STATE OF NEW MEXICO

ENERGY, MINERALS AND NATURAL RESOURCES DEPARTMENT

OIL CONSERVATION DIVISION

IN THE MATTER OF THE HEARING CALLED BY THE OIL CONSERVATION DIVISION FOR THE PURPOSE OF CONSIDERING:	)	CASE NO. 12,778
APPLICATION OF DEVON ENERGY PRODUCTION COMPANY, L.P. TO ABOLISH THE SPECIAL RULES AND REGULATIONS FOR THE BUFFALO VALLEY-PENNSYLVANIAN GAS POOL, CHAVES COUNTY, NEW MEXICO	)	

ORIGINAL

REPORTER'S TRANSCRIPT OF PROCEEDINGS

EXAMINER HEARING

BEFORE: DAVID R. CATANACH, Hearing Examiner

January 10th, 2002

Santa Fe, New Mexico

This matter came on for hearing before the New Mexico Oil Conservation Division, DAVID R. CATANACH, Hearing Examiner, on Thursday, January 10th, 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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I N D E X

January 10th, 2002
Examiner Hearing
CASE NO. 12,778

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E X H I B I T S

Applicant's	Identified	Admitted
Exhibit 1	6	8
Exhibit 2	7	8
Exhibit 3	8	8
Exhibit 4	11	14
Exhibit 5	12	14
Exhibit 6	13	14
Exhibit 7	19	22
Exhibit 8	20	22

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Yates	Identified	Admitted
Exhibit 1	26	30
Exhibit 2	27	30

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A P P E A R A N C E S

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By: WILLIAM F. CARR

* * *

WHEREUPON, the following proceedings were had at 8:22 a.m.:

EXAMINER CATANACH: At this time we'll call Case 12,778, the Application of Devon Energy Production Company, L.P. to abolish the special rules and regulations for the Buffalo Valley-Pennsylvanian Gas Pool, Chaves County, New Mexico.

Call for appearances in this case.

MR. BRUCE: Mr. Examiner, Jim Bruce of Santa Fe, representing the Applicant. I have three witnesses to be sworn.

MR. CARR: May it please the Examiner, William F. Carr with Holland and Hart, L.L.P., Santa Fe. We represent Yates Petroleum Corporation, and I have one witness.

EXAMINER CATANACH: Any additional appearances?

Can I get the four witnesses to please stand and be sworn in at this time?

(Thereupon, the witnesses were sworn.)

MEG MUHLINGHAUSE,

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

DIRECT EXAMINATION

BY MR. BRUCE:

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

A. Meg Muhlinghause, Oklahoma City, Oklahoma.

Q. Who do you work for?

A. Devon Energy Corporation.

Q. What is your job with Devon?

A. I'm a senior landman.

Q. Have you previously testified before the Division?

A. Yes.

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

A. Yes.

Q. And are you familiar with the land matters involved in this case?

A. Yes.

MR. BRUCE: Mr. Examiner, I tender Ms. Muhlinghause as an expert petroleum landman.

EXAMINER CATANACH: Ms. Muhlinghause is so qualified.

Q. (By Mr. Bruce) What does Devon Energy seek in this case?

A. Devon seeks to abolish the special rules for the Buffalo Valley-Pennsylvanian Gas Pool.

Q. What is Exhibit 1?

A. Exhibit 1 is a land plat outlining the pool. Also outlined on the map is the nearest Morrow gas pool,

which is the Diamond Mound-Morrow Gas Pool.

Q. What are the rules in the Buffalo Valley Pool?

A. Spacing is on 320 acres with wells to be in either the northwest quarter or the southeast quarter of the section, with one well per 320 acres. Also the wells can be no closer than 990 feet to a quarter-section line and no closer than 330 feet to a quarter-quarter section line.

