Number 80. I'd ask you
8 to refer to Exhibit Number 26.

9 A. Exhibit 26 is the same structure map on top of
10 the Yates, this time showing cross-section line E-E', which
11 runs from north to south through the proposed Well Number
12 80.

13 Q. Now let's go to the cross-section --

14 A. Okay, referring to the cross-section --

15 Q. -- Exhibit 27.

16 A. -- in this case, Mr. Stogner, the well on the
17 left side is one of the newer wells drilled by Raptor, the
18 Number 75. Based on geologic evaluation, the Seven Rivers
19 sands appear to be so poor here we only perforated one of
20 them near the top, although we do believe that these sands
21 do improve getting away from this wellbore and that this
22 Number 80 will probably find some other Seven Rivers sands
23 that we did not even open in this new wellbore.

24 Again, Number 15 at the right-hand side, was
25 never tested in the Seven Rivers, but based on our

1 experience we certainly believe there are a lot of Seven
2 Rivers reserves, as well as the Yates, to be recovered in
3 this area and that will be lost unless these two wells are
4 drilled.

5 Q. Would you summarize for the Examiner the
6 geological conclusions you can reach from your work in this
7 area?

8 A. My work in the area, Mr. Stogner, indicates that
9 there are so many discontinuities within both the Yates and
10 Seven Rivers sands that these wells will be needed in order
11 to effectively drain the reserves that Raptor has in the
12 area.

13 Raptor's prior success has also illustrated that
14 infill drilling in this way on undeveloped 40s finds
15 significant reserves. I've looked up several other
16 references published by the West Texas Geological Society
17 and the AAPG which further document discontinuities in the
18 heterogeneity in both the Yates and Seven Rivers, to the
19 point where we firmly believe that unless this reservoir
20 can be developed on 40-acre spacing, that we'll be losing
21 reserves.

22 So these additional wells certainly need to be
23 drilled.

24 Q. Mr. Percy, were Raptor Exhibits 18 through 27
25 prepared by you?

1 A. Yes, they were.

2 MR. CARR: Mr. Stogner, at this time we would
3 move the admission into evidence of Raptor Exhibits 18
4 through 27.

5 EXAMINER STOGNER: Exhibits 18 through 27 will be
6 admitted into evidence.

7 MR. CARR: And that concludes my direct
8 examination of Mr. Percy.

9 EXAMINER STOGNER: Let's take a lunch break, and
10 we'll reconvene here at 1:45.

11 MR. CARR: 1:45?

12 EXAMINER STOGNER: I'm sorry, 1:30.

13 MR. CARR: Yes, sir.

14 (Thereupon, a recess was taken at 12:25 p.m.)

15 (The following proceedings had at 1:30 p.m.)

16 EXAMINER STOGNER: This hearing will come to
17 order. Let's see, what's Mr. Lawrence going to --

18 MR. CARR: Mr. Lawrence is going to come back and
19 present tables on each of the wells similar to the one he
20 showed in his first presentation on the 127, which give
21 data on each of the offsetting wells.

22 EXAMINER STOGNER: Okay.

23 EXAMINATION

24 BY EXAMINER STOGNER:

25 Q. Okay, Mr. Percy, in looking -- I'm going to

1 refer now to Exhibits Number 18, 20, 19 and 21, this set
2 that deals with the request of 12,623.

3 A. Okay.

4 Q. Now, in looking at the map, you show a low area
5 in your structure map. Is this the intent, is to get the
6 production out of this low area?

7 A. Not necessarily, Mr. Stogner. I do have a low
8 which I do have some control on to the north and to the
9 south and was just attempting to show some continuity of
10 the structure across that area. I would tend to believe
11 both the 130 and 131 will be at a very similar structural
12 position to the Number 100 and to the areas Number 1, which
13 are south of that little low.

14 Q. Now, when I look at your A-A' cross-section and
15 looking at the old, what is that, State "A" A/C 1 Number
16 12 --

17 A. Number 12.

18 Q. -- what's its current status?

19 A. Current status is P-and-A'd.

20 Q. Okay.

21 A. And Mr. Lawrence will have a table showing that
22 well was plugged in 1994, after making nearly 5 BCF.

23 Q. Okay. Well, because the one I interpret the --
24 one of the stipulations in the declaratory judgment is 160-
25 acre spacing, in other words, adequately draining with one

1 well per 160. So you're going to put in two wells in here.

