

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 YATES PETROLEUM)
CORPORATION FOR POOL CREATION AND)
THE ADOPTION OF SPECIAL POOL RULES)
AND REGULATIONS, LEA COUNTY, NEW MEXICO)

CASE NO. 12,681

ORIGINAL

REPORTER'S TRANSCRIPT OF PROCEEDINGS

EXAMINER HEARING

BEFORE: MICHAEL E. STOGNER, Hearing Examiner

June 28th, 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, June 28th, 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.

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OIL CONSERVATION DIV

I N D E X

June 28th, 2001
 Examiner Hearing
 CASE NO. 12,681

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A P P E A R A N C E S

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* * *

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

3 EXAMINER STOGNER: Okay, hearing will come to
4 order.

5 At this time I'll call Case Number 12,681, which
6 is the Application of Yates Petroleum Corporation for pool
7 creation and the adoption of special pool rules and
8 regulations, Lea County, New Mexico.

9 Call for appearances.

10 MR. CARR: May it please the Examiner, my name is
11 William F. Carr with Holland and Hart, L.L.P. We represent
12 Yates Petroleum Corporation in this matter, and I have
13 three witnesses.

14 EXAMINER STOGNER: Any other appearances?

15 MR. BRUCE: Mr. Examiner, Jim Bruce of Santa Fe,
16 representing Devon Energy Production Company, L.P. They're
17 an offset operator.

18 We have no witnesses.

19 EXAMINER STOGNER: Any other appearances?

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

22 (Thereupon, the witnesses were sworn.)

23 MR. CARR: May it please the Examiner, at this
24 time we call Ed David.

25 EXAMINER STOGNER: You may proceed.

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EDWARD N. DAVID,

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

DIRECT EXAMINATION

BY MR. CARR:

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

A. Edward N. David.

Q. Mr. David, where do you reside?

A. Roswell, New Mexico,

Q. By whom are you employed?

A. David Petroleum Corporation.

Q. And what is your current position with David Petroleum Corporation?

A. Petroleum landman.

Q. Could you explain to the Examiner what is the relationship between David Petroleum Corporation and Yates Petroleum Corporation in this case?

A. We are working interest in an AMI governed by a joint operating agreement.

Q. Mr. David, have you previously testified before the New Mexico Oil Conservation Division?

A. No, I have not.

Q. Could you briefly review your educational background for Mr. Stogner?

1 A. I have a bachelor of business administration in
2 marketing and also one in petroleum land management. I am
3 a certified professional landman, Number 5832. I started
4 to work for Slate Land Services in Big Spring, Texas, in
5 February of 1992 and worked for Slate Land Services until
6 December of 1993, and since December of 1993 I've been
7 employed by David Petroleum.

8 Q. And at all times you've been employed as a
9 petroleum landman?

10 A. Yes, that's correct.

11 Q. Are you familiar with the Application filed in
12 this case on behalf of Yates Petroleum Corporation?

13 A. Yes.

14 Q. And are you familiar with the status of the land
15 in the area which is the subject of this case?

16 A. Yes.

17 MR. CARR: Mr. Stogner, we tender Mr. David as an
18 expert witness in petroleum land matters.

19 EXAMINER STOGNER: Mr. David is so qualified.

20 Q. (By Mr. Carr) Would you briefly state what it is
21 that Yates Petroleum Corporation and David Petroleum
22 Corporation seek with this Application?

23 A. Well, we are wanting the creation of a new Atoka
24 pool, due to the discovery of the Big Bear "ATN" Well
25 Number 2, operated by Yates Petroleum, located in Unit L of

1 Section 29, Township 15 South, Range 35 East, in Lea
2 County, New Mexico.

3 Q. And this will be an oil pool?

4 A. Yes.

5 Q. Are you also seeking the promulgation of special
6 pool rules and regulations for the pool?

7 A. Yes, 80-acre spacing. We would also -- the 330-
8 foot setback from the quarter section line, and also within
9 the 80-acre spacing an optional second well, with only one
10 well per quarter quarter section?

11 Q. And Mr. David, there will be an engineering
12 witness who will later explain the reason for the request
13 for the optional oil well?