Q. What are the rules in the Diamond Mound Pool?

A. That pool is on statewide spacing, which allows one well in each quarter section, with wells no closer than 660 feet to a quarter-section line. The --

Q. Is there -- Go ahead.

A. The Buffalo Valley rules are much more restrictive than the Diamond Mound rules.

Q. Is there any reason to have these different rules for these two pools?

A. No, and this will be discussed more in depth by our geologist and engineer.

Q. Does Exhibit 1 also identify the operators in the Buffalo Valley Pool?

A. Yes, and a listing of the operators is submitted as Exhibit 2. This list was obtained from the Division's records.

Q. Were the operators notified of this hearing?

A. Yes, and Exhibit 3 is an affidavit of notice.

Q. Have you heard from any of the other operators in this pool?

A. Yes, we have. Yates is here today in support of our Application. We've also heard from Louis Dreyfus, who is now Dominion, and they've informed us that they do not object. We also received a call from Jack Grynberg, and he has not objected.

Q. Were Exhibits 1 through 3 prepared by you or under your supervision or compiled from company business records?

A. Yes.

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

A. Yes.

MR. BRUCE: Mr. Examiner, I would move the admission of Devon's Exhibits 1 through 3.

EXAMINER CATANACH: Exhibits 1 through 3 will be admitted as evidence.

EXAMINATION

BY EXAMINER CATANACH:

Q. Ms. Muhlinghause, it appears that Read and Stevens owns considerable acreage in the pool. Have you had any contact with them?

A. We have not had any contact with them, but they have not objected. These pool rules were initially founded in the early 1960s by Cities Service and have just been in force for a really long time.

Q. I don't see on the map where you show Devon's acreage.

A. It is over -- We have some acreage over to the east, and it goes off the map. We were getting ready to drill a well in Section 1 and Section 22. If you look on this map it still shows Santa Fe Snyder. Devon bought Santa Fe -- or merged with Santa Fe Snyder. And we were trying to drill some wells that we were told were going to be subject to these field rules.

Q. And that is in Section -- I'm sorry, Section -- ?

A. -- 15 and 22 of 15-28.

Q. 15 and 22, okay. So it's outside the pool boundaries, but you were going to be subject to the pool rules?

A. Right.

Q. So the people that you notified of this case were all operators within the Buffalo Valley Pool?

A. Correct.

Q. Did you notify anybody outside the pool boundaries?

A. No, I don't believe we did. Many of the people

outside are the same operators. You've got Yates with a considerable amount of acreage to the east of this field.

Q. And it's your intent just to place the Buffalo Valley-Penn on statewide rules similar to the Diamond Mound?

A. Correct.

EXAMINER CATANACH: Okay, I have no further questions of this witness.

GAYLE RIGGS,

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

DIRECT EXAMINATION

BY MR. BRUCE:

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

A. My name is Gayle Riggs, Oklahoma City.

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

A. I'm a senior petroleum geologist for Devon Energy.

Q. Have you previously testified before the Division?

A. Yes, I have.

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

A. Yes, they were.

Q. And at Devon does your area of responsibility include this area of southeast New Mexico?

A. Yes, it does.

Q. And are you familiar with the geology involved in this Application?

A. Yes.

MR. BRUCE: Mr. Examiner, I'd tender my witness as an expert petroleum geologist.

EXAMINER CATANACH: Ms. Riggs is so qualified.

Q. (By Mr. Bruce) Would you identify Exhibit 4 for the Examiner and tell him what it shows?

A. Exhibit 4 is six-township-wide area covering Eddy and Chaves County. We have outlined Diamond Mound field in the red, Buffalo Valley in the blue, and have identified through *P.I. Dwight's* those wells that are in each field.

There are two cross-sections, a north-south that's identified in green and a west-to-east cross-section identified in purple.

Q. In looking at this map, to the north there's really no other Morrow completions in this area, is there?

A. That's correct.

Q. To the south there's quite a few?

A. Yes.

Q. Okay. Also, Mr. Examiner, I think just on your exhibit I've highlighted in yellow the wells that appear to

be unorthodox in the Buffalo Valley Pool by reason of being in the -- quote, unquote -- wrong quarter section. I haven't looked at that to determine what their footages are, but those would be unorthodox locations.

