STATE OF NEW MEXICO

ENERGY, MINERALS AND NATURAL RESOURCES DEPARTMENT

OIL CONSERVATION DIVISION

CASE 9862

EXAMINER HEARING

IN THE MATTER OF:

Application of Mewbourne Oil Company for for the Contraction of the Atoka-Pennsylvanian Gas Pool and the Concomitant Extension of the West Atoka-Morrow Gas Pool and for an Unorthodox Well Location, Eddy County, New Mexico

TRANSCRIPT OF PROCEEDINGS

BEFORE: DAVID R. CATANACH, EXAMINER

STATE LAND OFFICE BUILDING

SANTA FE, NEW MEXICO

February 7, 1990

ORIGINAL

CUMBRE COURT REPORTING
(505) 984-2244

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I N D E X

E X H I B I T S

EXAMINER CATANACH: At this time we'll call Case 9862, the Application of Mewbourne Oil Company for the Contraction of the Atoka-Pennsylvanian Gas Pool and the Concomitant Extension of the West Atoka-Morrow Gas Pool and for an Unorthodox Gas Well Location, Eddy County, New Mexico. Are there appearances in this case?

MR. BRUCE: Mr. Examiner, my name is Jim Bruce from the Hinkle Law Firm in Albuquerque, representing the Applicant. I have three witnesses to be sworn.

EXAMINER CATANACH: Are there any other appearances? Would the witnesses please stand to be sworn in.

(Thereupon, the witnesses were sworn.)

EXAMINER CATANACH: You may proceed.

D. PAUL HADEN

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

EXAMINATION

BY MR. BRUCE:

Q. Mr. Haden, please state your full name and city of residence.

A. My name is Paul Haden. I'm from Midland, Texas.

Q. Who do you work for and in what capacity?
A. I work for Mewborne Oil Company as a landman.
Q. Have you previously testified before the Division as a landman and had your credentials accepted as a matter of record?
A. Yes, I have.
Q. And are you familiar with the land matters involving Case 9862?
A. Yes, I am.
MR. BRUCE: Mr. Examiner, are the witness's credentials acceptable?
EXAMINER CATANACH: They are.
Q. Mr. Haden, would you please state what Mewbourne seeks in this case.
A. First, Mewbourne seeks approval for an unorthodox gas well location for its Gin #1 well. This well is to be located 990 feet from the south line and 660 feet from the west line of Section 9, Township 18 South, Range 26 East in Eddy County, New Mexico.
This well is to be drilled to approximately 9,100 feet to test the Morrow formation, with the west half of Section 9 being dedicated to the well. Our geologist will discuss this unorthodox location as

applied for further.

Second, Mewbourne seeks to contract the Atoka-Pennsylvanian Gas Pool by deleting the west half of Section 9 from that pool and extend the West Atoka-Morrow Gas Pool to include the west half of Section 9.

Q. Briefly, why does Mewbourne seek to move the west half of Section 9 to the West Atoka-Morrow Pool?

A. The Atoka-Pennsylvanian Pool is currently prorated, and Mewbourne does not believe it can drill a well in the prorated pool which will adequately drain the west half of Section 9 in competition with the Yates well in Section 8. This well is the Chumbley well in the northeast quarter of Section 8.

Also, if the Gin #1 well is prorated, the well will not meet Mewbourne's economic guidelines, and this will be discussed by our engineer in further testimony.

Q. Would you please now refer to Exhibits 1, 2A and 2B and describe the ownership of the acreage offsetting the west half of Section 9 around Mewbourne's ownership in this area?

A. Exhibit 1 is a land plat that shows the west half of Section 9 as being our proposed proration

unit for the Gin #1. It also shows the location being 660 from the west and 990 feet from the south line of Section 9.

Exhibit 2A shows the various tracts offsetting our proposed Gin #1 well. Tract 1 is currently owned by Yates Petroleum Corporation, as Tracts 2, 3, 4, 5. Tracts 6, 7 and 8 are tracts in which are currently unleased or as shown on Exhibit 2B, Arco and Yates Petroleum own a leasehold interest. Tract 9 is owned by Harvey E. Yates Company.