2 But I haven't seen any reason why you couldn't
3 put just one well sort of in between the 30 and 31 and a
4 little to the west. And as I'm very well aware of, you may
5 be aware of, I know Mr. Carr is very aware of, and I think
6 some other parties in here are very aware of, that Raptor
7 has no problem about gerrymandering these proration units,
8 perhaps bringing that 40-acre tract in that is the
9 southeast of the -- I'm sorry, the southwest of the
10 southeast, and getting more toward the center of that
11 quarter section, wouldn't that -- and that might even save
12 some drilling cost, if you more centered that well in that
13 160. Wouldn't that also serve the same purpose?

14 A. I don't believe so, Mr. Stogner. Again, pointing
15 out the 127, which is also on this map, that well was
16 surrounded by seven other wells which had produced from the
17 Yates and Seven Rivers, and yet we're going to get .8 B's
18 out of this well with virtually no production from the
19 surrounding wells.

20 Q. Well, that was when -- never -- All right, you
21 were wrong as I was wrong. I mean, I'll be the first. I
22 was wrong by allowing additional wells to be put in out
23 there. That's the way I was interpreting the rules and
24 regulations all those years, the way Dan Nutter taught it
25 to me and the way Dick Stamets taught it to me, but

1 obviously I'm wrong, pursuant to this.

2 A. Yes, sir.

3 Q. But now, no, you can't have more than one well
4 per 160, so you may not have a choice. So that's where we
5 have got to look at. So what's happened in the 127 before,
6 again, I ask, why can't just one well more toward the
7 center with what you're showing here, that low, wouldn't
8 that suffice?

9 A. Mr. Stogner, I don't believe it would. Although
10 we have drilled some of these wells under rules that are
11 now apparently outdated, I think we have certainly proved
12 to ourselves that we're losing reserves if we limit
13 ourselves to one well per 160 acres.

14 EXAMINER STOGNER: Is your next witness going to
15 show that, Mr. Carr?

16 MR. CARR: I think when you -- We're going to
17 present the data on the offsetting properties, and I
18 believe it will, yes. I mean on the offsetting 40.

19 Q. (By Examiner Stogner) Okay, in referring to
20 Exhibit Number 24, let's take a look at the well in Section
21 11.

22 A. In cross-section D-D'?

23 Q. Yes, D-D'. And also you had mentioned about the
24 well that's 330 feet away.

25 A. If I did say 330, I misspoke. It's 660 feet from

1 the lease line --

2 Q. Oh, okay.

3 A. -- that's the OXY --

4 Q. Oh, the OXY one. That's 660 feet?

5 A. Yes, sir.

6 Q. I've got so many maps out in front of me. Then
7 this map is not to scale, then --

8 A. No, sir, the --

9 Q. -- because isn't the Number 79 well going to be
10 660?

11 A. That's right, the scales on these were probably
12 blown up or shrunk somewhat, so the distances on all those
13 wells, if you're looking at Exhibit Number 24, just to the
14 north of our Section 11, most of those distances of
15 standoffs are 660, such as the --

16 Q. That OXY well looks real close --

17 A. Well --

18 Q. -- so that's misleading, so I need to put a big X
19 on --

20 A. It should be a 660.

21 Q. Well now, the Number 4 looks 660-660, because it
22 seems to mirror the Number 79 --

23 A. Uh-huh.

24 Q. But the well up there to the north and east,
25 you're saying, is 660. So what's Number 4 well's location?

1 Perhaps we need to redraw this map.

2 A. If I had a little bit more time here, Mr.
3 Stogner, I might be able to find a scout ticket on that
4 well and --

5 EXAMINER STOGNER: I tell you what, why don't --
6 Mr. Carr, have Exhibit Number 24 re-done, because this is
7 very, very misleading. And if it goes beyond this point it
8 will like -- I mean, I was under the impression that this
9 well was needed to offset this offset drainage that is 330
10 feet away.

11 THE WITNESS: I can verify the scales on this
12 map, Mr. Stogner, but our position is --

13 EXAMINER STOGNER: Well, if that be the case you
14 shouldn't have made it such a -- that misleading. And
15 there's no -- In fact, I'm going to have you re-do Exhibit
16 Number 24 based on that, Mr. Carr. There's no sense in
17 having it that bad.