14 A. Yes.

15 Q. What rules currently govern the development of
16 this acreage?

17 A. Statewide rules, 40-acre spacing and the 330-foot
18 setback.

19 Q. So we're not changing the request for the
20 setback, we just want the 330-foot setback to apply to 80-
21 acre units?

22 A. That's right.

23 Q. All right, let's go to what's been marked for
24 identification as Yates/David Exhibit Number 1. Would you
25 identify that and review it for Mr. Stogner?

1 A. Yes, this is a plat of the area around the Big
2 Bear "ATN" Number 2. The red represents the proposed
3 pooling spacing unit, which is the north half of the
4 southwest quarter. It also shows the location of the Big
5 Bear "ATN" Number 2 and also the ownership in the area.

6 Q. And the acreage shaded in yellow is a 320-acre
7 lease in which you and Yates own working interests?

8 A. Yes, that's correct.

9 Q. What is the status of the acreage in the north
10 half of the southwest quarter of Section 29?

11 A. Well, currently it's still in the primary term,
12 but once that primary term expires it will all be held by
13 production.

14 Q. Okay. Could you summarize for the Examiner the
15 history of the Big Bear "ATN" Well Number 2?

16 A. Yes, the well was drilled to the Mississippian,
17 we tested the Morrow and are currently producing out of the
18 Atoka formation.

19 Q. And so at this time the dedicated acreage is the
20 Atoka spacing unit?

21 A. Yes, that's correct.

22 Q. Let's go to Exhibit Number 2. Is Exhibit Number
23 2 an affidavit with attached notice letters confirming that
24 notice of this hearing has been provided to affected
25 interest owners in accordance with the rules of the

1 Division?

2 A. Yes, that's correct.

3 Q. And to whom was notice provided?

4 A. To all the operators within one mile.

5 Q. Are there any Atoka wells in this immediate area?

6 A. No, there are not any for many miles.

7 Q. And you have elected to notify all operators,
8 regardless of depth or horizon, within a mile of the
9 proposed pool boundary?

10 A. That's correct.

11 Q. Will David Petroleum call -- or Yates Petroleum
12 call geological and engineering witnesses to review
13 technical portions of the case?

14 A. Yes, they will.

15 Q. Were Exhibits 1 and 2 either prepared by you, or
16 have you reviewed them and can you testify as to their
17 accuracy?

18 A. Yes, they are accurate.

19 MR. CARR: Mr. Stogner, at this time we would
20 move the admission into evidence of Yates/David Exhibits 1
21 and 2.

22 EXAMINER STOGNER: Exhibits 1 and 2 will be
23 admitted into evidence.

24 Mr. Bruce, your witness.

25 MR. BRUCE: I have no questions of Mr. David, Mr.

1 Examiner.

2 EXAMINATION

3 BY EXAMINER STOGNER:

4 Q. Let's go over the notice requirements again.
5 This is a special pool rule affecting a specific pool in
6 which it involves the changing of acreage. Now, I heard
7 your witness say that all operators within a mile of this
8 proposed acreage were notified. What about all owners of
9 interest? Were they notified?

10 A. No, just all operators.

11 EXAMINER STOGNER: Hm. Well, pursuant to
12 1207.4.(A) is that insufficient, Mr. Carr?

13 MR. CARR: I thought this fell under 1207.4.(B),
14 Mr. Stogner, as I read it. If additional notice is
15 required then we would need to do that, of course.

16 EXAMINER STOGNER: If the Application involves
17 changing the amount of acreage to be dedicated to a well,
18 notice shall be given to, and this is essentially what
19 we're doing, a lot like some other pool up in the northwest
20 that I remember, that could be construed as dilution of
21 acreage.

22 MR. CARR: What we'll do, Mr. Examiner is, we
23 will, with your permission, notify all interest owners. We
24 would like to proceed to make the record today and then ask
25 that the case be reopened four weeks from now and tender a

1 new notice affidavit.

