NEW MEXICO OIL CONSERVATION DIVISION

STATE LAND OFFICE BUILDING

STATE OF NEW MEXICO

CASE NO. 10543

IN THE MATTER OF:

The Application of Yates Petroleum Corporation for an Unorthodox Gas Well Location and Simultaneous Dedication, Eddy County, New Mexico

BEFORE:

DAVID R. CATANACH

Hearing Examiner

State Land Office Building

September 17, 1992

REPORTED BY:

CARLA DIANE RODRIGUEZ
Certified Shorthand Reporter
for the State of New Mexico

ORIGINAL

A P P E A R A N C E S

FOR THE NEW MEXICO OIL CONSERVATION DIVISION:

ROBERT G. STOVALL, ESQ.
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FOR THE APPLICANT:

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BY: **DAVID R. VANDIVER, ESQ.**

FOR KAISER-FRANCIS OIL COMPANY:

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BY: **WILLIAM F. CARR, ESQ.**

I N D E X

E X H I B I T S

EXAMINER CATANACH: At this time we'll call Case 10543.

MR. STOVALL: Application of Yates Petroleum Corporation for an unorthodox gas well location and simultaneous dedication, Eddy County, New Mexico.

EXAMINER CATANACH: Are there appearances in this case?

MR. VANDIVER: Mr. Examiner, my name is David Vandiver of the Artesia firm of Fisk & Vandiver, appearing on behalf of the Applicant, Yates Petroleum Corporation.

I have three witnesses in this case, two of whom were sworn in the previous case.

EXAMINER CATANACH: Are there additional appearances in the case?

MR. CARR: May it please the Examiner, my name is William F. Carr with the Santa Fe law firm Campbell, Carr, Berge and Sheridan. I would like to enter an appearance in this case on behalf of Kaiser-Francis Oil Company. I do not intend to call a witness.

[The witnesses were duly sworn.]

MR. VANDIVER: May I proceed, Mr. Examiner?

EXAMINER CATANACH: Yes.

ROBERT BULLOCK

Having been first duly sworn upon his oath, was examined and testified as follows:

EXAMINATION

BY MR. VANDIVER:

Q. Please state your name, your occupation and by whom you're employed.

A. My name is Robert Bullock and I'm employed as a petroleum landman by Yates Petroleum Corporation in Artesia.

Q. You testified in the previous case and have testified numerous times before the Oil Conservation Division?

A. Yes.

Q. And had your qualifications accepted and made a matter of record?

A. Yes.

Q. Are you familiar with the title to the land within the area of Yates' proposed well in this case?

A. Yes.

MR. VANDIVER: Is the witness qualified, Mr. Examiner?

EXAMINER CATANACH: Yes, sir.

Q. Mr. Bullock, what briefly is Yates seeking in Case No. 10543?

A. Yates is seeking an unorthodox gas well location and simultaneous dedication. We would like to propose the location of the well 660 feet from the north and east lines of Section 2, in Township 19 South, Range 24 East.

Q. What is the objective formation you seek to test?

A. The objective formation is the Morrow formation.

Q. What's the standard well spacing and acreage dedication for such a well?

A. The standard would be a 320, and we would like to dedicate the north half of Section 2 for the drilling of this well.

Q. What would the well location requirements be?

A. It would be 1980 from the end line, 660 from the sideline.

Q. If I could ask you to refer to Applicant's Exhibit 1, I would ask you to identify that, please.

A. Exhibit 1 is a land plat showing our proposed location in Section 2. It shows the

offset lease operators in Section 1 of 19-24, and Sections 35 and 36 to the township just to the north.

Q. Is Yates' Irish Hills No. 2 well, State No. 2 well, shown on that map?

A. Yes, it is. It's shown in the location of 1980 from the east and north in Section 2.

Q. In Unit G?

A. That's correct.

Q. Who is the operator of the spacing unit to the north of your proposed location?

A. I believe it's Sun Operating.

Q. Does Yates operate the north half of Section 1?

A. Yes, they do.

Q. And Murchison Oil & Gas operates Section 36?

A. I think Section 36 is, in fact, operated now by Pennzoil. That interest has succeeded to Pennzoil.

Q. I see. And, if I could ask you to refer to the Applicant's Exhibit 2 and describe what that is, please? Or, I'm sorry, Exhibits 2 and 3.

A. Exhibits 2 and 3 are the affidavit of

mailing required to notify the offset leasehold operators, and Exhibit 3 is the return receipts.