Q. So for the tracts which are most affected by this, 4 and 5 are owned by Yates Petroleum Company, is that correct?

A. Yes, that is correct.

Q. Tract 9, which is the north half of Section 16, is owned by Harvey E. Yates Company?

A. That is correct.

Q. And in Section 17, Exhibit 2B indicates either the lessees or the unleased mineral interest owners?

A. That is also correct.

Q. Would you outline for the Examiner the boundary between the Atoka-Penn and the West Atoka-Morrow?

A. Okay. Our interpretation is that the West Atoka-Morrow includes the south half of Section 7, all of Sections 8 and 18, and the west half of Section 19. The Atoka-Penn currently includes all of Sections 9, 16, 20, 21, and the east half of Section 19, among other lands.

Q. This is according to the OCD's current nomenclature orders, is that correct?

A. That is also correct.

MR. BRUCE: Mr. Examiner, I would point out that the Atoka-Penn includes additional acreage, but we're trying to point out the immediate area.

Q. And, Mr. Haden, Section 17 is apparently in neither pool, is that correct?

A. That is correct.

Q. There is currently a well in the west half of Section 9. Would you please describe the status of that well?

A. This well is a Morrow gas well. It's called the Spencer Com. Well #1 well, which is owned by and operated by Mewborne Oil Company and is producing at a very low rate out of the Morrow.

Q. If the west half of 9, or I should say, if the Gin #1 well is drilled, what will Mewbourne do to the Spencer well?

A. Mewbourne agrees to plug and abandon this well if production is established in the Gin #1 well.

Q. Mr. Haden, was notice of this application given to the offset interest owners or offset operators?

A. Yes, they were.

Q. Are copies of the notice letters and the certified return receipts submitted as Exhibit 3?

A. Yes, that's correct.

Q. Have any of the offset operators given you written waivers?

A. Yates Petroleum Corporation, Harvey E. Yates Company, Horace F. McKay, Jr. and Elmyra K. McKay Trust. Also Arco Oil and Gas Company. However, they say they do not own offsetting acreage. However, I believe that they do.

Q. One thing, Mr. Haden, and that is, according to Exhibit B, some acreage in Section 17 is owned by Nancy Tonkin and Allan Tonkin?

A. Yes, that is correct.

Q. And that is in Tracts 6 and 8, is that correct?

A. Yes, that's correct.

Q. I believe they have not consented to this well, is that correct?

A. Apparently they have sent a letter to the Commission stating that they objected to our location. However, apparently they have not appeared to tell us about their objections.

Q. Okay. Were Exhibits 1 through 4 prepared by you or under your direction?

A. Yes, they were all prepared by myself.

Q. In your opinion, is the granting of this application in the interest of conservation, the prevention of waste and especially the protection of correlative rights?

A. Yes, that's true. Correct.

MR. BRUCE: Mr. Examiner, I move the admission of Exhibits 1 through 4.

EXAMINER CATANACH: Exhibits 1 through 4 will be admitted as evidence.

EXAMINATION

BY MR. CATANACH:

Q. Mr. Haden, let's go over the pool boundaries again, the West Atoka gas pool again, a little slower this time.

A. The West Atoka-Morrow gas pool includes the south half of Section 7, all of Section 8, Section 18, the west half of Section 19. The Atoka-Penn, in the immediate area, includes all of Sections 19--hold it.

Sections 9, 16, 20, 21, and the east half of Section 19, among other lands.

Q. East half of Section 19?

A. Right.

Q. Okay.

A. Section 17 is not dedicated to either pool, as there is no production.

Q. As I understand it, the Atoka-Pennsylvanian pool is a prorated gas pool?

A. Yes, that is correct.

Q. Mr. Haden, the Spencer Com. Well #1, how long has that been producing?

A. I believe since 1977. I believe that's correct. Our geologist or engineer will verify that.

Q. Has that well been in the Atoka-Pennsylvanian pool since that time?

A. Yes, it has. I might add that Yates Petroleum will be joining in the drilling and completion of this Gin #1 well. They own a small working interest.