Let's move on to your cross-sections, Ms. Riggs, and start with Number 5, the north-south cross-section. Go ahead.

A. This cross-section I have constructed showing a north-south sequence of stratigraphy based on the top of the Atoka shale, through the Pennsylvanian-Atoka section and into the Pennsylvanian-Morrow. I've included the portion of logs that includes the Mississippian unconformity.

Also noted on this cross-section, the 8-percent porosity cutoff that we have identified for net pay, those are identified in red. The fourth log from the left, the density log was not legible. I used a resistivity log, but the perfs are noted as well.

The first two logs are in the Buffalo Valley field, and their perforations are equivalent to those that are identified to the south in the Diamond Mound logs.

Q. Now, the first two wells are in Buffalo Valley, and the other three are in the Morrow; is that correct? I mean in the Diamond Mound-Morrow field?

A. Yes.

Q. The Buffalo Valley Pool covers the entire Pennsylvanian; isn't that true?

A. Yes.

Q. But is the bulk of the production from the Morrow in the Buffalo Valley Pool?

A. Yes, it is.

Q. Okay, which would be similar to the wells to the south in the Diamond Mound-Morrow?

A. Yes.

Q. Okay. Why don't you move on to your Exhibit 6 and also discuss the contents of that for the Examiner?

A. Exhibit 6 is a stratigraphic cross-section I've constructed. It's a west-to-east correlation, using the same stratigraphic datum at the top of the Atoka shale, identifying the Pennsylvanian-Atoka-Morrow section, perforations, 8-percent porosity cutoffs as well, and into the Mississippian unconformity.

Q. Whether you're looking at a north-south cross-section or east-west, is there any way to distinguish geologically between these two pools?

A. No, there is not.

Q. They're producing from essentially the same intervals?

A. Yes.

Q. Now, you've mentioned that the bulk of the

production in the Buffalo Valley Pool does come from the Morrow. Is there some Atoka production?

A. Yes, there is.

Q. Is there a question as to the difference or the boundary between the Atoka or the Morrow?

A. It's an interpretive top.

Q. Okay. So what some people may call Atoka others may call Morrow?

A. Yes. My personal interpretation, I've marked the top of the Morrow carbonates as the sequence between the Atoka and the Morrow, but it is a very questionable top.

Q. Okay. But essentially the two pools are producing from the same zones?

A. Yes.

Q. Were Exhibits 4 through 6 prepared by you or under your supervision?

A. Yes, they were.

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

A. Yes.

MR. BRUCE: Mr. Examiner, I'd move the admission of Devon Exhibits 4, 5 and 6.

EXAMINER CATANACH: Exhibits 4, 5 and 6 will be admitted as evidence.

EXAMINATION

BY EXAMINER CATANACH:

Q. Ms. Riggs, it's your interpretation that these Morrow sands are continuous in a north-south direction and in an east-west direction?

A. Yes, the package of those aged rocks are in the same age-equivalent zones.

Q. Is it in fact the same sand that's --

A. That's not the same sand, but it is in the same sand packages.

Q. And I understand there is some Atoka production in the Buffalo Valley field, right?

A. Yes.

Q. Is there Atoka production south of the --

A. Yes --

Q. -- Buffalo Valley?

A. -- yes, in Diamond Mound there is as well.

Q. There is another Diamond Mound-Atoka Pool?

A. There are some Atoka sands that produce in the Diamond Mound.

Q. Diamond Mound-Atoka Pool? Is there -- I wonder if there's a Diamond Mound-Atoka --

A. It's not defined.

Q. I assume the Buffalo Valley-Penn Pool was -- Do you know when that was created?

A. To my knowledge, it was created when Cities Service discovered the field in 1962.

Q. 1962. Do you know why they may have put certain restrictions on well locations for quarter sections?

A. No, I do not.

Q. Is there any reason, in your opinion, to keep that restriction on this pool?

A. No.

Q. In terms of the well-location requirements, the setbacks for the Buffalo Valley-Penn are more restricted than the Diamond Mound. Do you see any need to keep the well-location restrictions?