Q. What is that? Exhibit 3 is another affidavit?

A. Okay. Exhibit 3 was the amended affidavit. I don't have that in front of me. It was the amended affidavit sent to Meridian Oil and Oryx Energy Company reflecting the correct addresses. The first affidavit did not--they did not receive the affidavit of mailing, so we corrected that.

Q. Were Exhibits 1 through 3 prepared by you or under your direction?

A. Yes.

Q. The well to the north, the Sun well, do you know what formation that's producing from?

A. No, I don't.

MR. VANDIVER: Mr. Examiner, I would move the admission of Applicant's Exhibits 1 through 3, and that concludes my direct examination of this witness.

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

EXAMINATION

BY EXAMINER CATANACH:

Q. Mr. Bullock, in Section 1, is Yates the 100-percent working interest owner in that north half?

A. I'm not sure about 100 percent. We do operate the lease. I don't know the exact ownership of Section 1.

Q. Up in Section 36, you said Pennzoil may be the operator of that acreage now?

A. That's my understanding, through a takeoff on the state records, Pennzoil purchased that Murchison interest in Section 36. That's what I was told.

Q. But you did notify both parties just in case?

A. Both parties have been notified.

EXAMINER CATANACH: I believe that's all I have. The witness may be excused.

D'NESE FLY

Having been first duly sworn upon her oath, was examined and testified as follows:

EXAMINATION

BY MR. VANDIVER:

Q. Please state your name, your occupation and by whom you're employed.

A. My name is D'Nese Fly, and I'm a

geologist with Yates Petroleum Corporation in Artesia, New Mexico.

Q. Ms. Fly, you previously testified before the Oil Conservation Division this morning and on numerous other occasions in the past as a petroleum geologist, had your qualifications as such accepted, and your qualifications are a matter of record?

A. Yes.

Q. Have you made a study, a geological study of the area of the proposed well in Case No. 10543?

A. Yes, I have.

Q. And have you prepared certain exhibits to illustrate the geology in this area?

A. Yes, I have.

MR. VANDIVER: Mr. Examiner, is the witness qualified?

EXAMINER CATANACH: She is.

Q. Ms. Fly, what's the primary formation you seek to test for the Yates Irish Hills KW State No. 3 well?

A. We are drilling this to encounter the Morrow clastics as our main objective.

Q. Are there any other formations you

would propose to test?

A. There's a possibility that we may encounter the Cisco bank that produces in the Irish Hills No. 2.

Q. And the Irish Hills No. 2 is currently producing?

A. Yes, it is.

Q. That's located in Unit G of Section 2?

A. Yes.

Q. When was that well completed?

A. It was completed in, I believe, 1980. Let me check here. 1981.

Q. Ms. Fly, if I could ask you to refer to the Applicant's Exhibit No. 4 in this case and ask you to identify that exhibit?

A. Okay. Exhibit No. 4 is my combined structure and sand isopach map. The solid lines are the isopach contour showing the varying thickness in the clean Morrow sands.

Here I've defined clean as anything less than 50 gamma ray API units, and the contour interval is 10 feet. The dotted lines show the structural contours on top of the Morrow clastics, and this contour interval is 100 feet.

Q. Was the proposed location chosen to

encounter the maximum amount of clean Morrow sand within the spacing unit?

A. Yes. I feel like we'll probably, in this area, encounter approximately 40 feet of the Morrow sands.

Q. Did the Irish Hills KW State No. 2, was it taken to the Morrow, or do you know?

A. Yes, it was, and we only encountered two feet of sands.

Q. The well in the southeast quarter of Section 35 shown on your map, the Tempo Penasco Draw well, how many feet of sand did that encounter?

A. They encountered 25 feet of sand. And that can be seen on my cross-section in the next exhibit.

Q. And then these wells in Section 36 encountered how much sand to the northeast?

A. The one in the southwest quarter encountered 31 feet of sands, and the one in the southeast quarter encountered 60 feet of sands.

Q. Did you also study the amount of sand that you anticipated would be encountered at orthodox locations in this spacing unit?

A. Yes. In Unit C and Unit F, which would

be the other two orthodox locations in here, we would encounter less than 10 feet of sand, probably similar to the Irish Hills State No. 2.