EXAMINER CATANACH: For the record, Mr. Bruce, I feel compelled to read this letter into the record that the Division has indeed received from Allan M. Tonkin, Jr., and Nancy Tonkin, address in Albuquerque, New Mexico. We received this February 2,

1990, addressed to Michael Stogner.

"Dear Mr. Stogner: We are the owners of the northeast quarter of Section 17, Township 18 South, Range 26 East, Eddy County, New Mexico. We object to the granting of an unorthodox location for the drilling of a gas well as requested by Mewborne Oil Company in Case Number 9862.

"We feel this unorthodox location will cause drainage of our hydrocarbons located under our acreage," and it's signed Allan M. Tonkin and Nancy Tonkin.

That's all the questions I have of the witness at this time.

MR. BRUCE: I would next call David Overton to testify.

J. DAVID OVERTON

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

EXAMINATION

BY MR. BRUCE:

Q. Mr. Overton, would you please state your full name and your city of residence.

A. James David Overton. I reside in Midland, Texas.

Q. What is your occupation and who are you

employed by?

A. I'm a petroleum geologist employed by Mewbourne Oil for the last six years.

Q. Are you familiar with the geological matters involved in Case 9862?

A. Yes, sir, I am.

Q. Have you previously testified before the OCD as an expert petroleum geologist?

A. Yes, sir, I have.

MR. BRUCE: Mr. Examiner, are the witness's qualifications acceptable?

EXAMINER CATANACH: Yes, they are.

Q. Mr. Overton, please refer to your Exhibit 5 and discuss its contents for the Examiner.

A. Exhibit 5 is a combination structure contour with a Morrow, Lower Morrow "A" sand net porosity isopach. The structure in the area dips regionally to the southeast and really isn't significant to the prospect.

The channel sand colored in orange is the primary objective of this prospect. If you'll note, the well in the southwest of the northeast of Section 8 is productive out of this interval, with 12 foot of net porosity. And that is essentially the only one within a mile of our proposed location that has that

top porosity development out of this sand interval.

Q. Referring again to your exhibit, your interpretation shows that there is little, if any, of the Lower Morrow "A" reservoir underlying Section 17, is that correct?

A. That is true.

Q. So, in your opinion--

A. I don't believe this channel runs across them more than maybe just a piece of the corner there in the northeast.

Q. In your opinion, would there be any adverse effect for this reservoir as to the Tonkin interests in Section 17?

A. Very marginal, if any.

Q. Looking at this example or this exhibit, Mr. Overton, even though you may believe it's a good prospect, is there substantial geologic risk of hitting a well in this reservoir?

A. Yes, sir. In all Morrow prospects I feel like there's a substantial risk. The wells around in the area, outside of a few in the immediate area of our proposed location, have not been real strong producers.

Q. We'll get to this in your cross-sections shortly, but in your opinion, is this really strictly

a one-reservoir well? In other words, there's only one target reservoir or one potentially productive reservoir for this well?

A. Yes, sir, I believe that's true at this location.

Q. Would you then please move on to Exhibit 6, the A to A' cross-section, and discuss its contents?

A. Cross-section A to A' is an Atoka-Morrow stratigraphic cross-section trending down the trend of the map channel or interpreted channel that we have. That Lower Morrow "A" channel sand is colored in orange. It is not present in the well in the northwest of the southeast of Section 8, the Yates-Torrington.

You can see the development in the Yates-Chumbley as we come across. The Harvey E. Yates Dayton State in Section 16 has very little in it, the three foot that we've mapped, and it has also perf'd numerous other intervals of the hole, small porosity developments.

The last well in the cross-section is the standard of Texas-Martin in Section 15, which is the largest deposit of the sand in this interval that we had found.

Q. Now, the Yates-Chumbley well in the north

half of Section 8, what is its current producing rate, to the best of your knowledge?

A. To the best of my knowledge, which was May of 89 and is on one of the other exhibits, it was a million and a half a day.