2 (Off the record)

3 MR. CARR: Mr. Stogner, I did read the rule, and
4 I read it again this morning, and I have trouble with it,
5 and it may just be my misreading. It's almost like a
6 double negative, somehow, to me. But we certainly will be
7 happy to provide additional notice if --

8 MR. BROOKS: Which rule did you say you though
9 applied, Mr. Carr?

10 MR. CARR: I thought it fell under 1207.4.(B).

11 MR. BROOKS: That's just other matters. Well, it
12 does change the amount of acreage dedicated to the well --

13 MR. CARR: Yes, it does.

14 MR. BROOKS: -- though, does it not?

15 MR. CARR: Yes, it does.

16 (Off the record)

17 Q. (By Examiner Stogner) Well, I'll tell you what,
18 let's take a look at this spacing unit. Now, the yellow
19 talks about Yates acreage. Is that 100-percent Yates
20 owned?

21 A. Yes, yes.

22 Q. There's no other working interest involved in the
23 south half of Section 29

24 A. No, just Yates and David.

25 Q. Okay, so you split it 50-50 or -- What's the

1 percentage of David and what's the percentage of Yates?

2 A. If we have different working interests in
3 different sections, then I -- I could throw out a number,
4 but I'm not sure if it would be correct.

5 Q. And also the Yates interest, I've had experience
6 before where a lot of that Yates interest is not only Yates
7 Petroleum, it's other Yates entities.

8 A. Right.

9 EXAMINER STOGNER: I'll tell you what, Mr. Carr,
10 would you review that? And it appears under Rule
11 1207.4.(A).(ii) --

12 MR. CARR: Uh-huh.

13 EXAMINER STOGNER: -- all owners of interest in
14 the mineral estate in existing spacing units. Well, this
15 is the only existing spacing unit in the Atoka formation in
16 this area; is that correct, that you know of?

17 MR. CARR: Yes, it is, Mr. Stogner.

18 EXAMINER STOGNER: Okay.

19 MR. CARR: I do have an exhibit that we can
20 present with a later witness that will give you an exact
21 breakdown of the ownership in the well, and we'll present
22 that.

23 EXAMINER STOGNER: Okay.

24 MR. CARR: But there are a total of six owners of
25 working interest in the unit. They are all Yates or David

1 Petroleum Corporation companies, they're all related
2 companies. But we will present that with Dr. Boneau.

3 Q. (By Examiner Stogner) Okay. Which of course
4 brings us back to Exhibit Number 2, again. Who was
5 notified? These are operators. What do they operate?
6 Leases?

7 When I think of an operator, I usually assume
8 that as an operator of a well within the formation of
9 interest. Is that what this is reflecting?

10 A. No. No, there are no other offsets that are in
11 the Atoka formation.

12 Q. Then who are these parties?

13 A. These parties would be all operators within a
14 mile of this tract.

15 Q. Operating what?

16 A. I cannot answer that.

17 MR. BROOKS: Are there other wells in the other
18 formations in this area?

19 THE WITNESS: Yes, our geological witness has
20 detailed information on that.

21 MR. BROOKS: Okay.

22 EXAMINER STOGNER: No other questions at this
23 time.

24 MR. CARR: Thank you, Mr. Stogner. At this time
25 we call Keith McKamey.

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KEITH E. MCKAMEY,

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

DIRECT EXAMINATION

BY MR. CARR:

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

A. Keith McKamey.

Q. Mr. McKamey, by whom are you employed?

A. David Petroleum.

Q. And what is your position with David Petroleum?

A. Senior geologist.

Q. Have you previously testified before this Division?

A. Yes, I have.

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

A. They were.

Q. Are you familiar with the Application filed in this case on behalf of Yates Petroleum Corporation?

A. Yes, I am.

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

A. Yes, I have.

1 Q. And are you prepared to share the results of that
2 work with the Examiner?

3 A. Yes, sir, I am.

4 MR. CARR: Are Mr. McKamey's qualifications
5 acceptable?

6 EXAMINER STOGNER: Any objections?

7 MR. BRUCE: No objection.

8 EXAMINER STOGNER: Mr. McKamey is so qualified.

9 Q. (By Mr. Carr) Mr. McKamey, have you prepared
10 exhibits for presentation here today?

11 A. Yes, I have.

12 Q. Would you go to what has been marked for
13 identification as Yates/David Exhibit Number 3, identify
14 this and then review the information on the exhibit for Mr.
15 Stogner.