18 THE WITNESS: Would the scale --

19 EXAMINER STOGNER: You shouldn't have done that
20 at all. I mean, if that had -- I had a whole line of
21 questioning on that. Yeah, in fact I'm going to give
22 Exhibit Number 24 back to you, I'm not even going to take
23 it. I don't want it to get confused in with this. You are
24 to re-do that, Mr. Carr.

25 MR. CARR: We'll re-do it.

1 Q. (By Examiner Stogner) Now I'm beginning to
2 question maybe some of the scales on these other maps.

3 A. Well, by "scale", Mr. Stogner, what I'm referring
4 to --

5 Q. Well, take a look at it. Doesn't it look closer
6 than 660-660, that OXY well that you keep referring to as
7 -- It looks 330-330 to me.

8 A. It looks just about as far away from the lease
9 line as Number 79 that we posted on there, and as far --

10 EXAMINER STOGNER: Well, then you have me a wrong
11 map. I'd suggest, Mr. Carr, that we check all of the maps
12 after today.

13 It's these little things like this, the reason
14 we're here today, Mr. Percy, is because the Jalmat got
15 like this. I've spent I don't know how many countless
16 hours correcting problems, putting additional information
17 in an administrative order that I shouldn't have had to do,
18 that the applicant needed to do. When I get an application
19 that's three pages long, an order that's issued is four
20 pages long, and the file is a half inch thick -- There's no
21 need of that. And it's things like this...

22 Q. (By Examiner Stogner) Okay, referring to Exhibit
23 Number 23 and 22 now, the proposed perforated interval for
24 the Number 133 will be to pick up that -- which zones
25 again?

1 A. The Number 133, we want to certainly perforate
2 within the Seven Rivers. That zone has been proven
3 productive in the Well Number 128, again, which is at the
4 left end of the cross-section, our new completion. And
5 many of these sands were completed in the Number 53 as
6 well.

7 I'll let Mr. Lawrence comment a bit on the
8 treatment on the Number 53 well which was completed in the
9 late 1970s, and we just -- Even though they did perforate
10 everything, I'm quite certain they made a whole lot more
11 holes than we're in the habit of making, and there are
12 certainly questions as to if they were contacting, each
13 well, the zones that they perforated.

14 So yes, sir, the Seven Rivers is certainly an
15 objective here as well as the Yates.

16 Q. Okay. Now, I don't show that the Number 126 is
17 in a cross-section. Is it, or -- It's not, is it? That is
18 the well in Unit Letter C of Section 24.

19 A. Yes, sir, the 126 was a well that was drilled
20 recently by -- excuse me, was not drilled by Raptor, it was
21 drilled by a previous operator. And with just a moment
22 here -- That was drilled in the early 1990s and was
23 completed only in the Yates formation, as Mr. Lawrence will
24 be showing a table of here briefly.

25 Q. Okay. Now, can that one be recompleted such that

1 -- I mean, since it's already a well, and without rising --
2 needing any further authorization from anybody, could that
3 be recompleted in the Seven Rivers and pick up the same
4 area in which you're wanting to perforate?

5 A. It would be possible, but again, the Yates --

6 EXAMINER STOGNER: No further questions, that
7 will be good. Okay.

8 Mr. Carr, I had a whole bunch of questions on
9 that other one, but because of scale on the map that's at
10 hand, I was under the assumption that that was at a worst
11 unorthodox location.

12 That concludes my questions of this witness. You
13 may be excused.

14 Mr. Carr?

15 MR. CARR: May it please the Examiner, at this
16 time we recall John Lawrence. I'd request that the record
17 reflect the witness has previously been qualified and
18 remains under oath.

19 EXAMINER STOGNER: Okay.

20 JOHN J. LAWRENCE (Recalled),
21 the witness herein, having been previously sworn upon his
22 oath, was examined and testified as follows:

23 DIRECT EXAMINATION

24 BY MR. CARR:

25 Q. Mr. Lawrence, you're familiar with the

1 Applications filed in each of these consolidated cases by
2 Raptor Resources, have you not?

3 A. Yes, I am.

4 Q. And you've made an engineering study of the area
5 which is the subject of each Application?

6 A. That is correct.

7 Q. And you're now prepared to share that work with
8 Mr. Stogner?

9 A. That is correct.

10 Q. I'd like to go to Exhibits 28 through 32 and work
11 through these with you, and I would like you to go to first
12 Exhibit Number 28. I think it would be helpful to again
13 identify this and review the information on it for the
14 Examiner.