Q. How long had it been producing at that time?

A. About a year and a half.

Q. Thank you. Let's move on to Exhibit 7, the B to B' cross-section.

A. The B to B' is, again, an Atoka Morrow stratigraphic cross-section covering the Chumbley into the Maddox, or Mewbourne now, Spencer Com. in Section 9, and the dry hole in the southeast of Section 9. The thing to note on it is that the Lower Morrow "A" channel sand has only a very thin two-foot remnant which is probably a flood stage deposit. We see that also in other wells in the area, but it's a non-productive remnant.

Q. The well in the southeast quarter of Section 9 is dry, is that correct?

A. Dry and abandoned. It tested a couple of porosity developments, and it was tight and nonproductive.

Q. Please move on to Exhibit 8 and discuss

pressures in this general area.

A. Exhibit 8 is the engineering committee reported pressure data which is shown on Exhibit 8, the shut-in pressure study, in part, to define the various reservoirs we see in the area.

If you will look at the pressures reported in the time frame 77 to 79, those pressures will define three distinct regimes of reservoir quality in the area. The one to the south that runs along the south tier of sections is also colored in red. There is a green trend to the west that was middle Morrow sands, and then the channel sand that we're looking for coming down from the northwest or the southeast.

Q. So the pressures found in the wells in, say, Sections 19 through 22, are quite a bit different from the pressures found in the Lower Morrow "A" reservoir which you have sketched out on Exhibit 5, is that correct?

A. Right. If you look at this 77 to 79 pattern, those pressures in 19 through 20 ran from a high of 640 to a low of about 193. That's distinctly different from the pressure we find in Section 15 for that period of about 1,000 pounds to 1,200, 1,100 to 1,200 pounds, which is distinct from the pressure that was found in the Yates-Chumbley when they originally

drilled it, of almost 2,800 pounds.

Q. So in effect what you're saying, Mr. Overton, is that the wells in the Lower Morrow "A" reservoir are producing from a different reservoir than the other wells in the Atoka-Penn pool?

A. Right.

Q. I would also point out, Mr. Overton, if I read your exhibit correctly, there are actually five pools in this area all producing from the Morrow, and it's kind of hard to tell one from the other, at least from the surface?

A. Right. Actually, on this map that we have here, the area covered, we have Eagle Creek Atoka Morrow East pool. We have the West Atoka-Morrow pool, we have the Kennedy Farms Morrow pool, Atoka-Penn Morrow pool.

Q. And the Eagle Creek Strawn, right?

A. And the Eagle Creek Strawn, right.

Q. Thank you. Please move on to the production study marked Exhibit 9.

A. The production study is current up through June of 89--

EXAMINER CATANACH: I don't seem to have Exhibit 9. Okay.

A. The production study is current up through

June of 89 for gas and March of 89 for oil. Each well's given cums for that time in both gas and oil. The significant thing on the map is in the immediate area around the proposed location, that Chumbley is the highest producing well, other wells being uneconomic at cumulative production of to approximately a quarter of a Bcf.

Q. And in particular, the wells in Sections 4, 5, 9 and 16 are all uneconomic?

A. Right.

Q. Mr. Overton, why, in your opinion, is the unorthodox well location necessary?

A. I feel like the unorthodox location gives Mewbourne an opportunity of encountering better than 10 foot of this Lower Morrow "A" channel sand, which I feel like is necessary to have a productive, economic well.

Q. Do you believe that not only the unorthodox well location but moving the proration unit to the unprorated pool is necessary to give your well a fair chance at competing against the Yates-Chumbley well in Section 8?

A. Yes, sir, I do. I believe that by allowing us to move it to the West Atoka-Morrow pool, we will have the advantage of the well's capabilities of

producing, setting its allowable, and not the arbitrary stipulations found in the prorated unit, and that would allow us to protect our correlative rights and to produce an equitable share of the reservoir and the gas found in that reservoir.