A. No, I do not.

Q. 660 would be appropriate for the Buffalo Valley Pool, in your opinion?

A. Yes.

Q. It looks like Buffalo Valley has essentially been developed on two wells per section, it looks like, one well per 320. Do you have an opinion as to whether additional wells on these sections may improve recovery?

A. Part of that will be covered, I believe, under our engineering discussion. But considering the fact that these sands are discontinuous and are not one sand that's going through the field, I believe it's very underdeveloped because of the restriction.

Q. There's nothing geologically that would distinguish this from the Diamond Mound field to the south in terms of well density?

A. No, there's not. And as we develop these fields on lesser spacing, they are finding that the sands are not continuous with one another.

EXAMINER CATANACH: Okay, I have nothing further of this witness.

JAN GLASGOW,

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

DIRECT EXAMINATION

BY MR. BRUCE:

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

A. Jan Glasgow.

Q. Where do you reside?

A. In Guthrie, Oklahoma.

Q. Who do you work for?

A. Devon Energy Corporation.

Q. And what is your job with Devon?

A. I'm a senior reservoir engineer.

Q. Have you previously testified before the Division?

A. No, I haven't.

Q. Would you please summarize your educational and

employment background?

A. Yes, I graduated in 5 of 1987 from Texas Tech University with a bachelor of science degree in petroleum engineering.

From 5 of 1987 to 3 of 1995 I worked as a staff engineer for Cabot Oil and Gas Corporation, performing both operation and reservoir engineering duties. From 6 of 1995 to 6 of 1998 I was a contract consulting engineer for Southern International and performed a variety of multiple operation and reservoir-engineering duties. From 6 of 1998 up to present, I'm now with Devon Energy Corporation as a senior reservoir engineer.

Q. And does your area of responsibility at Devon include this portion of southeast New Mexico?

A. Yes, it does.

Q. And are you familiar with the engineering matters involved in this Application?

A. Yes.

MR. BRUCE: Mr. Examiner, I tender Ms. Glasgow as an expert reservoir engineer.

EXAMINER CATANACH: Ms. Glasgow is so qualified.

Q. (By Mr. Bruce) Ms. Glasgow, is it your opinion that the special rules for the Buffalo Valley Pool should be abolished?

A. Yes.

Q. Why is that?

A. From an engineering standpoint, there is no difference between the Buffalo Valley Pool and the adjoining Diamond Mound Pool, which is spaced on the statewide rules. They should be subject to both the same rules.

Q. What type of data did you review for this hearing?

A. I reviewed well logs, reservoir production data and production data available from the industry sources for both the Buffalo Valley field producers and the Diamond Mound field well producers.

Q. What is Exhibit 7?

A. This is the volumetric equation I used to determine the drainage area for the producers that I reviewed in the subject areas. I used the equation as listed. It's an industry-accepted volumetric equation where your recoverable gas is equal to 43,560 times your volume, times your porosity, times one minus your water saturation, and then you multiply that by your pressure at standard condition divided by your temperature at standard condition, times your gas deviation factor and temperature and pressure, the initial reservoir conditions, less the same gas deviation factor, temperature divided by your pressure at your abandonment, to come up with your

recoverable gas.

Q. Okay. Now, when you process this data, before we get to it, did the numbers regarding the production data and the drainage data for wells in both pools come out roughly equivalent?

A. Yes, they did.

Q. Let's move on to your Exhibit 8. And before we get into it, you list a number of wells here. Are these wells all of the wells that were on the cross-section that the geologist presented?

A. Yes, they were.

Q. Okay. Would you go through Exhibit 8 and discuss briefly what your calculations show regarding wells in both the Buffalo Valley Pool and the Diamond Mound Pool?