15 A. Yes, Mr. Stogner, these are the particular wells
16 that offset the well location number for the Well Number
17 130, and again what we have put on here is a historical as
18 to when the well was completed, what interval it was
19 actually completed in and the size and nature of the
20 treatment that was put on that particular well, as well as
21 the cumulative production totals from those particular
22 wells, and current producing rate.

23 And as you can see, offsetting the Account 1 Well
24 Number 130, with the exception of the Number 127, all the
25 other wells are currently inactive, and there's no current

1 production offsetting this particular location.

2 The Well Number 127 is a diagonal offset that was
3 completed in September, 2000, by Raptor and was a good
4 completion for us.

5 Again, this is the basis that we have been using
6 in trying to establish, you know, the opportunity for
7 selecting a given location. You can see by the tremendous
8 difference and discrepancies in the intervals completed in
9 these wells, as well as the size of the treatments that
10 were utilized, they range from a natural completion to one
11 of the wells actually was frac'd with 192,000 pounds of
12 sand, which was our more recent completion. It offsets
13 this.

14 We feel that a 40-acre location is justified
15 here. As the reservoir does move to the west, there is a
16 thickening of the sand formations in here, they are
17 lenticular in nature, and we believe that there are
18 significant reserves to be recovered by placing a well in
19 this particular location.

20 Q. In your opinion, can a well at this location
21 efficiently and economically drain reserves from this
22 spacing or proration unit that cannot otherwise be
23 produced?

24 A. Yes, I do.

25 Q. Let's look at Exhibit Number 29. Would you

1 identify this, please?

2 A. Exhibit 29 is a similar exhibit for the Account 1
3 Well Number 131. Again, a significant number of the
4 offsets here have just been completed in the Yates. There
5 is one producing offset well that is currently making 14
6 MCF a day. All the other offset locations are inactive or
7 plugged and abandoned, so there's -- you're not
8 jeopardizing any type of accelerated decline that would
9 affect the offset locations, because they are all currently
10 not producing, with the exception of the Well Number 55.

11 Again, there is a difference in the size and
12 treatment that was performed on these particular wells, and
13 all the offsets to this particular location have not
14 developed both the Yates and Seven Rivers sands that we
15 would have identified as prospective pay.

16 Q. When we look at your plans for this well, is it
17 your testimony that the reserves you would recover are new
18 reserves, not just recovering reserves at an accelerated
19 rate?

20 A. They would be new reserves, because you can see
21 based on the offset producers, there's basically very
22 little offset production associated right now.

23 Q. All right, let's go to Exhibit Number 30 -- this
24 is in Case 12,634 -- and review the information on the
25 Account 1 Well Number 133.

1 A. Again, these are the eight offsets to the
2 proposed location in the State "A" Account 1 Well Number
3 133, and as you look at it there are -- one, two, three
4 four -- five particular wells that are currently producing
5 in and around this particular well, but the production is
6 very marginal. The highest producing rate on one of the
7 offsets is currently 39 MCF per day.

8 Typically, these wells, again, have had a
9 tremendous variation in the size and scope of the treatment
10 that was performed on them. There is very little
11 associated offset production, and again there are
12 discrepancies as to what zones were completed in those
13 offset wells, which again we feel there has been bypassed
14 reserves in this particular area by prior completion
15 efforts.

16 Q. All right, let's go to Number 31. This is the
17 Well Number 79, and this is Case 12,625. What does this
18 exhibit show?

19 A. These are the offsets to the proposed State "A"
20 A/C 2 Well Number 79 up in Section 11, and this is the
21 particular location that is an offset to the OXY well that
22 I guess is in question right now, Mr. Stogner.

23 Again, we feel that a location there is justified
24 due to the fact that OXY has completed their wells in both
25 -- their particular well in both the Yates and the Jalmat

1 offsetting us. Again, there is a tremendous difference in
2 the vintage of these wells, the intervals that they were
3 actually completed in, and the size of the treatment,
4 ranging from one of the wells being treated with just 2000
5 gallons of acid to one of the recompletions that was done
6 by a prior operator utilizing 172,000 pounds of sand.