16 A. Mr. Examiner, this is a Xerox copy of the
17 lithodensity on the Big Bear 2 well, which is located in
18 the southwest quarter of 29. This exhibit illustrates our
19 pay zone, which is marked with the perforations from 11,878
20 to -82. It shows that that is a sand zone by the PE curve,
21 and that's separated from the Strawn carbonate zone which
22 is above it. The top of the Atoka is marked at 11,822.

23 Q. What permeability information can you draw from
24 this exhibit?

25 A. We ran a sidewall core to verify the log

1 response. The sidewall core indicated a sandstone with
2 permeabilities in the range of 289 millidarcies.

3 Q. Let's go to Yates-David Exhibit Number 4. What
4 is this?

5 A. This exhibit illustrates the geometry and
6 explains a little bit about the production of the wells
7 surrounding our Big Bear Number 2. The structure map is on
8 the top of the Atoka. It's on 50-foot contour intervals in
9 black.

10 The red superimposed contour intervals are
11 isopach on the sand, the Atoka sand pay zone, and they are
12 contoured on 10-foot intervals.

13 The Big Bear Number 2, located in the west half,
14 southwest, of 29, is surrounded by other wells that we sent
15 notice to, and the operators of those wells in Section 29
16 is Yates Petroleum -- that is a Permo-Penn or Wolfcamp
17 producer -- there's no producing wells in 30; in 31, there
18 are three wells in the south half of 31, and those are all
19 Permo-Penn producers.

20 In 32 there three wells that are producers. The
21 well in the north half is a Strawn well, and the well in
22 the southeast quarter is a Strawn well. The well in the
23 southwest quarter is a Permo-Penn well.

24 Q. What does your geological work in the area tell
25 you about this Atoka reservoir?

1 A. The sidewall core indicates that it has very high
2 permeability and will drain a large area, and it is a
3 sandstone, which is a separate reservoir from other
4 producing wells in the area.

5 This is a new zone.

6 Q. Is there any other Atoka well in the immediate
7 area?

8 A. The nearest Atoka well that I know of is in
9 Section 2 of 16-35. It is a gas well, and it's producing
10 out of a separate sand zone, about 100 and 150 feet below
11 our zone of interest.

12 Q. And the information you can draw from the log,
13 which is Exhibit Number 3, shows, in fact, that we do have
14 an Atoka interval, not a Strawn zone; is that right?

15 A. That's correct, that's correct.

16 Q. Were Exhibits 3 and 4 prepared by you?

17 A. Yes, they were.

18 MR. CARR: I move the admission into evidence of
19 Yates/David Exhibits 3 and 4.

20 EXAMINER STOGNER: Is there any objections?

21 MR. BRUCE: No, sir.

22 EXAMINER STOGNER: Exhibits 3 and 4 will be
23 admitted into evidence.

24 Mr. Bruce, your witness.

25 MR. BRUCE: I have no questions of Mr. McKamey.

EXAMINATION

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BY EXAMINER STOGNER:

Q. Okay, when I look at your Exhibit Number 4, Big Bear 3, that well penetrated the Atoka; is that correct?

A. No, sir, all of these wells that have producing symbols on the map are Atoka penetrations. The Number 3 is a future location, planned.

Q. Oh, planned, okay.

A. Correct.

Q. Now, the Big Bear 1, which is due east of you, now, did that -- was that tested in the Atoka?

A. No, it was not. It had a very small sand interval, was broken up, very ratty-looking, did not look like it was worthy of testing. And we may have been a little hasty.

Q. When was that Number 1 -- Big Bear 1 drilled?

A. I can give you an approximate date of about a year ago.

Q. About a year ago. So it was under moderate circumstances, not like in the 1960s or 1970s?

A. Right.

Q. And you said the closest Atoka production was five miles in Section 35?

A. Actually, it's about two and a half, three miles southeast in Section 2 of 16-35.

1 Q. Okay. Now, what pool is that in? Is that part
2 of a bigger pool that takes in multiple vertical limits?

3 A. It is part of the North Shoe Bar-Atoka field.

4 Q. Do you know if the North Shoe Bar-Atoka has
5 similar special pool rules?

6 A. No, sir, I do not.

7 Q. Do you know if there's any other Atoka intervals
8 within this general area around Lovington with special pool
9 rules similar to this?