Q. Were Exhibits 5 through 9 prepared by you or under your direction?

A. Yes, sir, they were.

Q. In your opinion, is the granting of this application in the interest of conversation, the prevention of waste and the protection of correlative rights?

A. Yes, sir, it is.

MR. BRUCE: Mr. Examiner, I move the admission of Exhibits 5 through 9.

EXAMINER CATANACH: Exhibits 5 through 9 will be admitted as evidence.

EXAMINATION

BY MR. CATANACH:

Q. Mr. Overton, is it my understanding that the wells in the Atoka-Penn pool are all producing from the middle Morrow? Is that correct?

A. No, sir, they don't all produce from the middle Morrow. There are various reservoirs in that area which we can define by pressure. We've

interpreted this one to the south as being a barrier bar system, which wraps around and carries quite a large aerial extent to the east/northeast of this area. That has been a very prolific reservoir.

Q. So there are some wells in the Atoka-Penn pool producing from the Lower Morrow "A" channel sand?

A. Well, not the channel sand but the Lower Morrow sand equivalent with that "A" sand. It's not the channel sand.

Q. Is it connected?

A. No, sir, I believe the pressure data shows they aren't connected. They're isolated reservoirs. We're showing discontinuities from these pressures as we see, say, comparing Section 15 and Section 20 to the pressure in 1978. And those wells, those cannot be connected. When that pressure regime stays the same, carry them back across to the west of Section 22. I feel like we have a reservoir discontinuity which separates these two and creates two different reservoirs across those two sections--between those two sections.

Q. You're saying that--

A. You can see that again carried up into Section 10, the 77 pressure in Section 10 is about less than 50 percent of the 78 pressure in Section 15.

They're stratigraphically equivalent deposits, but I don't feel like they're the same reservoir.

Q. In the Division's nomenclature, there's no differentiation between different zones in the Morrow or, in fact, different zones in the Pennsylvanian, is that correct? It's all the same reservoir as far as the Division is concerned?

A. Right.

Q. What you're saying is, the Lower Morrow "A" channel is a distinct or should be classified as a distinct reservoir from the Atoka-Penn?

A. Right.

Q. Is that connected to the West Atoka-Morrow, in your opinion?

A. That Atoka channel?

Q. Right.

A. I believe that that deposit trends down through, across the boundary between the two pools that falls on that west line of Section 9, or Section 9 and Section 8 abut each other. I think that, yes, it does carry across that boundary of the two fields. But I think you would have to again isolate Section 8 from 15 currently because of the high pressure they've gotten after these wells in Section 15 have been there for several years. So you've got another

discontinuity in the reservoir, possibly coming across in Section 16.

Q. How many wells in the West Atoka-Morrow pool are actually producing from that Lower "A" channel sand?

A. The one well in Section 8, the Chumbley.

Q. Just the one well?

A. Right.

Q. As far as competing, that would be the only well you would be competing with to produce the reserves out of that channel, is that one section?

A. That's correct.

Q. The operator of that well is who, again?

A. Yates Petroleum.

Q. And Yates is a participant in your well?

A. Correct.

Q. And they've consented to the unorthodox location?

A. That's correct.

Q. I notice that on your cross-sections you do show some--an area. Let's go to this other one.

At the proposed well site there is some pay in the middle Morrow, is that correct, potential for pay?

A. There's a slight potential for that.

However, the production from the well that we're comparing that to hasn't been high enough to really be economic, to make anybody's money back on what they spent to drill the well.

Q. That zone will obviously be looked at?

A. It will obviously be looked at.

Q. Is that the same zone that's producing from the Atoka-Penn?

A. It's hard to say any of them are the same. The zones are producing in several of the fields. That well is listed in the Atoka-Penn field and it does produce from those zones. However, that's not one of the most prolific wells in the Atoka-Penn.

Q. The east half of Section 9 is potentially nonproductive, is that correct?

A. That's correct, in my opinion.

Q. Mr. Overton, do you have any idea why the Atoka-Penn is prorated, or when was that prorated? I can probably research that.

A. No, sir, I really don't.

MR. BRUCE: Mr. Examiner, we looked in the books yesterday but could not find the exact date.