Q. That was in Units C and F?

A. Yes.

Q. And what about in Unit B?

A. In Unit B we could also encounter sands, but I feel as though it would be, oh, possibly, 10 feet or less also.

Q. What about the location to the south, 660 from the east and 1980 from the north?

A. That would also be an unorthodox location, and it would encounter less sands than the unorthodox location that I have picked in the northwest quarter--excuse me, the northeast quarter.

Q. And does the amount of clean Morrow sand enhance the possibility of completing a commercial well?

A. Yes.

Q. And would it increase the amount of gas you would be likely to recover?

A. Yes.

Q. Is there anything further with regard to Exhibit 4?

A. No. That's all I have.

Q. If I could refer you to Applicant's Exhibit 5 and ask you to describe what that is, please, to identify that exhibit?

A. Okay. Exhibit No. 5 is the north/south stratigraphic cross-section which was shown on the previous exhibit, and it's hung on the Atoka.

The cross-section shows the pertinent correlations and the manner in which the sand was counted for the isopach map by the yellow coloring in that Tempo well that's in the center of the cross-section. I'm showing here how the sand pinches out rapidly.

Q. Anything further with regard to that exhibit?

A. No, sir.

Q. And then if you would move to Applicant's Exhibit 6 and describe that exhibit?

A. This has to do with the simultaneous dedication portion of this. This is a combined structure map and facies map.

The solid contours show the structural configuration on the top of the Cisco marker that I mapped in 25-foot contour intervals. The Cisco

marker overlies the potential reservoir bank facies by about 100 feet. And, as seen here, it dips regionally to the east with a very slight nosing in Section 2.

The map displays a potentially gas-productive bank facies to the left of the pink line there, and the basin-fill facies which tends to be more shales than sands encountered in the eastern portion of the map.

Also, the dotted line on this map shows where I have encountered porosity within my carbonate bank, and it's in this area where we have the possibility of getting production from the Cisco. The wells to the west of the green perforated line there are very tight in the carbonate bank. The bank is present but it's tight.

Q. Are there any other wells producing gas from the Cisco in the area shown on this map?

A. The Irish Hills KW No. 2 is the only one that produces. There are--I've kind of evaluated the other wells in this section that have either good potential or marginal potential for production, but as of now the Irish Hills No. 2, in Unit G of Section 2, is the only one that

does produce from this interval.

Q. What's the cumulative gas production from the Irish Hills No. 2?

A. It's made about 300 million cubic feet as of the end of August.

Q. And that's since 1981?

A. Yes, I think that's what I said, that that was completed in 81.

Q. And what's its current producing rate?

A. It makes about 100,000 cubic feet of gas a day.

Q. In your opinion, is the proposed location the best available location for completion of a commercial Cisco well in this spacing unit?

A. Well, since that's not our main objective, that's not really why this location is being proposed here. There is a possibility that we can encounter this carbonate bank with the porosity zone, but, as you can see, it sits right close to the basin-fill facies, so there is a possibility that we may not even encounter it.

Q. All right. Anything further with regard to Exhibit 6?

A. No, sir.

Q. If you would move on to Exhibit 7 and identify that exhibit, please.

A. Exhibit 7 is just an excerpt from a porosity log of the Yates Irish Hills KW State No. 2 well in Unit G of Section 2. It shows the Cisco marker that I referred to that I made my map off of. It also shows the bank facies that we encounter.

And then I have also put on this exhibit the porous bank facies which makes the well commercial in this bank.

Q. If I could go back for a moment to the Morrow, I don't recall whether I asked you whether you know when the, I guess it's the Sun well shown on your maps as "Tempo" in the southeast quarter of Section 35, do you know when that well was drilled?

A. Yes. Well, I know when it was completed. It was completed in August of 88.

Q. Do you know the cumulative production of that well?

A. In the Morrow, I have that it's cum'd Bcf, 43 barrels of condensate and 15 barrels of water. That may be an approximation. That would be as of December of 91, is where I looked these

cum's up.

Q. And what about the Yates well in the northwest quarter of Section 6, SRC KZ No. 6?

A. In Section 1?

Q. Yes.

A. It was drilled in April of 1980 in the Morrow and has made six million cubic feet. It was recompleted at the end of the year of 80 into the Strawn--I'm sorry, into the canyon of the Strawn, and has made 10 MBO and 2 Bcf.

Q. Based upon your study of this area and your analysis of the geology, is it your opinion that the proposed location is the best available location for a Morrow test in this spacing unit?

A. Yes.

Q. And the Cisco is a secondary formation you might seek to test?

A. That is correct.

Q. In your opinion, would the granting of Yates' application in this case be in the interest of conservation, the prevention of waste and the protection of Yates' correlative rights?