7 And as you can see, that particular location, you
8 know, has cum'd 561 million cubic feet of gas to date and
9 is still producing 32 MCF. But the offset wells are
10 producing at fairly marginal rates. Thirty-two to 49 MCF
11 is the current production from the offsets that are active.

12 A number of the wells that are also offsetting us
13 here are wells that are producing out of the Grayburg-Queen
14 formation that don't have an existing Jalmat production.

15 Q. And finally, let's go to Exhibit Number 32, the
16 data on the State A/C 2 Well Number 80.

17 A. This is the particular location that is also in
18 Section 11. Typical of the vintage frac that were done in
19 the 1950s and 1960s, several were treated with a much
20 smaller treatment than would typically be used in this day
21 and time. Again, there have been bypassed zones in both
22 the Yates and the Seven Rivers formation in this particular
23 area.

24 You do have two wells up here that have a little
25 more significant production, the State A/C 2 Number 62 and

1 then the Well Number 75. The Well Number 75 was a new-
2 drill location that Raptor has done and has been a
3 successful completion for us in this particular area.

4 Q. Mr. Lawrence, in your opinion, based on your
5 engineering study of the area and your experience in the
6 redevelopment program of the Jalmat Gas Pool, are each of
7 the five wells which are the subject of today's hearing
8 necessary to efficiently and economically produce remaining
9 reserves under each of these three spacing units in the
10 Jalmat Gas Pool?

11 A. I definitely believe that they are there
12 necessary to be able to produce the remaining reserves in
13 this gas reservoir.

14 Q. In your opinion, will the granting of this
15 Application and the drilling of each of these wells result
16 in the recovery of reserves that otherwise would be left in
17 the ground?

18 A. Yes, there's no question as to that. I think
19 when you look at the fact that the initial producing rates
20 from our wells are better, greater than the wells that were
21 recompleted by Rasmussen and Williams ten years ago,
22 there's no evidence of any accelerated production based on
23 individual well-curve analysis and leasewide production
24 analysis, and that we've in fact doubled our existing
25 production, more than doubled our existing production,

1 based on the performance of the work that we have done.

2 Q. And these are new reserves?

3 A. These are new reserves. I think without question
4 they are new reserves.

5 Q. Will approval of each of these Applications
6 otherwise be in the best interests of conservation, the
7 prevention of waste and the protection of correlative
8 rights?

9 A. Yes, sir.

10 Q. Were Exhibits 28 through 32 prepared by you?

11 A. Yes, sir.

12 MR. CARR: At this time, Mr. Stogner, we'd move
13 the admission into evidence of Raptor Exhibits 28 through
14 32.

15 EXAMINER STOGNER: Exhibits 28 through 32 will be
16 admitted into evidence at this time.

17 MR. CARR: That concludes my direct of Mr.
18 Lawrence.

19 EXAMINATION

20 BY EXAMINER STOGNER:

21 Q. Mr. Lawrence, as far as some of these -- these
22 wells are, at least in some instances -- in a quarter
23 section that has an existing well, why can't those wells
24 that are existing be recompleted to these zones or in a
25 manner in which will afford those zones in which you're

1 going after this time production?

2 A. Part of my concern with that, Mr. Stogner, is the
3 fact that you have wells that typically have been completed
4 in the Yates formation and have had fracs done to them. It
5 is more difficult and risky to come back in and perforate
6 below existing fractures and put a stimulation on those
7 particular zones when you have maybe only several hundred
8 feet separating the particular intervals.

9 The question or concern that I would have is the
10 potential that you might frac into some existing fractures
11 and not create the frac length in the particular well that
12 you're dealing with.

13 So it's my preference that it helps to have a new
14 wellbore, better cement. We can be very selective in the
15 interval that we perforate and then in turn control the
16 stimulation and get the fracture stimulation in the
17 particular zone that we feel needs to be opened up.

18 Going back in an old wellbore that was completed
19 back in the 1940s and 1950s, cement is a question. We have
20 to frac down a work string, go down 3-1/2-inch tubing, in
21 order to stimulate the wells versus being able to frac down
22 new casing. And therefore your treating pressures are
23 greatly reduced, and it enhances the particular stimulation
24 that you can get out of a particular job.