A. Okay, the first is a table with each of the wells listed that she has on her cross-section, and the initial reservoir pressure ranges between 2100 to 3500 p.s.i.a. Net pay ranges between 10 feet and 52 feet. Porosities range from 9-percent porosity up to 13-percent porosity. The yields are between .002 up to .009. The EUR ranges from .67 BCF all the way up to 3.4 BCF. Drainage area ranges from 95 acres up to 470 acres.

I found that they're very similar between the two producing Morrow intervals, between the Diamond Mound field and the Buffalo Valley field.

Q. So some wells are good and some wells aren't?

A. Correct.

Q. And down below, you have some basic information, but the pools appear to be roughly equivalent in size in the number of wells drilled in the pools; is that correct?

A. That's correct.

Q. And the ultimate recoveries from wells vary quite a bit, but they seem to be roughly equivalent in the types of wells that you can drill in these areas?

A. That's correct.

Q. Okay. But as far as just the productivity of the wells and the drainage area of wells in the pool, again, they are roughly equivalent?

A. Yes.

Q. Based on that, is there any engineering reason to distinguish between the two pools?

A. No.

Q. Does keeping the special rules in place for the Buffalo Valley Pool put operators in that pool at a disadvantage?

A. Yes, the restrictions on well locations may mean that wells are not placed at their optimum location for maximizing reserve recovery or that unorthodox locations must be obtained. This may place operators at a disadvantage, especially along the border between the two

pools.

Q. Were Exhibits 7 and 8 prepared by you or under your supervision?

A. Yes, they were.

Q. And in your opinion is the granting of this Application in the interest of conservation and the prevention of waste?

A. Yes.

MR. BRUCE: Mr. Examiner, I'd move the admission of Devon Exhibits 7 and 8.

EXAMINER CATANACH: Exhibits 7 and 8 will be admitted as evidence.

EXAMINATION

BY EXAMINER CATANACH:

Q. Ms. Glasgow, when you did the drainage areas for the Buffalo Pool, did you take into account the Atoka production in those wells also?

A. Yes, I did, any perforations that were shown to be producing within that wellbore.

Q. When you're comparing that to Diamond Mound, did that have any effect, do you think, on comparing it just to Morrow production in the Diamond Mound Pool?

A. No, I view that whole Penn section similar to the Atoka sand; it's just a higher sand development within that interval, and they perform similarly.

Q. The Morrow is, I take it, the predominant production interval in the Buffalo Valley Penn?

A. Yes.

Q. How did you determine which wells to calculate the drainage area on? Are these the only wells you did?

A. No, actually I did a cursory review of all of them, and then we went through and as she picked her wells for her cross-section, you know, to make the north-south wells as well as the east-west cross-section, then I just felt, well, here's a good set of examples right here, I'll just use that as my data set to present. But I did a quick look at all of them. And those are -- The drainage-area ranges that you see reflected there is from that study of all the producers.

Q. Okay. I notice where you had one that had 780 acres as a drainage area. Do you recall which well that was?

A. I have a map with me that I could go and find that, if you would like. I don't know -- I can't remember off the top of my head.

Q. I was just wondering what contributed that or what made that such a high productivity well. That's all right, you don't need to find it.

In your opinion, is there some potential in the Buffalo Valley-Penn for some infill drilling that might

increase recovery on those spacing units?

A. Yes, I do.

EXAMINER CATANACH: That's all we have of this witness, Mr. Bruce.

MR. BRUCE: Mr. Examiner, I have nothing further in this matter. In regards to one of your questions, in going through my notes, I believe that the Diamond Mound-Morrow Pool was actually originally called the Diamond Mound-Atoka-Morrow Pool, and then its name was later changed to just the Diamond Mound-Morrow Pool. I think there's a Diamond Mound-Atoka Pool, but I don't have that in my notes.

EXAMINER CATANACH: I think there is too, but I don't know where it's at, so...

Okay.

TIM MILLER,

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 name for the record, please?