A. Yes.

MR. VANDIVER: Mr. Examiner, I would move the admission of Applicant's Exhibit 4

through 7. And that concludes my examination of this witness.

EXAMINER CATANACH: Exhibits 4 through 7 will be admitted as evidence.

EXAMINATION

BY EXAMINER CATANACH:

Q. Ms. Fly, does the structure have anything to do with picking a location in the Morrow formation in this area?

A. No. I just put the structure on here to show the regional dip. We're up out of the water in this area so we're not very concerned with the structure of the sands. We're more concerned with the thickness of them.

Q. Your Exhibit No. 4 shows several Morrow wells that have been completed and are apparently producing with 10 feet of sand or between 10 and 20 feet of sand. When you encounter a thicker sand in the Morrow, does it usually give you a better producer, in terms of producing rate?

A. It has higher reserves usually within it, say, larger reservoir basically that you're encountering. You're encountering the main thickness of the reservoir.

Q. So it's possible that you could

complete a producing well at a standard location within Section 2, but probably wouldn't recover as much reserves?

A. That's right. And you're getting on the flank, and there's a possibility--on this map I'm showing possibly 15 feet or so in Unit B, and there's the possibility we could even get down to two feet like we have there in the Irish Hills No. 2. It's hard to map the edge until you see it.

Q. The Irish Hills No. 2 was nonproductive in the Morrow?

A. Correct.

Q. Now, that's not a sand that produces in the Cisco?

A. No, it's a limestone carbonate bank.

Q. Is it likely that you'll encounter production in the Cisco with your proposed location?

A. There is that possibility. We are close to the edge. But I feel like there's a good chance that we will encounter it. If we do encounter this bank, then there is a very good chance that it will have the porosity zone seen in the No. 2 well, the Irish Hills No. 2.

Q. The "edge" being the facies on the eastern portion of Section 2?

A. Right.

EXAMINER CATANACH: That's all I have of the witness. She may be excused.

DAVID FRANCIS BONEAU, Ph.D.

Having been first duly sworn upon his oath, was examined and testified as follows:

EXAMINATION

BY MR. VANDIVER:

Q. Please state your name, your occupation and by whom you're employed.

A. My name is David Francis Boneau. I work as a reservoir engineering supervisor for Yates Petroleum in Artesia, New Mexico.

Q. Have you previously testified before the New Mexico Oil Conservation Division in your capacity as a reservoir engineer, had your qualifications as such accepted and made a matter of record?

A. Yes, sir.

Q. Have you made a study of the reservoir, the Cisco reservoir, in the area of Yates' proposed Irish Hills KW State No. 3 well for the purpose of testifying with regard to the

simultaneous dedication aspect of Yates' application?

A. Yes, I have done that.

Q. And have you prepared certain exhibits to illustrate your study?

A. Yes, sir.

MR. VANDIVER: Mr. Examiner, I would tender the witness as an expert reservoir engineer.

EXAMINER CATANACH: The witness is so qualified.

Q. Dr. Boneau, what have you done in studying the reservoir in this spacing unit?

A. Well, I think everybody realizes by now what we have is a good Morrow producer to the north. That Tempo well has cum'd almost 2 Bcf now. Yates has about three-quarters to 1 Bcf of gas in the Morrow in that northeast quarter, according to my calculations, so we want to drill a Morrow test at the unorthodox location described.

If all our engineering and geology turns out to be wrong, the backup zone is this Cisco that appears in the KW No. 2 well. So we already have a deep well in the north half that

produces from what we call Cisco, what the Commission calls Permo-Penn, and actually the well that's already there is in the same 160 as the well we propose to drill.

So we are presenting some evidence why, if the KW 3 ends up in the Cisco, the Commission might allow us to produce both of those Cisco wells. And to that end I have prepared three exhibits, the first of which is Exhibit No. 8. Are we ready to discuss that?

Q. Yes. Would you identify Exhibit No. 8?

A. Exhibit No. 8 shows the production history, month by month, of the Irish Hills KW State No. 2. It produces from the Penasco Draw Permo-Penn. It has been producing since early 1981.

Its initial production rate was about 250 Mcf a day and it declined relatively rapidly to the area of 100 Mcf a day, and it's stayed in that area ever since. The gas market in the 85, 86, 87, 88 time frame was terrible and the well was shut in voluntarily a lot of that time, but when the well produces, it produces about 100 Mcf a day. The cum on Exhibit 8 is through the end

of July, 298 million cubic feet of gas.