Q. Is this a very old pool?

A. Yes, sir.

UNIDENTIFIED SPEAKER: The Atoka-Penn?

Probably about 58 or 59, about 320-acre spacing.

A. It was probably 58 or 59 when all these wells were drilled. If you'll look at your production map, it gives the years producing on most of those wells in the south, 23 to 29 years, 28 years up to 31 years.

Q. In your investigation, did you find any good producing wells remaining in that pool?

A. No, sir, not currently. They're all pretty well depleted. Not in the pool, total, but in the area that we're dealing with here. I can't say for the whole pool. I didn't research the whole pool. I researched what we're looking at in this map.

Q. Would you say in this general area that most of these wells are marginal or classified as marginal in the proration schedule, or--

A. I might leave that for the engineer. He'd have a better handle on it than I do.

Q. What's the current producing capability of your well in the west half of Section 9, do you know?

A. It would probably be 30 Mcf a day or so.

Q. As I understand it, Mewbourne will agree to plug that well if the proposed well should come in as a producer?

A. Yes, sir, we will.

Q. Are there any guidelines that you guys are going to have as to how much you need to be producing out of one well to plug the other well?

A. If we can make this one produce anything and run hot, we will plug the other well.

Q. What if it's less than 30 Mcf a day? Never mind. To be sure I have this clear in my mind, I understand that the Morrow "A" channel sand that you're going for and is producing in the well in Section 8, do you think that that's effectively isolated from the other wells?

A. Yes, sir, I do.

Q. Do you think there's any potential for any other wells to produce from that sand?

A. That are currently in it? or--

Q. Yes, or can be drilled?

A. Well, there's a possibility. In Section 16, the southeast quarter, the well there has been plugged but it probably had a little potential to produce out of that zone and was not perf'd in it. That was an old Marathon well, I believe, plugged in 69.

Q. And does the reservoir pressure you've shown along the well in Section 8, can you tell if that's virgin reservoir pressure?

A. I think our engineer may be able to testify to that better than I am. That was the pressure that was reported to the engineering--or through the engineering committee book as a surface shut-in pressure.

EXAMINER CATANACH: I believe that's all I have for right now, but I may have something else later on.

KELLY RYAN

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

EXAMINATION

BY MR. BRUCE:

Q. Would you please state your name and city of residence?

A. My name is Kelly Ryan; I live in Tyler, Texas.

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

A. I'm operations manager for Mewbourne Oil Company.

Q. Have you previously testified before the Division?

A. No, I have not.

Q. Would you please briefly discuss your education and employment background.

A. I obtained a B.S. in petroleum engineering from Oklahoma University and have worked for Mewbourne Oil Company for seven years, five in the field and two in Tyler in my present position.

Q. What do your areas of responsibility include?

A. Operations, in all three of our districts.

Q. As part of that, does that include calculating well economics and matters of that nature?

A. That's correct.

Q. Are you familiar with the engineering matters related to Case 9862?

A. Yes, sir, I am.

MR. BRUCE: Mr. Examiner, is the witness acceptable?

EXAMINER CATANACH: Yes, sir.

Q. Mr. Ryan, following up on some of the Examiner's last questions, would you refer to Exhibits 10A and 10B and discuss the pressures in the reservoir of interest?

A. These exhibits are area maps with the different colors denoting the different fields the wells are in. The orange wells are the Atoka-Morrow west, and the red is the Atoka-Penn. We have one map that shows initial or first-reported pressures. These

are either reported bottom-hole pressures or reported shut-in tubing pressures where I calculated a bottom-hole pressure.

You'll see to the southeast of Section 9 around 3,600 pounds, 3,650, is about as high as you get, and also to the southwest of Section 9. Current pressures, or the last-reported pressures before the well was plugged, to the southeast, range anywhere from less than 200 to 500, indicating severe drainage in that area, extensive drainage.

We have two wells in Section 8 that were put on production in 1988, that show close to 3,600 pounds. This area looks to be close or virgin pressure.