10 A. I am not aware of any special pool rules.

11 Q. Now, the producing formation up above in the
12 Strawn, the majority of that is spaced on 80, is it not?

13 A. That's correct.

14 Q. Would the same pool rules -- or at least the 80-
15 acre spacing, would that also dovetail in the Strawn
16 production and would also aid in orderly development?

17 A. Exactly, that's the purpose for seeking these
18 special pool rules, is, we intend to drill the Number 3
19 well. If we do not find the Strawn to be productive, or
20 perhaps another zone to be productive, this will be a
21 bailout zone, and our engineer will show you and justify
22 some of those economics in a minute. It's not really a
23 primary zone of interest, but rather a secondary plugback.

24 Q. Now when was the Big Bear 2 -- when was it
25 drilled?

1 A. The log date on here is March 12th, 2001?

2 Q. So it's a relatively new, down to the
3 Mississippian and then --

4 A. That's correct.

5 Q. -- tested the Morrow?

6 A. That's correct.

7 Q. Did it test dry in the Morrow, or is it going to
8 be downhole commingled?

9 A. We intend to possibly combine the production with
10 the Morrow and the Atoka at some future date. This zone
11 was unknown to us, so we wanted to test it. We did test
12 the Morrow first, with perforations, and got a mediocre
13 Morrow well, decided to put an RBP between it and the Atoka
14 zone.

15 Q. Now, the Strawn formation up there is usually
16 algal-mound, reef-mound-type --

17 A. Correct.

18 Q. What kind of deposition does the Atoka have?

19 A. I anticipate this to either be a discontinuous
20 fluvial channel or some sort of submarine channel.

21 Q. Was it the deep water or --

22 A. It was probably shallow water.

23 Q. Shallow water.

24 A. Nearshore or fluvial.

25 Q. What would have happened to that Atoka formation

1 when the Strawn was deposited for the Algal mounds to form
2 there. Was that eroded away any, or did it serve as the
3 base for the --

4 A. It's predominantly the base. There is a lot of
5 erosion taking place in the Atoka interval, as well as the
6 Morrow interval. I'm not sure any of this was actually
7 eroded in the top part of the Atoka. It was primarily the
8 base.

9 Q. The Atoka has really never been a zone of
10 interest out here, has it?

11 A. No, sir.

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

14 You may be excused.

15 MR. CARR: At this time I call David Boneau.

16 DAVID F. BONEAU,

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

19 DIRECT EXAMINATION

20 BY MR. CARR:

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

22 A. My name is David Francis Boneau.

23 Q. Where do you reside?

24 A. Artesia, New Mexico.

25 Q. By whom are you employed?

1 A. I'm employed by Yates Petroleum Corporation.

2 Q. Dr. Boneau, what is your position with Yates
3 Petroleum Corporation?

4 A. I'm the engineering manager.

5 Q. Are you familiar with the Application filed in
6 this case?

7 A. Yes, sir.

8 Q. Have you previously testified before this
9 Division and had your credentials as an expert in petroleum
10 engineering accepted and made a matter of record?

11 A. Yes, sir.

12 Q. Have you made an engineering study of the area
13 which is involved in this Application?

14 A. Yes.

15 Q. And are you prepared to share the results of that
16 work with Mr. Stogner?

17 A. You bet.

18 MR. CARR: Are Dr. Boneau's qualifications
19 acceptable?

20 EXAMINER STOGNER: Any objection?

21 MR. BRUCE: Nah.

22 EXAMINER STOGNER: Dr. Boneau is so qualified.

23 Q. (By Mr. Carr) Have you prepared exhibits for
24 presentation here today?

25 A. Yes.

1 Q. Let's refer to what has been marked for
2 identification as Yates/David Exhibit Number 5. Would you
3 identify that and review the information on the exhibit for
4 the Examiner?