A. My name is Tim Miller.

Q. Where do you reside?

A. I reside in Carlsbad, New Mexico.

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

A. Yates Petroleum Corporation.

Q. And what is your position with Yates?

A. Geologist.

Q. Have you previously testified before the Oil Conservation Division and had your credentials as an expert in petroleum geology accepted and made a matter of record?

A. Yes, I have.

Q. Are you familiar with the Application filed in this case on behalf of Devon Energy Production Company, L.P.?

A. Yes, I am.

Q. And are you familiar with the Buffalo Valley-Pennsylvanian Gas Pool?

A. Yes, I am.

Q. Have you reviewed the geological information available on this pool?

A. Yes, I have.

Q. And are you prepared to share the results of your work with the Examiner?

A. Yes, I am.

MR. CARR: Are Mr. Miller's qualifications acceptable?

EXAMINER CATANACH: They are.

Q. (By Mr. Carr) Would you first state for the Examiner what it is that Yates Petroleum seeks in this

case?

A. Yates Petroleum Corporation seeks the abolishment of the special pool rules and regulations for the Buffalo Valley-Pennsylvanian Gas Pool, and we support the Application of Devon in this case.

Q. Have you prepared exhibits for presentation here today?

A. Yes, I have.

Q. Let's go to what has been marked as Yates Petroleum Corporation Exhibit Number 1, and I'd ask you to identify that and review it for Mr. Catanach.

A. Okay, the exhibit that's marked Number 1 is a gross isopach from the top of what Yates in-house has called the top of the Morrow clastics, or the top of where the Morrow sandstone starts, to the top of the Austin cycle, which in a lot of people's minds would be the top of the Mississippian. And what I've prepared is, like I said, a gross isopach map. I've shown Devon's well where they would like to drill it in the southwest quarter of Section 15.

And basically what this map is trying to show, anywhere you have a thick would be in a low area, which would be in the valleys. Anywhere you have a thin would essentially be on the highs. And generally, the trend is flowing from the northwest to the southeast. And in

several sections, as in Section 16, which is west of Devon's Stock Tank 15 Federal Number 1, the proposed well, the sand actually is coming -- or the thick is actually coming in from the southwest to the northeast.

To the north of Section 16, in Section 9, it is coming down from the northwest to the southeast, as you see up in Section 5 where you have 64 feet in that well in the northwest quarter. As you come down towards the southeast in Section 8, which there's a well in the southeast quarter it's 77 gross feet.

Then we recently have drilled a well with Yates Petroleum, and I do not have the gross footage on here. There's a well called our Chester in the southwest quarter of Section 9, which basically had around 180 feet.

So most of these sands -- some of them generally trend northwest-southeast for the thicks, and to the west, the southwest to the northeast in certain aspects.

Q. All right, let's go to Yates Exhibit Number 2. Identify and review that.

A. What this is, this is a gross isopach of a combination of a Morrow sand package which was picked on gamma-ray units greater than or equal to 50, which means a clean gamma-ray.

And once again, where the thickest sands are in certain parts of the sections come in in the southwest

quarter. As you can see up there in Section 8, you have a thicker sand package in the southwest quarter, which the present field rules do not allow you to go and try to test.

Down in Section 17, there was a well drilled in the southwest quarter of Section 17. I think there was an old -- I can't remember if it was a Cities well, but I think now it was operated by Louis Dreyfus. That well is in the southwest quarter, and I guess they would have had to have gone to an unorthodox hearing for that. But generally depicting once again where Devon wants to drill their well, I show that a thicker part of the sand, it would be more advantageous to try to drill for it in the southwest quarter of the section than if you would go by the present rules in the northwest or the southeast quarter of the section.

Basically, if you look at the two maps, this map and the exhibit before, the thicker part of the Morrow sandstone packages sort of align with where the lows are through the thicker sand packages, as opposed to where the thinner gross isopach or the top of the Morrow clastics to the Austin cycle, you have a thinner section of sand.