Q. What does that indicate to you regarding Section 8?

A. There's some type of barrier to the southwest and southeast that has prevented communication between the wells.

Q. Referring now to Exhibits 11 and 12, would you please discuss the areas drained by the wells which Mr. Overton has described as being within the Lower Morrow "A" channel sand?

A. The volumetric calculations were based on well data and production. The map is assuming a

homogeneous, almost blanket sand, where you've got radial drainage, which we know we don't have it here, but we're assuming that.

As you can see, there are several wells that will drain in very, very small areas. The two wells in 6 and 14 which will cum close to 20 Bcf together, are obviously going to drain a very, very large area. The Chumbley well in Section 8 will also drain a large area, approximately 722 acres, ultimately.

Q. Based on the drainage of the Chumbley well, do you believe that Mewbourne, number one, needs the unorthodox location, and, number two, needs relief from the restrictions of prorationing in order to drill a well which can effectively compete against the Chumbley well?

A. Yes, I do.

Q. Exhibit 12 is just the calculations upon which you transferred to Exhibit 11, is that correct?

A. That's correct.

Q. One thing on that well, the Dayton State well on the northwest quarter of Section 16, what is the current status of that well?

A. The last report I had, it was an inactive well. It made 258 million at that point, which would

give a drainage of about 56 acres. On this map I went ahead and I extended its production at a 10-percent decline from where it left off, to get what's shown on the map which is 112 acres, or 513 ultimately, which is being generous with it, assuming it would come back on at a very low rate.

Q. Have you reviewed production allowables in the Atoka-Penn pool for the year 1989?

A. Yes, I have.

Q. Referring to Exhibit 13, what was the average allowable in that pool for a nonmarginal well?

A. 7,833 Mcf per month.

Q. Roughly, what does that work out to per day?

A. About 257 Mcf.

Q. How many nonmarginal wells were in that pool?

A. There are only about two or three nonmarginal out of approximately 23.

Q. Would you please now move on to Exhibit 14 and discuss the area which will be drained by the Gin #1 well, if it's drilled and completed in the Atoka-Penn and assuming it is a top-allowable well?

A. What I've done is project the production from this point onward, assuming the Gin #1 is drilled

and connected, and the first production occurs in 6 of 90.

The first map labeled A would be for, again, radial drainage. Comparing the Gin #1 and the Chumbley, as you can see the two areas are not really in competition at that time. In 1 of 94, the Chumbley will have drained approximately 482 acres, the Gin #1 about 70 acres, and that's where the Gin #1 will start feeling effects from the Chumbley. That will be at the latest.

Q. In your opinion, could the Gin #1 well, if it's prorated, then compete with the Chumbley well?

A. No, it cannot.

Q. If the west half of Section 9 is not transferred to the unprorated pool, in your opinion will Mewbourne's correlative rights be adversely affected?

A. Yes, they will.

Q. If the Gin #1 well is prorated, and assuming it has a top allowable, approximately what amount of reserves would it recovery?

A. It would recover approximately 1.1 Bcf if it's in the prorated field.

Q. What would be the approximate payout period?

A. In excess of five years.

Q. Do these figures meet with Mewbourne's economic guidelines?

A. No, they do not. They fall short.

Q. Does the geological risk attendant to this well also affect your economic calculations, to some extent?

A. That's correct.

Q. Now, in your opinion, if the Gin #1 well is not prorated, will it adversely affect the correlative rights in the offsetting units, in particular the east half of Section 9, Section 16 and Section 17?

A. No, it will not. The only three interests or wells that it could possibly affect would be one well in Section 9, of which has virtually recovered all its going to, and the two Yates wells in Section 8, the Chumbley well which we would be competing with, and Section 16 in which Yates has offered no opposition.