My estimate of the future production of the well is shown by the seven percent per year decline rate, and the well should produce until about the year 2000 with an ultimate production of 447 million cubic feet of gas.

This Permo-Penn-Cisco field is a designated tight sand reservoir under the NGPA of 1978, and evidence was presented before this Commission in 1981, I believe, by Mr. Beck and myself, that resulted in that designation.

Anyway, this is a tight reservoir. The geologist is talking about there's good porosity in the Cisco, but the permeability that I've calculated in this KW No. 2 well is .015 millidarcies. It's low, tight stuff. I believe that's pretty much the story on Exhibit 8.

Q. Would you identify Exhibit 9 and explain what you're showing in that exhibit?

A. Exhibit 9 is two pieces of paper. The purpose of Exhibit 9 is to calculate a drainage area for Irish Hills KW State No. 2 well. The results are shown at the bottom of the first page.

To date, the well's produced 298

million cubic feet and has a drainage area of 51 acres, as shown at the bottom of the first page of that exhibit. The ultimate production of 447 million cubic feet per day will drain 77 acres.

The rest of the numbers on there are details and supporting information to show how that calculation was done. Unless the Examiner wants to, I would propose not to really go through those details.

Q. And then if you would identify Exhibit 10, I would ask what that is intended to depict?

A. Exhibit No. 10 is a little picture of Section 2 showing, pictorially, the drainage areas of the Irish Hills KW No. 2. There's a smaller circle with an area of 51 acres and a larger circle of 77 acres showing the ultimate drainage area of that well.

The purpose of the exhibit is to show that the proposed KW No. 3 location is undrained, and if the KW No. 3 well is the same kind of Cisco well, there will be little or no overlap between the drainage areas of the two wells. In fact, it will take four or five wells like that to drain the 320 acres in some kind of a zigzag pattern.

I know the Commission doesn't like to simultaneously dedicate wells, so we are trying to give them a reason where they could do that.

Q. What do you propose the Division would provide with regard to the simultaneous dedication in the order in this case?

A. Well, the KW No. 3 is located at the edge of the Cisco, so I expect it to be the same kind of well as the KW No. 2, a relatively marginal Cisco producer.

I would hope if that's the case, the Commission could allow both those wells to produce, since they will not drain the same acreage.

There is a possibility that when we plug back to the Cisco we get a better producer at the KW No. 3 location, and I would propose that if the KW No. 3 turns out to be a good Cisco well, we should be forced to shut in the KW No. 2.

Personally, I would write the order something like a combined production up to like 500 Mcf per day would be okay, but above that the wells would have to be shut in, and see what kind of reception something like that gets. If we get

two mediocre wells, we're not going to be draining anybody outside the 320 or even overlapping the drainage of the two wells.

Q. Anything further with regard to Exhibit 10?

A. No, sir.

Q. Were Exhibits 8, 9 and 10 prepared by you or under your direction and supervision?

A. Yes, sir.

MR. VANDIVER: Mr. Examiner, I would move the admission of Applicant's Exhibits 8, 9 and 10 in this case, and that concludes my direct examination of this witness.

EXAMINER CATANACH: Exhibits 8, 9 and 10 will be admitted as evidence.

EXAMINATION

BY EXAMINER CATANACH:

Q. Dr. Boneau, is there any offset Cisco production to the east in Section 1?

A. No. There's a Permo-Penn well in Section 1, the SRC No. 6, I believe it is. That produces from what the Commission calls the Permo-Penn. And this is also the Permo-Penn. But the well in Section 1 produces from a canyon zone about a thousand foot deeper, so it's really

not at all the same zone. That's the only Permo-Penn producer within two or three miles.

Q. Looking at the geology in the Cisco formation, do you think there's any potential for production from the Cisco in either Section 1 or Section 36?

A. I don't think there's potential for good Cisco production. You may get a 50-Mcf-a-day well kind of out there, but no, you're not going to get a real keeper out there.

Q. Does that hold true for Section 35 as well, in your opinion?

A. No. There's a chance of getting a decent Cisco well in Section 35. The obvious question is, what does the Cisco look like in the Tempo Penasco No. 1 well, and the answer is, they didn't log the Cisco and the Tempo Penasco No. 1 well, so I don't know the answer to that.