5 A. Yes, I'll do that. One of the main things I want
6 to get across to the Examiner is, I estimate the drainage
7 area of this new well as about 80 acres, so that's one of
8 the things we're headed towards.

9 Exhibit 5 shows the daily production from this
10 Big Bear Number 2 well. It was connected to the pipeline
11 and began producing on May 21st, and so it's produced about
12 a month.

13 You can see in the columns there barrels of oil
14 per day and MCF per day. The well started out making 700
15 barrels a day and has fallen off relatively rapidly. It is
16 flowing, and it looks like it's going to die, actually, to
17 me, but in a month it's produced about 12,700 barrels of
18 oil. It's down to about 150 barrels of oil a day, and I
19 would think within a month we'd be out there putting a pump
20 on the well, but...

21 The right-hand column shows the daily measure of
22 the GOR, and it's averaged about 800. So the well has made
23 12,700 barrels of oil and about 10 million cubic feet of
24 gas in a month.

25 Q. Let's go to your production forecast, Yates/David

1 Exhibit Number 6.

2 A. Exhibit 6 shows my forecast of the rest of the
3 production from this well. The two green dots are monthly
4 production for May and June where I've estimated the
5 remaining few days of June, and the two red Xs are the
6 actual production for May and June of gas, where again I've
7 estimated for the last few days of June.

8 And the red and the green lines show my estimate
9 of what the well is going to do in the future. The oil
10 will go on pump relatively soon, but then fall off quite
11 rapidly, and the gas will decline over time.

12 Q. You're showing a producing life for the well of
13 four, five, six years, something like that; is that right?

14 A. Yes, sir.

15 Q. Let's go to the economic calculations and reserve
16 calculations for the well, which are marked Yates/David
17 Exhibit Number 7. Would you explain how the exhibit is
18 organized and what it shows?

19 A. Exhibit 7 is a computer-generated forecast based
20 on the lines that were shown in Exhibit 6. The oil and gas
21 production are quantified into yearly totals, and actually
22 it does some economics of operating costs and oil and gas
23 prices, et cetera.

24 My main purpose was just to determine the
25 ultimate reserves of the well, and I've listed those in my

1 own penmanship, like, near the bottom where it says
2 "Ultimate Reserves" will be 69,116, but 69,000 barrels of
3 oil and 159 million cubic feet of gas. Actually, the
4 economics show that this zone just barely pays out the cost
5 of the well if it can make 69,000 barrels of oil, but it's
6 not the kind of zone that you would drill the well for, and
7 it's not the zone that we drilled the well for.

8 But the point to remember, probably, is that
9 69,000 barrels of oil is what this well will make.

10 The second page of this exhibit is actually the
11 input data to the computer program, and we don't need to
12 spend any time on that, I don't think, unless the Examiner
13 wants to.

14 Q. All right, let's go to the log analysis, Exhibit
15 Number 8. What information is important on this exhibit?

16 A. Okay, so now we're to the point where how big a
17 reservoir is required to produce 69,000 barrels of oil?
18 Okay, Exhibit 8 is my analysis of the logs of this well in
19 the Atoka sand interval.

20 On the left is the depth in feet, and I've done
21 it every half a foot. And then there's the porosity data
22 that comes off of the porosity log that actually was
23 Exhibit 3. And the resistivity data comes off the
24 resistivity log, which we're not showing. We could if you
25 want to see it.

1 The results are that this 7-foot zone has average
2 porosity of like 13.1 percent. I get an average water
3 saturation of around 27 percent, and the number that's
4 actually used in the calculations is in bold print at the
5 lower right of the exhibit where it says the hydrocarbon
6 pore volume total for this zone is 0.678 -- feet is
7 actually the units, but there's two-thirds of a foot of
8 oil. In a seven-foot zone, there's two-thirds of a foot of
9 oil.