Q. Have you also estimated areas of drainage based upon nonradial drainage?

A. Yes, I have.

Q. Is that shown graphically in Exhibits 15A and 15B?

A. Yes, it is.

Q. Would you discuss them briefly, please?
A. Assuming thge drainage is along the access of the channel of which you would expect there is good porosity and permeability, you can see at this point the Chumbley has drained approximately 300 acres, which is draining into Section 9 and is close to our proposed location. In 1 of 94, estimated drainage would be about 475 acres along that axis, which would go all the way in to Section 9.
Q. Does this nonradial drainage aggravate or accentuate the drainage of the west half of Section 9 by the Yates-Chumbley well?
A. Yes, it does.
Q. One final question, Mr. Ryan. To your knowledge, has any operator in the Atoka-Penn pool been having problems with any pipeline connections?
A. No, they're not.
Q. Were Exhibits 10A through 15B prepared by you or under your direction?
A. Yes, they were.
Q. In your opinion, is the granting of this application in the interests of conservation, the prevention of waste and, most importantly, the protection of correlative rights?
A. Yes, it is.

MR. BRUCE: Mr. Examiner, I move the admission of Exhibits 10A through 15B.

EXAMINER CATANACH: Exhibits 10A through 15B will be admitted as evidence.

EXAMINATION

BY MR. CATANACH:

Q. Mr. Ryan, as I understand it, the wells in Section 15 are producing from the same interval and have been producing for some time. Would you expect to see a pressure drop in Section 8 from those wells if they were connected?

A. Yes. With producing 20 Bcf, you're going to be draining a very, very large area.

Q. As far as you can tell, you have not seen any pressure drop, it's virtually reservoir pressure that's virgin pressure in Section 8?

A. That's correct. You see the well in Section 16, Dayton-Com. that was drilled in 82, and it had close to virgin pressure. You see the well in Section 16 in the southeast quarter, which is, I believe, an error in reporting. It shows 4,200 pounds bottom-hole, but I believe that is an error. You certainly don't see any drainage in it.

Q. So you believe that that Morrow Lower "A" channel in Sections 8 and 9 is effectively isolated

from anything else?

A. Yes. Either by the sand thinning out totally, or possibly by some permeability barrier.

EXAMINER CATANACH: I have no further questions of this witness. He may be excused.

MR. BRUCE: That's all I have, Mr. Examiner.

EXAMINER CATANACH: If I may get Mr. Overton back up here?

J. DAVID OVERTON

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

EXAMINATION

BY MR. CATANACH:

Q. Mr. Overton, in your examination, do you find any geologic evidence of a barrier?

A. Only from the pressure data.

Q. It was your testimony, I believe, that you needed at least 10 feet of net sand in the Morrow "A" to make an economic well?

A. Well, essentially the economic well in that area is the Chumbley at 12 feet. Three foot is not economic. The four foot in 16 was not tested. The other one producing out of that interval in Section 5

in the southwest quarter is uneconomic.

Q. At a standard location in Section 9, about approximately how many feet of sand would you encounter?

A. Approximately seven feet.

Q. It's your opinion that that would be an uneconomic well?

A. I don't believe that would be enough to really afford us a good opportunity. There's a lot of risk, I think, in a reservoir like this; and to drill it we should attempt to get the most we can get, drill it in the thickest section possible.

EXAMINER CATANACH: That's all I have. The witness may be excused. Anything further in this case? If not, Case 9862 will be taken under advisement.

I'm sorry. I meant to ask you, Mr. Bruce, to provide me a rough draft order for this case, specifically addressing some geological findings.

MR. BRUCE: Will do.

CERTIFICATE OF REPORTER

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

I, Carla Diane Rodriguez Certified Shorthand Reporter and Notary Public, HEREBY CERTIFY that the foregoing transcript of proceedings before the Oil Conservation Division was reported by me; that I caused my notes to be transcribed under my personal supervision; and that the foregoing is a true and accurate record of the proceedings.

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

WITNESS MY HAND AND SEAL February 20, 1990.

Carla Diane Rodriguez

CARLA DIANE RODRIGUEZ
CSR No. 91

My commission expires: May 25, 1991

I do hereby certify that the foregoing is a complete record of the proceedings in the Examiner hearing of Case No. 9762, heard by me on February 7 1990.

David R. Catanach, Examiner
Oil Conservation Division