You realize this Irish Hills No. 2 well in 1981, making 300 million gas at $4 gas was a reasonable undertaking, but $1.50 gas is not a reasonable undertaking.

Q. If you do get good production from the Morrow as well as the Cisco, would Yates contemplate dual completion of the well?

A. No, I don't think so. We might think about it. We're not going to do it. It's the difference between contemplating and doing it. I don't know what we're contemplating, but we're not going to do it. We would produce the Morrow until the Morrow is gone.

Q. You would produce the Morrow first?

A. First, yes, sir. Yes, if we have Morrow in the well, we will not have a simultaneous dedication problem at least for a number of years.

Q. You mentioned something about if you got a good Cisco producer, that we ought to make you shut the other well in. What is good in terms of--you said if it produced 500 Mcf a day?

A. That's what I said, yes. This well--the KW No. 2 started at about 250, 300 a day, and within a year or so it's down in the hundred range. If we get a well that starts at above 500, I would call that good. It will level off at 300 a day, maybe.

I would be willing to tell Yates we should shut in the other well. Total production of 12,000 a month or something ought to protect everybody, but if we're producing above that, we

should only be allowed to produce one.

Q. I'm a little curious as to how you arrived at the 500 number. Is that just an opinion, or is that based on something?

A. In my mind it's based on not making the drainage area so large that you get concerned. Does that compute? Does that make sense? You see the drainage area for a 300-a-day well. If we get one like that, the drainage areas are just fine. If we get a well better than that, the drainage areas start to become a problem and I wouldn't want them to get more than twice as good as KW 2, and I would start worrying but you fellows would start worrying a little before I would.

Q. You gave me a figure as to the permeability in the Cisco as to--well, the figure was 0.15 or .015?

A. .015.

Q. Is that an average you determined from the various producing intervals, or how was that determined?

A. Oh, that was determined by what I call a long-term draw down test on the well, taking the first three years of the well's production

and plotting the daily production and the surface pressure each day, and computing that downhole and putting all that into what we call a draw down analysis, and getting curves through that.

An engineer that used to work with Yates and myself made a computer program to do this. I don't know that I could rewrite the computer program today, but we made the computer program and fed all this data years ago, and that's the answer we got at that time.

It's tight. I don't want to get hung up on the number, but it's definitely below the .1 millidarcy of the NGPA tight gas designation. We showed all that in 1981 for a whole big area and this one is below that. We went through a fairly elaborate calculation and got .015, and I mentioned that. It is tight stuff. We're talking about tight limestone.

In Exhibit 9 you can see that the maximum porosity is three and a half percent. There's pretty good evidence it's tight stuff and you can see how it produces low rates for a long time.

Q. You feel like the permeability number is a pretty good representation of what it is?

A. According to the calculation, it would be an average of the producing zone that's shown in my Exhibit 9.

Q. Okay. Do you expect to encounter the same permeability at the No. 3 location? Is it fairly continuous?

A. The way the geologist has it drawn towards the edge of that, I do not expect the No. 3 to be any better. I hope it's the same. But limestone is not real homogeneous, so nothing would be a great surprise. This whole big area has tight Cisco, and I expect the KW No. 3 to be tight Cisco, yes.

Q. You mentioned that you had calculated Morrow reserves in the northeast quarter of that section. What was that number, Dr. Boneau?

A. Three-quarters to 1 Bcf.

Q. That's what you expect to recover in the Morrow?

A. Yes.

Q. Do you have an opinion as to, drilling the well at a standard location, would you recover significantly less reserves?

A. At a standard location you would do way poor in the Morrow. You would be on the edge.

You might not get the Morrow and you would be closer to this KW 2 in the Cisco and have your drainage areas overlapping more. The main reason, yeah, the proposed location is where we need to drill to get the Morrow.

Q. To get the thickest Morrow?

A. Yeah, to get the gas out of the Morrow.

EXAMINER CATANACH: I have nothing further of the witness. Anything further of this witness?

The witness may be excused.

Anything further in this case?

MR. VANDIVER: No, sir.

EXAMINER CATANACH: There being nothing further, Case 10543 will be taken under advisement. Let's take a short break.

(And the proceedings concluded.)

I do hereby certify that the foregoing is a complete record of the proceedings in the Examiner hearing of Case No. 10543 heard by me on September 17, 1992.

David R. Catanach, Examiner
Oil Conservation Division

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 September 30, 1992.

Carla Diane Rodriguez

CARLA DIANE RODRIGUEZ, RPR
CSR No. 4