10 Q. All right, let's go to the drainage calculation
11 itself, Exhibit 9.

12 A. So Exhibit 9 tries to put these pieces together
13 to get my estimated answer.

14 Item 1 is just the basic equation.

15 Item 2 just repeats what we got from the log
16 calculations, that the hydrocarbon pore volume is .678.

17 Item 3, you need the formation volume factor.
18 And from the Standing Correlations and the parameters that
19 are listed there, the formation volume factor is 1.42.

20 Item 4 is the recovery factor, which is always
21 subject to an estimate. And my favorite place to estimate
22 those is this 1957 paper from the Magnolia Petroleum people
23 where they -- back in the ancient times of crank computers
24 they ran a bunch of cases and show how to estimate recovery
25 from solution gas drive or reservoirs. Anyway, the number

1 I get by going through all their stuff is .25. So you're
2 recovering a quarter of the oil, which I think is in the
3 range that an engineer would estimate.

4 And then in item 5, you put those numbers into
5 the calculation for the oil produced and the drainage area,
6 and the answer is 75 acres, as listed on the last line.
7 So...

8 Q. Summarize your conclusions from this well.

9 A. So what we have is this 7-foot zone, a thin zone
10 with high permeability. It contains -- In 80 acres it
11 contains about 300,000 barrels of oil. In 40 acres it
12 would be 15,000 barrels of oil. We're going to get about a
13 quarter of it, I estimate, and that's my 69,000 barrels of
14 oil, and that's going to drain about 75 acres.

15 All that fits together in my mind, and we're real
16 early in the life of the well, and we're estimating things,
17 and the drainage area might be 60 acres, or it might be a
18 little more than 80, but 80 is the right range based on
19 what we know now.

20 Q. Dr. Boneau, with this Application you're also
21 seeking approval of a second well on each of these 80-acre
22 units. Could you explain the reasoning behind that
23 request?

24 A. I will try to do that. I look at it as a
25 housekeeping idea or an attempt to see the future. And,

1 you know, sometimes we're good at that and sometimes we're
2 really bad. But the idea is not that we're going to go out
3 and drill a second Atoka well on this 80-acre spacing unit
4 or any future 80-acre spacing unit.

5 The target zones -- The real target zones are
6 Morrow or Strawn in this area, and I know we're going to
7 drill some more wells aimed at Morrow and Strawn, and we're
8 just trying to look to the idea that one of those wells may
9 either produce Morrow or Strawn, and then we'll go to this
10 zone -- or be drawing Morrow or Strawn, and then we'll go
11 to this zone, and it will happen to be on the other 40 of
12 one of these 80 acres.

13 So we're just looking to the future that there
14 might be a well that we want to recomplete into this Atoka
15 bailout zone, and if it happens to be on the same 80 as
16 another one -- We're just trying to avoid a hearing. And
17 if that's not a good enough excuse, you know, we can do
18 something else.

19 But that's the only thing that's involved, is the
20 attempt to look ahead and allow us to recomplete other
21 wells to this Atoka bailout zone without requiring another
22 one of these hearings if it happens that the wells are on
23 the same 80. That's really all that's the idea of that,
24 and I don't know whether that will really happen or not,
25 but strange things have happened so many times I bet it

1 will, somewhere down the line.

2 Q. Dr. Boneau, did you also prepare an exhibit that
3 sets forth the ownership in this well?

4 A. Yes, mostly from my own information as to who
5 owns what out here.

6 Q. Could you summarize that for the Examiner?

7 A. Yes, and I guess you guys do not have one of
8 these.

9 Q. They don't. That's the only one I have.

10 A. Okay. Anyway, there are six owners of this south
11 half. One of them is Yates Petroleum. Yates Petroleum
12 owns 64.7 percent, and no other Yates companies are
13 involved.

14 This time, you know, unusually, it's the David
15 people who have all their little companies in the list. So
16 the David Petroleum Group owns the rest, and specifically
17 -- I mean, I'll sit here and read them so we can get them
18 in the record.

19 Edward David owns .0035.

20 David Petroleum Corporation owns 15.1 percent.

21 McMillan Production Company owns 12.6 percent.

22 Michael McMillan, individual, owns 1 percent.

23 And another associated company named Permian
24 Exploration owns 6.3 percent.

25 But anyway, the ownership is, Yates Petroleum 65

1 percent, the David group, David Petroleum Group, 35
2 percent. I hope that helps just settle what came up
3 earlier.