25 So from that standpoint we feel it's worth the

1 business risk to spend those additional dollars to drill a
2 new wellbore to effectively be able to open up those
3 particular zones that are in question.

4 That's part of the reason we feel we've had the
5 success in our program to date, is that we have been very
6 successful in identifying those zones, being very selective
7 in only utilizing 20 to 25 perforations in a given wellbore
8 and be able to effectively open up this bypassed gas.
9 Instead of using the approach just to come in there and put
10 a massive frac or big treatment over the entire interval,
11 we're being very selective in nature. Plus the fact with a
12 new well we have the abilities with mud logs, new logs,
13 things of that nature, to be able to get the data that we
14 need to identify where those prospective zones are.

15 EXAMINER STOGNER: Just for the record, there was
16 an e-mail on my machine that they were testing the fire
17 system today.

18 MR. CARR: We're probably not on fire.

19 EXAMINER STOGNER: And today is February the 19th
20 [sic]. I don't think we need to have a problem, because
21 we're in the same building that the IRS is in. They had
22 two armed guards here Monday.

23 Q. (By Examiner Stogner) Okay, I'll go back to the
24 well in Section 9, that Case 12,623. There again -- and I
25 have spent many a time writing an order gerrymandering

1 these proration units.

2 In this particular situation you had an existing
3 well in there that had some production. Why can't one well
4 be drilled somewhere in between these a little to the west
5 that has the same results? Why do you need two?

6 A. Well, I think it's our feeling, based on the work
7 that we've done, that there are reserves to be recovered on
8 40-acre spacing. I mean, I think that's the belief that we
9 have, based on the number of wells that have been completed
10 in this particular area by the previous operator and us,
11 that there are 40-acre reserves that will not be recovered
12 on any other density.

13 Again, you can drill a well like what you're
14 describing, but I think you are, in fact, going to leave
15 reserves behind by not drilling the proposed locations.

16 Q. Is that true in the whole Jalmat Pool?

17 A. I can't speak for the whole pool because of --
18 you know, the work that we have done over the last two
19 years encompasses the acreage we have and maybe some of the
20 offset acreage to us. But there are operators out there in
21 the field that are also going back in and fracturing old
22 wells and recovering significant reserves out of wells that
23 are 30, 40 years old.

24 Again, our preference is, if we have a new
25 wellbore like this with which to work, I think it's

1 beneficial in gathering information that helps us to
2 determine what some of the additional opportunities are in
3 the field. And our study has been pretty much just in the
4 areas that we operate and maybe some of the offsetting
5 acreage to us. That is a significant trend.

6 I can't speak to some of the stuff that may
7 happen 10, 15 miles to the south. We've seen differences
8 in the reservoir on 40-acre locations.

9 Q. The great equalizer was prorationing, but there
10 again, I was wrong. Keep that in mind whenever the new
11 rules come out. If Raptor and many of the other operators
12 come in, then I'm sure you're going to have that
13 opportunity to put that in the rules. Right now, we're
14 controlling the number of wells in a quarter section
15 because of not only my mistake but a lot of others. But
16 I'll be the first to admit, I made a mistake.

17 What's your opinion as commercial production,
18 what's the minimum rate that a well can produce and still
19 maintain pay out?

20 A. We think that you could have a well that could
21 produce as little 10 MCF a day with current prices and
22 still be economical, based on our typical operating
23 expenses on a per-well basis, that approximately 10 MCF a
24 day would be an economic limit.

25 Again, when you look at the amount of gas that

1 would need to be produced to pay back the capital
2 investment on one of these new drill-and-equipments, with
3 current prices it just takes a little over 70 million cubic
4 to be able to pay out that initial investment. And I think
5 the numbers prove out that the potential recoveries are
6 significantly above that.

7 EXAMINER STOGNER: I don't have any other
8 questions of Mr. Lawrence. Do you have anything further,
9 Mr. Carr?

10 MR. CARR: Very briefly, Mr. Stogner. That
11 concludes our presentation.

12 We will correct Exhibit 24, and we will confirm
13 to you in writing the scale on all remaining exhibits.

14 I did prepare proposed orders in this case. But
15 with your permission, since this attorney has a
16 misstatement of the pool rules in these proposed orders, I
17 would like an opportunity to revise them. And I think they
18 are of value in trying to look at the case, because they
19 have taken at least every exhibit and broken it down by
20 Application, and they're not lengthy, and they provide, I
21 think, a road map to anyone who's trying to evaluate this
22 Application.