And that is kind of depicted up in Section 5 and in Section 6. On the gross isopach or Morrow sandstones, you have basically very, very thin sand package. And if you look over on the gross isopach and top of the Morrow

clastics to the top of the Austin cycle, once again you see a thin isopach of that interval, only around 50 feet, 50 to, say, about 70 feet.

So once again, I feel that to properly try to explore for the Atoka and the Morrow sands out there -- and there are several sands, like Devon has said before. You just do not have one sand mapped out there, you maybe have two, three or four before you go into the Mississippian. And some of the sands are -- or the better part of the sands to try to drill for would be in the southwest parts of the section, in some of the sections.

Q. In your opinion, would rescission of the current special pool rules for the Buffalo Valley-Pennsylvanian Gas Pool provide operators with necessary flexibility to best develop the remaining reserves in this pool?

A. No, it wouldn't.

Q. The existing rules?

A. The existing rules will not.

Q. And going to statewide rules would provide that flexibility?

A. Yes, it would.

Q. Do you know of any reason to keep the current restrictions which provide for wells to be drilled in the northwest or southeast quarters of the section?

A. No, I don't.

Q. In your opinion, would further development under statewide rules which provide for setbacks of 660 feet from the boundary of the quarter section be appropriate?

A. Yes, they would.

Q. Were Yates Exhibits 1 and 2 prepared by you?

A. Yes, they were.

MR. CARR: We move the admission into evidence of Yates Exhibits 1 and 2.

EXAMINER CATANACH: Yates Exhibits 1 and 2 will be admitted as evidence.

MR. CARR: And that concludes my direct examination of Mr. Miller.

EXAMINATION

BY EXAMINER CATANACH:

Q. Mr. Miller, geologically is there any reason why these pools are distinct or why they should be separate?

A. You mean between Buffalo Valley and Diamond?

Q. Right.

A. No, I don't think so. They're all the same. When you're correlating them you all have the same sand package, and I don't see why they would be separate or should be separate.

Q. I guess probably the way these pools were developed is why they ended up being two separate pools, is my guess.

A. I really don't know. I've always wondered why. To me it seems like -- geologically, of course, like Devon has stated, it was Cities Service that I guess originated the pools in the early 1960s. And at that time none -- very few of these wells, what's on the maps you see in front of you, were there. So at that time I guess Cities just thought that was the best way to develop it. But they didn't have hardly information.

Now, we have more of the information because there's been more wells drilled, and it shows, at least on the maps that Yates is presenting, that you have better possibilities to drill, say, in the southwest quarter of the sections, or maybe in the northeast quarter of the sections, certain spots.

Q. Now, does Yates have any plans at the current time to increase the well density in any of their proration units in this pool?

A. We have plans, and of course the way gas prices are right now, those have been put on hold. But we conceivably might want to try a location in the southwest quarter of Section 8, because we have that section under lease, and maybe possibly the southwest quarter of Section 4. I mean, that's our ideas. We haven't gone to the point of actually applying for a permit or anything like that yet.

Q. So it's your opinion that there are some reserves to be recovered by additional drilling?

A. Yes, there are, because you can -- you might have -- you may have a real good sand in one well, and in the -- in Section 8, for example, that well is in the southeast quarter. And as you move over to the southwest quarter to drill a well, that separate sand may not be there, and you might stumble into another sand totally different, better.

Q. So you're of the same opinion as Devon, that these sands are fairly discontinuous?

A. Right, yes.

EXAMINER CATANACH: Okay, I have nothing further.

MR. CARR: That's all we have.

EXAMINER CATANACH: Okay, there being nothing further in this case, Case 12,778 will be taken under advisement.

(Thereupon, these proceedings were concluded at 8:59 a.m.)

* * *

I hereby certify that the foregoing is a complete record of the proceedings in the Examiner hearing of Case No. 12778, heard by me on January 10 2002.

David R. Catanach, 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 January 12th, 2002.

STEVEN T. BRENNER
CCR No. 7

My commission expires: October 14, 2002