4 Q. Dr. Boneau, in your opinion will approval of this
5 Application and the adoption of special rules in this Atoka
6 pool that provide for 80-acre spacing units and an optional
7 infill well be in the best interest of conservation, the
8 prevention of waste and the protection of correlative
9 rights?

10 A. Yes, it will do that in this case.

11 Q. Were Exhibits 5 through 10 prepared by you?

12 A. Yes, they were.

13 MR. CARR: At this time, Mr. Stogner, we'd move
14 the admission into evidence of Exhibits 5 through 10.

15 EXAMINER STOGNER: Exhibits 5 through 10 will be
16 admitted into evidence if there's no objection.

17 MR. BRUCE: No objection.

18 MR. CARR: That concludes my examination of Dr.
19 Boneau.

20 EXAMINER STOGNER: Mr. Bruce, your witness.

21 EXAMINATION

22 BY MR. BRUCE:

23 Q. Really just one question. I didn't have a set of
24 your exhibits in front of me, Dr. Boneau. What did you say
25 was the estimated ultimate recovery for this Big Bear

1 Number 2?

2 A. 69,000 barrels of oil. It's made 12,000 to
3 13,000 barrels to date, and as it falls off it will make
4 69,000 barrels of oil.

5 MR. BRUCE: That's all I have.

6 EXAMINATION

7 BY EXAMINER STOGNER:

8 Q. How was this well stimulated in the Atoka? Do
9 you know, or do I need to ask Mr. McKamey?

10 A. I know that the well is what you would call
11 natural. It is not stimulated at all.

12 Q. No acid, no frac?

13 A. No acid, no frac. We had an acid job scheduled,
14 and we had to get on the phone and call the trucks back.
15 It was going well enough that Mr. Yates decided not to
16 acidize it.

17 Q. Let's see, what's the perforated interval? What
18 depth area are these wells?

19 A. 11,878 to 11,882, I believe.

20 Q. So for an 80-acre pool, these are going to come
21 up with an allowable under 105 of about 420 barrels a day;
22 is that about right? I can't remember.

23 MR. MCKAMEY: 445.

24 THE WITNESS: Yeah, 445.

25 Q. (By Examiner Stogner) Okay. And so that second

1 well, the optional second well that is being requested,
2 that would share in the proration unit allowable, would it
3 not?

4 A. That's the idea, that's my understanding of how
5 it works, yes, sir.

6 Q. Dr. Boneau, have you been a big advocate of Atoka
7 testing out here in these areas?

8 A. I never heard of an Atoka oil zone.

9 Q. Well, you're having to be a little more diligent
10 now in the Atoka, I guess?

11 A. Yes, sir.

12 EXAMINER STOGNER: Any other questions of Dr.
13 Boneau?

14 MR. BROOKS: No.

15 EXAMINER STOGNER: You may be excused.

16 MR. CARR: We have a question concerning
17 notice --

18 EXAMINER STOGNER: Okay.

19 MR. CARR: -- that we need to decide.

20 EXAMINER STOGNER: With the additional
21 presentation of Dr. Boneau, Mr. Bill Carr --

22 MR. CARR: Yes, sir.

23 EXAMINER STOGNER: -- the notice appears to be
24 adequate in this instance, so scratch any previous...

25 Anything further in this matter?

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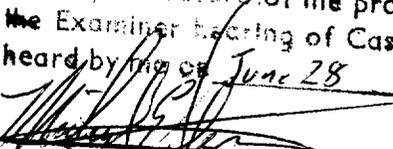
Case Number 12,681 will then be taken under
advisement.

Thank you, Mr. Carr.

MR. CARR: Thank you, sir.

(Thereupon, these proceedings were concluded at
10:51 a.m.)

* * *

I do hereby certify that the foregoing is
a complete record of the proceedings in
the Examiner hearing of Case No. 12681,
heard by me on June 28 2001.
 , Examiner
Of 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 June 30th, 2001.



STEVEN T. BRENNER
 CCR No. 7

My commission expires: October 14, 2002