23 So with your permission, I'd like to file all of
24 that as soon as we're able to correct the exhibit, and I
25 will deliver that to you at that time.

1 That concludes our presentation in this case.

2 EXAMINER STOGNER: Mr. Carr, what's your opinion
3 about holding this matter up until such time as the rules
4 -- the new -- the order -- I'm sorry, the case to consider
5 new rules in the Jalmat?

6 MR. CARR: Well, the problem we have with that
7 is, we have, you know, plans to drill and rigs ready and
8 all of that, and the -- you know, there are so many players
9 and issue when we look at the change in the Jalmat rules.
10 I mean, the net effect of putting this and other people's
11 development programs on hold is that it basically shuts
12 down the development of this reservoir for an indefinite
13 period of time.

14 I want you to know that I truly appreciate what a
15 difficult situation has evolved in terms of how the Jalmat
16 Pool is to be developed and how it is to be regulated.
17 Traditional tools are now suspect, and it creates an
18 extraordinarily difficult problem for you as a regulator,
19 for us as operators.

20 We have plans to go forward. We would like to do
21 that. We think we can show that the wells do produce new
22 reserves that are going to be left in the ground if they're
23 not allowed to be drilled, they are -- And so to that
24 extent they're necessary. Certainly they can be -- this
25 development can be economically done at today's prices, or

1 even as Mr. Lawrence showed earlier, at prices less than
2 half of what we have today.

3 We've notified, we believe, literally everybody
4 and their dog, and we've gone beyond what you might
5 construe the notice area in an attempt to comply with that
6 court order, again recognizing that that court order
7 certainly does create issues and problems that fall on both
8 sides of this hearing room.

9 We would ask that if possible the Applications be
10 considered. We're going to file the proposed orders, and
11 then at that point it's within your domain.

12 EXAMINER STOGNER: For the record, I understand
13 that the case will probably be continued for another month,
14 because another number-one priority has been given the
15 person that's rewriting the Jalmat rules. I don't know
16 when the Jalmat will get a number-one priority.

17 Okay. With that, Mr. Carr, I will hold the
18 record open pending reissuance of Exhibit Number 24. And
19 when do you think you may have that rough draft?

20 MR. CARR: I have the rough drafts actually here.
21 They corrected in a matter of hours.

22 EXAMINER STOGNER: Why don't we do that? Let me
23 see if -- can I -- If you've got one, let's go ahead and
24 submit it.

25 MR. CARR: All right, I've got one --

1 EXAMINER STOGNER: I can work with you on --

2 MR. CARR: I have one in each case, but I would
3 really like to revise them, because I hate being in the
4 public record not knowing the Jalmat Pool.

5 EXAMINER STOGNER: I can understand that. Okay,
6 and that's easy to know because this is -- the rules for
7 the Jalmat. It's not impossible to understand.

8 MR. CARR: Mr. Stogner, I'm going to give you
9 copies of each of the orders. These are just drafts, and I
10 would like to revise them, and I'll substitute them
11 tomorrow.

12 EXAMINER STOGNER: Okay, let's go off the record.

13 (Off the record)

14 EXAMINER STOGNER: If there's nothing further in
15 these three cases, then the record will be held open
16 pending Exhibit Number 24 and the rough drafts --

17 MR. CARR: Yes, sir.

18 EXAMINER STOGNER: -- and you should have them to
19 me tomorrow.

20 With that, this hearing is adjourned.

21 (Thereupon, these proceedings were concluded at
22 2:15 p.m.)

23 * I, ~~the~~ hereby certify that the foregoing is
24 a complete record of the proceedings in
the Examiner hearing of Case No. 12623, 624, 625
heard by me on 19 April 2001

25  , Examiner

Oil Conservation Division

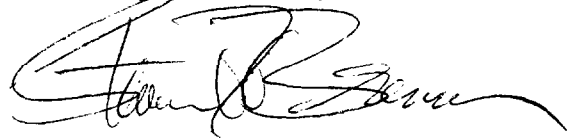
CERTIFICATE OF REPORTER

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 April 27th, 2001.



STEVEN T. BRENNER
CCR No. 7

My commission expires: October 14, 2002